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PRECAUTIONS PFP:00001

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

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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 When Using CONSULT-II

AKS0058H

When connecting CONSULT-II to data link connector, connect them through CONSULT-II CONVERTER.

CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

CHECK POINTS FOR USING CONSULT-II

- 1. Has CONSULT-II been used without connecting CONSULT-II CONVERTER on this vehicle?
- If YES, GO TO 2.
- If NO, GO TO 5.
- 2. Is there any indication other than indications relating to CAN communication system in the self-diagnosis results?
- If YES, GO TO 3.
- If NO, GO TO 4.
- 3. Based on self-diagnosis results unrelated to CAN communication, carry out the inspection.
- 4. Malfunctions may be detected in self-diagnosis depending on control units carrying out CAN communication. Therefore, erase the self-diagnosis results.
- Diagnose CAN communication system. Refer to <u>LAN-6, "CAN Communication Unit"</u>.

Precautions For Trouble Diagnosis CAN SYSTEM

AKS00581

- Do not apply voltage of 7.0 V or higher to the measurement terminals.
- Use the tester with its open terminal voltage being 7.0 V or less.
- Be sure to turn ignition switch off and disconnect negative battery terminal before checking the circuit.

PRECAUTIONS

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Precautions For Harness Repair CAN SYSTEM

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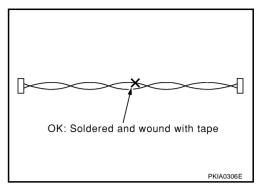
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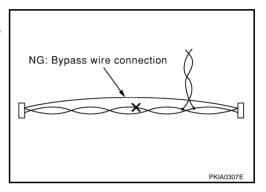
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Solder the repaired parts, and wrap with tape. [Frays of twisted line must be within 110 mm (4.33 in)]



Do not perform bypass wire connections for the repair parts.
 (The spliced wire will become separated and the characteristics of twisted line will be lost.)



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System Description

PFP:23710

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 Communication Unit

AKS00BZ6

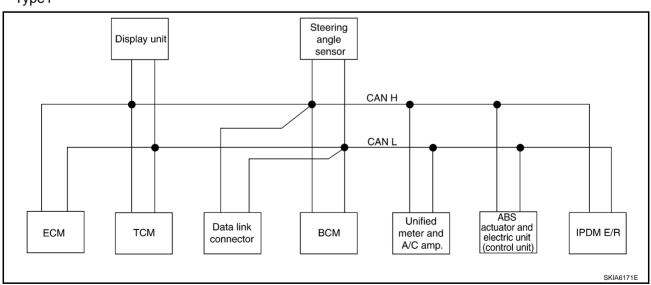
Go to CAN system, when selecting your CAN system type from the following table.

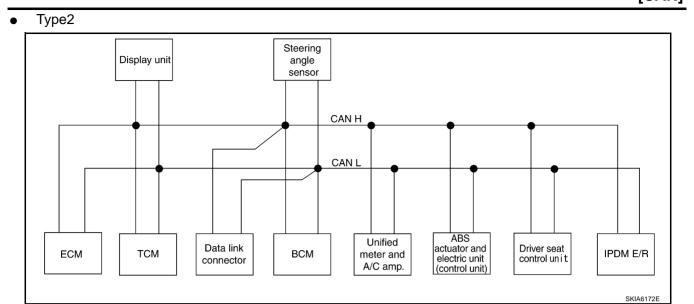
Body type			Wa	/agon					
Axle		2WD			AWD				
Engine		VQ35DE		V	Q35DE/VK45[DE			
Transmission		A/T							
Brake control	VDC								
Navigation system			×			×			
Low tire pressure warning system			×			×			
ICC system			×			×			
Intelligent Key system			×			×			
Automatic drive positioner		×	×		×	×			
CAN system type	1	2	3	4	5	6			
CAN system trouble diagnosis	LAN-21	LAN-52	LAN-87	LAN-133	LAN-167	LAN-206			

x: Applicable

TYPE 1/TYPE2 System diagram

Type1





Input/output signal chart

							T: T	ransmit R	R: Receive
Signals	ECM	TCM	Dis- play unit	ВСМ	Steer- ing angle sensor	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Engine speed signal	Т	R	R			R	R		
Engine status signal	Т			R					
Engine coolant temperature signal	Т					R			
A/T self-diagnosis signal	R	Т							
Accelerator pedal position signal	Т	R					R		
Closed throttle position signal	Т	R							
Wide open throttle position signal	Т	R							
Battery voltage signal	Т	R							
Key switch signal				Т				R	
Ignition switch signal				Т				R	R
P range signal		Т					R	R	
Stop lamp switch signal		R				Т			
Fuel consumption monitor signal	Т		R			R T			
Turbine revolution signal	R	Т							
Output shaft revolution signal	R	Т							
A/C switch signal	R			Т					
A/C compressor request signal	Т								R
A/C compressor feedback signal	Т					R			
Blower fan motor switch signal	R			Т					
A/C switch/indicator signal			T R			R T			
Cooling fan speed request signal	Т		11			•			R

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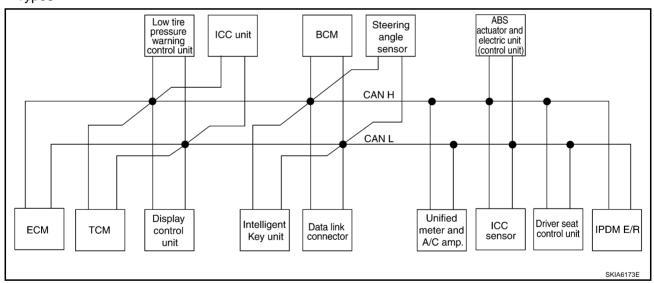
									[CAN]
Signals	ECM	ТСМ	Dis- play unit	ВСМ	Steer- ing angle sensor	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
Position light request signal			R	Т		R			R
Low beam request signal				Т					R
Low beam status signal	R								Т
High beam request 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			
Turn LED burnout status signal				R		Т			
						R	Т		
Vehicle speed signal	R	R	R	R		Т		R	
Sleep wake up signal				Т		R			R
Door switch signal			R	Т		R		R	R
Turn indicator 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				Т		R			
Fuel level sensor signal	R					Т			
Fuel level low warning signal			R			Т			
ASCD SET lamp signal	Т					R			
ASCD CRUISE lamp signal	Т					R			
Malfunction indicator lamp signal	т ·					R			
ASCD operation signal	т ·	R				1			
ASCD OD cancel request signal	т	R							
Front wiper request signal	'	IX		Т					R
Front wiper request signal				R					T
Rear window defogger switch signal				T					R
Rear window defogger control signal	R		R	R					T
Hood switch signal	IX		IX	R					T
Theft warning horn request signal				T					R
Horn chirp signal				Т	-		<u> </u>		R
Steering angle sensor signal					Т	-	R		
ABS warning lamp signal						R	T		
VDC OFF indicator lamp signal						R	T		
SLIP indicator lamp signal	1					R	T		
Brake warning lamp signal			_	_		R	Т		
System setting signal			T R	R T				R T	
A/T CHECK indicator lamp signal		Т				R			

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Signals	ECM	TCM	Dis- play unit	всм	Steer- ing angle sensor	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat control unit	IPDM E/R
A/T position indicator lamp signal		Т				R			
A/T shift schedule change demand signal		R					Т		
Manual mode signal		R				Т			
Not manual mode signal		R				Т			
Manual mode shift up signal		R				Т			
Manual mode shift down signal		R				Т			
Manual mode indicator signal		Т				R			
Distance to empty signal			R			Т			
Parking brake switch signal				R		Т			
Snow mode switch signal	R					Т			

TYPE 3 System diagram

Type3



Input/output signal chart

T: Transmit R: Receive

Signals	ECM	ТСМ	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	ICC unit	Intelli- gent Key unit	всм	Steer- ing angle sen- sor	Unified meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Engine speed signal	Т	R	R		R				R		R		
Engine status signal	Т						R						
Engine coolant tempera- ture signal	Т				R				R				

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Signals	ЕСМ	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	ICC unit	Intelli- gent Key unit	всм	Steer- ing angle sen- sor	Unified meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
A/T self-diagnosis signal	R	Т											
Accelerator pedal position signal	Т	R			R						R		
Closed throttle position signal	Т	R			R								
Wide open throttle position signal	Т	R											
Battery voltage signal	Т	R											
Key switch signal							Т					R	
Ignition switch signal							Т					R	R
P range signal		Т			R						R	R	
Stop lamp switch signal		R							Т				
ABS operation signal					R						Т		
TCS operation signal					R						Т		
VDC operation signal					R						Т		
Fuel consumption monitor signal	Т		R						R T				
Turbine revolution signal	R	Т			R								
Output shaft revolution signal	R	Т			R								
A/C switch signal	R						Т						
A/C compressor request signal	Т												R
A/C compressor feed- back signal	Т								R				
Blower fan motor switch signal	R						Т						
A/C switch/indicator sig-			Т						R				
nal			R						Т				
Cooling fan speed request signal	Т												R
Position light request signal							Т		R				R
Low beam request signal							Т						R
Low beam status signal	R												Т
High beam request sig- nal							Т		R				R
High beam status signal	R												Т
Front fog light request signal							Т						R
Day time running light request signal							Т		R				

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Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	ICC unit	Intelli- gent Key unit	всм	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Turn LED burnout status signal					- 1		R		Т				
Vehicle speed signal	R	R	R	R	R	R	R		R T	R	Т	R	
Sleep wake up signal						Т	T R		R				R
Door switch signal			R			R	T		R			R	R
Turn indicator signal			11			1	T		R			- 1	
Key fob ID signal							T		- 1			R	
Key fob door unlock signal							Т					R	
Oil pressure switch sig-							R						Т
IIai							T		R				
Buzzer output signal					Т	Т	Т		R R R				
Fuel level sensor signal	R								Т				
Fuel level low warning signal			R						Т				
ASCD SET lamp signal	Т								R				
ASCD CRUISE lamp signal	Т								R				
Malfunctioning indicator lamp signal	Т								R				
ICC operation signal	R				Т								
Front wiper request signal					R		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
Steering angle sensor signal								Т			R		
Tire pressure signal				Т					R				
Tire pressure data signal			R	Т									
ABS warning lamp signal					R				R		Т		_

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Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	ICC unit	Intelli- gent Key unit	всм	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
VDC OFF indicator lamp signal					R				R		Т		
SLIP indicator lamp signal									R		Т		
Brake warning lamp signal									R		Т		
System setting signal			T R			R T						R T	
Distance to empty signal			R						Т				
Parking brake switch signal							R		Т				
Door lock/unlock request signal						Т	R						
Door lock/unlock status signal						R	Т						
Starter permission signal						Т	R						
Back door open request signal						Т	R						
Power window open request signal						Т	R						
Alarm request signal						Т	R						
Key warning signal						Т			R				
ICC sensor signal					R					Т			
ICC warning lamp signal					Т				R				
ICC system display signal					Т				R				
Current gear position signal		Т			R						R		
Steering switch signal	Т				R								
ASCD operation signal	Т	R											
ASCD OD cancel request signal	Т	R											
ICC OD cancel request signal	R	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 signal		R							Т				
Not manual mode signal		R							Т				

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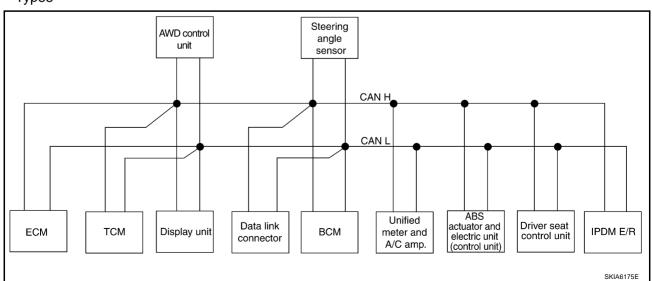
Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	ICC unit	Intelli- gent Key unit	всм	Steer- ing angle sen- sor	Unified meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Manual mode shift up signal		R							Т				
Manual mode shift down signal		R							Т				
Manual mode indicator signal		Т			R				R				
Ignition knob switch sig- nal						Т	R						
Snow mode switch signal	R								Т				

TYPE 4/TYPE5 System diagram

Type4

Steering AWD control angle unit sensor CAN H CAN L ABS Unified Data link actuator and TCM всм IPDM E/R ECM Display unit meter and electric unit (control unit) connector A/C amp. SKIA6174E

• Type5



Input/output signal chart

T: Transmit R: Receive

								ı: ıra	nsmit R:	Receive
Signals	ECM	ТСМ	Dis- play unit	AWD con- trol unit	ВСМ	Steer- ing angle sensor	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
A/T self-diagnosis signal	R	Т								
Stop lamp switch signal		R		R			Т			
Battery voltage signal	Т	R								
Key switch signal					T				R	
Ignition switch signal					Т				R	R
P range signal		Т						R	R	
Closed throttle position signal	Т	R								
Wide open throttle position signal	Т	R								
Engine speed signal	Т	R	R	R			R	R		
Engine status signal	Т				R					
Engine coolant temperature signal	Т						R			
Accelerator pedal position signal	Т	R		R				R		
	Т						R			
Fuel consumption monitor signal			R				Т			
Turbine revolution signal	R	Т								
Output shaft revolution signal	R	Т								
A/C switch signal	R				Т					
A/C compressor request signal	Т									R
A/C compressor feedback signal	Т						R			
Blower fan motor switch signal	R				Т					
A/C switch/indicator signal			Т				R			
Cooling for anord request signal	T		R				T			
Cooling fan speed request signal	Т				-					R
Position light request signal			R		T		R			R
Low beam request signal	-				Т					R
Low beam status signal	R									T
High beam request signal					Т		R			R
High beam status signal	R									T
Front fog light request signal										R
Day time running light request signal					T		R			
Turn LED burnout status signal					R		Т			
Vehicle speed signal	R	R	R	R	R		R T	Т	R	
Sleep wake up signal					Т		R			R
Door switch signal			R		Т		R		R	R
Turn indicator signal					Т		R			
Key fob ID signal					Т				R	

[CAN]

										.0/
Signals	ECM	тсм	Dis- play unit	AWD con- trol unit	всм	Steer- ing angle sensor	Unified meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/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			
Fuel level low warning signal			R				Ţ			
ASCD SET lamp signal	Т						R			
ASCD CRUISE lamp signal	Т						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
Steering angle sensor signal						Т		R		
ABS warning lamp signal							R	Т		
VDC OFF indicator lamp signal							R	Т		
SLIP indicator lamp signal							R	Т		
Brake warning lamp signal							R	Т		
System setting signal			T R		R T				R T	
AWD warning lamp signal				Т			R			
Distance to empty signal			R				Т			
Parking brake switch signal				R	R		Т			
ASCD operation signal	Т	R								
ASCD OD cancel request signal	Т	R								
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 signal		R					Т			
Not manual mode signal		R					Т			
Manual mode shift up signal		R					Т			
Manual mode shift down signal		R					Т			
Manual mode indicator signal		Т					R			
Snow mode switch signal	R						Т			
Current gear position signal*	R	Т								

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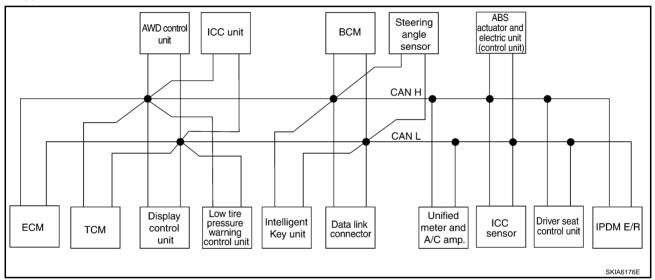
Signals	ECM	тсм	Dis- play unit	AWD con- trol unit	всм	Steer- ing angle sensor	Uni- fied meter and A/C amp.	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Next gear position signal*	R	Т								
Shift change signal*	R	Т								
Shift pattern signal*	R	Т								

^{*:} VK45DE engine model only

TYPE 6

System diagram

Type6



Input/output signal chart

T: Transmit R: Receive

Signals	ECM	ТСМ	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	AWD con- trol unit	ICC unit	Intel- ligent Key unit	ВСМ	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actu- ator and elec- tric unit (con- trol unit)	Driver seat con- trol unit	IPDM E/R
A/T self-diagnosis signal	R	Т												
ABS operation signal						R						Т		
TCS operation signal						R						Т		
VDC operation signal						R					R	Т		
Stop lamp switch signal		R			R					Т				
Battery voltage sig- nal	Т	R												
Key switch signal								Т					R	

[CAN]

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Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	AWD con- trol unit	ICC unit	Intel- ligent Key unit	всм	Steer- ing angle sen- sor	Unified meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R	A B
Ignition switch signal								Т					R	R	
P range signal		Т				R						R	R		D
Closed throttle position signal	Т	R				R									
Wide open throttle position signal	Т	R													Е
Engine speed signal	Т	R	R		R	R				R		R			
Engine status signal	Т							R							F
Engine coolant tem- perature signal	Т					R				R					
Accelerator pedal position signal	Т	R			R	R						R			G
Fuel consumption	Т									R					
monitor signal			R							Т					Н
A/T self-diagnosis signal	R	Т													
Turbine revolution signal	R	Т				R									I
Output shaft revolution signal	R	Т				R									J
A/C switch signal	R							Т							
A/C compressor request signal	Т													R	LA
A/C compressor feedback signal	Т									R					
Blower fan motor switch signal	R							Т							L
A/C switch/indicator			Т							R					M
signal			R							T					IVI
Cooling fan speed request signal	Т													R	
Position light request signal			R					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	

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Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	AWD con- trol unit	ICC unit	Intel- ligent Key unit	всм	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Day time running light request signal								Т		R				
Turn LED burnout status signal								R		Т				
Vehicle speed signal	R	R	R	R	R	R	R	R		R T	R	Т	R	
Sleep wake up signal							Т	T R		R				R
Door switch signal			R				R	Т		R			R	R
Key fob ID signal								Т					R	
Key fob door unlock signal								Т					R	
Oil pressure switch								R						T
signal								Т		R				
Buzzer output signal							Т	Т		R R				
						Т				R				
Fuel level sensor signal	R									Т				
Fuel level low warn- ing signal			R							Т				
ASCD SET lamp signal	Т									R				
ASCD CRUISE lamp signal	Т									R				
Malfunction indicator lamp signal	Т									R				
ICC operation signal	R					Т								
Front wiper request signal						R		Т						R
Front wiper stop position signal								R						Т
Rear window defog- ger switch signal								Т						R
Rear window defog- ger control signal	R		R					R						Т
Hood switch signal								R						Т
Theft warning horn request signal								Т						R
Horn chirp signal								Т						R
Steering angle sen- sor signal									Т			R		
Tire pressure signal				Т						R				

[CAN]

Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	AWD con- trol unit	ICC unit	Intel- ligent Key unit	всм	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
Tire pressure data signal			R	Т										
ABS warning lamp signal						R				R		Т		
VDC OFF indicator lamp signal						R				R		Т		
SLIP indicator lamp signal										R		Т		
Brake warning lamp signal										R		Т		
System setting signal			T R				R T						R T	
AWD warning lamp signal					Т		-			R				
Distance to empty signal			R							Т				
Parking brake switch signal					R			R		Т				
Door lock/unlock request signal							Т	R						
Door lock/unlock sta- tus signal							R	Т						
Starter permission signal							Т	R						
Back door open request signal							Т	R						
Power window open request signal							Т	R						
Alarm request signal							Т	R						
Key warning signal							Т			R				
ICC sensor signal						R					Т			
ICC warning lamp signal						Т				R				
ICC system display signal						Т				R				
Current gear position signal		Т				R						R		
Steering switch sig- nal	Т					R								
ASCD operation signal	Т	R												
ASCD OD cancel request signal	Т	R												
ICC OD cancel request signal	R	R				Т								

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Signals	ECM	тсм	Dis- play con- trol unit	Low tire pres- sure warn- ing con- trol unit	AWD con- trol unit	ICC unit	Intel- ligent Key unit	всм	Steer- ing angle sen- sor	Uni- fied meter and A/C amp.	ICC sen- sor	ABS actuator and electric unit (control unit)	Driver seat con- trol unit	IPDM E/R
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 signal		R								Т				
Not manual mode signal		R								Т				
Manual mode shift up signal		R								Т				
Manual mode shift down signal		R								Т				
Manual mode indicator signal		Т								R				
Ignition knob switch signal							Т	R						
Snow mode switch signal	R									Т				
Current gear position signal*	R	Т												
Next gear position signal*	R	Т												
Shift change signal*	R	Т												
Shift pattern signal*	R	Т			-									

^{*:} VK45DE engine model only

[CAN]

CAN SYSTEM (TYPE 1)

PFP:23710

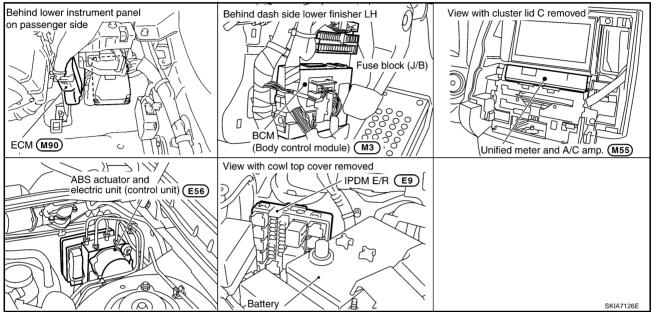
System Description

KS00BZ7

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

AKS00BZ8



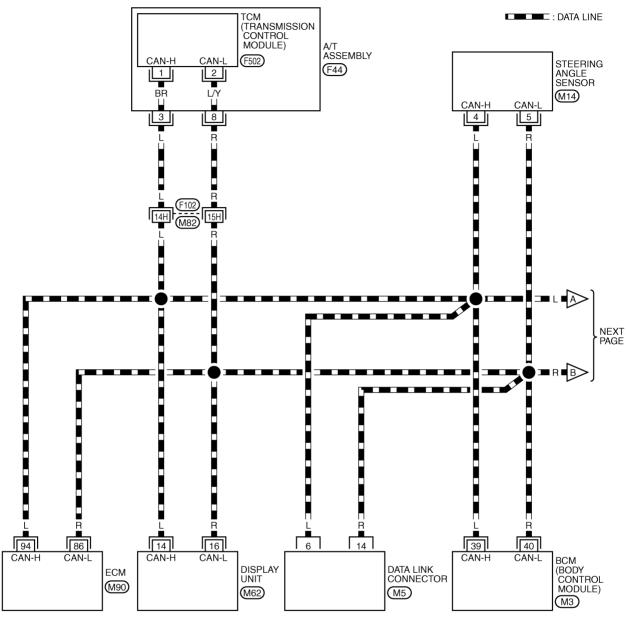
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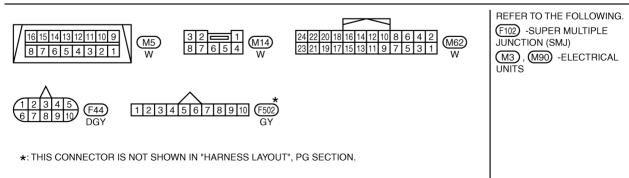
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Wiring Diagram - CAN -

KS00BZ9

LAN-CAN-01





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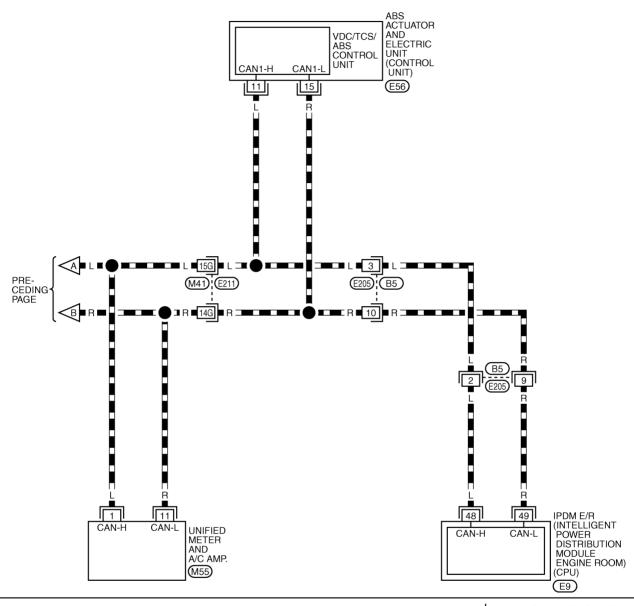
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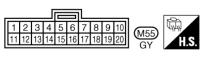
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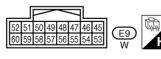
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DATA LINE





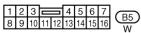


REFER TO THE FOLLOWING.

(E211) -SUPER MULTIPLE

JUNCTION (SMJ)

(E56) -ELECTRICAL UNITS

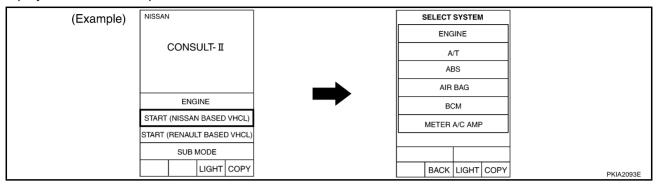


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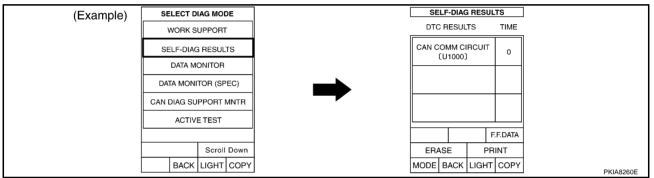
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Work Flow

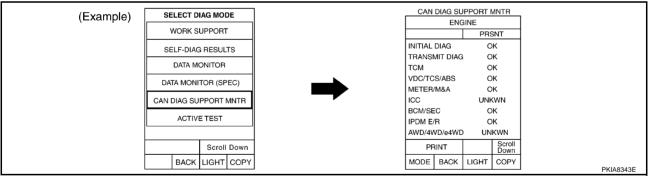
1. When there are no indications of "BCM", "METER A/C AMP" or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



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



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



- 4. Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to LAN-26, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-26. "CHECK SHEET".

NOTE:

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- 6. Check CAN communication line of the integrated display system. Refer to AV-85, "CAN Communication Line Inspection".
- Attach the CAN DIAG MONITOR check sheet onto the check sheet. Refer to LAN-26, "CHECK SHEET".
- 8. Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG MONITOR check sheet. Refer to LAN-26, "CHECK SHEET".

CAN SYSTEM (TYPE 1)

[CAN]

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG MNTR" for the diagnosed control unit, replace the control unit. Refer to AV-85, "CAN Communication Line Inspection".

9. According to the check sheet results (example), start inspection. Refer to <u>LAN-28, "CHECK SHEET RESULTS (EXAMPLE)"</u>.

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

					CA	N DIAG SU					
SELECT SYST	EM screen	Initial	Transmit		TC::	DIOE:	Receive		METER	VDC/TCS	
	T	diagnosis	diagnosis	ECM	TCM	DISPLAY	BCM/SEC	STRG	/M&A	/ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
VT	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
PDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_
		Att	ach copy (, of							
			ECT SYST				LECT SYS				
			C/	C	tach copy Iisplay uni MONITOR	of t check she	eet				

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Attach copy of ENGINE SELF-DIAG RESULTS	Attach copy of A/T SELF-DIAG RESULTS	Attach copy of BCM SELF-DIAG RESULTS
Attach copy of METER A/C AMP SELF-DIAG RESULTS	Attach copy of ABS SELF-DIAG RESULTS	Attach copy of IPDM E/R SELF-DIAG RESULTS
Attach copy of ENGINE CAN DIAG SUPPORT MNTR	Attach copy of A/T CAN DIAG SUPPORT MNTR	Attach copy of BCM CAN DIAG SUPPORT MNTR
Attach copy of METER A/C AMP CAN DIAG SUPPORT MNTR	Attach copy of ABS CAN DIAG SUPPORT MNTR	Attach copy of IPDM E/R CAN DIAG SUPPORT MNTR

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CHECK SHEET RESULTS (EXAMPLE)

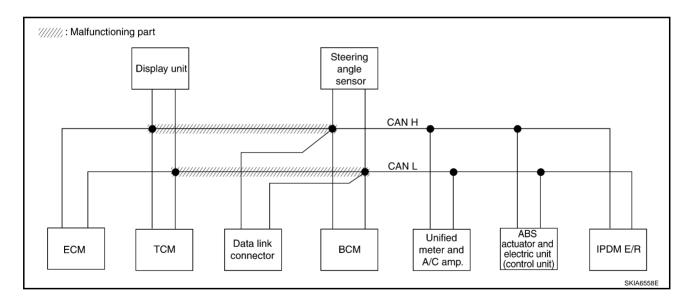
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-41</u>, "Circuit Check Between TCM and <u>Data Link Connector"</u>.

