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PRECAUTIONS PFP:00001

Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

KS004AL

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

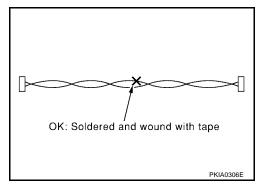
WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

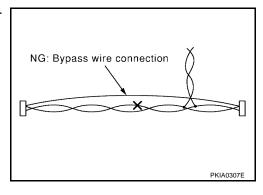
Precautions for CAN System

FKS0050R

- Do not apply voltage of 7.0V or higher to terminal to be measured.
- Maximum open terminal voltage of tester in use must be less than 7.0V.
- Before checking harnesses, turn ignition switch OFF and disconnect battery negative cable.
- Area to be repaired must be soldered and wrapped with tape.
 Make sure that fraying of twisted wire is within 110 mm (4.33 in).



Do not make a bypass connection to repaired area. (If the circuit is bypassed, characteristics of twisted wire will be lost.)



Wiring Diagrams and Trouble Diagnosis

EKS0050S

When you read wiring diagrams, refer to the following:

- GI-12, "How to Read Wiring Diagrams"
- PG-3, "POWER SUPPLY ROUTING CIRCUIT"

When you perform trouble diagnosis, refer to the following:

GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"

PRECAUTIONS

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• GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident"

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CAN COMMUNICATION

PFP:23710

System Description

EKS004AP

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN System Type

EKS004AQ

Refer to the following table to determine CAN system type.

CAN system type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
Input/output signal chart		-9, "TY E 2/TY		LAN LAN LAN -77 -97 -119		LAN-13, "TYPE 7/ TYPE 8"		<u>LAN-15, "TYPE</u> <u>9/TYPE 10/TYPE</u> <u>11"</u>		LAN-17, "TYPE 12/ TYPE 13"		LAN-19, "TYPE 14/TYPE 15/ TYPE 16"		15/					
CAN system trouble diagnosis	<u>LAN</u> -21	<u>LAN</u> -39	<u>LAN</u> -58				<u>LAN</u> <u>-</u> <u>141</u>	<u>LAN</u> <u>-</u> <u>165</u>	<u>LAN</u> <u>-</u> <u>189</u>	<u>LAN</u> <u>-</u> <u>209</u>	LAN = 231	LAN - 253	<u>LAN</u> <u>-</u> <u>277</u>	<u>LAN</u> <u>-</u> <u>301</u>	<u>LAN</u> <u>-</u> <u>321</u>	<u>LAN</u> <u>-</u> <u>343</u>			
Transmission		M/T				4 A/T						5 /	A/T						
Brake control			Α	BS	S			BS		VI	C		ABS		VI	C		TCS	
Navigation system			х			х		х			х		х			Х			
Automatic drive positioner		х	х		х	х	Х	Х		х	х	Х	х		х	Х			

x: Applicable

CAN COMMUNICATION

[CAN]

Input/Output Signal Chart TYPE 1/TYPE 2/TYPE 3

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T: Transmit R: Receive

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Signals	ECM	Dis- play con- trol unit	Dis- play unit	ВСМ	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	Т	R			R		R	
Engine status signal	Т			R				
Engine coolant temperature signal	Т				R			
Key switch signal				Т		R		
Ignition switch signal				Т		R		R
ABS operation signal	R						Т	
	Т				R			
Fuel consumption monitor signal		R	R		Т			
A/C switch signal	R			Т				
A/C compressor request signal	Т							R
Blower fan motor switch signal	R			Т				
		Т	Т		R			
A/C control signal		R	R		Т			
Cooling fan speed request signal	Т							R
Cooling fan speed signal	R							Т
Position light request signal				Т	R			R
Low beam request signal				Т				R
Low beam status signal	R							Т
High beam request signal				Т	R			R
High beam status signal	R							Т
Front fog light request signal				Т				R
Day time running light request signal				Т	R			
					R		Т	
Vehicle speed signal	R	R		R	Т	R		
Sleep wake up signal				Т	R	R		
Door switch signal		R	R	Т	R			R
Turn indicator signal				Т	R			
Cornering lamp request signal				Т				R
Key fob ID signal				Т		R		
Key fob door unlock signal				Т		R		
				R		- '`		Т
Oil pressure switch signal				Т	R			
Buzzer output signal				T	R			
Fuel level sensor signal	R			<u> </u>	Т			
ASCD SET indicator signal	T				R			
ASCD CRUISE indicator signal	T				R			
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Signals	ECM	Dis- play con- trol unit	Dis- play unit	всм	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Malfunction indicator lamp signal	Т				R			
Front wiper request signal				Т				R
Front wiper stop position signal				R				Т
Rear window defogger switch signal				Т				R
Rear window defogger control signal	R	R	R					Т
Hood switch signal				R				Т
Theft warning horn request signal				Т				R
Horn chirp signal				Т				R
ABS warning lamp signal					R		Т	
Brake warning lamp signal					R		Т	
System setting signal		Т	Т	R		R		
System setting signal		R	R	Т		Т		
Distance to empty signal		R	R		Т			
Seat belt buckle switch signal				R	Т			
Parking brake switch signal				R	Т			

TYPE 4/TYPE 5/TYPE 6

								ABS	
Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	ВСМ	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	actua- tor and elec- tric unit (con- trol unit)	IPDM E/R
Engine speed signal	Т		R			R		R	
Engine status signal	Т				R				
Engine coolant temperature signal	Т					R			
Key switch signal					Т		R		
Ignition switch signal					Т		R		R
ABS operation signal	R							Т	
Fuel consumption monitor signal	Т		R	R		R T			
A/C switch signal	R				Т				
A/C compressor request signal	Т								R
Blower fan motor switch signal	R				Т				
			Т	Т		R			
A/C control signal			R	R		Т			
Cooling fan speed request signal	Т								R
Cooling fan speed signal	R								Т
Position light request signal					Т	R			R
Low beam request signal					Т				R
Low beam status signal	R								Т
High beam request signal					Т	R			R
High beam status signal	R								Т
Front fog light request signal					Т				R
Day time running light request signal					Т	R			
Mahiala ana ad aismad						R		Т	
Vehicle speed signal	R		R		R	Т	R		
Sleep wake up signal					Т	R	R		R
Door switch signal			R	R	Т	R	R		R
Turn indicator signal					Т	R			
Cornering lamp request signal					Т				R
Key fob ID signal					Т		R		
Key fob door unlock signal					Т		R		
Oil pressure switch signal					R T	R			Т
Buzzer output signal					Т	R			
Fuel level sensor signal	R					Т			
ASCD SET indicator signal	Т					R			
ASCD CRUISE indicator signal	Т					R			
Malfunction indicator lamp signal	Т					R			

									<u> </u>
Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	всм	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Front wiper request signal					Т				R
Front wiper stop position signal					R				Т
Rear window defogger switch signal					Т				R
Rear window defogger control signal	R		R	R		R			Т
Hood switch signal					R				Т
Theft warning horn request signal					Т				R
Horn chirp signal					Т				R
ABS warning lamp signal						R		Т	
Brake warning lamp signal						R		Т	
System setting signal			T R	T R	R T		R T		
Distance to empty signal			R	R		Т			
Seat belt buckle switch signal					R	Т			
Parking brake switch signal					R	Т			
A/T self-diagnosis signal	R	Т							
Engine and A/T integrated control signal					R	Т			
A/T self-diagnosis signal	R	Т			R	Т			
Accelerator pedal position signal	Т							R	
Closed throttle position signal	Т	R							
Wide open throttle position signal	Т	R							
P range signal		Т					R	R	
R range signal		Т					R		
Stop lamp switch signal		R				Т			
Input shaft revolution signal	R	Ţ							
Output shaft revolution signal	R	Т							
ASCD operation signal	Т	R							
ASCD OD cancel request	Т	R							
A/T position indicator lamp signal		Т				R			
A/T CHECK indicator lamp signal		Т				R			
3rd position switch signal		R				Т			

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TYPE 7/TYPE 8

Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	всм	Unified meter and A/Camp.	Steer- ing angle sensor	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	Т		R			R			R	
Engine status signal	Т				R					
Engine coolant temperature signal	Т					R				
Key switch signal					Т			R		
Ignition switch signal					Т			R		R
ABS operation signal	R								Т	
<u> </u>	Т					R				
Fuel consumption monitor signal			R	R		Т				
A/C switch signal	R				Т					
A/C compressor request signal	Т									R
Blower fan motor switch signal	R				Т					
			Т	Т		R				
A/C control signal			R	R		Т				
Cooling fan speed request signal	Т									R
Cooling fan speed signal	R									Т
Position light request signal					Т	R				R
Low beam request signal					Т					R
Low beam status signal	R									Т
High beam request signal					Т	R				R
High beam status signal	R									Т
Front fog light request signal					Т					R
Day time running light request signal					Т	R				
						R			Т	
Vehicle speed signal	R		R		R	Т		R		
Sleep wake up signal					Т	R		R		R
Door switch signal			R	R	Т	R		R		R
Turn indicator signal					Т	R				
Cornering lamp request signal					Т					R
Key fob ID signal					Т			R		
Key fob door unlock signal					Т			R		
Oil pressure switch signal					R T	R				Т
Buzzer output signal					T	R				
Fuel level sensor signal	R				'	T				
ASCD SET indicator signal	T					R				
ASCD CRUISE indicator signal	T					R				
Malfunction indicator lamp signal	T					R				
manufiction indicator famp signar	'					i./				

										[CAN]
Signals	ECM	TCM	Dis- play con- trol unit	Dis- play unit	всм	Unified meter and A/Camp.	Steer- ing angle sensor	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Front wiper request signal					Т					R
Front wiper stop position signal					R					Т
Rear window defogger switch signal					Т					R
Rear window defogger control signal	R		R	R						Т
Hood switch signal					R					Т
Theft warning horn request signal					Т					R
Horn chirp signal					Т					R
ABS warning lamp signal						R			Т	
Brake warning lamp signal						R			Т	
			Т	Т	R			R		
System setting signal			R	R	Т			Т		
Distance to empty signal			R	R		Т				
Seat belt buckle switch signal					R	Т				
Parking brake switch signal					R	Т				
A/T self-diagnosis signal	R	Т								
	Т	R								
Engine and A/T integrated control signal	R	Т								
Accelerator pedal position sensor	Т								R	
Closed throttle position signal	Т	R								
Wide open throttle position signal	Т	R								
P range signal		Т						R	R	
R range signal		Т						R		
Stop lamp switch signal		R				Т		.,		
TCS operation signal	R					•			Т	
VDC operation signal	R								T	
Input shaft revolution signal	R	Т							•	
Output shaft revolution signal	R	T								
ASCD operation signal	T	R								
ASCD OD cancel request	T	R								
Steering angle sensor signal	1	11					Т		R	
VDC OFF indicator lamp signal						R	1		T	
SLIP indicator lamp signal						R			T	
<u></u>		т							ı	
A/T CHECK indicator lamp signal		T				R				
A/T position indicator lamp signal		Т				R				
A/T shift schedule change demand signal		R							Т	
3rd position switch signal		R				Т				

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T: Transmit R: Receive

TYPE 9/TYPE 10/TYPE 11

							I: Ira	insmit R	Receive
Signals	ECM	TCM	Dis- play con- trol unit	Dis- play unit	всм	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	Т	R	R			R		R	
Engine status signal	Т				R				
Engine coolant temperature signal	Т	R				R			
Key switch signal					Т		R		
Ignition switch signal					Т		R		R
ABS operation signal	R	R						Т	
Fuel consumption monitor signal	Т		R	R		R T			
A/C switch signal	R				Т				
A/C compressor request signal	Т								R
Blower fan motor switch signal	R				Т				
			Т	Т		R			
A/C control signal			R	R		Т			
Cooling fan speed request signal	Т								R
Cooling fan speed signal	R								T
Position light request signal					Т	R			R
Low beam request signal					Т				R
Low beam status signal	R								Т
High beam request signal					Т	R			R
High beam status signal	R								Т
Front fog light request signal					Т				R
Day time running light request signal					Т	R			
						R		Т	
Vehicle speed signal	R	R	R		R	Т	R		
Sleep wake up signal					Т	R	R		
Door switch signal			R	R	Т	R	R		R
Turn indicator signal					Т	R			
Cornering lamp request signal					Т				R
Key fob ID signal					Т		R		
Key fob door unlock signal					Т		R		
Oil pressure switch signal					R T	R			Т
Buzzer output signal					T	R			
Fuel level sensor signal	R				-	T			
ASCD SET indicator signal	Т					R			
ASCD CRUISE indicator signal						R			
Malfunction indicator lamp signal	T					R			
		1	1		1				

Signals	ECM	TCM	Dis- play con- trol unit	Dis- play unit	ВСМ	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Front wiper request signal					Т				R
Front wiper stop position signal					R				Т
Rear window defogger switch signal					Т				R
Rear window defogger control signal	R		R	R					Т
Hood switch signal					R				Т
Theft warning horn request signal					Т				R
Horn chirp signal					Т				R
ABS warning lamp signal						R		Т	
Brake warning lamp signal						R		Т	
System setting signal			T R	T R	R T		R T		
Distance to empty signal			R	R	'	Т	•		
Seat belt buckle switch signal					R	Т			
Parking brake switch signal					R	Т			
ASCD operation signal	Т	R							
ASCD OD cancel request	Т	R							
A/T CHECK indicator lamp signal		Т				R			
A/T position indicator lamp signal		Т				R			
Manual mode indicator signal		Т				R			
A/T self-diagnosis signal	R	Т							
Electric throttle control signal	Т	R							
<u> </u>	Т	R							
Engine and A/T integrated control signal	R	Т							
Accelerator pedal position signal	Т							R	
P range signal		Т					R	R	
R range signal		Т					R		
Stop lamp switch signal		R				Т			
Input shaft revolution signal	R	Т							
Output shaft revolution signal	R	Т							

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TYPE 12/TYPE 13

								T: Tra	ansmit R	Receive
Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	всм	Uni- fied meter and A/ C amp.	Steer- ing angle sensor	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	Т	R	R			R			R	
Engine status signal	Т				R					
Engine coolant temperature signal	Т	R				R				
Key switch signal					Т			R		
Ignition switch signal					Т			R		R
ABS operation signal	R	R							Т	
Fuel consumption monitor signal	Т		R	R		R T				
A/C switch signal	R			- 1	Т					
A/C compressor request signal	Т									R
Blower fan motor switch signal	R				Т					
Diewei ian meter emten eignar	- 1		Т	Т		R				
A/C control signal			R	R		T				
Cooling fan speed request signal	Т					'				R
Cooling fan speed signal	R									Т
Position light request signal					Т	R				R
Low beam request signal					Т					R
Low beam status signal	R									Т
High beam request signal					Т	R				R
High beam status signal	R									Т
Front fog light request signal					Т					R
Day time running light request signal					Т	R				
Mahiala an and airead						R			Т	
Vehicle speed signal	R	R	R		R	Т		R		
Sleep wake up signal					Т	R		R		R
Door switch signal			R	R	Т	R		R		R
Turn indicator signal					Т	R				
Cornering lamp request signal					Т					R
Key fob ID signal					Т			R		
Key fob door unlock signal					Т			R		
Oil pressure switch signal					R T	R				Т
Buzzer output signal					T	R				
Fuel level sensor signal	R					Т				
ASCD SET indicator signal	Т					R				<u> </u>
ASCD CRUISE indicator signal	Т					R				
Malfunction indicator lamp signal	Т					R				

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Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	ВСМ	Uni- fied meter and A/ C amp.	Steer- ing angle sensor	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Front wiper request signal					Т					R
Front wiper stop position signal					R					Т
Rear window defogger switch signal					Т					R
Rear window defogger control signal	R		R	R						Т
Hood switch signal					R					T
Theft warning horn request signal					Т					R
Horn chirp signal					Т					R
ABS warning lamp signal						R			Т	
Brake warning lamp signal						R			Т	
0			Т	Т	R			R		
System setting signal			R	R	Т			Т		
Distance to empty signal			R	R		Т				
Seat belt buckle switch signal					R	Т				
Parking brake switch signal					R	Т				
A/T self-diagnosis signal	R	Т								
Electric throttle control signal	Т	R								
	Т	R								
Engine and A/T integrated control signal	R	Т								
Accelerator pedal position signal	Т								R	
P range signal		Т						R	R	
R range signal		Т						R		
Stop lamp switch signal		R				Т				
TCS operation signal	R	R							Т	
VDC operation signal	R	R							Т	
Input shaft revolution signal	R	Т								
Output shaft revolution signal	R	Т								
ASCD operation signal	Т	R								
ASCD OD cancel request	Т	R								
Steering angle sensor signal							Т		R	
VDC OFF indicator lamp signal						R			Т	
SLIP indicator lamp signal						R			Т	
A/T CHECK indicator lamp signal		Т				R				
A/T position indicator lamp signal		Т				R				
A/T shift schedule change demand signal		R							Т	
Manual mode indicator signal		Т				R				

TYPE 14/TYPE 15/TYPE 16

								ABS	
Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	всм	Unified meter and A/Camp.	Driver seat con- trol unit	actua- tor and elec- tric unit (con- trol unit)	IPDM E/R
Engine speed signal	Т	R	R			R		R	
Engine status signal	Т				R				
Engine coolant temperature signal	Т	R				R			
Key switch signal					Т		R		
Ignition switch signal					Т		R		R
ABS operation signal	R	R						Т	
Fuel consumption monitor signal	Т		R	R		R T			
A/C switch signal	R				Т				
A/C compressor request signal	Т								R
Blower fan motor switch signal	R				Т				
			Т	Т		R			
A/C control signal			R	R		Т			
Cooling fan speed request signal	Т								R
Cooling fan speed signal	R								
Position light request signal					Т	R			R
Low beam request signal					Т				R
Low beam status signal	R								Т
High beam request signal					Т	R			R
High beam status signal	R								Т
Front fog light request signal					Т				R
Day time running light request signal					Т	R			
						R		Т	
Vehicle speed signal	R	R	R		R	Т	R		
Sleep wake up signal					Т	R	R		R
Door switch signal			R	R	Т	R	R		R
Turn indicator signal					Т	R			
Cornering lamp request signal					Т				R
Key fob ID signal					Т		R		
Key fob door unlock signal					Т		R		
Oil pressure switch signal					R T	R			Т
Buzzer output signal					Т	R			
Fuel level sensor signal	R					Т			
ASCD SET indicator signal	Т					R			
ASCD CRUISE indicator signal	Т					R			
Malfunction indicator lamp signal	Т					R			

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Signals	ECM	ТСМ	Dis- play con- trol unit	Dis- play unit	всм	Uni- fied meter and A/ C amp.	Driver seat con- trol unit	ABS actuator and electric unit (control unit)	IPDM E/R
Front wiper request signal					Т				R
Front wiper stop position signal					R				Т
Rear window defogger switch signal					Т				R
Rear window defogger control signal	R		R	R					Т
Hood switch signal					R				Т
Theft warning horn request signal					Т				R
Horn chirp signal					Т				R
ABS warning lamp signal						R		Т	
Brake warning lamp signal						R		Т	
			Т	Т	R		R		
System setting signal			R	R	Т		Т		
Distance to empty signal			R	R		Т			
Seat belt buckle switch signal					R	Т			
Parking brake switch signal					R	Т			
A/T self-diagnosis signal	R	Т							
Electric throttle control signal	Т	R							
Engine and A/T integrated control signal	T R	R T							
Accelerator pedal position signal	Т							R	
P range signal		Т					R	R	
R range signal		Т					R		
Stop lamp switch signal		R				Т			
TCS operation signal	R	R						Т	
Input shaft revolution signal	R	Т							
Output shaft revolution signal	R	Т							
ASCD operation signal	Т	R							
ASCD OD cancel request	Т	R							
SLIP indicator lamp signal						R		Т	
A/T CHECK indicator lamp signal		Т				R			
A/T position indicator lamp signal		Т				R			
A/T shift schedule change demand signal		R						Т	
Manual mode indicator signal		Т				R			

CAN SYSTEM (TYPE 1)

PFP:23710

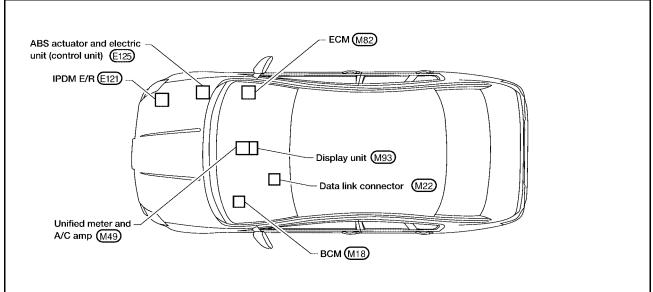
System Description

EKS00508

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

Component Parts and Harness Connector Location

EKS00509



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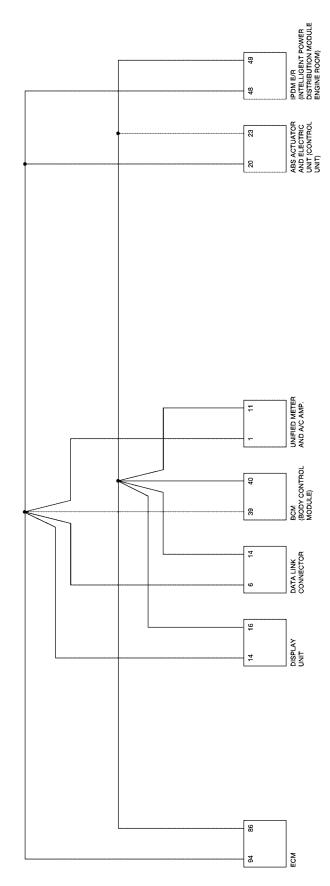
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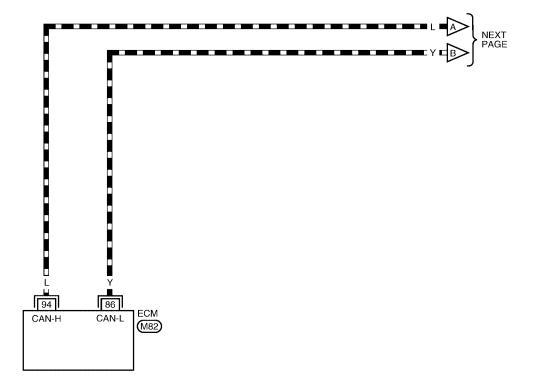
Schematic EKS0050A



KS0050B

LAN-CAN-1

: DATA LINE



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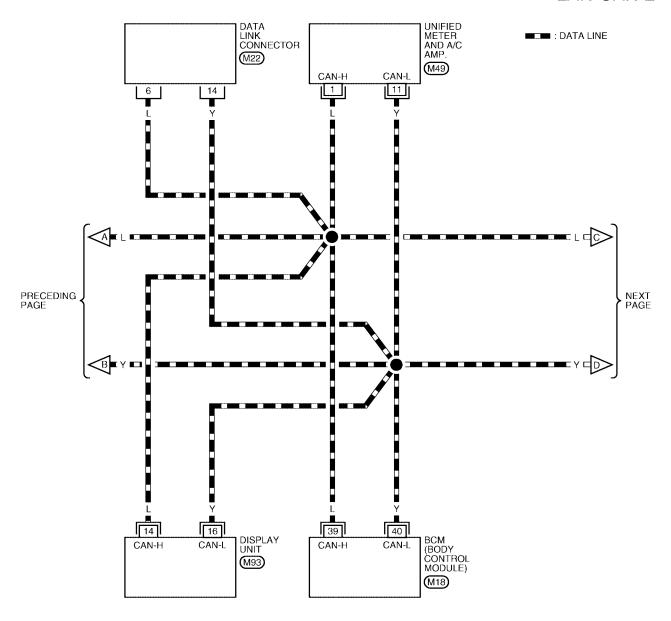
REFER TO THE FOLLOWING.

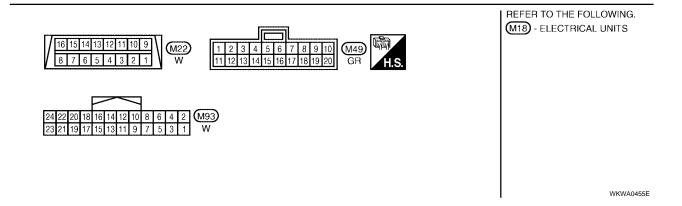
(M82) - ELECTRICAL

UNITS

WKWA0454E

LAN-CAN-2





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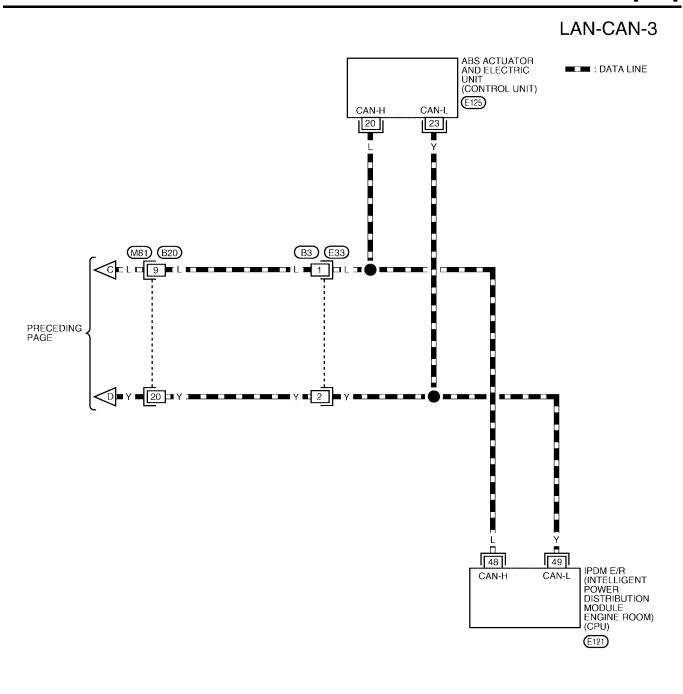
C

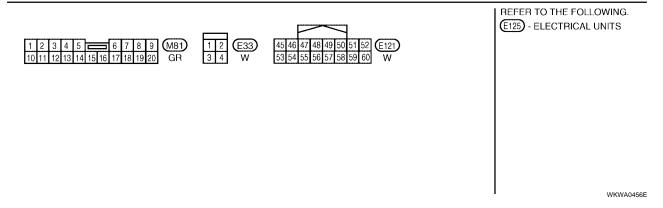
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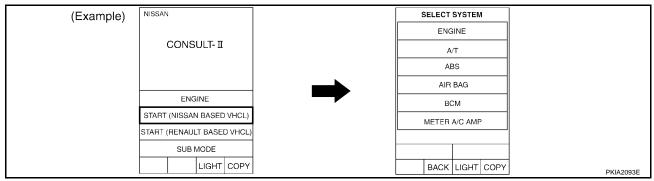
LAN



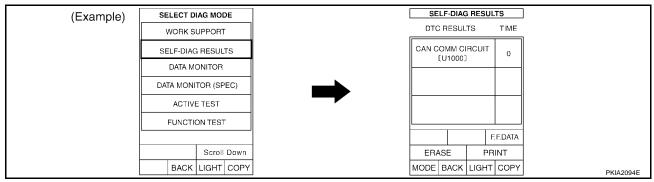


Work Flow

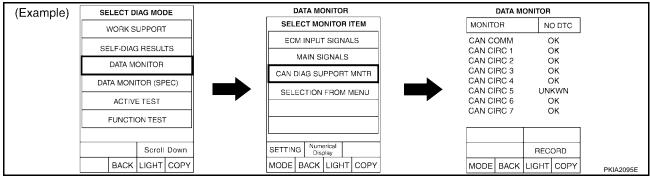
1. When there are no indications of "METER A/C AMP", "BCM" or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



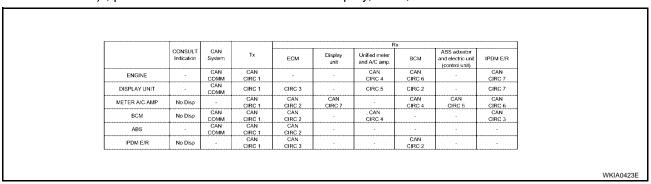
Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No display, "NG", or "UNKWN" in the check sheet table.



NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 1)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT
- MNTR)" items not in check sheet table.

 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unif (control unif)	IPDM E/F
ENGINE	T -	CAM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	GIRG 2	- 1	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	- 1	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	- [-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		-	CNC 4	SAC 6	-	CNZ 7
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRG 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

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Case 2

Replace display unit.

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-	CAN CIRC 3
ABS		CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
			CAN	CAN	 	····	CAN		
IPDM E/R	No Disp	-	CIRC 1	CIRC 3	-	<u>-</u>	CIRC 2	.]	-
IPDM E∕R	No Disp	-			<u> </u>	-	GIRC 2		
IPDM E∕R		CAN			-	R	GIRC 2		-
IPDM E/R	No Disp	CAN System	CIRC 1		- Display unit	R Unified meter and A/C amp.	GIRC 2 × BCM	AHS actuator and electric unit (control unit)	IPDM F/R
IPDM E/R ENGINE	CONSUL1	System CAN COMM	CIRC 1	CIRC 3	Display	R Unified meter	GIRC 2	ABS actuator and electric unit	
	CONSULT Indication	System CAN	Tx CAN CIRC 1 CIRC 1	ECM	Display unit	R Unified meter and A/C amp CAN	GIRC 2 x BCM CAN	ABS actualor and electric unif (centrel unif)	IPDM F/R
ENGINE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1	ECM CAN CIRC 2	Display unit	R Unified meter and A/C amp CAN GIRC 4	CIRC 2 BCM CAN CIRC 6	ABS actualor and electric unit (control unit)	IPDM F/R CAN CIRC 7
ENGINE DISPLAY UNIT	GONSUI, I Indication	System CAN COMM CAN COMM	Tx GAN GHC 1 CIRC 1 CAN CHC 1 CAN CHC 1 CAN CHC 1 CAN CHC 1	ECM - CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	Display unit	R Unified meter and A/C amp CAN CIRC 4	ECAN CAN CAN CAN CAN CAN CAN CAN CAN CAN	AHS actuator and electric unit (control unit)	IPDM F/R CAN CIRC 7 OR 7 CAN
ENGINE DISPLAY UNIT METER AC AMP	CONSULT Indication	System CAN COMM CAN COMM COMM -	Tx CAN ORC 1 CIRC 1 CAN ORC 1 CIRC 1 CAN ORC 1	ECM - CAN CIRC 2 CAN	Display unit CAN CIRC 7	R Unified meter and AVC amp CAN CINC 4 COD 5	ECAN CAN CAN CAN CAN CAN CAN CAN CAN CAN	ABS actuator and electric until (control unil).	IPDM F/R CAN CIRC 7 OR 7 CAN CIRC 6 CAN

Case 3

Replace BCM.

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM F/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	·······	CAN	CIRC 1	CIRC 3		CIRC 4	CIRC 2		CIRC /
METER A/C AMP	No Disp	COMM	CAN	CAN	CAN		CAN	CAN	CAN
		CAN	CIRC 1 CAN	CIRC 2	CIRC 7	ÇAM	CIRC 4	CIRC 5	CIRC 6
BCM	No Disp	COMM	CIRC 1 CAN	CAV CAC 2 CAN		SAZ 4		-	cNC 3
ABS	-	COMM	CIRC 1	CIRC 2	-	-	-	-	-
IPDM E/R	No Disp		CAN	CAN		_	CAN		_
	140 0.55	<u> </u>	CIRC 1	CIRC 3			CIRC 2		
	140 0.59		CIRC 1	CIRC 3			CIRC 2		
			CIRC 1	CIRC 3		R			
	CONSUL1 Indication	CAN System	CIRC 1	CIRC 3	Display unit	J.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		AHS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System	Tx CAN		Display	R Unified meter and A/C amp	x BCM CAN	AHS actuator and electric unit	CAN
	CONSULT Indication	System CAN COMM CAN	Tx	ECM	Display unit	R Unified meter and A/C amp.	x BCM	AHS actualor and electric unif {control unif}	
ENGINE	CONSULT Indication	System GAN COMM	TX CAN ORC 1 CIRC 1 CAN	ECM - CIRC 3 CAN	Display unit - - - CAN	R Unified meter and AVC amp. CAN CIRC 4	BCM CAN CIRC 6 CIRC 2 CAN	ABS actuator and electric unit (control unit)	CAN CIRC 7 CIRC 7
ENGINE DISPLAY UNIT	CONSULT Indication	System CAN COMM CAN COMM -	Tx CAN ORC 1 CRC 1 CAN ORC 1 CAN	ECM - CIRC 3 CAN CIRC 2 CAN	Display unit	R Unified meter and AVC amp CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRG 2	ABS actuator and electric unif (control unif)	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN
ENGINE DISPLAY UNIT METER A/C AMP BCM	CONSULT Indication	System CAN COMM CAN COMM - CAN COMM - CAN CAN CAN	Tx GAN GIRC 1 CIRC 1 GAN GIRC 1 CAN GIRC 1 CAN GIRC 1 CAN	ECM	Display unit	R Unified meter and A/C amp CAN GINC 4 GIRC 5	BCM CAN CIRC 2 CAN CIRC 4	ABS actuator and electric unif (control unif) CAN CIRC 5	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3
ENGINE DISPLAY UNIT METER A/C AMP	CONSULT Indication	System CAN COMM CAN COMM CAN CAN	Tx CAN GIRC 1 CIRC 1 CAN GIRC 2 CAN GIRC 1 CAN GIRC 1	ECM - CIRC 3 CAN CIRC 2 CAN CIRC 2	Display unit CAN CIRC 7	R Unified meter and AVC amp CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	ABS actuator and electric unif (centrel unif) CAN CIRG 5	CAN CIRC 7 CIRC / CAN CIRC 6 CAN

CAN SYSTEM (TYPE 1)

[CAN]

Case 4

Replace unified meter and A/C amp.

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM F/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	GAN COMM	CIRC 1	CIRC 3		CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAZ 2	CAY CAC 7	-	CAZ 4	CAX CAC 5	CAZ CAZC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	GAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	ÇAN ÇIRC 2	-	-

Case 5

Replace ABS actuator and electric unit (control unit).

	T	ГТ				Ŕ	x		
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAX CAXC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	T -	CAMM	CAN CIRC 1	CAN CIRC 2	-	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

Case 6

Replace IPDM E/R.

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	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN GIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAY CYC 3	-	-	CAY CNC 2	- 1	-

Case 7

Check harness between data link connector and ABS actuator and electric unit (control unit). Refer to <u>LAN-32</u>

	т	ſ		1		R			
	CONSULT Indication	CAN System	Tx	ECM	Display unit			ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	cNZ 7
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	OW. /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAZ 5	CNC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	cNC 3
ABS	-	CAN	CAN CIRC 1	cAZ 2	-	-	-	-	-
IPDM E/R	Nw Sp	-	CAN	CAN	-	-	CAN CIRC 2	-	-

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Case 8

Check ECM circuit. Refer to $\underline{\mathsf{LAN-33}}$.

	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAY CAYC 1	_	-	ÇAZ CNZ 4	CAZ CAZC 6	-	CAZ CAZC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	OVE∕3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	cNC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	cAZ 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAZ 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	sAZ3	-	-	CAN CIRC 2		-

Case 9

Check display unit circuit. Refer to <u>LAN-34</u>.

	T			1		Ŕ	×		
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	NDC 1	ONE/3	-	QUF 5	QF.2	-	Q \$\int_1
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAZ 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

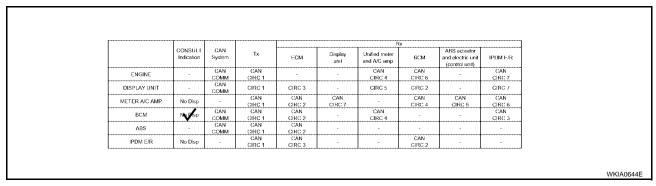
Case 10

Check data link connector circuit. Refer to <u>LAN-34</u>.

	Т	ſ		T		Ŕ	x		
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN ÇIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	Nw Jsp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	Nw Dsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	1 -	-
IPDM E/R	N. Usp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN GIRG 2	-	-

Case 11

Check BCM circuit. Refer to LAN-35.



CAN SYSTEM (TYPE 1)

[CAN]

Case 12

Check unified meter and A/C amp. circuit. Refer to LAN-35.

					,	R	×		
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	GAN COMM	CAN CIRC 1	-	-	CAX CNC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	GAN COMM	CIRC 1	CIRC 3	-	OR 5	CIRC 2	-	CIRC /
METER A/C AMP	N Isp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAX CNC 4	-	-	CAN ÇIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN GIRC 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

Case 13

Check ABS actuator and electric unit (control unit) circuit. Refer to LAN-36.

	Т	ſ					tx x		
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM F/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAY CNC 5	CAN ÇIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	T -	CAN COMM	CAZ CNC 1	ČAŽ 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

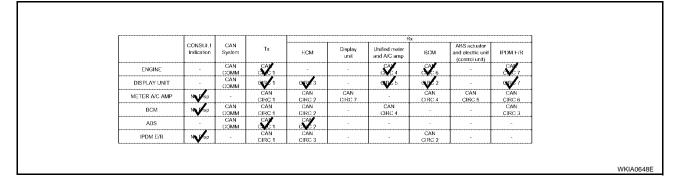
Case 14

Check IPDM E/R circuit. Refer to LAN-36.

	Т		I	1		Ř	×		
	CONSULT Indication	CAN System	Tx	HCM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	ÇAY Ç X C 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	OUD /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAY CN/C 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	CAY CNC 3
ABS	T -	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
IPDM E/R	N Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

Case 15

Check CAN communication circuit. Refer to <u>LAN-37</u>.



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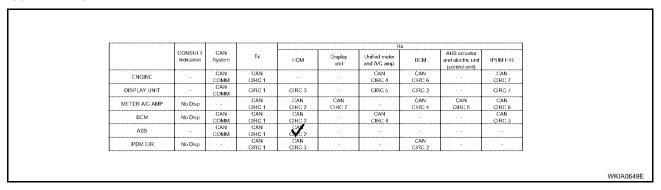
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Case 16

Check IPDM E/R.



Case 17

Check IPDM E/R Ignition relay circuit. Refer to <u>LAN-37</u>.

	T			1		R			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	CAY CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-

Circuit Check Between Data Link Connector and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect memory seat module connector P2, ABS actuator and electric unit (control unit) connector E125 and M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

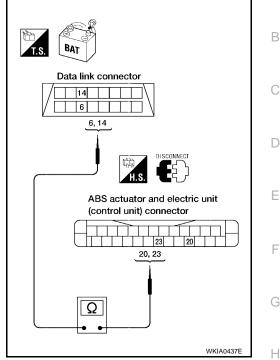
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

6 (L) - 20 (L) : Continuity should exist. 14 (Y) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-26.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect ECM connector M82.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

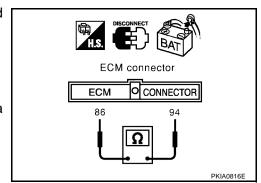
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx. $108 - 132\Omega$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and data link connector M22.



EKS0050F

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Display Unit Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

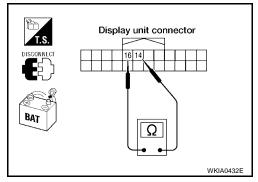
14 (L) - 16 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

NG

OK >> Replace display unit.

>> Repair harness between display unit connector M93 and data link connector M22.



Data Link Connector Circuit Check

EKS0050H

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

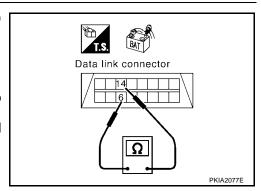
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-26.

NG >> Repair harness between data link connector M22 and BCM connector M18.



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BCM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

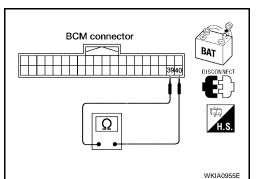
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

OK or NG

OK >> Replace BCM.

NG >> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect unified meter and A/C amp. connector M49.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

1 (L) - **11 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace unified meter and A/C amp.

NG >> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.

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ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS0050L

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

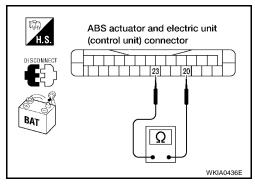
Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

OK or NG

OK NG >> Replace ABS actuator and electric unit (control unit).

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS0050M

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

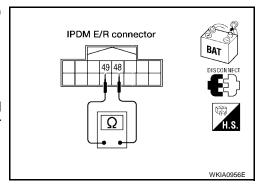
Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

OK or NG

OK NG >> Replace IPDM E/R.

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



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CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- ECM
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

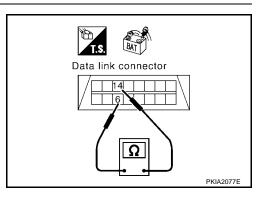
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

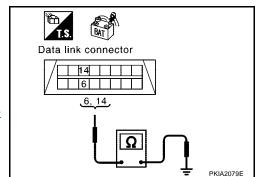
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-38, "Component Inspection"</u>.

NG >> Repair the harness.



EKS00500

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to <u>PG-24</u>, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/OR START"</u>.

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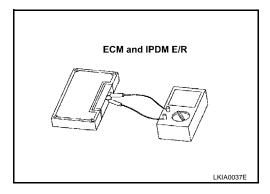
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. $108 - 132\Omega$



CAN SYSTEM (TYPE 2)

PFP:23710

System Description

EKS004Z0

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

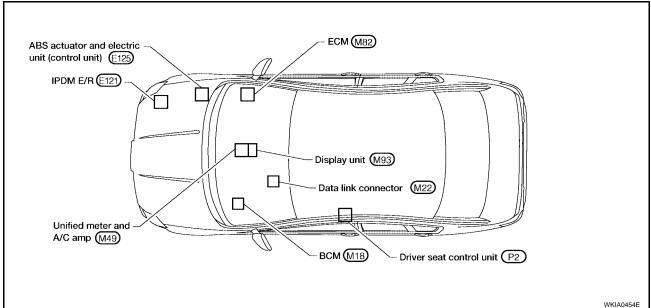
Component Parts and Harness Connector Location

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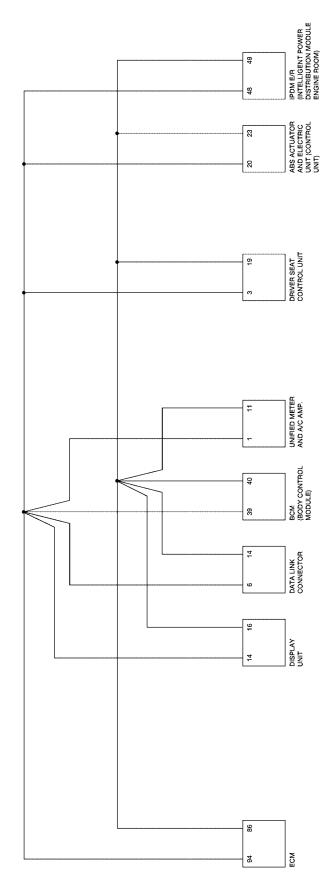
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Schematic EKS0042



LAN-CAN-4

: DATA LINE

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CAN-H CAN-L (M82)

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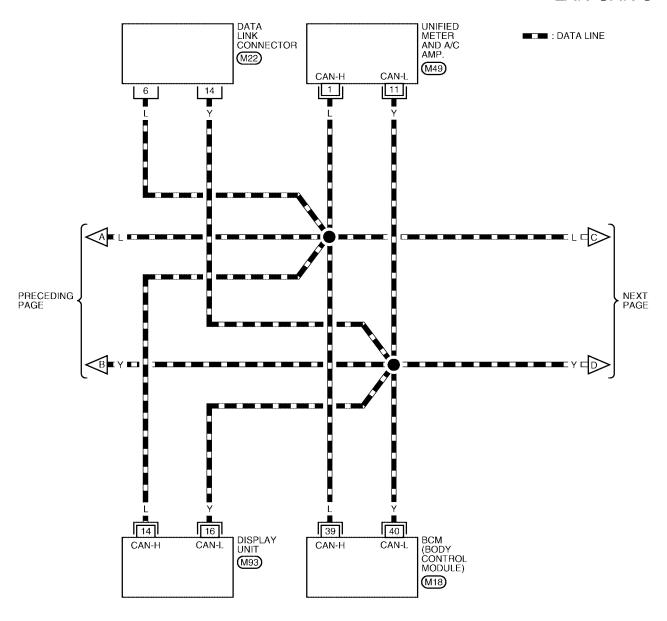
REFER TO THE FOLLOWING.

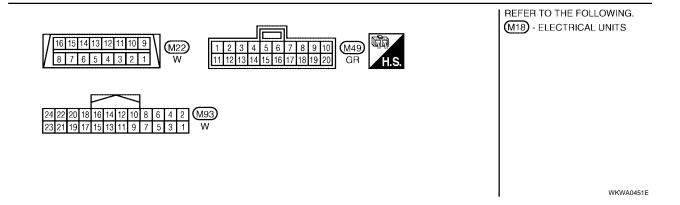
M82 - ELECTRICAL

UNITS

WKWA0450E

LAN-CAN-5





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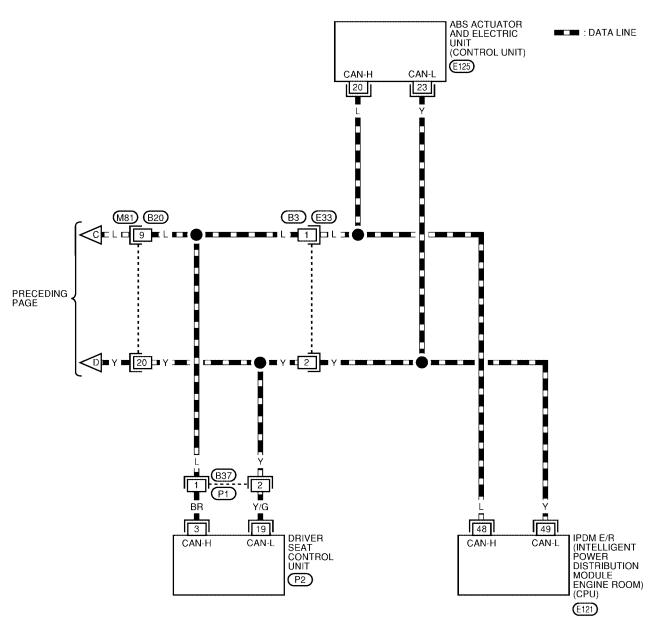
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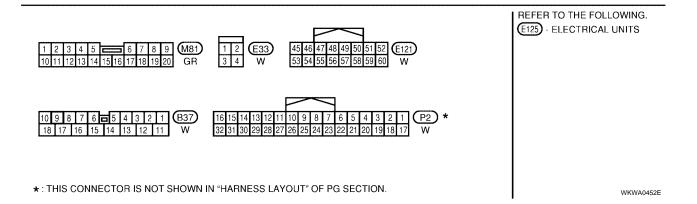
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LAN-CAN-6

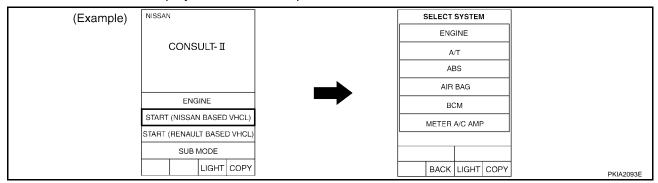




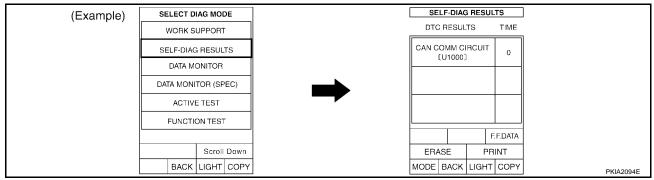
[CAN]

Work Flow

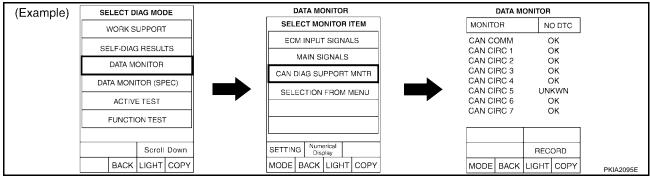
 When there are no indications of "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



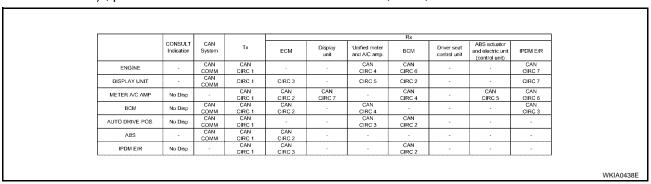
2. Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.



NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 2)

[CAN]

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual. Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-TOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/I
ENGINE	-	CAMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	*	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	,	CAN COMM	CAN CIRC 1	-	-	CAY CAYC 4	CAY CAYC 6	-		CAZ 7
DISPLAY UNIT	,	CAN COMM	CIRC 1	CIRC 3		CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

M

LAN

Case 2

Replace display unit.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DIŜPLAY UNIT	-	CAMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-		CAN CIRC 3	CAN CIRC 2	-		
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2		-		-		-
	No Disp	-	CAN	CAN		-	CAN			
IPDM E/R	No Disp		CIRC 1	CIRC 3	-		CIRC 2			
IPUM E/K	No Disp		CIRC 1	CIRC 3						
IPUM E/K	CONSULT Indication	CAN System	Tx	CIRC 3	Display unit	Unified meter and A/C amp.	Rx BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
PUM E/R ENGINE	CONSULT	CAN			Display	Unified meter	Rx	Driver seat	ABS actuator and electric unit	
	CONSULT Indication	CAN System CAN	Tx CAN		Display unit	Unified meter and A/C amp. CAN	Rx BCM CAN	Driver seat control unit	ABS actuator and electric unit	IPDM E/R
ENGINE	CONSULT	CAN System CAN COMM CAN	Tx CAN CIRC 1	ECM	Display unit	Unified meter and A/C amp. CAN CIRC 4	Rx BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7
ENGINE DISPLAY UNIT	CONSULT Indication	CAN System CAN COMM CAN	Tx CAN CIRC 1 CIRC 1 CAN	ECM - Que 3 CAN	Display unit - - CAN	Unified meter and A/C amp. CAN CIRC 4	RX BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 OR 7 CAN
ENGINE DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM - GAN GIRC 2 CAN	Display unit	Unified meter and A/C amp. CAN CIRC 4 Qsf. 5	RX BCM CAN CIRC 6 GR 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R CAN CIRC 7 CAN CIRC 6 CAN
ENGINE DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication	CAN System CAN COMM CAN COMM - CAN COMM - CAN COMM CAN	Tx CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM GAN GIRC 2 CAN CIRC 2	Display unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 QG 5	Rx BCM CAN CIRC 6 GIS 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E/R CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 3

Replace BCM.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAX CXC 2	-	SAC 4	-	-		CAX 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
			CAN	CAN			CAN			
IPDM E/R	No Disp	-	CIRC 1	CIRC 3	-	-	CIRC 2	-	٠	-
IPDM E/R	No Disp	-		CIRC 3		-	CIRC 2	-	•	-
IPDM E/R	No Disp CONSULT Indication	CAN System	CIRC 1	CIRC 3	Display unit	Unified meter and A/C amp.	CIRC 2 Rx BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
IPDM E/R ENGINE	CONSULT	CAN System CAN COMM	CIRC 1	CIRC 3	Display	Unified meter	CIRC 2	Driver seat	ABS actuator and electric unit	
	CONSULT Indication	CAN System	Tx CAN CIRC 1 CIRC 1	CIRC 3	Display unit	Unified meter and A/C amp. CAN	RX BCM CAN CIRC 6 CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CIRC 7
ENGINE	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM - CIRC 3 CAN CIRC 2	Display unit	Unified meter and A/C amp. GAN CIRC 4 CIRC 5	RX BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CIRC 7 CAN CIRC 6
ENGINE DISPLAY UNIT	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1 CIRC 1 CIRC 1 CAN CAN	ECM - CIRC 3 CAN	Display unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CIRC 5	RX BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CIRC 7 CAN
ENGINE DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CIRC 3 CAN CIRC 2 CAN	Display unit - - CAN	Unified meter and AVC amp. GAN CIRC 4 CIRC 5	RX BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 6 CAN
ENGINE DISPLAY UNIT METER A/C AMP BCM	CONSULT Indication No Disp No Disp	CAN System CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM	Display unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CIRC 5 - CAN CIRC 4 CAN	RX BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E/R CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3

CAN SYSTEM (TYPE 2)

[CAN]

Case 4

Replace unified meter and A/C amp.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	ÇIRC 3	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAZ 2	CAY CYC7	-	CAY CAYC 4	-	CAY CNC 5	CAX CNAC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	*	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

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Case 5

Replace driver seat control unit.

			,				Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	ÇAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-		-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	7	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAY CAY C3	CAY CYC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Case 6

Replace ABS actuator and electric unit (control unit).

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAV CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-		CAN CIRC 3	CAN CIRC 2	-		-
ABS	,	CAMM	CAN CIRC 1	CAN CIRC 2		-		-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	

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Case 7

Replace IPDM E/R.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	ÇAN COMM	CAN CIRC 1	CAN CIRC 2		CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAY CAYC 3	-	-	CAC 2	-		-

Case 8

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-51</u>.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAZC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	-	QUEC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CNC 5	CAC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2		CAN CIRC 4	-	-		CAX CXC 3
AUTO DRIVE POS.	New Isp	CAN COMM	CAN CIRC 1	-		CAN CIRC 3	ÇAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAC 2	-	-	•	-		-
IPDM E/R	Number	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

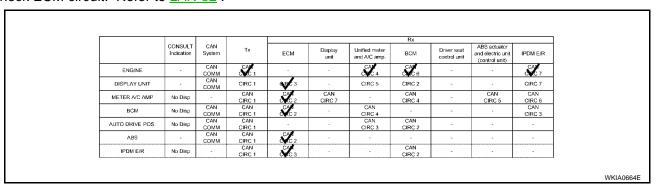
Case 9

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to $\underline{\mathsf{LAN-52}}$.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1			CAN CIRC 4	CAN CIRC 6	-		CAZ 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-	÷	QIP_7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAV CAC 5	CAX C 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	Ī.	ČAX Č V IC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAV CVC 2	-	-	-	-		-
IPDM E/R	Ne trisp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Case 10

Check ECM circuit. Refer to LAN-52.



CAN SYSTEM (TYPE 2)

[CAN]

Case 11

Check display unit circuit. Refer to LAN-53.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DIŜPLAY UNIT	-	CAN COMM	QIP∕ 1	OK 3	-	QEZ 5	OUF 2	-		OUF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2		CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-		~		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

Case 12

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-53}}$.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	Nutrisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	Number	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	•	-		CAN CIRC 3
AUTO DRIVE POS.	Natisp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	*	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-		-
IPDM E/R	Number	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Case 13

Check BCM circuit. Refer to <u>LAN-54</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAY CAYC 6	-		CAN CIRC 7
DIŜPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	08/2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAY CAYC 4	-	CAN CIRC 5	CAN CIRC 6
всм	Nothsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAY CAC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAY CAC 2	-	-	-

Case 14

Check unified meter and A/C amp. circuit. Refer to <u>LAN-54</u>.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAX CAXC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	ÇIRC 3	-	OUE/S	CIRC 2	-		CIRC 7
METER A/C AMP	Notisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CAC 4	•	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAV CAC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

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Case 15

Check driver seat control unit circuit. Refer to <u>LAN-55</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-		CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	ÇAN COMM	CAN CIRC 1	CAN CIRC 2		CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	Notisp	ÇAN COMM	CAN CIRC 1	-		CAN CIRC 3	ÇAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-55</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3		CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAV CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2		CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-		CAN CIRC 3	ÇAN CIRC 2	-		-
ABS	-	CAN COMM	CAV CVC 1	CALC 2		-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	CAN CIRC 2	-	-	-

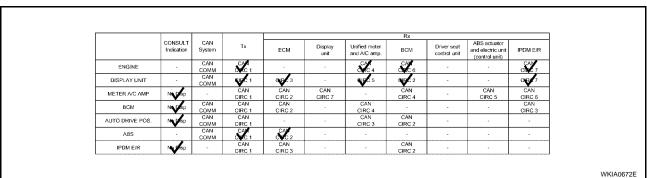
Case 17

Check IPDM E/R circuit. Refer to LAN-56.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-		CAY CINC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		ORF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAX CNC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		-		CAY CWC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	*	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	•	-	*	-
IPDM E/R	Ne bisp	-	CAN CIRC 1	CAN CIRC 3		-	CAN CIRC 2	~		-

Case 18

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-56}}$.



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Case 19

Check IPDM E/R.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	1	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	~	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4		~		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		-	CAN CIRC 3	CAN CIRC 2		*	-
ABS	-	CAN COMM	CAN CIRC 1	CAC 2	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Case 20

Check IPDM E/R Ignition relay circuit. Refer to <u>LAN-57</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAV CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-		CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-		-

Circuit Check Between Driver Seat Control Unit and Data Link Connector

EKS004ZU

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

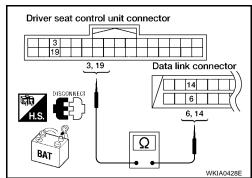
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-44.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS004ZV

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

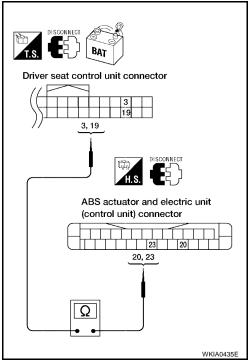
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

> 3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-44.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. EKS004ZW

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EKS004ZY

2. CHECK HARNESS FOR OPEN CIRCUIT

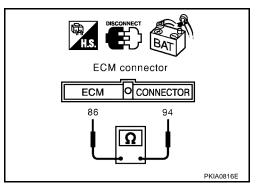
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and data link connector M22.



Display Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

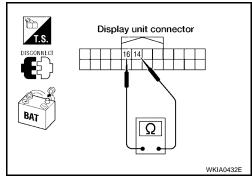
Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

14 (L) - 16 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit connector M93 and data link connector M22.



Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

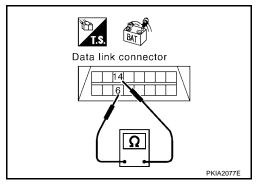
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - **14 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-44.

NG >> Repair harness between data link connector M22 and BCM connector M18.



EKS00500

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

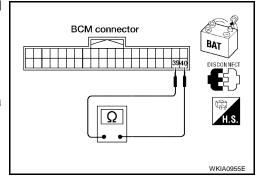
Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

39 (L) - 40 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace BCM.

NG >> Repair harness between BCM connector M18 and data link connector M22.



EKS0050

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

: Approx. 54 - 66 Ω

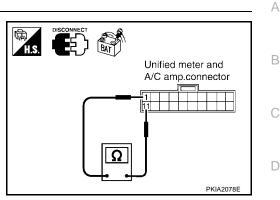
OK or NG

OK >

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

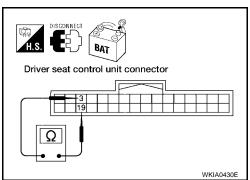
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

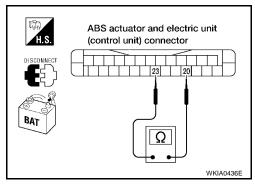
: Approx. 54 - 66 Ω

OK or NG

OK

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- >> Replace ABS actuator and electric unit (control unit).
- >> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS00504

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

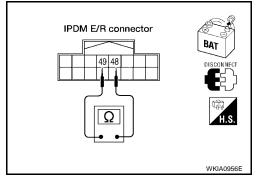
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



EKS00505

CAN Communication Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- ECM
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

[CAN]

2. CHECK HARNESS FOR SHORTED CIRCUITS

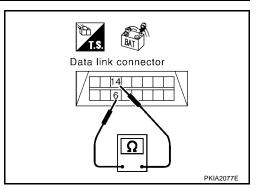
With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

> 6 (L) - 14 (Y) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

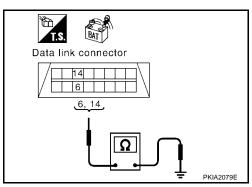
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

> 6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to LAN-57, "Component Inspection".

NG >> Repair the harness.



FKS00506

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/ OR START".

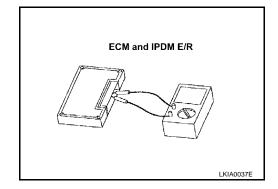
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132 Ω

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132 Ω



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CAN SYSTEM (TYPE 3)

PFP:23710

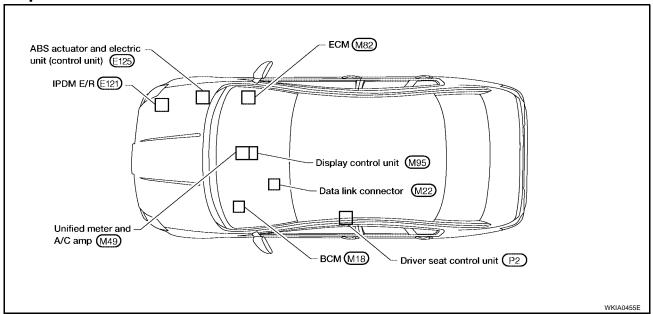
System Description

EKC0047

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

Component Parts and Harness Connector Location

EKS004Z5



CAN SYSTEM (TYPE 3)

[CAN]

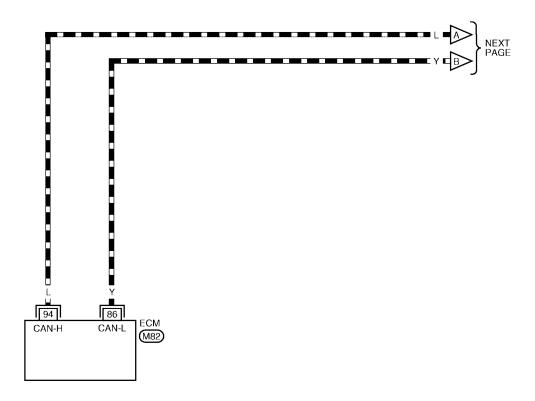
Schematic EKS004Z6 Α В 48 С ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) 50 D Е DRIVER SEAT CONTROL UNIT F G Н UNIFIED METER AND A/C AMP. BCM (BODY CONTROL MODULE) 40 39 LAN DATA LINK CONNECTOR - 56 \mathbb{N} 88 WKWA0445E

Wiring Diagram - CAN -

FKS004Z7

LAN-CAN-7

: DATA LINE



REFER TO THE FOLLOWING.

(M82) - ELECTRICAL

UNITS

WKWA0446E

Α

В

C

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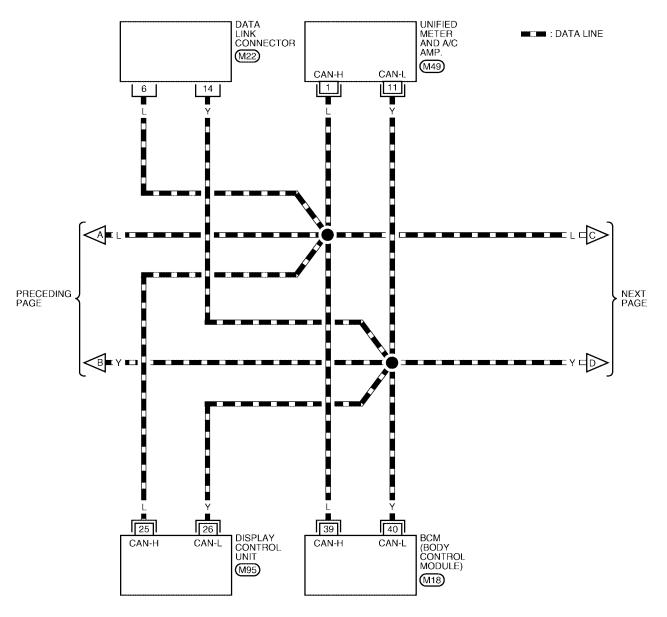
Е

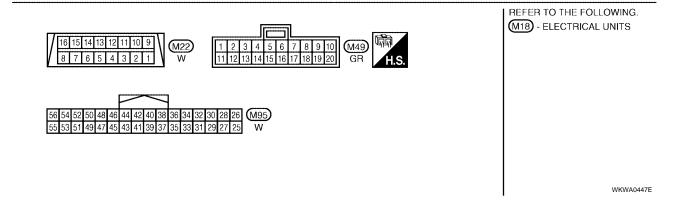
Н

LAN

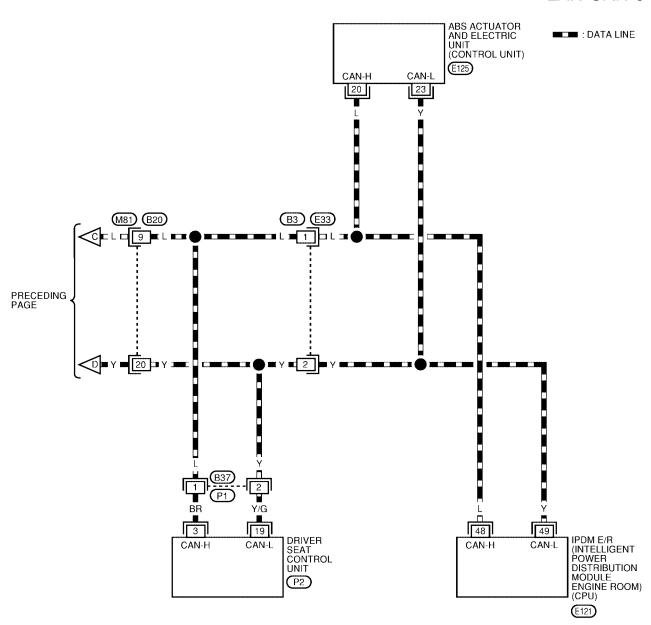
M

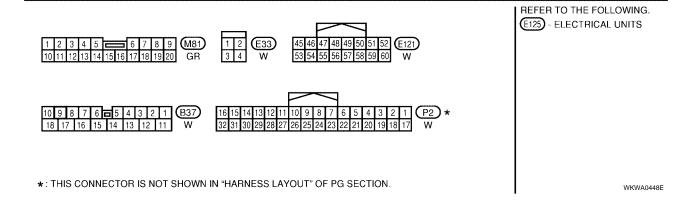
LAN-CAN-8





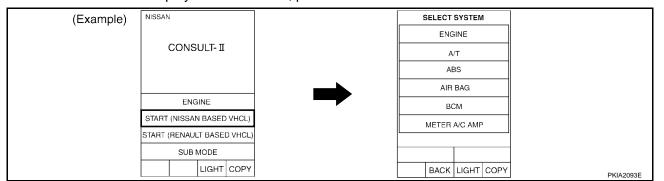
LAN-CAN-9



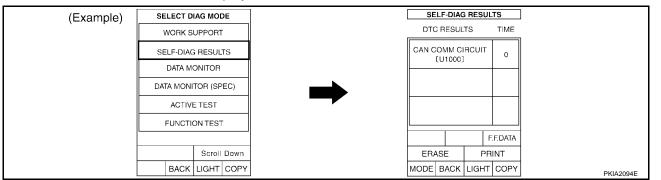


Work Flow

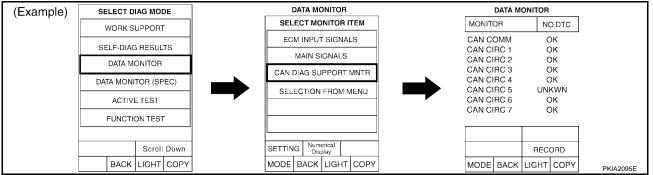
1. When there are no indications of "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6		-	ÇAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	ÇAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	,	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2		-	-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-TOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		- 1	CAN CIRC 7
DISPLAY CONTROL UNI	-	CAN	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	- COMM	CAN	CAN	CAN	CIRC 5	CAN		CAN	CAN
BCM	No Disp	CAN	CIRC 1	CIRC 2 CAN	CIRC 7	CAN	CIRC 4		CIRC 5	CIRC 6
AUTO DRIVE POS.	No Disp	COMM	CIRC 1	CIRC 2	-	CIRC 4 CAN	CAN		-	CIRC 3
ABS		COMM	CIRC 1 CAN	CAN	_	CIRC 3	CIRC 2	,	-	
IPDM E/R		COMM	CIRC 1	CIRC 2 CAN			CAN		-	
IPOM E/K	No Disp	-	CIRC 1	CIRC 3	-	-	CIRC 2	-	-	-
IPUMER	No Disp	-			-	-	CIRC 2	-	-	-
IPUM EIR	CONSULT Indication	CAN System			Display control unit	Unified meter and A/C amp.	CIRC 2 Rx BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	CAN	CIRC 1	CIRC 3	Display control	Unified meter	CIRC 2 Rx BCM	Driver seat	ABS actuator and electric unit	
	CONSULT Indication	CAN System CAN COMM CAN	TX CAN CIRC 1 CAN	ECM - CAN	Display control unit	Unified meter and A/C amp. CAV CAV CAN	Rx BCM CAP	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CA/C 7 CAN
ENGINE	CONSULT Indication	CAN System CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CRO 3 CAN	Display control unit CAN	Unified meter and A/C amp.	RX BCM CAN CIRC 2 CAN	Driver seat control unit	ABS actuator and olectric unit (control unit)	IPDM E/R CAT CAT CAN CIRC 7 CAN
ENGINE DISPLAY CONTROL UNI	CONSULT Indication	CAN System CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 3 CAN GIRC 3 CAN GIRC 2 CAN	Display control unit	Unified meter and A/C amp. CAP CAN CIRC 5	RX BCM CAN CAN CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE DISPLAY CONTROL UNI METER A/G AMP	CONSULT Indication	CAN System CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 ECM CAN GIRC 3 CAN GIRC 3	Display control unit	Unified meter and A/C amp. CAC 4 CAN CIRC 5	RX BCM CAP	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAC 7 CAN CIRC 7 CAN CIRC 6	
ENGINE DISPLAY CONTROL UNI METER A/G AMP BCM	CONSULT Indication	CAN System CAN COMM CAN COMM	TX CAN CIRC 1	ECM CAN GIRC 3 CAN GIRC 2 CAN GIRC 2	Display control unit	Unified meter and A/C amp. CAN CIRC 5	RX BCM CAA 6 CAN CIRC 2 CAN CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E/R CAC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

CAN SYSTEM (TYPE 3)

[CAN]

Case 2

Replace display control unit.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	,	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT		CAMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	•	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN		-	

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAY CAYC 3	-	CAY CAYC 5	CAY CNC 2	-	-	CAY CYC7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	ÇAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	ÇAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-

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Case 3

Replace BCM.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAX CAXC 2	-	CAY CAYC 4	-	-	-	CAY CAYC 3
AUTO DRIVE POS.	No Disp	ÇAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	~	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	ÇAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	ÇAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

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Case 4

Replace unified meter and A/C amp.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	ÇAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	ÇAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAY CMC 2	CAY 7	-	CAZ 4	-	CAY CAC 5	CAZ 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

Case 5

Replace driver seat control unit.

	1		1				Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
DISPLAY CONTROL UNI	r -	CAN	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-		-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAMM	CAN CIRC 1	- GINC 2	-	CAN CIRC 3	CAN CIRC 2		-	- CINC 3
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	- CINC 3	- CING 2		-	-
IPDM E/R	No Disp	COMM	CAN	CAN			CAN	,		
II OII EIX	1.00.00		CIRC 1	CIRC 3	-	-	CIRC 2	,		
T ON EX	The Blog		CIRC 1	CIRC 3	-	-				
T Date City	CONSULT Indication	CAN System	CIRC 1	CIRC 3	Display control	Unified meter and A/C amp.	CIRC 2 Rx BCM	Driver seat control unit	ABS actuator and electric unit	IPDM E/R
ENGINE	CONSULT	System	Tx CAN		Display	Unified meter and A/C amp. CAN	Rx BCM CAN	Driver seat	ABS actuator	IPDM E/R CAN
	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	Display control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	RX BCM CAN CIRC 6 CAN	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CAN
ENGINE	CONSULT Indication	System CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM	Display control unit CAN	Unified meter and A/C amp. CAN CIRC 4	RX BCM CAN CIRC 6 CAN CIRC 2 CAN	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CAN CIRC 7 CAN CIRC 7 CAN
ENGINE DISPLAY CONTROL UNI	CONSULT Indication	CAN COMM CAN COMM CAN COMM	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 3 CAN GIRC 2 CAN	Display control unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	Rx BCM CAN CIRC 6 CAN CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE DISPLAY CONTROL UNI METER A/G AMP	CONSULT Indication	CAN COMM CAN COMM - CAN COMM - CAN COMM CAN	TX CAN CIRC 1 CAN	ECM CAN CIRC 3 CAN CIRC 2	Display control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN GIRC 7 CAN GIRC 7 CAN GIRC 6
ENGINE DISPLAY CONTROL UNI METER A/G AMP BCM	CONSULT Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1	ECM CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	Display control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	RX BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E/R CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 6

Replace ABS actuator and electric unit (control unit).

							Rx			
	CONSULT	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CALC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-		-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAMM	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

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Case 7

Replace IPDM E/R.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	,	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAX 3	-	,	CAZ 2	-	-	-

Case 8

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-70</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAY
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAY 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAV CVC 5	CAZ
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAY.
AUTO DRIVE POS.	Ne Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAZ 2	-	,	-	-	-	-
IPDM E/R	Ne Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-

Case 9

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-71.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN			CAN	CAN	_		CAM
ENGINE		COMM	CIRC 1			CIRC 4	CIRC 6			CMC7
DISPLAY CONTROL UNIT	_	CAN	CAN	CAN		CAN	CAN	_		CAM
DISFERT CONTROL ON	-	COMM	CIRC 1	CIRC 3	_	CIRC 5	CIRC 2		-	CVC7
METER A/C AMP	No Disp		CAN	CAN	CAN	_	CAN		CAN	CAL
METERACAWIF	No Disp	-	CIRC 1	CIRC 2	CIRC 7	-	CIRC 4	-	CMC5	CNC 6
всм		CAN	CAN	CAN		CAN				CAM
BCM	No Disp	COMM	CIRC 1	CIRC 2	-	CIRC 4	-	-	-	CNC3
11 TO DOI 15 DOG		CAN	CAN			ÇAN	CAN			
AUTO DRIVE POS.	No Disp	COMM	CIRC 1		-	CIRC 3	CIRC 2	-	-	-
100		CAN	CAN	CAM						
ABS	-	COMM	CIRC 1	CAX CAC 2	-		-		-	
IDDILED			CAN	CAN			CAN			
IPDM E/R	N Disp	-	CIRC 1	CIRC 3	-	,	CIRC 2		-	-

Case 10

Check ECM circuit. Refer to $\underline{\mathsf{LAN-71}}$.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAZ 1		-	CAY CAC 4	ÇAZ 6		-	CAL 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAV CVC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAX CAC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	ČAŽ 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAY CAC 2	-	,	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAZ 3	-	-	CAN CIRC 2	-	-	-

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Case 11

Check display control unit circuit. Refer to $\underline{\mathsf{LAN-72}}$.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAV CVC 1	CAX CXC 3	-	CAY CAC 5	CAC 2	-	-	CAZ 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAV CVC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-

Case 12

Check data link connector circuit. Refer to <u>LAN-72</u>.

							Rx			
	CONSULT	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	Nortisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Nortsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-		-	CAN CIRC 3
AUTO DRIVE POS.	No Fisp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-	-
IPDM E/R	No Psp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-

Case 13

Check BCM circuit. Refer to <u>LAN-73</u>.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAZ 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAY 4		CAN CIRC 5	CAN CIRC 6
всм	Nortisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAZ 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAY CAY	-	-	-

Case 14

Check unified meter and A/C amp. circuit. Refer to <u>LAN-73</u>.

		CAN System							Rx			
	CONSULT		Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R		
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAY CAYC 4	CAN CIRC 6	-	-	CAN CIRC 7		
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAY CAC 5	CAN CIRC 2	-	-	CAN CIRC 7		
METER A/C AMP	Notisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6		
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAY 4	-	-	-	CAN CIRC 3		
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAZ 3	CAN CIRC 2	-	-	-		
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		-	-	-	-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-		

CAN SYSTEM (TYPE 3)

Case 15

Check driver seat control unit circuit. Refer to $\underline{\mathsf{LAN-74}}$.

							Rx			
	CONSULT Indication	CAN CAN	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/I		
ENGINE	-			-	-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-				-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-			CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp				-	CAN CIRC 4	-		-	CAN CIRC 3
AUTO DRIVE POS.	Notisp	CAN	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-

Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-74</u>.

	1				Rx								
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R			
ENGINE	-	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	CAN CIRC 7			
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7			
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7		CAN CIRC 4	-	CAX CAXC 5	CAN CIRC 6			
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3			
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-			
ABS	-	CAN COMM	CAV CVC 1	CAX 2	-	,	-	-	-	-			
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-			

Case 17

Check IPDM E/R circuit. Refer to LAN-75.

				Rx									
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R			
ENGINE	,	CAN COMM	CAN CIRC 1		-	CAN CIRC 4	CAN CIRC 6		-	CAL 7			
DISPLAY CONTROL UNIT	-	ÇAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAZ 7			
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAZ 6			
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAZ 3			
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-				
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	,	-	-	-				
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-				

Case 18

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-75}}$.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAV CVC 1	-	-	CAV CAC 4	CAZ 6		-	CAN CIRC 7
DISPLAY CONTROL UNIT	-	CAN COMM	CAY CYC 1	CAY CAC 3	-	CAX 5	CAV CAVC 2	-	-	CAN CIRC 7
METER A/C AMP	Ne Tsp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	Ne Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	Ne Dsp	CAN	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	
ABS	-	CAN	CAV CVC 1	CAY CAYC 2	-	-	-	-	-	
IPDM E/R	Ne Disp	-	CAN CIRC 1	CAN CIRC 3	-	,	CAN CIRC 2	-	-	-

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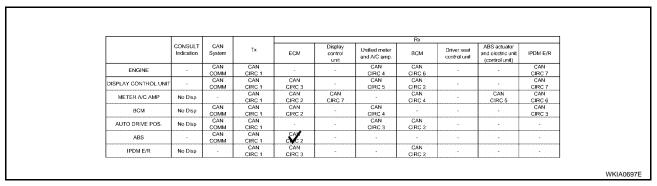
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Case 19

Check IPDM E/R.



Case 20

Check IPDM E/R Ignition relay circuit. Refer to LAN-76.

		CAN System							Rx			
	CONSULT Indication		Tx	ECM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R		
ENGINE	-	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7		
DISPLAY CONTROL UNIT	-	ÇAN COMM	CAN CIRC 1	CAN CIRC 3	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7		
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 7	-	CAN CIRC 4	-	CAX CAXC 5	CAN CIRC 6		
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	CAN CIRC 4	-	-	-	CAN CIRC 3		
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	-	CAN CIRC 3	CAN CIRC 2	-	-	-		
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 2	-	-	-		

Circuit Check Between Driver Seat Control Unit and Data Link Connector

CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect driver seat control unit connector P2 and ECM connector M82.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

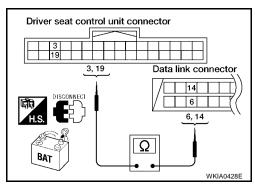
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to <u>LAN-63</u>.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)**

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1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

> 3 (BR) - 20 (L) 19 (Y/G) - 23 (Y)

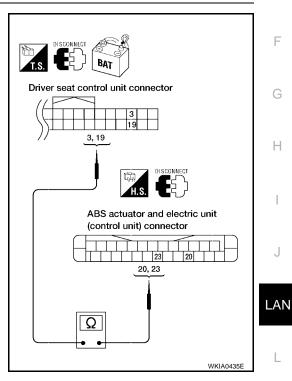
: Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-63.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-71

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2. check harness for open circuit

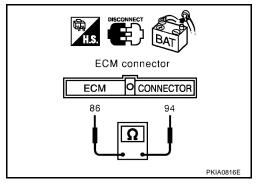
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and data link connector M22.



Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

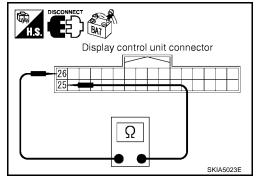
Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

25 (L) - **26** (Y) : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace display control unit.

NG >> Repair harness between display control unit connector M95 and data link connector M22.



EKS004ZF

Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

: Approx. 54 - 66
$$\Omega$$

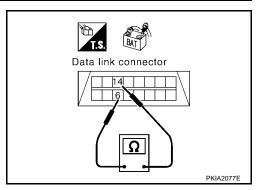
OK or NG

OK

>> Connect all connectors and diagnose again. Refer to

NG

>> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

2. Disconnect the negative battery terminal.

3. Disconnect BCM connector M18.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

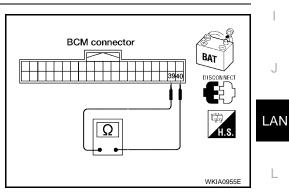
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

1 (L) - 11 (Y) : Approx. 54 -
$$66\Omega$$

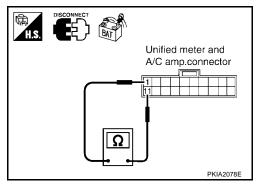
OK or NG

OK

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



EKS004ZI

Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

3 (BR) - 19 (Y/G) : Approx. 54 -
$$66\Omega$$

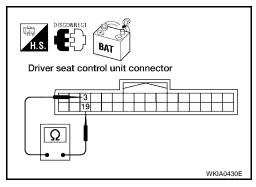
OK or NG

OK

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS004ZJ

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

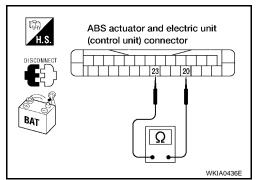
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

2. Disconnect the negative battery terminal.

3. Disconnect IPDM E/R connector E121.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y)

: **Approx.** 108 - 132 Ω

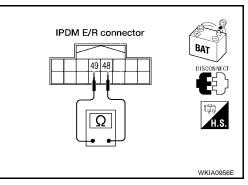
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



EKS004ZL

CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- Display control unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-75

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2. CHECK HARNESS FOR SHORTED CIRCUITS

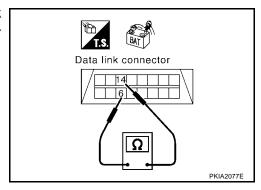
With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

6 (L) - 14 (Y) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

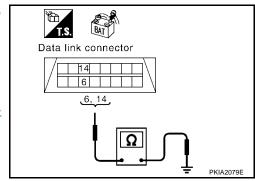
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-58</u>, "Component Parts and Harness Connector Location"LAN-58.

NG >> Repair the harness.



EKS004ZM

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to <u>PG-24, "IPDM E/R Power/Ground Circuit Inspection"</u>.
- Ignition power supply circuit. Refer to <u>PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/OR START"</u>.

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

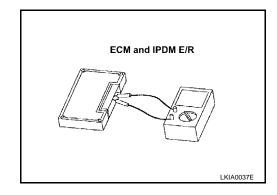
EKS004ZN

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. 108 - 132 Ω

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132 Ω



CAN SYSTEM (TYPE 4)

PFP:23710

System Description

EKS004YK

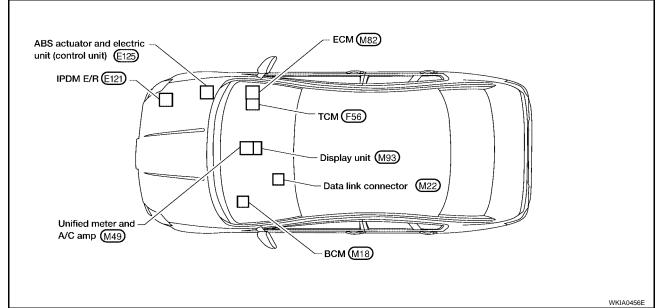
CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

Component Parts and Harness Connector Location

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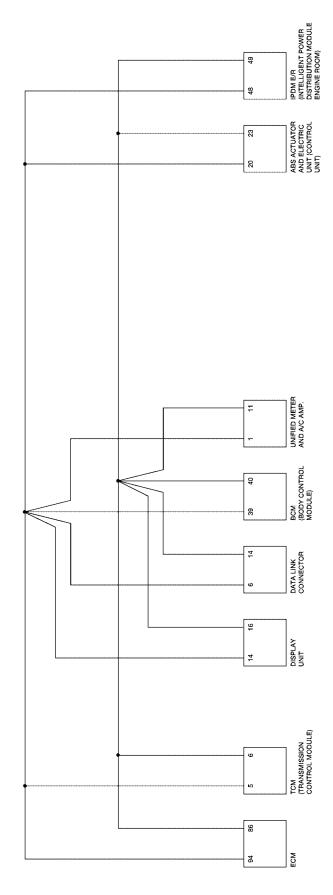
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Schematic EKS004



Wiring Diagram - CAN -

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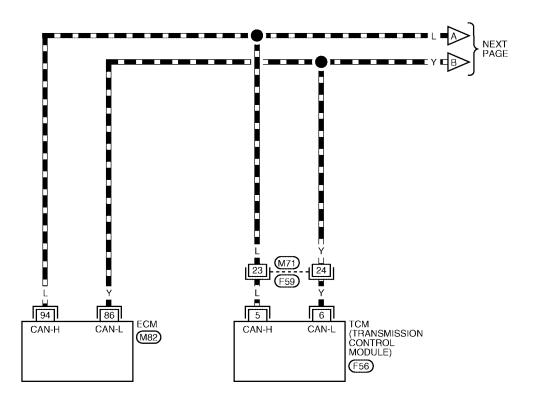
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LAN-CAN-10

: DATA LINE B



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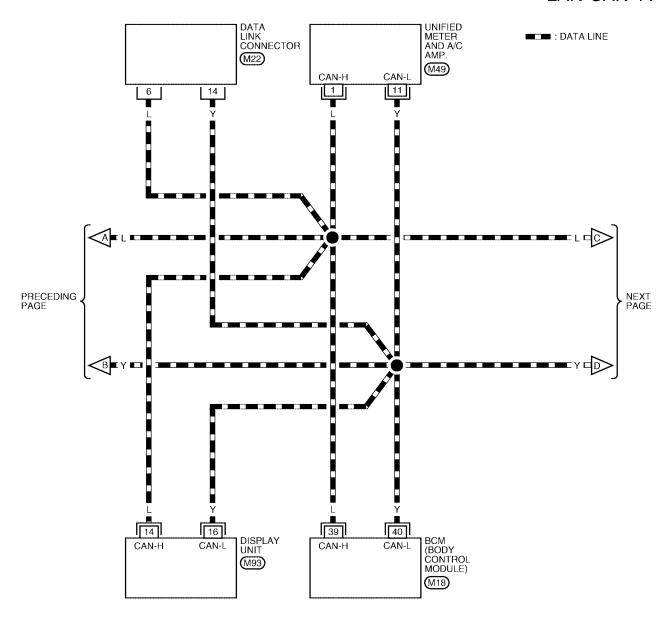
REFER TO THE FOLLOWING.

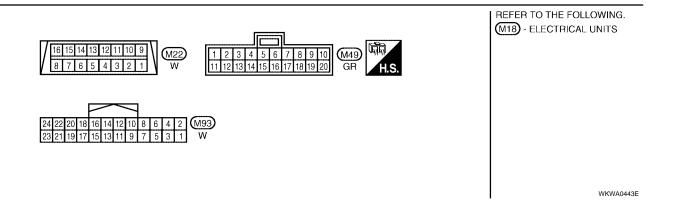
(M82), (F56) - ELECTRICAL

UNITS

WKWA0442E

LAN-CAN-11





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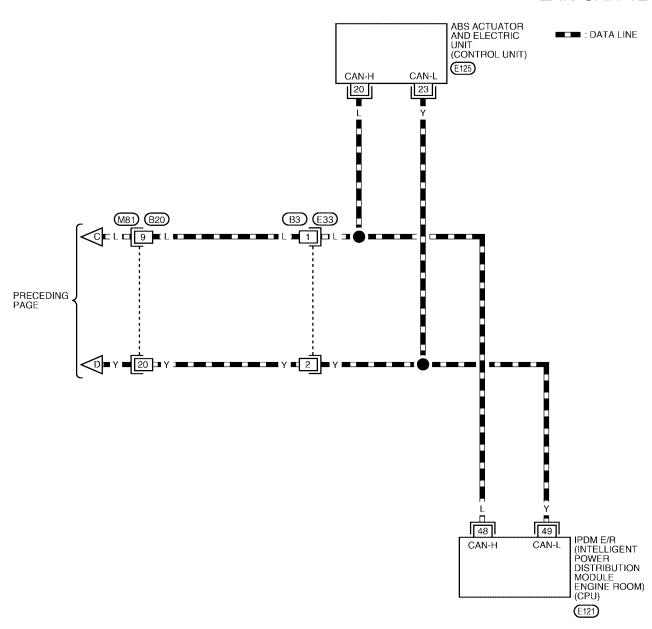
Е

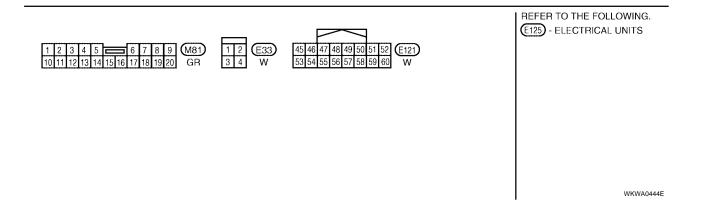
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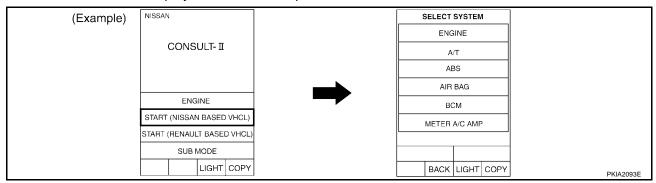
LAN-CAN-12



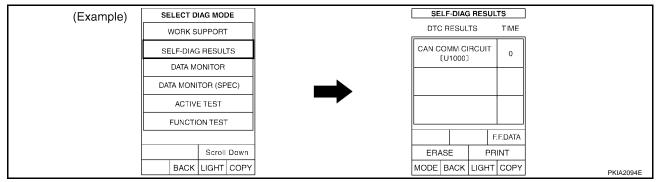


Work Flow

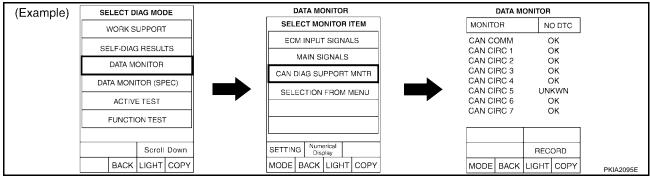
 When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM" or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

							Rx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN GIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN
всм	No Disp	CAN COMM	CAN GIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN
ABS	-	CAN COMM	CAN GIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN GIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 4)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT
- MNTR)" items not in check sheet table.

 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

TOR check sheet.

Case 1

Replace ECM.

	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	- 1	CAN CIRC 7
TRANSMISSION	-	CAN	CAN GIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN GIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN GIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp		ÇAN CIRC 1	ÇAN CIRC 3	-	-	-	CAN CIRC 2	-	

	1						Rx			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAX CAXC 2	-	CAX CAXC 4	CAY C 6		CAN 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3	-		CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN GIRC 1	CAN CIRC 2	-	-	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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Case 2

Replace TCM.

					,		Rx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	ÇAY 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN
TRANSMISSION	-	CA X	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
	No Disp		CAN CIRC 1	CAN CIRC 3	-			CAN CIRC 2	-	-
IPDM E/R	NO DISP		CIRC	<u> </u>	1			OING 2		
IPOM E/R	NO DISP		LIRC	CINCO			Rx	OING 2		
IPOM EAR	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Rx Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/F
IPOM E/R	CONSULT				TCM CAN CIRC 2		Unified meter		and electric unit	IPDM E/R
	CONSULT Indication	System	Tx CAN	ECM -	CAN	unit	Unified meter and A/C amp. CAN CIRC 4	BCM CAN	and electric unit	CAN
ENGINE	CONSULT	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM	CAN CIRC 2	unit	Unified meter and A/C amp.	BCM CAN CIRC 6	and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM	CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CA/CAC 4	BCM CAN CIRC 6	and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	CAN CAC 2 CIRC 3 CAN	CAN CIRC 2 - - - CAN	unit CAN	Unified meter and AVC amp. CAN CIRC 4 CAY CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN	and electric unit (control unit) - - - - - CAN	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN	CAN CIRC 2 - - - CAN CIRC 3	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	and electric unit (control unit) - - - - CAN CIRC 5	CAN CIRC 7 CIRC 7 CAN CIRC 6

Case 3
Replace display unit.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 011107
DISPLAY UNIT	٠,	CAMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN	CAN	- CINC S	- CINC /	CAN	- CINC 4	- CINC S	CAN
ABS	-	COMM	CIRC 1 CAN	CIRC 2 CAN		-	CIRC 4		-	CIRC 3
		COMM	CIRC 1 CAN	CIRC 2 CAN			-	CAN		
IPDM E/R	No Disp	-	CIRC 1	CIRC 3	-	-	-	CIRC 2	-	-
IPDM E/R		-			-	-	- Rx		-	-
IPDM E/R	No Disp CONSULT Indication	CAN System			тсм	Display unit			ABS actuator and electric unit	IPDM E/F
IPDM E/R ENGINE	CONSULT	System	Tx CAN	CIRC 3	TCM CAN	Display	Rx Unified meter and A/C amp. CAN	BCM CAN	ABS actuator	IPDM E/F
	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN CAN CAN CAN	ECM - CAN	TCM	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4 CAN	CIRC 2	ABS actuator and electric unit	IPDM E/F
ENGINE	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1	ECM	TCM CAN	Display unit -	Rx Unified meter and A/C amp. CAN CIRC 4	BCM CAN	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAN CIRC 2 QID 3 CAN	TCM CAN CIRC 2 - CAN	Display unit - - - CAN	Rx Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - OUR 2 CAN	ABS actuator and electric unit (control unit)	IPDM E/F CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	TX CAN CIRC 1 CAN	ECM CAN CIRC 2 QUE 3 CAN CIRC 2 CAN CIRC 2 CAN	TCM CAN CIRC 2 -	Display unit - -	Rx Unified meter and A/C amp. CAN CIRC 4 CIRC 4 CIRC 5	BCM CAN CIRC 6	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 GB 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN COMM CAN COMM COMM CAN COMM CAN COMM	TX CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 QIST 3 CAN CIRC 2	TCM CAN CIRC 2 CAN CIRC 3	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - CAN CIRC 4	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E/F CAN CIRC 7 GMP 77 CAN CIRC 6

CAN SYSTEM (TYPE 4)

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Case 4

Replace BCM. Refer to.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAY CAC 2	-	-	CAY CAYC 4		-	CAY 3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAMM MMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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Case 5

Replace unified meter and A/C amp.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	٠.	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAV CNC 2	CAY CAC 3	CAY CVC 7	-	CAY CNC 4	CAV CAC 5	CAY CAC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

WKIA0707E

Case 6

Replace ABS actuator and electric unit (control unit).

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	- 1	CAN
TRANSMISSION	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	
DISPLAY UNIT	·	CAN	CIRC 1	CIRC 3	-		CIRC 5	CIRC 2	-	CIRC
METER A/C AMP	No Disp	COMM -	CAN	CAN	CAN	CAN		CAN	CAV CAC 5	CAN
BCM	No Disp	CAN	CIRC 1 CAN	CIRC 2 CAN	CIRC 3	CIRC 7	CAN	CIRC 4	CNC 5	CIRC
	No Disp	COMM	CIRC 1 CAN	CIRC 2 CAN			CIRC 4		-	CIRC :
ABS		CAMM	CIRC 1	CIRC 2	-	-	-		-	-
IPDM E/R	No Disp	*	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-
IPDM E/R	No Disp	-		CIRC 3	-	-			-	-
IPDM E/R	No Disp CONSULT Indication	CAN System		CAN CIRC 3	тсм	Display unit	Rx Unified meter and A/C amp.		ABS actuator and electric unit (control unit)	IPDM E/F
IPDM E/R	CONSULT		Tx CAN	CIRC 3	TCM CAN CIRC 2	Display	Rx Unified meter	CIRC 2	and electric unit	
	CONSULT Indication	System	TX CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAN	CAN	Display	Rx Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN	and electric unit	IPDM E/F
ENGINE	CONSULT	CAN COMM CAN COMM CAN	Tx CAN CIRC 1	ECM	CAN CIRC 2	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6	and electric unit (control unit)	IPDM E/F CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	CAN CIRC 2 - - - CAN	Display unit - - - - CAN	Rx Unified meter and A/C amp CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - CIRC 2 CAN	and electric unit (control unit) - - - - - - - - - -	IPDM E/A CAN CIRC 7 CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2	Display unit - -	Rx Unified meter and A/C amp. CAN CIRC 4 CIRC 5 CAN CIRC 5	BCM CAN CIRC 6	and electric unit (control unit) - - -	IPDM E/F CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN	
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2	CAN CIRC 2 - - - CAN CIRC 3	Display unit - - - CAN GIRC 7	Rx Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	and electric unit (control unit) - - - CAN CIRC 5	IPDM E/F CAN CIRC 7 CIRC 7 CAN CIRC 6

Case 7

Replace IPDM E/R.

							Rx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAX 3	-	-	-	CA 2	-	-

Case 8

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-90}}$.

							Rx			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAX CAXC 4	CAX 6	-	CAN.
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAVC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	QIP/3	-	-	CIRC 5	CIRC 2	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAX 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC
всм	No Disp	CAN COMM	CAN CIRC 1	CAX CAC 2	-	-	CAN CIRC 4	-	-	CAN CIRC
ABS	-	CAN COMM	CAN CIRC 1	CAY CYC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAX CAXC 3	-	-	-	CAN CIRC 2	-	-

Case 9

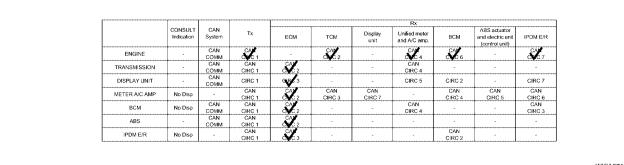
Check harness between data link connector and ABS actuator and electric unit (control unit). Refer to <u>LAN-90</u>

ABS actuator and electric uni CONSULT Indication Τx Unified meter and A/C amp. ECM IPDM E/R BCM (control unit) CAN CAN CIRC 2 CAN CIRC 6 CAN ENGINE COMM CAN COMM CAN COMM CIRC 4 CIRC 4 CIRC 1 CIRC 2 CIRC 5 CIRC 2 CAN CIRC 1 CAN CAN CIRC 2 CAN METER A/C AMP CAN CAN CAN CIRC 2 IPDM E/R

WKIA0712F

Case 10

Check ECM circuit. Refer to LAN-91.



WKIA0713E

Case 11

Check TCM circuit. Refer to LAN-92.

	Ť						Rx			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/H
ENGINE	-	CAN COMM	CAN CIRC 1	-	CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAVC 1	CAC 2	-	-	CAX ONC 4	-	-	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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Case 12

Check display unit circuit. Refer to LAN-92.

	Ĭ			l .			Rx			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	GUEV 1	OK 3	-	-	QIFZ 5	OR 2	-	GIF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	SAZ 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	- 1	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-	-

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LAN-87

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Case 13

Check data link connector circuit. Refer to <u>LAN-93</u>.

	CONSULT	CAN System	Tx	ECM	тсм	Display	Rx Unified meter	BCM	ABS actuator	IPDM E/
						unit	and A/C amp.		(control unit)	
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	Ne Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	Ne DSp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	Ne Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

Case 14

Check BCM circuit. Refer to LAN-93.

							Rx			
	CONSUL1 Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unif (control unif)	IPOM
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAY CNC 6	-	CA
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	OF 2	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAZ 4	CAN CIRC 5	CAI CIRC
ВСМ	N Dsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAL
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAY CAYO 2	-	-

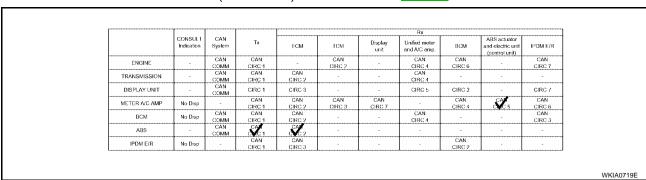
Case 15

Check unified meter and A/C amp. circuit. Refer to $\underline{\mathsf{LAN-94}}$.

					•		Rx			
	CONSUL1 Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPOM E/E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAV CAVC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CN/C4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	048/ 5	CIRC 2	-	CIRC /
METER A/C AMP	Nr Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN ÇIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAY CAYC 4	-	-	CAN CIRC 3
ABS	1 -	CAN	CAN CIRC 1	CAN CIRC 2	-	-	· ·	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-		CAN CIRC 2	-	-

Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-94</u>.



CAN SYSTEM (TYPE 4)

[CAN]

Case 17

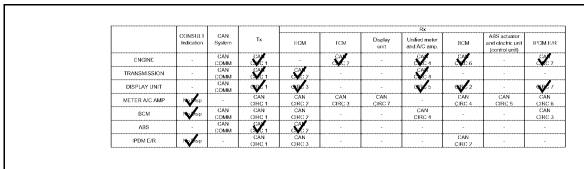
Check IPDM E/R circuit. Refer to $\underline{\mathsf{LAN-95}}$.

				l			Rx			
	CONSUL1 Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPOM E/I
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CALC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	QDZ /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CANC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAY 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	Norsp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

WKIA0720E

Case 18

Check CAN communication circuit. Refer to <u>LAN-95</u>.



WKIA0721E

Case 19

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-96}}$.