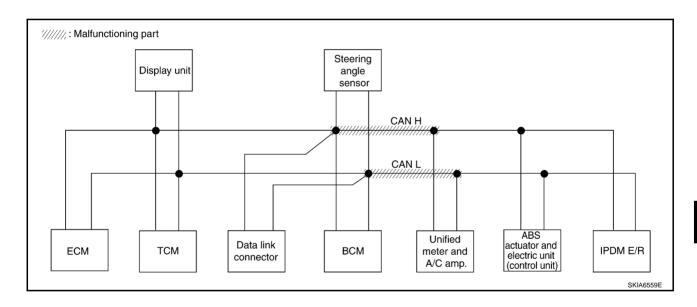
					CA	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
022201 0101	EW Sorceri	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	_	NG	UNKWN	_	UNKWN	_	Ω ΝΚ ,ΜΝ	_	UNK WN	UNK WN	UNK WI
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNIXWN	UNK WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	C 4 √12	_	C 4√ 15	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNK WN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNK WN	Ω ΝΚ ₩Ν	UNK\\	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNK WN	_	_	UNKWN	_	_	_	_



Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to <u>LAN-41</u>, "Circuit Check <u>Between Data Link Connector and Unified Meter and A/C Amp."</u>

					CAI	N DIAG SU	PPORT MN	ITR						
SELECT SYST	FM screen	Initial	Transmit		Receive diagnosis									
022201 0101	Zivi dordori	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F			
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UN K ₩N	UNK WN	UNKWN			
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNK/WN	_			
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	C 4√ 15	_	CAN 7			
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	∩ NK WN	_	UNK WN			
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_			
ABS	_	NG	UNKWN	UNIX WN	UNKWN	_	_	UNKWN	_	_	_			
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_			



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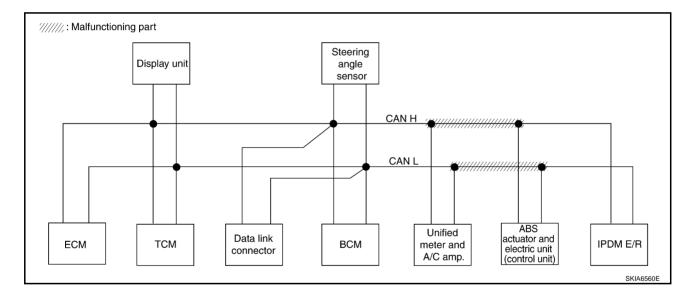
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Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-42, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

					CAI	N DIAG SU	PPORT MN	ITR						
SELECT SYST	FM screen	Initial	Transmit		Receive diagnosis									
01110	00.00	diagnosis		ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F			
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNK WN	∩ NK WN			
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	Ω ΝΚ /ΜΝ	_			
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7			
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	∩N K WN			
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	∩ NK WN	_			
ABS	_	NG	UNKWN	UNKWN	UNK WN	_	_	UNK WN	_	_	_			
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_			



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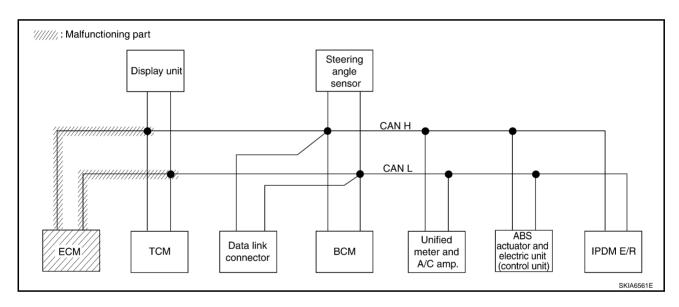
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Case 4
Check ECM circuit. Refer to <u>LAN-42</u>, "ECM Circuit Check".

		ı									
					CA	N DIAG SU	PPORT MN Receive of				
SELECT SYST	EM screen	Initial diagnosis	Transmit diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNK\\\	_	UNK/WN	_	UNKWN	_	UNION	UNKWN	∩ иК МИ
A/T	_	NG	UNKWN	UNIXWN	_	_	_	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	СА√із	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	-	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNIXWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNIXWN	_	_	UNKWN	_	_	_	_
				-		!					
											PKIA7931E



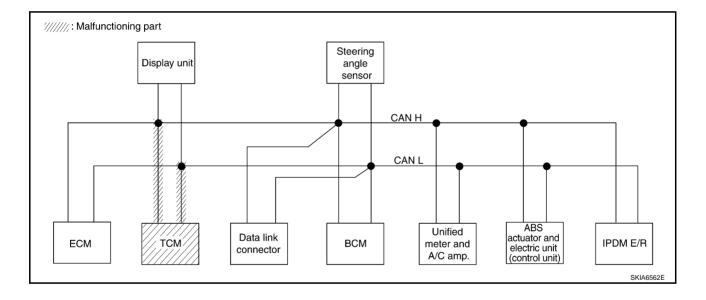
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Case 5
Check TCM circuit. Refer to <u>LAN-43</u>, "TCM Circuit Check" .

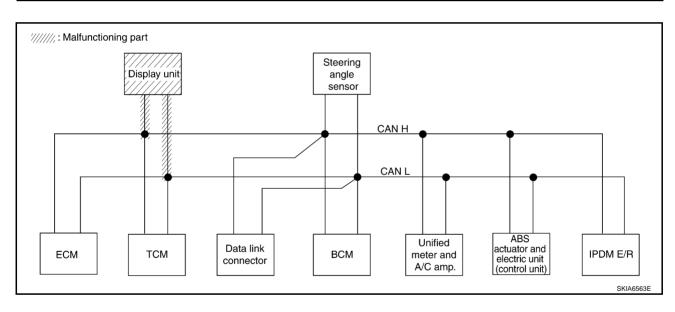
					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
022201 0101	EW SOICEN	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	Ω ΝΚ ₩Ν	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNI WN	UNK WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	∩ иК {\mathbb{W}}N	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNK WN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



Case 6

Check display unit circuit. Refer to LAN-43, "Display Unit Circuit Check" .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
00		diagnosis		ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN		UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	C 4√ 1 1	СМЗ	_	_	C AN 2	_	CAN 5	_	CAN 7
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



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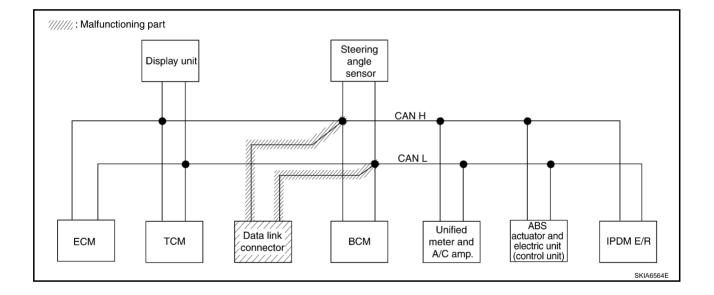
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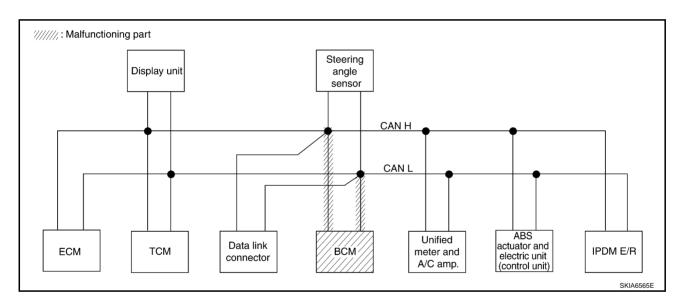
Case 7
Check data link connector circuit. Refer to <u>LAN-44</u>, "<u>Data Link Connector Circuit Check</u>" .

					CAI	N DIAG SU	PPORT MN	ITR					
SELECT SYST	EM screen	Initial	Transmit		Receive diagnosis								
OLLLO1 O101	LIW SOICEIT	diagnosis	1 ' '	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F		
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN		
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	UNKWN	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7		
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_		



Case 8
Check BCM circuit. Refer to <u>LAN-44</u>, "BCM Circuit Check".

					CAI	N DIAG SU	PPORT MN	ITR						
SELECT SYST	FM screen	Initial	Transmit		Receive diagnosis									
00		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F			
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNK WN	_	UNKWN	UNKWN	UNKWN			
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_			
Display unit	_	CAN COMM	CAN 1	CAN 3	_	-	C AN 2	_	CAN 5	_	CAN 7			
ВСМ	No invication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	UNKWN			
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UN K ₩N	_	_	UNKWN	_			
ABS	-	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_			
IPDM E/R	No indication	-	UNKWN	UNKWN	_	_	UNK WN	_	_	_	_			



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Case 9
Check steering angle sensor circuit. Refer to <u>LAN-45</u>, "Steering Angle Sensor Circuit Check".

					CAI	N DIAG SU	PPORT MN	ITR					
SELECT SYST	FM screen	Initial	Transmit		Receive diagnosis								
OLLLO1 O101	LIW Screen	diagnosis		ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F		
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN		
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	UNKWN	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7		
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_		

//////: Malfunctioning part Steering angle Display unit sensor CAN H CAN L ABS Unified Data link actuator and ECM TCM всм meter and IPDM E/R electric unit (control unit) connector A/C amp. SKIA6566E

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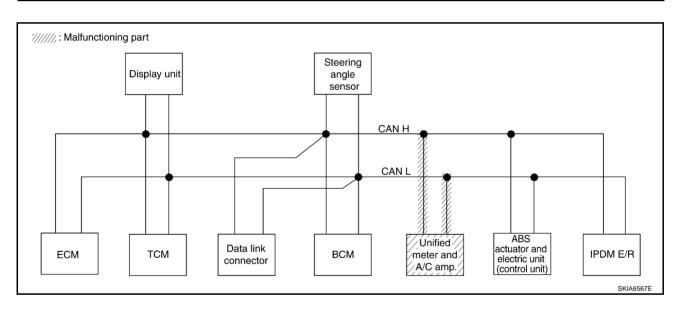
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Case 10

Check unified meter and A/C amp. circuit. Refer to LAN-45, "Unified Meter and A/C Amp. Circuit Check" .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
022201 0101	ZIVI GOICEIT	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNK WN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNK WN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNK WN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



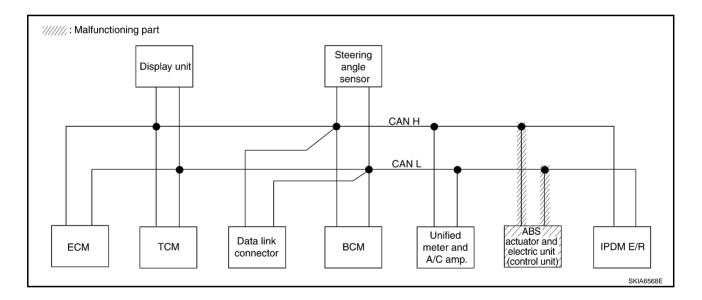
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Case 11

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-46, "ABS Actuator and Electric Unit (Control Unit) Circuit Check"</u> .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
022201 0101	LIVI SOICCII	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNI WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNK/WN	_
ABS	_	NG	UN K ₩N	UNKWN	UNK/WN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	-	_	_	_



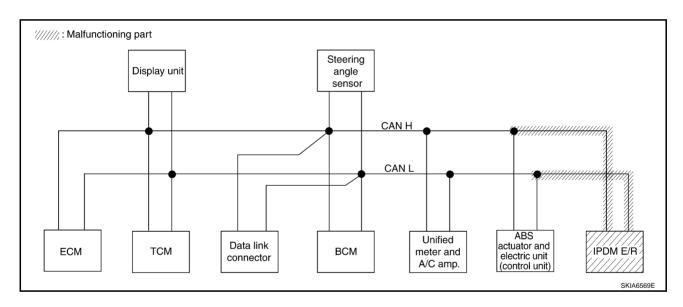
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Case 12
Check IPDM E/R circuit. Refer to <u>LAN-46</u>, "IPDM E/R Circuit Check".

					CAI	N DIAG SU	PPORT MN				
SELECT SYST	EM screen	Initial	Transmit				Receive of	diagnosis			
		diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNI W MN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNIXWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



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Case 13

Check CAN communication circuit. Refer to LAN-47, "CAN Communication Circuit Check" .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
322231 3131	Ziii Gorgon	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	Ω ΝΚ (WN	_	UNIXWN	_	Ω ΝΚ (WN	_	NNR WN	UNK WN	UNKWN
A/T	_	NG	UNK/WN	UNK WN	_	_	_	_	Π ИΚ ₩И	NNKWN	_
Display unit	_	CAN COMM	CAN 1	с₩з	_	_	CAN 2	_	C 4/ 15	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	Ω ΝΚ ,ΜΝ	NNK WN	UNKWN	_	_	UNK WN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

Case 14

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to <u>LAN-51</u>, "IPDM E/R Ignition Relay <u>Circuit Check"</u>.

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	diagnosis			
GEEEOT GTGT	LIVI SOICCII	diagnosis		ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UN K ₩N	_	UNKWN	-	UNKWN	UNIXWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	-	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	Π ИΚ ΜИ	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	-	_	-	_

Case 15

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to <u>LAN-51</u>, "IPDM E/R Ignition Relay Circuit Check".

					CA	N DIAG SU	PPORT MN	ITR			
SELECT SYST	EM screen	leitial	Tuomomit				Receive of	diagnosis			
OLLLO1 0101	LIW Screen	Initial diagnosis	Transmit diagnosis	ECM	TCM	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNK WN	_	_	_	_	∩ ИК МИ	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNIX WN	UNKWN	_	_	UNK WN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

Circuit Check Between TCM and Data Link Connector

1. CHECK HARNESS FOR OPEN CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect the negative battery terminal.

3. Disconnect ECM connector and harness connector M82.

 Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

> 14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-24, "Work Flow".

NG >> Repair harness.

to SKIA6861E

SMJ harness connector

SMJ • CONNECTOR

.14H,15H

Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

1. CHECK HARNESS FOR OPEN CIRCUIT

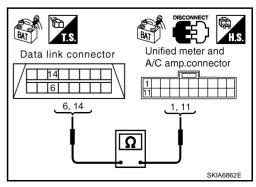
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6
 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist. 14 (R) - 11 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-24, "Work Flow"</u>.

NG >> Repair harness.



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Data link connector

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Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

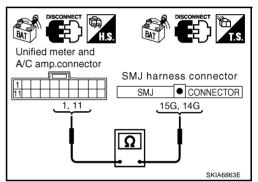
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist. 11 (R) - 14G (R) : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



3. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist. 14G (R) - 15 (R) : Continuity should exist.

OK or NG

OK \rightarrow Connect all the connectors and diagnose again. Refer to LAN-24, "Work Flow" .

NG >> Repair harness.

SMJ harness connector SMJ OCONNECTOR 15G,14G C/UNIT OCONNECTOR 11,15 SKIA6864E

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ECM Circuit Check

CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

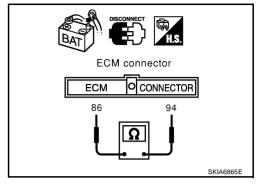
- 1. Disconnect ECM connector.
- Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132 Ω

OK or NG

OK >> Replace ECM.

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



TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

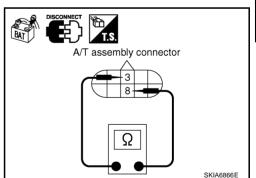
- Disconnect A/T assembly connector.
- Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG >> Repair harness between A/T assembly and display unit.



Display Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal. 2.
- Check terminals and connector of display unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect display unit connector.
- 2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

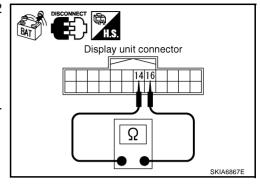
14 (L) - 16 (R) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG

>> Repair harness between display unit and harness connector M82.



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Data Link Connector Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

>> GO TO 2. OK

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

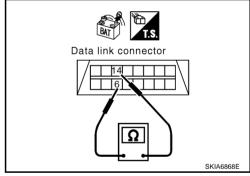
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

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

OK or NG

OK >> Diagnose again. Refer to LAN-24, "Work Flow".

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



BCM Circuit Check

1. CHECK CONNECTOR

1. Turn ignition switch OFF.

- Disconnect the negative battery terminal.
- Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector. AKS00BZI

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect BCM connector.
- Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

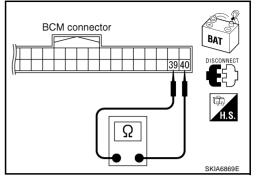
: Approx. 54 - 66 Ω

OK or NG

OK

>> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM".

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



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Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect steering angle sensor connector.
- Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

: Approx. 54 - 66 Ω

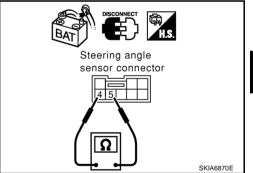
OK or NG

OK

>> Replace steering angle sensor.

NG

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



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Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

OK or NG

OK >> GO TO 2.

Revision: 2004 November

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector.
- 2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

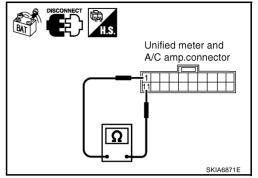
1 (L) - 11 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG

>> Repair harness between unified meter and A/C amp. and harness connector M41.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

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1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

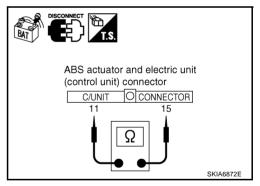
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OK

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

NG

>> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



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IPDM E/R Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

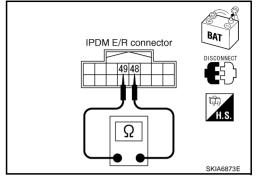
: Approx. 108 - 132 Ω

OK or NG

OK >> Replace IPDM E/R.

NG

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



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CAN Communication Circuit Check

1. CHECK CONNECTOR

1. Turn ignition switch OFF.

- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, unit side, sensor side, meter side, control unit side and harness side).
- ECM
- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- 2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

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

OK or NG

OK >> GO TO 3.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

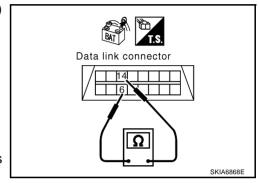
6 (L) - Ground : Continuity should not exist. 14 (R) - Ground : Continuity should not exist.

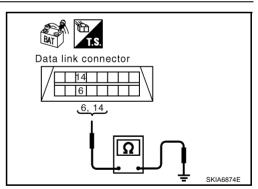
OK or NG

OK >> GO TO 4.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41





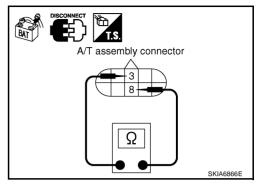
4. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect A/T assembly connector.
- Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

OK or NG

OK >> GO TO 5.

NG >> Repair harness between A/T assembly and harness connector F102.



5. CHECK HARNESS FOR SHORT CIRCUIT

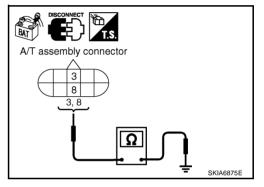
Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

> 3 (L) - Ground : Continuity should not exist. 8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

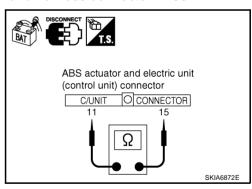
- Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

OK or NG

OK >> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205



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7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

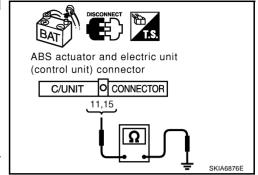
11 (L) - Ground : Continuity should not exist. 15 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205



8. CHECK HARNESS FOR SHORT CIRCUIT

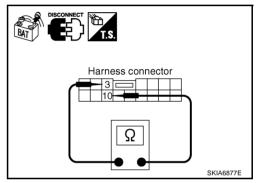
Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 9.

NG >> Repair harness between harness connector B5 and harness connector B5.



9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

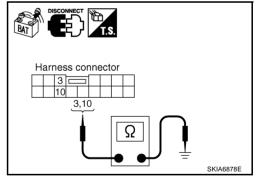
3 (L) - Ground : Continuity should not exist.10 (R) - Ground : Continuity should not exist.

OK or NG

NG

OK >> GO TO 10.

>> Repair harness between harness connector B5 and harness connector B5.



10. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

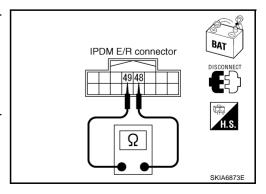
48 (L) - 49 (R) : Continuity should not exist.

OK or NG

NG

OK >> GO TO 11.

>> Repair harness between IPDM E/R and harness connector E205.



11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

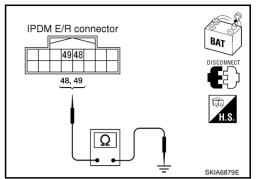
48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

NG

OK >> GO TO 12.

>> Repair harness between IPDM E/R and harness connector E205.



12. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to $\underline{\sf LAN-51}$, "ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION" . OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-24, "Work Flow"</u>.

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

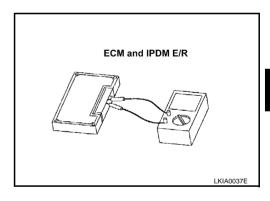
Check the following. If no malfunction is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-12, "IGNITION POWER SUPPLY IGNITION SW. IN "ON"</u> 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.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



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[CAN]

CAN SYSTEM (TYPE 2)

PFP:23710

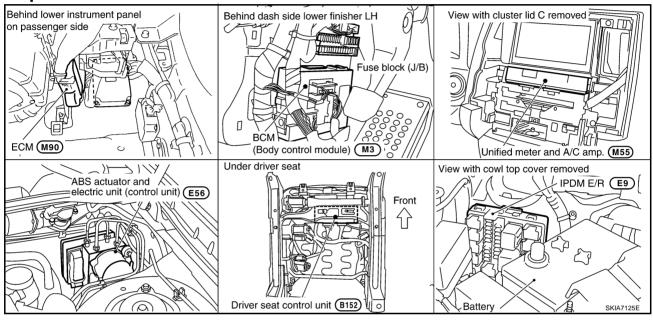
System Description

AKS00BZQ

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.

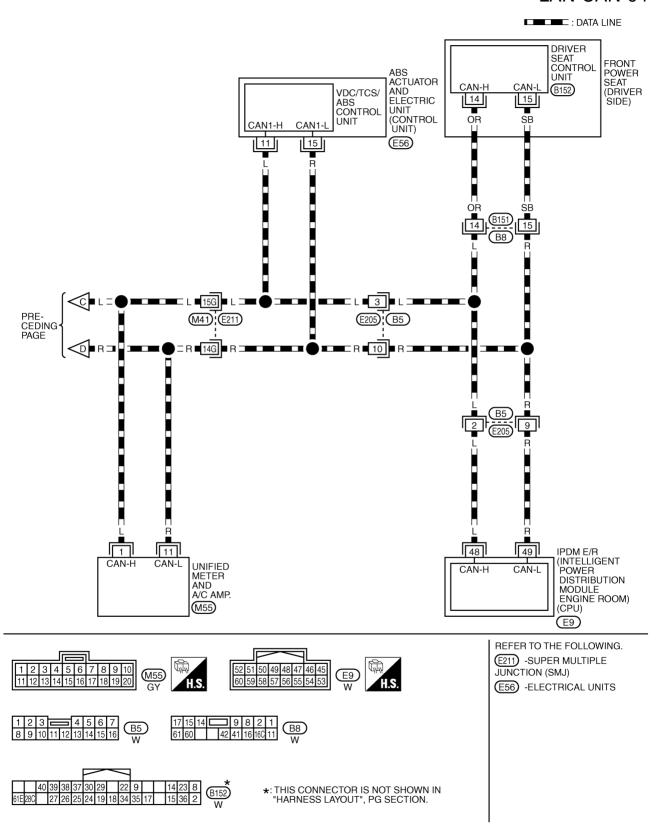
Component Parts and Harness Connector Location

AKS00BZR



TKWM1293E

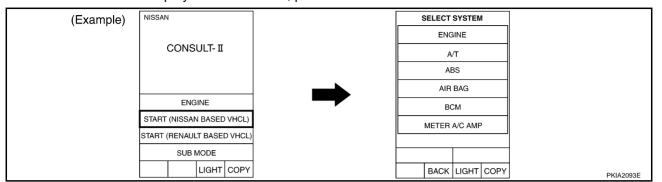
LAN-CAN-04



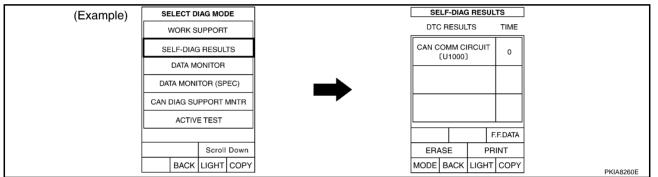
TKWH0248E

Work Flow

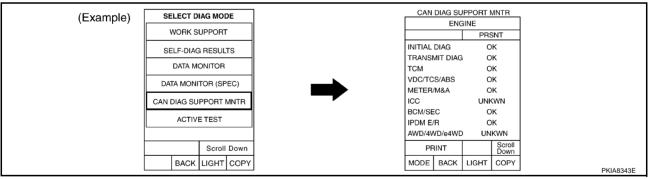
1. When there are no indications of "BCM", "METER A/C AMP", "AUTO DRIVE POS." or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



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



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



- Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to <u>LAN-57</u>, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-57, "CHECK SHEET".

NOTE:

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- Check CAN communication line of the integrated display system. Refer to <u>AV-85, "CAN Communication Line Inspection"</u>.
- Attach the CAN DIAG MONITOR check sheet onto the check sheet. Refer to LAN-57, "CHECK SHEET".
- Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG MONITOR check sheet. Refer to <u>LAN-57</u>, "CHECK SHEET".

Revision: 2004 November LAN-55 2004 FX35/FX45

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CAN SYSTEM (TYPE 2)

[CAN]

NOTE:

- If "NG" is displayed on "CAN COMM" as "CAN DIAG MNTR" for the diagnosed control unit, replace the control unit. Refer to AV-85, "CAN Communication Line Inspection".
- 9. According to the check sheet results (example), start inspection. Refer to LAN-59, "CHECK SHEET RESULTS (EXAMPLE)".

CAN SYSTEM (TYPE 2)

[CAN]

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

					CA	N DIAG SU	PPORT MN				
SELECT SYST	EM screen	Initial	Transmit		ı		Receive of	diagnosis	METER	LUDOTTOO	
		diagnosis	diagnosis	ECM	TCM	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
NGINE	_	NG	UNKWN	-	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
VT	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
isplay unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
CM	No indication	NG	UNKWN	UNKWN	-	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN			UNKWN	_
BS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
UTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
PDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_
			ach copy (ECT SYST				ttach copy LECT SYS				
			C,	d	tach copy lisplay uni MONITOR	t	et				

PKIA7943E

Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	BCM	METER A/C AMP
SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS
Attach copy of	Attach copy of	Attach copy of	
ABS	AUTO DRIVE POS.	IPDM E/R	
SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS	
Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	BCM	METER A/C AMP
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT
MNTR	MNTR	MNTR	MNTR
Attach copy of	Attach copy of	Attach copy of	
ABS	AUTO DRIVE POS.	IPDM E/R	
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	
MNTR	MNTR	MNTR	

CHECK SHEET RESULTS (EXAMPLE)

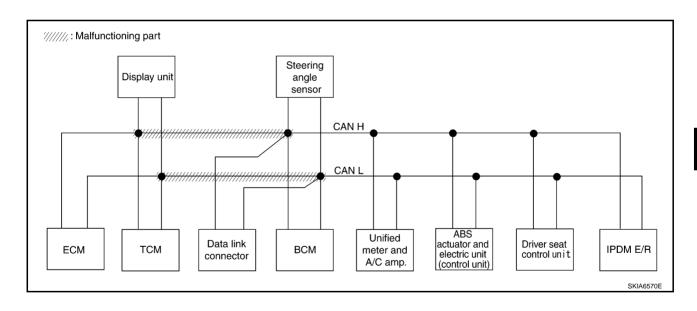
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-74, "Circuit Check Between TCM and Data Link Connector"</u>.

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	LIVI 0010011	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	Π ИΝ ΜΝ	_	∩ NK WN	UNK WN	Π Μ ΜΝ
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	∩ ИК МИ	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	NAK WN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	∩ ИК МИ	NNR WN	UNKWN	UNKWN	_	-	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNK WN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	-	_	_



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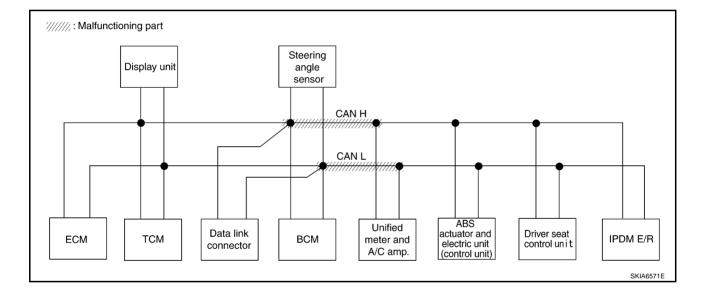
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Case 2
Check harness between data link connector and unified meter and A/C amp. Refer to LAN-74, "Circuit Check Between Data Link Connector and Unified Meter and A/C Amp."