							Rx			
	CONSUL1 Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAZ CAZC 2	-	-	CAV CAC 4	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	ČAŽ 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

WKIA0722E

							Rx			
	CONSUL1 Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT	T -	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAC 3	CAN CIRC 7	-	CAN CIRC 4	CAZ C 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	- 1	-

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EKS004YP

Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 5 (L), 6 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

5 (L) - 6 (L)

: Continuity should exist.

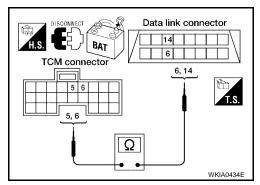
6 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-82, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

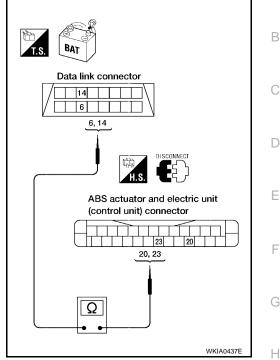
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

6 (L) - 20 (L) : Continuity should exist. 14 (Y) - 23 (Y) : Continuity should exist.

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to <u>LAN-82</u>.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect ECM connector M82.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

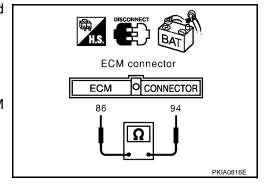
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx. $108 - 132\Omega$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



EKS004YS

LAN

TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. check harness for open circuit

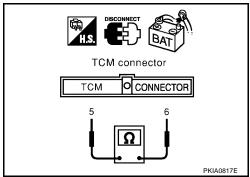
Check resistance between TCM connector F56 terminal 5 (L) and terminal 6 (Y).

5 (L) - 6 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Unit Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

14 (L) - 16 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit connector M93 and data link connector M22.

Display unit connector BAT WKIA0432E

EKS004YU

EKS004YV

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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

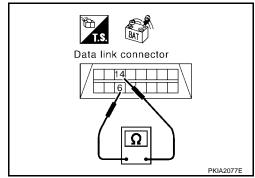
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

: Approx. 54 - 66 Ω

OK or NG

OK \Rightarrow Connect all connectors and diagnose again. Refer to LAN-82 .

NG >> Repair harness between data link connector M22 and BCM connector M18.



EKS004YW

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

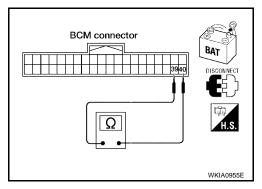
39 (L) - 40 (Y) : Approx. 54 - 66Ω

OK or NG

NG

OK >> Replace BCM.

>> Repair harness between BCM connector M18 and data link connector M22.



LAN

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

EKS004YX

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

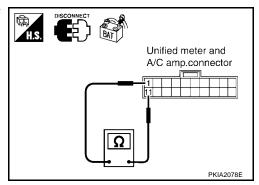
: Approx. 54 - 66 Ω

OK or NG

OK >> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS004YZ

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

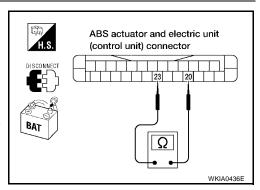
OK or NG

OK >

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



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IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

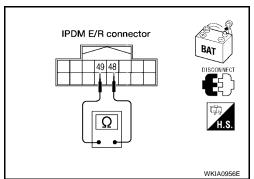
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

OK or NG

OK >> Replace IPDM E/R. NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

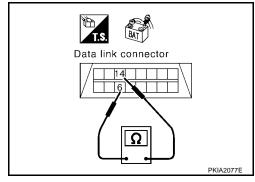
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



EKS004Z1

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3. CHECK HARNESS FOR SHORT TO GROUND

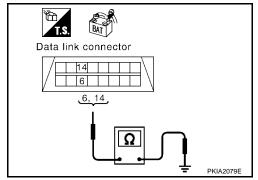
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-96, "Component Inspection"</u>.

NG >> Repair the harness.



EKS004Z2

FKS004Z3

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

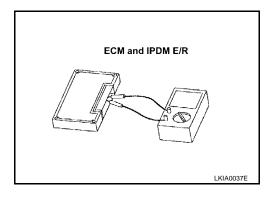
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

• Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 5)

PFP:23710

System Description

EKS004Y0

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

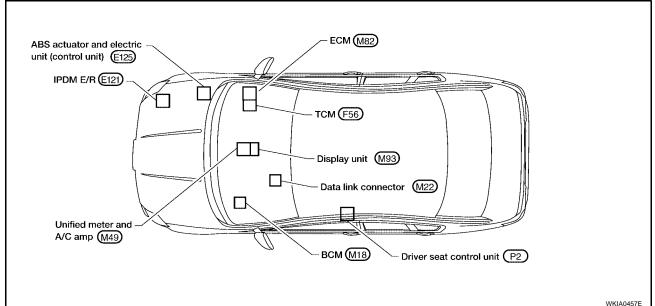
Component Parts and Harness Connector Location

EKS004Y1

D

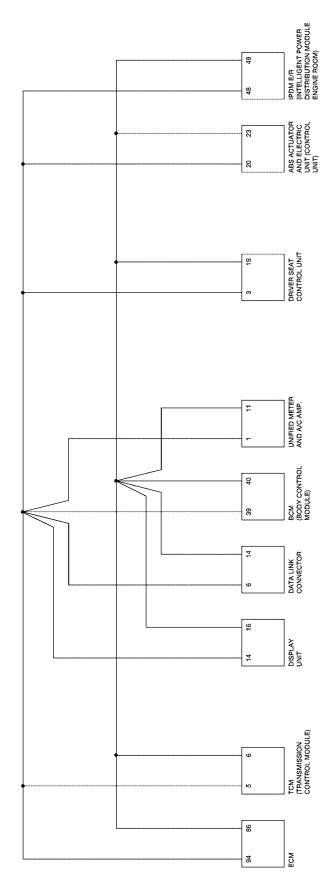
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Schematic



Wiring Diagram - CAN -

KS004Y3

LAN-CAN-13

: DATA LINE

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		NEXT PAGE
		(M71) (F59)
94	Y 86	Y
CAN-H	CAN-L ECM	CAN-H CAN-L (TRANSMISSION CONTROL MODULE)
		MODULE) (F56)

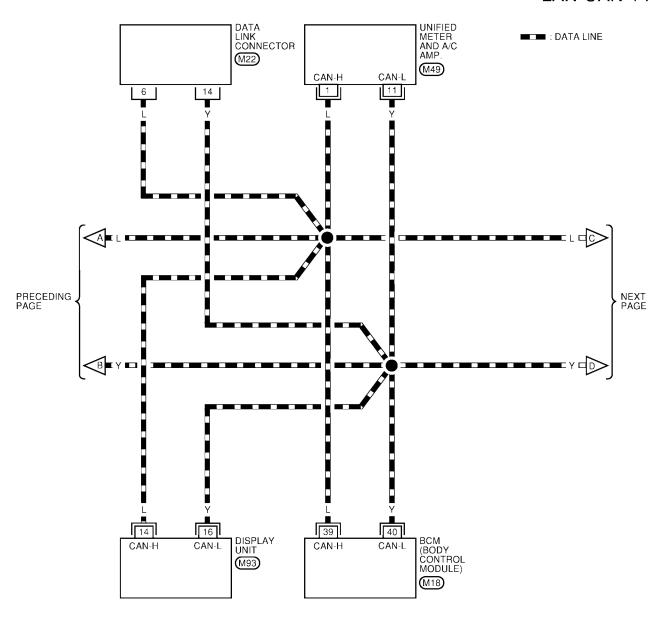
REFER TO THE FOLLOWING.

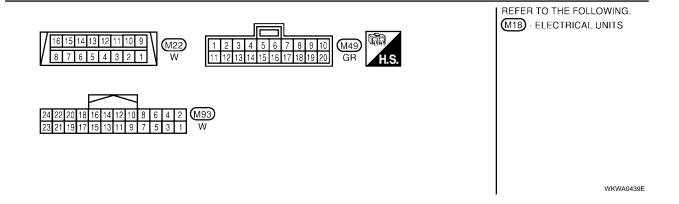
(M82), (F56) - ELECTRICAL

UNITS

WKWA0438E

LAN-CAN-14





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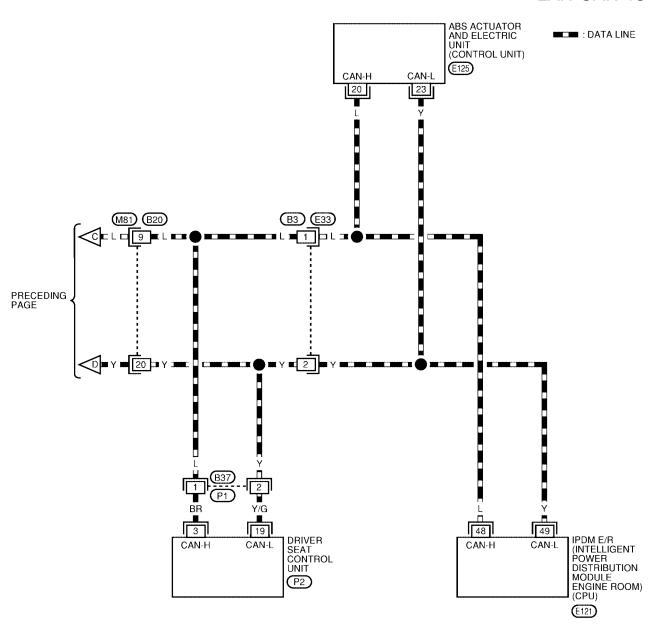
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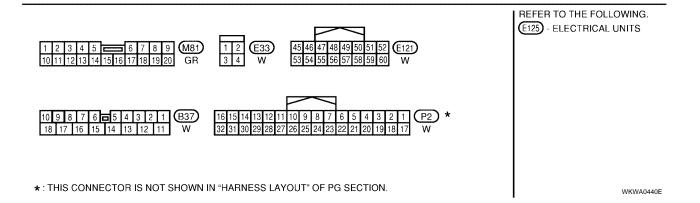
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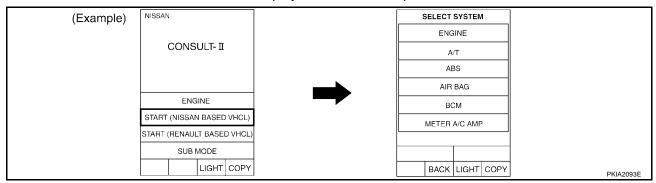
LAN-CAN-15



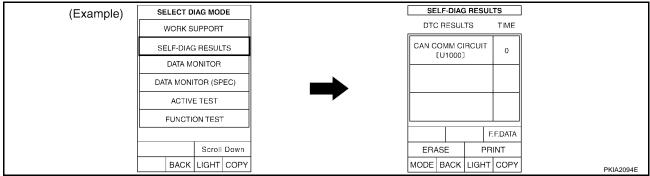


Work Flow

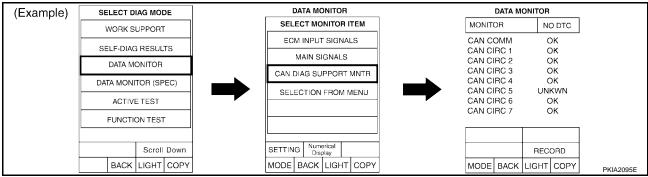
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

	T	I		T			R	(
	CONSULT	CAN System	Тх	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2		CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2	-	-	-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 5)

[CAN]

- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual. Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-TOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

MNTR)" items not in check sheet table.

CHECK SHEET RESULTS

Case 1

Replace ECM.

	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Display unit Unified meter and A/C amp. ECM всм IPDM E/R CAN CAN ENGINE TRANSMISSION COMM CAN COMM CIRC 1 CIRC : CIRC 4 DISPLAY UNIT CIRC 5 CIRC 2 CIRC 7 CIRC 1 CIRC 3 CAN CIRC 3 METER A/C AMP No Disp CIRC 2 CAN CIRC 2 CIRC 4 CIRC 6 CAN CIRC 3 CAN CIRC 2 AUTO DRIVE POS. No Disp CIRC 3 ABS COMM CAN CIRC 2 No Disp IPDM E/R CIRC 3

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Case 2

Replace TCM.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CALC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAL CNC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAI CINC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	- 1	-
			GINC 1	I UNC 3	l			ORC 2	I	J	
			CIRCI	i cinc a					J	J	
	CONSULT	CAN		CINC 3	Ι		R		I	ABS actuator	
	CONSULT Indication	CAN System	Tx	ECM ECM	1CM	Display unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		System CAN COMM	Tx CAN GIRC 1	ECM -	1CM CAN CIRG 2		Unified meter and A/C amp. CAN CIRC 4	x		and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	Indication	CAN COMM CAN COMM	Tx CAN	ECM	CAN	unit	Unified meter and A/C amp. CAN	x BCM CAN	control unit	and electric unit (control unit)	CAN
	Indication -	CAN COMM CAN	Tx CAN GIRC1 GAN GIRC1 CIRC1	ECM - GAN CN 6 2 CIRC 3	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6 - CIRC 2	control unit	and electric unit (control unit) - -	CAN CIRC 7 - CIRC 7
TRANSMISSION	Indication -	System CAN COMM CAN COMM CAN COMM CAN COMM -	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	CINC 2 CIRC 3 GAN CIRC 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAY CIRC 5	X BCM CAN CIRC 6	control unit	and electric unit (control unit)	CAN CIRC 7 - CIRC 7 CAN CIRC 6
TRANSMISSION DISPLAY UNIT	Indication	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM	Tx CAN GIRC 1 CAN GIRC 1 CIRC 1 CAN GIRC 1 CAN GIRC 1 CAN GIRC 1	FCM	CAN CIRC 2 - - CAN CIRC 3	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAP CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit) - - - - CAN	CAN CIRC 7 - CIRC 7
TRANSMISSION DISPLAY UNIT METER A/C AMP	Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN COMM COMM COMM COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAP CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) - - - - CAN	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY UNIT METER A/C AMP BCM	Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C arrip. CAN CIRC 4 CAP CIRC 5	ECAN CIRC 2 CAN CIRC 4 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 3

Replace display unit.

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	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	N. D.		CAN	CAN				CAN	· · · · · · · · · · · · · · · · · · ·	_	
IFDMEA	No Disp	-	CIRC 1	CIRC 3	-		-	CIRC 2	I	1	
IPDM DX	NO DISP	-	CIRC 1	CIRC 3		-	- - - -		I	J	
II DIN DIN	CONSULT Indication	CAN System	CIRC 1	CIRC 3	1CM	Display unit			Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT						R Unified meter	x			IPDM E/R CAN CIRC 7
	CONSULT	System	Tx CAN	ECM	1CM CAN	unit	Unified meter and A/C amp.	x BCM CAN	control unit	and electric unit	CAN
ENGINE	CONSULT	CAN COMM CAN	Tx CAN CIRC 1 CAN	FCM - CAN	1CM CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	x BCM CAN	control unit	and electric unit	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT	CAN COMM CAN COMM CAN	Tx CAN GIRG 1 GAN GIRG 1	FCM - CAN CIRC 2	1CM CAN CIRC 2 -	unit -	R Unified meter and AVC amp. CAN CIRC 4 CAN CIRC 4	X BCM CAN CIRC 6	control unit	and electric unit (control unit) - -	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM COMM COMM COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1	FCM	TCM CAN CIRC 2 CAN	unit CAN	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 COC 5	BCM CAN CIRC 6 - CRC 2 CAN	control unit	and electric unit (control unit) CAN	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT METER ACC AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRG 2 CRG 3 GAN CIRG 2 CAN	1 CM CAN CIRC 2 CAN CIRC 3	unit CAN CIRC 7	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAS	BCM CAN CIRC 6 - COS 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 - CIR 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AND AMP BCM	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CAN CIRC 4 CAN	control unit	and electric unit (control unit) - - - CAN CIRC 5	CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

CAN SYSTEM (TYPE 5)

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Case 4

Replace BCM.

							R	x			
	CONSULT Indication	CAN System	Τx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	CAV CNC 4	-	-	-	CAZ 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CÂN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

ABS actuator and electric unit (control unit) Unified meter and A/C amp. Display unit 1CM всм IPDM E/R ENGINE TRANSMISSION CIRC 4 CIRC 1 DISPLAY UNIT CIRC 1 CIRC 3 CIRC 5 CIRC 2 CIRC 7 COMM CAN CIRC 6 CAN CAN CAN CIRC 3 CAN CIRC 7 CAN CIRC 4 CAN CIRC 5 METER A/C AMP No Disp всм No Disp CIRC 4 CAN CIRC 3 CIRC 1 CIRC 2 CIRC 3 CAN CIRC 4 CAN CIRC 2 AUTO DRIVE POS. COMM CAN COMM CIRC 1 CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 IPDM E/R No Disp

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Case 5

Replace unified meter and A/C amp.

							н	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/6
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAL CNC 2	CAM CNC 3	CNC 7	-	CAN CINC 4	-	CAY CNC 5	CAY CNC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

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Case 6

Replace driver seat control unit.

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	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN ÇIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN ÇIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAM COMM	CAN ÇIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN ÇIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	N. D.		CAN	CAN	_	-		CAN		1	_
IFDMER	No Disp	-	CIRC 1	CIRC 3		-	-	CIRC 2	L	JJ	
IPDWER	NO DISP	-	CIRC 1	CIRC 3		-	R				
IPDN DA	CONSULT Indication	CAN System	CIRC 1	CIRC 3	1CM	Display unit			Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	CAN				Display	R. Unified meter	x		ABS actuator and electric unit	IPDM E/R CAN CIRC 7
	CONSULT Indication	CAN Systom	Tx CAN	ECM	1CM CAN	Dieplay unit	R. Unified meter and A/C amp. CAN	X BCM CAN		ABS actuator and electric unit (control unit)	CAN
ENGINE	CONSULT Indication	CAN System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	1CM CAN CIRC 2	Display unit	R. Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	AHS actuator and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN System CAN COMM CAN COMM CAN	Tx CAN GIRC 1 GAN GIRC 1	ECM - GAN CIRG 2	1CM CAN CIRC 2	Display unit - -	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	ABS actuator and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN System COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	FCM - GAN CIRG 2 CIRC 3 GAN	CAN CIRC 2	Display unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	AHS actuator and electric unit (control unit)	CAN CIRC 7 - CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT METER ACC AMP	CONSULT Indication	CAN System CAN COMM	TX CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 CAN	Display unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5 - CAN	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit) Can Can CiRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM AUTO DRIVE POS.	CONSULT Indication	CAN System CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	Display unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	AHS actuator and electric unit (control unit) CAN GIRC 5	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 7

Replace ABS actuator and electric unit (control unit).

	1						R				
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAY CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-
			CIRC 1	I CINC 3				UNC.	1		
			CIRC 1	CINC 3			R				
	CONSULT Indication	CAN System	Tx	ECM ECM	1CM	Display unit	Unified meter and A/C amp.	c BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT				1CM CAN CIRC 2		Unified meter	•		and electric unit	IPDM E/R CAN CIRC 7
	CONSULT Indication	System	Tx CAN	ECM	CAN	unit	Unified meter and A/C amp. CAN	BCM CAN	control unit	and electric unit	CAN
ENGINE	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN CIRC 2 CIRC 3	CAN	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	and electric unit	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRG 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit	CAN CIRC 7 - CIRC 7 CAN CIRC 6
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM - CAN CIRG 2 CIRG 3 CAN	CAN CIRC 2 - - - CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5 - CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) - - - - CAN	CAN CIRC 7 - CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT METER AVC AMP BCM	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRG 2 CIRG 3 CAN CIRG 2 CAN CIRG 2	CAN CIRC 2 - - - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) - - - - CAN	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication	System CAN COMM CAN COMM COMM CAN COMM COMM COMM COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM CAN CIRG 2 CIRG 3 CAN CIRG 2 CAN CIRG 2	CAN CIRC 2 - CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 8

Replace IPDM E/R.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAZ 3	-	-	-	CAX CNC 2	-	-	-

Case 9

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-111}}$.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAL CNC 4	CAN CNAC 6	-	-	CAL CAC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAL CALC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	OR93	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAZ 2	CAL 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAZ 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	T -	CAN COMM	CAN CIRC 1	CAL CNC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAY CINC 3	-	-	-	CAN CIRC 2	-	-	-

Case 10

Check harness between data link connector and driver seat control unit. Refer to LAN-111 .

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAY CMC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	OF
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAY CMC 5	CALC
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 1	CAL CNC 3
AUTO DRIVE POS.	N Dsp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	- 1	-
ABS	T -	CAN COMM	CAN CIRC 1	CAY CNC 2	-	-	-	-	-	- 1	-
IPDM E/R	Nusp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to <u>LAN-112</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAL CALC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	OFF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CINC 5	CAL CNC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAZ 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	-	-	-	-	-
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	T - 1	-

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Case 12

Check ECM circuit. Refer to LAN-112.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/B
ENGINE	-	CAN	CAV CINC 1		CAV CNC 2	-	CAV CAV 4	CAN CINC 6	-		CAY CNC 7
TRANSMISSION	-	CAN COMM	CAN ÇIRC 1	CAV CINC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	OR 3	-	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAL CNC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAL CNC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CNC 3	-	-	-	CAN CIRC 2	-	- 1	-

Case 13

Check TCM circuit. Refer to LAN-113.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	COMM	CAN CIRC 1	-	CAV CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION		CAN COMM	CAM CINC 1	CAL CINC 2	-	-	CAV CINC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAV CNC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN ÇIRC 1	-	CAY CINC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2	-		-

Case 14

Check display unit circuit. Refer to LAN-113.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	OR 1	ONR 3	-	-	OR 5	OK 2	-	-	OR 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAY CINC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-114}}$.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN ÇOMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	N D sp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	N Dsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	N Dsp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	1	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2	-	-	-

CAN SYSTEM (TYPE 5)

[CAN]

Case 16

Check BCM circuit. Refer to LAN-114.

							H	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	ÇAN CINC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	=
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	OR 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CINC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	N• Dsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
UTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAY CINC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CINC 2	-		-

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-115</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CINC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAM CMC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	OK 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	N• Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAZ CMZ 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 18

Check driver seat control unit circuit. Refer to <u>LAN-115</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	- 1	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	N Dsp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-116</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CINC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	T -	CAN COMM	CAI CNC 1	CAN CINC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-116</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAY CNC 7
TRANSMISSION	-	CAN COMM	CAN C RC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIR/7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAY CNC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAV CINC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	Ne Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 21

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN}\text{-}117}$.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAV CNVC 1	-	CAN 2	-	CANC 4	CAN CINC 6	-	-	CAY CNC7
TRANSMISSION		CAN COMM	CAY CNC 1	CAN CNC 2	-	-	CAL CAC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	OR# 1	OR 3	-	-	CRF 5	OK 2	-	-	C(F) 7
METER A/C AMP	N D sp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	Ne Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	N Dsp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	1	CAN COMM	CAN CNC 1	CAN CNC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN	-	-	-	CAN	-	- 1	-

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-118

	1						R	x			
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	CAM CINC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	- 1	-
ABS	1 -	CAN COMM	CAN CIRC 1	CAN CINC 2	-	-	-	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-
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	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	R Unified meter and A/C amp.	х	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE				ECM -	1CM CAP		Unified meter	x		and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION		System	Tx CAN				Unified meter and A/C amp. CAN	x BCM CAN		and electric unit	CAN
	Indication -	CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1	ECM - CAN CIRC 2 CIRC 3	CAY 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 - CIRC 2	control unit	and electric unit (control unit) - -	CAN CIRC 7
TRANSMISSION	Indication -	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM - GAN CIRG 2	CAY 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit (control unit) - -	CAN CIRC 7
TRANSMISSION DISPLAY UNIT	Indication	CAN COMM CAN COMM COMM COMM COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM	CAL CAL CAL CAL CAL CAL CAL CAL CAL CAL	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit)	CAN CIRC 7 - CIRC 7
TRANSMISSION DISPLAY UNIT METER A/C AMP	Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAY 2	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5 - CAN	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) - -	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY UNIT METER A/C AMP BCM	Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM CAN CAN COMM CAN CAN CAN CAN CAN CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRG 2 CIRG 3 GAN CIRG 2 CAN CIRG 2	CAL CAL CAL CAL CAL CAL CAL CAL CAL CAL	CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit) - -	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3

EKS004Y5

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 5 (L), 6 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

5 (L) - 6 (L)

: Continuity should exist.

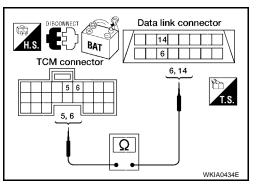
6 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-102, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

: Continuity should exist.

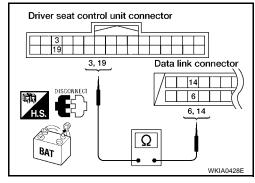
19 (Y/G) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to <u>LAN-102</u>.

NG >> Repair harness.



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EKS004Y8

Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

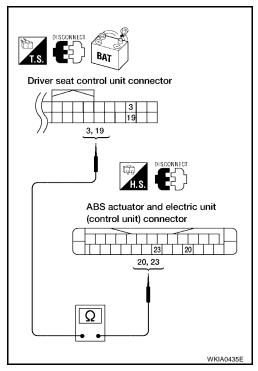
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to <u>LAN-102</u>.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

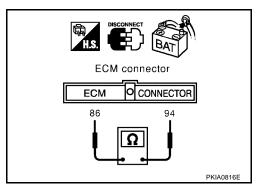
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

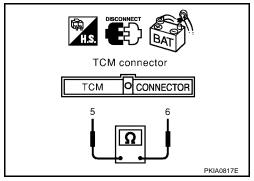
Check resistance between TCM connector F56 terminal 5 (L) and terminal 6 (Y).

5 (L) - 6 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

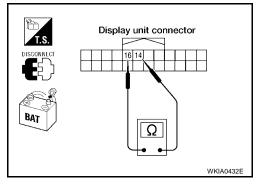
14 (L) - 16 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness betwee

>> Repair harness between display unit connector M93 and data link connector M22.



EKS004YB

Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

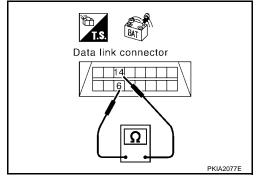
6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

NG

OK >> Connect all connectors and diagnose again. Refer to LAN-102.

>> Repair harness between data link connector M22 and BCM connector M18.



FKS004YC

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

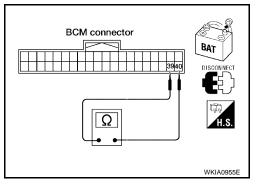
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

: Approx. 54 - 66 Ω

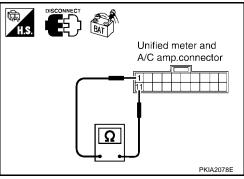
OK or NG

OK

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. M

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

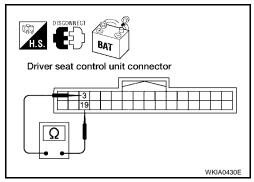
OK or NG

OK :

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS004YF

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

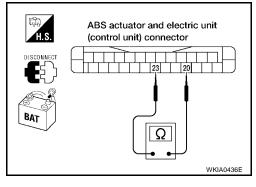
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS004YG

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

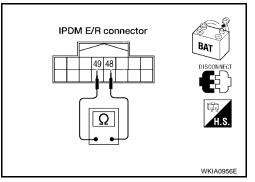
OK or NG

OK :

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display unit

BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

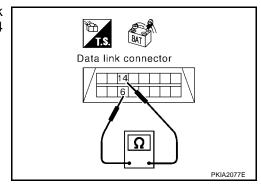
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

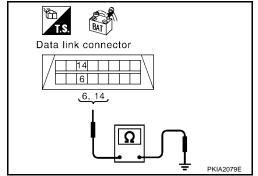
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-118, "Component Inspection"</u>.

NG >> Repair the harness.



EKS004YI

FKS004YJ

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

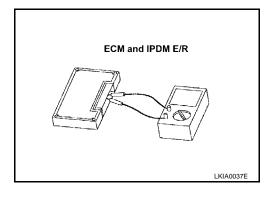
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132 Ω



CAN SYSTEM (TYPE 6)

PFP:23710

System Description

EKS004XF

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

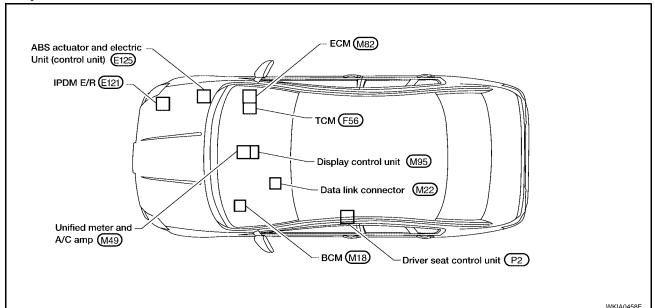
Component Parts and Harness Connector Location

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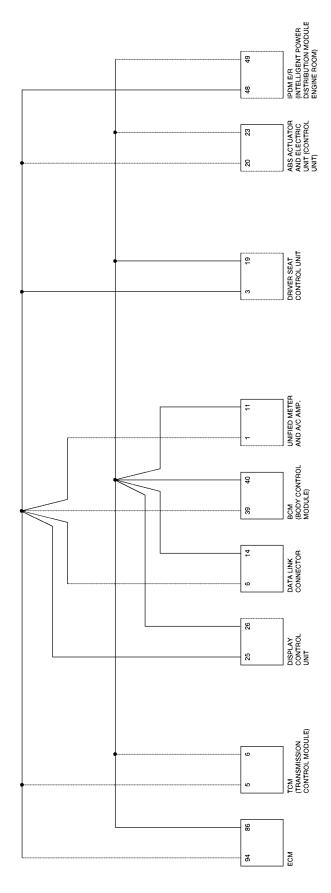
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Schematic



Wiring Diagram - CAN -

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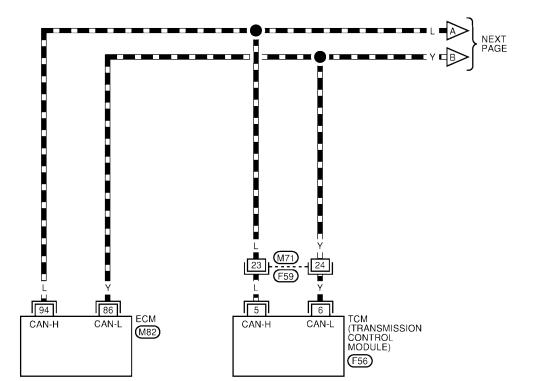
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LAN-CAN-16

■□■ : DATA LINE



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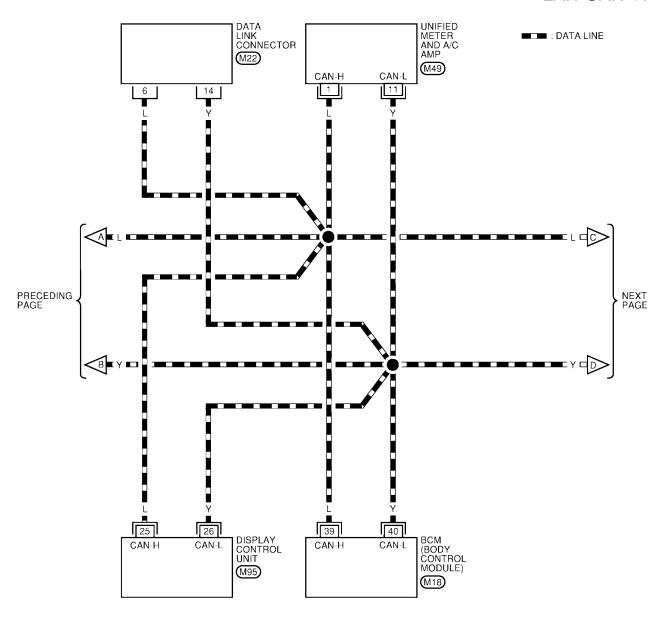
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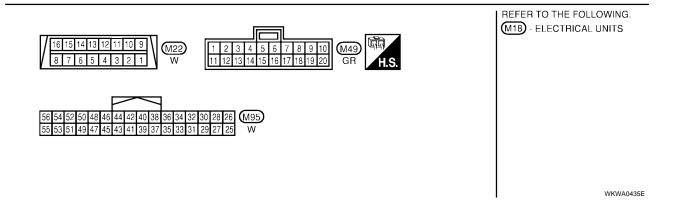
1	2	3	4	5	6		=	7	8	9	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	W

REFER TO THE FOLLOWING.
(M82), (F56) - ELECTRICAL
UNITS

WKWA0434E

LAN-CAN-17





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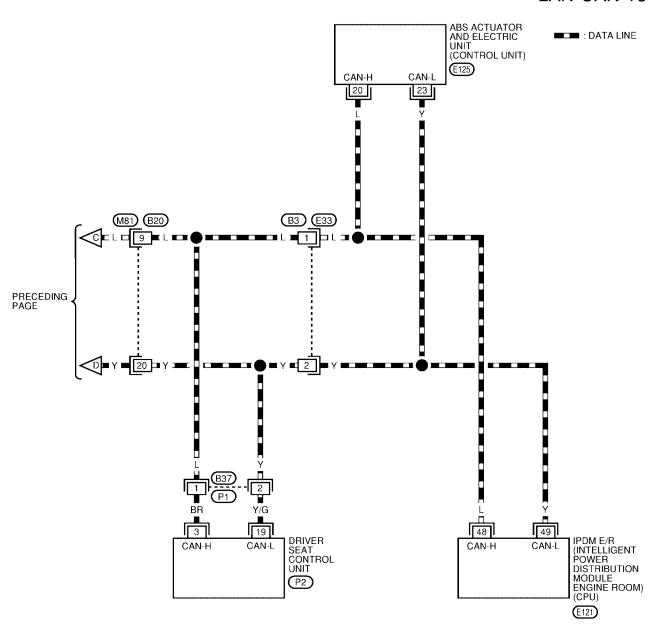
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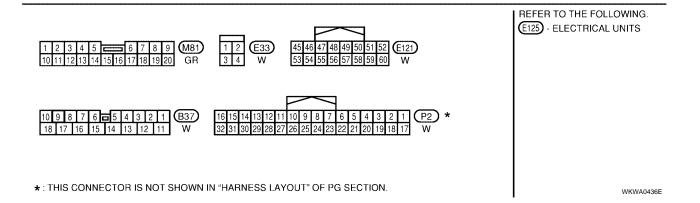
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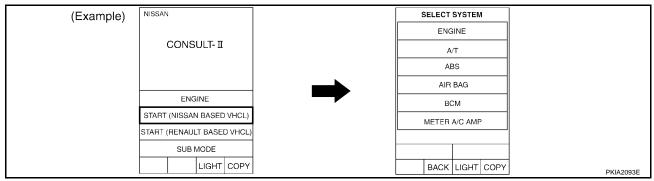
LAN-CAN-18



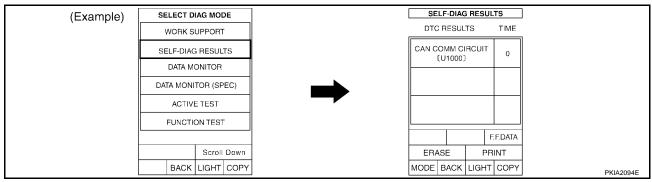


Work Flow

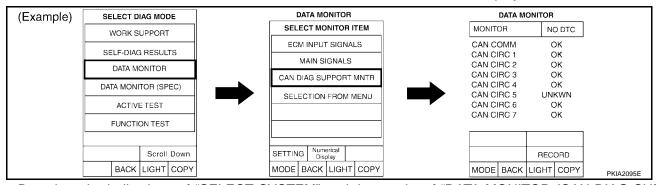
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

	1	I	I	I				x			
	CONSULT	C/N System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	~	-	CAN CIRC 7
TRANSMISSION	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		~	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3		-	CAN CIRC 5	CAN CIRC 2		-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 6)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- 6. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

				L			R	x			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		SAM MM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN GIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN GIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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							R	×			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		cNC 2		CAL CINC 4	CAN CINC 6			che 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	CAN CIRC 2							
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3			,	CAN CIRC 2			

WKIA0754E

Case 2
Replace TCM.

							R	x			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		che 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAM	CAN CIRC 1	CAN CIRC 2	CI Q C 2		CAN CIRC 4	·			CIRC 7
DISPLAY CONTROL UND		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp	- COMM	CAN CIRC 1	CAN CIRC 2	CAY 3	GAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAZ 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN	CAN				CAN CIRC 2			
, , , , , , , , , , , , , , , , , , ,	МОТЛІБР		CIRC 1	CIRC 3				GING 2		1	
1. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	Norse		CIRC 1	CIRC 3			R				
, , , , , , , , , , , , , , , , , , , ,	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE:	CONSULT		lx CAN		CAN	control	Unified meter	x BCM CAN		and electric unit	CAN
	CONSULT	System CAN COMM CAN	LX CAN CIRC 1 CAN	ECM		control unit	Unified meter and A/C amp. CAN CIRC 4	x BCM		and electric unit	
ENGINE:	CONSULT Indication	System CAN COMM CAN COMM COMM	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CANC 2 CAN	CAN	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CINC 4	BCM CAN CIRC 6	control unit	and electric unit	CAN CIRC 7
ENCINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAC 2 CAN CIRC 3 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAD CINC 4	BCM CAN CIRC 6 CAN CIRC 2 CAN	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN
ENCINE IRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM COMM	Ix CAN CIRC 1 CAN	ECM CINC 2 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAP CAP CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENCINE IRANSMISSION DISPLAY CONTROL UNIT METER AC AMP	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1	ECM CMC 2 CAN CIRC 3 CAN CIRC 3	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAD CINC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN	confrol unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
ENCINE IRANSMISSION DISPLAY CONTROL UNIT METER AIC AMP BCM	CONSULT Indication No Disp	System CAN COMM COMM CAN COMM CAN COMM CAN COMM CAN COMM	Ix CAN CIRC 1 CAN	ECM CINC 2 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 CAN	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CINC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4 CAN	confrol unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Case 3
Replace display control unit

·····	T			1			R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNI		CAY CAMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2				-			
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			
			GRC I	CIRCS	1		1	GING 2	l		
			GRC I	URC 3			R				
	CONSULT Indication	CAN System	lx	ECM ECM	тсм	Display control unit	Unified meter and A/C amp.	k BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENCINE:			Lx CAN CIRC 1	ECM	TCM CAN CIRC 2	control	Unified meter and A/C amp. CAN CIRC 4	×		and electric unit	IPDM E/R CAN CIRC 7
ENCINE IRANSMISSION		System CAN	Ix CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6		and electric unit	CAN CIRC 7
	Indication	System CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAY CAY CAY	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unit)	CAN CIRC 7
TRANSMISSION	Indication	CAN COMM CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 2	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAY CIRC 4	k BCM CAN		and electric unit	CAN CIRC 7 CAN CINC 7 CAN CIRC 6
TRANSMISSION DISPLAY CONTROL UNI	Indication	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	IX CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2 CAN CIRC 3	control unit 	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAL CAL CAL CAL CAL CAL CAL CAL CAL CAL	BCM GAN CIRC 6 CAN CAN CAN CAN CAN CAN CAN CA		and electric unit (control unit)	CAN CIRC 7
TRANSMISSION DISPLAY CONTROL UNI METER A/C AMP	Indication No Disp	CAN COMM	IX CAN CIRC 1	CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAA CAA CAA CAA CAA CAA CAA	confrol unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7
TRANSMISSION DISPLAY CONTROL UNI METER A/C AMP BCM	No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Ix CAN CIRC 1 CAN	CAN CIRC 2 CAS CIRC 2 CAS CIRC 3 CAN CIRC 2 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAY	confrol unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7

CAN SYSTEM (TYPE 6)

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Case 4

Replace BCM.

							R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			GAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			GAN GIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	cN2 2			cAZ4				ch/2 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN GIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

CONSULT Indication ABS actuator and electric unit (control unit) CAN System Display control unit Unified meter and A/C amp. ECM TCM ВСМ IPDM E/R CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CAN CIRC 4 CAN CIRC 4 CAN CAN CIRC 6 CAN CIRC 2 CAN CIRC 7 CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 CAN TRANSMISSION CAN CIRC 7 CAN CIRC 6 CAN CAN DISPLAY CONTROL UNI CAN CIRC 3 CAN CIRC / CAN CIRC 5 METER A/C AMP No Disp CIRC 4 No Disp BCM CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 2 CIRC 3 CAN CIRC 4 CAN CIRC 2 AUTO DRIVE POS. COMM CAN COMM CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 IPDM E/R No Disp

WKIA0760E

WKIA0759E

Case 5

Replace unified meter and A/C amp.

							R	х			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN GIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UND		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CNC 2	CAX CNC 3	CAZ/		CAN 4		CAY CMC 5	cNZ 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				GAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3			,	CAN CIRC 2	,		

WKIA0761E

Case 6

Replace driver seat control unit.

	I	1					R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	004		·				
label and of the	No Disp	COMM	CAN	CAN				CAN			
IPOM E/R	мотлър		CIRC 1	CIRC 3				CIRC 2			
⊪чм е/к	Notisp	1	CIRC 1	CIRC 3			R				
IPDM E/R	CONSULT Indication	CAN System	lx	CIRC 3	тсм	Display control unit	R. Unified meter and A/C amp.	x BCM	Driver soat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
	CONSULT	System CAN COMM	Ix CAN CIRC 1	ECM	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	×	control unit	and electric unit	IPDM E/R CAN CIRC 7
	CONSULT	System	lx CAN		CAN	control unit	Unified meter and A/C amp. CAN	X BCM CAN		and electric unit (control unit)	CAN
ENGINE:	CONSULT	System CAN COMM CAN	Ix CAN CIRC 1 CAN	ECM	CAN	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	X BCM CAN	control unit	and electric unit (control unit)	CAN
ENGINE IRANSMISSION	CONSULT	System CAN COMM CAN COMM COMM	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN	CAN	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM COMM	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER ACC AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM	Ix CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	EAN CIRC 6 CAN CIRC 6 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE IRANSMISSION DISPLAY CONTROL UNIT METER ACCAMP BCM	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Ix CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Case 7

Replace ABS actuator and electric unit (control unit).

							R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNI		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2		1	CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		SAZ's	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAM	CAN CIRC 1	CAN CIRC 2		-					
IPDM E/R	No Disp		CAN	CAN				CAN CIRC 2			
			CIRC 1	CIRC 3				CIRC 2	I	1	
			CIRC 1	CIRC 3			R				
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENCINE:	CONSULT		Ix CAN CIRC 1	ECM	TCM CAN CIRC 2	control	Unified meter and A/C amp. CAN CIRC 4	x		and electric unit	IPDM E/R CAN CIRC 7
	CONSULT	System	Ix CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6		and electric unit	CAN CIRC 7
ENGINE:	CONSULT	CAN COMM CAN	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 CAN CIRC 2	control unit	and electric unit (control unit)	CAN CIRC 7
ENCINE IRANSMISSION	CONSULT	System CAN COMM CAN COMM CAN COMM CAN	Ix CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6	control unit	and electric unit	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
ENGINE IRANSMISSION DISPLAY CONTROL UNI	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM COMM	Ix CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM GAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN
ENCINE IRANSMISSION DISPLAY CONTROL UNI METER AIG AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN COMM CAN COMM	IX CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE IRANSMISSION DISP(AY CONTROL UNI METER AG AMP BCM	CONSULT Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	IX CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Case 8

Replace IPDM E/R.

							R	K			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat confrol unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN GIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN CIRC 4		CAN GIRC 3	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN CIRC 1	SAZ 3				CAN CNC 2			

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-133</u>.

							R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAL CNC 4	CAN CINC 6			CNC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CINE 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CNC3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	cN2 2	CAX CAX 3	GAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	cN2 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CNZ 4		CAN CIRC 3	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	ch/C ₂							
IPDM E/R	No Disp		CAN CIRC 1	\$ ^			,	CAN CIRC 2			

Case 10

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-133</u>.

	[F	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			c NZ
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CNC
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAY CNC 5	c XX
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				ch/Z
AUTO DRIVE POS.	No USp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CNA 2							
IPDM E/R	N-USp		CAN CIRC 1	CAN CIRC 3			,	CAN CIRC 2			

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-134.

							R	x			
	CONSULT	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CNC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN GIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CNC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	GAN CIRC /		CAN CIRC 4		CAX 5	cN/6
BCM	No Disp	CAN	CAN GIRC 1	CAN CIRC 2			CAN GIRC 4				c \ \\23
AUTO DRIVE POS.	No Disp	CAN	CAN GIRC 1		CAN CIRC 4		CAN GIRC 3	CAN CIRC 2			
ABS		CAN	CAN GIRC 1	cM2 2							
IPDM E/R	N-U/sp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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Case 12

Check ECM circuit. Refer to $\underline{\mathsf{LAN-}134}$.

							R	x				
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat confrol unit	ABS actuator and electric unit (control unit)	IPDM E/R	
ENGINE		COMM	CAN COMM CAN	CNC 1		cNC 2		CAL CINC 4	CAN CINC 6			CMC 7
TRANSMISSION		CAN	CAN CIRC 1	cMC 2			CAN CIRC 4					
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	cN23			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7	
METER A/C AMP	No Disp		CAN CIRC 1	cNC 2	CAN CIRC 3	GAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6	
всм	No Diep CAN	CAN	CAN GIRC 1	cN2 2			CAN CIRC 4				CAN CIRC 3	
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2				
ABS		CAN	CAN CIRC 1	che 2								
IPOM E/R	No Disp		CAN CIRC 1	8/23				CAN CIRC 2				

Case 13

Check TCM circuit. Refer to LAN-135.

		I		1			R	x			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		cNC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAN COMM	CAY CNC 1	cMC 2			CAN 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CNZ 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 14

Check display control unit circuit. Refer to $\underline{\mathsf{LAN-}135}$.

	I						R	х			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAX CINC 1	CMC 3			CAN CNC 5	CAN CNC 2			CNC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	chyc /		CÂN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-}136}$.

	l			L			R				
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			GAN CIRC 7
IRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	Na USp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	GAN CIRC /		CAN CIRC 4		CAN	CAN CIRC 6
всм	Neusp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	Neusp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	N-U/sp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

CAN SYSTEM (TYPE 6)

[CAN]

Case 16

Check BCM circuit. Refer to LAN-136.

							R	K			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CINC 6			CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CINC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAY CNC 4		CAN CIRC 5	CAN CIRC 6
BCM	Na USp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CINC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2				-			
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CINC 2			

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-137</u>.

							R	x			
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAV CNC 4	CAN CIRC 6			CAN CIRC 7
IRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CANZ 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CNC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	Neusp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAY CNZ 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN CIRC 4		cN23	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	CAN CIRC 2							
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 18

Check driver seat control unit circuit. Refer to $\underline{\mathsf{LAN-}137}$.

	I		I				R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No USp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2				-			
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-138</u>.

	[R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAX 5	CAN CIRC 6
BCM	No Disp	CAN	CAN GIRC 1	CAN CIRC 2			CAN GIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN CIRC 4		CAN GIRC 3	CAN CIRC 2			
ABS		COMM	cNZ 1	chi 2							
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-138</u>.

							R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CNC 7
IRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CNZ 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	GAN CIRC /		CAN CIRC 4		CAN CIRC 5	CNC 6
ВСМ	No Disp	CAN	CAN GIRC 1	CAN CIRC 2			CAN CIRC 4				cNZ3
AUTO DRIVE POS.	No Disp	CAN	CAN GIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN GIRC 1	CAN CIRC 2							
IPDM E/R	No USp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 21

Check CAN communication circuit. Refer to <u>LAN-139</u>.

	· · · · · · · · · · · · · · · · · · ·			l			R	x			
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat confrol unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CNC 1		CNC 2		CAI CINC 4	CAN CINC 6			CMC 7
TRANSMISSION		CAN	CAX CNC 1	CNZ 2			CNZ 4				
DISPLAY CONTROL UNIT		CAN COMM	CAX CNC 1	cNZ3			CAN CNC 5	CAY CNC 2			cN27
METER A/C AMP	N u V sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CÂN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Na USp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	N a U Sp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	cMZ 1	CAN CIRC 2							
IPDM E/R	No USp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-140

[1			Ri				
	CONSULT Indication	CAN System	lx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		1	CAN CIRC 7
IRANSMISSION		CAN COMM	CAN CIRC 1	CNZ 2			cM24				
DISPLAY CONTROL UNI		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	cM2 2							
IPDM E/R	No Disp		CAN	CAN				CAN CIRC 2		,	
			CIRC 1	CIRC 3				CIRC 2			
			CIRC 1	CIRC 3			R				
	CONSULT Indication	CAN System	lx	ECM	тсм	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENCINE:	CONSULT		Lx CAN CIRC 1	ECM	TCM	control	Unified meter and A/C amp. CAN CIRC 4			and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	CONSULT	CAN COMM CAN COMM	Ix CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2		control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6		and electric unit	CAN CIRC 7
	CONSULT	CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3	c i 22	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 CAN CIRC 2	confrol unit	and electric unit (control unit)	CAN CIRC 7
IRANSMISSION	CONSULT	System CAN COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3		control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6	confrol unit	and electric unit	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
TRANSMISSION DISPLAY CONTROL UNIT	CONSULT	CAN COMM CAN COMM CAN COMM CAN COMM	IX CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN	CNAC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	ECM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	confrol unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication	CAN COMM	IX CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	c i 22	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN	confrol unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP BCM	CONSULT Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN	Ix CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2	CNAC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4	confrol unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 5 (L), 6 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

5 (L) - 6 (L)

: Continuity should exist.

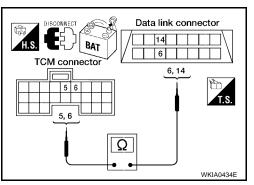
6 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-124, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

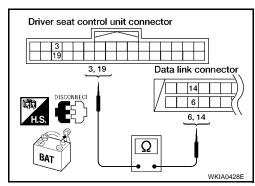
: Continuity should exist.

19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to LAN-124.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

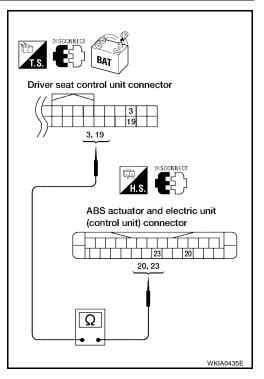
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to <u>LAN-124</u>.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

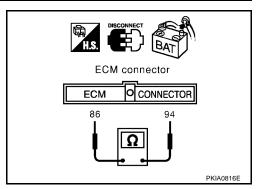
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

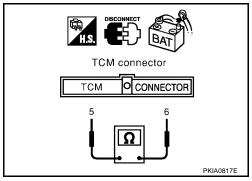
Check resistance between TCM connector F56 terminal 5 (L) and terminal 6 (Y).

5 (L) - 6 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

25 (L) - **26** (Y) : Approx. **54** - **66**
$$\Omega$$

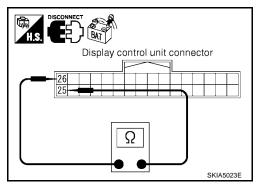
OK or NG

OK >>

>> Replace display control unit.