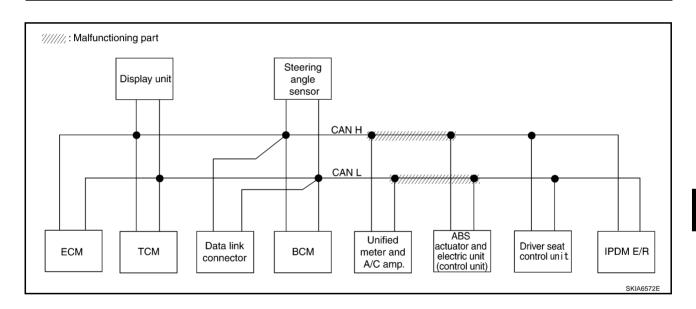
					CA	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive c	liagnosis			
022201 0101	_W 00/00/1	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	Π ΝΚ (ΜΝ	UNKWN	UNI WN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UN K ₩N	∩ NR WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNI W WN	_	Ω ΝΚ ⁄ΜΝ
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNIXWN	UNK WN	_	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-75, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
OLLLO1 0101	LIVI SCICCII	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	-	UNKWN	_	UNKWN	_	UNKWN	UNK WN	UNK WN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	Ω ΝΚ /WΝ	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
BCM	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNI WN	_
ABS	_	NG	UNKWN	NNK WN	UNK WN	_	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	-	UNKWN	_	_	_	_



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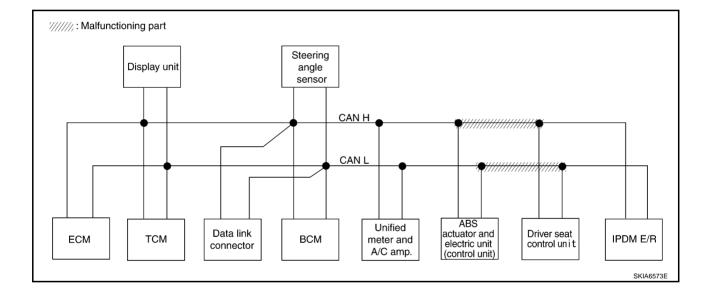
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Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to <u>LAN-76</u>, "Circuit Check Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit".

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
0222010101	00.00	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	-	UNKWN	_	UNKWN	_	UNKWN	UNKWN	∩ M MN
A/T	_	NG	UNKWN	UNKWN	_		_	_	UNKWN	UNKWN	-
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	1	ı	_	_	UNKWN	_	UN K ₩N
METER A/C AMP	No indication	1	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	1	_	UNKWN	1	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	-	UNKWN	_	-	_	_



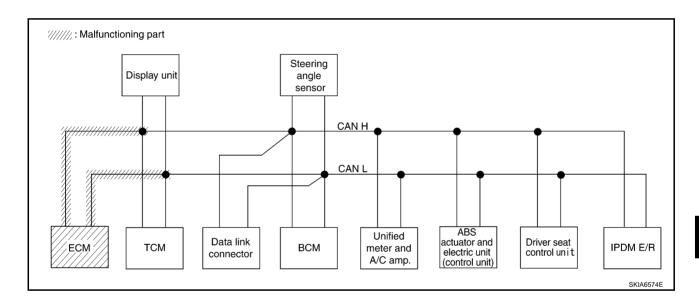
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Case 5
Check ECM circuit. Refer to <u>LAN-76</u>, "ECM Circuit Check" .

					CA	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNIXWN	1	UNK WN	_	UNIMU	_	UNK WN	UNI WN	UNK WN
A/T	_	NG	UNKWN	UNAMN		_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	C ∜√ 3	_	_	CAN 2	_	CAN 5	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNI WN		_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNAMN	UNKWN	_	_	UNKWN	1	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



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Case 6
Check TCM circuit. Refer to <u>LAN-77</u>, "TCM Circuit Check".

					CAI	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	LIN GOIGGII	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNK WN	UNI WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UN K ₩N	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNI W WN	_	_	UNKWN	-	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	-
IPDM E/R	No indication	-	UNKWN	UNKWN	_	-	UNKWN	_	_	_	_

//////: Malfunctioning part Steering Display unit angle sensor CAN H CAN L ABS actuator and electric unit (control unit) Unified Data link Driver seat control unit всм IPDM E/R ECM TCM meter and connector A/C amp. SKIA6575E

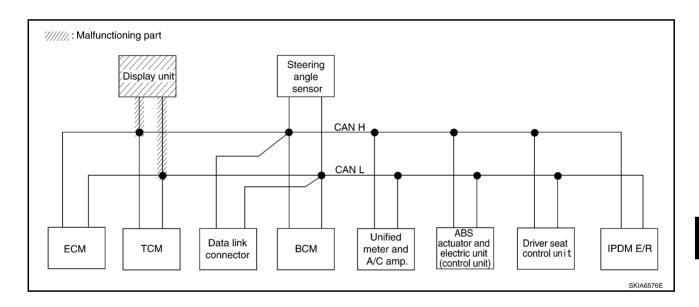
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Case 7
Check display unit circuit. Refer to <u>LAN-77</u>, "<u>Display Unit Circuit Check</u>" .

					CA	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive o	liagnosis			
322231 3131	LIN GOIGGII	diagnosis	diagnosis	ECM	TCM	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/P
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	C ₩ 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	-	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



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Case 8
Check data link connector circuit. Refer to <u>LAN-78</u>, "<u>Data Link Connector Circuit Check</u>" .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	LIVI GOLGGII	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	1	_	_	_	UNKWN	UNKWN	ı
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN		_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

//////: Malfunctioning part Steering Display unit angle sensor CAN H CAN L ABS actuator and electric unit (control unit) Unified Data link Driver seat control unit ECM TCM BCM IPDM E/R meter and connector A/C amp. SKIA6577E

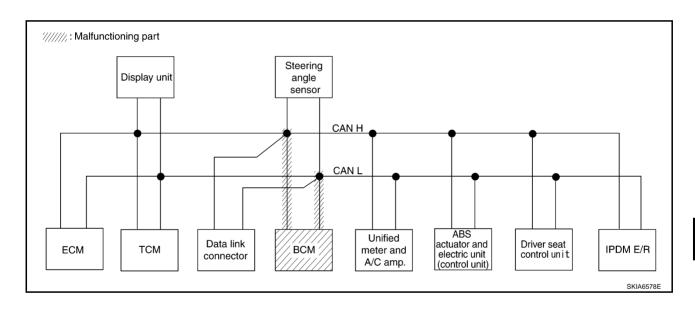
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Case 9
Check BCM circuit. Refer to <u>LAN-78</u>, "BCM Circuit Check" .

					CAI	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
3222313131		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	ı	UN ™ WN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	l	_	_	UNKWN	UNKWN	ı
Display unit	_	CAN COMM	CAN 1	CAN 3	_	-	C ₩ 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	Ω ΝΚ ,ΜΝ	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNK WN	_	UNKWN	_	_
IPDM E/R	No indication		UNKWN	UNKWN	_	_	Ω ΝΚ ₩Ν	_	_	-	_



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Case 10
Check steering angle sensor circuit. Refer to <u>LAN-79</u>, "Steering Angle Sensor Circuit Check".

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	LIN GOIGGII	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/P
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNI WN	1	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	-	_	_

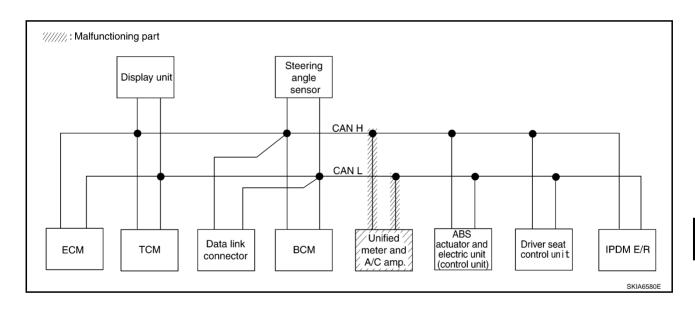
//////: Malfunctioning part Steering Display unit angle sensor CAN H CAN L ABS actuator and Unified Driver seat control unit Data link TCM всм IPDM E/R ECM meter and connector electric unit A/C amp. (control unit) SKIA6579E

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Case 11 Check unified meter and A/C amp. circuit. Refer to <u>LAN-79</u>, "<u>Unified Meter and A/C Amp. Circuit Check</u>" .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	Ziii Gorgon	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	-	UNKWN	-	UNKWN	_	UNK WN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_		_	_	UNK WN	UNKWN	1
Display unit	_	CAN COMM	CAN 1	CAN 3	_	-	CAN 2	_	CAN 5	-	CAN 7
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	∩ NK WN	-	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	-	-	UNKWN	-	-	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNK WN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

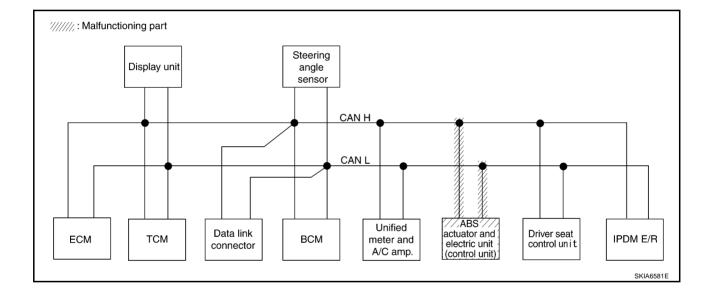


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Case 12
Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-80</u>, "ABS Actuator and Electric Unit (Control Unit) Circuit Check".

					CAI	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
0222010101	00.00	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	ĺ	UNKWN	_	UNKWN	UNK WN	UNKWN
A/T	_	NG	UNKWN	UNKWN	1	İ	_	_	UNKWN	UNIONN	ı
Display unit	_	CAN COMM	CAN 1	CAN 3	_		CAN 2	_	CAN 5	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNKWN	_	-	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	ı	∩ NK WN	_
ABS	_	NG	UNI WN	UNKWN	UNI W MN	_	_	UNK WN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



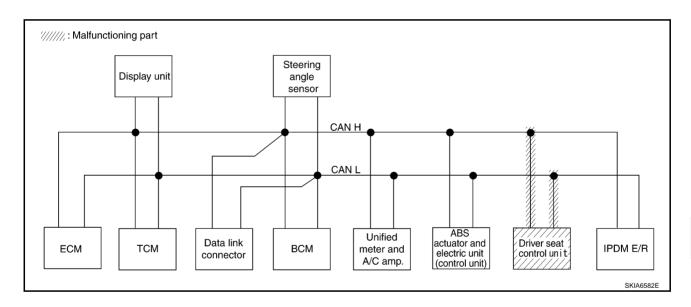
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Case 13
Check driver seat control unit circuit. Refer to <u>LAN-80</u>, "<u>Driver Seat Control Unit Circuit Check"</u>.

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	ZW GOLGGII	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	1	_	_	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	-	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_



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Case 14
Check IPDM E/R circuit. Refer to LAN-81, "IPDM E/R Circuit Check".

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	-	NG	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	UNKWN	UNI X WN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	∩ NR WN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	-	UNKWN	UNKWN	_	_	UNKWN	-	_	_	_

//////: Malfunctioning part Steering Display unit angle sensor CAN H CAN L ABS actuator and Unified Driver seat control unit Data link TCM всм IPDM E/R ECM meter and connector electric unit A/C amp. (control unit) SKIA6583E

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Case 15

Check CAN communication circuit. Refer to LAN-82, "CAN Communication Circuit Check" .

					CA	N DIAG SU	PPORT MN	TR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
322231 3131	LIVI GOLGGII	diagnosis	diagnosis	ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNK WN	_	UNIXWN	_	UNKWN	_	∩ NN WN	UNK WN	Ω ΝΆ ΜΝ
A/T	_	NG	Π ИΝ ΜΝ	UNK WN	_	_	_	_	∩ NN WN	UNK WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	C A 2	_	C4/15	_	CAN 7
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNK WN	∩ NK WN	UNK WN	_	-	NNK WN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

Case 16

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to <u>LAN-86, "IPDM E/R Ignition Relay Circuit Check"</u> .

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive of	liagnosis			
022201 0101	LIW COTCOTT	diagnosis	diagnosis	ECM	тсм	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNK WN	_	UNKWN	_	UNKWN	UNIXWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	UNKWN	-
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	Ω ΝΆ ΜΝ	UNKWN	UNKWN	_	ı	UNK WN	1
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	n uk wu	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

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Case 17

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to <u>LAN-86, "IPDM E/R Ignition Relay Circuit Check"</u>.

					CAI	N DIAG SU	PPORT MN	ITR			
SELECT SYST	FM screen	Initial	Transmit				Receive o	liagnosis			
022201 0101	ZIW GOLGGII	diagnosis		ECM	ТСМ	DISPLAY	BCM/SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	NNK WN	_	_	-	_	Π ΝΚ ΜΝ	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	CAN 2	_	CAN 5	_	CAN 7
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNK W N	UNKWN	_	_	UNK WN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	UNKWN	_	_	_	_

Circuit Check Between TCM and Data Link Connector

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1. CHECK HARNESS FOR OPEN CIRCUIT

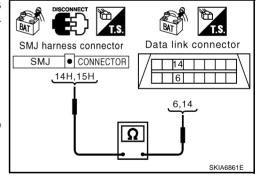
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and harness connector M82.
- Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-55, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

1. CHECK HARNESS FOR OPEN CIRCUIT

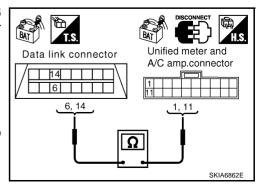
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist. 14 (R) - 11 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-55</u>, "Work Flow".

NG >> Repair harness.



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Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

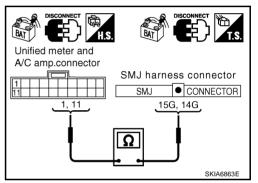
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist. 11 (R) - 14G (R) : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



3. CHECK HARNESS FOR OPEN CIRCUIT

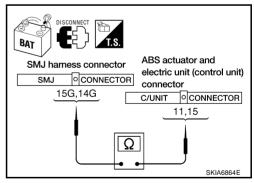
- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist. 14G (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-55, "Work Flow"</u>.

NG >> Repair harness.



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Circuit Check Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit AKS00BZX

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

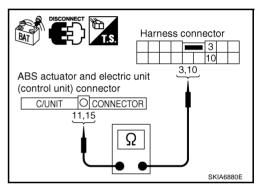
2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- 2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) 15 (R) - 10 (R) : Continuity should exist. : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



$oldsymbol{3}.$ Check harness for open circuit

- 1. Disconnect harness connector B8.
- 2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

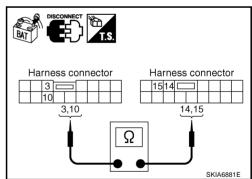
3 (L) - 14 (L)

: Continuity should exist. 10 (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-55, "Work Flow".

NG >> Repair harness.



AKS00BZY

ECM Circuit Check

CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

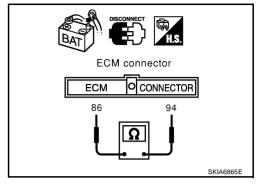
- 1. Disconnect ECM connector.
- Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132 Ω

OK or NG

OK >> Replace ECM.

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



AKS00BZZ

TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

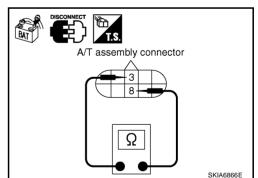
- Disconnect A/T assembly connector.
- Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG >> Repair harness between A/T assembly and display unit.



Display Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal. 2.
- Check terminals and connector of display unit for damage, bend and loose connection (unit side and harness side).

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OK or NG

OK >> GO TO 2.

Revision: 2004 November

NG >> Repair terminal or connector. LAN

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2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect display unit connector.
- 2. Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

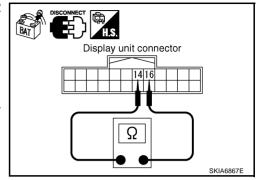
14 (L) - 16 (R) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace display unit.

NG

>> Repair harness between display unit and harness connector M82.



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Data Link Connector Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

>> GO TO 2. OK

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

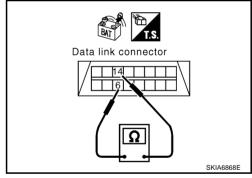
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

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

OK or NG

OK >> Diagnose again. Refer to LAN-55, "Work Flow".

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



BCM Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect BCM connector.
- Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

: Approx. 54 - 66 Ω

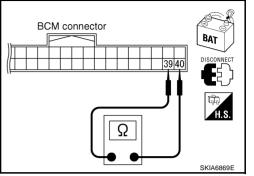
OK or NG

OK

>> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM".

NG

>> Repair harness between BCM and data link connector.



AKS00C03

Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect steering angle sensor connector.
- Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

: Approx. 54 - 66 Ω

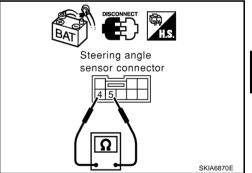
OK or NG

OK

>> Replace steering angle sensor.

NG

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



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Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

LAN-79 Revision: 2004 November 2004 FX35/FX45 В

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector.
- 2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

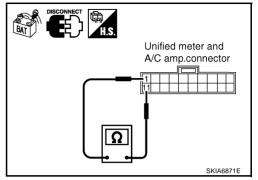
1 (L) - 11 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG

>> Repair harness between unified meter and A/C amp. and harness connector M41.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

AKS00C05

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

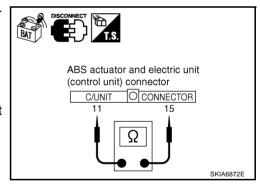
OK or NG

OK

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

NG

>> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



AKS00C06

Driver Seat Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control unit side and harness side).
- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect driver seat control unit connector.
- Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

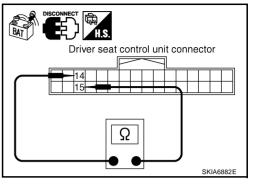
14 (OR) - 15 (SB) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit and harness connector B5.



AKS00C07

IPDM E/R Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

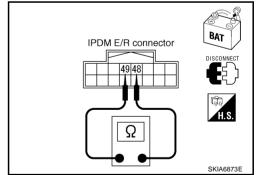
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect IPDM E/R connector.
- Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

OK or NG

OK >> Replace IPDM E/R.

NG >> Repair harness between IPDM E/R and harness connector B8.



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CAN Communication Circuit Check

1. CHECK CONNECTOR

AKS00C08

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, unit side, sensor side, meter side, control unit side and harness side).
- ECM
- A/T assembly
- Display unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- 2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

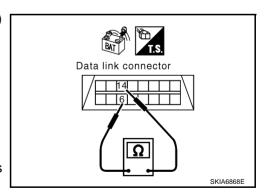
6 (L) - 14 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41



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3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

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

OK or NG

OK >> GO TO 4.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

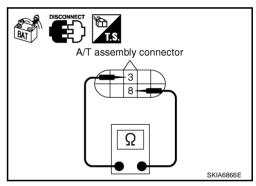
- Disconnect A/T assembly connector.
- Check continuity between A/T assembly harness connector F44 2. terminals 3 (L) and 8 (R).

OK or NG

OK >> GO TO 5.

NG

>> Repair harness between A/T assembly and harness connector F102.



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5. CHECK HARNESS FOR SHORT CIRCUIT

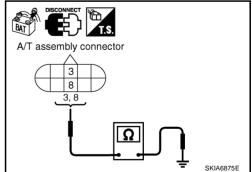
Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

> 3 (L) - Ground : Continuity should not exist. 8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.



Data link connector 6 6, 14

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6. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- 2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

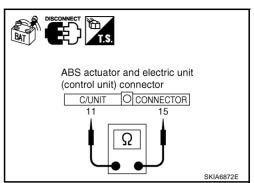
11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205



ABS actuator and electric unit

11,15

O CONNECTOR

(control unit) connector

C/UNIT

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground

: Continuity should not exist.

15 (R) - Ground

: Continuity should not exist.

OK or NG

OK >> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect harness connector B8.
- 2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

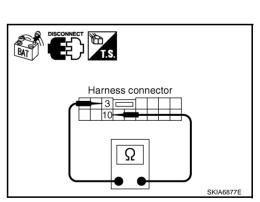
3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 9.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8



SKIA6878E

9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

> 3 (L) - Ground : Continuity should not exist. 10 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 10.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8

10. CHECK HARNESS FOR SHORT CIRCUIT

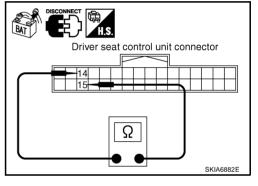
- Disconnect driver seat control unit connector.
- Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

OK or NG

OK >> GO TO 11.

NG

>> Repair harness between driver seat control unit and harness connector B151.



Harness connector

10 3,10

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

> 14 (OR) - Ground : Continuity should not exist. 15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.

NG

>> Repair harness between driver seat control unit and harness connector B151.

Driver seat control unit connector 14,15

12. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.

NG >> Repair harness between IPDM E/R and harness connector E205.

Bat IPDM E/R connector SKIA6873E

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13. CHECK HARNESS FOR SHORT CIRCUIT

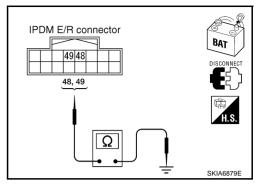
Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.

NG >> Repair harness between IPDM E/R and harness connector E205.



14. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to $\underline{\sf LAN-86}$, "ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION" . OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-55</u>, "Work Flow".

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

AKS00C09

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

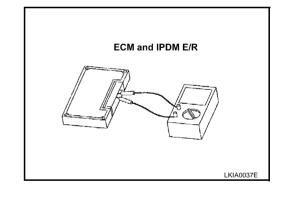
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-12, "IGNITION POWER SUPPLY IGNITION SW. IN "ON"</u> AND/OR "START"".

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

AKS00C0A

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



[CAN]

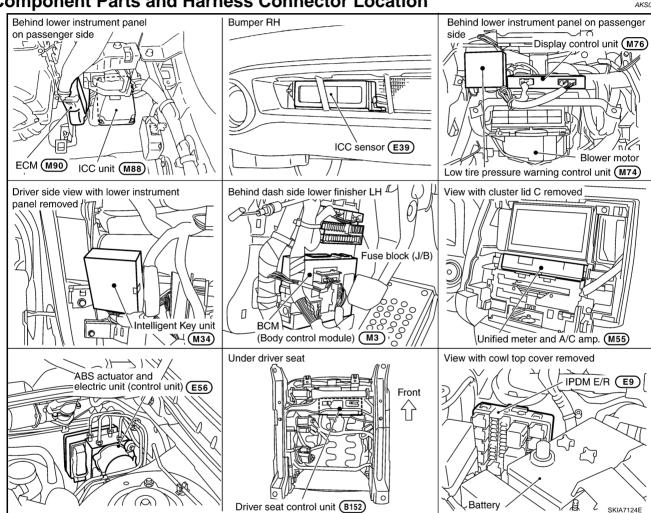
CAN SYSTEM (TYPE 3)

PFP:23710

System Description

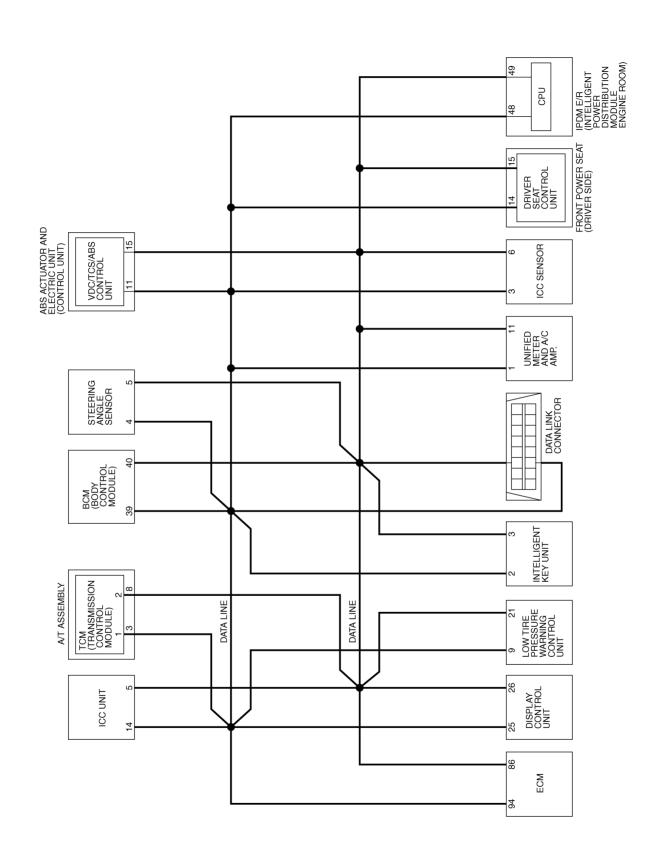
CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information 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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Schematic AKSOOCOD

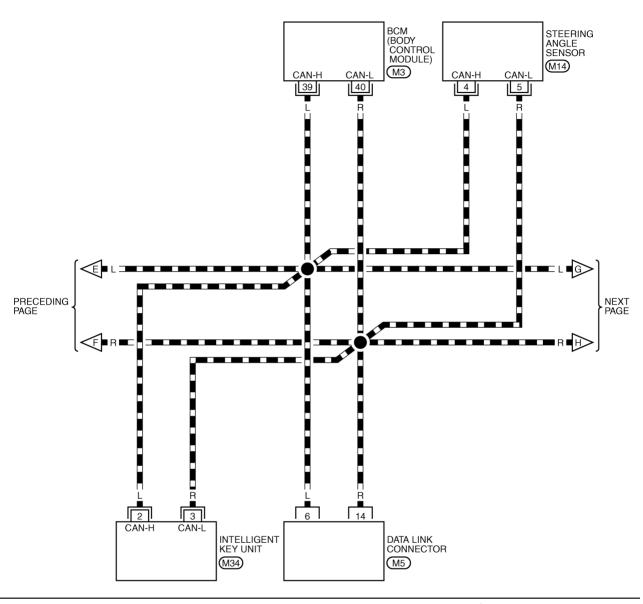


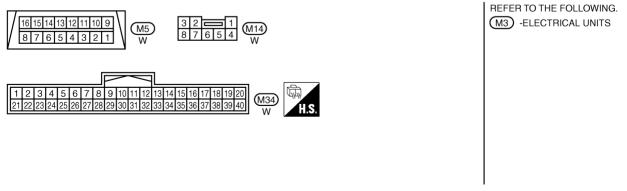
TKWM1294E

TKWM1295E

LAN-CAN-06

: DATA LINE





TKWM0748E

В

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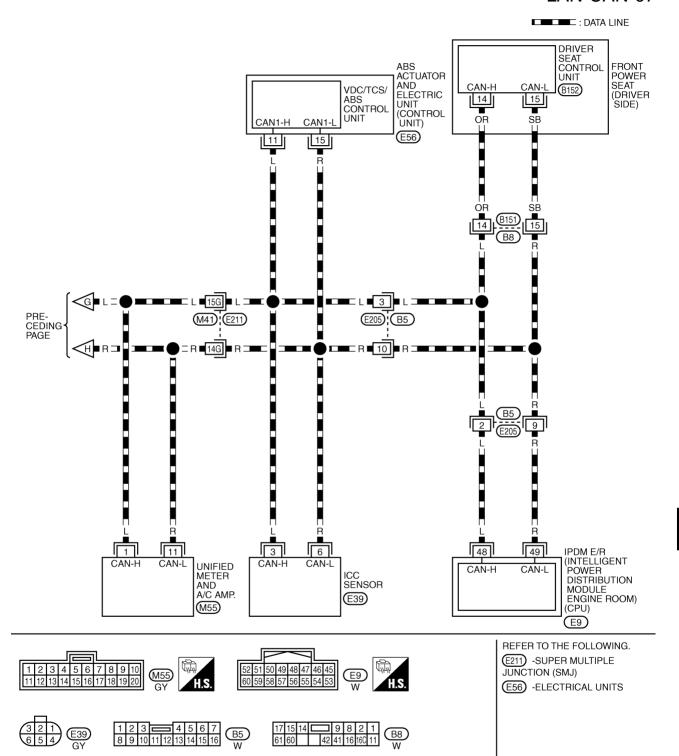
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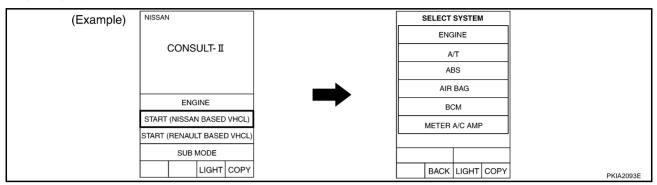


TKWH0249E

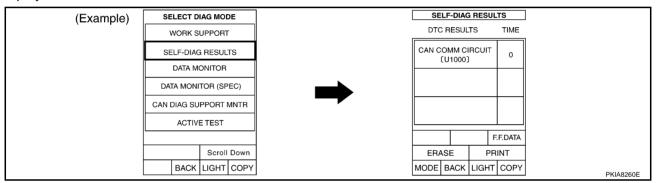
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

Work Flow

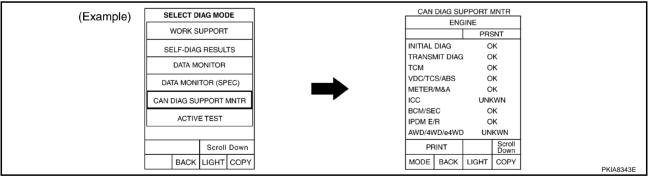
1. When there are no indications of "AIR PRESSURE MONITOR", "INTELLIGENT KEY", "BCM", "METER A/C AMP", "AUTO DRIVE POS." or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



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



3. Print all the data of "CAN DIAG SUPPORT MNTR" for "ENGINE", "A/T", "AIR PRESSURE MONITOR", "ICC", "INTELLIGENT KEY", "BCM", "METER A/C AMP", "ABS", "AUTO DRIVE POS.", and "IPDM E/R" displayed on CONSULT-II.



- Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to <u>LAN-94</u>, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-94, "CHECK SHEET".

NOTE

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- Check CAN communication line of the navigation system. Refer to <u>AV-158</u>, "CAN Communication <u>Line Check"</u>.

CAN SYSTEM (TYPE 3)

[CAN]

- Attach the CAN DIAG SUPPORT MONITOR check sheet onto the check sheet. Refer to <u>LAN-94</u>, "CHECK SHEET".
- 8. Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG SUPPORT MONITOR check sheet. Refer to LAN-94, "CHECK SHEET".

NOTE:

- If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MONITOR" for the diagnosed control unit, replace the control unit. Refer to AV-158, "CAN Communication Line Check".
- 9. According to the check sheet results (example), start inspection. Refer to <u>LAN-97, "CHECK SHEET RESULTS (EXAMPLE)"</u>.

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

ENGINE — NG UNKWN — CAN COMM CAN CIRC 1 CAN CIRC 3 — CAN CIRC 6 — CAN CIRC 2 — CAN CIRC 5 — CAN CIRC 8 AIR PRESSURE MONITOR No indication NG UNKWN — — — — — — — — — UNKWN — — — UNKWN — — — — — UNKWN — — — — — UNKWN — — — — — — — UNKWN — — — — — — — UNKWN — — — — — — — — UNKWN — — — — — — — — — — — UNKWN — — — — — — — — — — — — — — — — — — —	Transmit diagnosis Transmi		ole														
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Display control unit	CAN CORR CAN COMM CAN CIRC	ENGINE	_	NG	UNKWN	ı	UNKWN	_	١	UNKWN	-	UNKWN	_	UNKWN	_	UNKWN	UNKW
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CC	CC	Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC
No indication	No indication	IR PRESSURE MONITOR	No indication	NG	UNKWN	ı	_	_	ı	_	_	_	_	UNKWN	_	_	ı
BCM No indication NG UNKWN UNK	BCM No indication NG UNKWN UNK	CC	_	NG	UNKWN	UNKWN	UNKWN	_	ı	_	-	UNKWN	_	_	UNKWN	UNKWN	ı
METER A/C AMP No indication — UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN — — — UNKWN — ABS — NG UNKWN UNKWN UNKWN — — — — UNKWN — UNKWN — — — — AUTO DRIVE POS. No indication NG UNKWN — UNKWN — — — — UNKWN — UNKWN — — — — IPDM E/R No indication — UNKWN UNKWN — — — — — UNKWN — — — — — Symptoms :	METER A/C AMP No indication — UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN — — — UNKWN — — — — AUTO DRIVE POS. No indication NG UNKWN — UNKWN — — — — UNKWN — UNKWN — — — — IPDM E/R No indication — UNKWN UNKWN — — — — — UNKWN — UNKWN — — — — Symptoms:	NTELLIGENT KEY	No indication	-	UNKWN	ı	_	_	ı	_	_	UNKWN	_	_	_	_	ı
ABS	ABS	ЗСМ	No indication	NG	UNKWN	UNKWN	_	_	ı	_	UNKWN	_	-	UNKWN	_	_	UNKW
Auto Drive Pos. No indication	Auto Drive Pos. No indication	METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	ı
IPDM E/R No indication — UNKWN — <td> Attach copy of Atta</td> <td>ABS</td> <td>_</td> <td>NG</td> <td>UNKWN</td> <td>UNKWN</td> <td>UNKWN</td> <td>_</td> <td>-</td> <td>_</td> <td>_</td> <td>_</td> <td>UNKWN</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td>	Attach copy of Atta	ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	_	_	UNKWN	_	_	_	_
Symptoms: Attach copy of Attach copy of	Symptoms: Attach copy of Attach copy of	AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	-	_	_	UNKWN	_	UNKWN	_	_	_
Attach copy of Attach copy of	Attach copy of Attach copy of	PDM E/R	No indication	_	UNKWN	UNKWN	_	_		_	_	UNKWN	_	_	_	_	_
					Atta SELE	ch copy CT SYS	of TEM			SI	Attach o	copy of SYSTEM	1				
					Atta SELE	ch copy CT SYS	of TEM			S	Attach o	copy of SYSTEM	1				
					Atta SELE	ch copy	of TEM			S	Attach o	copy of SYSTEM	1				
					Atta SELE	ch copy	of TEM			SI	Attach o	copy of SYSTEM	1				

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Attach copy of display control unit CAN DIAG SUPPORT MONITOR check sheet Attach copy of Attach copy of Attach copy of Attach copy of AIR PRESSURE ENGINE A/T MONITOR SELF-DIAG RESULTS **SELF-DIAG RESULTS SELF-DIAG RESULTS** SELF-DIAG RESULTS Attach copy of Attach copy of Attach copy of Attach copy of ABS INTELLIGENT KEY BCM METER A/C AMP SELF-DIAG RESULTS SELF-DIAG RESULTS SELF-DIAG RESULTS **SELF-DIAG RESULTS** Attach copy of Attach copy of AUTO DRIVE POS. IPDM E/R **SELF-DIAG RESULTS SELF-DIAG RESULTS**

Attach copy of ENGINE CAN DIAG SUPPORT MNTR	Attach copy of A/T CAN DIAG SUPPORT MNTR	Attach copy of AIR PRESSURE MONITOR CAN DIAG SUPPORT MNTR	Attach copy of ICC CAN DIAG SUPPORT MNTR
Attach copy of INTELLIGENT KEY CAN DIAG SUPPORT MNTR	Attach copy of BCM CAN DIAG SUPPORT MNTR	Attach copy of METER A/C AMP CAN DIAG SUPPORT MNTR	Attach copy of ABS CAN DIAG SUPPORT MNTR
Attach copy of AUTO DRIVE POS. CAN DIAG SUPPORT MNTR	Attach copy of IPDM E/R CAN DIAG SUPPORT MNTR		

CHECK SHEET RESULTS (EXAMPLE)

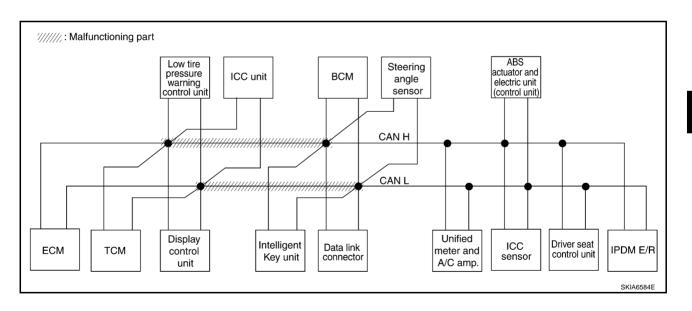
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-116</u>, "Circuit Check Between TCM and Data Link Connector".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
02220101011		diagnosis		ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN		UNKWN	_	UNKWN	_	UNKWN	UNK WI
A/T	-	NG	UNKWN	UNKWN	-	_	_	UNKWN	1	_	_	UNK WN	_	Ω ΝΚ ⁄ΜΝ	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	1	CANCAC 2	_	CANCAC 5	_	_	CANCAC
AIR PRESSURE MONITOR	No indication	N €	UNKWN	_		_	_	_	1	-	_	UNKWN	_	_	-
ICC	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	-	UNK WN	_	_	UNK WN	UNK WN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_
всм	No indication	NG	UNKWN	UNK WN	-	_	_	_	UNKWN	-	_	UNKWN	_	_	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNK WN	UNK W N	_	_	_	_	-	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	-	_	_	_	_	UNKWN	_	_	_	_	_



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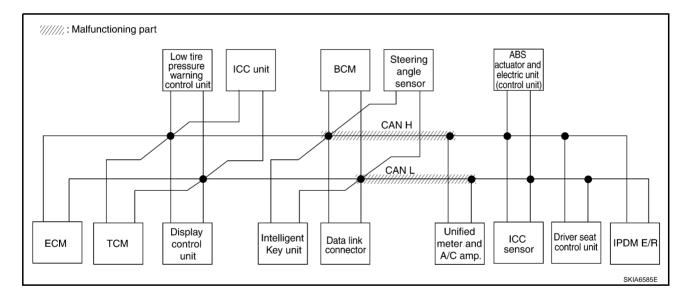
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Case 2
Check harness between data link connector and unified meter and A/C amp. Refer to <u>LAN-117</u>, "Circuit Check <u>Between Data Link Connector and Unified Meter and A/C Amp."</u>

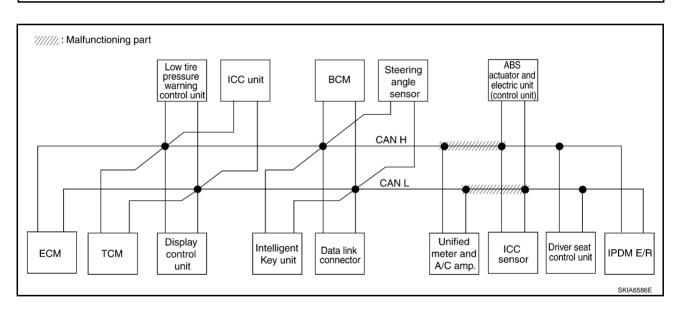
							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	-M screen	Initial	Transmit						Receive of	diagnosis					
02220101011		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	-	UNKWN	_	UNI	_	UNIWN	UNI
A/T	ı	NG	UNKWN	UNKWN	-	1	ı	UNKWN	ı	-	_	UNK WN	_	UNI	_
Display control unit	I	CAN COMM	CAN CIRC 1	CAN CIRC 3	ı	ı	CAN CIRC 6	_	1	CAN CIRC 2	-	CAN FIRC 5	_	ı	CANORC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	1	ı	_	ı	_	-	UNKWN	_	-	_
ICC	_	NG	UNKWN	UNKWN	UNKWN		-	_	1	UNKWN	_	_	UNK WN	UNIXWN	_
INTELLIGENT KEY	No indication	1	UNKWN	_	_		ı	_	I	UNKWN	_	_	_	1	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	-	ı	_	UNKWN	_	-	UNIMN	_	-	UNI
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UN ∳ WN	UNI WN	_	_	_	_	_	UNIMN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	-	_	_	1	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN		_	_	_	_



Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-117, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	=M screen	Initial	Transmit						Receive of	diagnosis					
0222010101		diagnosis		ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	ı	UNKWN	ı	UNKWN	_	UNKWN	_	UNIWN	UNWWI
A/T	_	NG	UNKWN	UNKWN	I	_	1	UNKWN	1	1	_	UNKWN	_	UNIV	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	ı	_	CAN CIRC 6	I	ı	CAN CIRC 2	_	CAN CIRC 5	_	ı	CANORC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	ı	_	ı	1	ı		_	UNKWN	_	-	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	-	1	-	UNKWN	_	-	UNI W N	UNI W N	_
INTELLIGENT KEY	No indication	ı	UNKWN	ı	ı	_	ı	ı	ı	UNKWN	_	ı	_	1	_
BCM	No indication	NG	UNKWN	UNKWN	ı	_	ı	1	UNKWN	ı	-	UNKWN	_	ı	UNWWI
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	ı	_	UNWN	_
ABS	_	NG	UNKWN	UNK WN	UNI WN	_	-	1	-	-	UNI WN	-	_	-	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	ı	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	-	_	_	_	_	UNKWN	_	_	_	_	_



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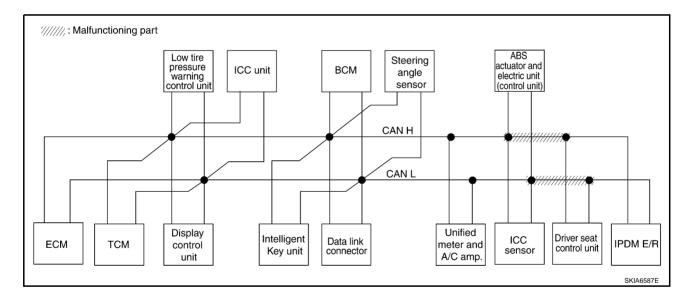
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Case 4

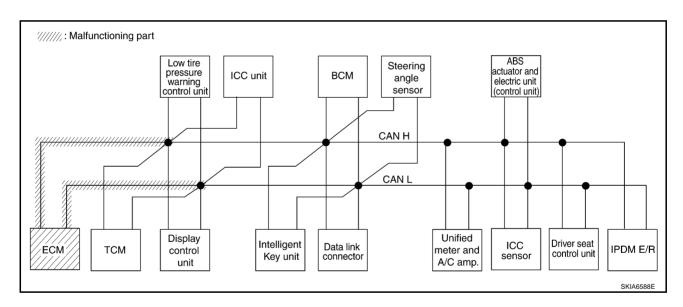
Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to <u>LAN-118</u>, "Circuit Check Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	-M screen	Initial	Transmit						Receive o	diagnosis					
92237 9797		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	ı	UNKWN	_	UNKWN	_	UNKWN	UNWWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	UNKWN	1	-	_	UNKWN	_	UNKWN	ı
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	ı	CAN CIRC 2	_	CAN CIRC 5	_	_	CANORC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	ı	-	-	UNKWN	_	_	ı
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	ı	UNKWN	_	ı	UNKWN	UNKWN	ı
INTELLIGENT KEY	No indication	-	UNKWN	-	_	_	-	-	ı	UNKWN	_	I	_	1	ı
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN		-	UNKWN	_	_	UNIV
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	ı	_	UNKWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	1	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	-	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	_	_	_



Case 5
Check ECM circuit. Refer to <u>LAN-119</u>, "ECM Circuit Check" .

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive	diagnosis					
0222010101		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	1	UNIAMN	_	_	UNKWN	_	UNIWN	_	UNIWN	_	UNKWN	u w wi
A/T	ı	NG	UNKWN	UNI WN	_	_	-	UNKWN		1	_	UNKWN	_	UNKWN	_
Display control unit	ı	CAN COMM	CAN CIRC 1	CANORC 3	1	_	CAN CIRC 6	_	ı	CAN CIRC 2	_	CAN CIRC 5	_	ı	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı	_	_	_	_	-	_	_	UNKWN	_	ı	_
ICC	1	NG	UNKWN	∩ NK WN	UNKWN	_	_	_	_	UNKWN	_	ı	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UNKWN	_	-	_	-	_
ВСМ	No indication	NG	UNKWN	NN WN	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNWWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	1	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	ı	_	1	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	1	UNKWN	_	UNKWN	_	ı	-
IPDM E/R	No indication	_	UNKWN	NNK WN	_	_	_	_	_	UNKWN	_	_	_	_	_



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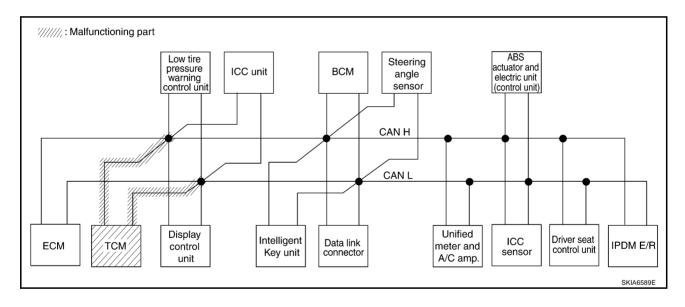
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Case 6
Check TCM circuit. Refer to <u>LAN-119</u>, "TCM Circuit Check" .

							CAN	DIAG SU	PPORT N	/INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
00	00.00		diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWI
A/T	_	NG	∩Μ ₩Ν	UNI WN	_	_	_	UNIXWN	_	-	_	UNK WN	_	UNI WN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ICC	-	NG	UNKWN	UNKWN	UNI W N	_	_	_	_	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	1	ı	UNKWN	_	-	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNI W N	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNI WN	_	_	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN		UNKWN	_	_	_	_	UNKWN	_	UNKWN	_		_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



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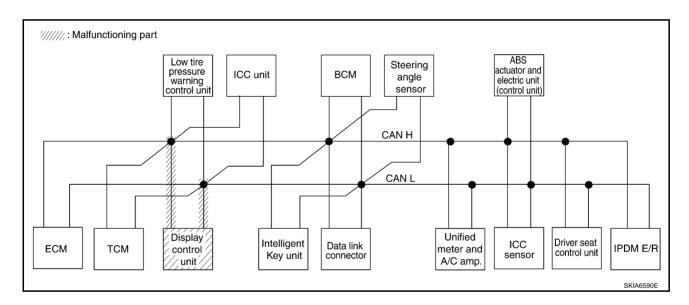
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Case 7
Check display control unit circuit. Refer to <u>LAN-120</u>, "<u>Display Control Unit Circuit Check"</u>.

		CAN DIAG SUPPORT MNTR															
SELECT SYSTE	EM screen	Initial	Transmit														
			diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	1	NG	UNKWN	_	UNKWN	_	-	UNKWN	ı	UNKWN	_	UNKWN	_	UNKWN	UNKWN		
A/T	_	NG	UNKWN	UNKWN	_	-	_	UNKWN	-	_	_	UNKWN	_	UNKWN	_		
Display control unit	ı	CAN COMM	CANORC 1	CANORC 3	_	_	CANORC 6	ı	ı	CANORC 2	_	CANCAC 5	_	ı	CANCAC 7		
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	ı	1	_	UNKWN	_	_	-		
ICC	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	1	UNKWN	_	ı	UNKWN	UNKWN	_		
INTELLIGENT KEY	No indication	-	UNKWN	_	_	_	-	-	ı	UNKWN	_	ı	_	_	_		
ВСМ	No indication	NG	UNKWN	UNKWN	_	-	ı	ı	UNKWN	ı	_	UNKWN	_	-	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	UNKWN	UNKWN	_	-	_	UNKWN	_		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	-	1	UNKWN	-	_	_	_		
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	_	-	UNKWN	_	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_		

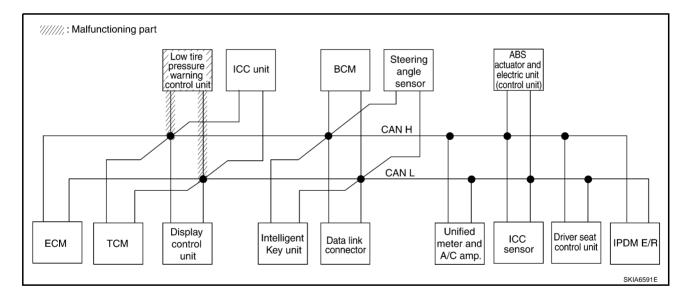


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Case 8
Check low tire pressure warning control unit circuit. Refer to <u>LAN-120</u>, "<u>Low Tire Pressure Warning Control Unit Circuit Check"</u>.

		CAN DIAG SUPPORT MNTR													
SELECT SYSTE	Magroop		T						Receive of	diagnosis					
OLLEGI GTOTEM SCICCII		Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CANORC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	-	_	_	UNKWN	_	_	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	-	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	ı	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	1	UNKWN	UNKWN	UNKWN	UNKWN	UNIWN	UNKWN	UNKWN	UNKWN	_	-	_	UNKWN	1
ABS	1	NG	UNKWN	UNKWN	UNKWN	_	_	_		_	UNKWN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	-	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



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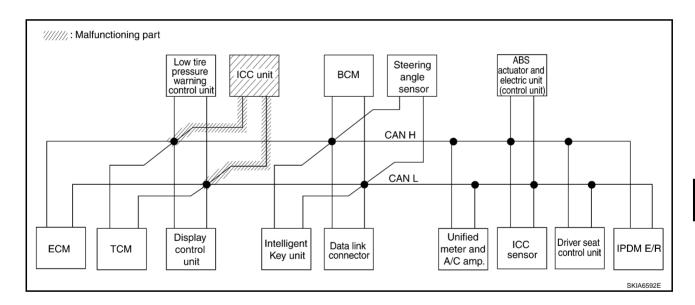
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Case 9
Check ICC unit circuit. Refer to LAN-121, "ICC Unit Circuit Check".

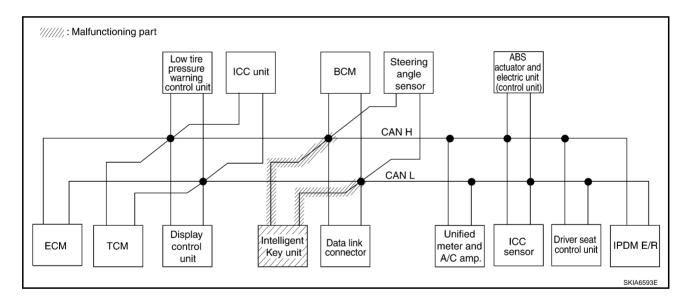
		CAN DIAG SUPPORT MNTR													
SELECT SYSTE	FM screen	Initial	Transmit						Receive of	diagnosis					
			diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	ı	UNKWN	_	ı	UNIXWN	1	UNKWN	_	UNKWN	_	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	_	_	-	UNI WN	_	_	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	_	-
ICC	_	NG	Ω νΚ ⁄⁄⁄⁄/(Ν	UNI WN	Ω Μ ΜΝ	_	-	_	1	UNKWN	_	_	Ω M MM	UNK WN	_
INTELLIGENT KEY	No indication	ı	UNKWN	ı	-	_	ı	_	1	UNKWN	_	ı	_	1	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	_	UNKWN	_	-	UNKWN
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	∩ M MN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	ı	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	-	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



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Case 10
Check Intelligent Key unit circuit. Refer to <u>LAN-121</u>, "Intelligent Key Unit Circuit Check".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	EM screen	Initial	Transmit						Receive	diagnosis					
			diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	1	UNKWN	ı	UNKWN	-	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	UNKWN	ı	ı	-	UNKWN	_	UNKWN	_
Display control unit	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	-	CAN CIRC 2	ı	CAN CIRC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	ı	_	1	-	ı	UNKWN	_	_	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	ı	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No invication	-	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNWWN	_	_	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNWWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	-	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	1	_	ı	UNKWN	ı	UNKWN	_		_
IPDM E/R	No indication	1	UNKWN	UNKWN	_	_	_	_	1	UNKWN	_	_	_	_	_
														Р	KIA7973E



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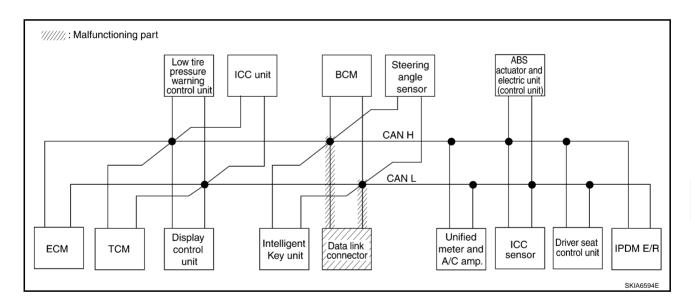
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Case 11
Check data link connector circuit. Refer to LAN-122, "Data Link Connector Circuit Check".

			CAN DIAG SUPPORT MNTR														
SELECT SYSTE	EM screen	Initial	Transmit	Receive diagnosis													
		1	diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R		
ENGINE	ı	NG	UNKWN	_	UNKWN	_	ı	UNKWN	1	UNKWN	_	UNKWN	_	UNKWN	UNKWN		
A/T	ı	NG	UNKWN	UNKWN	-	-	ı	UNKWN	1	-	_	UNKWN	_	UNKWN	_		
Display control unit	ı	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC 7		
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	-	_		-	_	UNKWN	_	_	_		
ICC	ı	NG	UNKWN	UNKWN	UNKWN	_	ı	_	1	UNKWN	_	ı	UNKWN	UNKWN	_		
INTELLIGENT KEY	No invication	ı	UNKWN	-	-	_	ı		_	UNKWN	_	ı	_	_	_		
BCM	No indication	NG	UNKWN	UNKWN	_	-	I	_	UNKWN	-	-	UNKWN	_	_	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	-	-	-	UNKWN	_	_	_	_		
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	-	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_		

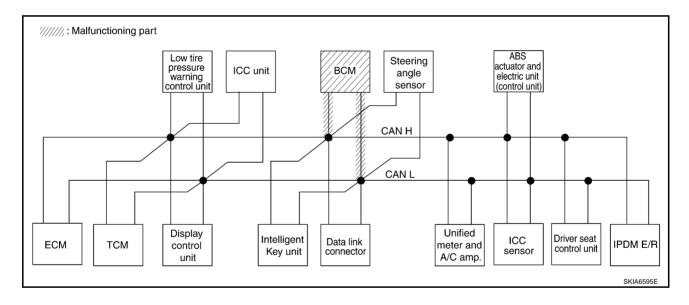


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Case 12
Check BCM circuit. Refer to <u>LAN-122</u>, "BCM Circuit Check" .

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive	diagnosis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	-	UNKWN	_	UNIONN	1	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	UNKWN	_	_	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CANORC 2	ı	CAN CIRC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	ı	UNKWN	_	_	_
ICC	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	UNI W N	I	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UN K ₩N	ı	_	_	_	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNWWN	ı	_	_	UNKWN	_
ABS	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	1	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNK WN	_	_	_	_	_
														P	KIA7975E



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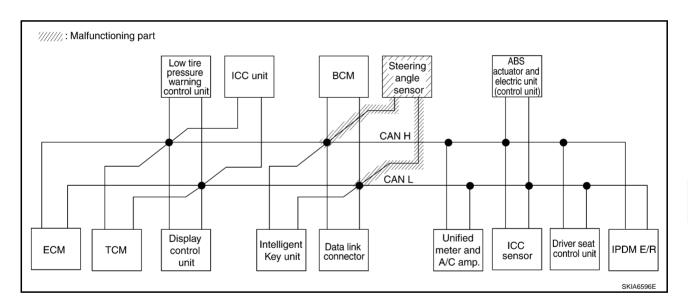
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Case 13
Check steering angle sensor circuit. Refer to <u>LAN-123</u>, "Steering Angle Sensor Circuit Check".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	-M screen	Initial	Transmit						Receive of	diagnosis					
			diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	1	UNKWN	_	I	UNKWN	1	UNKWN	_	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	ı	_	-	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	-	UNKWN	-	_	_	-	_	_	UNKWN	_	_	_	_	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	_	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNK WN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_		_		UNKWN	_	UNKWN	_		_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	-	UNKWN		_	_	_	_

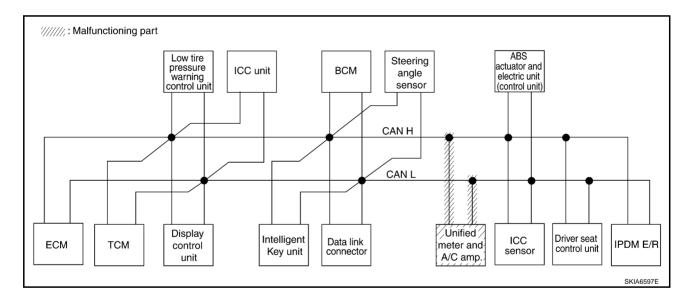


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Case 14
Check unified meter and A/C amp. circuit. Refer to LAN-123, "Unified Meter and A/C Amp. Circuit Check".