NG

>> Repair harness between display control unit connector M95 and data link connector M22.



EKS004XQ

Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

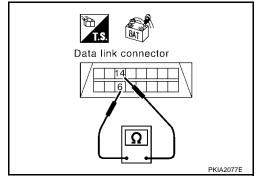
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-124.

NG >> Repair harness between data link connector M22 and BCM connector M18.



FKS004XR

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

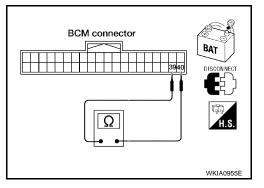
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

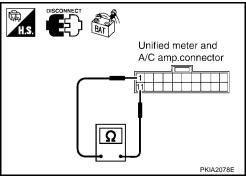
: Approx. 54 - 66 Ω

OK or NG

OK >> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



EKS004XU

Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. D

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LAN-137

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

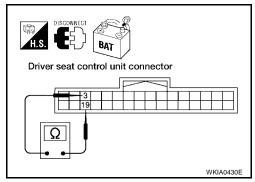
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS004XV

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

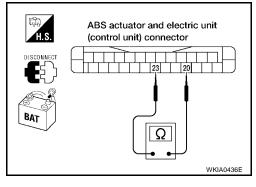
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS004XW

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

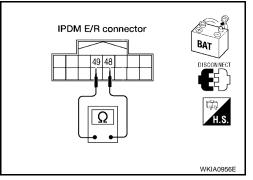
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display control unit

- BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

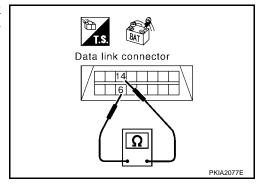
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

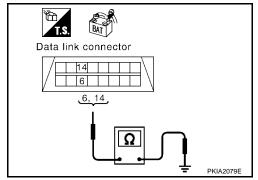
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-140</u>, "Component Inspection".

NG >> Repair the harness.



EKS004XY

FKS004XZ

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

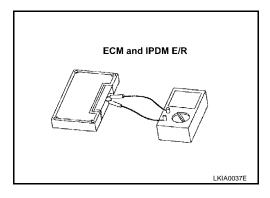
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132 Ω



CAN SYSTEM (TYPE 7)

PFP:23710

System Description

EKS004WU

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

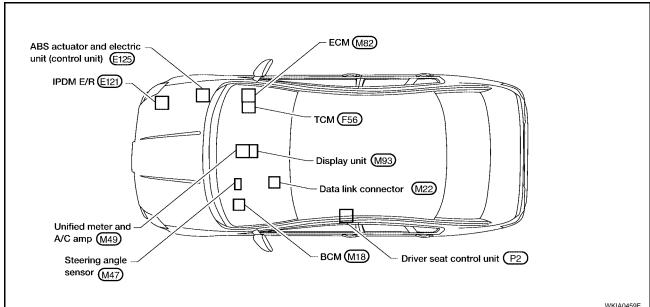
Component Parts and Harness Connector Location

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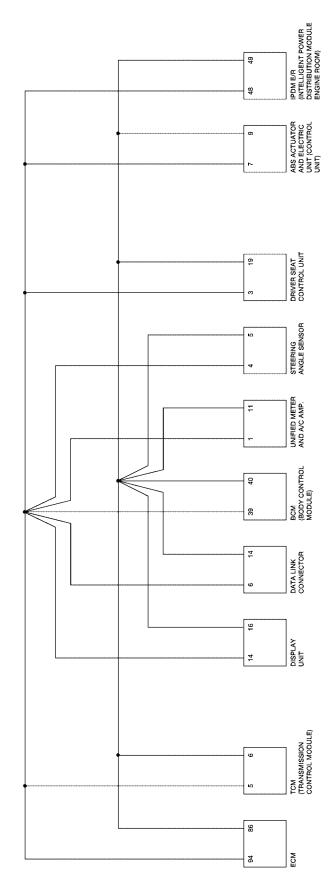
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Schematic EKS004W



Wiring Diagram - CAN -

KS004WX

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LAN-CAN-19

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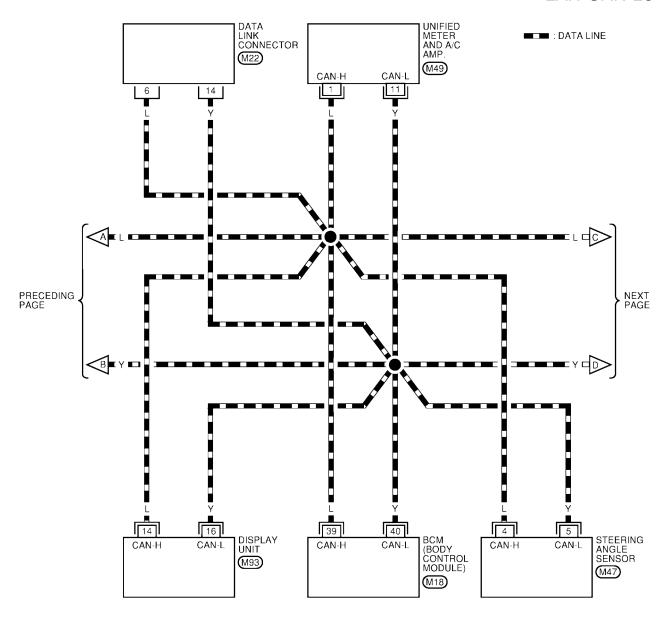
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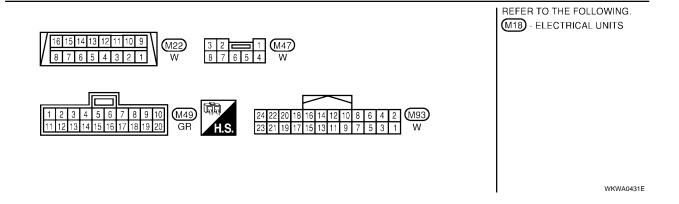
1	2	3	4	5	6	Ш	=	7	8	9	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	W

REFER TO THE FOLLOWING.
(M82), (F56) - ELECTRICAL
UNITS

WKWA0430E

LAN-CAN-20





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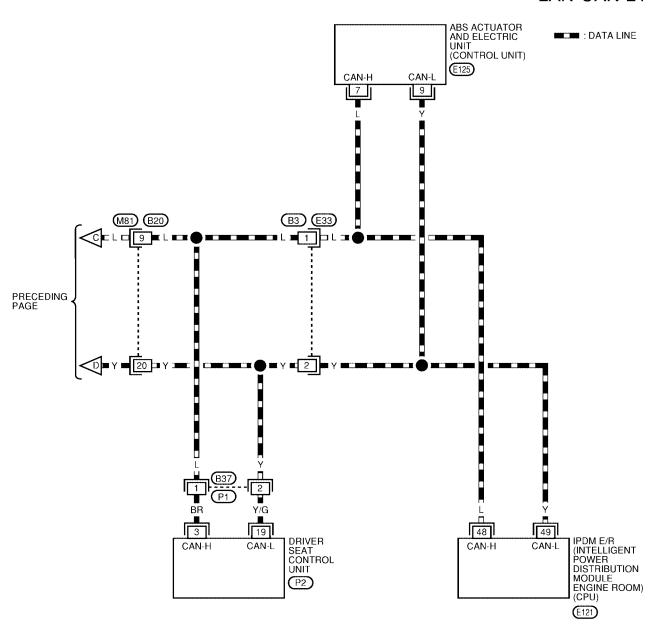
Е

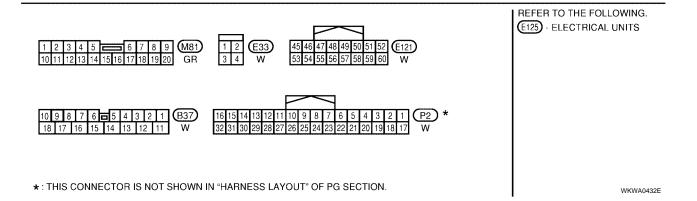
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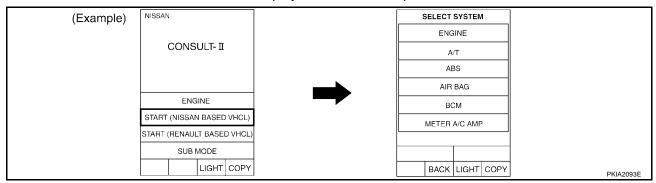




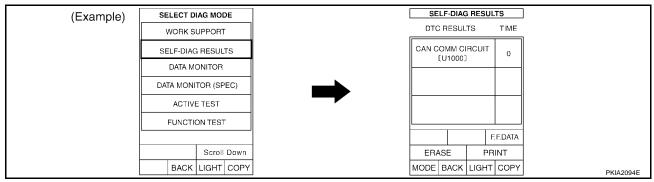
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Work Flow

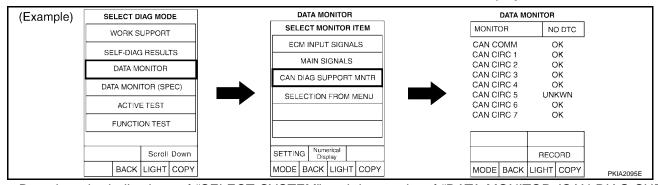
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

	1							Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2		*	-

NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

								Rx				
	CONSULT Indication	CAN System	ſx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2		,	

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								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAM CAMM	CAN CIRC 1	-	CAN CIRC 2	-	CAX CNZ 4	-	CAY CNC 6	-	CAY CNZ 3	CAN CNC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 2 Replace TCM.

	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Rx Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1				CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
RANSMISSION		CAM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	SAZ3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNZ 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CNZ 3			CAN CIRCS				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

								Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAY 2			CAN CN C 4				CAN CNC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 3

Replace display unit.

								Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/I
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC A
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC :
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 Unified meter and A/C amp. IPDM E/R CAN CIRC 1 CAN CIRC 1 CAN CIRC 7 CAN CAN CIRC 2 CAN CIRC 6 ENGINE CIRC 4 CAN CIRC 4 CAN CIRC 2 TRANSMISSION OKE 5 DISPLAY UNIT CIRC 1 o**⊗/**3 CAN CIRC 4 CAN CIRC 3 CAN CIRC 5 CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1 CAN GIRC 2 CAN GIRC 2 CIRC 6 CAN CIRC 4 CAN CIRC 3 CAN CIRC 2 AUTO DRIVE POS. CIRC 4 CAN CIRC 2 CAN CIRC 3 CIRC 3 IPDM E/R CAN CIRC 2 No Disp

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Case 4

Replace BCM.

	1							Rx				
	CONSULT Indication	CAN System	1×	ECM	тсм	Display unit	Unified motor and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN GIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	cNC 2			CNZ 4					SAZ3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN			

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	T							Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified moter and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN GIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 5

Replace unified meter and A/C amp.

								Rx				
	CONSULT Indication	CAN System	ſx	ECM	тсм	Display unit	Unified moter and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/I
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	cN2 2	SAZ 3	SAZ/			CAY CNC 4		CAY CMC 5	CAY.
всм	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 6

Replace driver seat control unit.

								Rx				
	CONSULT Indication	CAN System	1x	ECM	TCM	Display unit	Unified motor and A/C amp.	Steering angle sensor	BCM	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN GIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2		,	

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	T			T				Rx				
	CONSULT Indication	CAN System	ſx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN GIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAY CNC 4		cNZ 3		CAY CNC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 7

Replace ABS actuator and electric unit (control unit).

								Rx				
	CONSULT Indication	CAN System	ſx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CNC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CNC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2		·	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAY CMC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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	CONSULT Indication	CAN System	1×	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAY CNC 2	°NZ3			SAZ.				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 8

Replace IPDM E/R.

								Rx				
	CONSULT Indication	CAN System	1x	EGM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	cNZ3					CAY CNC 2		,	

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-156</u>.

	T	T						Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CNZ 4		CAY CNC 6		CAN 3	CAN 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			cNZ 4				CAY CNZ 3	
DISPLAY UNIT		CAN COMM	CIRC 1	08/3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	chi 2	SAZ 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CNZ 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAZ 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CNZ 2	CNZ3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	ÇAY ONC 3					CAN CIRC 2			

Case 10

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-156</u>.

	7		T	1				Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified motor and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CANZ3	CAV.
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAY CNZ 3	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5		CIRC 2			OR 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CNA2 5	CAY 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAY 3
AUTO DRIVE POS.	N. USp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CNZ 2	CAZ 3			SAY.				
IPDM E/R	Neursp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-157.

	T	[1	T				Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified motor and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CNAZ 3	CAY.
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAY CNAZ 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			OW/7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAY CINC 5	CAY 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					ch/2 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CNZ 2	CAZ 3			SAZ.s				
IPDM E/R	Nulsp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 12

Check ECM circuit. Refer to <u>LAN-157</u>.

	1			T.				Rx				
	CONSULT Indication	CAN System	1x	EGM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CNZ 1		SAZ 2		cNZ 4		CAY CNC 6		CNZ 3	CAY CMC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	cN2 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN	CIRC 1	088/3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	SAZ 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	SAZ 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	SAZ 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	SAZ:					CAN CIRC 2			

Case 13

Check TCM circuit. Refer to LAN-158.

	T			T				Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified motor and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAY 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAY 1	CAY CAY 2			CNZ 4			-	CAZ 3	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	SAZ 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNZ 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAZ 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 14

Check display unit circuit. Refer to $\underline{\mathsf{LAN-158}}$.

	1		[Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	BGM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	OR 1	0.8/3			OVE 5		08/2			OH 27
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	SAZ /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-159}}$.

	Τ	I	T	T				Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN GIRC 3	CAN CIRC
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			-	CAN GIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	Nusp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Netrisp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Nullsp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	Nullsp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

LAN-152

CAN SYSTEM (TYPE 7)

[CAN]

Case 16

Check BCM circuit. Refer to LAN-159.

	T							Rx				
	CONSULT Indication	CAN System	1x	EGM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAY CNC 6		CAN GIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		06/2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CNC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	Nysp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAY CNC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CALC 2			

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-160</u>.

								Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CNZ 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CNZ 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			OKR 5		CIRC 2			CIRC 7
METER A/C AMP	N sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			chie 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CNZ 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 18

Check steering angle sensor circuit. Refer to <u>LAN-160</u>.

	T							Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN GIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			SAZ.s				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 19

Check driver seat control unit circuit. Refer to <u>LAN-161</u>.

	T							Rx				
	CONSULT Indication	CAN System	1×	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	N USp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 20

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-161</u>.

	1							Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CNZ3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CNZ 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2	-		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		chAZ 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CNZ 1	CNZ 2	CNZ 3			SAZS				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 21

Check IPDM E/R circuit. Refer to <u>LAN-162</u>.

			1	T				Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAY 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5		CIRC 2			OH 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAZ 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAY 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	Nursp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 22

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-}163}$.

	T	I						Rx				
	CONSULT Indication	CAN System	1x	ECM	ТСМ	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CNZ 1		CNZ 2		CNZ 4		CAY CNC 6		CAY CNC 3	ÇAY C N Z
TRANSMISSION		CAN COMM	CAZ 1	CNC 2			CNZ 4				CAY CNC 3	
DISPLAY UNIT		CAN COMM	088/21	08/3			ONE 5		06/2			OR 7
METER A/C AMP	Nuisp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	Nusp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Nulsp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAZ 1	CAY CAY 2	CNZ3			SAZ.s				
IPDM E/R	Nulsp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

CAN SYSTEM (TYPE 7)

[CAN]

Case 23

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-163}}$.

	·T			I				Rx				
	CONSULT Indication	CAN System	1×	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver scat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CNZ 2			CNZ 4				CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN GIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAY 2	CAN CIRC 3			SAZ.s				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

				[Rx				
	CONSULT Indication	CAN System	1x	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAY 2		CAN CIRC 4		CAN CIRC 6		CAN CN 23	CAN CIRC /
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN GIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAX ONC 3	CAN CIRC /			CAN CIRC 4		CAY CNAC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAY CAYC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN GIRC 2	CAN CIRC 3			CAN CIRC5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Circuit Check Between TCM and Data Link Connector

EKS004WZ

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 5 (L), 6 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

5 (L) - 6 (L)

: Continuity should exist.

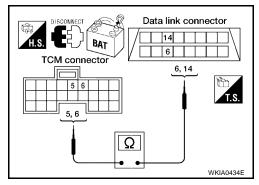
6 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-146, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

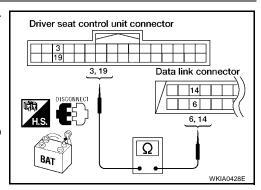
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to $\underline{\text{LAN-146}}$.

NG >> Repair harness.



LAN-156

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EKS004X2

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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS004X1

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 7 (L), 9 (Y).

> 3 (BR) - 7 (L) 19 (Y/G) - 9 (Y)

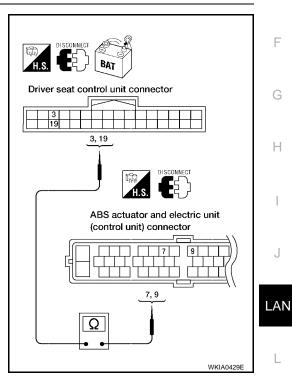
: Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-146.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-157

EKS004X3

2. check harness for open circuit

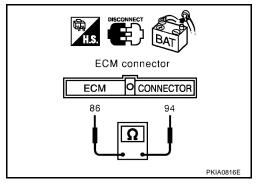
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

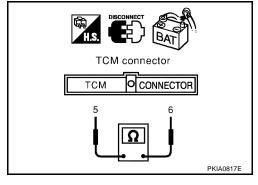
Check resistance between TCM connector F56 terminal 5 (L) and terminal 6 (Y).

5 (L) - 6 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS004X4

Display Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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EKS004X5

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display unit connector M93 terminal 14 (L) and terminal 16 (Y).

14 (L) - 16 (Y) : Approx. 54 -
$$66\Omega$$

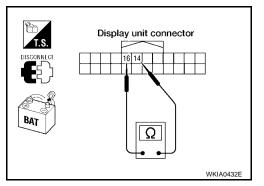
OK or NG

NG

OK

>> Replace display unit.

>> Repair harness between display unit connector M93 and data link connector M22.



Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

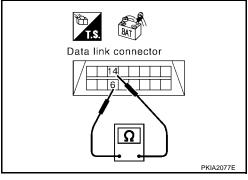
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-146

NG >> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. FKS004X6

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2. check harness for open circuit

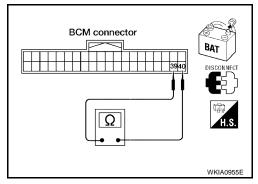
Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

39 (L) - **40** (Y) : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace BCM.

NG >> Repair harness between BCM connector M18 and data link connector M22.



EKS004X7

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

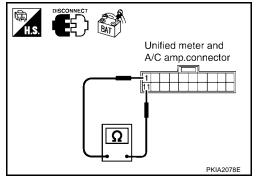
Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

1 (L) - **11 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace unified meter and A/C amp.

NG >> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



EKS004X

Steering Angle Sensor Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect steering angle sensor connector M47.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between steering angle sensor connector M47 terminal 4 (L) and terminal 5 (Y).

: Approx. 54 - 66 Ω

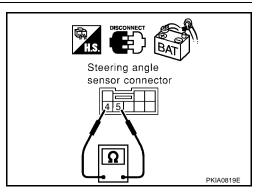
OK or NG

OK

>> Replace steering angle sensor.

NG

>> Repair harness between steering angle sensor connector M47 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

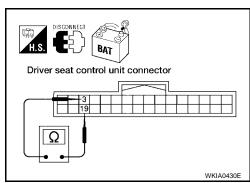
OK or NG

OK

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 7 (L) and terminal 9 (Y).

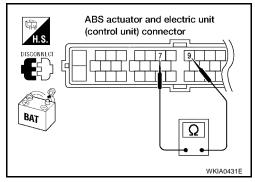
: Approx. 54 - 66 Ω

OK or NG

OK NG

>> Replace ABS actuator and electric unit (control unit).

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS004XB

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

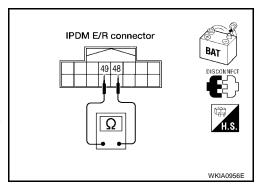
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



[CAN]

EKS004XC

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CAN Communication Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Steering angle sensor
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR SHORTED CIRCUITS

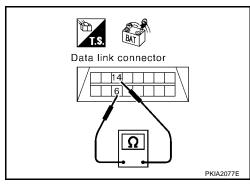
With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

> 6 (L) - 14 (Y) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

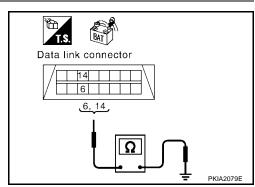
> : Continuity should not exist. 6 (L) - Ground

> : Continuity should not exist. 14 (Y) - Ground

OK or NG

OK >> Check ECM and IPDM E/R. Refer to LAN-164, "Component Inspection".

NG >> Repair the harness.



FKS004XD

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/ OR START".

[CAN]

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

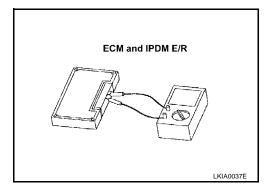
EKS004XE

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. $108 - 132\Omega$



CAN SYSTEM (TYPE 8)

PFP:23710

System Description

EKS004W9

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

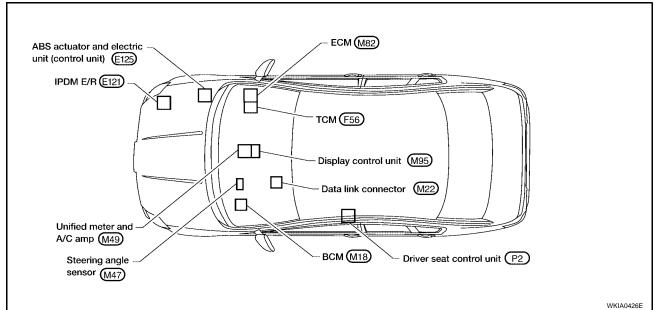
Component Parts and Harness Connector Location

EKS004WA

D

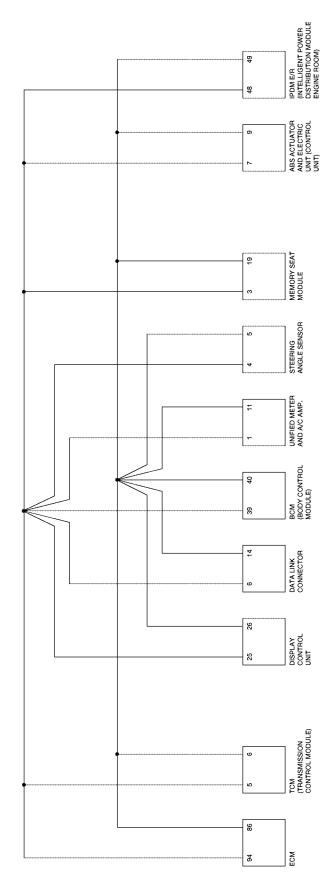
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Schematic EKS004WB



Wiring Diagram - CAN -

KS004WC

LAN-CAN-22

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DATA LINE:

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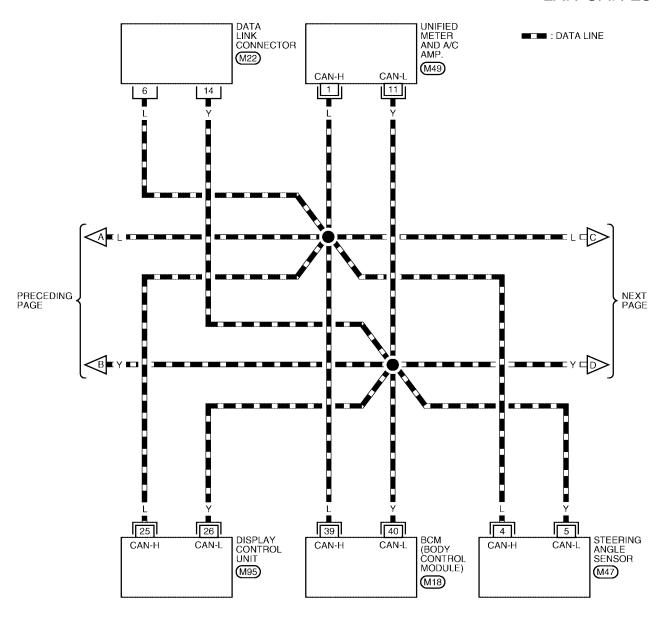
M

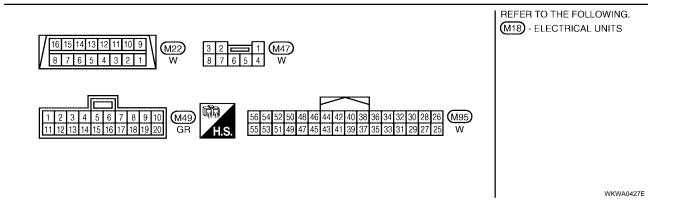
	ΪΕ
23 + 424 F59 - 424	
CAN-H CAN-L ECM CAN-H CAN-L (TRANSMISSION CONTROL MODULE)	
MODULE)	

REFER TO THE FOLLOWING.
(M82), (F56) - ELECTRICAL
UNITS

WKWA0426E

LAN-CAN-23





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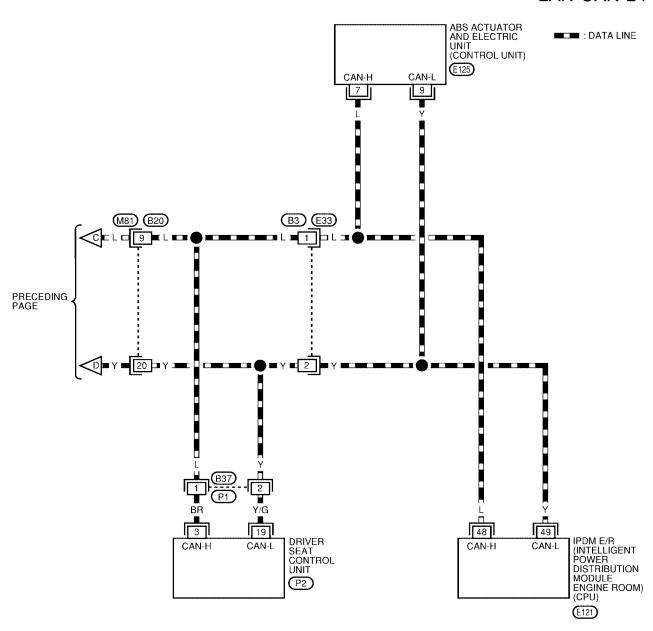
Е

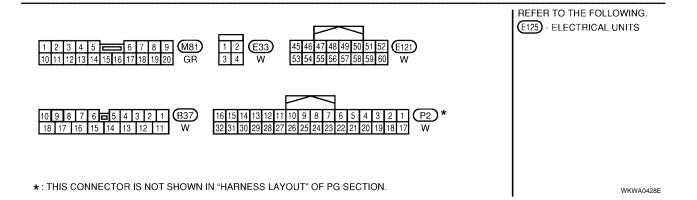
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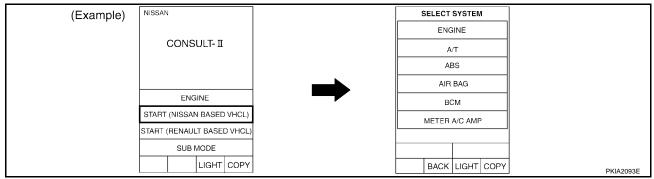
LAN-CAN-24



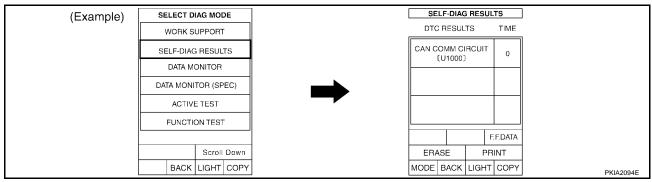


Work Flow

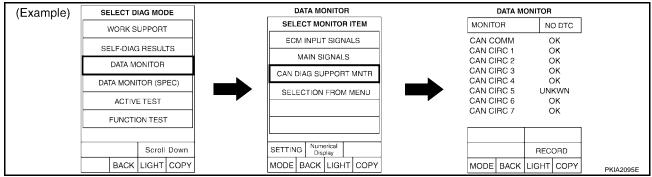
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1		CAN CIRC 2	-	CAN CIRC 4		CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5		CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

NOTE:

• If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 8)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.

 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- 6. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0812E

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAZ 2		CAN CIRC 4		CNC 6		cNZ3	CAZ 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0813E

Case 2

Replace TCM.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAZ 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CVIM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAY CNC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAZ 4	-	CAN CIRC 3	-	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAZ 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0814E

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	cMC 2			CNZ 4				5 ∆ 23	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0815E

Case 3

Replace display control unit.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		GAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0816E

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	всм	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CNZ3			CAN CNC 5		CAV CNC 2			CAY CNC7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0817E

CAN SYSTEM (TYPE 8)

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Case 4

Replace BCM.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	cNZ ₂			CNZ 4					CAY CINC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN	-	-	-

WKIA0818E

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CVIV	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0819E

Case 5

Replace unified meter and A/C amp.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAY CNC 2	CAL 3	CAZ/			CAY 4		cN25	CNV 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

KIA0820E

Case 6

Replace driver seat control unit.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4		·		CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAM	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0821E

	,							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAY CNC 4	-	CAL CAL CAL CAL CAL	-	CAM CNC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0822E

Case 7

Replace ABS actuator and electric unit (control unit).

	,							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		cN23	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				c \$ Λ 2 3	
DISPLAY CONTROL UNIT		COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		SAZ 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CNC 2	CAZ CNC 3	-	-	CAZ CNC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0824E

[CAN]

Case 8

Replace IPDM E/R.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN GIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	cNC3	-	-	-	-	CAZ 2	-	-	-

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-180</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CNC 4		CNC 6		CNC3	CNC7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN 4				CNVC 3	•
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CNZ3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAV CNC 2	CAY 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	cNZ 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAY 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAY CNC 2	CAV CNC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAZ 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 10

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-180</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		SAZ 3	CNZ 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				ÇAI Y C N C3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAY CNC7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CNZ 5	CAN CANC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CINC 3
AUTO DRIVE POS.	Ne Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAY CNC 2	CAV CNC 3	-	-	CAZ CNC 5	-	-	-	-
IPDM E/R	Nt Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to <u>LAN-181</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		cN23	CAN
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CNZ 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		cNZ 5	CNY
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					chy
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAY CNC 2	CAV CNC 3	-	-	CAY CNC 5	-	-	-	-
IPDM E/R	Ne D'sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 12

Check ECM circuit. Refer to <u>LAN-181</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN	CMC 1		CAY CAY 2		CNC 4		CNC 6		cN23	CNC
TRANSMISSION		CAN COMM	CAN CIRC 1	CNC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CNZ 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CNC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CNZ 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAY CNC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAZ 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 13

Check TCM circuit. Refer to LAN-182.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAY 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN
TRANSMISSION		CAN COMM	cNZ 1	CNC 2			CAN 4				CNZ 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC /		,	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	,				CAN CIRC :
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAY CNC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAL 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 14

Check display control unit circuit. Refer to $\underline{\mathsf{LAN-182}}$.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAY CNC 1	CNZ3			CAN CMC 5		CAN CNC 2			CAY CNAC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAY CNC7			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-}183}$.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	N u l ap		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Ne USp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Ne Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	Ne Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

CAN SYSTEM (TYPE 8)

[CAN]

Case 16

Check BCM circuit. Refer to LAN-183.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CNC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4		•		CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAV CNC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CNC 4		CAN CIRC 5	CAN CIRC 6
всм	N u Jap	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3		CAY CNC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAZ 2	-	-	-

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-184</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	всм	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAZ 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC :
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAZ 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CNC 5		CAN CIRC 2			CAN
METER A/C AMP	N u V sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /	· ·		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAY CNC 4					CAN CIRC
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAL CNC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 18

Check steering angle sensor circuit. Refer to <u>LAN-184</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	GAN CIRC 7
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAY CNC 5	-		-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 19

Check driver seat control unit circuit. Refer to <u>LAN-185</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Ne Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 20

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-185</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		cN23	CAN CIRC 3
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CNZ 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAY CNC 1	CAY CNC 2	CAY CNC 3	-	-	CAZ CNC 5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 21

Check IPDM E/R circuit. Refer to LAN-186.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CNZ:
TRANSMISSION		CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAY
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CNC
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CNZ:
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	Nt Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 22

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN}\text{-}187}$.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seat control unit	ABS actuator and electric unit (control unit)	IPDM E.
ENGINE		CAN COMM	cMC 1		CAZ 2		CNC 4		chi 6		cN23	CNC
TRANSMISSION		CAN	CAIX CNXC 1	CNC 2			CAL CINC 4				CNZ 3	
DISPLAY CONTROL UNIT		CAN	CAZ CNZ 1	CAX CNXC3			CAN CMC 5		CAV CNC 2			CNV 7
METER A/C AMP	Ne USp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Neusp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Ne Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAZ 1	CAY CNC 2	CAY CNC 3	-	-	CAZ CNC 5	-	-	-	-
IPDM E/R	Nt Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

CAN SYSTEM (TYPE 8)

[CAN]

Case 23

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-}187}$.

	CONSULT Indication	CAN System	Ťχ	Rx Rx									
				ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R	
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7	
TRANSMISSION		CAN COMM	CAN CIRC 1	cM2			CNC 4				CAN CIRC 3		
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7	
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6	
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3	
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAZ 2	CAN CIRC 3	-	-	CAZ CNC 5	=		-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-	

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		CAN System	Тx	Rx									
	CONSULT Indication			ECM	TCM	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seaf control unif	ABS actuator and electric unit (control unit)	IPDM E/R	
ENGINE		CAN	CAN CIRC 1		cNC 2		CAN CIRC 4		CAN CIRC 6		cN23	CAN CIRC 7	
TRANSMISSION		CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3		
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7	
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAY CNZ 3	CAN CIRC /			CAN CIRC 4		cNZ 5	CAN CIRC 6	
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3	
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAV CNC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-	
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	=	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-	

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

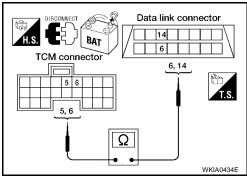
Check continuity between TCM connector F56 terminals 5 (L), 6 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

> 5 (L) - 6 (L) : Continuity should exist. 6 (Y) - 14 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-170, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

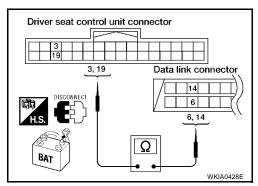
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

> 3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

>> Connect all connectors and diagnose again. Refer to OK LAN-170.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS004WG

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 7 (L), 9 (Y).

> 3 (BR) - 7 (L) 19 (Y/G) - 9 (Y)

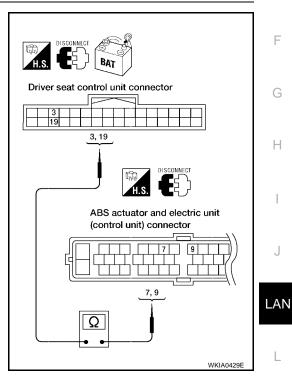
: Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-170.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-181

EKS004WI

2. check harness for open circuit

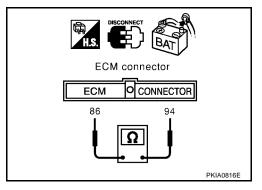
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

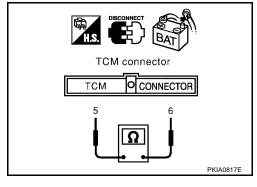
Check resistance between TCM connector F56 terminal 5 (L) and terminal 6 (Y).

5 (L) - 6 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS004WJ

Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

: Approx. 54 - 66 Ω

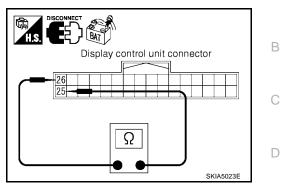
OK or NG

OK >

>> Replace display control unit.

NG

>> Repair harness between display control unit connector M95 and data link connector M22.



Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

: Approx. 54 - 66 Ω

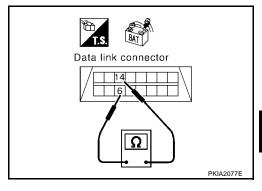
OK or NG

OK

>> Connect all connectors and diagnose again. Refer to <u>LAN-170</u>.

NG

>> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect BCM connector M18.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

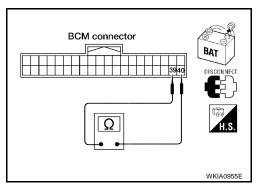
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



EKS004WM

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

: Approx. 54 - 66Ω

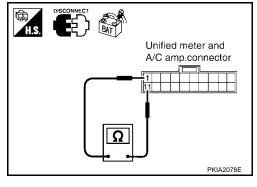
OK or NG

OK

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



EKS004WN

Steering Angle Sensor Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect steering angle sensor connector M47.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between steering angle sensor connector M47 terminal 4 (L) and terminal 5 (Y).

: Approx. 54 - 66 Ω

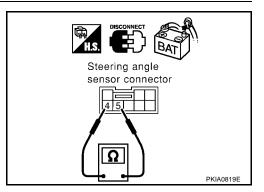
OK or NG

OK >

>> Replace steering angle sensor.

NG

>> Repair harness between steering angle sensor connector M47 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

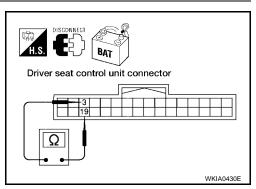
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 7 (L) and terminal 9 (Y).

: Approx. 54 - 66 Ω

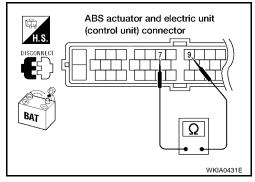
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS004WQ

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

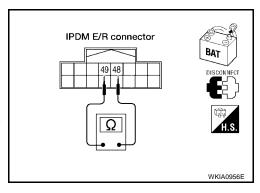
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



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CAN Communication Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display control unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Steering angle sensor
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR SHORTED CIRCUITS

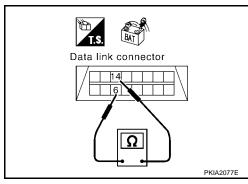
With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

> 6 (L) - 14 (Y) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

> : Continuity should not exist. 6 (L) - Ground 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to LAN-188, "Component Inspection".

NG >> Repair the harness.

Data link connector 6 6, 14 PKIA2079F

FKS004WS

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/ OR START".

LAN-187

EKS004WT

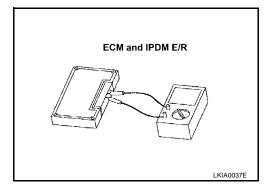
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. $108 - 132\Omega$



CAN SYSTEM (TYPE 9)

PFP:23710

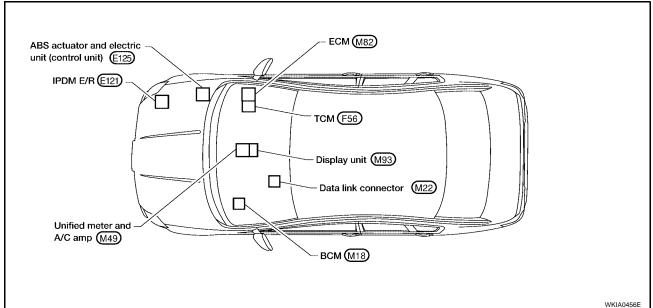
System Description

EKS005IH

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

Component Parts and Harness Connector Location

KS0051



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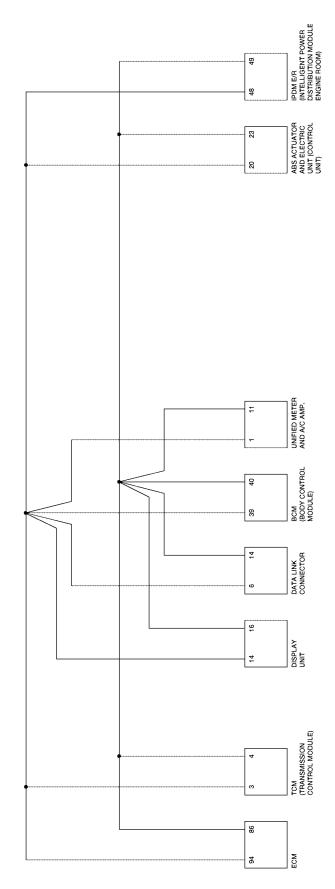
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Schematic



Wiring Diagram - CAN -

KS005IK

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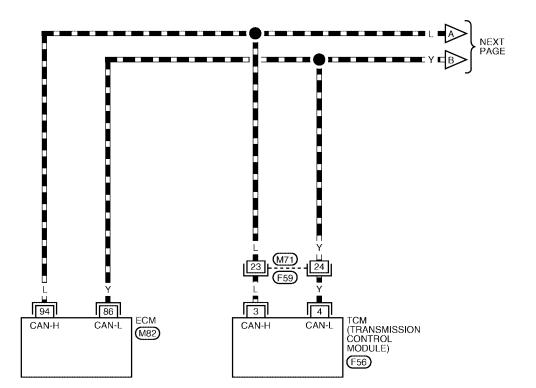
С

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LAN-CAN-25

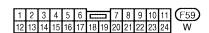
: DATA LINE



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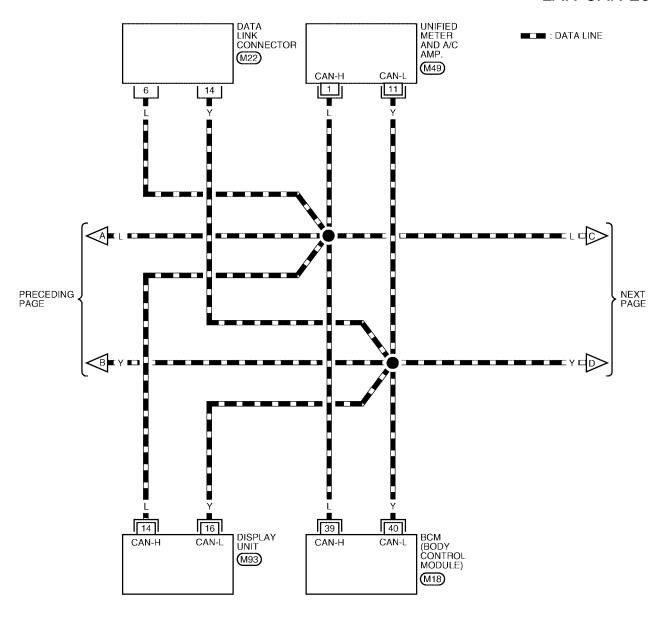
REFER TO THE FOLLOWING.

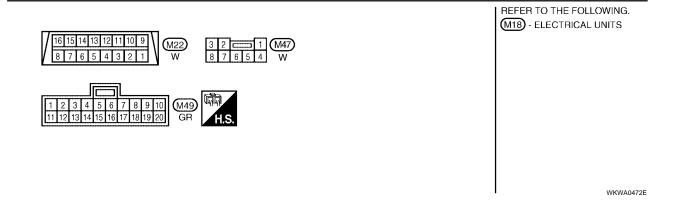
(M82), (F56) - ELECTRICAL

UNITS

WKWA0471E

LAN-CAN-26





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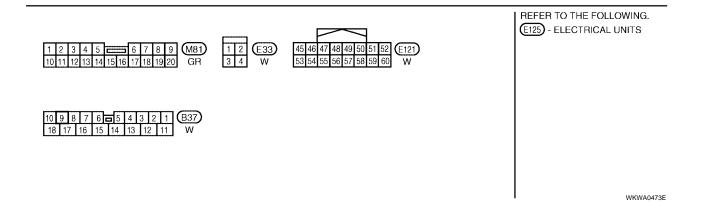
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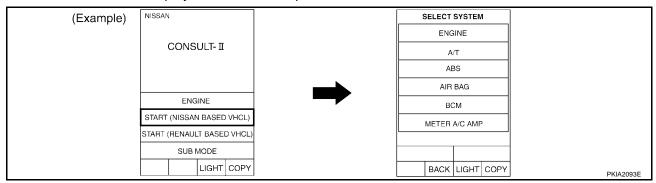
M

LAN-CAN-27 ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) : DATA LINE (E125) CAN-H CAN-L 20 23 M81 B20 B3 E33 1 CELE 9 EL PRECEDING PAGE 49 48 IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (CPU) CAN-L CAN-H (E121)

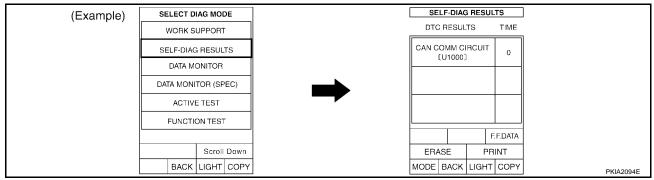


Work Flow

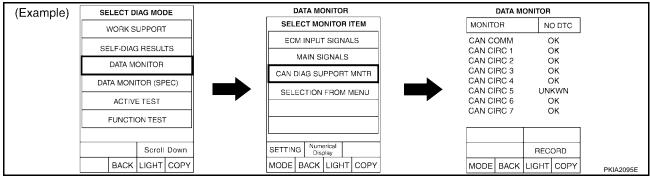
1. When there are no indications of "TRANSMISSION", "BCM", "IPDM E/R" or "METER A/C AMP" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



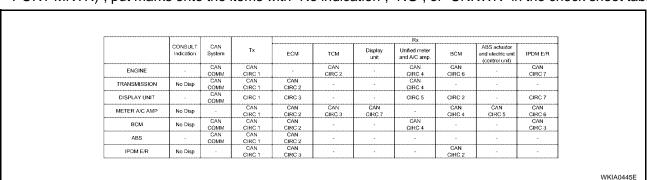
 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.



NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 9)

[CAN]

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

	CONSULT Indication	CAN System	Tx	FCM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN GIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS	1	CAN	CAN CIRC 1	CAN CIRC 2						
IPOM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

							Rx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	CA CC 2	-	CAX CAC 4	CAY CAYC 6	-	℃ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-
DISPLAY UNIT		CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2		-

/KIA0843E

WKIA0842F

LAN

Case 2

Replace TCM.

	1			,			Rx			
	CONSUL f Indication	CAN System	Tx	ECM	ТСМ	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	1	CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6	1	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CA CX 2			cNC 4			
DISPLAY UNIT	1	CAN	CIRC 1	CIRC 3			CIRC 5	CIRC 2	1	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	GAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4		1	CAN CIRC 3
ABS		CAN	CAN CIRC 1	CAN CIRC 2						
IPOM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		
							Ry			
	CONSUL F Indication	CAN System	Tx	ECM	тсм	Display unit	Rx Unified meter and A/C amp.	всм	AHS actuator and electric unit (control unit)	IPDM E/R
£NGIN ;			Tx CAN CIRC 1				Unified meter	BCM CAN CIRC 6	and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION		System CAN COMM CAM	CAN	FCM - - - - - CAN - - - - - - - - - - - - - - - - - - -	TCM		Unified meter and A/C amp. CAN	CAN	and electric unit	CAN
	Indication	System CAN COMM	CAN CIRC 1 CAN	CAN	\$\hat{\chi}_{\chi}^2 2		Unified meter and A/C amp. CAN CIRC 4 CAN	CAN	and electric unit	CAN
TRANSMISSION	Indication	System CAN COMM COMM CAN COMM	CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2	€ 2		Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	CAN CIRC 6	and electric unit	CAN CIRC 7 CIRC 7 CAN CIRC 6
TRANSMISSION DISPLAY UNIT	Indication No Disp	System CAN COMM CA COMM CAN	CAN CIRC 1 CAN CIRC 1 CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	\$\hat{\chi}_{\chi}^2 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 4	CAN CIRC 6 CIRC 2	and electric unit (control unit)	CAN CIRC 7 CIRC 7
TRANSMISSION DISPLAY UNIT METER A/C AMP	No Disp	System CAN COMM COMM CAN COMM CAN COMM	CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	CAN CIRC 6 CIRC 2	and electric unit (control unit)	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN

Case 3

Replace display unit.

	<u> </u>	I	T	Ι			Rx			
	CONSUL F Indication	CAN System	Tx	FCM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/I
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	011100		OITO /
DISPLAY UNIT		CAY	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp	CONTIN	CAN CIRC 1	CAN CIRC 2	GAN CIRC 3	CAN CIRC /		CAN GIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	9119.7		CAN CIRC 3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPDM E/R	No Disp		CAN	CAN	1			CAN CIRC 2	1	
	110000		CIRC 1	CIRC 3				CIRC 2	.J	
	100.00		CIRC 1	CIRC 3			13.	CINC 2		
	CONSULT Indication	CAN System	Tx	ECM	1CM	Display unit	Rx Unified meter and A/C amp.	BCM	ABS actuator and electric unif (control unif)	IPDM E/R
ENGINE:	CONSULT	System	Tx CAN		GAN		Unified meter and A/C amp. CAN	BCM CAN		CAN
	CONSULT	System CAN COMM CAN	Tx CAN CIRC 1 CAN	FCM .	I		Unified meter and A/C amp. CAN CIRC 4 CAN	ВСМ	and electric unit	
ÉNGINI:	CONSULT Indication	System CAN COMM CAN COMM COMM	Tx CAN CIRC 1	FCM .	CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	BCM CAN	and electric unit	CAN
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1	CAN CIRC 2 (NG 3 CAN	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CIRC 2 CAN	and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 (N) 5	BCM CAN CIRC 6	and electric unit (control unit)	CAN CIRC 7
ENCINE TRANSMISSION DISPLAY UNIT METER A/G AMP	CONSULT Indication No Disp	System CAN COMM CAN COMM COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	CAN CIRC 2 (NO 3 CAN CIRC 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 (NS 5	BCM CAN CIRC 6 CIRC 2 CAN	and electric unit (control unit)	CAN CIRC 7

CAN SYSTEM (TYPE 9)

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Case 4

Replace BCM.

	1		I	r			Rx			
	CONSULT Indication	CAN System	Τx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	cMC 2			SAC 4			8 €3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPDM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

CONSULT Indication CAN System ABS actuator and electric unit (control unit) Unified meter and A/C amp. ECM TCM всм IPDM E/R CAN CIRC 1 CAN CIRC 1 CAN CIRC 4 CAN CIRC 4 CAN CIRC 2 CAN CIRC 6 CAN CIRC 7 TRANSMISSION CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1 CIRC 3
CAN
CIRC 2
CAN
CIRC 2
CAN
CIRC 2
CAN
CIRC 2
CAN
CIRC 3 DISPLAY UNIT CIRC 5 CIRC 2 CIRC 7 CAN CIRC 6 CAN CAN CIRC 3 CAN CIRC / CAN CIRC 4 CAN CIRC 5 METER A/C AME No Disp CAN CIRC 4 No Disp всм CIRC 3 ABS IPOM E/R

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WKIA0848E

Case 5

Replace unified meter and A/C amp.