							CAN	DIAG SU	PPORT N	/NTR					
SELECT SYSTE	EM screen	Initial	Transmit						Receive	diagnosis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	-	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	ı	UNIWN	_	UNKWN	UNKWN
A/T	-	NG	UNKWN	UNKWN	_	_	-	UNKWN	_	_	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	1	CAN ORC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	ı	UNKWN	_	_	_
ICC	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	UNKWN	ı	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	UNKWN	ı	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	UNI WN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	ı	NM WN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	_	_	UNKWN	1	_	_	_	_
														Р	KIA7977E



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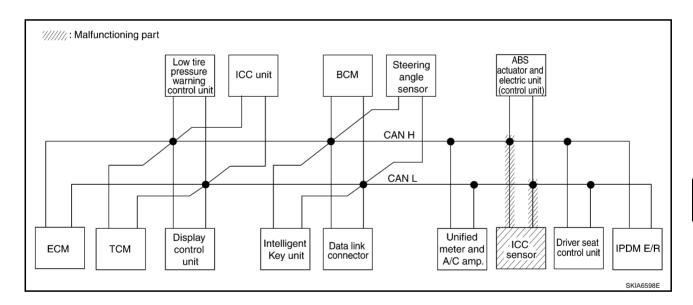
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Case 15
Check ICC sensor circuit. Refer to <u>LAN-124</u>, "ICC Sensor Circuit Check" .

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
0222010101		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	1	NG	UNKWN	1	UNKWN	_	ı	UNKWN	1	UNKWN	1	UNKWN	_	UNKWN	UNKWI
A/T	ı	NG	UNKWN	UNKWN	_	_	ı	UNKWN	_	-	-	UNKWN	_	UNKWN	_
Display control unit	-	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı	_	_	ı	ı	1	1	ı	UNKWN	_	-	_
ICC	-	NG	UNKWN	UNKWN	UNKWN	_				UNKWN	1	_	Ω ΝΚ ΜΝ	UNKWN	_
INTELLIGENT KEY	No indication	1	UNKWN	ı	_	_	1	1	-	UNKWN		1	_	-	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	I	I	UNKWN	-	ı	UNKWN	_	ı	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	1	NG	UNKWN	UNKWN	UNKWN	_	1	1	1	1	UNKWN	_	_	-	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_

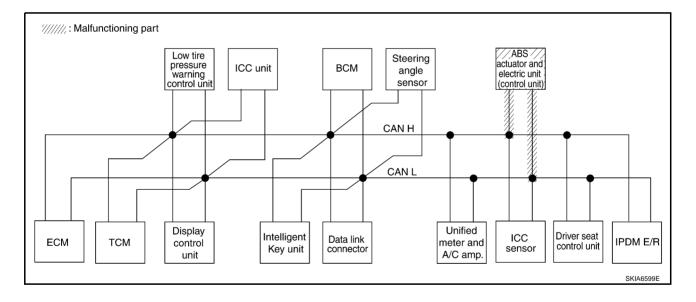


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Case 16
Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-124</u>, "ABS Actuator and Electric Unit (Control Unit) Circuit Check".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	-M screen	Initial	Transmit						Receive of	diagnosis					
0222010101		diagnosis		ECM	ТСМ	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	1	NG	UNKWN	ı	UNKWN	_	ı	UNKWN	ı	UNKWN	_	UNKWN	_	UNI WN	UNKWN
A/T	I	NG	UNKWN	UNKWN	-	_	ı	UNKWN	ı	1	-	UNKWN	_	Ω ΝΙ ΑΝΝ	_
Display control unit	ı	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	_	CAN CIRC 6	_	I	CAN CIRC 2	-	CAN CIRC 5	_	_	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı	_	_	ı	_	1	-	_	UNKWN	_	_	_
ICC	ı	NG	UNKWN	UNKWN	UNKWN	_	ı	_	_	UNKWN	_	-	UNKWN	UNI WN	_
INTELLIGENT KEY	No indication	ı	UNKWN	ı	_	_	ı	_	1	UNKWN	_	-	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	I	_	UNKWN	ı	-	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	-	_	UNKWN	_
ABS	_	NG	UNK WN	UNI WN	n uk wu	_	_	_	_	_	NN WW	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	ı	UNKWN	_	_	_	ı	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



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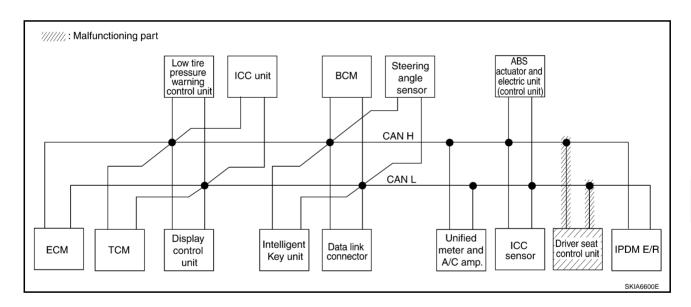
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Case 17
Check driver seat control unit circuit. Refer to LAN-125, "Driver Seat Control Unit Circuit Check".

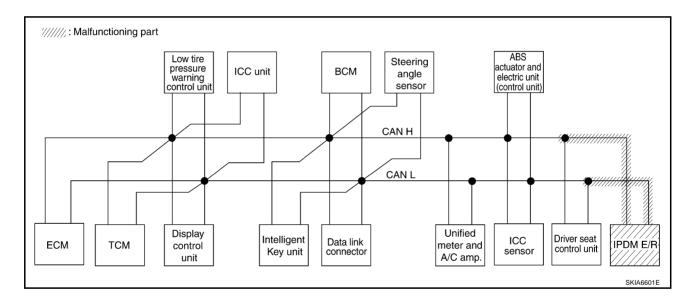
							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	1	NG	UNKWN	l	UNKWN	_	ı	UNKWN	ı	UNKWN	1	UNKWN	_	UNKWN	UNKWI
A/T	I	NG	UNKWN	UNKWN	_	_	ı	UNKWN	-	_	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	-	_	CAN CIRC 2	ı	CAN CIRC 5	_	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı	_	_	ı	1	1	_	ı	UNKWN	_	_	_
ICC	1	NG	UNKWN	UNKWN	UNKWN	_	ı	-	1	UNKWN	ı	-	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	ı	UNKWN	ı	_	_	ı	ı	ı	UNKWN	ı	I	_	_	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	ı	-	UNKWN	-	ı	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	ı	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	1	_	UNKWN	_
ABS	-	NG	UNKWN	UNKWN	UNKWN	_	-	1	1		UNKWN	1	_	_	_
AUTO DRIVE POS.	No invication	NG	UNKWN	_	UNKWN	_	_	_		UNKWN	-	UNKWN	-	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



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Case 18
Check IPDM E/R circuit. Refer to LAN-126, "IPDM E/R Circuit Check".

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	Magroop								Receive	diagnosis					
3ELECT 3131E		Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	ı	UNKWN	_	UNKWN	_	UNKWN	UNIO
A/T	_	NG	UNKWN	UNKWN	_	-	1	UNKWN	-	-	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	-	CAN CIRC 2	_	CAN CIRC 5	_	_	CANORC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	-	_	1	-	_	UNKWN	_	_	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	-	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	-	UNKWN	_	_	_	-	_	-	UNKWN	_	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	ı	_	UNKWN	1	_	UNKWN	_	_	UNI WI
METER A/C AMP	No indication	I	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	-	1	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_		_	ı	UNKWN	_	UNKWN		_	
IPDM E/R	No indication	-	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_



Case 19

Check CAN communication circuit. Refer to LAN-127, "CAN Communication Circuit Check" .

							CAN	DIAG SU	PPORT N	/INTR					
SELECT SYSTE	EM screen	Initial	Transmit						Receive of	diagnosis					
			diagnosis	ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNI	_	UNYWN	_	_	UNION	_	UNIWN	ı	UN W WN	_	UNKWN	UNI W I
A/T	-	NG	UNI WN	UNYWN	_	_	_	UNI W N	_	_	ı	UNKWN	_	NVK WN	_
Display control unit	_	CAN COMM	CANORC 1	CANARC 3	_	_	CANCAC 6	_	_	CANORC 2	1	CANORC 5	_	-	CANORC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	-	UNKWN	_	-	_
ICC	-	NG	UNK WN	Ω ΝΙ ΥΥΝ	n uk wu	_	_	_	_	U M MN	ı	-	n uk {wu	Ω NK WN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	-	-	UNKWN	ı	_	_	ı	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	ı	ı	UNKWN	ı	ı	UNKWN	_	ı	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	_	_	UNKWN	_
ABS	_	NG	UNIWN	UNI	Ω ΝΑ ΜΝ	_	_	_	_	_	UNK WN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	UNKWN	1	UNKWN	_		_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN		_	_	_	_

Case 20

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to LAN-132, "IPDM E/R Ignition Relay Circuit Check" .

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
022207 07072		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNIV	_	ı	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	ı	UNKWN	_	1	-	UNKWN	_	UNKWN	ı
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	CAN CIRC 2	_	CAN CIRC 5	_	1	CAN CIRC 7
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	ı	_	-	ı	_	UNKWN	_	ı	ı
ICC	_	NG	UNKWN	UNKWN	ΠΜ ΜΝ	_	ı	_	_	UNKWN	_	-	UNKWN	∩ N MN	ı
INTELLIGENT KEY	No indication	1	UNKWN	_	_	_	ı	-	_	UNKWN	_	ı	_	1	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	1	_	UNKWN	-	_	UNKWN	_	1	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNIWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	ı	_	UNYWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	-	_	UNKWN	-	_	-	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_		_	_	UNKWN	_	UNKWN	_		_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	_	_	_

Revision: 2004 November LAN-115 2004 FX35/FX45

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Case 21

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to LAN-132, "IPDM E/R Ignition Relay Circuit Check" .

							CAN	DIAG SU	PPORT N	INTR					
SELECT SYSTE	M screen	Initial	Transmit						Receive of	diagnosis					
00.		diagnosis		ECM	тсм	DISPLAY	TIRE-P	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	-	NG	UNKWN	_	UNKWN	_	_	UNKWN	1	UNKWN	_	UNKWN	_	UNKWN	UNKWN
A/T	I	NG	UNKWN	UNIX WN	_	_	_	UNWWN	ı		_	UNKWN	_	UNKWN	_
Display control unit	ı	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	-	ı	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	1	1	_	UNKWN	_	_	_
ICC	1	NG	UNKWN	UNKWN	UNKWN	_	_	_	1	UNKWN	_	-	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	1	ı	UNKWN	_	1	_	_	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	ı	UNKWN	1	_	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	ı	_	UNKWN	_
ABS	_	NG	UNKWN	UNI W WN	UNKWN	_	_	_	_	_	NIN WN	-	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	1	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_		_	_	-	UNKWN	_	_	_	_	_

Circuit Check Between TCM and Data Link Connector

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1. CHECK HARNESS FOR OPEN CIRCUIT

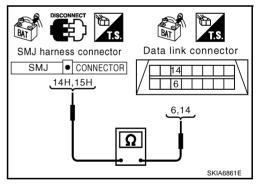
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and harness connector M82.
- Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK \rightarrow Connect all the connectors and diagnose again. Refer to LAN-92, "Work Flow" .

NG >> Repair harness.



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Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

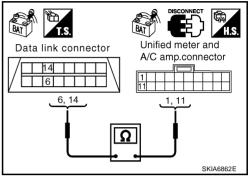
1. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6 (L). 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-92, "Work Flow".

NG >> Repair harness.



Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

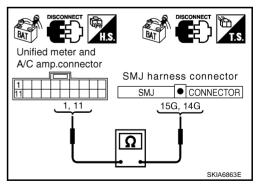
2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

OK or NG

OK >> GO TO 3.

NG >> Repair harness.



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$\overline{3}$. Check harness for open circuit

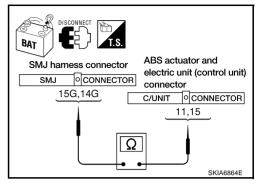
- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist. 14G (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-92. "Work Flow".

NG >> Repair harness.



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

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

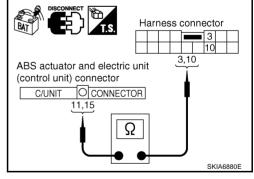
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) 15 (R) - 10 (R) : Continuity should exist. : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



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3. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect harness connector B8.
- 2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L)

: Continuity should exist.

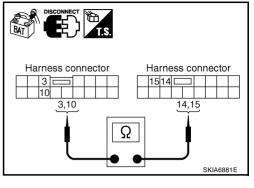
10 (R) - 15 (R)

: Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-92, "Work Flow".

NG >> Repair harness.



AKS00C0K

ECM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ECM connector.
- Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

: Approx. 108 - 132 Ω

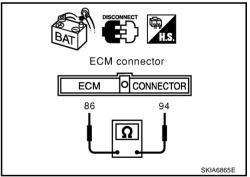
OK or NG

OK

>> Replace ECM.

NG >> Repair h

>> Repair harness between ECM and harness connector M82.



AKS00C0L

TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect A/T assembly connector. 1.
- Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

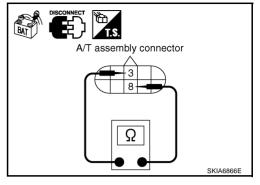
3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG

>> Repair harness between A/T assembly and display control unit.



AKS00C0M

Display Control Unit Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check terminals and connector of display control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect display control unit connector.
- Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

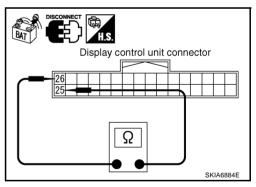
25 (L) - **26** (R) : Approx. **54** - **66**
$$\Omega$$

OK or NG

OK >> Replace display control unit.

NG

>> Repair harness between display control unit and harness connector M82.



Low Tire Pressure Warning Control Unit Circuit Check

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1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of low tire pressure warning control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

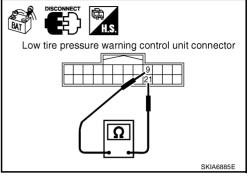
- Disconnect low tire pressure warning control unit connector.
- Check resistance between low tire pressure warning control unit harness connector M74 terminals 9 (L) and 21 (R).

9 (L) - 21 (R) : Approx.
$$54 - 66\Omega$$

OK or NG

>> Replace low tire pressure warning control unit. OK

NG >> Repair harness between low tire pressure warning control unit and harness connector M82.



ICC Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of ICC unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

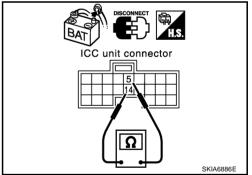
- 1. Disconnect ICC unit connector.
- Check resistance between ICC unit harness connector M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace ICC unit.

NG >> Repair harness between ICC unit and harness connector M82.



Intelligent Key Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of Intelligent Key unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect Intelligent Key unit connector.
- Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

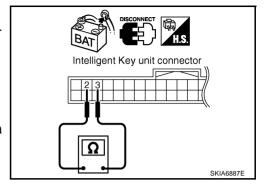
2 (L) - 3 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace Intelligent Key unit.

NG

>> Repair harness between Intelligent Key unit and data link connector.



AKS00C0Q

Data Link Connector Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal. 2.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

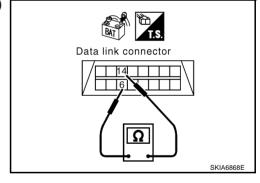
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

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

OK or NG

OK >> Diagnose again. Refer to LAN-92, "Work Flow".

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



AKS00C0R

BCM Circuit Check

CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect BCM connector.
- Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

: Approx. 54 - 66 Ω

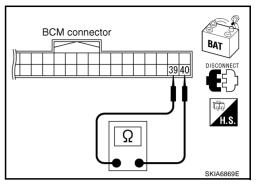
OK or NG

OK

>> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM".

NG

>> Repair harness between BCM and data link connector.



AKS00C0S

Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect steering angle sensor connector.
- Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

: Approx. 54 - 66 Ω

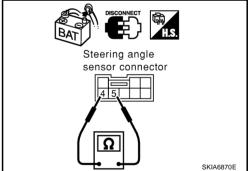
OK or NG

OK

>> Replace steering angle sensor.

NG

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



AKS00C0T

Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

LAN-123

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2004 FX35/FX45

$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector.
- 2. Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

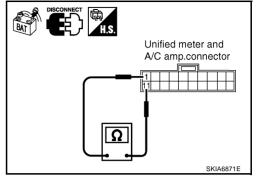
1 (L) - 11 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG

>> Repair harness between unified meter and A/C amp. and harness connector M41.



AKS00C0U

ICC Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ICC sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ICC sensor connector.
- Check resistance between ICC sensor harness connector E39 terminals 3 (L) and 6 (R).

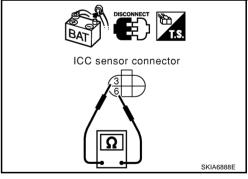
3 (L) - 6 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace ICC sensor.

NG :

>> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).



ABS Actuator and Electric Unit (Control Unit) Circuit Check

AKS00C0V

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector.
- Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

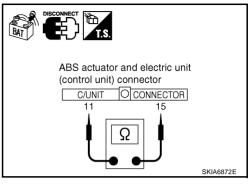
11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG >> Repair harness between ABS actuator and electric unit

(control unit) and ICC sensor.



AKS00C0W

Driver Seat Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control unit side and harness side).
- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

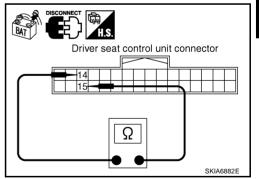
- 1. Disconnect driver seat control unit connector.
- Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx.
$$54 - 66\Omega$$

OK or NG

OK >> Replace driver seat control unit. NG

>> Repair harness between driver seat control unit and harness connector B5.



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CAN SYSTEM (TYPE 3)

[CAN]

IPDM E/R Circuit Check

1. CHECK CONNECTOR

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- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect IPDM E/R connector.

2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

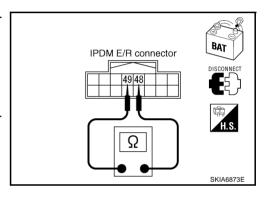
: Approx. 108 - 132 Ω

OK or NG

OK >> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R and harness connector B8.



CAN SYSTEM (TYPE 3)

[CAN]

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CAN Communication Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, control unit side, unit side, sensor side, meter side and harness side).
- ECM
- A/T assembly
- Display control unit
- Low tire pressure warning control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- Low tire pressure warning control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- 2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

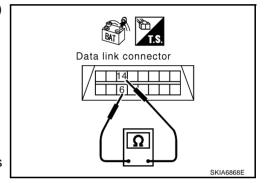
6 (L) - 14 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display control unit
 - Harness between data link connector and low tire pressure warning control unit
 - Harness between data link connector and ICC unit
 - Harness between data link connector and Intelligent Key unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41



3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

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

OK or NG

OK >> GO TO 4.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display control unit
 - Harness between data link connector and low tire pressure warning control unit
 - Harness between data link connector and ICC unit
 - Harness between data link connector and Intelligent Key unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

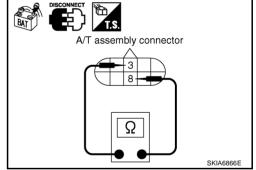
- Disconnect A/T assembly connector.
- Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG >> Repair harness between A/T assembly and harness connector F102.



5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

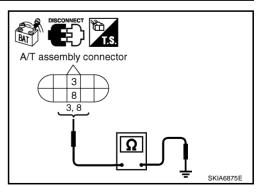
3 (L) - Ground : Continuity should not exist. 8 (R) - Ground : Continuity should not exist.

OK or NG

NG

OK >> GO TO 6.

>> Repair harness between A/T assembly and harness connector F102.



Data link connector

6, 14

SKIA6874E

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6. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector, ICC sensor connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Continuity should not exist.

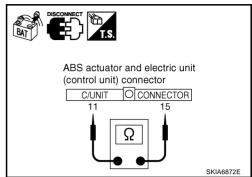
OK or NG

OK

>> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205
 - Harness between ABS actuator and electric unit (control unit) and ICC sensor



7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground

: Continuity should not exist.

15 (R) - Ground

: Continuity should not exist.

OK or NG

OK

>> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205
 - Harness between ABS actuator and electric unit (control unit) and ICC sensor

8. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect harness connector B8.
- Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

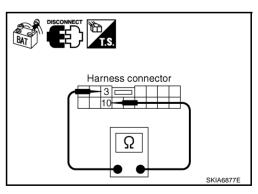
3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK NG

>> GO TO 9.

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8



ABS actuator and electric unit

11,15

O CONNECTOR

(control unit) connector

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9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.10 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 10.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8

Harness connector 3 3 10 3,10 Ω SKIA6878E

10. CHECK HARNESS FOR SHORT CIRCUIT

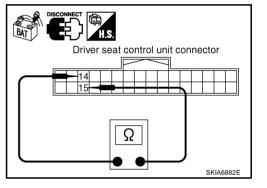
- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

OK or NG

OK >> GO TO 11.

NG >>

>> Repair harness between driver seat control unit and harness connector B151.



11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

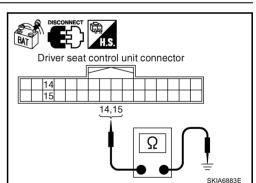
14 (OR) - Ground : Continuity should not exist.
15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.

NG >> Repair ha

>> Repair harness between driver seat control unit and harness connector B151.



12. CHECK HARNESS FOR SHORT CIRCUIT

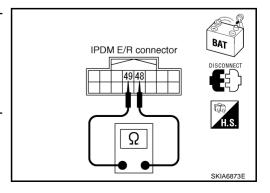
- Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.

NG >> Repair harness between IPDM E/R and harness connector E205.



$\overline{13}$. Check harness for short circuit

Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

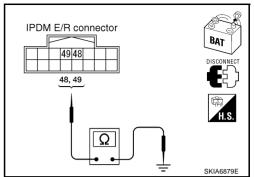
> 48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.

NG >> Repair harness between IPDM E/R and harness con-

nector E205.



14. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to LAN-132, "ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION". OK or NG

OK >> Connect all the connectors and diagnose again, Refer to LAN-92, "Work Flow".

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

AKS00C0Z

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

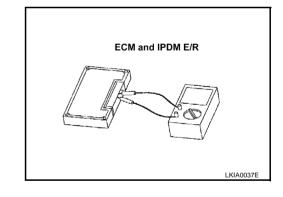
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to PG-12, "IGNITION POWER SUPPLY IGNITION SW. IN "ON" AND/OR "START"

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

AKSOOC10

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



[CAN]

CAN SYSTEM (TYPE 4)

PFP:23710

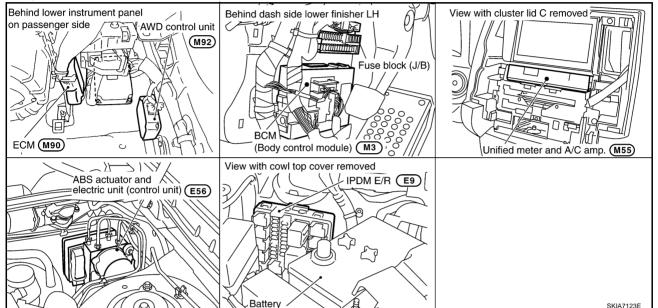
System Description

KS00C11

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

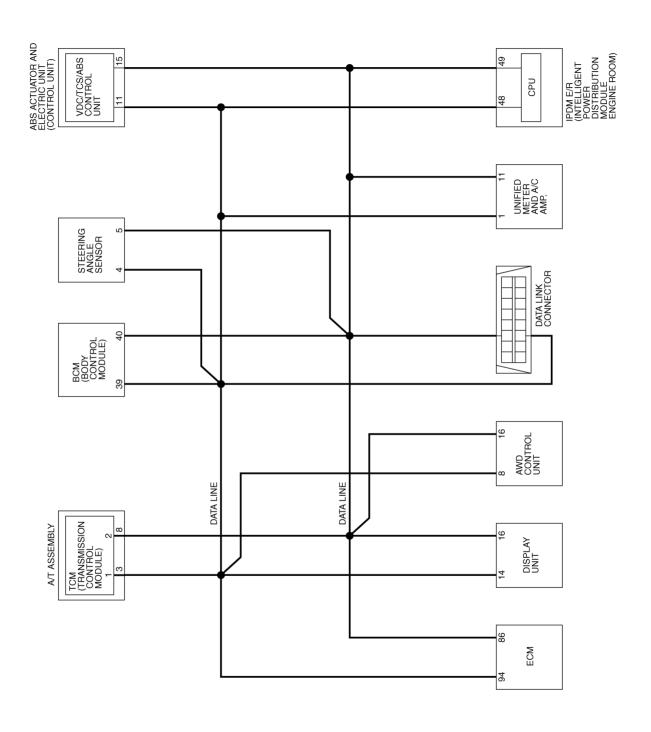
AKS00C12



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Schematic AKS00C13



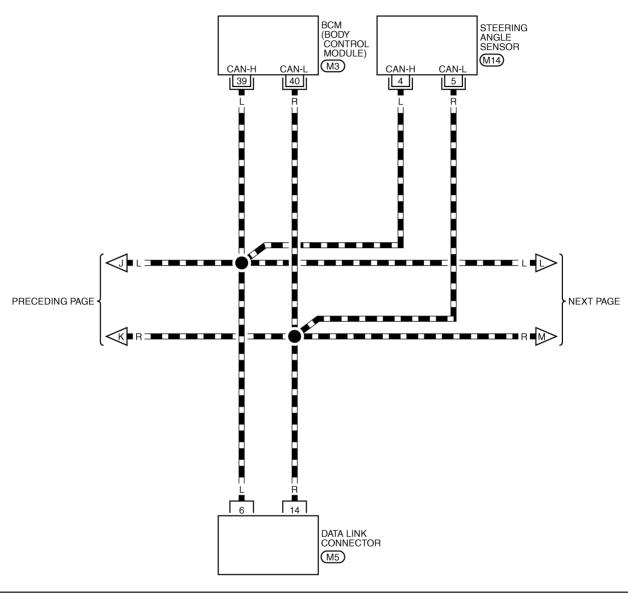
TKWM1296E

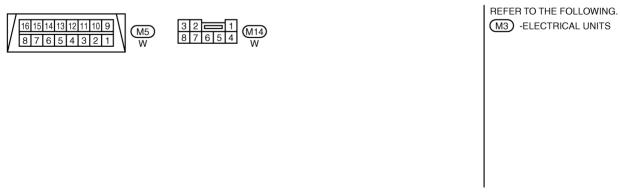
TKWM1297E

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

LAN-CAN-09

: DATA LINE





TKWM0752E

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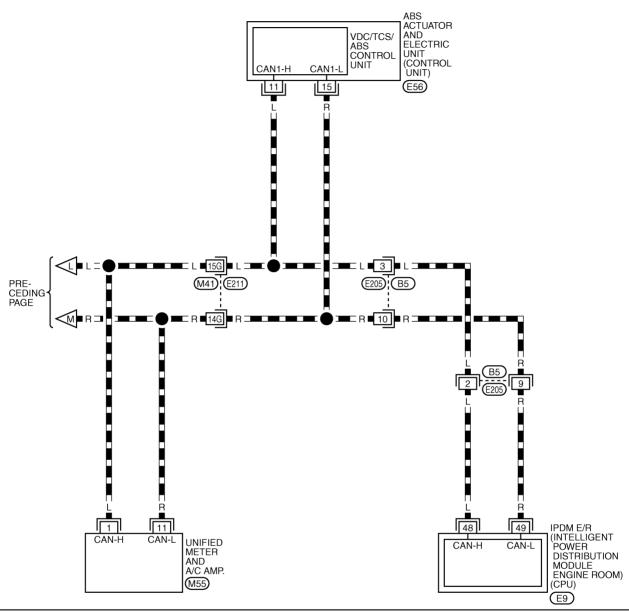
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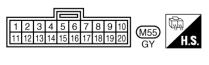
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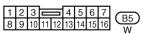
: DATA LINE







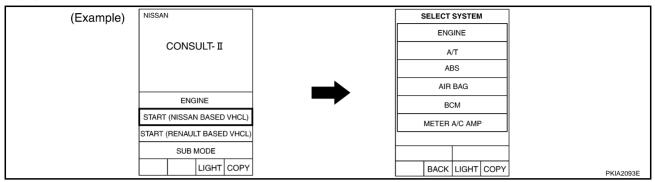
REFER TO THE FOLLOWING. (E211) -SUPER MULTIPLE JUNCTION (SMJ) (E56) -ELECTRICAL UNITS



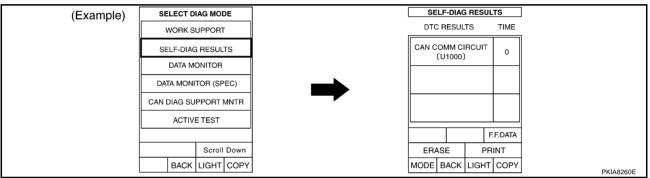
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Work Flow

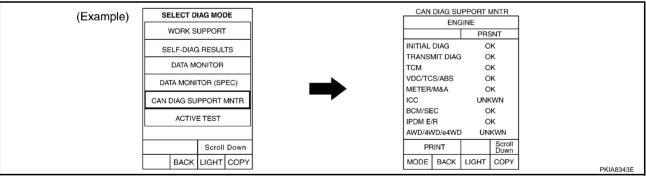
1. When there are no indications of "BCM", "METER A/C AMP" or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



2. Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "A/T", "ALL MODE AWD/4WD", "BCM", "METER A/C AMP", "ABS", and "IPDM E/R" displayed on CONSULT-II.



 Print all the data of "CAN DIAG SUPPORT MNTR" for "ENGINE", "A/T", "ALL MODE AWD/4WD", "BCM", "METER A/C AMP", "ABS", and "IPDM E/R" displayed on CONSULT-II.



- 4. Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to <u>LAN-140</u>, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-140, "CHECK SHEET".

NOTE:

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- 6. Check CAN communication line of the integrated display system. Refer to <u>AV-85, "CAN Communication Line Inspection"</u>.
- Attach the CAN DIAG MONITOR check sheet onto the check sheet. Refer to <u>LAN-140</u>, "CHECK SHEET"

CAN SYSTEM (TYPE 4)

[CAN]

8. Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG MONITOR check sheet. Refer to <u>LAN-140</u>, "CHECK SHEET".

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG MNTR" for the diagnosed control unit, replace the control unit. Refer to AV-85, "CAN Communication Line Inspection".

9. According to the check sheet results (example), start inspection. Refer to <u>LAN-142, "CHECK SHEET RESULTS (EXAMPLE)"</u>.

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

A/T - NG UNKWN UNKWN - - - - UNKWN UNKWN - Display unit - CAN COMM CAN 1 CAN 3 - - CAN 2 - CAN 5 - CAN ALL MODE AWD/4WD - NG UNKWN UNKWN - - - - - UNKWN UNKWN -							CAN DIAG						
NG	SELECT SYST	EM screen					I				METER	урожоо	l
ATT - NG UNKWN UNKWN UNKWN UNKWN CAN 2 - CAN 5 -			diagnosis	diagnosis	ECM	TCM	DISPLAY			STRG	/M&A	/ABS	IPDM E/
Attach copy of display unit	ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	UNKWN	UNKWN
Attach copy of display unit Attach copy of display unit	A/T	_	NG	UNKWN	UNKWN	_	_	-	İ	-	UNKWN	UNKWN	_
Attach copy of SELECT SYSTEM Attach copy of display unit	Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	_	CAN 2	-	CAN 5	_	CAN 7
METER A/C AMP No indication — UNKWN UNKWN UNKWN UNKWN UNKWN — — UNKWN — — UNKWN — — — UNKWN — — — — — PDM E/R No indication — UNKWN UNKWN — — — UNKWN — — UNKWN — — — — — — — — — — — — — — — — — — —	ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	_	1	I	UNKWN	UNKWN	_
Attach copy of display unit	ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	-	-	UNKWN	_	UNKWI
PDM E/R No indication - UNKWN UNKWN UNKWN Symptoms: Attach copy of SELECT SYSTEM Attach copy of display unit	METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
Symptoms: Attach copy of SELECT SYSTEM Attach copy of SELECT SYSTEM	ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
Attach copy of SELECT SYSTEM Attach copy of SELECT SYSTEM Attach copy of Gisplay unit	PDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_
display unit										М			

Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	ALL MODE AWD/4WD	BCM
SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS
Attach copy of METER A/C AMP SELF-DIAG RESULTS	Attach copy of ABS SELF-DIAG RESULTS	Attach copy of IPDM E/R SELF-DIAG RESULTS	
Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	ALL MODE AWD/4WD	BCM
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT
MNTR	MNTR	MNTR	MNTR
Attach copy of	Attach copy of	Attach copy of	
METER A/C AMP	ABS	IPDM E/R	
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	
MNTR	MNTR	MNTR	

Revision: 2004 November **LAN-141** 2004 FX35/FX45

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CHECK SHEET RESULTS (EXAMPLE)

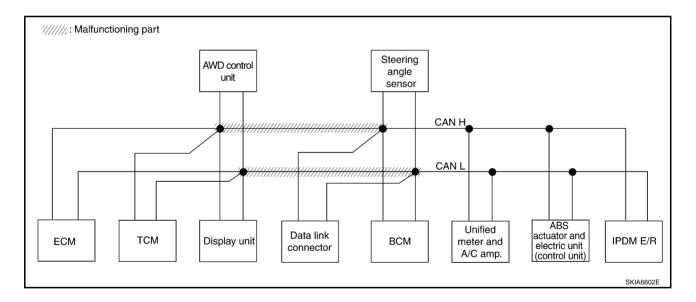
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-156</u>, "Circuit Check Between TCM and <u>Data Link Connector"</u>.

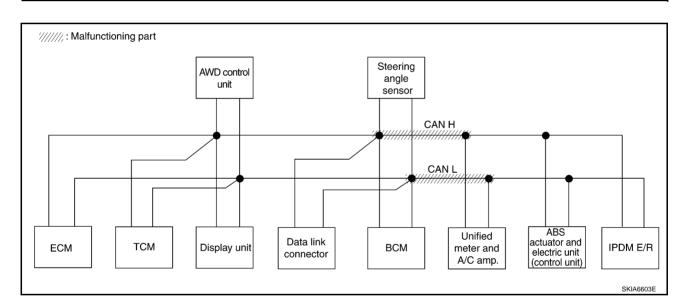
SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												
		Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F		
ENGINE	_	NG	UNKWN	_	UNKWN	_	1	UNIONN	_	∩ NR WN	Ω ΝΚ /WΝ	Ω Ν ΑΜΝ		
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	_	UNK WN	∩ NK WN	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	-	CAN 2	_	CAN 5	_	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNK WN	UNK WN	_		
ВСМ	No indication	NG	UNKWN	UNKWN	-	_	_	_	_	UNKWN	_	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNIXWN	UNKWN	UNKWN	_	_	UNKWN	_		
ABS	_	NG	UNKWN	UNK WN	UNI W WN	_	UNKWN	_	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNK/WN	_	_	-	UNKWN	_	_	_	_		



Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to <u>LAN-156</u>, "Circuit Check <u>Between Data Link Connector and Unified Meter and A/C Amp."</u>.

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												
		een Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/R		
ENGINE	_	NG	UNKWN	_	UNKWN	_	1	UNKWN	1	∩ NR WN	Ω ΝΚ /WΝ	UNK WN		
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	-	UNK WN	UNK ₩N	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	-	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	-	UNK WN	UNK WN	_		
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	-	UNK WN	_	UNK WN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	_	UNKWN	-		
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	UNIWN	_	UNK/WN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	_		



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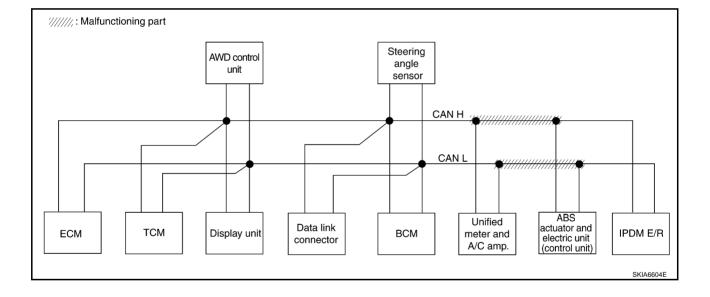
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Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-157, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

SELECT SYSTEM screen		CAN DIAG SUPPORT MNTR												
		een Initial diagnosis	Transmit diagnosis	Receive diagnosis										
				ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/		
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	Π ΝΚ ΜΝ	∩ //k /WI		
A/T	_	NG	UNKWN	UNKWN	_	_	1	1	1	UNKWN	Ω ΝΚ /WΝ	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	_	CAN 5	-	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	-	_	UNKWN	UNK/WN	_		
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	_	UNK WI		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_		
ABS	_	NG	UNKWN	UNK WN	Π Μ ΜΝ	_	UNIV	-	UNK WN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	_		



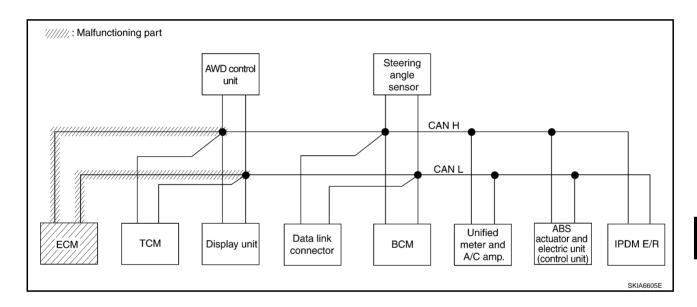
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Case 4
Check ECM circuit. Refer to <u>LAN-157</u>, "ECM Circuit Check".

						CAN DIAC	3 SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	Livi Goldon	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNIMON	_	NNKWN	_	_	UNK WN	_	UN K ₩N	n иk ,⁄wи	∩ NR WN
A/T	_	NG	UNKWN	UNK WN	_	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	C ∜√ 3	-	_	_	CAN 2	_	CAN 5	-	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNK WN	-	-	-	1	_	UNKWN	UNKWN	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNWWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_



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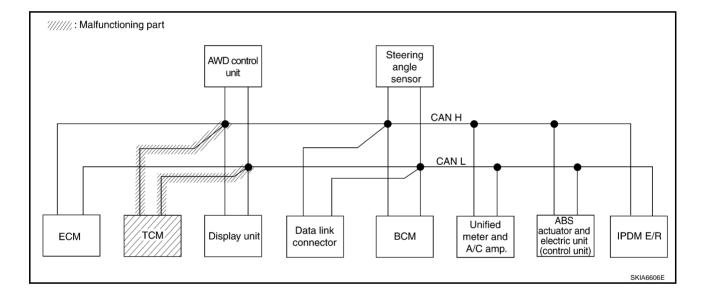
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Case 5
Check TCM circuit. Refer to <u>LAN-158</u>, "TCM Circuit Check" .

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	-	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNI W N	_	_	-	-	-	UNK WN	∩ NK WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	-	CAN 5	_	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	-	-	UNKWN	UNKWN	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	-	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNIKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNK WN	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	1	UNKWN	ı	_	_	_



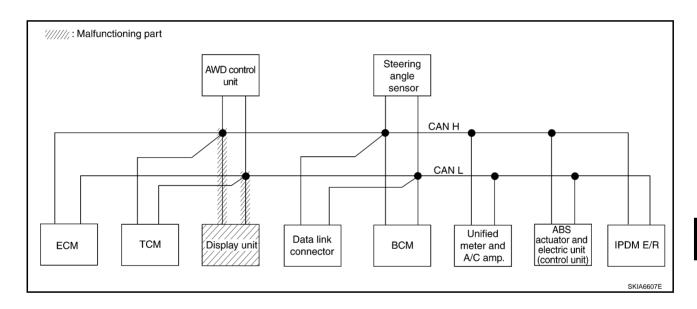
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Case 6
Check display unit circuit. Refer to <u>LAN-158</u>, "<u>Display Unit Circuit Check"</u>.

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
32231 3131	2111 0010011	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	1	UNKWN	-	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	ı	_	ı	UNKWN	UNKWN	_
Display unit	_	CAN COMM	C 4/ 1	С₩з	-		1	C 4/1 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	-	1	ı	1	ı	UNKWN	UNKWN	-
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	ı	UNKWN	-	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	ı	ı	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	ı	-	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	_

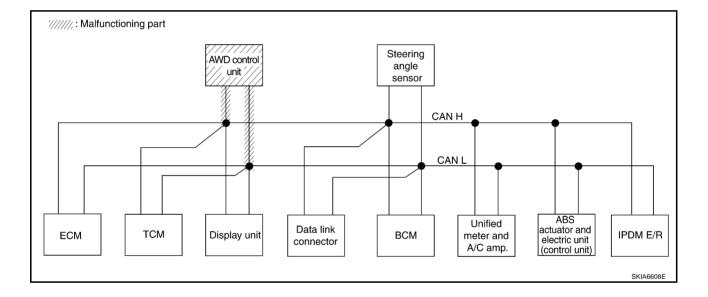


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Case 7
Check AWD control unit circuit. Refer to <u>LAN-159</u>, "AWD Control Unit Circuit Check" .

						CAN DIAG	3 SUPPOF	RT MNTR				
SELECT SYST	EM screen	Initial	Transmit				Rec	eive diagn	osis			
	LIW SCICCII		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	UNKWN	
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	_	CAN 2	_	CAN 5	_	CAN 7
ALL MODE AWD/4WD		NG	UNKWN	UNKWN	_	_		_	_	UNK/WN	UNK/WN	
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_



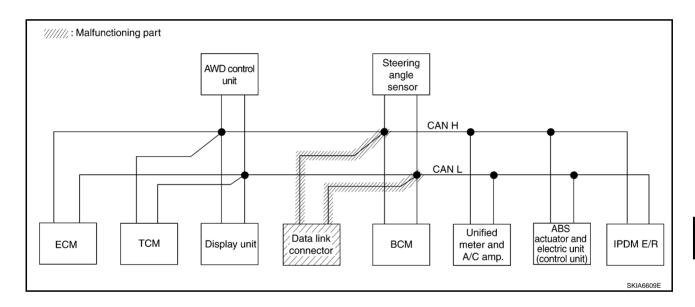
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Case 8
Check data link connector circuit. Refer to <u>LAN-159</u>, "<u>Data Link Connector Circuit Check</u>".

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	-	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	1	_	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	-	CAN 5	_	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	-	_	1	_	-	UNKWN	UNKWN	_
всм	No indication	NG	UNKWN	UNKWN	_	_	-	_	-	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	1	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	1	UNKWN	-	_	_	_

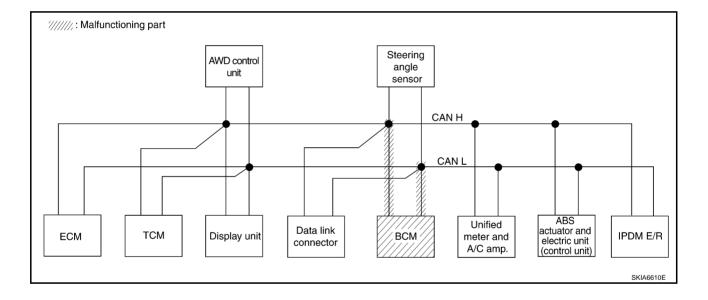


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Case 9
Check BCM circuit. Refer to <u>LAN-160, "BCM Circuit Check"</u>.

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
GEEEGT GTGT	LIVI SOFCCIT		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNI W WN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	C 4 /12	_	CAN 5	_	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	UNKWN	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	NAM WN	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	1	UNK WN	_	_	_	_



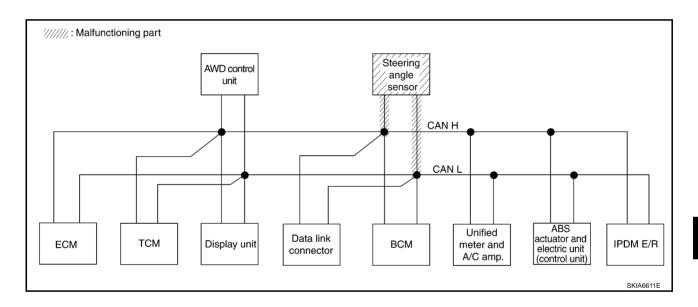
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Case 10
Check steering angle sensor circuit. Refer to <u>LAN-160</u>, "Steering Angle Sensor Circuit Check".

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131	LIN GOTGOTT	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	ı	UNKWN	_	ı	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	ı	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	1	CAN 2	_	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	1	ı	_	_	UNKWN	UNKWN	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	-	UNKWN
METER A/C AMP	No indication		UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UN K ₩N	_	-	_
IPDM E/R	No indication		UNKWN	UNKWN	_		1	UNKWN	_	_	-	_



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Case 11
Check unified meter and A/C amp. circuit. Refer to <u>LAN-161</u>, "<u>Unified Meter and A/C Amp. Circuit Check</u>".

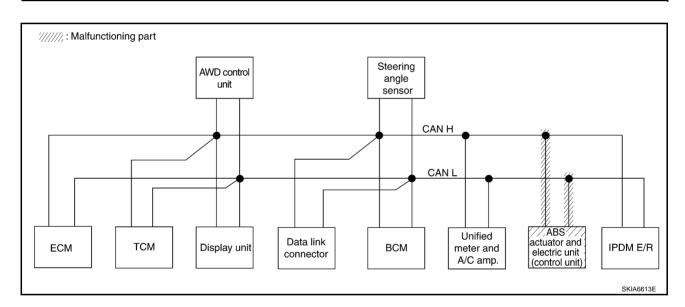
						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
322231 3131		diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	-	ı	UNKWN	1	UNK WN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	-	1	_	1	∩ NK WN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_		1	CAN 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	1	ı	1	ı	UNIXWN	UNKWN	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	1	_	ı	UNK WN	-	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	ı	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	ı	-	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_		_

//////: Malfunctioning part Steering AWD control angle sensor CAN H CAN L ABS Unified Data link actuator and ECM TCM Display unit всм IPDM E/R meter and electric unit (control unit) connector A/C amp. SKIA6612E

Case 12

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-161</u>, "ABS Actuator and Electric Unit (Control Unit) Circuit Check" .

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI SOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	UNI W WN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	-	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	-	UNKWN	UNKWN	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	1	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNK WN	-
ABS	_	NG	UN K ₩N	UNK WN	UNK WN	_	UNKWN	_	UNK\\\	-	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	-	_	_	_



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Case 13
Check IPDM E/R circuit. Refer to LAN-162, "IPDM E/R Circuit Check".

						CAN DIAG	SUPPO	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131	LIN GOTGOTT		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	ı	UNKWN	_	_	UNKWN	ı	UNKWN	UNKWN	UNK WN
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	ı	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	_	CAN 2	ı	CAN 5	ı	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	-	_	ı	ı	UNKWN	UNKWN	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	ı	UNKWN	ı	UNK W N
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	ı	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	I	ı	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	-	_	_	_

//////: Malfunctioning part Steering AWD control angle sensor CAN H CAN L ABS Unified Data link actuator and ECM TCM Display unit всм IPDM E/R meter and electric unit (control unit) connector A/C amp. SKIA6614E

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Case 14

Check CAN communication circuit. Refer to LAN-163, "CAN Communication Circuit Check" .

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131			diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	_	NG	UNI WN	-	UNK WN	_		UN K ₩N	1	NNK WN	UNI	UNK WI
A/T	_	NG	UNKWN	UNWWN	_	_	ı	_	ı	NNK WN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	С₩З	-	_	1	CAN 2	1	CAN 5	ı	CAN 7
ALL MODE AWD/4WD	_	NG	UNK WN	UNKWN	-	-	ı	1	ı	UNK WN	UNK WN	_
ВСМ	No invication	NG	UNKWN	UNKWN	_	_	-	_	ı	UNKWN	-	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	-	UNKWN	_
ABS	_	NG	UNIONN	UNK WN	NNK WN	_	UNK WN	_	UNK WN	_	-	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	_

Case 15

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to <u>LAN-166, "IPDM E/R Ignition Relay Circuit Check"</u> .

						CAN DIAG	SUPPOI	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101		diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	-	∩ NK WN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	-	UNKWN	UNKWN	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	ı	_	ı	UNKWN	1	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	1	UNKWN	_
ABS	_	NG	UNKWN	NNKWN	UNKWN	_	UNK W N	_	UNK WN	-	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	UNKWN	_	_	_	_

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Case 16

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to LAN-166, "IPDM E/R Ignition Relay Circuit Check".

		CAN DIAG SUPPORT MNTR												
SELECT SYST	FM screen	Initial	Transmit	Receive diagnosis										
		Initial diagnosis	diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F		
ENGINE	_	NG	UNKWN	1	UNK WN	_	_	UNKWN	ı	UNKWN	Ω ΝΚ ΜΝ	UNKWN		
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	1	UNKWN	UNKWN	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	_	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	-	-	UNKWN	Π Μ ΜΝ	_		
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	1	UNKWN	_	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	UNKWN	-	_	Ω NK ₩N	_		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	-	_	_	_		

Circuit Check Between TCM and Data Link Connector

AKS00C16

1. CHECK HARNESS FOR OPEN CIRCUIT

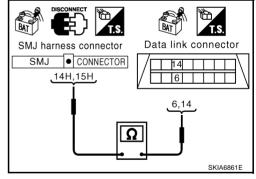
- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and harness connector M82.
- Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-138, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

1. CHECK HARNESS FOR OPEN CIRCUIT

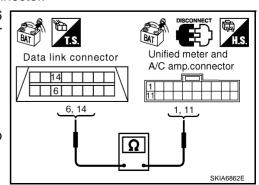
- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist. 14 (R) - 11 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-138</u>, "Work Flow".

NG >> Repair harness.



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Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

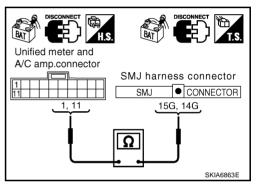
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist. 11 (R) - 14G (R) : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



3. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist. 14G (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-138, "Work Flow"</u>.

NG >> Repair harness.

SMJ harness connector SMJ OCONNECTOR 15G,14G C/UNIT OCONNECTOR 11,15 SKIA6864E

AKS00C19

ECM Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

Revision: 2004 November LAN-157 2004 FX35/FX45

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

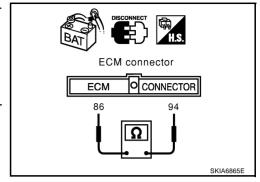
- 1. Disconnect ECM connector.
- 2. Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace ECM.

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



AKS00C1A

TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

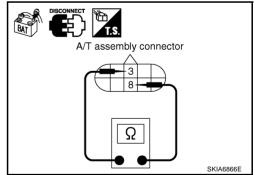
- 1. Disconnect A/T assembly connector.
- 2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG >> Repair harness between A/T assembly and display unit.



Display Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of display unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

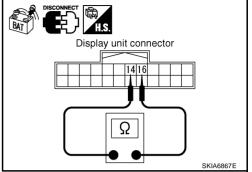
- 1. Disconnect display unit connector.
- Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

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

OK or NG

OK >> Replace display unit.

NG >> Repair harness between display unit and harness connector M82.



AWD Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of AWD control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

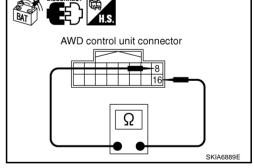
- 1. Disconnect AWD control unit connector.
- Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace AWD control unit.

NG >> Repair harness between AWD control unit and harness connector M82.



Data Link Connector Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector. AKS00C1C

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2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

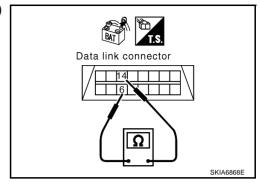
6 (L) - 14 (R) : Approx. 54 - 66
$$\Omega$$

OK or NG

NG

OK >> Diagnose again. Refer to LAN-138, "Work Flow".

>> Repair harness between data link connector and BCM.



AKS00C1E

BCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

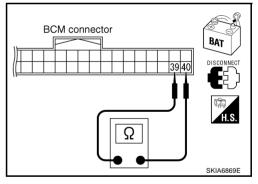
- Disconnect BCM connector.
- Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

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

OK or NG

OK >> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM" .

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



AKS00C1F

Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

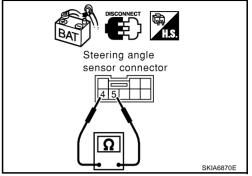
- 1. Disconnect steering angle sensor connector.
- 2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace steering angle sensor.

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



Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

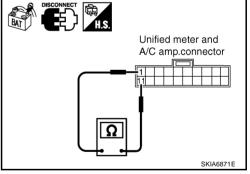
- 1. Disconnect unified meter and A/C amp. connector.
- Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : 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. and harness connector M41.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

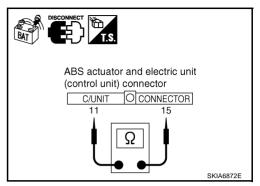
11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG

>> Repair harness between ABS actuator and electric unit (control unit) and harness connector E205.



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IPDM E/R Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

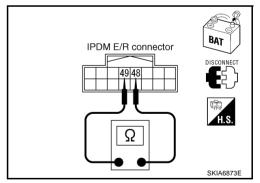
- 1. Disconnect IPDM E/R connector.
- 2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

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

OK or NG

OK >> Replace IPDM E/R.

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



CAN SYSTEM (TYPE 4)

[CAN]

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CAN Communication Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, unit side, sensor side, meter side, control unit side and harness side).
- **ECM**
- A/T assembly
- Display unit
- AWD control unit
- **BCM**
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- AWD control unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

6 (L) - 14 (R)

: Continuity should not exist.

OK or NG

OK

>> GO TO 3.

NG >> Check the following harnesses. If any harness is damaged, repair the harness.

- Harness between data link connector and ECM
- Harness between data link connector and harness connector M82
- Harness between data link connector and display unit
- Harness between data link connector and AWD control unit
- Harness between data link connector and BCM
- Harness between data link connector and steering angle sensor

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Data link connector

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

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

OK or NG

OK >> GO TO 4.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and AWD control unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect A/T assembly connector. 1.
- Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

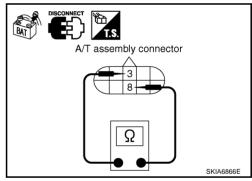
3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG

>> Repair harness between A/T assembly and harness connector F102.



Data link connector

14 6 | 1

6, 14,

5. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

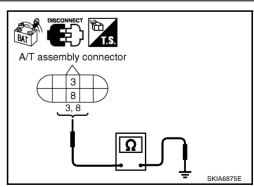
> 3 (L) - Ground : Continuity should not exist. 8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness

connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

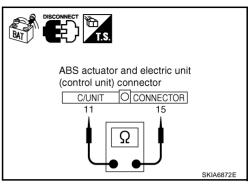
11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205



ABS actuator and electric unit

11,15

OCONNECTOR

(control unit) connector

C/UNIT

7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

> 11 (L) - Ground : Continuity should not exist. 15 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205

8. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

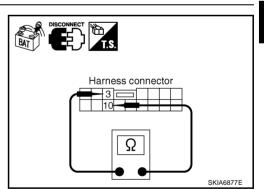
> 3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 9.

NG

>> Repair harness between harness connector B5 and harness connector B5.



9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

> 3 (L) - Ground : Continuity should not exist. 10 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 10.

NG >> Repair harness between harness connector B5 and harness connector B5.

Harness connector 3,10 SKIA6878E

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SKIA6876E

10. CHECK HARNESS FOR SHORT CIRCUIT

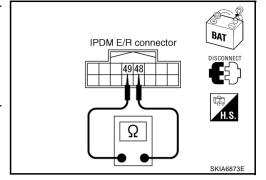
- 1. Disconnect IPDM E/R connector.
- 2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 11.

NG >> Repair harness between IPDM E/R and harness connector E205.



11. CHECK HARNESS FOR SHORT CIRCUIT

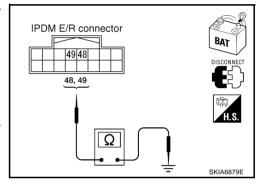
Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.

NG >> Repair harness between IPDM E/R and harness connector E205.



12. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to $\underline{\mathsf{LAN-166}}$, " $\underline{\mathsf{FCM/IPDM}}$ $\underline{\mathsf{E/R}}$ $\underline{\mathsf{INTERNAL}}$ $\underline{\mathsf{CIRCUIT}}$ $\underline{\mathsf{INSPECTION}}$ ". OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-138, "Work Flow".

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

AKS00C1K

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

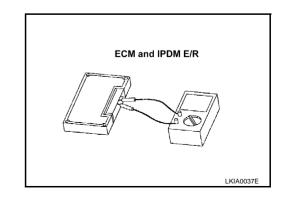
- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-12</u>, "IGNITION POWER SUPPLY IGNITION SW. IN "ON" AND/OR "START"".