	1						Rx			
	CONSULT Indication	CAN System	Тх	ECM	ТСМ	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAY CNC 2	ČAŽ Č V C 3	SAC 7		CAN/ CIN/4	CN25	CAZ 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ARS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPOM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

WKIA0850E

Case 6

Replace ABS actuator and electric unit (control unit).

		· · · · · · · · · · · · · · · · · · ·		T			Rx			
	CONSUL f Indication	CAN System	Тх	FCM	TCM	Display unit	Unified meter and A/C amp.	ВСМ	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		GAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	1		CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CANC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAMM	CAN CIRC 1	CAN CIRC 2						
IPDM F/R	No Disp	•	CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		
			0.10							
			J. C.	T. Contact			Ry		•	
	CONSUL F	CAN System	Tx	FCM	TCM	Display unit	Rx Unified meter and A/C amp.	BCM	ABS actuator and electric unif	IPDM E/S
ÉNGINE					CAN		Unified meter	BCM CAN		CAN
ENGINE TRANSMISSION		System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM .			Unified meter and A/C amp. CAN CIRC 4 CAN	BCM	and electric unit	
	Indication	System CAN COMM CAN COMM COMM	Tx CAN CIRC 1	FCM .	CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	BCM CAN	and electric unit	CAN
TRANSMISSION	Indication	System CAN COMM CAN COMM	TX GAN CIRC 1 GAN CIRC 1 CIRC 1 CIRC 1 CIRC 1	CAN CIRC 2 CIRC 3 CAN	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN GIRC 6 CIRC 2 CAN	and electric unit (control unit)	CAN CIRC 7 CIRC 7
TRANSMISSION DISPLAY UNIT	Indication No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6	and electric unit (control unit)	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY UNIT METER A/C AMP	No Disp	System CAN COMM CAN COMM COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 3	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN GIRC 6 CIRC 2 CAN	and electric unit (control unit)	CAN CIRC 7 CIRC 7 CAN CIRC 6

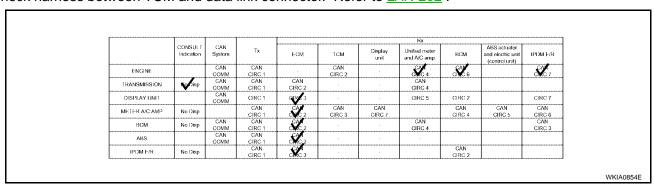
Case 7

Replace IPDM E/R.

	1			[Rx			
	CONSULT Indication	CAN System	Tx	ECM	тем	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ARS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPOM E/R	No Disp		CAN CIRC 1	CAY CINC 3				\$ ^		

Case 8

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-202}}$.



Case 9

Check harness between data link connector and ABS actuator and electric unit (control unit). Refer to LAN-<u>202</u> .

	· T			[Rx			
	CONSUL f Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		GAN CIRC 2		CAN CIRC 4	CAN CIRC 6		% 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	GIRC 1	CIRC 3			CIRC 5	CIRC 2		ONE 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	GAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAX CINC 5	CAYC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CA X C X C 3
ABS		CAN COMM	CAN CIRC 1	CAY CAYC 2						
IPOM E/R	N _e Usp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

Case 10

Check ECM circuit. Refer to LAN-203.

	···	[T				Rx			
	CONSUL f Indication	CAN System	Τx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	1	CAN COMM	CAX CAC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAY CNOC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	08/3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	cNC,2	GAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	SKG 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN COMM	CAN CIRC 1	CN ORG 2						
IPDM F/R	No Disp		CAN CIRC 1	ORC 3				CAN CIRC 2		

Case 11

Check TCM circuit. Refer to <u>LAN-204</u>.

	1			T			Rx			
	CONSULT Indication	CAN System	Tx	FCM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1	·	CAN C 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN	CAN CIRC 1	CAN CIRC 2						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

Case 12

Check display unit circuit. Refer to $\underline{\mathsf{LAN-204}}$.

				[Rx			
	CONSUL f Indication	CAN System	Τx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	1	CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	€ (1	CIRO 3			GURZ 5	G		Q15 0 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	GAN CIRC 3	cNC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN	CAN CIRC 1	CAN CIRC 2						
IPDM E/R	No Disp		GAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

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Case 13

Check data link connector circuit. Refer to <u>LAN-205</u>.

	· 1	[[Rx			
	CONSUL f Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN CIRC 1		GAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No isp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	Norisp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No isp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPOM E/R	No Jisp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

Case 14

Check BCM circuit. Refer to LAN-205.

	1			[Rx			
	CONSUL f Indication	CAN System	Tx	ECM	ТСМ	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	l	CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CAN		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	-		
DISPLAY UNIT		CAN COMM	GIRC 1	CIRC 3			CIRC 5	GIBV 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAY 4	CAN CIRC 5	CAN CIRC 6
BCM	No Jisp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
AH5		CAN COMM	CAN CIRC 1	CAN CIRC 2	·					
IPOM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAY 2		

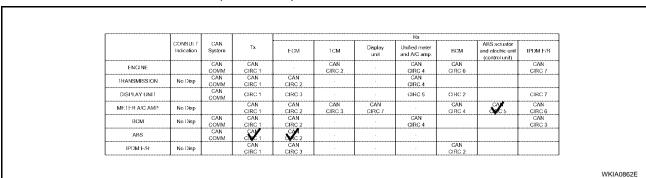
Case 15

Check unified meter and A/C amp. circuit. Refer to LAN-206.

	1	[[Rx			
	CONSUL f Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		GAN CIRC 2		CAN CATC 4	CAN CIRC 6		GAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAV CNTC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIR/5	CIRC 2		CIRC 7
METER A/C AMP	Noisp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /	T	CAN CIRC 4	GAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAD 4			CAN CIRC 3
AHS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-206</u>.



CAN SYSTEM (TYPE 9)

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Case 17

Check IPDM E/R circuit. Refer to LAN-207.

	1						Rx			
	CONSUL f Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		S /C 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		Q ⊮ €7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	ॐ 66
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			C/V NVC 3
AH\$		CAN COMM	CAN CIRC 1	CAN CIRC 2						-
IPDM E/R	No isp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

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Case 18

Check CAN communication circuit. Refer to <u>LAN-207</u>.

	1						Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	SAZ 1		ČAC 2		CA CA CA	SVC 6		CAN CIRC 7
TRANSMISSION	No. lisp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT	1	CAN	ONE 1	088/3			41 /25	4 162		CIRC 7
METER A/C AMP	No /sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ВСМ	No sisp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN	SAZ 1	CAY CNC 2						
IPOM E/R	Novisp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

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Case 19

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-208}}$.

							Rx			
	CONSUL f Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	1	CAN	CAN		CAN		CAN	CAN		CAN
ENGINE		COMM	CIRC 1	'	CIRC 2		CIRC 4	CIRC 6	1	CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAY CAY 2			CAV CAVC 4			
DISPLAY UNIT	1	CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN	CAN CIRC 1	CAC 2						
IPDM F/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

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							Rx			
	CONSUL f Indication	CAN System	Тх	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CINC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2		CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN/ CIN/3	CAN CIRC /		CAN CIRC 4	ČAŽĆ 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		

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LAN-201

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

EKS005IM

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

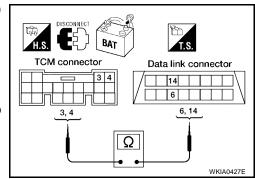
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-194, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

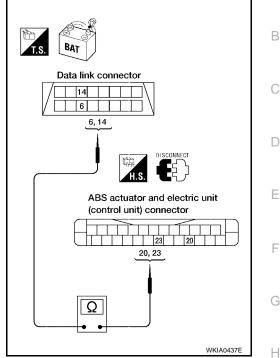
> 6 (L) - 20 (L) 14 (Y) - 23 (Y)

: Continuity should exist. : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-194.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect ECM connector M82.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. Check harness for open circuit

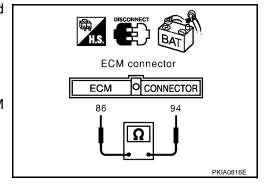
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

> 94 (L) - 86 (Y) : Approx. 108 - 132 Ω

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



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LAN

TCM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

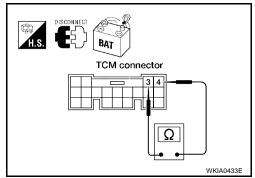
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

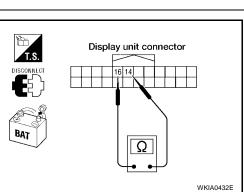
14 (L) - 16 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit connector M93 and data link connector M22.

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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

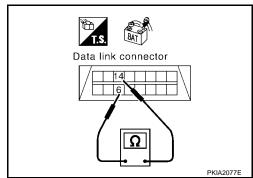
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - **14 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-194.

NG >> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

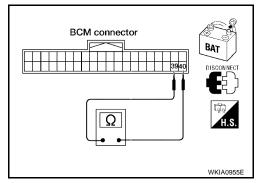
39 (L) - 40 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

NG

OK >> Replace BCM.

> >> Repair harness between BCM connector M18 and data link connector M22.



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Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

EKS005IT

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

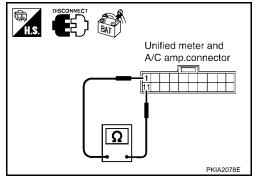
: Approx. 54 - 66Ω

OK or NG

OK >> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS005IU

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

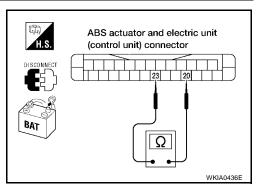
OK or NG

OK >>

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



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IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

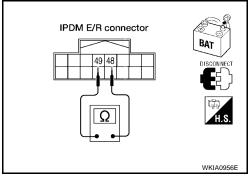
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

OK or NG

OK >> Replace IPDM E/R. NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

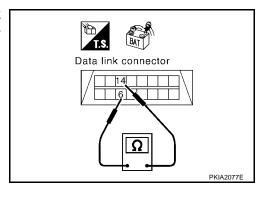
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

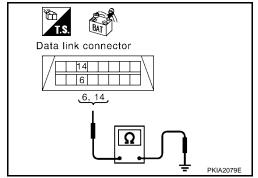
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-208</u>, "Component Inspection".

NG >> Repair the harness.



EKS005IX

FKS005IY

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

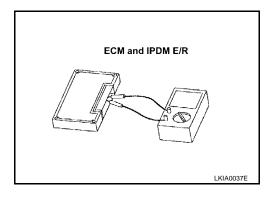
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 10)

PFP:23710

System Description

EKS005IZ

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

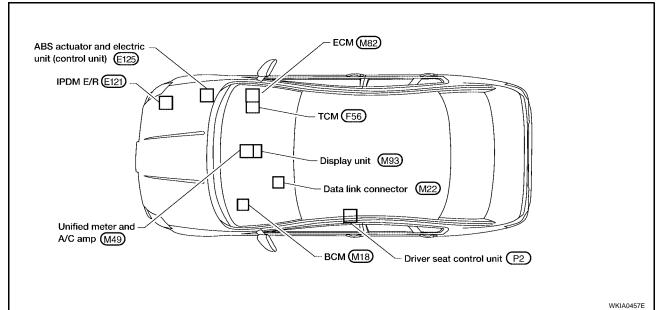
Component Parts and Harness Connector Location

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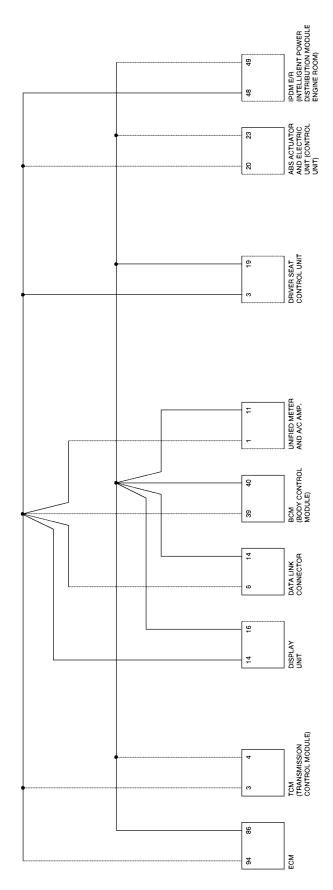
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Schematic EKS005J1



Wiring Diagram - CAN -

KS005J2

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LAN-CAN-28

ATA LINE B

: DATA LINE

PAGE

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PAGE

Y B

NEXT
PAGE

Y B

NEXT
PAGE

Y CAN-H

CAN-H

CAN-H

CAN-L

CAN-H

CAN-L

CAN-H

CAN-L

CAN-H

CAN-L

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1	2	3	4	5	6		ᆿ	7	8	9	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	w

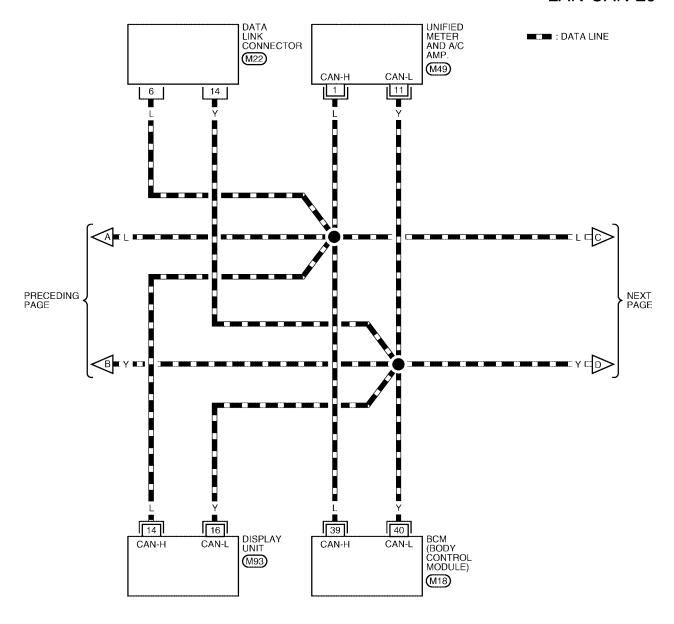
REFER TO THE FOLLOWING.

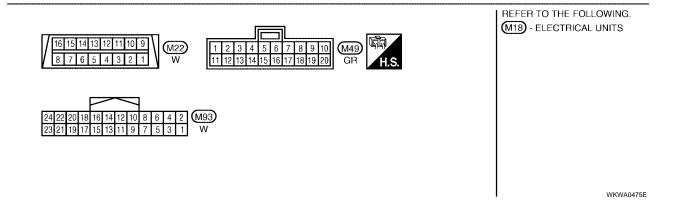
(M82), (F56) - ELECTRICAL

UNITS

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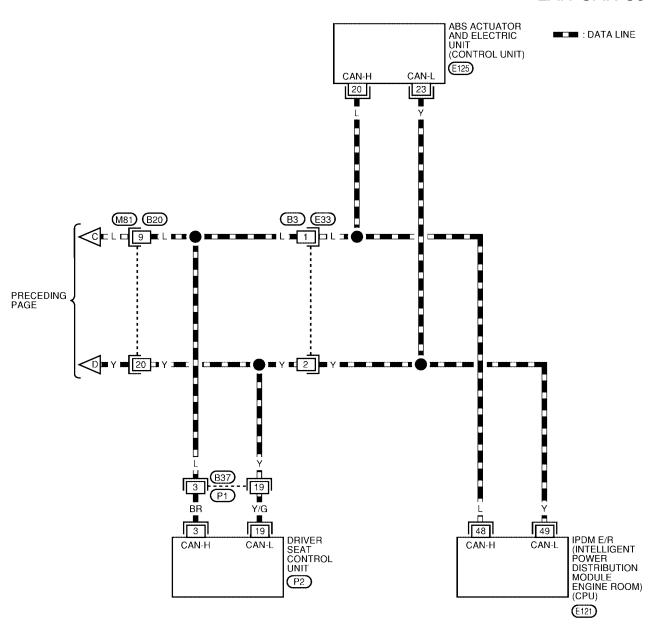
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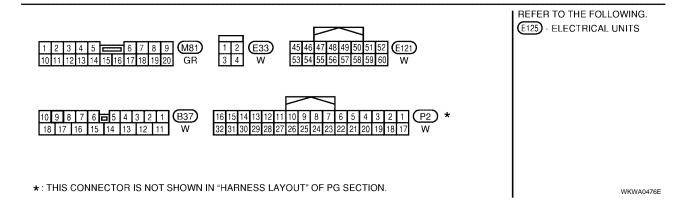
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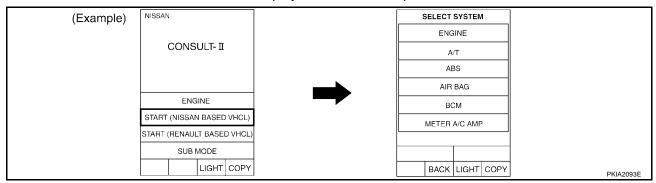
LAN-CAN-30



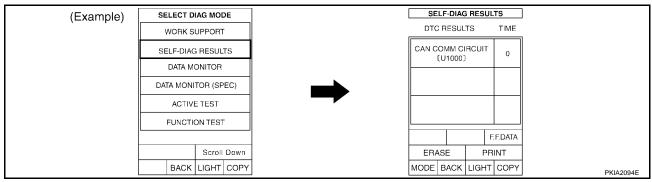


Work Flow

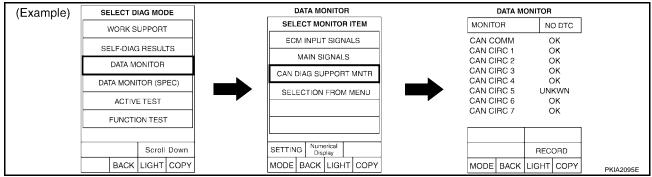
 When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

							R	x			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 10)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

	CONSULT Indication	CAN System	Īχ	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN OMMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6			CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				
DISPLAY UNIT		CAN	CIRC 1	CIRC 3			CIRC 5	CIRC 2			CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		COMM	CAN CIRC 1	CAN CIRC 2							
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

CONSULT Indication ABS actuator and electric uni (control unit) Unified meter and A/C amp. Driver seat control unit ENGINE TRANSMISSION No Disp CIRC 1 CIRC 4 DISPLAY UNIT CIRC 1 CIRC 3 CIRC 5 CIRC 2 CIRC 7 COMM ÇAN ÇAN ÇAN ÇAN METER A/C AMP No Disp CIRC 4 CIRC 3 CIRC 7 CIRC 6 CAN CIRC 4 CAN CIRC 3 CIRC 2 CIRC 3 COMM CIRC 1 CAN CIRC 2 COMM CIRC 1 CIRC 4 CIRC CIRC 2 CAN IPDM E/R No Disp

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Case 2

Replace TCM.

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	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CMC 2	-	-	CAZ 4		-	-	-
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4		-	- 01100	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	- Onto 2	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	T	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2		-		- Olitoz	-	-	-
IPDM E/R	T	COMIN	CAN					CAN			
II DIVERS	No Disp	-	CIRC 1	CAN CIRC 3	-		-	CIRC 2	-	-	-
II DIN CIN	No Disp	-						CIRC 2	-	-	-
II DIII CAN	No Disp	CAN System			тсм	Display unit	Unified meter and A/C amp.	CIRC 2	Driver seat	ABS actuator and electric unit	IPDM E/R
ENGINE	CONSULT	CAN	CIRC 1	CIRC 3	тсм	Display	Ro Unified meter	CIRC 2	Driver seat	ABS actuator	
	CONSULT	CAN System CAN COMM	Tx	CIRC 3		Display unit	Roll Unified meter and A/C amp.	CIRC 2 x BCM CAN	Driver seat control unit	ABS actuator and electric unit	IPDM E/R
ENGINE	CONSULT Indication	CAN System	Tx CAN CIRC 1 CAN	ECM .	TCM CAA CC2	Display unit	Unified meter and A/C amp. CAN CIRC 4 CAN	CIRC 2 BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN System CAN COMM CAMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2	TCM CAA CC2	Display unit	Ro Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	CIRC 2 X BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN System CAN COMM CAN CAN COMM	Tx CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN	TCM CAA CC2	Display unit	RO Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	CIRC 2 BCM CAN CIRC 6 . CIRC 2 CAN	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 - CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication No Disp No Disp	GAN System GAN COMM GAN COMM	TX CAN CIRC 1 ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN	TCM C2 C2 C3 C4 C5	Display unit - - - CAN CIRC 7	Riturn Marker and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN	

Case 3

Replace display unit.

IPDM E/R

No Disp

	T			T			R	<			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1		CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4		-	-	-
DISPLAY UNIT	-	CAMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-		CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp		CAN	CAN				CAN	-	_	_
IPDM E/K	No Disp		CIRC 1	CIRC 3				CIRC 2			
IPDMEIR	No Disp	_	CIRC 1	CIRC 3			R				
IPDM ER	CONSULT	CAN System	CIRC 1	ECM	тсм	Display unit	R: Unified meter and A/C amp.		Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E
ENGINE	CONSULT						Unified meter	(and electric unit	IPDM E
	CONSULT Indication	System	Tx CAN CIRC 1 CAN	ECM - CAN	TCM CAN	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN	control unit	and electric unit	IPDM E
ENGINE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1	ECM -	TCM CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4	BCM CAN	control unit	and electric unit (control unit)	
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM CAN CIRC 2 OR 3 CAN	TCM CAN CIRC 2	unit -	Unified meter and A/C amp, CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit (control unit)	IPDM E CAN CIRC - CIRC
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 CAN	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - ORD 2 CAN	control unit	and electric unit (control unit) - - - - CAN	IPDM E CAN GIRC - GAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1	ECM CAN CIRC 2 OR 3 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 USC 5	BCM CAN CIRC 6 CAN CIRC 6 CAN CIRC 4 CAN	control unit	and electric unit (control unit) CAN CIRC 5	IPDM E CAN GIRC - GAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication - No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 - CAN CIRC 3	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 ORP 2 CAN CIRC 4	control unit	and electric unit (control unit)	IPDM E. CAN CIRC:

CAN SYSTEM (TYPE 10)

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Case 4

Replace BCM.

				L			R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	GAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAY CNC 2	-	-	CAY CYC 4	-	-	-	CAA OA/C 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3			-	CAN CIRC 2	-	-	-

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							R	x			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	-
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3	-		CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	SAMM MM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-	-	-

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Case 5

Replace unified meter and A/C amp.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-		CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAV CVC 2	CAX 3	CAY CAYC 7	-	CAY CAYC 4	-	CAY CAYC 5	CAAC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

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Case 6

Replace driver seat control unit.

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	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM I
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN	CAN CIRC 6	-	-	CAN
TRANSMISSION	No Disp	CAN	CAN	CAN	CIRC 2		CIRC 4	. CIRC 6	-	-	- CIRC
DISPLAY UNIT	+	COMM CAN	CIRC 1	CIRC 2	_		CIRC 4	CIRC 2	_		CIRC
METER A/C AMP	No Disp	COMM -	CAN	CAN	CAN	CAN		CAN	-	CAN	CAN
	+	CAN	CIRC 1 CAN	CIRC 2 CAN	CIRC 3	CIRC 7	CAN	CIRC 4	-	CIRC 5	CIRC
BCM	No Disp	COMM	CIRC 1 CAN	CIRC 2	CAN		CIRC 4	CAN	-	-	CIRC
AUTO DRIVE POS.	No Disp	CAMM	CIRC 1	-	CIRC 4	-	CIRC 3	CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-	-	-	-	-
IPDM E/R	No Disp		CAN	CAN	_	_		CAN	_	_	-
IPDM E/K	No Usp	-	CIRC 1	CIRC 3	-			CIRC 2			
IPDM EIK	NO DISP	-	CIRC 1	CIRC 3			R				
IFUM ER	CONSULT	CAN System	Tx	CIRC 3	тсм	Display unit			Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	CONSULT						R Unified meter	×		ABS actuator and electric unit	
	CONSULT	System	Tx CAN	ECM	TCM CAN	unit	R Unified meter and A/C amp.	x BCM CAN	control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	CONSULT Indication	CAN COMM CAN	Tx GAN CIRC 1 GAN	ECM CAN	TCM CAN CIRC 2	unit	R Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	ABS actuator and electric unit (control unit)	IPDM E CAN CIRC
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN	TCM CAN CIRC 2 CAN	unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CIRC 2 CAN	control unit	ABS actuator and electric unit (control unit)	IPDM E CAN CIRC CIRC CAN
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN	TCM CAN CIRG 2	unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2	control unit	ABS actuator and electric unit (confrol unit)	IPDM E CAN CIRC CIRC CAN CIRC CAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2	TCM CAN CIRC 2 - CAN CIRC 3	unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit)	IPDM E CAN CIRC CIRC CAN CIRC CAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 CAN	unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit) CAN CIRC 5	IPDM E CAN CIRC - CIRC CAN CIRC CAN CIRC

Case 7

Replace ABS actuator and electric unit (control unit).

	1			T			R	x			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CAC 5	CAN
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	comm	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	_	CAN	CAN	_		_	CAN CIRC 2	-	-	_
IPUM E/K	THE STATE OF		CIRC 1	CIRC 3				GIRC 2			
IPUM EIK	10004		CIRC 1	CIRC 3			R				
IPUM EIR	CONSULT	CAN System	CIRC 1	CIRC 3	TCM	Display unit	R Unified meter and A/C amp,		Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E
ENGINE	CONSULT						Unified meter	x		and electric unit	CAN
	CONSULT Indication	System	Tx CAN		TCM CAN		Unified meter and A/C amp.	x BCM CAN		and electric unit	CAN
ENGINE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	TCM CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN	X BCM CAN CIRC 6	control unit	and electric unit (control unit)	CAN CIRC
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2	TCM CAN CIRC 2	unit - -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	X BCM CAN CIRC 6	control unit	and electric unit (control unit) - -	CAN CIRC - CIRC
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1	ECM - CAN CIRC 2 CIRC 3 CAN	TCM CAN CIRC 2 CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CIRC 2 CAN	control unit	and electric unit (control unit) CAN	CAN CIRC CIRC CAN CIRC CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRG 2 CAN CIRG 3	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5 - CAN	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC - CIRC CAN CIRC CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication - No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN CAN CAN CAN CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit) - - - CAN CIRC 5	CIRC : CAN CIRC : CAN CIRC :

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Case 8

Replace IPDM E/R.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CINC 3		-	-	CAN C 2	-	-	-

Case 9

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-223}}$.

	1	I	Ĭ	T			R				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	c AZ 4	CAC 6	-	-	SA.
TRANSMISSION	No 7/sp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	T -	CAN COMM	CIRC 1	CIRO/3	-	-	CIRC 5	CIRC 2	-	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CÂN 2	CAN/	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIN 2	-	-	CAN CIRC 4		-	-	CAN
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CINC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN 3		-	-	CAN CIRC 2	-	-	-

Case 10

Check harness between data link connector and driver seat control unit. Refer to LAN-223.

							R	ĸ			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	chic 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 1	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	- 1	OUF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CASC 5	CAY CNAC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 1	CAD 3
AUTO DRIVE POS.	No pap	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	- 1	-
ABS	T -	CAN COMM	CAN CIRC 1	CAC 2		-	-		-	-	-
IPDM E/R	Ne Sp	-	CAN CIRC 1	CAN CIRC 3	,	-	-	CAN CIRC 2	-	- 1	-

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Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-224.

	1						R	ĸ			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	SAC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	OUB 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CNC 5	CAX 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAL CASE 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	٠.	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAC 2	-	-	-		-	-	-
IPDM E/R	Na Sp	-	CAN CIRC 1	CAN CIRC 3			-	CAN CIRC 2	-	-	-

WKIA0883E

LAN-219

Case 12

Check ECM circuit. Refer to LAN-224.

	1		l	T			R				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	ČKC 1	-	C/N RC 2	-	CAX CAXC 4	C#A CKC 6	-	-	CNC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAC_2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	ONE C 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN C 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN C 2	-	-	-	-	-	-	-
IPDM E/R	No Disp	-	GAN CIRC 1	CAC 3	-		-	CAN CIRC 2	-	-	-

Case 13

Check TCM circuit. Refer to LAN-225.

	1						R				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAV CVC 2	-	CAN CIRC 4	CAN GIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No sisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT] ·	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAX 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CARC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-		CAN CIRC 2	-	-	-

Case 14

Check display unit circuit. Refer to $\underline{\mathsf{LAN-225}}$.

	1						R	x			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC	OUE/2	-	-	OUE 5	OFF 2	-	-	4 10C7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-226}}$.

	T						R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAN
TRANSMISSION	Number	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC
METER A/C AMP	No Dep	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Dep	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	- 1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	-		-	-	-
IPDM E/R	Na Sp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

CAN SYSTEM (TYPE 10)

[CAN]

Case 16

Check BCM circuit. Refer to LAN-226.

							R	x			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAY CINC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	OR 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CALC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CINC 2	-	-	-

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-227</u>.

	T	I		T			R				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAX CAXC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAY CAC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	OUR 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No sisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	GAN CIRC 4	-	CAX CAXC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-		CAN CIRC 2	-	-	-

Case 18

Check driver seat control unit circuit. Refer to <u>LAN-227</u>.

				T			R	K			
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	Nosisp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	1	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-228</u>.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2		CAN CIRC 4	CAN CIRC 6	-	- 1	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CA C 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	- 1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAZ 1	CAA CC 2			-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3				CAN CIRC 2	-	- 1	-

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-228</u>.

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	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	SAC:
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	QUEC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	SAC.
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	- 1	SKC:
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	GAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	- 1	-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-	-	-
IPDM E/R	NV sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	- 1	-

Case 21

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-229}}$.

							R				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/
ENGINE	-	CAN COMM	CAV CVC 1	-	CAN C 2	-	CAY CNZ 4	CAY CAY CAY	-	-	CAC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	-
DISPLAY UNIT	-	CAN COMM	QIR 1	OURAE 3	-	-	CIRS/5	CIR# 2	-	-	QUEC 7
METER A/C AMP	NV sp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	T - T	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Jap	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Dep	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	T -	CAN COMM	CAV CVC 1	CALC 2		-	-		-	-	-
IPDM E/R	NV sp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-230

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CMC 2	-	-	CAY CYC 4	-	-	-	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4		-	-	CAN
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAV CNC 2			-		-	-	-
IPDM E/R	No Disp		CAN	CAN		_		CAN	-	-	
S. a. c. i		-	CIRC 1	CIRC 3				CIRC 2			
		- 1	CIRC 1	CIRC 3			R				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	CONSULT				тсм		Unified meter	x		and electric unit	IPDM E
	CONSULT Indication	System	Tx CAN			unit	Unified meter and A/C amp.	x BCM CAN		and electric unit	IPDM E
ENGINE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	тсм	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	and electric unit (control unit)	IPDM E CAN CIRC
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1 CAN	ECM - CAN CIRC 2 CIRC 3 CAN	TCM CAC2 -	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CIRC 2 CAN	control unit	and electric unit (control unit) - - -	IPDM E CAN CIRC - CIRC CAN
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2	control unit	and electric unit (control unit) - -	IPDM E CAN CIRC CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAN CIRC 2 CIRC 3 CAN CIRC 2	TCM CAC CC CC CAC CAC CAC CAC CAC CAC CAC	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit) - - -	IPDM E CAN CIRC CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication - No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAC2 -	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit)	IPDM E CAN CIRC - CIRC CAN CIRC CAN CIRC CAN CIRC

EKS005J4

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

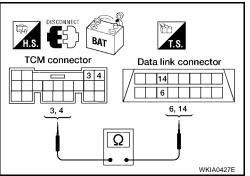
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-214, "Work Flow"

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

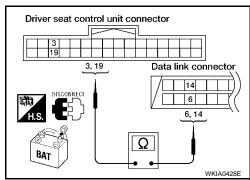
: Continuity should exist.

19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-214.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

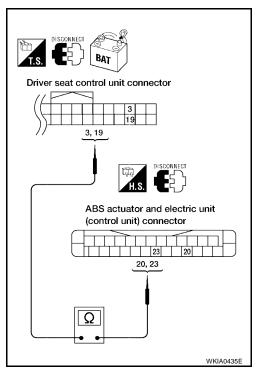
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to <u>LAN-214</u>.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

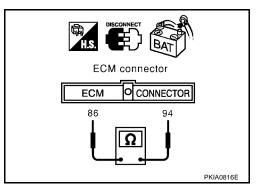
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

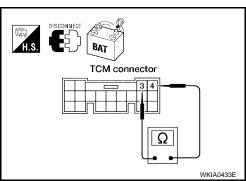
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS005J9

Display Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

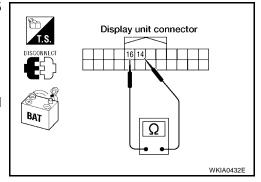
Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

14 (L) - 16 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit connector M93 and data link connector M22.



EKS005JA

Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

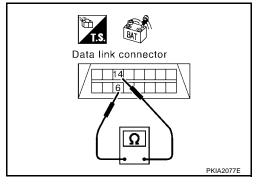
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - **14 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to !!! Hyper-link Error !!! Hyper-link Error !!! .

NG >> Repair harness between data link connector M22 and BCM connector M18.



FKS005JB

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

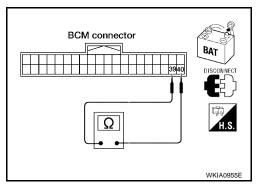
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

: Approx. 54 - 66 Ω

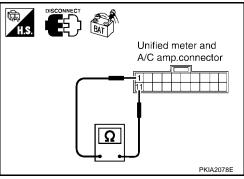
OK or NG

OK

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



EKS005JD

Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

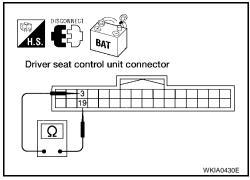
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS005JE

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

20 (L) - 23 (Y)

: Approx. 54 - 66 Ω

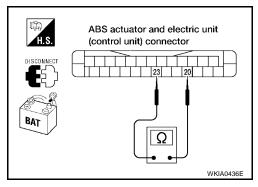
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS005JF

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

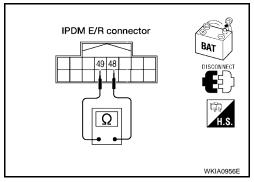
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display unit

BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

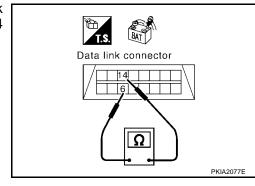
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

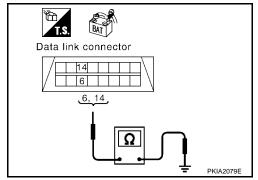
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-230</u>, "Component Inspection".

NG >> Repair the harness.



EKS005JH

FKS005.II

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

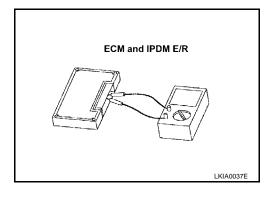
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 11)

PFP:23710

System Description

EKS005JJ

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

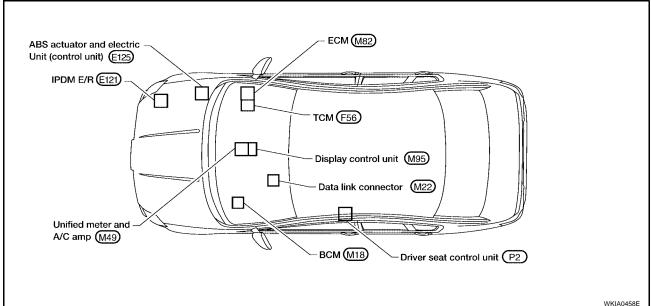
Component Parts and Harness Connector Location

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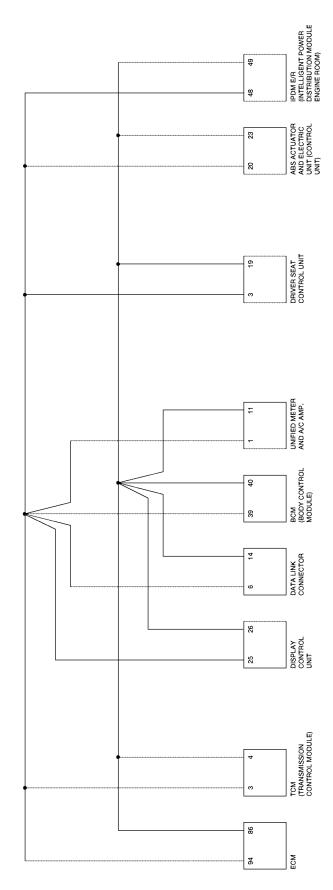
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Schematic EKS005JL



Wiring Diagram - CAN -

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Α

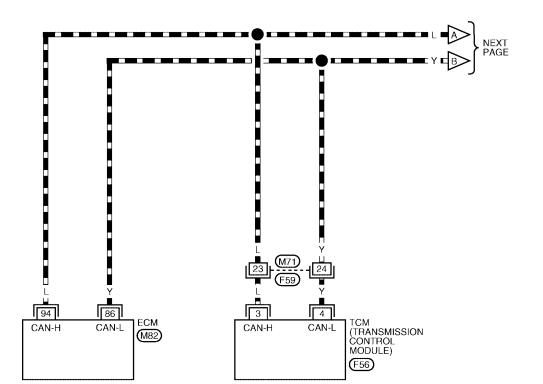
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LAN-CAN-31

: DATA LINE B



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1	2	3	4	5	6	⊨	=	7	8	9	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	W

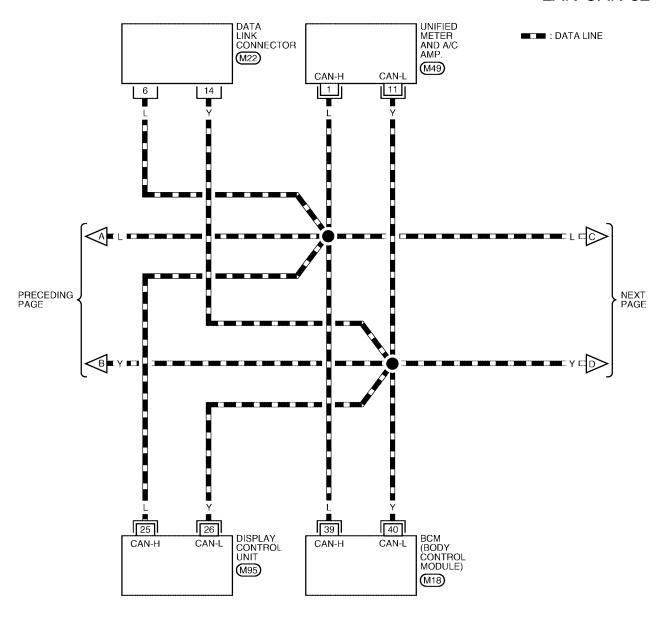
REFER TO THE FOLLOWING.

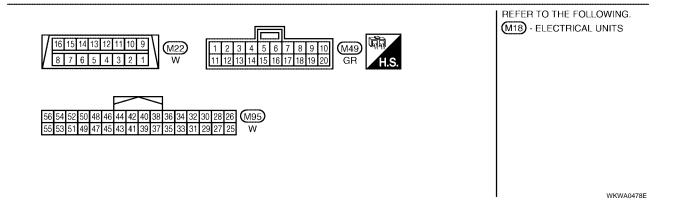
(M82), (F56) - ELECTRICAL

UNITS

WKWA0477E

LAN-CAN-32





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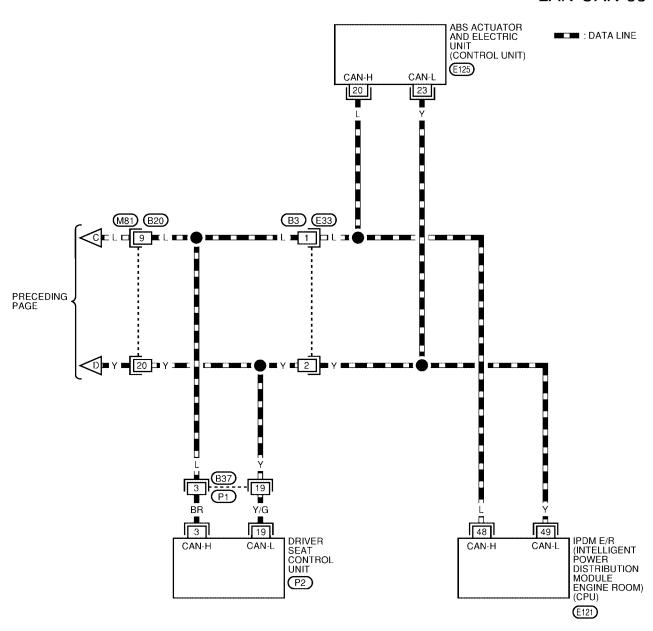
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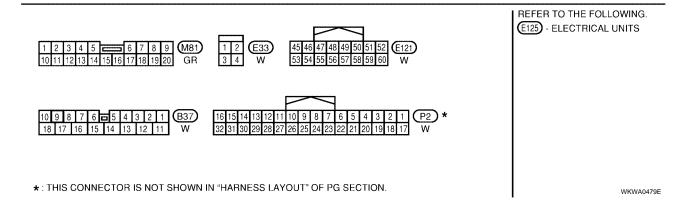
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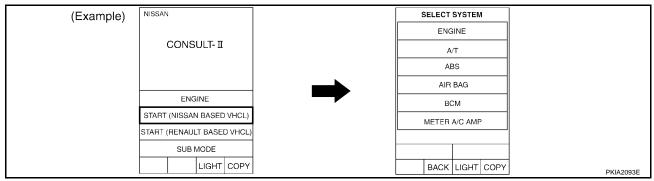
LAN-CAN-33



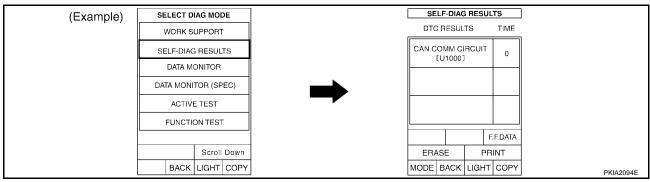


Work Flow

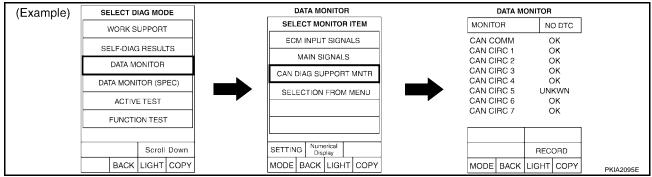
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

							R	×			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2			-

NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 11)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- 6. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

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	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp		CAN	CAN	_	_	_	CAN	_		
	1		CIRC 1	CIRC 3	J			CIRC 2		<u> </u>	
		-	CIRC 1	CIRC 3	I			CIRC 2			
			CIRC 1	CIRC 3			R				
	CONSULT Indication	CAN System	CIRC 1	CIRC 3	тсм	Display control unit			Driver seat	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	CONSULT		Tx CAN CIRC 1		TCM CNC 2	control	R Unified meter	×		and electric unit	IPOM E/R CAP CNC 7
ENGINE TRANSMISSION	CONSUL1 Indication	System	Tx CAN	ECM		control unit	R Unified meter and A/C amp.	x BCM	control unit	and electric unit (control unit)	
	CONSUL1 Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	chec 2	control unit - -	R Unified meter and A/C amp. CAN CAN	BCM CAC 6 CAN CIRC 2	control unit	and electric unit (control unit)	CAN CINC 7 - CAN CIRC 7
TRANSMISSION	CONSUL1 Indication	CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	c k 2	control unit	R Unified meter and A/C amp. CINC 4 CAN CIRC 4 CAN CIRC 5	ECM CAV CINC 6	control unit	and electric unit (control unit)	CAN CINC 7 CAN CIRC 7 CAN CIRC 6
TRANSMISSION DISPLAY CONTROL UNIT	CONSUL1 Indication	GAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN	CAN CNC 2 - - CAN CIRC 3	control unit CAN	R Unified meter and AVC amp. CAN CINC 4 CAN CIRC 5 CAN CIRC 5	CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unif) - - - - - -	CAN CINC 7 - CAN CIRC 7 CAN
TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication - No Disp - No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM -	Tx CAN CIRC 1	ECM CAN GIRC 2 CAN GIRC 3 CAN GIRC 3 CAN	CAN CNO 2 - - CAN CIRC 3	control unit CAN CIRC 7	R Unified meter and AVC amp. CINC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit)	CAN CINC 7 CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP BCM	CONSULT Indication - No Disp - No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM CAN GIRC 2 CAN GIRC 3 CAN GIRC 3 CAN	CAN CIRC 3	control unit CAN CIRC 7	Unified meter and AVC emp. CMC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CINC 6 CAN CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit)	CAN CINC 7 CAN CIRC 7 CAN CIRC 6 CAN

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Case 2
Replace TCM.

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	CONSULT Indication	CAN System	Tx	ЕСМ	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	cAZ 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAN CIRC 7
TRANSMISSION	No Disp	CAM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	cAZ 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNZ 4		CAN CIRC 3	CAN CIRC 2		· · · · · · · · · · · · · · · · · · ·	
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	· · · · · · · · · · · · · · · · · · ·					·	
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2		1	
			OINO I	on o							
			GNO 1	Cino 0			R				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE					TCM CAN CIRC 2	control	Unified meter and A/C amp. CAN CIRC 4	×		and electric unit	IPDM É/R CAN CIRC 7
ENGINE TRANSMISSION	Indication	System CAN	Tx CAN	ÉCM	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4	X BCM CAN	control unit	and electric unit (control unit)	CAN CIRC 7
	Indication -	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN	X BCM CAN CIRC 6	control unit	and electric unit (control unit)	CAN CIRC 7
TRANSMISSION	Indication - No Disp	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAV CNC 2 CAN	CAN CIRC 2	control unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CNAC 4	SCM CAN CIRC 6 . CAN	control unit	and electric unit (control unit)	CAN CIRC 7
TRANSMISSION	Indication - No Disp	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1	CAV 2 CAN CIRC 3 CAN	CAN CIRC 2 - - CAN CIRC 3	control unit - - - - - -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	X BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) - - - - - - -	CAN CIRC 7 CAN CIRC 7 CAN
TRANSMISSION ISPLAY CONTROL UNIT METER A/C AMP	No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1	CAN CIRC 3 GAN CIRC 2 CAN	CAN CIRC 2 - - CAN CIRC 3	control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIAC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP BCM	No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM COMM COMM	Tx CAN CIRC 1 CAN	CAN CIRC 3 GAN CIRC 2 CAN	CAN CIRC 2 CAN CIRC 3 - CAN	control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 3
Replace display control unit

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	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
TRANSMISSION	No Disp	CAM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	٠	-
DISPLAY CONTROL UNIT	-	CAN	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R			CAN	CAN			†	CAN		· · · · · · · · · · · · · · · · · · ·	
IF DWIETY	No Disp	-	CIRC 1	CIRC 3	-	-	-	CIRC 2	-		*
IFON EX	No Disp				-	-	-		-		
IPOWER	CONSULT Indication	CAN System			TCM	Display control			Driver seat control unit	ABS actuator and electric unit	IPOM E/R
ENGINE	CONSULT	System	CIRC 1 Tx CAN	CIRC 3	TCM CAN	Display	R: Unified meter and A/C amp. CAN	K BCM CAN	Driver seat	ABS actuator	IPOM E/R
	CONSULT Indication	System	CIRC 1	CIRC 3	TCM	Display control unit	R: Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit	IPOM É/R
ENGINE	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	TCM CAN CIRC 2	Display control unit	R: Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CAY	TCM CAN CIRC 2 CAN	Display control unit	R: Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 CAV CAV CAV CAV	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R CAN CIRC 7 - CAN CIRC 7 CAN
ENGINE TRANSMISSION ISPLAY CONTROL UNIT	CONSULT Indication	CAN COMM CAN COMM COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2 CAN CIRC 2 CAN	TCM CAN CIRC 2 -	Display control unit - -	R: Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CAN CROSS	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R CAN CIRC 7 - CAN CNC 7
ENGINE TRANSMISSION ISPLAY CONTROL UNIT METER AVC AMP	CONSULT Indication - No Disp - No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 CAN	Display control unit	R: Unified mater and AVC amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CAN	BCM CAN CIRC 6 CAV CAV CAV CAV	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION SPLAY CONTROL UNIT METER AVC AMP BCM	CONSULT Indication No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM CAN	TX CAN CIRC 1 ECM CAN CIRC 2 CAY	CAN CIRC 2 CAN CIRC 3 - CAN	Display control unit	Unified mater and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6 CAN CAN CIRC 2 CAN CIRC 4 CAN	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R CAN CIRC 7 - CAN CINC 7 CAN CIRC 6 CAN CIRC 3	

CAN SYSTEM (TYPE 11)

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Case 4

Replace BCM.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	N D Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN	CAN	-		-	CAN	-		-

ABS actuator and electric unit (control unit) CONSULT Indication Unified meter and A/C amp TCM ECM BCM IPDM E/R CAN COMM CAN COMM CAN COMM CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 2 CAN CIRC 6 CAN CIRC 7 ENGINE TRANSMISSION CIRC 2 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4 DISPLAY CONTROL UNI CAN CIRC 7 CAN CIRC 6 CAN CIRC 3 METER A/C AMP No Disp BCM COMM CAN COMM CAN COMM CAN CIRC 4 CAN CIRC 2 AUTO DRIVE POS. No Disp IPDM E/R

Case 5

Replace unified meter and A/C amp.

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	CONSULT Indication	CAN System	Tx	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-		CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	cN2 2	ch/23	CNZ 7	-	CNZ 4	-	CAN CINC 5	CAL CINC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2	-		-

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Case 6

Replace driver seat control unit.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- 1	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
ISPLAY CONTROL UNIT	-	CAN	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	†····	-
ABS		CAN	CAN CIRC 1	CAN CIRC 2	-	-	-		-	†····	-
IPDM E/R	No Disp	·	CAN	CAN	-		† <u>-</u>	CAN	-		-
	No oisp		CIRC 1	CIRC 3				CIRC 2	J		
	No Disp		CIRC 1	CIRC 3			R				
	CONSULT Indication	CAN System	CIRC 1	ECM	тсм	Display control unit	R: Unified meter and A/C amp.		Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	CONSULT				TCM CAN CIRC 2	control	Unified meter	(and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	System CAN	Tx CAN	ECM	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN	K BCM CAN	control unit	and electric unit (control unit)	CAN
ENGINE	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	CAN CIRC 2	control unit -	Unified meter and A/C amp. CAN CIRC 4 CAN	K BCM CAN	control unit	and electric unit (control unit)	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN CIRC 2 -	control unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
ENGINE TRANSMISSION ISPLAY CONTROL UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2 - - - CAN CIRC 3	control unit - - - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit)	CAN CIRC 7 CAN CIRC 7 CAN
ENGINE TRANSMISSION ISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication - No Disp - No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - - - CAN	control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN CIRC 2 CAN	control unit	and electric unit (control unit) Control unit) CAN CIRC 5	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION ISPLAY CONTROL UNIT METER AYC AMP BCM	CONSULT Indication No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM CAN	Tx CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - - - CAN CIRC 3	control unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 7

Replace ABS actuator and electric unit (control unit).

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
ISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAL 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-		-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2			-
			CIRC 1	I CIRCS	k		J	CIRC 2	J	k	
			CIRC 1	CIRC 3			l				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	K BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE					TCM CAN CIRC 2	control	Unified meter	×		and electric unit	IPOM E/R CAN CIRC 7
ENGINE TRANSMISSION	Indication	System	Tx CAN	ECM	CAN	control	Unified meter and A/C amp. CAN	K BCM CAN		and electric unit	CAN
	Indication -	System CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAN	CAN	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6	control unit	and electric unit (control unit)	CAN
TRANSMISSION	Indication - No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM -	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN CIRC 2	control unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN	control unit	and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6
TRANSMISSION	Indication - No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM	Tx CAN CIRC 1	ECM - CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2 - - CAN CIRC 3	control unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit) - - - - - -	CAN CIRC 7 - CAN CIRC 7 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	No Disp No Disp	CAN COMM	Tx CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - - CAN CIRC 3	control unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN	control unit	and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION ISPLAY CONTROL UNIT METER A/C AMP BCM	No Disp No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM CAN	Tx CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 3 CAN	CAN CIRC 2 CAN CIRC 3 - CAN	control unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit) CAN CIRC 5	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6 CAN

Case 8

Replace IPDM E/R.

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	CONSULT Indication	CAN System	Tx	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CNZ3	-	-	-	CNZ 2	-		-

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-245</u>

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CNC 4	CAN CNC 6	-	-	CAN CNC 7
TRANSMISSION	N Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CNZ 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CNZ 2	ch/23	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	cNZ ₂	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CNZ 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CNC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CVA	-	-	-	CAN CIRC 2	-		-

Case 10

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-245</u>.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CINC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CINC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAIX CINC 5	CAN CINC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		che s
AUTO DRIVE POS.	N Sp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	cNC 2	-	-	-		-		-
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-246.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CNC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CMC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAIX CNX 5	CAN CMC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAL 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		
ABS		CAN	CAN CIRC 1	cNZ 2	-	-	-		-		-
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

LAN-241

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Case 12

Check ECM circuit. Refer to LAN-246.

							R:	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAL CNC 1	-	CAN CNC 2	-	CAN CMC 4	CAN CNC 6	-	-	CAN CNC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAV CNC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN	CAN CIRC 1	CNC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CNZ 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CNZ 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CNC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	ÇAZ 3	-	-	-	CAN CIRC 2	-		-

Case 13

Check TCM circuit. Refer to LAN-247.

							R	×			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	N D sp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAZ 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	SAZ 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-		-

Case 14

Check display control unit circuit. Refer to <u>LAN-247</u>.

							R:	X			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAY CMC 1	CNC 3	-	-	CAL CMC 5	CAL CNC 2	-		CAN CMC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAY CMC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

Case 15

Check data link connector circuit. Refer to <u>LAN-248</u>.

							R	×			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	N Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-
DISPLAY CONTROL UNIT	-	CAN	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	Ne Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	N Tsp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	N Sp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	Na Disp		CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

Case 16

Check BCM circuit. Refer to LAN-248.

							R	<			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAL CNC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CNC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAL CNC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	N t D sp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAL CINC 2			
ABS		CAN COMM	CAN CIRC 1								
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CNC 2			

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-249</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAL CINC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAL CNC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CNC 4	-	CAN CIRC 5	CAN CIRC 6
всм	N• Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CNC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAL 2	-		-

Case 18

Check driver seat control unit circuit. Refer to <u>LAN-249</u>.

							R	<			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	,	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	N Dsp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-250</u>.

							R	×			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CINC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	chic 1	cNC 2	-	-	-		-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-250</u>.

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	-	CMC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CMC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CNC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		cAZ3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	-		-		
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-		-

Case 21

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-251}}$.

				1			R	×			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAL CIVE 1	-	CAZ 2	-	CAL CMC 4	CAL CAC 6	-		CAL 7
TRANSMISSION	Nethop	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAL CNC 1	CNC 3	-	-	CAN CMC 5	CAL CNC 2	-		CAN CMC 7
METER A/C AMP	Ne Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
ВСМ	N• Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	N Sp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAL CNC 1	CNC 2	-	-	-		-		-
IPDM E/R	N Dsp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-		-

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-252

	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	- (control unit)	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAY CNC 2	-	-	CAN CMC 4	-	-	-	-
SPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CAY CNC 2	-	-	-		-		-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2			-
			CIRC I	Olive 3			J	GRC 2			
			CIRC I	GIAC 5			R:				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE						control	Unified meter	×		ABS actuator and electric unit	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	Indication	System	Tx CAN		TCM CAN CNO 2	control	Unified meter and A/C amp. CAN	X BCM CAN		ABS actuator and electric unit	CAN
	Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3	CAV CN 2 -	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	X BCM CAN	control unit	ABS actuator and electric unit (control unit)	CAN CIRC 7
TRANSMISSION	Indication - No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2 CAN CIRC 3 CAN CIRC 3		control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN	control unit	ABS actuator and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6
TRANSMISSION ISPLAY CONTROL UNIT	Indication - No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM	Tx CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN	CAN 2 CAN 3 -	control unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN
TRANSMISSION ISPLAY CONTROL UNIT METER A/C AMP	No Disp No Disp	CAN COMM CAN COMM CAN COMM - CAN COMM - CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1	ECM CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAV CN 2 -	control unit CAN	Unified mater and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN	control unit	ASS aduator and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION ISPLAY CONTROL UNIT METER A/C AMP BCM	No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM COMM COMM CAN	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN 2 CAN 3 -	control unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit)	CAN CIRC 7 - CAN CIRC 7 CAN CIRC 6 CAN CIRC 3

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

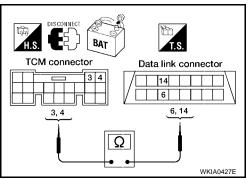
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-236, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

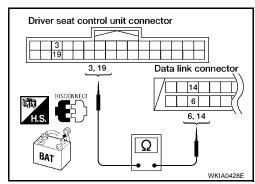
: Continuity should exist.

19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-236.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS005JQ

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

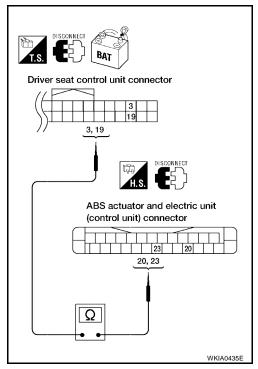
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

> 3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-236.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

EKS005JR

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

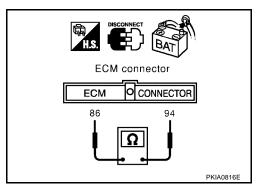
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

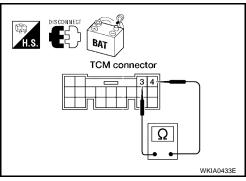
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

25 (L) - 26 (Y) : Approx. 54 -
$$66\Omega$$

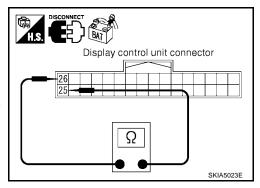
OK or NG

OK >>

>> Replace display control unit.

NG

>> Repair harness between display control unit connector M95 and data link connector M22.



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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

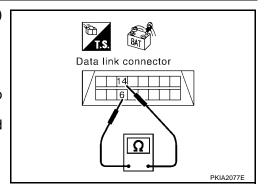
6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

NG

OK >> Connect all connectors and diagnose again. Refer to LAN-236.

>> Repair harness between data link connector M22 and BCM connector M18.



EKS005JV

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66 Ω

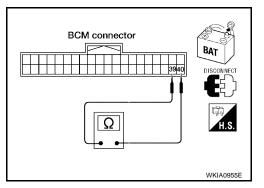
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

: Approx. 54 - 66 Ω

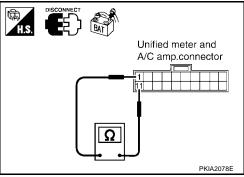
OK or NG

OK

>> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

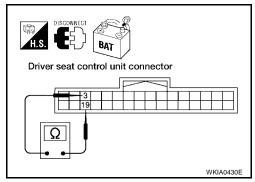
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS005JY

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

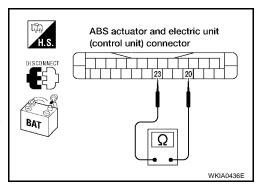
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS005JZ

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

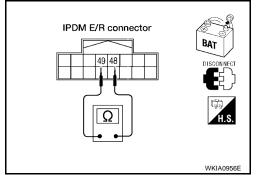
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display control unit

BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

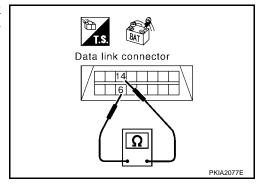
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

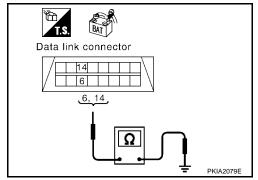
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-252</u>, "Component Inspection".

NG >> Repair the harness.



EKS005K1

FKS005K2

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

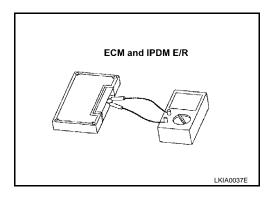
Remove ECM and IPDM E/R from vehicle.

• Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

• Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 12)

PFP:23710

System Description

EKS005HB

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

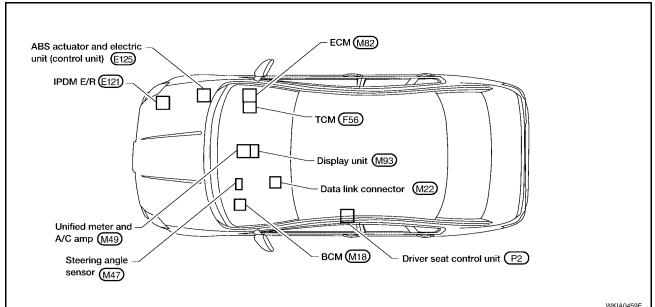
Component Parts and Harness Connector Location

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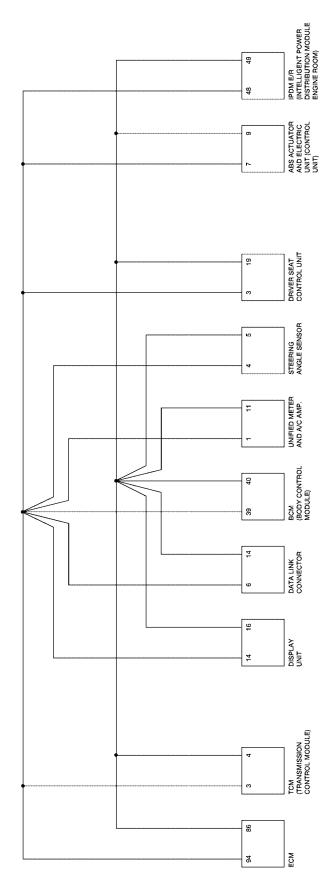


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LAN-253

Schematic



Wiring Diagram - CAN -

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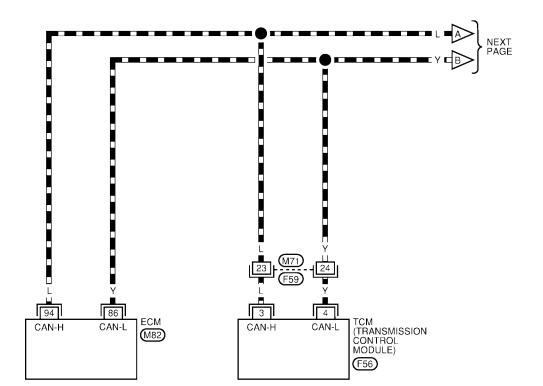
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LAN-CAN-34

■■■ : DATA LINE

С

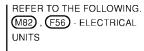


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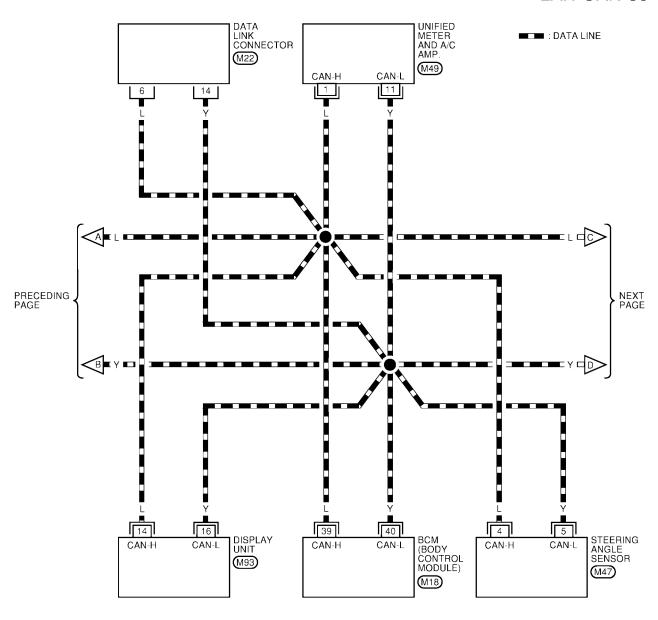
M

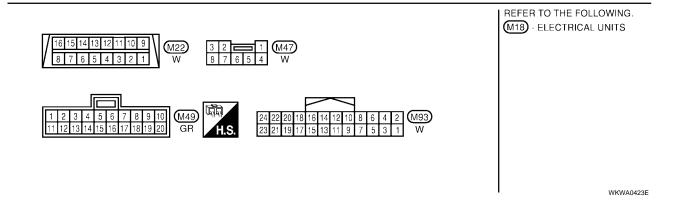
1	2	3	4	5	6	Ш	=	7	8	თ	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	W



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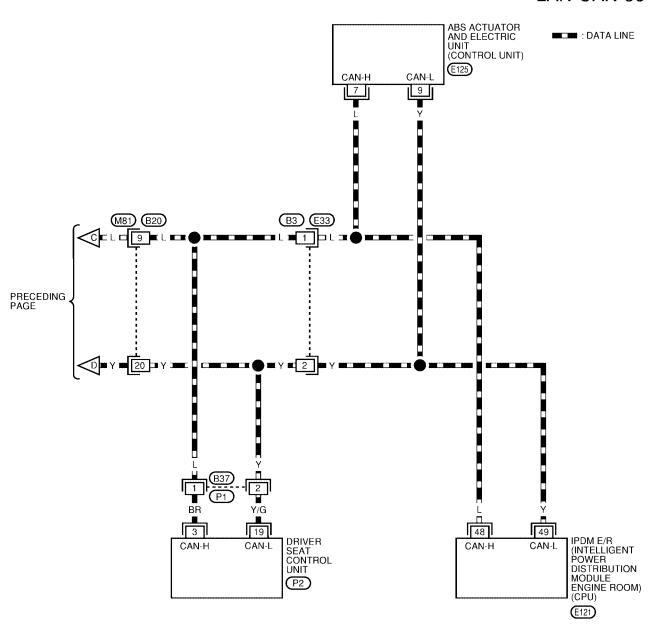
Е

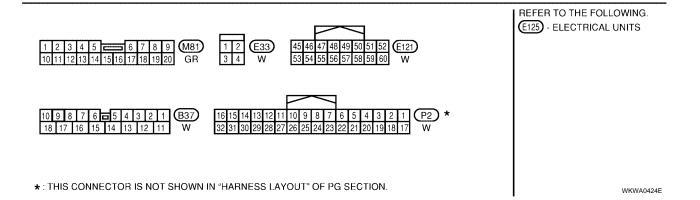
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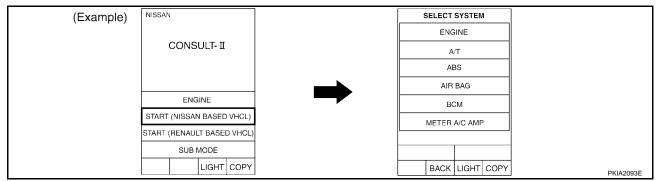
LAN-CAN-36



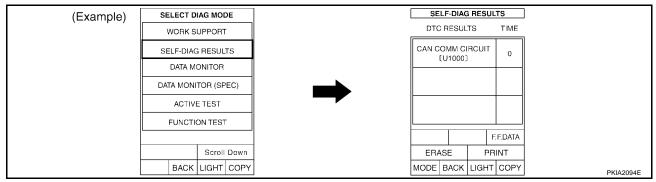


Work Flow

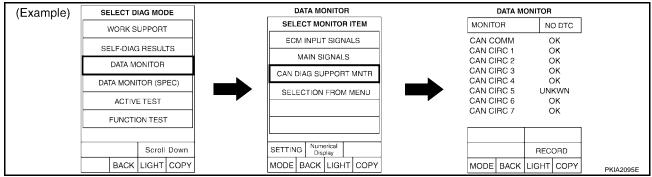
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

	T			l				Ŕх				
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2		-	-

NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 12)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual. Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-TOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAA MM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	ÇAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-		CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0925F

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN C 2	-	CAN RC 4		CAN CANC 6		CAN C 3	CAX CAXC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3			CIRC 5		CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-		CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4		CAN CIRC 3		CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-			CAN CIRC 2			

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Case 2

Replace TCM.

								Rx				
	CONSULT Indication	CAN System	Tx	ЕСМ	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN C 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3		-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	€ 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	OAV OW/C 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	-	CAN CIRC 2	-	-	-

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****	T							Rx				
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CX 2	-	-	CAC 4	-	-	-	CMC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		- 1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0928E

Case 3 Replace display unit.

IPDM E/R

No Disp

CONSULT Indication Unified meter and A/C amp. Tx IPDM E/R CAN COMM CAN CAN CAN CIRC 4 CAN CIRC 4 CAN CIRC 2 CAN CIRC 6 CAN CIRC 7 ENGINE CAN CIRC 1 CAN CIRC 1 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 TRANSMISSION No Disp DISPLAY UNIT CIRC 1 CIRC 3 CIRC 5 CIRC 2 CIRC 7 CAN CIRC 6 CAN CIRC 3 CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1
CAN
CIRC 1 CAN CIRC 4 CAN CIRC 5 METER A/C AMP CAN COMM CAN COMM CAN COMM CAN CIRC 4 CAN CIRC 3 всм No Disp CIRC 2 CAN CIRC 4 CAN CIRC 3 CAN CIRC 2 AUTO DRIVE POS. No Disp CAN CIRC 2 CAN CIRC 3 CAN CIRC5 ABS

WKIA0929E

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	,	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	OUR / 3	-	-	SUE 5	-	BUFE 2	-	-	QUC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	

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CAN SYSTEM (TYPE 12)

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Case 4

Replace BCM.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	,	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	,	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRÇ 6
всм	No Disp	CAMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2		-	-

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								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-		CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAY CNC 2	-	-	CAN NC 4	-	-		- 1	CAN/ CIN/3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Case 5

Replace unified meter and A/C amp.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAZ 2	CAN NAC 3	6 7	-		CA C 4		CAN ORC 5	SAC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

WKIA0933E

Case 6

Replace driver seat control unit.

								Ŕх				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	,	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Diso	CAN	CAN	CAN	- CIRC 2	-	CAN		- CINC 6	,	CAN	CIRC /
DISPLAY UNIT	-	COMM	CIRC 1	CIRC 2 CIRC 3	-	-	CIRC 4	-	CIRC 2	,	CIRC 3	CIRC 7
METER A/C AMP	No Disp	COMM	CAN	CAN	CAN	CAN	-		CAN		CAN	CAN
BCM	No Disp	CAN COMM	CIRC 1 CAN CIRC 1	CIRC 2 CAN CIRC 2	CIRC 3	CIRC 7	CAN CIRC 4		CIRC 4	-	CIRC 5	CIRC 6 CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM	CAN CIRC 1	- CIRC 2	CAN CIRC 4	-	CAN CIRC 3		CAN CIRC 2		-	CIRC 3
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	- CIRC 3	CAN CIRC5	- CIRC 2	-	-	
IPDM E/R	No Disp	COMM	CAN	CAN	†	 	 	CIRCS	CAN	• • • • • • • • • • • • • • • • • • • •	 	
	No Disp		CIRC 1	CIRC 3	<u> </u>	J	<u></u>	J	CIRC 2	<u> </u>		
	No Disp	-	CIRC 1	CIRC 3	J	J		J	CIRC 2	l		
			CIRC 1	CIRC 3	-	-	-	Rx	CIRC 2			
	CONSULT Indication	CAN System	CIRC 1	CIRC 3	тсм	Display unit	Unified meter and A/C amp.	Rx Steering angle sensor	CIRC 2	Driver seat control unit	ABS actuator and electric unit	IPDM E/R
ENGINE	CONSULT	CAN					Unified meter	Steering angle		Driver seat	ABS actuator	
	CONSULT Indication	CAN System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	TCM CAN		Unified meter and A/C amp. CAN CIRC 4 CAN	Steering angle	BCM CAN	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 3 CAN	IPDM E/R
ENGINE	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1	ECM -	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	Steering angle sensor	BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 3	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN System CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	Steering angle sensor	BCM CAN CIRC 6	Driver seat control unit	ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	IPDM E/R CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication - No Disp -	CAN System CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1	ECM - CAN CIRC 2 CIRC 3 CAN	TCM CAN CIRC 2 CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	Steering angle sensor	BCM CAN CIRC 6 - CIRC 2 CAN	Driver seat control unit	ABS actuator and electric unit (confrol unit) CAN CIRC 3 CAN CIRC 3	IPDM E/R CAN CIRC 7 CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication - No Disp - No Disp	CAN System CAM COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	TCM CAN CIRC 2 CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	Steering angle sensor	BCM CAN CIRC 6 - CIRC 2 CAN	Driver seat control unit	ABS actuator and electric unit (confrol unit) CAN CIRC 3 CAN CIRC 3	IPDM E/R CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 6 CAN CIRC 3
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication - No Disp - No Disp No Disp	CAN System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 3	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	Steering angle sensor	BCM CIRC 6 - CIRC 2 CAN CIRC 4	Driver seat control unit	ABS actuator and electric unit (confrol unit) CAN CIRC 3 CAN CIRC 3	IPDM E/R CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN

CAN CIRC 2

WKIA0935E

Case 7

Replace ABS actuator and electric unit (control unit).

	T							Řx				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	SKC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAA OKC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-		CAN CIRC 4		CAN C 5	CAN
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-	CAN
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	- 1	
ABS	-	CMM	CAN CIRÇ 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	- 1	-

WKIA0936E

								Яx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	,	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	,	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	- 1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRQ 4	-	CAN CIRC 3	٠.	CAN CIRC 2	-	- 1	
ABS	-	CAN COMM	CAN CIRC 1	OKC 2	OKC 3	-	-	CAN ORC5	-	-	- 1	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	- 1	

WKIA0937E

Replace IPDM E/R.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CA C 3	-	-	-	-	CAN	-	-	

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-268</u>.

	T							Řx				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAT CATC 4	-	CAV.C 6	-	8 √ C3	C/N RC 7
TRANSMISSION	No Pisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	oup€3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAC 2	000 000 000 000	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAX CXC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	OKG 4	-	CAN CIRC 3	-	CAN CIRC 2	-	- 1	-
ABS	-	CAN	CAN CIRC 1	CAX C 2	OKC 3	-	-	CAN CIRC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	S	-	-	-	-	CAN CIRC 2	-	- 1	

Case 10

Check harness between data link connector and driver seat control unit. Refer to LAN-268.

								Rx				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CNC 3	CAA CC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAL CAC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	QIFC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAY CNC 5	CKC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CANC 3
AUTO DRIVE POS.	No bisp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	ČAC 2	CAN NRC 3	-	-	C/A C5	-	-	-	*
IPDM E/R	No Pisp	-	CAN CIRC 1	CAN CIRC 3		-	-		CAN CIRC 2	-	-	

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to $\underline{\mathsf{LAN-269}}$.

								Ŕx				
	CONSULT Indication	CAN System	Tx	ECM	FCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (confrol unit)	ІРОМ ЕЛ
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAL 3	CAN ON C 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	V .	WE!
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAV CMC 5	CKC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	ОДС 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	- 1	-
ABS	-	CAN COMM	CAN CIRC 1	CNC 2	CMC 3	-	-	CAC5	-	-	- 1	-
IPDM E/R	No Usp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Check ECM circuit. Refer to LAN-269.

	T							Řx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAV CVC 1	-	CAN C 2	-	CAN OUC 4	- 1	CAN C 6	-	G/N VRC3	CAN C 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAY CVC 2	-	-	CAN CIRC 4	- 1	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	QUEC 3	-	-	CIRC 5	- 1	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CNC 2	CAN CIRC 3	CAN CIRC 7	-	- 1	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	CAN CIRC 4	- 1	-	-	-	CAN GIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CNC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CMC 3	-	-	-	-	CAN CIRC 2	-	-	-

Case 13

Check TCM circuit. Refer to LAN-270.

	T							Ŕх				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	,
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	\$\hat{\chi}{\chi}{\chi}{\chi}{4}	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	ČAV OVC 3	-	-	CAN CIRC5	-	-	- 1	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	- 1	

Case 14

Check display unit circuit. Refer to $\underline{\mathsf{LAN-270}}$.

	T							Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	€UEPC 1	OUF≥ 3	-	-	OUR 5	-	OUF 2	-	-	QIF 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAY ON 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	- 1	

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-271}}$.

	T			I				Аx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRÇ 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	Newsisp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	,	CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Psp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	Nusisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	T	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Jisp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2			

Check BCM circuit. Refer to LAN-271.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	ON 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRÇ 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CNC 4	-	CAN CIRC 5	CAN CIRC 6
всм	Nusisp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAY 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5		-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	SAC 2	T -	-	-

Case 17

Check unified meter and A/C amp. circuit. Refer to LAN-272.

	T			T				Rx				
	CONSULT Indication	CAN System	Tx	ЕСМ	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CA CA C 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CA CC 4	-	-	-	CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	ONE 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No bisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CNEC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	Č∕V 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	- 1	

Case 18

Check steering angle sensor circuit. Refer to <u>LAN-272</u>.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	,	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	•
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	C/A CKC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	

Case 19

Check driver seat control unit circuit. Refer to LAN-273.

	T							Rx				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	Napisp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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IV

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-273</u>.

	T							Rx				
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/I
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CINC 1	€ /C 2	C(N RC 3	-	-	CA RC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	

Case 21

Check IPDM E/R circuit. Refer to LAN-274.

	T							Ŕx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAZ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	GAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIR97
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CANC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CNOC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	· · · · · ·
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	N Sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	

Case 22

Check CAN communication circuit. Refer to <u>LAN-275</u>.

								Rx				
	CONSULT Indication	CAN System	Tx	ЕСМ	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seal control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	cKC 1	-	CAC 2	-	CAC 4	-	CMC 6	-	CAX CAXC 3	CAZ 7
TRANSMISSION	No I sp	CAN COMM	CAN CIRC_1	CAN CIRC_2	-	-	CAN CIRC 4	-	-	,	CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	OUS C 1	OUTC 3	-	-	CIRC 5	-	GIR#2	-	-	CIR97
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No I sp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	N Isp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN ÇIRC 2	-	-	
ABS	1 -	CAN	€ 1	CAN CINC 2	che 3	-	-	CAC5	-	-	-	-
IPDM E/R	Nullsp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

CAN SYSTEM (TYPE 12)

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Case 23

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-275}}$.

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CKC 2	-	-	CAN ORC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN COMM	CAN CIRC 1	OKC 2	CAN CIRC 3	-	-	CAA OKC5	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	

								Rx				
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CKC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	SKC3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	ÇAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	-	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CA CXC 3	CAN CIRC 7	-		CAN CIRC 4		CAN OC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		-	CAN CIRC 3
UTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	S/C 4	-	CAN CIRC 3	-	CAN CIRC 2	-	-	
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC5	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	-	CAN CIRC 2	-	-	-

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

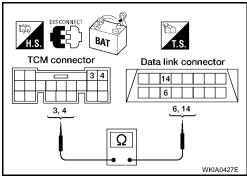
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-258, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

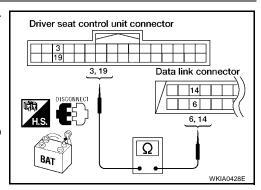
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

> 3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

>> Connect all connectors and diagnose again. Refer to OK LAN-258.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS005HI

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 7 (L), 9 (Y).

> 3 (BR) - 7 (L) 19 (Y/G) - 9 (Y)

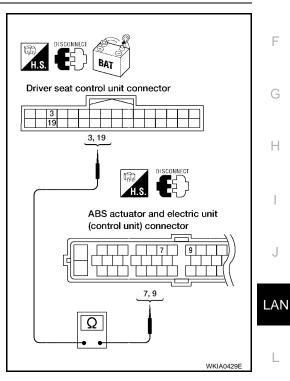
: Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-258.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-269

2. check harness for open circuit

Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

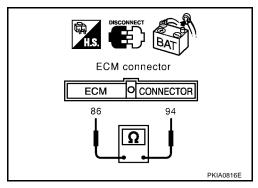
94 (L) - 86 (Y) : Approx.
$$108 - 132\Omega$$

OK or NG

OK >> Replace ECM.

NG >

>> Repair harness between ECM connector M82 and TCM connector F56.



EKS005HK

TCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

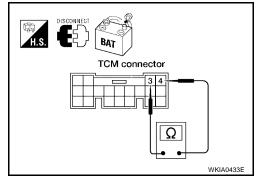
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS005H

Display Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display control unit connector M93 terminal 14 (L) and terminal 16 (Y).

: Approx. 54 - 66
$$\Omega$$

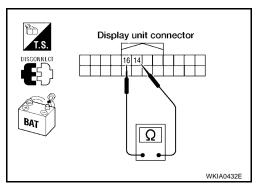
OK or NG

OK >

>> Replace display unit.

NG

>> Repair harness between display unit connector M93 and data link connector M22.



Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

: Approx. 54 - 66 Ω

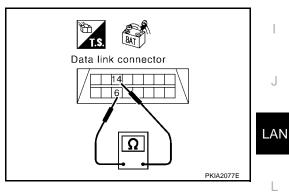
OK or NG

OK

>> Connect all connectors and diagnose again. Refer to $\underline{\mathsf{LAN-258}}$.

NG

>> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect BCM connector M18.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

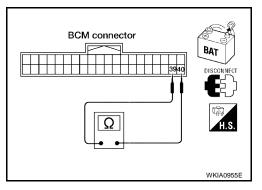
39 (L) - **40** (Y) : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



EKS005HO

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

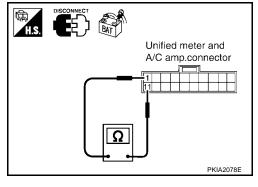
Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

1 (L) - 11 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace unified meter and A/C amp.

NG >> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Steering Angle Sensor Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect steering angle sensor connector M47.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between steering angle sensor connector M47 terminal 4 (L) and terminal 5 (Y).

: Approx. 54 - 66 Ω

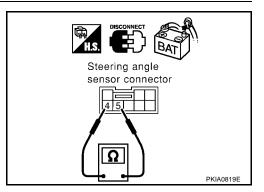
OK or NG

OK

>> Replace steering angle sensor.

NG

>> Repair harness between steering angle sensor connector M47 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

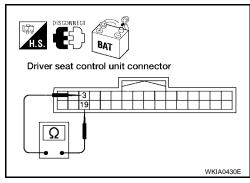
OK or NG

OK

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

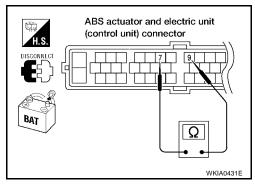
Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 7 (L) and terminal 9 (Y).

: Approx. 54 - 66 Ω

OK or NG

OK NG

- >> Replace ABS actuator and electric unit (control unit).
- >> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS005HS

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

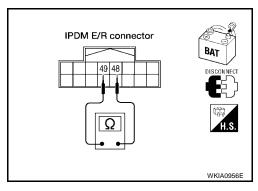
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



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CAN Communication Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Steering angle sensor
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR SHORTED CIRCUITS

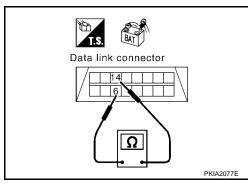
With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

> 6 (L) - 14 (Y) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

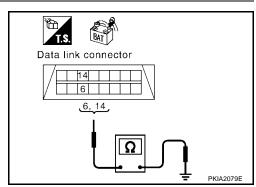
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

> : Continuity should not exist. 6 (L) - Ground 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to LAN-276, "Component Inspection"

NG >> Repair the harness.



IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/ OR START".

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Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

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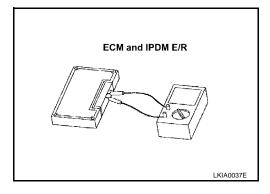
- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49

: Approx. 108 - 132 Ω



CAN SYSTEM (TYPE 13)

PFP:23710

System Description

EKS005HW

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

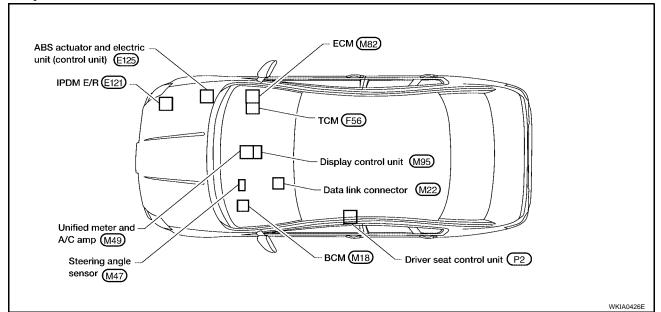
Component Parts and Harness Connector Location

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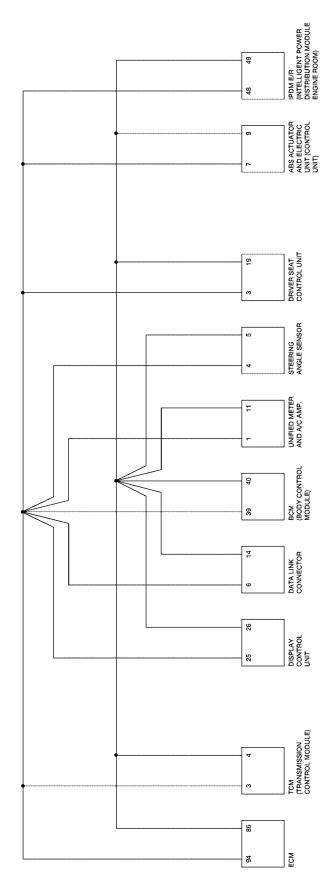
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Wiring Diagram - CAN -

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LAN-CAN-37

: DATA LINE B

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CAN-L

TCM (TRANSMISSION CONTROL MODULE)

(F56)

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1 2 3 4 5 6 7 8 9 10 11 F59
12 13 14 15 16 17 18 19 20 21 22 23 24 W

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CAN-H

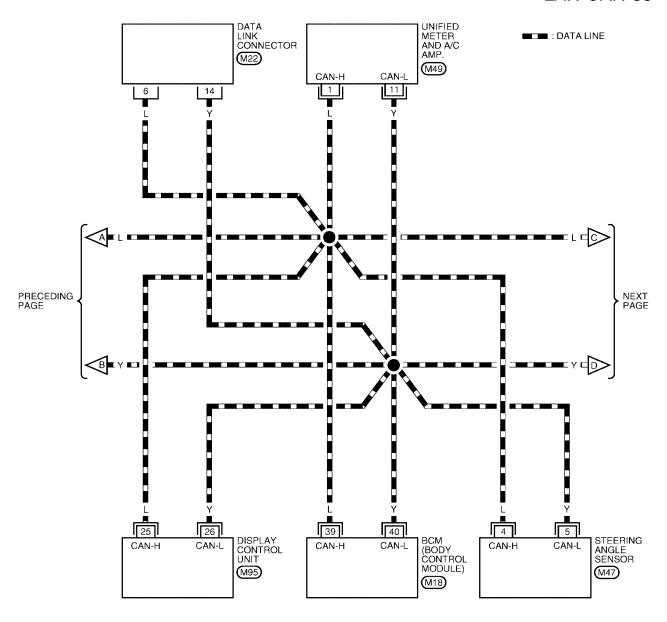
86

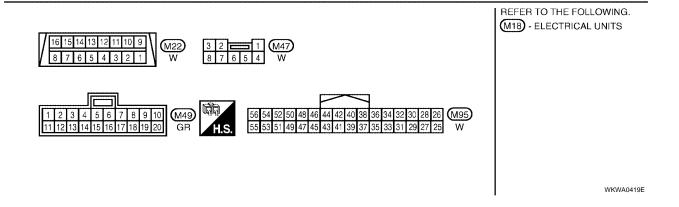
ECM (M82)

REFER TO THE FOLLOWING.
(M82), (F56) - ELECTRICAL
UNITS

WKWA0418E

LAN-CAN-38





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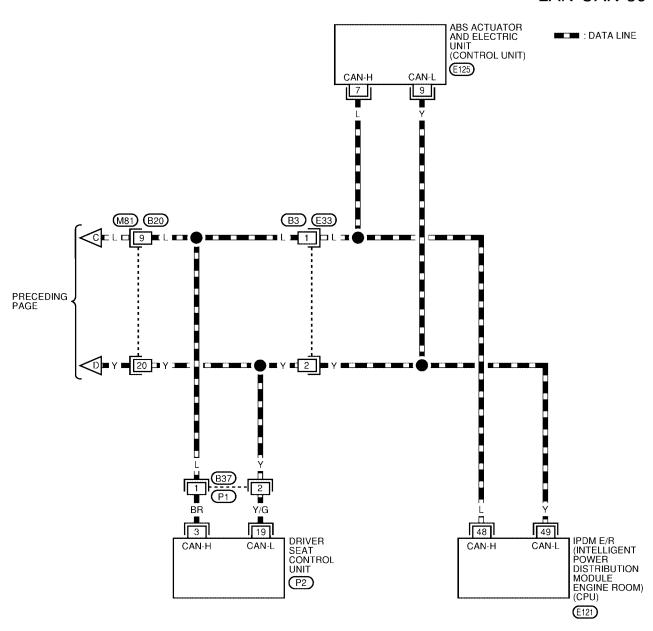
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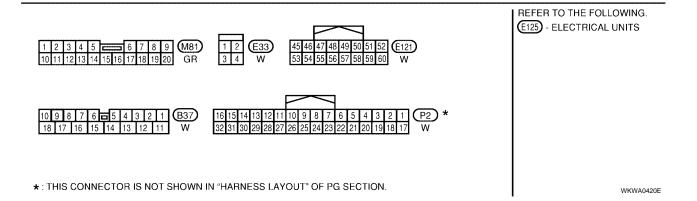
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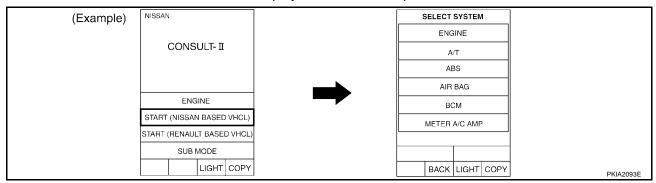
LAN-CAN-39



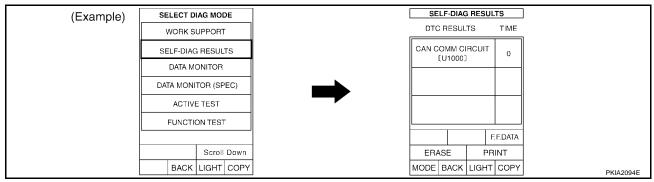


Work Flow

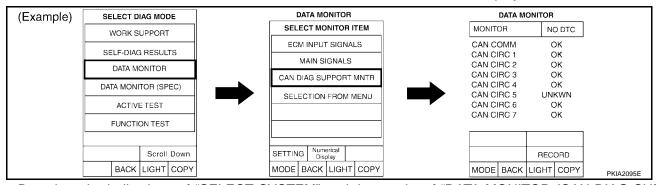
 When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

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	CONSULT	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	-	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-		CAN CIRC 5		CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7			CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4			-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3		CAN CIRC 2	-	-	-
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	CAN CIRC 5	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-			CAN CIRC 2	-	-	-

NOTE:

 If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 13)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.

 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- 6. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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				[Rx				
	CONSULT Indication	CAN System	Ť×	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAZ 2		CAX CA		CAN CINC 6		CAN CINZ 3	SAZ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		GAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		GAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 2
Replace TCM.

r	1			r				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sonsor	BCM	Oriver seaf control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAZ 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4		9119.2	1	CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2	1	1	CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	cNC 3	GAN CIRC /			CAN CIRC 4	1	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			1		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAV CNC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN	CAN	· .				CAN			
			CIRC 1	CIRC 3					GIRC 2			
	1		CIRC 1	CIRC 3				Rx	CIRC 2			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	Rx Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	CONSULT				TCM CAN CIRC 2	control		Steering angle			and electric unit	IPDM E/F
ENCINE TRANSMISSION	CONSULT	System CAN	Tx CAN	ECM .	CAN	control	and A/C amp. CAN CIRC 4	Steering angle	BCM CAN		and electric unit (control unit) CAN CIRC 3	CAN
	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN		CAN	control	and A/C amp.	Steering angle	BCM CAN		and electric unit (control unit) CAN CIRC 3	
TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM	CAN CRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAC CAC CAC CAC CAC CAC CAC CAC CAC C	CAN	control	and A/C amp. CAN CIRC 4 CAN CINC 4 CAN CIRC 5	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	CAN CIRC 1	ECM CAY CAY CAN CIRC 3 CAN CAN	CAN CIRC 2	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 5	Steering angle	BCM GAN GIRC 6 GAN GIRC 2 GAN GIRC 2 GAN GIRC 4		and electric unit (control unit) CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN
TRANSMISSION DISPLAY CONTROL UND METER A/C AMP	CONSULT Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1	ECM CAV 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	control unit	and A/C amp. CAN CIRC 4 CAY CAY CAY CAY CAN CIRC 5	Steering angle sensor	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP BCM	CONSULT Indication No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM	CAN CIRC 1 CAN	ECM CMC 2 CAN CIRC 3 CAN CIRC 2 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 5 CAN CIRC 4 CAN	Steering angle	BCM CIRC 6 CAN CIRC 2 CAN CIRC 4 CAN		and electric unit (control unit) CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Case 3
Replace display control unit.

	1			r				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	N. 731		CAN	CAN					CAN			
IFT/MITC/IX	No Disp		CIRC 1	CIRC 3	,				CIRC 2			
TEDMICAS			CIRC 1	CIRC 3				Rx	CIRC 2			
EMICK	CONSULT Indication	CAN System	Ĩχ	CIRC 3	тем	Display control unit	Unified meter and A/C amp.	Rx Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	
ENGINE	CONSULT				TCM CAN CIRC 2	control		Steering angle			and electric unit	IPDM E/F
	CONSULT	System	Tx CAN CIRC 1 CAN CIRC 1	ECM	CAN	control	and A/C amp. CAN CIRC 4 CAN CIRC 4	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN	CAN CIRC 7
ENGINE:	CONSULT Indication	System CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM	CAN CIRC 2	control unit	and A/C amp. CAN CIRC 4 CAN	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CIRC 7
ENCINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM COMM CAN	CAN CRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAV CINC 3 CAN CIRC 2	CAN	caritrol unit	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN	CAN CIRC 7 CAN CIRC 6
ENGINE TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1	CAN CIRC 2 CAY CNC 3	CAN CIRC 2 CAN CIRC 3	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	Steering angle	BCM CAN CIRC 6 CAC CAC CAC CAC CIRC 2		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CINC 7 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1 CAN	CAN CIRC 2 CAV CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	Steering angle	BCM CAN CIRC 6 CAY CAY CAY CAY		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER AG AMP BCM	CONSULT Indication No Disp No Disp No Disp	System CAN COMM CAN COMM CAN CAN COMM CAN COMM CAN COMM	CAN CIRC 1 CAN	CAN CIRC 2 CAV CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN	Steering angle	BCM CAN CIRC 6 CAV CAV CAN CIRC 4		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7

CAN SYSTEM (TYPE 13)

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Case 4

Replace BCM.

								Rx				
	CONSULT Indication	CAN System	Ť×	ECM	TCM	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Oriver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					GAN CIRC 2			

ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 CONSULT Indication Unified meter and A/C amp. Steering angle sensor IPDM E/R ECM тсм BCM CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 2 CAN CAN CIRC 6 CAN CIRC 7 ENGINE CAN CAN CIRC CAN CIRC CAN CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 CAY CAY CAN CIRC 2 CAN CIRC 4 ISPLAY CONTROL UND CAN CIRC 3 METER A/C AMP No Disp CIRC CAN CNC 4 CAN CIRC 3 No Disp BCM CAN CIRC 4 CAN CIRC 3 CAN CIRC 2 AUTO DRIVE POS. No Disp COMM CIRC 1 CIRC 2 CAN CIRC 3 COMM IPDM E/R

Case 5

Replace unified meter and A/C amp.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		GAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CNZ 2	cNZ ₃	CAZ/			CNZ 4		CAZ 5	CNZ 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 6
Replace driver seat control unit.

				·								
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Rx Steering angle sensor	BCM	Driver seaf control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN	CAN					CAN			
	Rousp		CIRC 1	CIRC 3		•		·	CIRC 2			
	NO OSP		CIRC 1	CIRC 3				Dv.	CIRC 2			
	CONSULT Indication	CAN System	CIRC 1	CIRC 3	тсм	Display control unit	Unified meter and A/C amp.	Rx Steering angle sensor	CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System	Tx CAN		CAN	control	Unified meter and A/C amp.	Steering angle	BCM CAN		and electric unit (control unit) CAN	CAN
	CONSULT	System	ĭx	ECM		control	Unified meter and A/C amp. CAN CIRC 4 CAN	Steering angle	всм		and electric unit (control unit)	CIRC 7
ENC/INE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4	Steering angle	BCM CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7
ENCINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6
ENGINE TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM CAN COMM CAN COMM COMM	CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2 CAN CIRC 3	control unit	Unified meter and A/C amp. CAR CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	Steering angle	BCM GAN CIRC 6 CAN CIRC 2 CAN CIRC 2		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN
ENCINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	Steering angle sensor	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP B/CM	CONSULT Indication No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM	CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3	control unit 	Unified meter and A/C amp. CAR CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	Steering angle	BCM GAN CIRC 6 CAN CIRC 2 CAN CIRC 2		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Case 7
Replace ABS actuator and electric unit (control unit).

r	Υ							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6	1	. 6 €3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			1	° k Z₃	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2	1	1	CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4	1	SAZ's	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R			CAN	CAN					CAN			
IF DAY CAS	No Disp		CIRC 1	CIRC 3		·		·	CIRC 2			
IPIM C/K	No Disp		CIRC 1	CIRC 3				Rx	CIRC 2			
IPIM CIK	No Disp CONSULT Indication	CAN System	Ťχ	CIRC 3	тсм	Display control unit	Unified meter and A/C amp.	Rx Steering angle sensor	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	
ENGINE	CONSULT		Tx CAN CIRC 1		TCM CAN CIRC 2	control		Steering angle			and electric unit (control unit) CAN CIRC 3	IPDM E/F
	CONSULT	System	Tx CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2	CAN	control	and A/C amp. CAN CIRC 4 CAN CIRC 4	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN	CAN
ENGINE	CONSULT Indication	System CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 3	CAN	control unit	and A/C amp. CAN CIRC 4 CAN	Steering angle	BCM CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM COMM	CAN CRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN	control	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN	Steering angle	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN	CAN CIRC / CAN CIRC / CAN CIRC 6
ENGINE IRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	System CAN COMM CAN COMM COMM	CAN CIRC 1	CAN CIRC 2 CAN GIRC 3 CAN	CAN CIRC 2	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN	Steering angle	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC / CAN CIRC / CAN
ENGINE IRANSMISSION DISPLAY CONTROL UNIT MIETER ACC AMP	CONSULT Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN COMM CAN COMM CAN COMM	CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 4	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN	Steering angle sensor	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE IRANSMISSION DISPLAY CONTROL UNIT MIETER ACE AMP BCM	CONSULT Indication No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM	CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN	CAN CIRC 2	control unit	and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 4 CAN CIRC 5	Steering angle	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN

Replace IPDM E/R.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	TCM	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		GAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-		CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	cN23					CNZ 2			

Case 9

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-292}}$.

	1	[1				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Oriver seat control unit	ABS actuator and electric unit (control unit)	IPDM D
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CNC 4		che 6		CAY CAYC 3	CNZ 7
1RANSMISSION	N V Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GÂN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	\$\delta \delta 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAX 2	CAY CNC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAY CNC 2			GAN CIRC 4					GAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CNC 2	CNC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	cNZ 3					CAN CIRC 2			

Case 10

Check harness between data link connector and driver seat control unit. Refer to LAN-292.

				1				Rx				
	CONSULT Indication	CAN System	Ĭ×	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Oriver seat control unit	ABS actuator and electric unit (control unit)	IPDM D
ENGINE		CAN COMM	CAN CIRC 1		GAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAY CAYC 3	c N Z
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAX 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			che
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAX 5	CNV.
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN
AUTO DRIVE POS.	Nursp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	cN2	cN23			CAV CNC 5				
IPDM E/R	Nursp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to LAN-293 .

	1			ſ				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	I I	BCM	Oriver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		SAZ 3	CNZ 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				cNZ 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	T	CAN CIRC 2	1	1	c N Z ₇
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /		T	CAN CIRC 4		CAY CAYC 5	CWC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	· · · · · · · · · · · · · · · · · · ·			1	CAN CNC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CNC 2	CNC 3	-		CAZ 5				
IPDM E/R	Nuisp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Check ECM circuit. Refer to LAN-293.

	1			1				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAZ 1		cAZ 2		CNZ 4		CAY CNC 6		\$\hat{2}{3}	CNZ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CNC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	cN/C 3			CAN CIRC 5		GAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAY CAYC 2	CAN CIRC 3	CAN CIRC /			GAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAY 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CNC 2	CAN CIRC 3	-		CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	SAZ 3					CAN CIRC 2			

Case 13

Check TCM circuit. Refer to <u>LAN-294</u>.

	1							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN COMM	CAN CIRC 1		CAZ 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	Nw/sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		GAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAY CAY 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNC 4		GAN CIRC 3		CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CNC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 14

Check display control unit circuit. Refer to <u>LAN-294</u>.

	1			[Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	I I	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	cNC 1	cNZ 3			chie 5		CAY CNC 2			che 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAZ/			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		GAN GIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-		CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					GAN CIRC 2			

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN-295}}$.

	I	[ſ				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	N•USp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		GAN CIRC 2			CAN CIRC 7
METER A/C AMP	N USp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	N Dsp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Nullsp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	Na Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 16

Check BCM circuit. Refer to LAN-295.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		c NZ 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAY CNAC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAV CNAC 4		CAN CIRC 5	CAN CIRC 6
всм	N-USp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		GAN CIRC 3		CNZ 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					che 2			

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-296</u>.