Component Inspection ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

AKS00C1L

- Remove ECM and IPDM E/R from vehicle.
- Check resistance between ECM terminals 94 and 86.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



[CAN]

CAN SYSTEM (TYPE 5)

PFP:23710

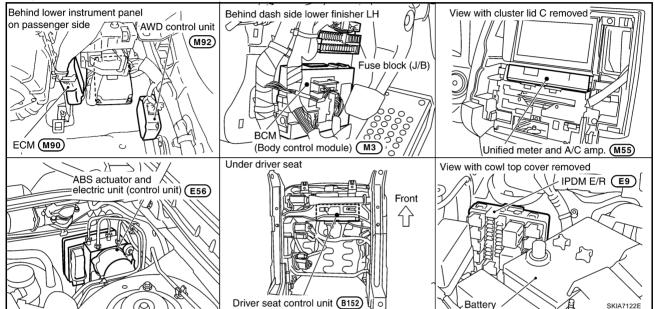
System Description

AKS00C1M

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

AKS00C1I

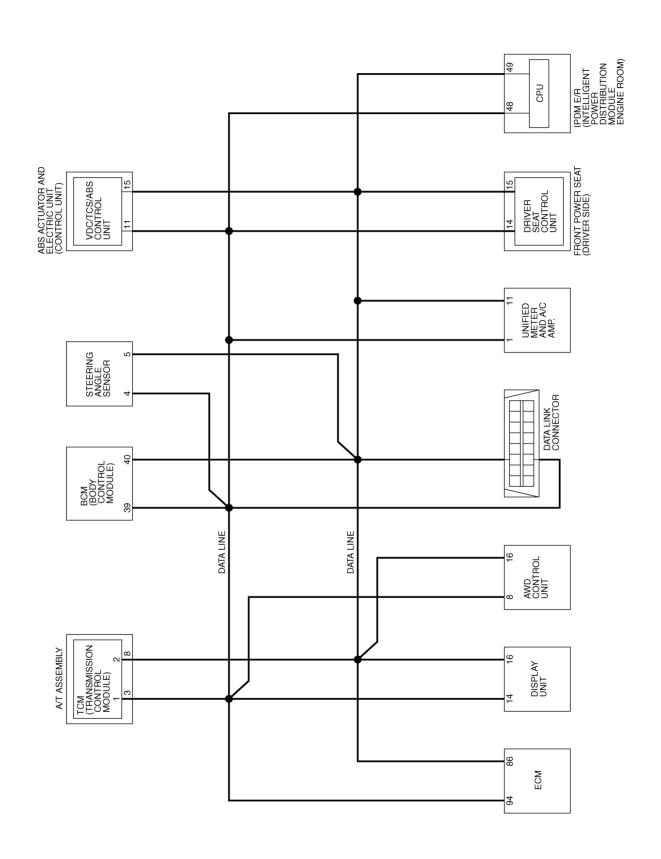


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Schematic AKS00C10



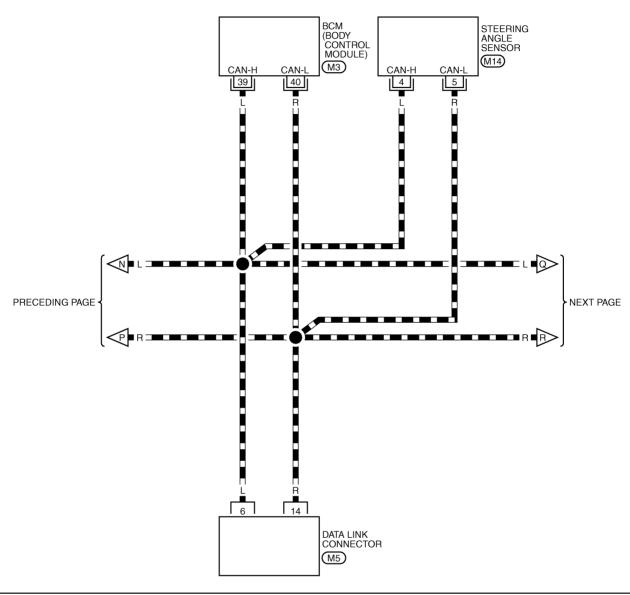
TKWM1298E

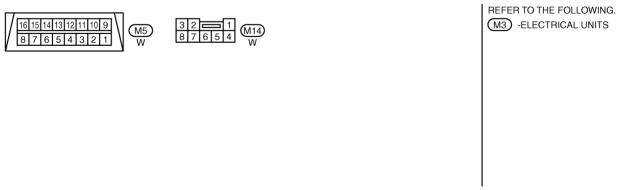
TKWM1299E

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

LAN-CAN-12

: DATA LINE





TKWM0756E

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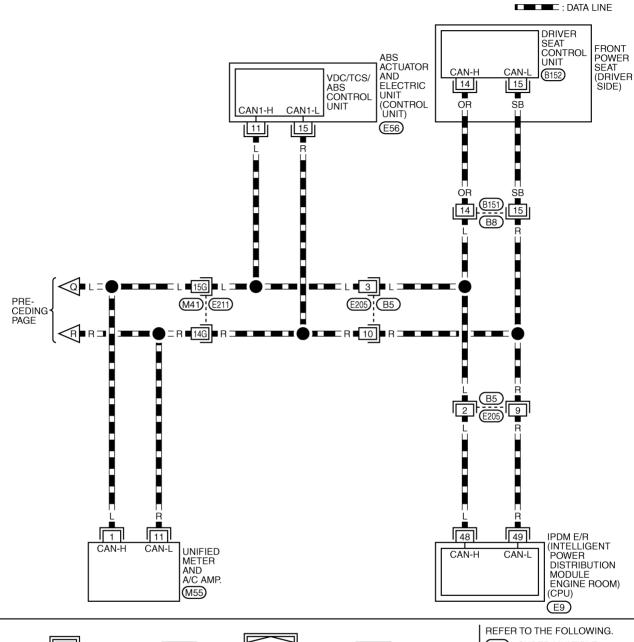
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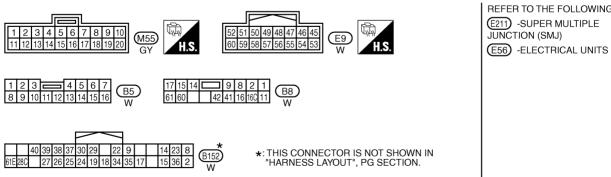
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LAN-CAN-13

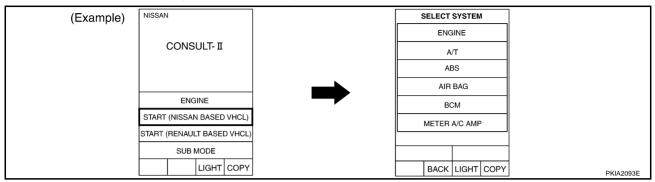




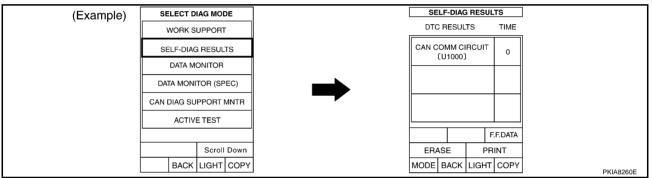
TKWH0251E

Work Flow

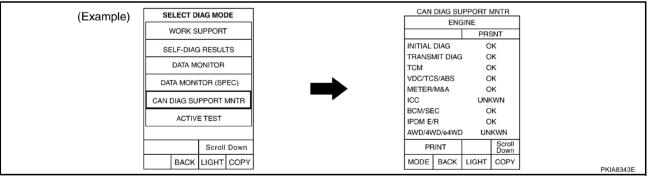
 When there are no indications of "BCM", "METER A/C AMP", "AUTO DRIVE POS." or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



2. Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "A/T", "ALL MODE AWD/4WD", "BCM", "METER A/C AMP", "ABS", "AUTO DRIVE POS.", and "IPDM E/R" displayed on CONSULT-II.



 Print all the data of "CAN DIAG SUPPORT MNTR" for "ENGINE", "A/T", "ALL MODE AWD/4WD", "BCM", "METER A/C AMP", "ABS", "AUTO DRIVE POS.", and "IPDM E/R" displayed on CONSULT-II.



- 4. Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to <u>LAN-174</u>, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-174, "CHECK SHEET".

NOTE:

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- 6. Check CAN communication line of the integrated display system. Refer to <u>AV-85, "CAN Communication Line Inspection"</u>.
- Attach the CAN DIAG MONITOR check sheet onto the check sheet. Refer to <u>LAN-174, "CHECK SHEET"</u>

CAN SYSTEM (TYPE 5)

[CAN]

8. Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG MONITOR check sheet. Refer to <u>LAN-174, "CHECK SHEET"</u>.

NOTE:

If "NG" is displayed on "CAN COMM" as "CAN DIAG MNTR" for the diagnosed control unit, replace the control unit. Refer to AV-85, "CAN Communication Line Inspection".

9. According to the check sheet results (example), start inspection. Refer to <u>LAN-176, "CHECK SHEET RESULTS (EXAMPLE)"</u>.

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

SELECT SYST						CAN DIAG	3 SUPPOI	RT MNTR				
	EM screen	Initial	Transmit					eive diagn	osis			
		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
NGINE	-	NG	UNKWN	_	UNKWN	-	_	UNKWN	_	UNKWN	UNKWN	UNKWN
VT	_	NG	UNKWN	UNKWN	-	_	_	_	_	UNKWN	UNKWN	_
isplay unit	_	CAN COMM	CAN 1	CAN 3	_	_	_	CAN 2	_	CAN 5	_	CAN 7
LL MODE AWD/4WD	-	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	UNKWN	_
СМ	No indication	NG	UNKWN	UNKWN	-	-	_	_	_	UNKWN	_	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
UTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	_	UNKWN	_	_
PDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_
			tach copy ECT SYS					copy of	м			
			(Attach co display G MONIT	opy of unit OR check	(sheet					

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Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	ALL MODE AWD/4WD	BCM
SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS
Attach copy of	Attach copy of	Attach copy of	Attach copy of IPDM E/R SELF-DIAG RESULTS
METER A/C AMP	ABS	AUTO DRIVE POS.	
SELF-DIAG RESULTS	SELF-DIAG RESULTS	SELF-DIAG RESULTS	
Attach copy of	Attach copy of	Attach copy of	Attach copy of
ENGINE	A/T	ALL MODE AWD/4WD	BCM
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT
MNTR	MNTR	MNTR	MNTR
Attach copy of	Attach copy of	Attach copy of	Attach copy of
METER A/C AMP	ABS	AUTO DRIVE POS.	IPDM E/R
CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT	CAN DIAG SUPPORT
MNTR	MNTR	MNTR	MNTR

Revision: 2004 November LAN-175 2004 FX35/FX45

CHECK SHEET RESULTS (EXAMPLE)

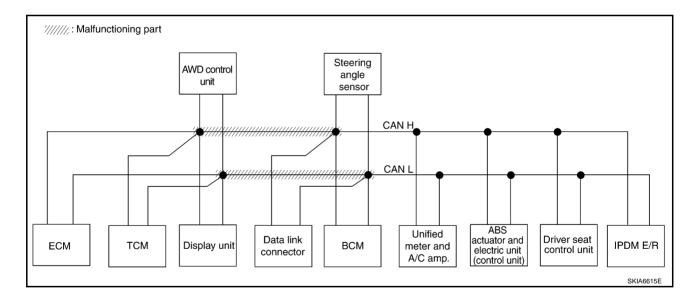
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-192</u>, "Circuit Check Between TCM and <u>Data Link Connector"</u>.

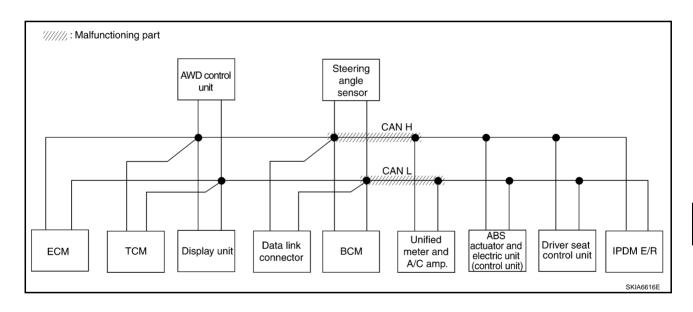
						CAN DIAG	SUPPOR	RT MNTR					
SELECT SYST	FM screen	Initial	Transmit diagnosis	Receive diagnosis									
OLLLOT GTOT	LIVI SOICCII			ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/	
ENGINE	_	NG	UNKWN	1	UNKWN	ı	-	UNK WN	1	UNK WN	UNK WN	UNK WI	
A/T	_	NG	UNKWN	UNKWN	-	_	-	_	1	UNK WN	UNK WN	-	
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	-	C 4/ 12	-	CAN 5	1	CAN 7	
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNI WN	UN K ₩N	_	
ВСМ	No indication	NG	UNKWN	UNK WN	ı	1	-	-	ı	UNKWN	1	UNKWI	
METER A/C AMP	No indication	_	UNKWN	UN W WN	UNKWN	UN K WN	UNK WN	UNKWN	_	1	UNKWN	1	
ABS	_	NG	UNKWN	UNK WN	UN ™ WN	_	UNKWN	_	UNKWN			_	
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNIX WN	_	_	UNKWN	_	UNKWN		_	
IPDM E/R	No indication	_	UNKWN	UNK WN	_	_	_	UNKWN	-	_		_	



Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to <u>LAN-192</u>, "Circuit Check <u>Between Data Link Connector and Unified Meter and A/C Amp."</u>.

						CAN DIAG	SUPPOR	RT MNTR						
SELECT SYST	FM screen	Initial	Transmit diagnosis	Receive diagnosis										
OLLLO1 O101	LIVI GOICCII			ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/		
ENGINE	_	NG	UNKWN	1	UNKWN	_	-	UNKWN	_	UNK WN	UNK WN	UNK WI		
A/T	_	NG	UNKWN	UNKWN	1	_	-	1	_	UNK WN	NNKWN	_		
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	-	CAN 2	_	CAN 5	_	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	UN K ₩N	_		
BCM	No indication	NG	UNKWN	UNKWN	ı	_	-	ı	_	UNK WN	-	UNK WI		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	-		
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	UNKWN	1	∩N K WN	-	-	-		
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_		



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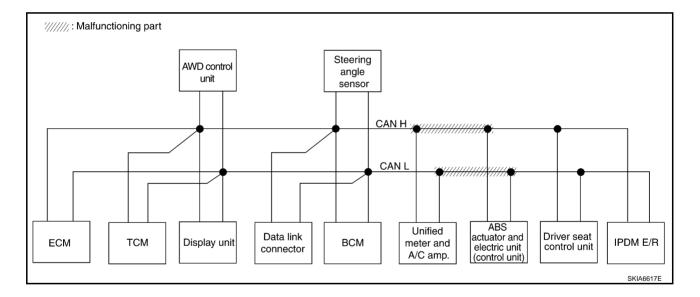
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Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-193, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

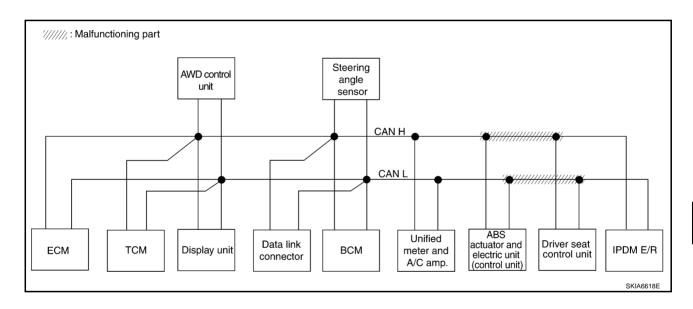
						CAN DIAG	SUPPO	RT MNTR								
SELECT SYST	FM screen	Initial	Initial Transmit		Receive diagnosis											
GEEEOT GTOT	LIVI SCICCII	1	Transmit diagnosis	ECM	ТСМ	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F				
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNKWN	1	UNKWN	UN K ₩N	UNK WN				
A/T	_	NG	UNKWN	UNKWN	_	_	_	-	1	UNKWN	∩ NK WN	_				
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	_	CAN 7				
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	1	ı	UNKWN	η νκ γνν	_				
всм	No indication	NG	UNKWN	UNKWN	_	_	_	1	ı	UNKWN	_	UNK WN				
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	1	Ω NR WN	_				
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	UNI WN	1	UNK W N	1	_	_				
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	-	UNKWN	-	UNKWN	_	_				
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	1	_	_	_				



Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to <u>LAN-194</u>, "Circuit Check Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit".

						CAN DIAG	SUPPOR	RT MNTR						
SELECT SYST	FM screen	Initial	Transmit	Receive diagnosis										
022201 0101	LIN GOIGGII		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I		
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNKWN	_	UNKWN	UNKWN	UNK WI		
A/T	_	NG	UNKWN	UNKWN	1	_	-	_	_	UNKWN	UNKWN	-		
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	-	CAN 2	_	CAN 5	_	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	-	_	_	UNKWN	UNKWN	-		
BCM	No indication	NG	UNKWN	UNKWN	ı	_	-	-	_	UNKWN	-	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	ı		
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	-	UNKWN	1	-	ı		
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	_	UNKWN	_	_		
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_		



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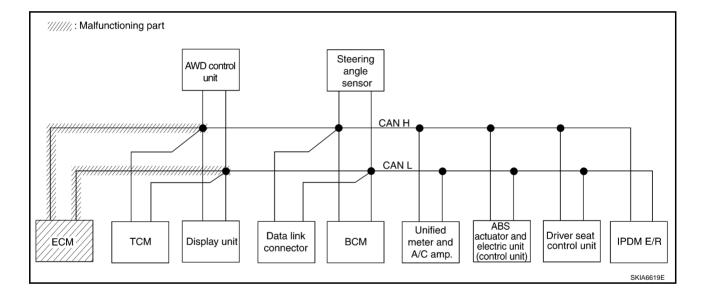
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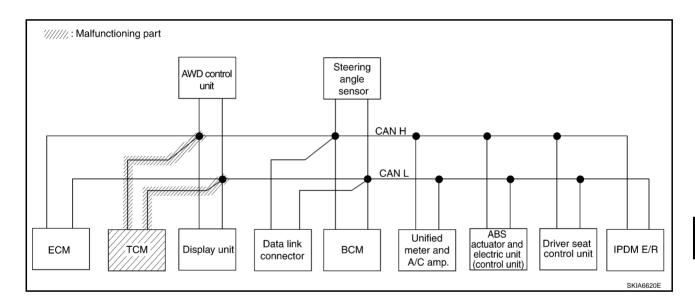
Case 5
Check ECM circuit. Refer to <u>LAN-194, "ECM Circuit Check"</u>.

						CAN DIAG	SUPPO	RT MNTR						
SELECT SYST	FM screen	Initial	Transmit	Receive diagnosis										
3222313131	LIN COTOGIT		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I		
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNK WN	_	UNK WN	UNKWN	UNKWN		
A/T	_	NG	UNKWN	UNK WN	ı	_	-	1	-	UNKWN	UNKWN	1		
Display unit	_	CAN COMM	CAN 1	C 4/ 3	ı	_	-	CAN 2	_	CAN 5	ı	CAN 7		
ALL MODE AWD/4WD	_	NG	UNKWN	UNK WN	ı	_	-	_	_	UNKWN	UNKWN	-		
BCM	No indication	NG	UNKWN	UNK WN	ı	_	-	1	-	UNKWN	ı	UNKWN		
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	-	UNKWN	ı		
ABS	_	NG	UNKWN	∩ NK WN	UNKWN	_	UNKWN	-	UNKWN	_	1	Ι		
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	_	UNKWN	_	_		
IPDM E/R	No indication	_	UNKWN	UNK WN	_	_	_	UNKWN	_	_	_	_		



Case 6
Check TCM circuit. Refer to <u>LAN-195, "TCM Circuit Check"</u>.

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	ı	UNK/WN	_	_	UNKWN	ı	UNKWN	UNKWN	UNKWN
A/T	_	NG	NMMN	UNK WN	_	_	_	_	ı	UNK WN	UNIXWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	1	CAN 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	_	ı	UNKWN	UNKWN	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	ı	UNKWN	1	UNKWN
METER A/C AMP	No indication		UNKWN	UNKWN	UNI WN	UNKWN	UNKWN	UNKWN	ı	ı	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	ı	1	-
AUTO DRIVE POS.	No indication	NG	.,	_	UNKWN	_	_	UNKWN	1	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	1	_	_	_



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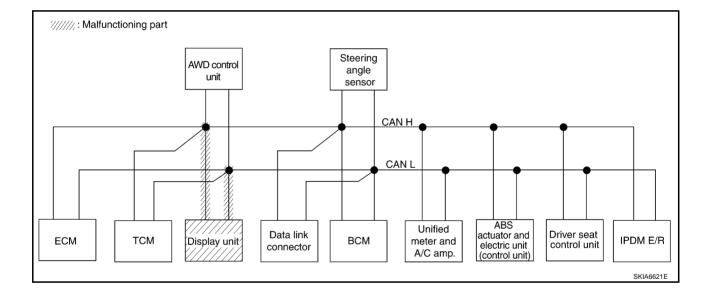
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Case 7
Check display unit circuit. Refer to <u>LAN-195</u>, "<u>Display Unit Circuit Check</u>" .

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNKWN	1	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	-	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	C 4 /1	C ∜√ 3	_	-	_	C M 2	_	CAN 5	_	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	-	-	-	1	1	UNKWN	UNKWN	-
ВСМ	No indication	NG	NG UNKWN	UNKWN	-	_	_	1	1	UNKWN	_	UNKWN
METER A/C AMP	No indication		UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	1	1	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	1	UNKWN	1	_	ı
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	-	_	_	_



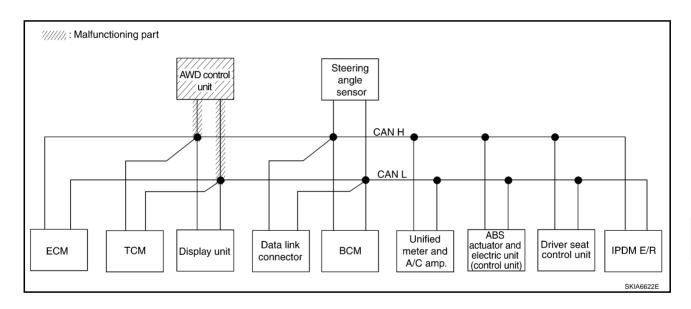
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Case 8
Check AWD control unit circuit. Refer to <u>LAN-196</u>, "AWD Control Unit Circuit Check" .

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131	LIN GOIGGII		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	1	NG	UNKWN	1	UNKWN	-	_	UNKWN	_	UNKWN	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	_	CAN 2	_	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNIWN	UNKWN	_	-	-	_	_	UNK WN	UNK WN	_
ВСМ	No indication	NG	UNKWN	UNKWN	ı	ı	-	1	-	UNKWN	1	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	_	1	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNK WN	_	UNKWN	1	1	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_

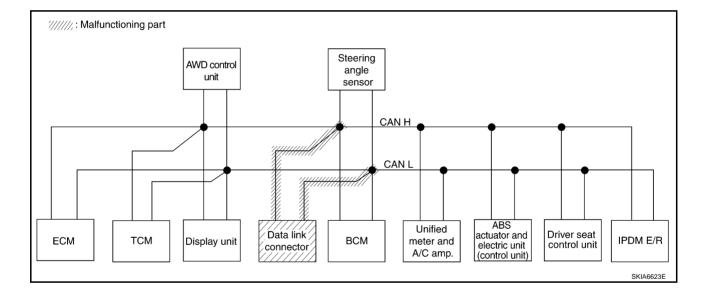


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Case 9
Check data link connector circuit. Refer to <u>LAN-196</u>, "<u>Data Link Connector Circuit Check"</u>.

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131		diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	_	NG	UNKWN	ı	UNKWN	_	_	UNKWN	ı	UNKWN	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	ı	_	_	1	I	UNKWN	UNKWN	1
Display unit	_	CAN COMM	CAN 1	CAN 3	I		-	CAN 2	I	CAN 5	ı	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	-	İ	ı	UNKWN	UNKWN	
BCM	No indication	NG	UNKWN	UNKWN	ı	_	-	1	I	UNKWN	1	UNKWI
METER A/C AMP	No invication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	_	UNKWN	1
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	1	UNKWN	_	ı	-
AUTO DRIVE POS.	No indication	ation NG UI	UNKWN	_	UNKWN	_	-	UNKWN	1	UNKWN	_	_
IPDM E/R	No indication - U	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_	



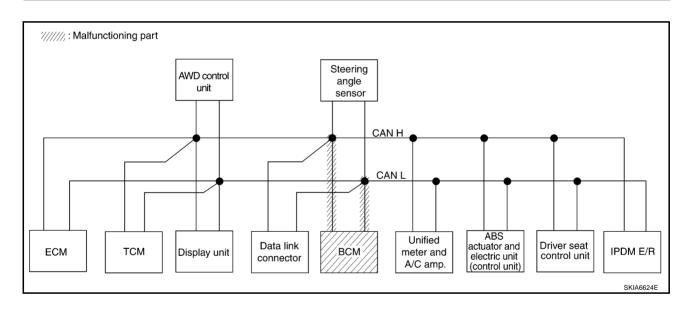
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Case 10
Check BCM circuit. Refer to <u>LAN-197, "BCM Circuit Check"</u>.

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131		diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNK WN	_	UNKWN	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	ı	_	_	1	ı	UNKWN	UNKWN	1
Display unit	_	CAN COMM	CAN 1	CAN 3	ı	_	_	C N 2	_	CAN 5	ı	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	-	ı	_	UNKWN	UNKWN	_
BCM	No indication	NG	UNKWN	UNKWN	ı	_	-	1	ı	UNKWN	1	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	I	UNKWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	-	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	UMAWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_



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Case 11
Check steering angle sensor circuit. Refer to <u>LAN-197</u>, "Steering Angle Sensor Circuit Check".

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131		diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	UNKWN	ı	UNKWN	UNKWN	UNKWN
A/T	-	NG	UNKWN	UNKWN	ı	_	_	1	I	UNKWN	UNKWN	ı
Display unit	_	CAN COMM	CAN 1	CAN 3	ı	_	_	CAN 2	ı	CAN 5	ı	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	-	_	ı	UNKWN	UNKWN	-
ВСМ	No indication	NG	UNKWN	UNKWN	ı	_	-	1	I	UNKWN	1	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	1	UNKWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNK WN	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	1	UNKWN	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_

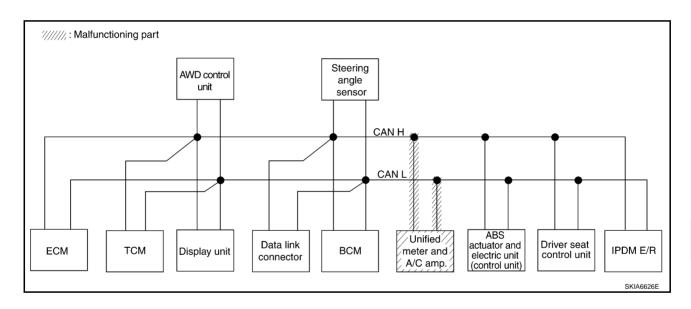
//////: Malfunctioning part Steering AWD control angle unit sensor CAN H CAN L ABS actuator and electric unit (control unit) Unified Driver seat control unit Data link TCM IPDM E/R **ECM** Display unit **BCM** meter and connector A/C amp. SKIA6625E

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Case 12
Check unified meter and A/C amp. circuit. Refer to LAN-198, "Unified Meter and A/C Amp. Circuit Check".

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
3222313131	LIN GOIGGII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	1	NG	UNKWN	1	UNKWN	_	_	UNKWN	_	∩ NK WN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	-	_	_	_	UNK WN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	1	CAN 2	_	C AN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	_	_	UNK WN	UNKWN	_
BCM	No indication	NG	UNKWN	UNKWN	_	_	-	1	-	UNKWN	1	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	1	1	ı
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	_	UNK WN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_



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Case 13
Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-198</u>, "ABS Actuator and Electric Unit (Control Unit) Circuit Check".

						CAN DIAG	SUPPO	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
OLLLO1 O101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	-	UNKWN	_	_	UNKWN	-	UNKWN	∩ NK WN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	-	_	_	-	UNKWN	UNI X WN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	UNKWN	-
BCM	No indication	NG	UNKWN	UNKWN	_	1	-	-	ı	UNKWN	ı	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	-	UNKWN	-
ABS	_	NG	UNK WN	UNK WN	NNK WN	_	UNK WN	_	UNK WN	-	-	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	UNKWN	1	UNKWN	_	_
IPDM E/R	No indication		UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_

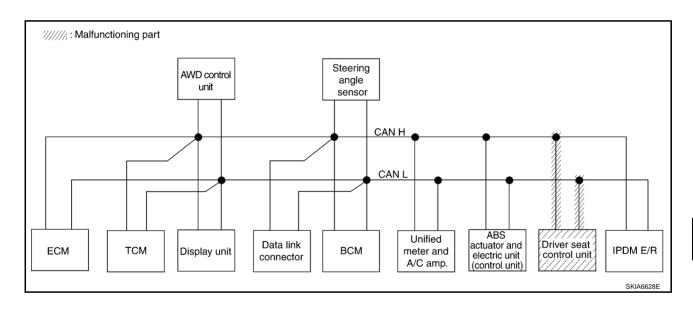
//////: Malfunctioning part Steering AWD control angle unit sensor CAN H CAN L Driver seat control unit Data link actuator and **ECM** TCM BCM IPDM E/R Display unit meter and electric unit connector A/C amp. SKIA6627E

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Case 14
Check driver seat control unit circuit. Refer to <u>LAN-199</u>, "<u>Driver Seat Control Unit Circuit Check"</u>.