[1				Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAL 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			chi 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CINC 5		CAN CIRC 2			GAN GIRC 7
METER A/C AMP	Nep		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CNZ 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 18

Check steering angle sensor circuit. Refer to <u>LAN-296</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		GAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			GAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAV CNC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 19

Check driver seat control unit circuit. Refer to <u>LAN-297</u>.

								Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Nursp	CAN COMM	CAN CIRC 1		CAN CIRC 4		GAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Case 20

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-297</u>.

	1			1				Rx				
	CONSULT Indication	CAN System	T×	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE		CAN COMM	CAN CIRC 1		GAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAY CAYC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAX CAXC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CNC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4	· · · · · · · · · · · · · · · · · · ·				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	cNZ 1	CNC 2	cNZ3			CAZ 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					GAN CIRC 2			

Case 21

Check IPDM E/R circuit. Refer to LAN-298.

	1							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.		BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CNZ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		GAN CIRC 2			CMC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CN 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CNZ 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		GAN GIRC 2			•
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	Nuisp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

Case 22

Check CAN communication circuit. Refer to <u>LAN-299</u>.

	11			7				Rx				
	CONSULT Indication	CAN System	T×	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sensor	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAZ 1		CAZ 2		CAY CMZ 4		c NZ 6		SAZ3	CNZ 7
1RANSMISSION	N Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	cNZ 1	\$ \% 3			CAL CMC 5		cNZ 2			che 7
METER A/C AMP	N u U sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	N u U sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	Neursp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	cN2 1	CAY CAY 2	cN23			CAV CNC 5				
IPDM E/R	Na Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

CAN SYSTEM (TYPE 13)

[CAN]

Case 23

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-299}}$.

	1							Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	тсм	Display control unit	Unified meter and A/C amp.	Steering angle sonsor	BCM	Driver seaf confrol unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4		CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
1RANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAY CNC 2			CAY CNC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC /			CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3		CAN CIRC 2			
ABS		COMM	CAN CIRC 1	cNC 2	CAN CIRC 3	-		CAY CNVC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

				[Rx				
	CONSULT Indication	CAN System	Ťχ	ECM	ТСМ	Display control unit	Unified meter and A/C amp.	Steering angle sensor	ВСМ	Driver seaf confrol unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		SAZ 2		CAN CIRC 4		CAN CIRC 6		cNZ 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3	
ISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5		CAN CIRC 2			CAN CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	cNZ3	CAN CIRC /			CAN CIRC 4		CAZ 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4					CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAL 4		CAN CIRC 3		CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3			CAN CIRC 5				
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3					CAN CIRC 2			

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

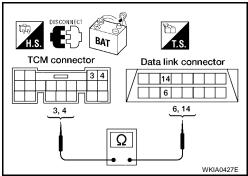
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-282, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

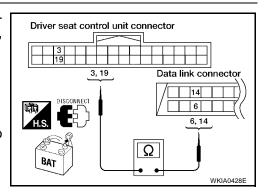
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

> 3 (BR) - 6 (L) : Continuity should exist. 19 (Y/G) - 14 (Y) : Continuity should exist.

OK or NG

>> Connect all connectors and diagnose again. Refer to OK LAN-282.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS00513

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 7 (L), 9 (Y).

> 3 (BR) - 7 (L) 19 (Y/G) - 9 (Y)

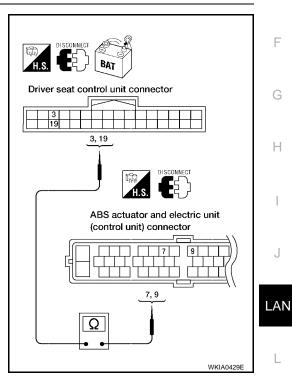
: Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-282.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

LAN-293

EKS00514

EKS00515

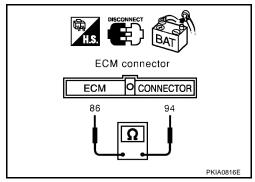
2. check harness for open circuit

Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

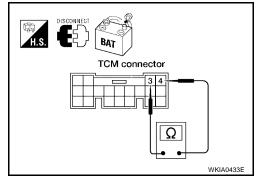
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS00516

Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

: Approx. 54 - 66 Ω

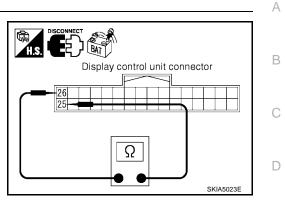
OK or NG

OK

>> Replace display control unit.

NG

>> Repair harness between display control unit connector M95 and data link connector M22.



Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

Disconnect the negative battery terminal.

3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

: Approx. 54 - 66 Ω

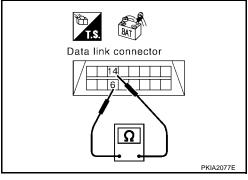
OK or NG

OK

>> Connect all connectors and diagnose again. Refer to LAN-282.

NG

>> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect BCM connector M18.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. EKS00518

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2. check harness for open circuit

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

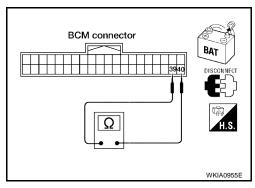
39 (L) - **40** (Y) : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



EKS00519

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

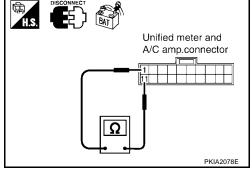
Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

1 (L) - **11 (Y)** : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace unified meter and A/C amp.

NG >> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Steering Angle Sensor Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect steering angle sensor connector M47.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between steering angle sensor connector M47 terminal 4 (L) and terminal 5 (Y).

: Approx. 54 - 66 Ω

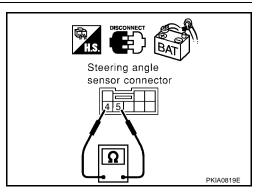
OK or NG

OK

>> Replace steering angle sensor.

NG

>> Repair harness between steering angle sensor connector M47 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

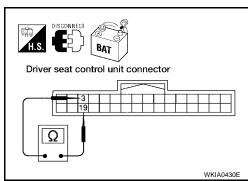
OK or NG

OK

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 7 (L) and terminal 9 (Y).

: Approx. 54 - 66 Ω

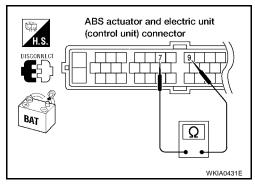
OK or NG

OK NG

>> Replace ABS actuator and electric unit (control unit).

>

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



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IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

: Approx. 108 - 132 Ω

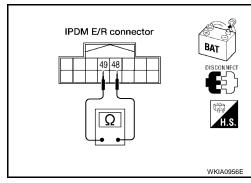
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



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CAN Communication Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display control unit
- BCM (Body control module)
- Unified meter and A/C amp.
- Steering angle sensor
- Driver seat control unit
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

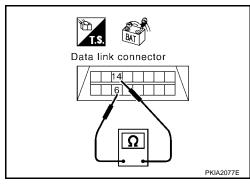
6 (L) - 14 (Y)

: Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



3. CHECK HARNESS FOR SHORT TO GROUND

Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

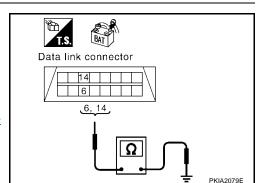
> : Continuity should not exist. 6 (L) - Ground

> : Continuity should not exist. 14 (Y) - Ground

OK or NG

OK >> Check ECM and IPDM E/R. Refer to LAN-300, "Component Inspection".

NG >> Repair the harness.



IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-11, "IGNITION POWER SUPPLY IGNITION SW. IN ON AND/ OR START".

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Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

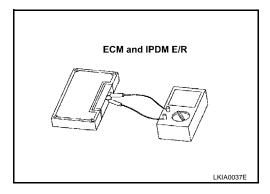
EKS005IG

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. $108 - 132\Omega$



CAN SYSTEM (TYPE 14)

PFP:23710

System Description

EKS005EV

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

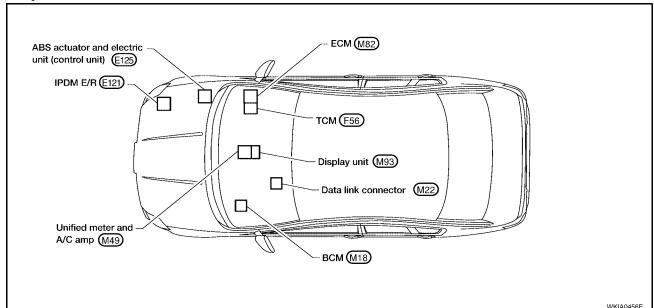
Component Parts and Harness Connector Location

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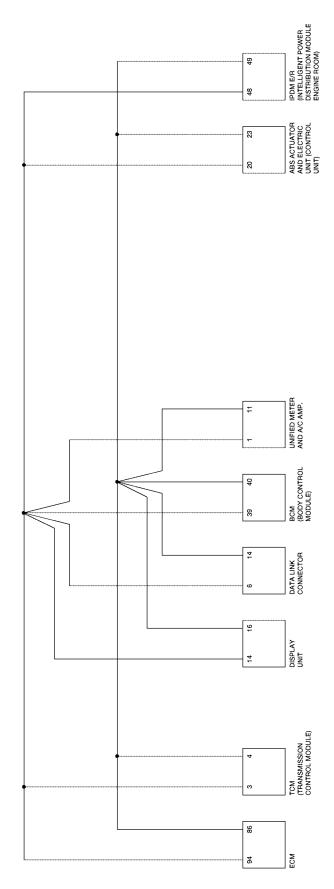
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Schematic



Wiring Diagram - CAN -

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LAN-CAN-40

: DATA LINE

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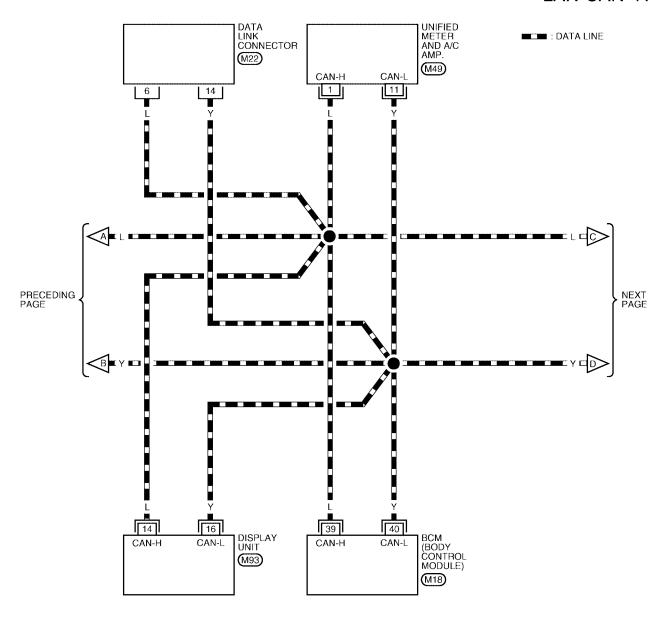
REFER TO THE FOLLOWING.

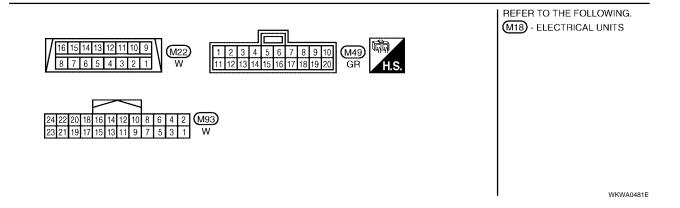
(M82), (F56) - ELECTRICAL

UNITS

WKWA0480E

LAN-CAN-41





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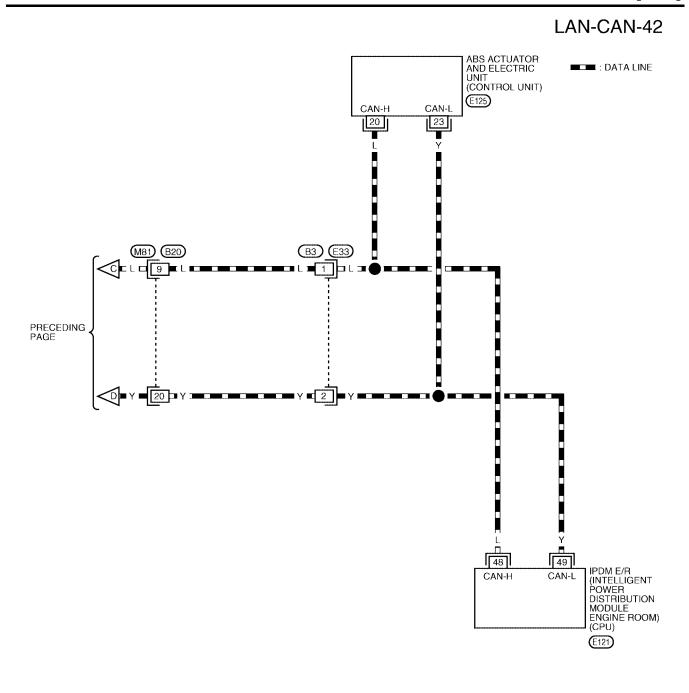
C

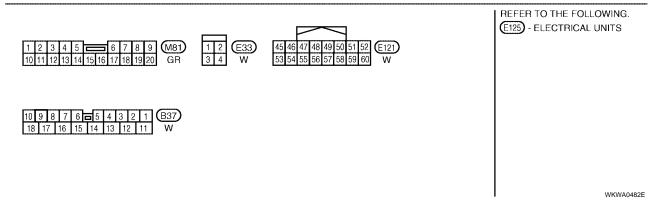
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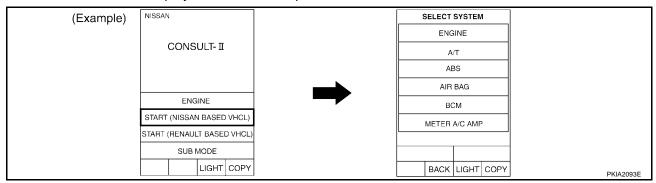
LAN



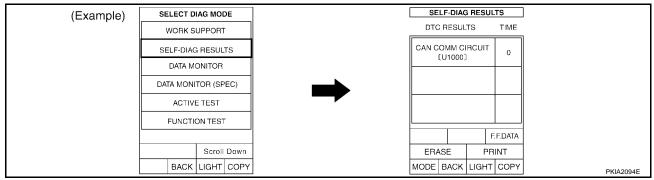


Work Flow

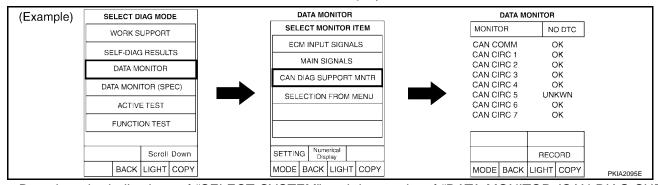
 When there are no indications of "TRANSMISSION", "BCM", "IPDM E/R" or "METER A/C AMP" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



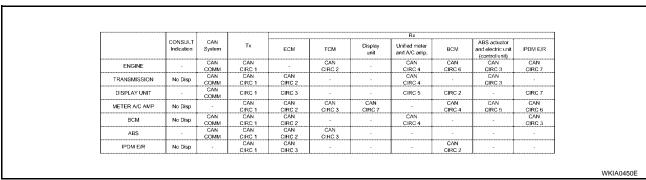
 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.



NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 14)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT)
 - Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

Indication Ind			CAN					Řx			
ENGINE CMM					ECM	TCM	unit		всм	and electric unit	IPDM E/R
TRANSMISSION No Disp COMM CIRC 1 CIRC 2 CIRC 4 CIRC 3 CIRC 5	ENGINE	-	CAMM		-		-				
DISPLAY UNIT - CAN CIRC 1 CIRC 3 - CIRC 5 CIRC 2 - CIRC 7		No Disp				-	-				
METER A/C AMP No Disp CAN	DISPLAY UNIT	1				I			CIRC 2		CIRC 7
BCM No Disp CAN	METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
ABS - CAN CAN CAN CAN	BCM	No Disp	CAN	CAN	CAN	-		CAN			CAN
IDDM EIR NO DED CAN CAN CAN	ABS	-	COMM	CIRC 1	CIRC 2	CAN CIRC 3	-				
	IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	SAC 2	-	CAN RC4	CAC 6	chic 3	CAL CINC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2		-

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Case 2
Replace TCM.

	Т			Ι			Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	C/N C/C/2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	€ 63	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	℃ 3	-	-	-	-	-
IPDM E/R	No Disp	- COMM	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	
				4						
							Do			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Rx Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		System CAN	Tx CAN		CAN		Unified meter and A/C amp. CAN	BCM CAN	and electric unit (control unit) CAN	CAN
ENGINE TRANSMISSION	Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM -	l	unit	Unified meter and A/C amp. CAN CIRC 4	всм	and electric unit (control unit) CAN CIRC 3	
	Indication -	System CAN COMM CAN COMM COMM	Tx CAN CIRC 1	ECM	CAN CIRC 2	unit -	Unified meter and A/C amp. CAN	BCM CAN CIRC 6	and electric unit (control unit) CAN	CAN CIRC 7
TRANSMISSION	Indication - No Disp	System CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1	ECM CAC 2 CIRC 3 CAN	CAN CIRC 2 - - - CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CA CA CA	BCM CAN CIRC 6 - CIRC 2 CAN	and electric unit (control unit) CAN CIRC 3 CAY CAY	CAN CIRC 7 - CIRC 7 CAN
TRANSMISSION DISPLAY UNIT	Indication - No Disp -	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	CANC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2	and electric unit (control unit (control unit CAN CIRC 3 CAN CAN CAN CAN CAN CAN CAN CAN CAN CAN	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
TRANSMISSION DISPLAY UNIT METER A/C AMP	Indication - No Disp - No Disp	System CAN COMM CAN COMM COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM CAM C 2 CIRC 3 CAN CIRC 2	CAN CIRC 2 - - CAN CIRC 3	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	and electric unit (control unit) CAN CIRC 3 CA CAC CAC CAC CAC CAC CAC CAC CAC CAC	CAN CIRC 7 - CIRC 7 CAN CIRC 6

Case 3
Replace display unit.

	T			I			Rx			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABŞ	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
		CONN			- United					
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-
IPDM E/R	No Disp	-			-	-	-		-	-
IPDM E/R	No Disp CONSULT Indication	CAN System			TCM	- Display unit	Rx Unified meter and A/C amp.		ABS actuator and electric unit (control unit)	IPDM E/R
IPDM E/R	CONSULT	System	CIRC 1 Tx CAN	CIRC 3	TCM CAN		Unified meter and A/C amp.	BCM	and electric unit (control unit) CAN	CAN
	CONSULT	System CAN COMM CAN	TX CAN CIRC 1 CAN	ECM .	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4 CAN	GIRC 2	and electric unit (control unit) CAN CIRC 3 CAN	
ENGINE	CONSULT Indication	System CAN COMM CAN COMM COMM	Tx CAN CIRC 1	ECM	TCM CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6	and electric unit (control unit) CAN CIRC 3	CAN
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	TCM CAN CIRC 2 CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 ECM	TCM CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CRO 5	BCM CAN CIRC 6	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - CIBC 7 CAN CIRC 6 CAN	
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication - No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 LIFE 3 CAN CIRC 2	TCM CAN CIRC 2 CAN CIRC 3	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 4	BCM CAN CIRC 6	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7

CAN SYSTEM (TYPE 14)

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Case 4

Replace BCM.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	C MM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN GIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CA C 2	-	-	CVC 4	-	-	CAN C 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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Case 5

Replace unified meter and A/C amp.

							Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN	CAN	_	CAN	_	CAN	CAN	CAN	CAN
EITOITE		COMM	CIRC 1	L	CIRC 2		CIRC 4	CIRC 6	CIRC 3	CIRC 7
TRANSMISSION	No Disp	CAN	CAN	CAN		I	CAN		CAN	
RANSINISSION	NO DISP	COMM	CIRC 1	CIRC 2	I	· · · · · · · · · · · · · · · · · · ·	CIRC 4	- 	CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAC 2	€ ⁄⁄€3	€ 67	-	C/X C/C 4	€ /€ 5	CAN CIRC 6
2011	N D:	CAN	CAN	CAN			CAN			CAN
BCM	No Disp	COMM	CIRC 1	CIRC 2	-		CIRC 4	-	-	CIRC 3
400	1	CAN	CAN	CAN	CAN	1	1		1	
ABS	-	COMM	CIRC 1	CIRC 2	CIRC 3	-	-	-	-	-
IDDILED	N . B:		CAN	CAN				CAN		
IPDM E/R	No Disp	-	CIRC 1	CIRC 3	-	-	-	CIRC 2	-	-

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Case 6

Replace ABS actuator and electric unit (control unit).

		T		T			Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	C/A C/3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	C/A C/C 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN NAC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	SAMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-		-	-	-
IPDM E/R	No Disp	Gentini	CAN	CAN	- CINC 3		·	CAN	-	
IF GIVE LIK	1.0 5.0)	L	CIRC 1	CIRC 3				CIRC 2		
IF ON LIK	1.0 5.0		CIRC 1	CIRC 3				GIRC 2		
TOWER.	CONSULT	CAN System	CIRC 1	CIRC 3	TCM	Display unit	Rx Unified meter and A/C amp.	GIRG 2	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System	Tx CAN		TCM CAN	Display	Rx Unified meter and A/C amp. CAN	BCM CAN	and electric unit (control unit) CAN	CAN
	CONSULT	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	TCM	Display	Rx Unified meter and A/C amp. CAN CAN CAN	всм	and electric unit (control unit) CAN CIRC 3 CAN	
ENGINE	CONSULT Indication	CAN COMM CAN COMM COMM	Tx CAN CIRC 1	ECM -	TCM CAN CIRC 2	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6	and electric unit (control unit) CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	System CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1	CAN CIRC 2 CIRC 3 CAN	TCM CAN CIRC 2 CAN	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - CIRC 2 CAN	and electric unit (control unit) CAN GIRC 3 CAN GIRC 3	CAN CIRC 7 - CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1	CAN CIRG 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	TCM CAN CIRC 2	Display unit - -	Rx Unified meter and A/C amp. CAN CIRC 4 CIRC 5 CAN	BCM CAN CIRC 6 - CIRC 2	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication No Disp No Disp	System CAN GOMM GAN COMM CAN GOMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2	TCM CAN CIRC 2 - CAN CIRC 3	Display unit	Rx Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - CIRC 7 CAN CIRC 6

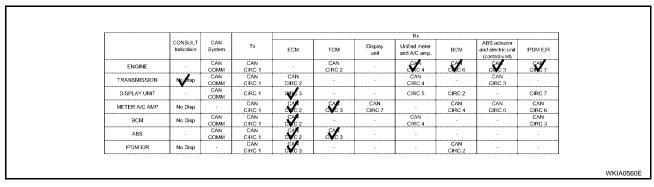
Case 7

Replace IPDM E/R.

	Т			T			Rx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	T -	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	\$2 3	-	-	-	CAN ORC 2	-	-

Case 8

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-314}}$.



Case 9

Check harness between data link connector and ABS actuator and electric unit (control unit). Refer to $\underline{\text{LAN-}}$ 314 .

	T						Řx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	cNC 3	C/N C/C7
TRANSMISSION	No Disp		CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	\$\hat{S}_3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	aug/C7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	- 1	CAN CIRC 4	CNOC 5	C/A C 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	Č/A SU/C 3
ABS	-	CAN COMM	CAN CIRC 1	CAZ CAZC 2	°.∕. °.∕3	-	-	-	-	-
IPDM E/R	Noisp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-	-

Case 10

Check ECM circuit. Refer to <u>LAN-315</u>.

	T			T			Řx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CKC 1		cXC2	-	CXC 4	C/N C/C 6	cMc 3	CKC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	C/N C/RC2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	appe 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CAC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CANC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	ČAN NIKC 3	-	-	-	CAN CIRC 2	-	-

Case 11

Check TCM circuit. Refer to <u>LAN-316</u>.

	T						Řx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CARC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Fisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	GAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	°20 8€3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	⊘ /03	-	- 1	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

Case 12

Check display unit circuit. Refer to $\underline{\mathsf{LAN-316}}$.

	T			T			Řx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CR2/1	SUE 3	-	-	CIRI/5	CIRO/2	-	CIFC
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	€ /C 7	-	CÂN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-

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Case 13

Check data link connector circuit. Refer to <u>LAN-317</u>.

							Řx			
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Fisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7
METER A/C AMP	No ilisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6
BCM	No Pisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	- 1	-	-	-
IPDM E/R	Notisp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-	-

Case 14

Check BCM circuit. Refer to LAN-317.

	Т			T			Řx			
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAVC 6	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN	CIRC 1	CIRC 3	-	-	CIRC 5	GIR∕2	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	6/X 6/4	CAN CIRC 5	CAN CIRC 6
всм	No Pisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN 2	-	-

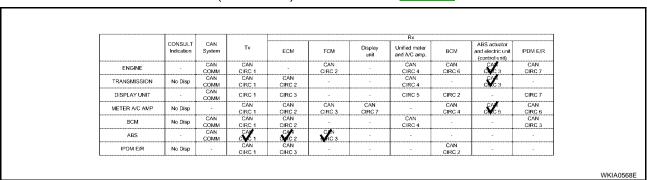
Case 15

Check unified meter and A/C amp. circuit. Refer to LAN-318.

					Rx							
	CONSULT	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R		
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	S ^N RC4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7		
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	VRC 4	-	CAN CIRC 3	-		
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CAC 5	CIRC 2	-	CIRC 7		
METER A/C AMP	No isp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6		
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN VRC 4	-	-	CAN CIRC 3		
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	- 1	-	-	-		
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	- 1	CAN CIRC 2	-	-		

Case 16

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-318</u>.



CAN SYSTEM (TYPE 14)

[CAN]

Case 17

Check IPDM E/R circuit. Refer to LAN-319.

				Rx										
	CONSULT	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R				
ENGINE	-	CAN COMM	CAN CIRC 1		CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAA 7				
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-				
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIR/7				
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAC 6				
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CANC 3				
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-				
IPDM E/R	No isp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-				

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Case 18

Check CAN communication circuit. Refer to <u>LAN-319</u>.

	T		l	Řx									
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	всм	ABS actuator and electric unit (control unit)	IPDM E			
ENGINE	-	CAN	CAC 1	-	CAN CXC 2	-	CNC 4	CA CAC 6	6 /0 3	CA/C			
TRANSMISSION	No disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-			
DISPLAY UNIT	-	CAN	CUB/1	CIRI 3	-	-	CIRC 5	CIRO/2	-	CIB € 7			
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6			
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3			
ABS	-	CAN COMM	CNC 1	CAL 2	CAZ 3	-	-	-	-	-			
IPDM E/R	Notisp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-			

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Case 19

Check IPDM E/R Ignition relay circuit. Refer to $\underline{\mathsf{LAN-320}}$.

				Ř×										
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R				
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	CAN CIRC 3	CAN CIRC 7				
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAL CINC 2	-	-	C/X C/C 4	-	CAN CIRC 3	-				
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7				
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	CAN CIRC 5	CAN CIRC 6				
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3				
ABS	-	CAN COMM	CAN CIRC 1	CAN CINC 2	CAN CIRC 3	-	-	-	-	-				
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-				

	1			Rx											
	CONSULT Indication	CAN System	Tx	ECM	TCM	Display unit	Unified meter and A/C amp.	BCM	ABS actuator and electric unit (control unit)	IPDM E/R					
ENGINE	-	CAN COMM	CAN CIRC 1	-	c X C2	-	CAN CIRC 4	CAN CIRC 6	chic 3	CAN CIRC 7					
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	CAN CIRC 3	-					
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	CIRC 7					
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	cN23	CAN CIRC 7	-	CAN CIRC 4	CAZ 5	CAN CIRC 6					
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3					
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-					
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-					

LAN-313

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

EKS005F0

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

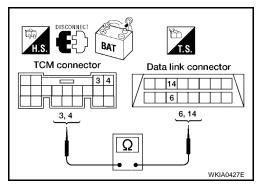
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-306, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

Α

2. CHECK HARNESS FOR OPEN CIRCUIT

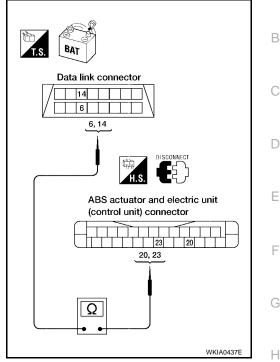
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

6 (L) - 20 (L) : Continuity should exist. 14 (Y) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-306.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect ECM connector M82.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

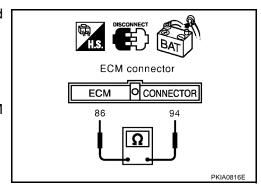
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

94 (L) - 86 (Y) : Approx. $108 - 132\Omega$

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



EKS005F2

LAN

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TCM Circuit Check

1. CONNECTOR INSPECTION

EKS005F3

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

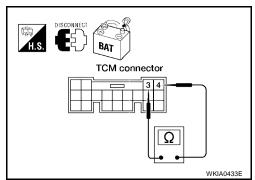
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

3 (L) - 4 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS005F4

Display Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

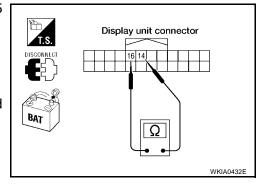
Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

14 (L) - 16 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit connector M93 and data link connector M22.



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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

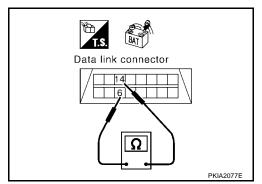
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 - 66
$$\Omega$$

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to <u>LAN-306</u>.

NG >> Repair harness between data link connector M22 and BCM connector M18.



EKS005F6

BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

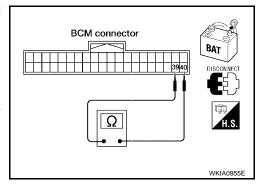
39 (L) - 40 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

NG

OK >> Replace BCM.

>> Repair harness between BCM connector M18 and data link connector M22.



LAN

Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

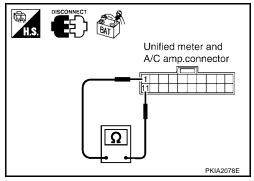
: Approx. 54 - 66 Ω

OK or NG

OK >> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS005F8

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

>> GO TO 2. OK

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66Ω

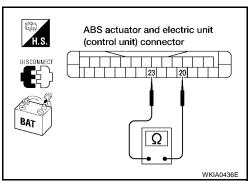
OK or NG

OK

NG

>> Replace ABS actuator and electric unit (control unit).

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



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IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

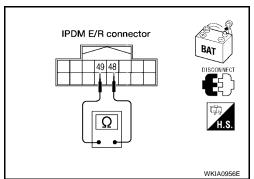
2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

OK or NG

OK >> Replace IPDM E/R. NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.
- **ECM**
- TCM (Transmission control module)
- Display unit
- BCM (Body control module)
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

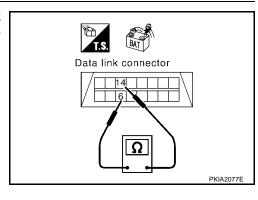
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



EKS005FA

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3. CHECK HARNESS FOR SHORT TO GROUND

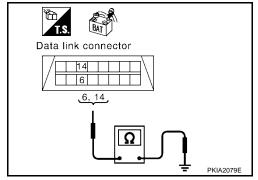
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-320, "Component Inspection"</u>.

NG >> Repair the harness.



EKS005FB

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IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

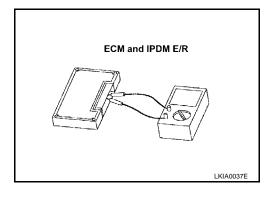
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 15)

PFP:23710

System Description

EKS005FD

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

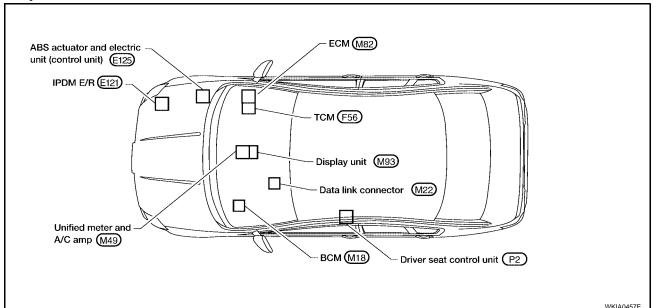
Component Parts and Harness Connector Location

EKS005FE

D

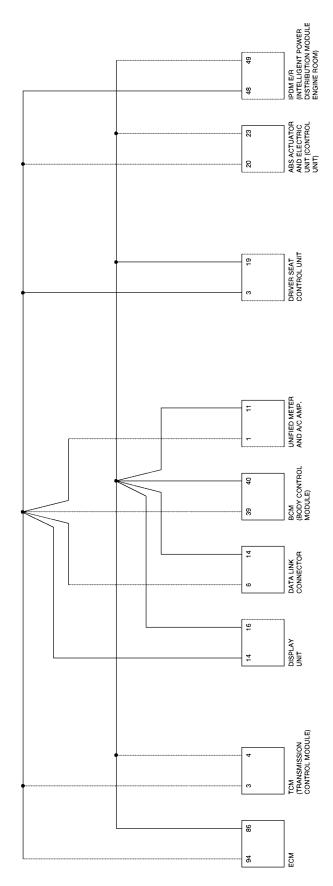
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Schematic



Wiring Diagram - CAN -

KS005EG

LAN-CAN-43

: DATA LINE B

NEXT PAGE

NEXT PAGE

NEXT PAGE

NEXT PAGE

A

TCM (TRANSMISSION CONTROL MODULE)

(CONTROL MODULE)

(F56)

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1	2	3	4	5	6	Ш	=	7	8	9	10	11	(F59)
12	13	14	15	16	17	18	19	20	21	22	23	24	W

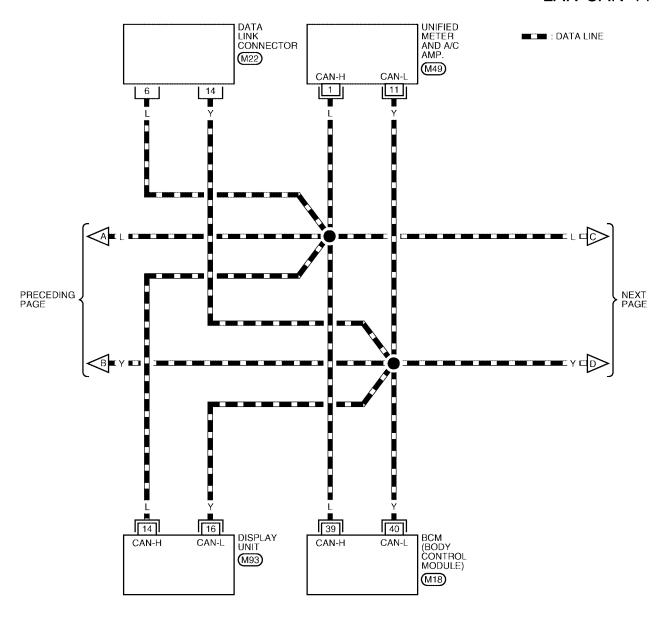
REFER TO THE FOLLOWING.

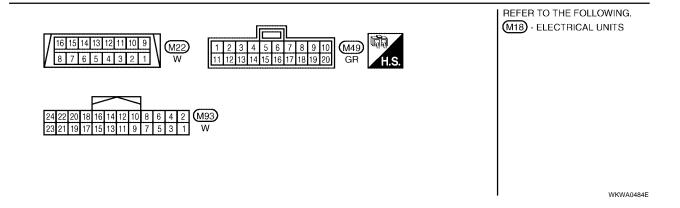
(M82), (F56) - ELECTRICAL

UNITS

WKWA0483E

LAN-CAN-44





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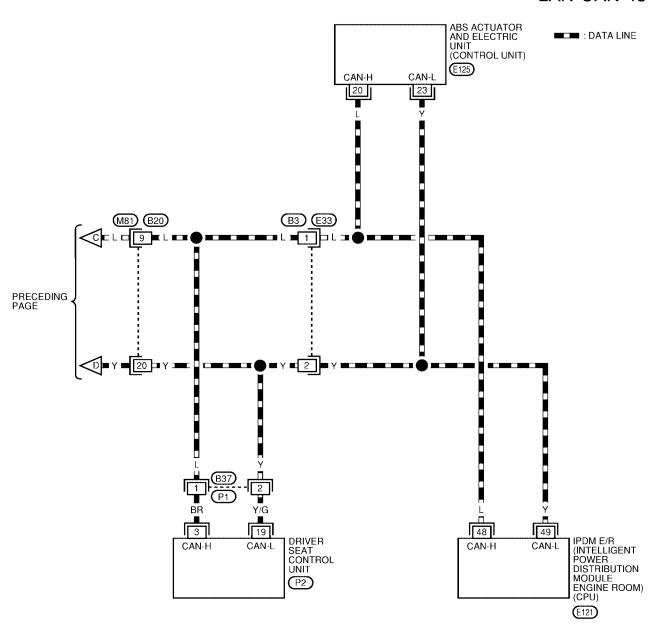
Е

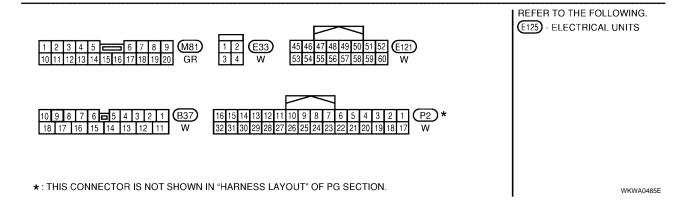
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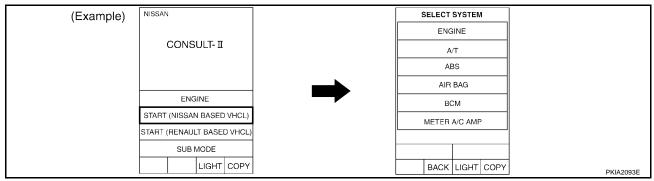
LAN-CAN-45



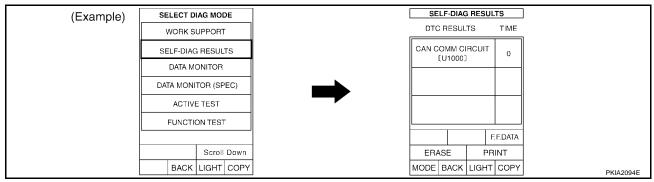


Work Flow

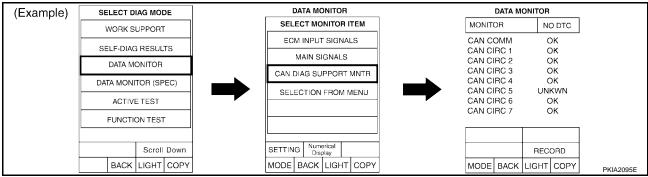
1. When there are no indications of "TRANSMISSION", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



4. Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

	T						R	×			
	CONSULT	CAN System	Tχ	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
AB\$	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 15)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual.
 Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONITOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

6. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

Case 1

Replace ECM.

	CONSULT Indication	CAN System	Tx	ECM	тсм	Displey unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN GIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRÇ 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

							R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1	-	CAL CNC 2	-	CAZC 4	CANC 6		ÇN MRC3	C/N C7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-		CAN CIRC 3	
DISPLAY UNIT		CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	ÇAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

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Case 2
Replace TCM.

	T						R	x			
	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAY CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAA OMMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAV CNC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CNC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
AB\$	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CNC 3	-	-	-	-	-	-
IPDM E/R	No Disp		CAN	CAN				CAN CIRC 2			
IFUNIER	NO DISP		CIRC 1	CIRC 3				CIRC 2	J		
IFUNIER	NO DISP		CIRC 1	CIRC 3			R				
IF DIN EX	CONSULT	CAN System	Tx	ECM ECM	тсм	Display unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System CAN COMM	Tx CAN CIRC 1	ECM -	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	x		and electric unit (control unit) CAN CIRC 3	IPDM E/R CAN CIRC 7
	CONSULT	CAN COMM CAN COMM	Tx CAN		CAN	unit	Unified meter and A/C amp. CAN	BCM CAN		and electric unit (control unit) CAN	CAN
ENGINÊ	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1	ECM -	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6 - CIRC 2		and electric unit (control unit) CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication No Disp	CAN COMM CAN COMM CAN CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM - GN RC 2 CIRC 3 CAN CIRC 2	CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CINC 4 CIRC 5	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CA CA CA CA CA CA CA CA CA C	CAN CIRC 7 - CIRC 7 CAN CIRC 6
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN	Tx CAN GIRC 1 CAN GIRC 1 CAN GIRC 1 CIRC 1 CAN	ECM - CN AC 2 CIRC 3 CAN	CAN CIRC 2 - - - CAN	unit CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CINC 4	BCM CAN CIRC 6 CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CAN	CAN CIRC 7 - CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP	CONSULT Indication No Disp No Disp	CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1	ECM CIN PRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN GIRC 2 CAN GIRC 3 - CAN GIRC 3 CAN CIRC 4	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CINC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4		and electric unit (control unit) CAN CIRC 3 CAP	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER AIC AMP BCM	CONSULT Indication - No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM GN RC 2 CIRC 3 CAN CIRC 2 CAN	CAN CIRC 2 - CAN CIRC 3 - CAN	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN		and electric unit (control unit) (CAN CIRC 3 CAY CAC 3 CAN CIRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 3
Replace display unit

	···	,									
	CONSULT Indication	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2		-	CAN CIRC 4		-	CAN CIRC 3	-
DISPLAY UNIT	-	CAM	CIRC 1	CIRC 3		-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R			CAN	CAN				CAN			
IPDM EX	No Disp	-	CIRC 1	CIRC 3	-	-	-	CIRC 2	-	-	-
IPUMER		-			-	-	- R	CIRC 2	-	-	-
IPUM ER	CONSULT Indication	CAN System			тсм	Display unit		CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System	Tx	CIRC 3	CAN	Display	R Unified meter and A/C amp CAN	CIRC 2 x BCM CAN		ABS actuator and electric unit (control unit) CAN	CAN
	CONSULT Indication	System	Tx CAN CIRC 1 CAN	CIRC 3		Display	R Unified meter and A/C amp.	CIRC 2		ABS actuator and electric unit (control unit) CAN CIRC 3 CAN	
ENGINE	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1	ECM -	CAN	Display unit	R Unified meter and A/C amp. CAN CIRC 4 CAN	CIRC 2 x BCM CAN		ABS actuator and electric unit (control unit) CAN CIRC 3	CAN
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2	CAN CIRC 2	Display unit -	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	CIRC 2 * BCM CIRC 6		ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	ECM CAN CIRG 2 CRE 3 CAN	CAN CIRC 2 - - - CAN	Display unit	R Unified meter and A/C amp CAN CIRC 4 CAN CIRC 4 GISC 5	BCM CAN CIRC 6 - CAN CAN		ABS actuator and electric unit (control unit) (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication - No Disp - No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM -	Tx CAN CIRC 1	ECM CAN CIRC 2 CRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2 - - - CAN	Display unit	R Unified meter and AVC amp. CAN CIRC 4 CAN CIRC 4 CIRC 4 CIRC 4	BCM CAN CIRC 6 - CAN CIRC 6 - CAN CIRC 4		ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - - CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP BCM	CONSULT Indication No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 - CAN	Display unit CAN CIRC 7	Unified meter and AVC amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 - CAN CIRC 4 - CAN		ABS actuator and electric unit (control unit). CAN CIRC 3 CAN CIRC 5 CAN CIRC	CAN CIRC 7 - - CAN CIRC 6 CAN

CAN SYSTEM (TYPE 15)

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Case 4

Replace BCM.

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	CONSULT Indication	CAN System	Τ'x	ECM	тсм	Display unit	Unified moter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 3	CAN CIRC /
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 2	-		-	CAN		-	-

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	T						R:	<			
	CONSULT Indication	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4			CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3			CIRC 5	CIRC 2			CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	1	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CMC 2	-	-	CAC 4	-	-	-	CAC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	- :	CAN CIRC 2	-	-	-

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Case 5

Replace unified meter and A/C amp.

							F	ξx			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	C N RC 2	CAN CANC3	CAC 7	-	CALC 4	-	CAV CAC 5	SAC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

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Case 6

Replace driver seat control unit.

	T						R	x			
	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	
AB\$	-	CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp		CAN	CAN				CAN		-	
II DNI DN	No orsp		CIRC 1	CIRC 3				CIRC 2	1	11	
II DNI DIX	Nu orsp		CIRC 1	CIRC 3			B				
II Dill Dix	CONSULT Indication	CAN System	Tx	CIRC 3	тсм	Display unit	R Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	System CAN COMM	Tx CAN CIRC 1	ECM	TCM CAN CIRC 2		Unified meter and A/C amp. CAN CIRC 4	x		and electric unit (control unit) CAN CIRC 3	IPDM E/R CAN CIRC 7
	CONSULT Indication	System	Tx CAN	ECM	CAN		Unified meter and A/C amp. CAN	X BCM CAN		and electric unit (control unit) CAN	CAN
ENGINE	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1	ECM - CAN CIRG 2 CIRC 3	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 CIRC 2	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN GIRC 1 CAN GIRC 1	ECM - CAN CIRC 2	CAN CIRC 2	unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN	ECM - CAN CIRC 2 CIRC 3 CAN	CAN CIRC 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT METER AC AMP	CONSULT Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 - CAN CIRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP BCM	CONSULT Indication No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 - CAN CIRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN

Case 7

Replace ABS actuator and electric unit (control unit).

	Т						R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	€ 63	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4	-		CAN NC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-		CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN NC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	004	CAN	CAN	-	-		CAN		-	
ii biii bii	No orsp	-	CIRC 1	CIRC 3	I			CIRC 2			
			CIRC 1	CIRC 3			R		J		
	CONSULT Indication	CAN System	CIRC 1	CIRC 3	тсм	Display unit			Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT				I	Display	R Unified meter	x		and electric unit	IPDM E/R CAN CIRC 7
	CONSULT Indication	System	Tx CAN	ECM	TCM CAN	Display	R Unified meter and A/C amp CAN	X BCM CAN		and electric unit (control unit) CAN	CAN
ENGINE	CONSULT Indication	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	TCM CAN CIRC 2	Display unit	R Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN	CAN
ENGINE TRANSMISSION	CONSULT Indication No Disp	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2	TCM CAN CIRC 2	Display unit -	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN GIRC 2 CAN	Display unit	R Unified meter and A/C amp CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM -	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 GAN CIRC 2 CAN CIRC 2	TCM CAN GIRC 2 CAN	Display unit	R Unified meter and AVC amp. CAN CIRC 4 CAN CIRC 4 CIRC 5 - CAN	BCM CAN CIRC 6 - CIRC 2 CAN	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER ALC AMP BCM	CONSULT Indication - No Disp No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2 CAN GIRC 3 - CAN	Display unit	Unified meter and AVC amp. CAN CIRC 4 CIRC 5 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 - CIRC 2 CAN CIRC 4 - CAN	control unit	and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 - CAN CIRC 5	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN CIRC 3

Case 8

Replace IPDM E/R.

							R	(
	Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R	
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7	
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7	
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6	
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3	
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-	
AB\$	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-	
IPDM E/R	No Disp	-	CAN CIRC 1	CAM CMDC 3	-	-		CAN NUC 2			-	

Case 9

Check harness between TCM and data link connector. Refer to <u>LAN-335</u>.

	T						R	×			
	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAY OVEC 4	CAY OVEC 6	-	CAN OUTC 3	CAX Out 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	ČAN CIRC 4	-	-	ČAN CIRC 3	
DISPLAY UNIT	' -	CAN COMM	CIRC 1	QIF 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	ČAC,2	CAC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CKC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAY OVC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN OUTC 2	ČAY OVC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	ĆAM OMFC 3		-	-	CAN CIRC 2	-	-	-

Case 10

Check harness between data link connector and driver seat control unit. Refer to LAN-335.

	1						R	×			
	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	che 3	C/A C 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAY 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIPC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN ONEX 5	ČA C 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAA C 3
AUTO DRIVE POS.	N D sp	CAN COMM	CAN CIRC 1		CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN COMM	CAN CIRC 1	CMC 2	CINC 3	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to <u>LAN-336</u>.

							R	x			
	Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAC 3	SAC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAX C3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIFC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CNGC 5	ČA VIC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	·	CAN WC 3
AUTO DRIVE POS.	Na Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC_4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CINC 2	CKC3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-		CAN CIRC 2	-		-

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Case 12

Check ECM circuit. Refer to LAN-336.

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	CONSULT Indication	CAN System	Tχ	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAX OXC 1	-	CAN C 2	-	C/A 0/C 4	CAZ 6	-	CAN AC3	CA C 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAV CNC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIR9/3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CNC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CNC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CINC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAY CNC 3		-	-	CAN CIRC 2	-	-	-

Case 13

Check TCM circuit. Refer to LAN-337.

	1						R	×			
	CONSULT	CAN System	Tκ	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN C 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	Nepsp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN C3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CA	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN C 3	-		-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-		CAN CIRC 2			-

Case 14

Check display unit circuit. Refer to $\underline{\mathsf{LAN-337}}$.

	T						R	×			
	CONSULT	CAN System	Tκ	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	ÇI y €1	CR9/3	-	-	CIR/S	CIRS 2	-	-	QIF/L7
METER A/C AMP	No Disp	-	CAN CIRC 1	CÀN CIRC 2	CAN CIRC 3	CAN OWC 7	-	CAN CIRC 4	-	CAN CIRC 5	ČAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-			CAN CIRC 2		-	-

Case 15

Check data link connector circuit. Refer to $\underline{\mathsf{LAN}\text{-}338}$.

							R	x			
	CONSULT Indication	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No isp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No isp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Ssp	-	CAN CIRC 1	CAN CIRC 3	-			CAN CIRC 2		-	-

LAN-332

Case 16

Check BCM circuit. Refer to LAN-338.

							R	x			
	CONSULT Indication	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAY CAC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-		CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-		CIRC 5	OUF 2	=	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAY OVC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAY CYC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAY CYC 2	-	-	-

Case 17

Check unified meter and A/C amp. circuit. Refer to <u>LAN-339</u>.

	1						R	×			
	CONSULT	CAN System	Tκ	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CNZ 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CNC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	ONE 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	New isp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CNZ4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CNZ 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-		-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-		-	CAN CIRC 2	-		

Case 18

Check driver seat control unit circuit. Refer to <u>LAN-339</u>.

							F	tx			
	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4		-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
AB\$	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-	-	CAN CIRC 2	-	-	-

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-340</u>.

							Б	x			
	CONSULT Indication	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAY CAYC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAM CNC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CNOC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
AB\$	-	CAN COMM	CAN CINC 1	CAC 2	CA C3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3		-		CAN CIRC 2	-	-	-

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-340</u>.

							R	x			
	CONSULT Indication	CAN System	T'x	ECM	тсм	Display unit	Unified moter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
FNGINE		CAN COMM	CAN CIRC 1		CAN CIRC 2		CAN CIRC 4	CAN CIRC 6		CAN CIRC 3	CAY/
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	ook 1
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAY CNC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CNOC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	
IPDM E/R	No sp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

Case 21

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-341}}$.

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	CONSULT	CAN System	Τx	ECM	тсм	Display unit	Unified meter and A/C amp. :	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/
ENGINE	-	CAN COMM	C/A C 1	-	CAX CXC 2		CAN CNC 4	CAA 04/C 6	-	€ 2 2 3	CAY CAYC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC_2			CAN CIRC 4	,	-	CAN CIRC 3	٠.
DISPLAY UNIT		CAN COMM	N C 1	0√ 03	-	-	CIRO 5	Ç15 6 2	-	-	OK 7
METER A/C AMP	Oisp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Pisp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
ABS	-	CAN COMM	CAN C 1	CAN CIRC 2	cAC3	-	-	-	-	-	-
IPDM E/R	No disp	-	CAN CIRC 1	CAN CIRC 3	-		- :	CAN CIRC 2	-	-	-

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-342

	T						R	x			
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAY CAY 2	-	CAN 4	CAN CIRC 6		CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY UNIT	-	CAN COMM	CIRC 1	CIRC 3	-	-	CIRC 5	CIRC 2	-	-	CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	-	CAN CIRC 3
AUTO DRIVE POS.	No Disp	ÇAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-	-	-
AB\$	-	ÇAN COMM	CAN CIRC 1	CAN CIRC 2	CAC 3	-	-	-		-	-
IPDM E/R	No Disp		CAN	CAN			_	CAN			
IFUN DK	NU UISP	-	CIRC 1	CIRC 3	1	I		CIRC 2			
IPUW BK	Nu Disp		CIRC 1	CIRC 3			R				
II DM EN	CONSULT Indication	CAN System	Tx	CIRC 3	тсм	Display unit	Unified meter and A/C amp.	x BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE	CONSULT	CAN	Tx CAN CIRC 1				Unified meter and A/C amp. CAN CIRC 4	x		and electric unit (control unit)	IPDM E/R CAN CIRC 7
	CONSULT Indication	CAN System	Tx CAN		TCM CAP 2	unit	Unified meter and A/C amp. CAN	X BCM CAN		and electric unit	CAN
ENGINE	CONSULT Indication	CAN System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN CIRC 2 CIRC 3	£A X 2	unit -	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6 - CIRC 2	control unit	and electric unit (control unit) C/N AC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN System CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2 CIRC 3 CAN CIRC 2	SAZ 2	unit	Unified meter and A/C amp CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6	control unit	and electric unit (control unit) C/N AC 3 CAN CIRC 3	CAN CIRC 7
ENGINE TRANSMISSION DISPLAY UNIT	CONSULT Indication	CAN System COMM COMM CAN COMM 	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM - CAN CIRC 2 CIRC 3 CAN	CAC 3	unit -	Unified meter and A/C aimp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CM RC 3 CAN	CAN CIRC 7 - CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP	CONSULT Indication No Disp	CAN System CAN COMM CAN COMM CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CIRC 1 CIRC 1 CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2		unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN	control unit	and electric unit (control unit) C/N AC 3 CAN CIRC 3	CAN CIRC 7 - CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY UNIT METER A/C AMP BCM	CONSULT Indication No Disp No Disp No Disp	CAN System CAN COMM CAN COMM CAN COMM CAN COMM - CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CIRC 3 CAN CIRC 2 CAN CIRC 2	CAC 3	unit CAN CIRC 7	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CIRC 2 CAN CIRC 4 CAN	control unit	and electric unit (control unit) Control unit) CRC 3 CAN CIRC 3	CAN CIRC 7 CIRC 7 CAN CIRC 6 CAN CIRC 3

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

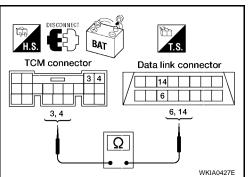
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-326, "Work Flow"

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

: Continuity should exist.

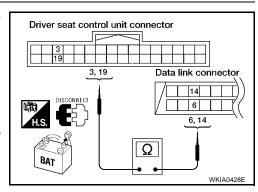
19 (Y/G) - 14 (Y)

: Continuity should exist.

OK or NG

OK \rightarrow Connect all connectors and diagnose again. Refer to LAN-326 .

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric **Unit (Control Unit)** EKS005FK

EKS005FL

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

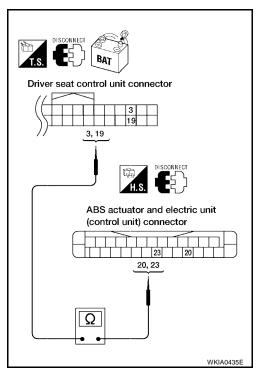
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

> 3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-326.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

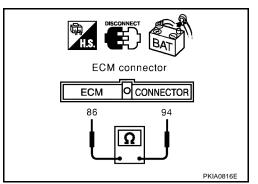
> 94 (L) - 86 (Y) : Approx. 108 - 132 Ω

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM

connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

2. Disconnect the negative battery terminal.

3. Disconnect TCM connector F56.

4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

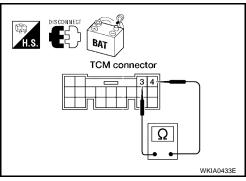
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

> 3 (L) - 4 (Y) : Approx. 54 - 66 Ω

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



EKS005FN

Display Unit Circuit Check 1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect display unit connector M93.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. check harness for open circuit

Check resistance between display unit connector M93 terminal 25 (L) and terminal 26 (Y).

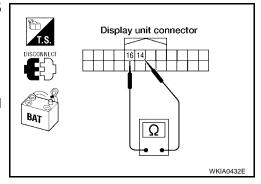
14 (L) - 16 (Y) : Approx. **54 - 66**
$$\Omega$$

OK or NG

NG

OK >> Replace display unit.

> >> Repair harness between display unit connector M93 and data link connector M22.



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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

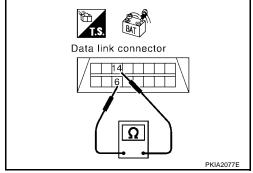
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-326.

NG >> Repair harness between data link connector M22 and BCM connector M18.



BCM Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary. EKS005EP

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

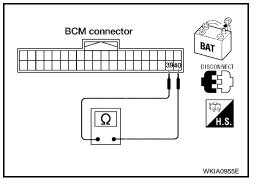
: Approx. 54 - 66
$$\Omega$$

OK or NG

OK >> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

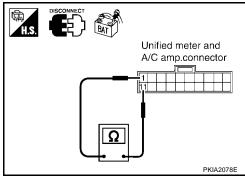
: Approx. 54 - 66 Ω

OK or NG

OK >> Replace unified meter and A/C amp.

NG

>> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

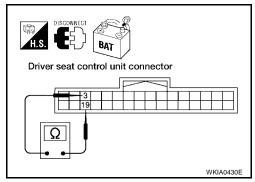
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

EKS005FS

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

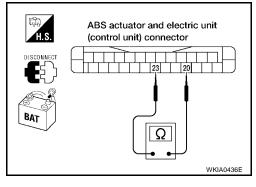
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



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IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

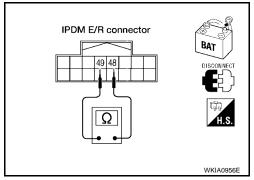
OK or NG

OK :

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display unit

BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

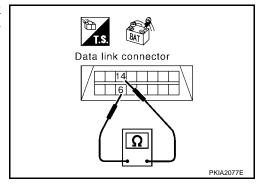
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



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3. CHECK HARNESS FOR SHORT TO GROUND

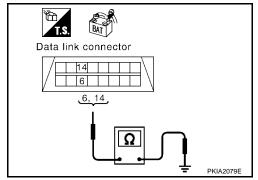
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-342</u>, "Component Inspection".

NG >> Repair the harness.



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IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-11</u>, "<u>IGNITION POWER SUPPLY</u> <u>IGNITION SW. IN ON AND/OR START</u>".

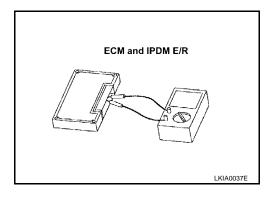
Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

• Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. 108 - 132Ω



CAN SYSTEM (TYPE 16)

PFP:23710

System Description

EKS005FX

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

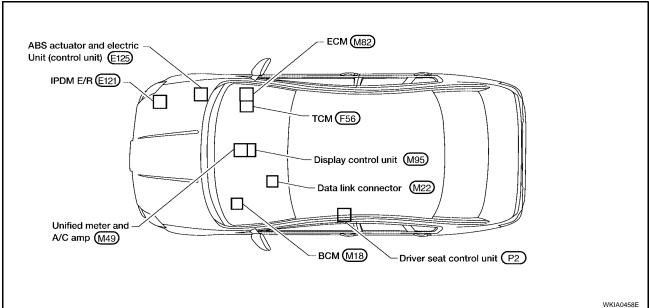
Component Parts and Harness Connector Location

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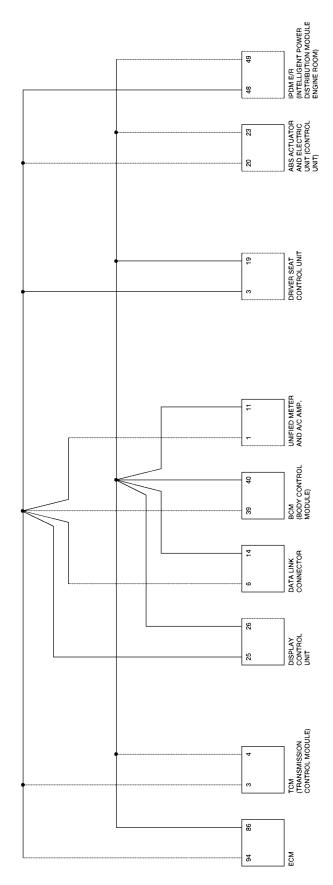
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Schematic EKS005FZ



Wiring Diagram - CAN -

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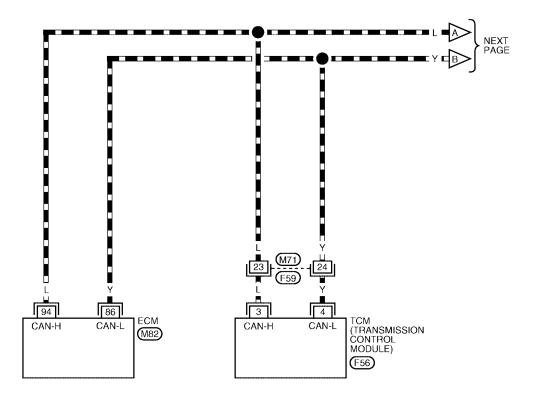
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LAN-CAN-46

: DATA LINE B



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M

1 2 3 4 5 6 7 8 9 10 11 F59 12 13 14 15 16 17 18 19 20 21 22 23 24 W

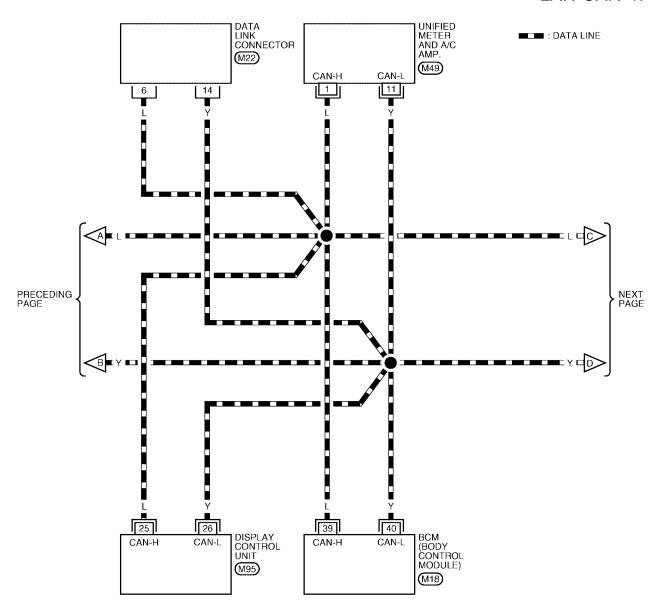
REFER TO THE FOLLOWING.

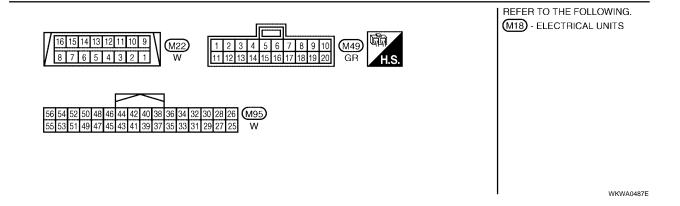
(M82), (F56) - ELECTRICAL

UNITS

WKWA0486E

LAN-CAN-47





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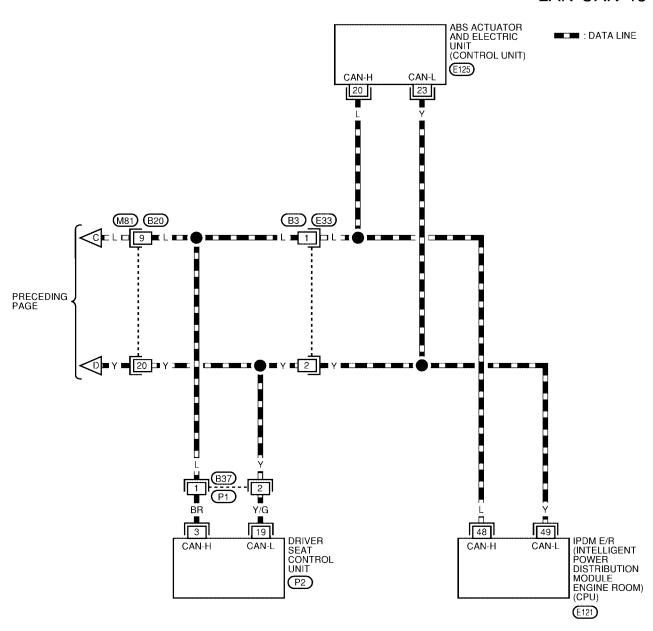
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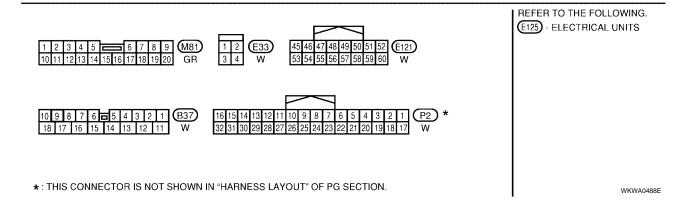
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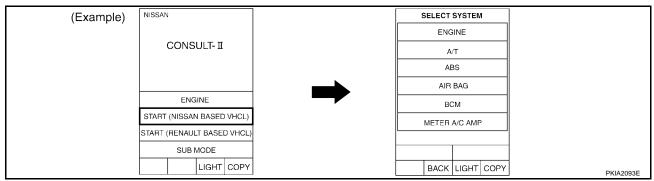
LAN-CAN-48



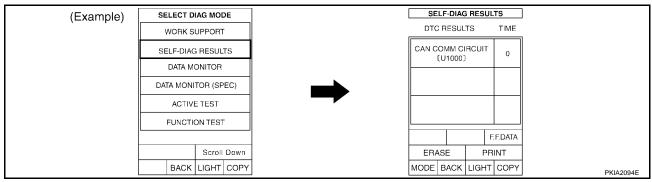


Work Flow

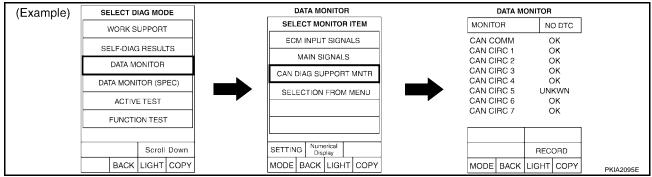
1. When there are no indications of "AT", "METER A/C AMP", "BCM", "IPDM E/R" or "AUTO DRIVE POS." on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



 Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



3. Print all the data of "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for "ENGINE", "TRANSMISSION", "BCM", "METER A/C AMP", "AUTO DRIVE POS.", "IPDM E/R" and "ABS" displayed on CONSULT-II.



 Based on the indications of "SELECT SYSTEM" and the results of "DATA MONITOR (CAN DIAG SUP-PORT MNTR)", put marks onto the items with "No indication", "NG", or "UNKWN" in the check sheet table.

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	CONSULT Indication	CAN System	Тх	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/F
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-	-	CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-		-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-

NOTE:

If "NG" is displayed on "CAN COMM" as "DATA MONITOR (CAN DIAG SUPPORT MNTR)" for the diagnosed control unit, replace the control unit.

CAN SYSTEM (TYPE 16)

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- The "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items which are not in check sheet table are not related to diagnostic procedure on service manual. Therefore, it is not necessary to check the status of the "DATA MONITOR (CAN DIAG SUPPORT MNTR)" items not in check sheet table.
- 5. Check CAN communication line of the navigation system.
- Mark the "NG" or "UNKWN" item of the check sheet table from the result of CAN DIAG SUPPORT MONI-TOR check sheet.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.

7. According to the Check Sheet Results, start inspection.

CHECK SHEET RESULTS

всм

AUTO DRIVE POS

ABS

No Disp

No Disp

CIRC 1

CIRC 1 CAN CIRC 1

CIRC 2 CAN

CIRC 2

CIRC 3

Case 1

Replace ECM.

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	CONSULT	CAN System	Tx	ЕСМ	тем	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	SAZ 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 6 CAN CIRC 3
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	CAN CIRC 7 CAN CIRC 6 CAN CIRC 6
DISPLAY CONTROL UNIT	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	
BCM	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CAN CIRC 3	CAN CIRC 2	-		
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-	-	-	-	-
IPDM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3	-	-	-	CAN CIRC 2	-	-	-
	T			1							
	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	R Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPDM E/R
ENGINE		System CAN COMM	CAN CIRC 1	-	TCM CAC2	control	Unified meter and A/C amp. CAN CINC 4			and electric unit (control unit) CAL CLC 3	IPDM E/R CAV CAV 7
ENGINE TRANSMISSION	Indication	System CAN	CAN CIRC 1 CAN CIRC 1	- CAN CIRC 2		control	Unified meter and A/C amp. CAV CAV 4 CAN CIRC 4	BCM CAV CAVC 6		and electric unit (control unit)	CAX 7
	Indication	CAN COMM CAN	CAN CIRC 1 CAN	- CAN	cN22	control	Unified meter and A/C amp. CAV CAV 4	BCM CAN CANC 6		and electric unit (control unit) CAC CNC 3 CAN	cKZ 7
TRANSMISSION	Indication	CAN COMM CAN COMM CAN	CAN CIRC 1 CAN CIRC 1 CAN	CAN CIRC 2 CAN	c\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	control	Unified meter and A/C amp. CAV CINC 4 CAN CIRC 4 CAN	BCM CAC6 -		and electric unit (control unit) CAP CAP C 3 CAN CIRC 3	CAZ 7

CAN

CIRC 3

CIRC 3

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CIRC 2

CAN CIRC 2

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CIRC 6 CAN

CIRC 3

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Case 2
Replace TCM.

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	CONSULT	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/I
ENGINE	-	CAN COMM	CAN CIRC 1	-	CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAM	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-	CAN CIRC 3	-
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 5	CAN CIRC 2	-		CAN CIRC 7
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	ch/C3	CAN CIRC 7	-	CAN CIRC 4	-	CAN CIRC 5	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	-	-	CAN CIRC 4	-	-		CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1	-	CNC 4	-	CAN CIRC 3	CAN CIRC 2	-		-
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CNC 3	-	-	-	-		-
IPDM E/R	No Disp	- COMM	CAN	CAN				CAN			
IPUM E/K	NO DISP	-	CIRC 1	CIRC 3		-		CIRC 2			-
IPUM E/K	NO DISP	-	CIRC 1	CIRC 3							
IPON E/K	CONSULT Indication	CAN System	Tx	CIRC 3	тсм	Display control unit	R: Unified meter and A/C amp.	х ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM EA
ENGINE	CONSULT					Display control	Unified meter and A/C amp. CAN CIRC 4	×		and electric unit (control unit) CAN CIRC 3	
	CONSULT Indication	System CAN	Tx CAN	ECM	TCM	Display control unit	R: Unified meter and A/C amp. CAN	X BCM CAN	control unit	and electric unit (control unit) CAN	IPDM E/I
ENGINE	CONSULT Indication	System CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM -	TCM CAN CIRC 2	Display control unit	Unified meter and A/C amp. CAN CIRC 4	BCM CAN CIRC 6	control unit	and electric unit (control unit) CAN CIRC 3	IPOM E/I
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	TCM CAN CIRC 2	Display control unit	R: Unified meter and A/C amp. CAN CIRC 4 CAY CINC 4 CAN CAN	BCM CAN CIRC 6	control unit	and electric unit (control unit) CAN CIRC 3	IPDM EA CAN CIRC 7 - CAN CIRC 7 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM - CNC 2 CNN CIRC 3 CAN	TCM CAN CIRC 2 CAN	Display control unit	R: Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 - CAN CIRC 2 CAN	control unit	and electric unit (control unit) CAN CIRC 3 CAN CINC 3	IPDM E/ CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1 CAN	ECM CNC 2 CAN CIRC 3 CAN CIRC 2 CAN	TCM CAN CIRG 2 CAN CIRG 3	Display control unit	R: Unified mater and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 2	control unit	and electric unit (control unit) CAN CIRC 3 CAP CINC 3 CAP CINC 3	IPDM E/ CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP BCM	CONSULT Indication - No Disp - No Disp No Disp	System CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN	ECM CNC 2 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	TCM CAN CIRC 2 CAN CIRC 3 - CAN	Display control unit	Unified mater and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4	control unit	and electric unit (control unit) CAN CIRC 3 CAC 3 - CAN CIRC 5	IPDM E/I CAN CIRC 7 CAN CIRC 7 CAN CIRC 6 CAN CIRC 6 CAN CIRC 6 CAN

Case 3
Replace display control unit.

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	CONSULT Indication	CAN System	Tx	ECM	тсм	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 1
TRANSMISSION	No Disp	CAN	CAN	CAN		-	CAN	- Circu	-	CAN	-
DISPLAY CONTROL UNIT	·	COMM CAMM	CIRC 1 CAN	CIRC 2 CAN	<u> </u>		CIRC 4 CAN	CAN	······	CIRC 3	CAN
METER A/C AMP	N- Di-	COMM.	CIRC 1 CAN	CIRC 3	CAN	CAN	CIRC 5	CIRC 2 CAN	 	CAN	CIRC T
	No Disp	CAN	CIRC 1 CAN	CIRC 2 CAN	CIRC 3	CIRC 7	- CAN	CIRC 4	ļ	CIRC 5	CIRC
BCM	No Disp	COMM	CIRC 1	CIRC 2	-	-	CIRC 4	- CAN	-	·	CIRC
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1	-	CAN CIRC 4	-	CIRC 3	CIRC 2	-		-
ABS	-	CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	-	-		-		-
			CAN	CAN				CAN			
IPDM E/R	No Disp	-	CAN CIRC 1	CIRC 3	-	-	-	CIRC 2	-	-	-
IPDM E/R	No Disp	-			-	-	- R	CIRC 2	-	-	-
IPDM E/R	No Disp CONSULT Indication	CAN System			тсм	Display control unit		CIRC 2	Driver seat control unit	ABS actuator and electric unit (control unit)	
IPDM E/R	CONSULT		CIRC 1	CIRC 3	TCM CAN CIRC 2	Display control	R Unified meter	CIRC 2		ABS actuator and electric unit	IPOM E/
	CONSULT Indication	System CAN COMM CAN	TX CAN CIRC 1 CAN	ECM - CAN	CAN	Display control	R Unified meter and A/C amp. CAN CIRC 4 CAN	CIRC 2 x BCM CAN		ABS actuator and electric unit (control unit) CAN CIRC 3 CAN	IPOM E/
ENGINE	CONSULT Indication	CAN COMM CAN COMM CAN	TX CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	CAN CIRC 2	Display control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	X BCM CAN CIRC 6	control unit	ABS actuator and electric unit (control unit) CAN CIRC 3	IPDM E/ CAN CIRC 7
ENGINE TRANSMISSION	CONSULT Indication	CAN COMM CAN COMM	TX CAN CIRC 1	ECM CAN CIRC 2 CAS CAS	CAN CIRC 2 - - - CAN	Display control unit	R Unified meter and A/C amp. CAN CIRC 4 CAN	CIRC 2 BCM CAN CIRC 6 CAN CIRC 6 CAN	control unit	ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	IPDM E/CAN CIRC 7
ENGINE TRANSMISSION DISPLAY CONTROL UNIT	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM	TX CAN CIRC 1	ECM CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN CIRC 2 CAN	CAN CIRC 2	Display control unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	CIRC 2 BCM CIRC 6	control unit	ABS actuator and electric unit (control unit) CAN CIRC 3	IPDM E. CAN CIRC T CAN CIRC CAN CIRC CAN CIRC CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER A/C AMP	CONSULT Indication No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM COMM CAN COMM	TX CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - CAN CIRC 3 - CAN	Display control unit	Unified mater and A/C amp. CAN CIRC 4 CAN CIRC 5 CAN CIRC 5	CIRC 2 BCM CIRC 6 CAN CIRC 6 CAN CIRC 6 CAN CIRC 4 CAN	control unit	ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	IPDM E. CAN CIRC T CAN CIRC CAN CIRC CAN CIRC CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNIT METER AIC AMP BCM	CONSULT Indication - No Disp - No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	TX CAN CIRC 1	ECM CAN CIRC 2 CNC 3 CAN CIRC 2 CNC 3 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 - - CAN CIRC 3	Display control unit	R Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 5	CIRC 2 X BCM CAN CIRC 6 CAN CIRC 4	control unit	ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 CAN CIRC 5	CAN CIRC I CAN CIRC CAN CIRC CAN CIRC CAN CIRC I CAN CI

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Case 4

Replace BCM.

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	CONSUL1 Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

ABS actuator and electric unit (control unit) CAN CIRC 3 CAN CIRC 3 CONSUL1 Indication CAN System Display control unit Unified meter and A/C amp. ECM TCM всм IPOM E/R CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 1 CAN CIRC 1 CAN CAN CIRC 2 CAN CIRC 6 CAN CIRC 7 FRANSMISSION CAN CIRC 2 CAN CIRC 4 CAN DISPLAY CONTROL UNI CAN CIRC 3 CAN CIRC 2 CAY CAY 2 CIRC CIRC CAN CIRC 3 CAN CIRC 7 CAN CIRC 5 METER A/C AMP No Disp CIRC 1 CAN CAN CAN CIRC 3 всм No Disp CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 COMM CAN COMM CAN COMM CAN CIRC 2 AUTO DRIVE POS. CIRC 4 CAN CIRC 3 CAN CIRC 2 CAN CIRC 3 CAN CIRC 2 IPDM E/R No Disp

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Case 5

Replace unified meter and A/C amp.

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	CONSUL1 Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unif)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
FRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CNZ 2	CAY CNC 3	CNZ 7		CAN 4		CAV CNC 5	CAZ 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			1	CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPOM E/R	No Disp	-	CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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Case 6

Replace driver seat control unit.

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	CONSULT Indication	CAN System	Τx	ECM	fcM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/
ENGINE	-	CAN	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4		1	CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			GAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp	·	CAN	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	CIRCS	CAN CIRC 4		CAN CIRC 5	CAN
ВСМ	No Disp	CAN	CIRC 1	CAN	UIKU 3	CIRC /	CAN	CIRC 4		CIRC S	CIRC 6
AUTO DRIVE POS.	No Disp	COMM CAM CAM	CIRC 1	CIRC 2	CAN		CIRC 4	CAN			CIRC 3
ABS		CAN	CIRC 1 CAN	CAN	CIRC 4		CIRC 3	CIRC 2			
	N- O-	COMM	CIRC 1	CIRC 2 CAN	CIRC 3		+	CAN			
IPOM E/R	No Disp		CIRC 1	CIRC 3				CIRC 2		<u> </u>	
шим ЕЖ	No Usp		CIRC 1	CIRC 3							
II/DM E/R	CONSUL1 Indication	CAN System	CIRC 1	CIRC 3	rom	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	РОМ ЕЛ
ENGINE	CONSULT		Tx		TCM CAN CIRC 2	control	Unified meter	(and electric unit	IPDM E/I
	CONSULT	CAN COMM CAN	Tx CAN CIRC 1 CAN	ECM - CAN	CAN	control	Unified meter and A/C amp. CAN CIRC 4	BCM CAN		and electric unit (control unif) CAN CIRC 3 CAN	CAN
ENGINE	CONSUL 1 Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unif) CAN CIRC 3	CAN CIRC 7
ENGINE IRANSMISSION	CONSUL 1 Indication	CAN COMM CAN CAN COMM	Tx CAN GIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN
ENGINE IRANSMISSION DISPLAY CON IROL UNLI	CONSUL 1 Indication	CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 3 CAN	CAN CIRC 2	confrol unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC / CAN CIRC 6 CAN
ENGINE FRANSMISSION DISPLAY CONTROL UNTI METER ACC AMP	CONSULT Indication - No Disp No Disp	CAN COMM	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	CAN CIRC 2 CAN CIRC 3	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	CAN CIRC 6 CAN CIRC 6 CAN CIRC 2 CAN CIRC 2 CAN CIRC 4		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 6 CAN CIRC 6 CAN
ENGNE TRANSMISSION DISPLAY CONTROL UNIT METER AIC AMP BCM	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 3 CAN	CAN CIRC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 7 CAN CIRC 6

Case 7

Replace ABS actuator and electric unit (control unit).

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	CONSUL1 Indication	CAN System	Τx	HCM	TOM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	ІРОМ Е
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAZ CNC 3	CAN CIRC 7
FRANSMISSION	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	CIRC		CAN CIRC 4	CINCO		SAZ 3	CINC I
DISPLAY CONTROL UNI		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2	1	Chart 3	CAN CIRC
METER A/C AMP	No Disp	COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	CIRC 5	CAN CIRC 4	1	CAV.	CAN CIRC 6
BCM	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	CIRC 3	CIRC /	CAN CIRC 4	CIRC 4	 	CNCS	CAN CIRC 3
AUTO DRIVE POS.	No Disp	COMM CAN COMM	CAN CIRC 1	CIRC Z	GAN CIRC 4		CAN CIRC 3	CAN CIRC 2	†	†·····	UIRO 3
ABS		CAN	CAN CIRC 1	CNZ 2	\$\hat{\chi}{2}3		CIRCS	GIRG 2	†	†·····	
		COMM	CAN	CAN	0.00		+	CAN	 	†	
IPDM E/R	No Disp		CIRC 1	CIRC 3				CIRC 2			
IPDM E/R	No Disp	-					R				
IPDM E/R	CONSULT Indication	CAN System			тсм	Display control unit	Ro Unified meter and A/C amp.		Driver seat confrol unit	ABS actuator and electric unit (control unit)	РОМ Е/
IPDM E/R ENGINE	CONSULT		CIRC 1	CIRC 3	fCM CAN CIRC 2	control	Unified meter and A/C amp. CAN	BCM CAN		and electric unit (control unif) CAN	IPDM E/CAN CIRC 7
	CONSULT	System CAN	CIRC 1 Tx CAN	CIRC 3	CAN	control	Unified meter and A/C amp.	всм		and electric unit (control unit)	CAN CIRC I
ENGINE	CONSUL 1 Indication	CAN COMM CAN	Tx CAN GIRC 1 GAN	ECM - CAN	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN		and electric unit (control unit) CAN CIRC 3 CAN	CAN CIRC 7
ENGINE IRANSMISSION	CONSUL 1 Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN	CAN	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unit) CAN CIRC 3 CAN	CAN CIRC 7 CAN CIRC 7 CAN
ENGINE IRANSMISSION DISPLAY CON IROL UNI	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1	ECM	CAN CIRC 2	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC I CAN CIRC I CAN CIRC I CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNI METER AYG AMP	CONSULT Indication - No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN COMM COMM	Tx CAN CIRC 1 CAN	ECM CAN CIRC 2 CAN CIRC 2 CAN CIRC 2	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC I CAN CIRC I CAN CIRC I CAN
ENGINE TRANSMISSION DISPLAY CONTROL UNI METER AG AMP BCM	CONSULT Indication No Disp No Disp No Disp	CAN COMM CAN COMM CAN COMM CAN COMM CAN	CIRC 1 Tx CAN CIRC 1 CAN	ECM	CAN CIRC 2	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5 CAN CIRC 5 CAN CIRC 5	GAN GIRG 6 CAN GIRG 2 CAN GIRG 4 CAN		and electric unit (control unit) CAN CIRC 3 CAN CIRC 3	CAN CIRC 7 CAN CIRC 6 CAN CIRC 6

Case 8

Replace IPDM E/R.

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	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	ВСМ	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp	-	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN GIRC 5	CAN CIRC 6
всм	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPOM E/R	No Disp		CAN CIRC 1	cNZ3	Sitto 0			SAZ 2			

Case 9

Check harness between TCM and data link connector. Refer to $\underline{\mathsf{LAN-357}}$.

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	CONSULT Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CNZ 4	CAY CNC 6	-	cNZ 3	CAZ 7
FRANSMISSION	Ne (/sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CNVC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	cNC 2	CNZ3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CNZ 2			CAN CIRG 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CNZ 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	cNC 2	cN23						
IPDM E/R	No Disp		CAN CIRC 1	SAZ 3				CAN CIRC 2			

Case 10

Check harness between data link connector and driver seat control unit. Refer to <u>LAN-357</u>.

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	CONSUL1 Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/E
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAX CNC 3	CAZ 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAY CNC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CNC 5	CAN CNAC 6
ВСМ	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				chy23
AUTO DRIVE POS.	Ne (2/sp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2		T	
ABS		CAN COMM	CAN CIRC 1	chic 2	cN23						
IPDM E/R	Na (Sp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 11

Check harness between driver seat control unit and ABS actuator and electric unit (control unit). Refer to <u>LAN-358</u>.

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	CONSULT Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	ІРОМ Е/Е
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CNC 3	CAY CINC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			°N∕C 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN C 5	CAY CNZ 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4				CAY CMZ 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CNZ 2	cN2 3						
IPOM E/R	Na (asp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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Case 12

Check ECM circuit. Refer to LAN-358.

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	CONSULT Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAV CNC 1	-	CAT CNC 2	-	CAV CNC 4	CAL CNC 6	-	CAY CNC 3	CAN 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CNV 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CNZ 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CNC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CNC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAY CNC 2	CAN CIRC 3						
IPDM E/R	No Disp		CAN CIRC 1	\$ 2 /3				CAN CIRC 2			

Case 13

Check TCM circuit. Refer to LAN-359.

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	CONSULT Indication	CAN System	Τx	ECM	fcM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1		CAY CNC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	N• USp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN GIRC 3			GAN CIRC 5	CAN CIRC 2			GAN GIRG 7
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CNZ 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CNC 4		GAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CNC 3						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 14

Check display control unit circuit. Refer to $\underline{\mathsf{LAN-359}}$.

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	CONSULT Indication	CAN System	Τx	ECM	1CM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
FRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CNZ 1	CNC 3			CNZ 5	CAN CNC 2			CAZ /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	SAZ 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 15

Check data link connector circuit. Refer to <u>LAN-360</u>.

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	CONSULT Indication	CAN System	Τx	ECM	fcM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	Ne (Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	Ne (JSp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	Ne (1/sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	Ne (/sp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPDM E/R	Nh (Fsp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 16

Check BCM circuit. Refer to LAN-360.

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	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAT CNC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CNV 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CNVC 4		CAN GIRC 5	CAN CIRC 6
всм	N u (2 Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CNC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				SAZ 2			

Case 17

Check unified meter and A/C amp. circuit. Refer to LAN-361.

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	CONSULT Indication	CAN System	Τx	ECM	fCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAY CNAC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CNC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN	CAN CIRC 1	CAN CIRC 3		***************************************	CNZ 5	CAN CIRC 2			GAN CIRC /
METER A/C AMP	N• () sp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN GIRC 5	CAN CIRC 6
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2			SAY 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		c NZ 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 18

Check driver seat control unit circuit. Refer to <u>LAN-361</u>.

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	CONSULT Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IРОМ Е/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	Ne (7)sp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPOM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 19

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-362</u>.

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	CONSUL1 Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CNC 3	CAN CIRC 7
TRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			GAN CIRC /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CNC 5	CAN CIRC 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	CNC 1	CNC 2	cN23						
IPDM E/R	No Disp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

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Case 20

Check IPDM E/R circuit. Refer to <u>LAN-362</u>.

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	CONSULT Indication	CAN System	Tx	ECM	TCM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/R
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAY CNC 7
FRANSMISSION	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			GAN CIRC 4			CAN GIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAN CIRC 1	CAN CIRC 3			CAN CIRC 5	CAN CIRC 2			CNZ /
METER A/C AMP	No Disp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	ÇAY C N Z 6
всм	No Disp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAY CNC 3
AUTO DRIVE POS.	No Disp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3						
IPDM E/R	Na Usp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 21

Check CAN communication circuit. Refer to $\underline{\mathsf{LAN-363}}$.

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	CONSULT Indication	CAN System	Τx	ECM	1CM	Display control unit	Unified meter and A/C amp.	BCM	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM E/E
ENGINE	-	CAN COMM	CAM CNC 1	-	CAV CNC 2	-	CAN CNC 4	CAN CNC 6	-	CAY CN C 3	CAY CNC 7
TRANSMISSION	Ne (Sp	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4			CAN CIRC 3	
DISPLAY CONTROL UNIT		CAN COMM	CAV CNC 1	CAN CNC 3			CAN CNC 5	CAN CNC 2			CAY /
METER A/C AMP	Ne Usp		CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7		CAN CIRC 4		CAN CIRC 5	CAN CIRC 6
ВСМ	N u (s p	CAN COMM	CAN CIRC 1	CAN CIRC 2			CAN CIRC 4				CAN CIRC 3
AUTO DRIVE POS.	N u U sp	CAN COMM	CAN CIRC 1		CAN CIRC 4		CAN CIRC 3	CAN CIRC 2			
ABS		CAN COMM	cNZ 1	chic 2	chi 3						
IPDM E/R	No Usp		CAN CIRC 1	CAN CIRC 3				CAN CIRC 2			

Case 22

Check IPDM E/R Ignition relay circuit. Refer to LAN-364

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	CONSULT Indication	CAN System	Τx	ECM	TCM	Display control unit	Unified meter and A/C amp.	всм	Driver seat control unit	ABS actuator and electric unit (control unit)	IPOM I
ENGINE	-	CAN COMM	CAN CIRC 1	-	CAN CIRC 2	-	CAN CIRC 4	CAN CIRC 6	-	CAN CIRC 3	CAN
TRANSMISSION	No Disp	CAN	CAN CIRC 1	cNC 2			CNZ 4		1	CAN CIRC 3	
DISPLAY CONTROL UNI		CAN	CAN CIRC 1	CAN CIRC 3			GAN CIRC 5	CAN CIRC 2			CAN
METER A/C AMP	No Disp	·	CAN CIRC 1	CAN CIRC 2	CAN CIRC 3	CAN CIRC 7	1	CAN CIRC 4		CAN CIRC 5	CAN
ВСМ	No Disp	CAN	CAN CIRC 1	CAN CIRC 2	Jiilo	Oli to 7	GAN CIRC 4	JII.O 4		·	CAN
AUTO DRIVE POS.	No Disp	CAN	CAN CIRC 1		CAN CIRC 4		GAN CIRC 3	CAN CIRC 2			
ABS		CAN	CAN CIRC 1	c XX 2	CAN CIRC 3		UNIO	JII.O Z			
IPDM E/R	No Disp	COMM	CAN	CAN	J.I.C.C		1	CAN	+	· · · · · · · · · · · · · · · · · · ·	
	No USP		CIRC 1	CIRC 3				GIRC 2			
	NO DISP		CIRC 1	CIRC 3			R			I	
1 531 31	CONSUL1 Indication	CAN System	CIRC 1	CIRC 3	тем	Display control unit	R Unified meter and A/C amp.		Driver seat	ABS actuator and electric unit (control unit)	IPOM E
ENGINE	CONSULT			HCM		control	Unified meter	×			CAN
	CONSULT	System CAN	Tx CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2	TCM	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4	BCM CAN CIRC 6		and electric unit (control unit)	CAN CIRC
ENGINE	CONSUL 1 Indication	System CAN COMM CAN	Tx CAN GIRC 1 GAN	ECM CAN CIRC 2 CAN CIRC 3	SAC 2	control unit	Unified meter and A/C amp. CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unit) CAA CAAC 3 CAN CIRC 3	CAN CIRC - CAN CIRC
ENGINE IRANSMISSION	CONSUL 1 Indication	CAN COMM CAN COMM CAN	Tx CAN CIRC 1 CAN CIRC 1 CAN CIRC 1	ECM CAN CIRC 2 CAN	SAC 2	control	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6		and electric unit (control unit) CAA CAAC 3 CAN CIRC 3	CAN CIRC CAN CIRC CAN CIRC
ENGINE IRANSMISSION DISPLAY CONTROL UNI	CONSULT Indication	CAN COMM CAN COMM CAN	Tx CAN GIRC 1 GAN CIRC 1 GAN CIRC 1 GAN CIRC 1	ECM - CAN CIRC 2 CAN CIRC 3 CAN	.8Å€? .8Å€3	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAC 3 CAC 3	CAN CIRC CAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY CONTROL UNI METER AIG AMP	CONSULT Indication - No Disp No Disp	CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	ECM CIRC 2 CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 2 CAN CIRC 2	.8Å€? .8Å€3	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN		and electric unit (control unit) CAA CAAC 3 CAN CIRC 3	CAN CIRC CAN CIRC CAN CIRC CAN CIRC
ENGINE TRANSMISSION DISPLAY CONTROL UNI METER A/G AMP BCM	CONSULT Indication	CAN COMM CAN COMM CAN COMM CAN COMM	Tx CAN CIRC 1 CAN	CAN CIRC 2 CAN CIRC 3 CAN CIRC 3 CAN CIRC 3	SAC 2	control unit - - CAN	Unified meter and A/C amp. CAN CIRC 4 CAN CIRC 4 CAN CIRC 5	BCM CAN CIRC 6 CAN CIRC 2 CAN CIRC 4		and electric unit (control unit) CAA CAAC 3 CAN CIRC 3	CAN CIRC

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Circuit Check Between TCM and Data Link Connector

1. CONNECTOR INSPECTION

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between TCM connector F56 terminals 3 (L), 4 (Y) and data link connector M22 terminals 6 (L), 14 (Y).

3 (L) - 6 (L)

: Continuity should exist.

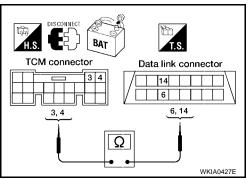
4 (Y) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-348, "Work Flow".

NG >> Repair harness.



Circuit Check Between Driver Seat Control Unit and Data Link Connector

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and data link connector M22 terminals 6 (L), 14 (Y).

3 (BR) - 6 (L)

: Continuity should exist.

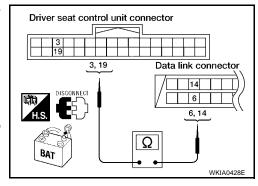
19 (Y/G) - 14 (Y)

: Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-348.

NG >> Repair harness.



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Circuit Check Between Driver Seat Control Unit and ABS Actuator and Electric Unit (Control Unit)

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2, ABS actuator and electric unit (control unit) connector E125 and ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

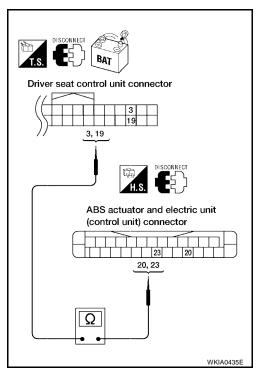
Check continuity between driver seat control unit connector P2 terminals 3 (BR), 19 (Y/G) and ABS actuator and electric unit (control unit) connector E125 terminals 20 (L), 23 (Y).

3 (BR) - 20 (L) : Continuity should exist. 19 (Y/G) - 23 (Y) : Continuity should exist.

OK or NG

OK >> Connect all connectors and diagnose again. Refer to <u>LAN-348</u>.

NG >> Repair harness.



ECM Circuit Check

1. CONNECTOR INSPECTION

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector M82.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

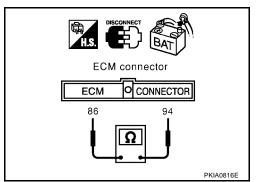
Check resistance between ECM connector M82 terminal 94 (L) and terminal 86 (Y).

> 94 (L) - 86 (Y) : Approx. 108 - 132 Ω

OK or NG

OK >> Replace ECM.

NG >> Repair harness between ECM connector M82 and TCM connector F56.



TCM Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect TCM connector F56.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

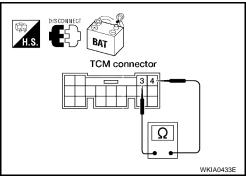
Check resistance between TCM connector F56 terminal 3 (L) and terminal 4 (Y).

> 3 (L) - 4 (Y) : Approx. 54 - 66 Ω

OK or NG

OK >> Replace TCM.

NG >> Repair harness between TCM connector F56 and ECM connector M82.



Display Control Unit Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect display control unit connector M95.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between display control unit connector M95 terminal 25 (L) and terminal 26 (Y).

25 (L) - **26** (Y) : Approx. **54** - **66**
$$\Omega$$

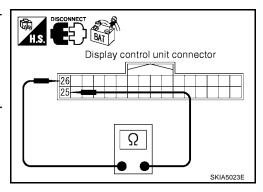
OK or NG

OK >:

>> Replace display control unit.

NG >> Re

>> Repair harness between display control unit connector M95 and data link connector M22.



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Data Link Connector Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check data link connector M22 terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

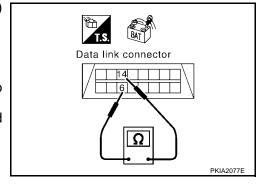
Check resistance between data link connector M22 terminal 6 (L) and terminal 14 (Y).

6 (L) - 14 (Y) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Connect all connectors and diagnose again. Refer to LAN-348.

NG >> Repair harness between data link connector M22 and BCM connector M18.



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BCM Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect BCM connector M18.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between BCM connector M18 terminal 39 (L) and terminal 40 (Y).

: Approx. 54 - 66
$$\Omega$$

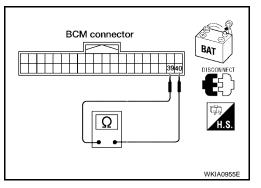
OK or NG

OK

>> Replace BCM.

NG

>> Repair harness between BCM connector M18 and data link connector M22.



Unified Meter and A/C Amp. Circuit Check

1. CONNECTOR INSPECTION

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect unified meter and A/C amp. connector M49.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between unified meter and A/C amp. connector M49 terminal 1 (L) and terminal 11 (Y).

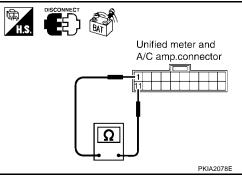
: Approx. 54 - 66 Ω

OK or NG

OK

>> Replace unified meter and A/C amp.

NG >> Repair harness between unified meter and A/C amp. connector M49 and data link connector M22.



Driver Seat Control Unit Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Disconnect driver seat control unit connector P2.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between driver seat control unit connector P2 terminal 3 (BR) and terminal 19 (Y/G).

: Approx. 54 - 66 Ω

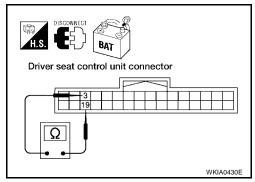
OK or NG

OK >

>> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit connector P2 and data link connector M22.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

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1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ABS actuator and electric unit (control unit) connector E125.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between ABS actuator and electric unit (control unit) connector E125 terminal 20 (L) and terminal 23 (Y).

: Approx. 54 - 66 Ω

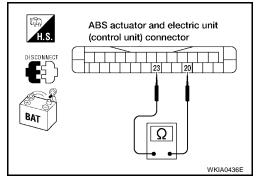
OK or NG

OK

>> Replace ABS actuator and electric unit (control unit).

NG

>> Repair harness between ABS actuator and electric unit (control unit) connector E125 and IPDM E/R connector E121.



EKS005GD

IPDM E/R Circuit Check

1. CONNECTOR INSPECTION

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect IPDM E/R connector E121.
- 4. Check the terminals for deformation, disconnection, looseness or damage.

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

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EKS005GE

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between IPDM E/R connector E121 terminal 48 (L) and terminal 49 (Y).

48 (L) - 49 (Y) : Approx.
$$108 - 132\Omega$$

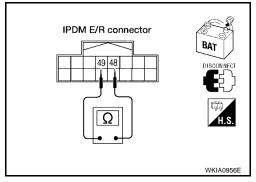
OK or NG

OK

>> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R connector E121 and ABS actuator and electric unit (control unit) connector E125.



CAN Communication Circuit Check

1. CONNECTOR INSPECTION

Turn ignition switch OFF. 1.

2. Disconnect the negative battery terminal.

Disconnect the following module and control unit connectors and check terminals for deformation, disconnection, looseness or damage.

ECM

TCM (Transmission control module)

Display control unit

BCM (Body control module)

Unified meter and A/C amp.

Driver seat control unit

ABS actuator and electric unit (control unit)

IPDM E/R (Intelligent power distribution module engine room)

OK or NG

OK >> GO TO 2.

NG >> Repair or replace as necessary.

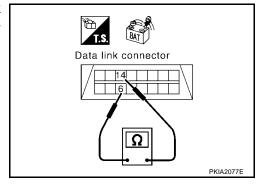
2. CHECK HARNESS FOR SHORTED CIRCUITS

With all module and control unit connectors disconnected, check continuity between data link connector M22 terminals 6 (L) and 14 (Y).

OK or NG

OK >> GO TO 3.

NG >> Repair the harness.



LAN

3. CHECK HARNESS FOR SHORT TO GROUND

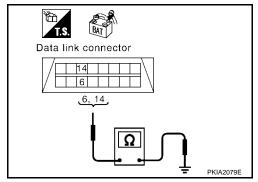
Check continuity between data link connector M22 terminals 6 (L), 14 (Y) and ground.

6 (L) - Ground : Continuity should not exist. 14 (Y) - Ground : Continuity should not exist.

OK or NG

OK >> Check ECM and IPDM E/R. Refer to <u>LAN-364</u>, "Component Inspection".

NG >> Repair the harness.



EKS005GF

EKS005GG

IPDM E/R Ignition Relay Circuit Check

Check the following. If no problem is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-24, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to !!! Hyper-link Error !!! Hyper-link Error !!! .

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Remove ECM and IPDM E/R from vehicle.

Check resistance between ECM terminals 94 and 86.

94 - 86 : Approx. $108 - 132\Omega$

Check resistance between IPDM E/R terminals 48 and 49.

48 - 49 : Approx. $108 - 132\Omega$