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
0222010101	LIN GOIGGII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/I
ENGINE	1	NG	UNKWN	1	UNKWN	_	_	UNKWN	_	UNKWN	UNKWN	UNKWN
A/T	-	NG	UNKWN	UNKWN	ı	_	_	1	-	UNKWN	UNKWN	1
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	1	CAN 2	_	CAN 5	1	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	ı	_	-	_	_	UNKWN	UNKWN	-
BCM	No indication	NG	UNKWN	UNKWN	ı	_	-	1	-	UNKWN	1	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	1	UNKWN	ı
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	_	UNKWN	_	_	_
AUTO DRIVE POS.	No indication	NG	_	-	UNKWN	_	_	UNKWN	_	UNKWN		_
IPDM E/R	No indication	_		UNKWN	_	_	_	UNKWN	_	_	_	_



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Case 15
Check IPDM E/R circuit. Refer to <u>LAN-200, "IPDM E/R Circuit Check"</u>.

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F
ENGINE	_	NG	UNKWN	ı	UNKWN	_	_	UNKWN	1	UNKWN	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNKWN	_	_	_	-	-	UNKWN	UNKWN	_
Display unit	_	CAN COMM	CAN 1	CAN 3	_	-	_	CAN 2	_	CAN 5	_	C 4 7
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	-	1	1	UNKWN	UNKWN	-
BCM	No indication	NG		UNKWN	_	_	_	_	_	UNKWN	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	1	1	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	1	UNKWN	1	_	ı
AUTO DRIVE POS.	No indication	NG	11.5	_	UNKWN	_	_	UNKWN	_	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	-	_	_	_

//////: Malfunctioning part Steering AWD control angle unit sensor CAN H CAN L ABS actuator and electric unit (control unit) Unified Driver seat control unit Data link TCM **ECM BCM** IPDM E/R Display unit meter and connector A/C amp. SKIA6629E

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Case 16

Check CAN communication circuit. Refer to LAN-200, "CAN Communication Circuit Check" .

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIVI GOICCII		diagnosis	ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	_	NG	NNK WN	1	UNKWN	_	ı	UNYWN	ı	∩ NK WN	UNKWN	UN K ₩N
A/T	_	NG	UNKWN	UNK WN	_	_	1	_	ı	UNK WN	UNIXWN	_
Display unit	_	CAN COMM	C 4 /1	CAN 3	_	_	-	C M 2	-	CAN 5	_	CAN 7
ALL MODE AWD/4WD	_	NG	UNKWN UN	UNK WN	-	-	1	_	-	UNIXWN	UNKWN	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	_	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	1	UNKWN	_
ABS	_	NG	UNK WN	Ω ΝΚ ΜΝ	UNKWN	_	UNK WN	_	UNK WN		_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN		-	UNKWN	I	UNKWN	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_

Case 17

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to LAN-205, "IPDM E/R Ignition Relay Circuit Check".

						CAN DIAG	SUPPOR	RT MNTR				
SELECT SYST	FM screen	Initial	Transmit				Rec	eive diagn	osis			
022201 0101	LIN GOIGGII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/
ENGINE	-	NG	UNKWN	1	UNKWN	-	-	UNKWN	_	UNKWN	UNKWN	UNKWI
A/T	-	NG	UNKWN	UNKWN	ı	-	1	1	1	UNKWN	UNKWN	1
Display unit	_	CAN COMM	CAN 1	CAN 3	-	_	_	CAN 2	1	CAN 5	1	CAN 7
ALL MODE AWD/4WD	1	NG	UNKWN	UNKWN	I	_	-	1	-	UNKWN	UNKWN	1
BCM	No indication	NG	UNKWN	UNKWN	ı	_	_	1	-	UNKWN	ı	UNKWI
METER A/C AMP	No indication		UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	1	1	UNIV	1
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	UNKWN	-	UNKWN	-	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	UNKWN	_	UNKWN		_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_

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Case 18

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to LAN-205, "IPDM E/R Ignition Relay Circuit Check".

		CAN DIAG SUPPORT MNTR													
SELECT SYST	FM screen	Initial	Transmit	Receive diagnosis											
022201 0101	LIVI SOICCII	diagnosis		ECM	TCM	DISPLAY	AWD /4WD	BCM /SEC	STRG	METER /M&A	VDC/TCS /ABS	IPDM E/F			
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	UNKWN		UNKWN	UNKWN	UNKWN			
A/T	_	NG	UNKWN	UNK WN	_	_	_	1	-	UNK WN	UNKWN	_			
Display unit	_	CAN COMM	CAN 1	CAN 3	_	_	-	CAN 2	1	CAN 5	1	CAN 7			
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	-	_	UNKWN	UNKWN	_			
ВСМ	No indication	NG	UNKWN	UNKWN	_	1	-	ı	ı	UNKWN	ı	UNKWN			
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	ı	1	UNKWN	1			
ABS	_	NG	UNKWN	NNK WN	UNKWN	_	UNK WN	1	UNK WN	-	-	-			
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	UNKWN	1	UNKWN	-	_			
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	UNKWN	_	_	_	_			

Circuit Check Between TCM and Data Link Connector

AKS00C1R

1. CHECK HARNESS FOR OPEN CIRCUIT

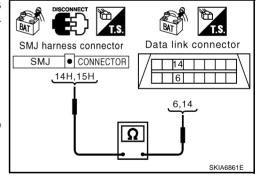
- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and harness connector M82.
- Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-172, "Work Flow".

NG >> Repair harness.



Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

1. CHECK HARNESS FOR OPEN CIRCUIT

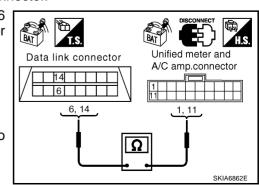
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist. 14 (R) - 11 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-172</u>, "Work Flow".

NG >> Repair harness.



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Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

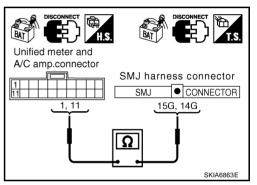
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist. 11 (R) - 14G (R) : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



3. CHECK HARNESS FOR OPEN CIRCUIT

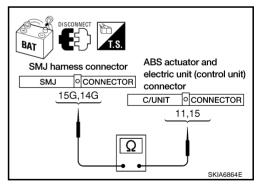
- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

15G (L) - 11 (L) : Continuity should exist. 14G (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-172, "Work Flow".

NG >> Repair harness.



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

AKS00C1U

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

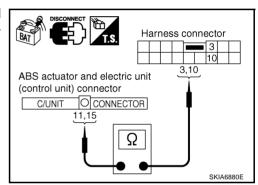
2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- 2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L) 15 (R) - 10 (R) : Continuity should exist. : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



$oldsymbol{3}.$ Check harness for open circuit

1. Disconnect harness connector B8.

>> Repair harness.

2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

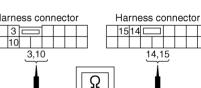
>> Connect all the connectors and diagnose again. Refer to

3 (L) - 14 (L) 10 (R) - 15 (R)

LAN-172, "Work Flow".

: Continuity should exist. : Continuity should exist.

Harness connector



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ECM Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK or NG

OK

NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

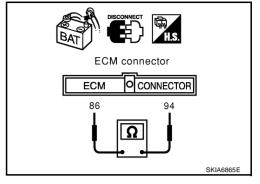
- 1. Disconnect ECM connector.
- 2. Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

94 (L) - 86 (R) : Approx. 108 - 132Ω

OK or NG

OK >> Replace ECM.

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



TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

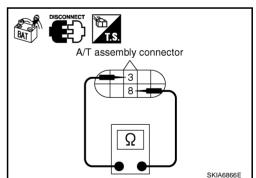
- 1. Disconnect A/T assembly connector.
- 2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG >> Repair harness between A/T assembly and display unit.



Display Unit Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of display unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect display unit connector.
- Check resistance between display unit harness connector M62 terminals 14 (L) and 16 (R).

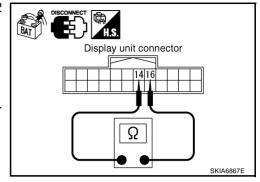
14 (L) - 16 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace display unit.

NG

>> Repair harness between display unit and harness connector M82.



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AWD Control Unit Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check terminals and connector of AWD control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect AWD control unit connector.
- Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

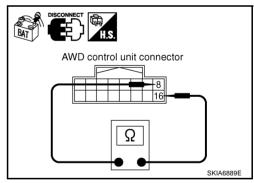
8 (L) - 16 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace AWD control unit.

NG

>> Repair harness between AWD control unit and harness connector M82.



AKS00C1Z

Data Link Connector Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

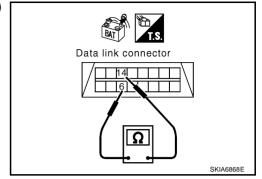
: Approx. 54 - 66 Ω

OK or NG

OK

>> Diagnose again. Refer to LAN-172, "Work Flow".

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



BCM Circuit Check

1. CHECK CONNECTOR

Turn ignition switch OFF. 1.

2. Disconnect the negative battery terminal.

Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Disconnect BCM connector.

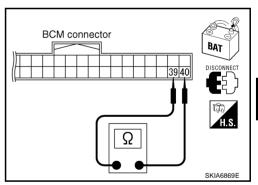
Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

: Approx. 54 - 66 Ω

OK or NG

OK >> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM".

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



Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect steering angle sensor connector.
- Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

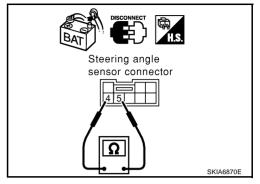
4 (L) - 5 (R) : Approx.
$$54 - 66\Omega$$

OK or NG

OK >> Replace steering angle sensor.

NG

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



AKS00C22

Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

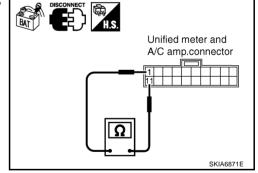
- 1. Disconnect unified meter and A/C amp. connector.
- Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : 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. and harness connector M41.



ABS Actuator and Electric Unit (Control Unit) Circuit Check

AKS00C23

1. CHECK CONNECTOR

- Turn ignition switch OFF. 1.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector.
- Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

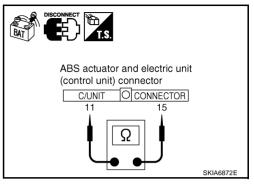
11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

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

NG >> Repair harness between ABS actuator and electric unit

(control unit) and harness connector E205.



AKS00C24

Driver Seat Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control unit side and harness side).
- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect driver seat control unit connector.
- Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

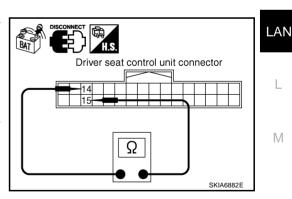
14 (OR) - 15 (SB) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace driver seat control unit.

NG

>> Repair harness between driver seat control unit and harness connector B5.



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IPDM E/R Circuit Check

1. CHECK CONNECTOR

AKS00C25

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect IPDM E/R connector.
- 2. Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

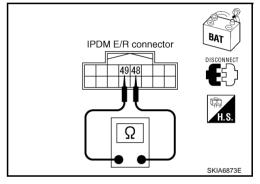
: Approx. 108 - 132 Ω

OK or NG

OK >> Replace IPDM E/R.

NG

>> Repair harness between IPDM E/R and harness connector B8.



AKS00C26

CAN Communication Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, unit side, control unit side, sensor side, meter side and harness side).
- ECM
- A/T assembly
- Display unit
- AWD control unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

В

2. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display unit connector
- AWD control unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- 2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

OK or NG

OK >> GO TO 3.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and AWD control unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

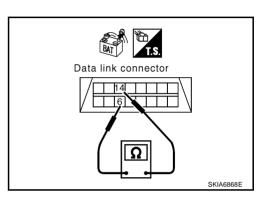
6 (L) - Ground : Continuity should not exist. 14 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 4.

NG >>

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display unit
 - Harness between data link connector and AWD control unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41



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4. CHECK HARNESS FOR SHORT CIRCUIT

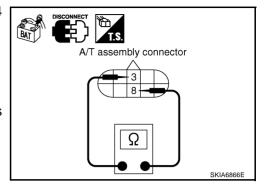
- Disconnect A/T assembly connector.
- Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

OK or NG

OK >> GO TO 5.

NG

>> Repair harness between A/T assembly and harness connector F102.



5. CHECK HARNESS FOR SHORT CIRCUIT

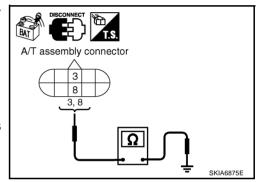
Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

> 3 (L) - Ground : Continuity should not exist. : Continuity should not exist. 8 (R) - Ground

OK or NG

OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.



6. CHECK HARNESS FOR SHORT CIRCUIT

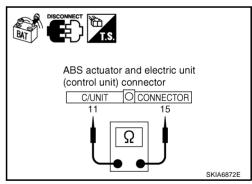
- Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

OK or NG

OK >> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205



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7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist. 15 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205

ABS actuator and electric unit (control unit) connector C/UNIT O CONNECTOR 11,15 SKIA6876E

8. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect harness connector B8.
- 2. Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

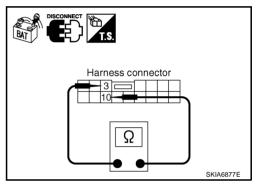
3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 9.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8



9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

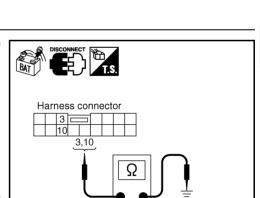
3 (L) - Ground : Continuity should not exist. 10 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 10.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8



10. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

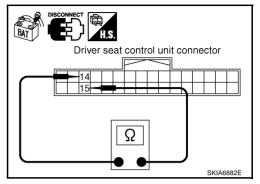
14 (OR) - 15 (SB) : Continuity should not exist.

OK or NG

OK >> GO TO 11.

NG >> Repai

>> Repair harness between driver seat control unit and harness connector B151.



11. CHECK HARNESS FOR SHORT CIRCUIT

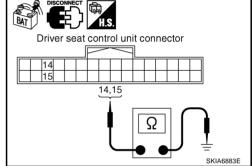
Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

14 (OR) - Ground : Continuity should not exist.15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.

NG >> Repair harness between driver seat control unit and harness connector B151.



12. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect IPDM E/R connector.
- 2. Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

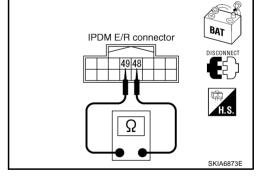
48 (L) - 49 (R) : Continuity should not exist.

OK or NG

NG

OK >> GO TO 13.

>> Repair harness between IPDM E/R and harness connector E205.



13. CHECK HARNESS FOR SHORT CIRCUIT

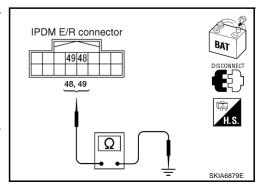
Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.

NG >> Repair harness between IPDM E/R and harness connector E205.



14. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to <u>LAN-205</u>, "ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION" . OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-172, "Work Flow"</u>.

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

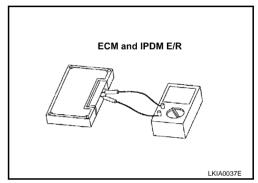
Check the following. If no malfunction is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-12, "IGNITION POWER SUPPLY 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.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



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CAN SYSTEM (TYPE 6)

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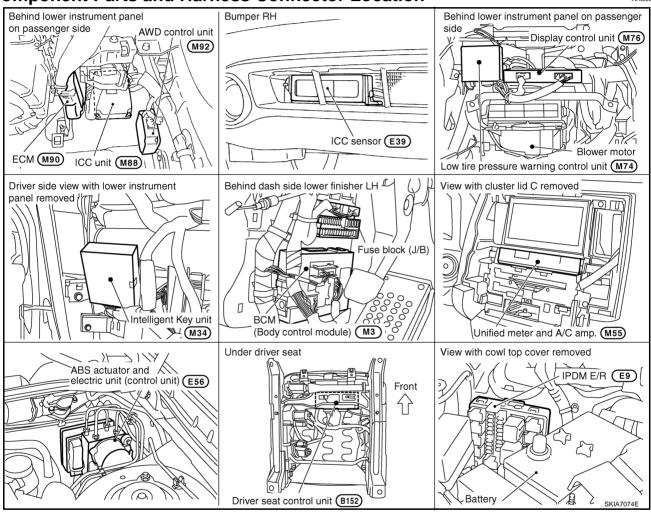
System Description

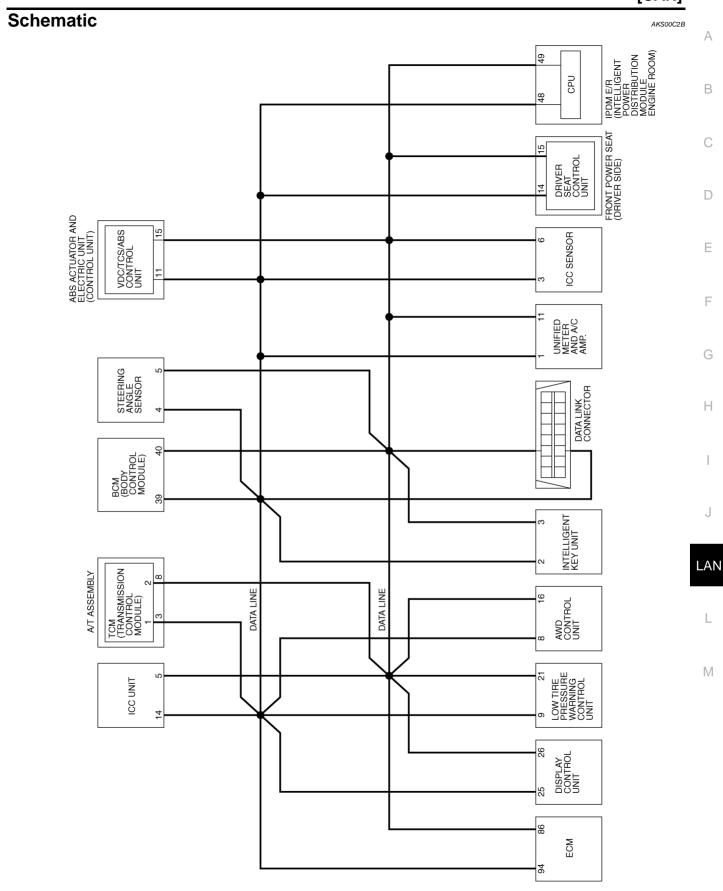
AKS00C29

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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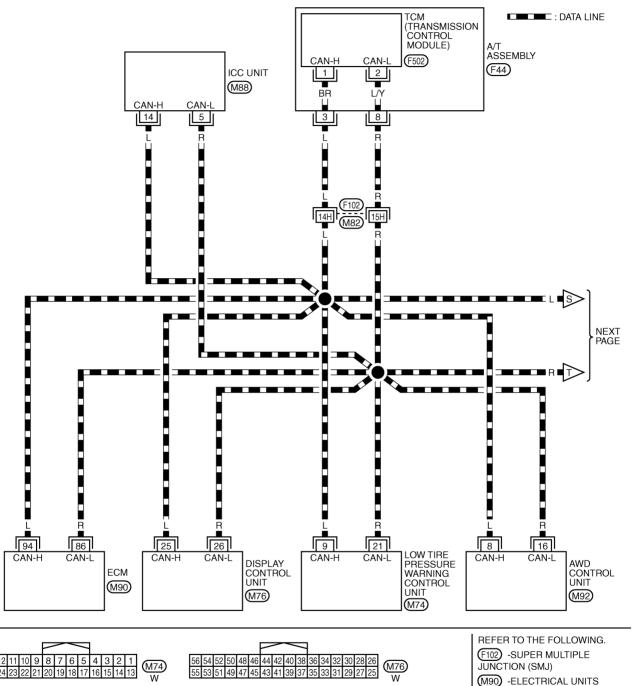


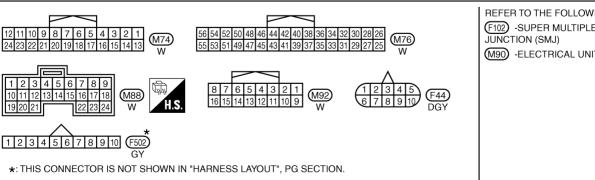
TKWM1300E

Wiring Diagram - CAN -

KS00C2C

LAN-CAN-14

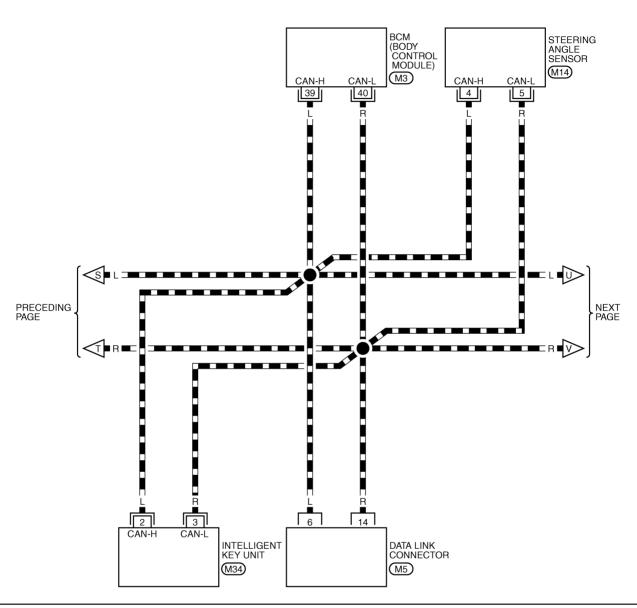


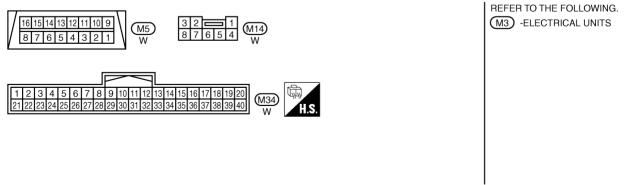


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LAN-CAN-15

: DATA LINE





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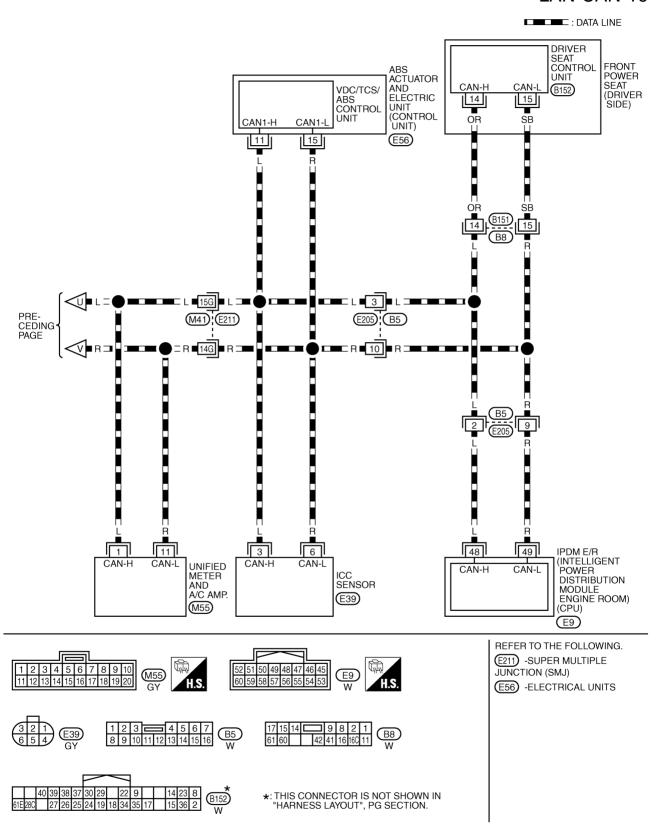
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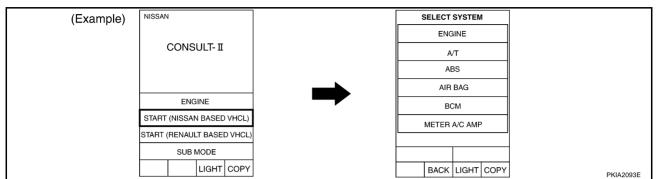
TKWH0252E

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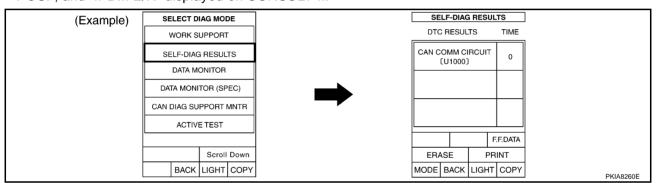
LAN

Work Flow

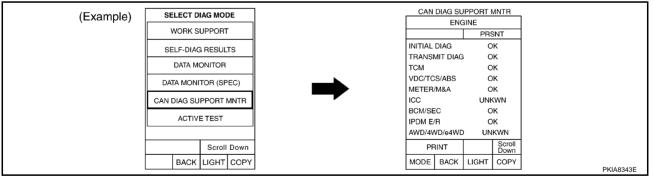
1. When there are no indications of "AIR PRESSURE MONITOR", "INTELLIGENT KEY", "BCM", "METER A/C AMP", "AUTO DRIVE POS." or "IPDM E/R" on "SELECT SYSTEM" display of CONSULT-II, print the "SELECT SYSTEM".



2. Print all the data of "SELF-DIAG RESULTS" for "ENGINE", "A/T", "AIR PRESSURE MONITOR", "ALL MODE AWD/4WD", "ICC", "INTELLIGENT KEY", "BCM", "METER A/C AMP", "ABS", "AUTO DRIVE POS.", and "IPDM E/R" displayed on CONSULT-II.



3. Print all the data of "CAN DIAG SUPPORT MNTR" for "ENGINE", "A/T", "AIR PRESSURE MONITOR", "ALL MODE AWD/4WD", "ICC", "INTELLIGENT KEY", "BCM", "METER A/C AMP", "ABS", "AUTO DRIVE POS.", and "IPDM E/R" displayed on CONSULT-II.



- Attach the printed sheet of "SELECT SYSTEM", "SELF-DIAG RESULTS" and "CAN DIAG SUPPORT MNTR" onto the check sheet. Refer to <u>LAN-213</u>, "CHECK SHEET".
- 5. Based on the indications of "SELECT SYSTEM" and the results of "CAN DIAG SUPPORT MNTR", put marks "v" onto the items with "No indication", "NG", or "UNKWN" in the check sheet table. Refer to LAN-213, "CHECK SHEET".

NOTE

- If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" as "CAN DIAG SUPPORT MNTR" for the diagnosed control unit, replace the control unit.
- The "CAN DIAG SUPPORT MNTR" items, which are not in check sheet table, are not related to diagnostic procedure on service manual.
 So it is not necessary to check the status of "CAN DIAG SUPPORT MNTR" items which are not indicated in check sheet table.
- 6. Check CAN communication line of the navigation system. Refer to <u>AV-158, "CAN Communication Line Check"</u>.

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CAN SYSTEM (TYPE 6)

[CAN]

- 7. Attach the CAN DIAG SUPPORT MONITOR check sheet onto the check sheet. Refer to <u>LAN-213</u>, "CHECK SHEET".
- 8. Mark the "NG" or "UNKWN" item of the check sheet table with "v" from the result of CAN DIAG SUPPORT MONITOR check sheet. Refer to LAN-213, "CHECK SHEET".

NOTE:

- If "NG" is displayed on "CAN COMM" as "CAN DIAG SUPPORT MONITOR" for the diagnosed control unit, replace the control unit. Refer to AV-158, "CAN Communication Line Check".
- 9. According to the check sheet results (example), start inspection. Refer to <u>LAN-216, "CHECK SHEET RESULTS</u> (EXAMPLE)".

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CHECK SHEET

NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit,

ENGINE — NG UNKWN — UNKWN — — — UNKWN	SELECT SYSTEM screen		ble															
Transmit diagnosis Gentle Transmit diagnosis Ecm TCM DISPLEY TIRE-P AWD	Initial diagnosis General Display Tire-P AWD ICC AWD AWD ICC AWD									CAN DIAC								
ATT — NG UNKWN UNKWN — — — — UNKWN — — — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — — CANCIBCS — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — — — UNKWN — — — UNKWN — — — — — — Symptoms :	ATT — NG UNKWN UNKWN — — — — UNKWN — — — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — — CANORC	SELECT SYST		Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P		ICC		всм	STRG				
Attach copy of Atta	Attach copy of Atta	ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWN
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ALL MODE AWD/4WD	ALL MODE AWD/4WD — NG UNKWN UNKWN — — — — — — — — UNKWN — UNKWN — UNKWN — INTELLIGENT KEY No indication — UNKWN UNKWN — — — — — — — UNKWN — UNKWN — UNKWN UNKWN — — — — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — UNKWN — — — — UNKWN — — — — — UNKWN — — — — — — Symptoms :	Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3		_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	_	-	CAN CIRC
CC	CC	AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	1	_	_	_	_	_	_	_	UNKWN	_	_	_
No indication	No indication	ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	-	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
BCM	BCM	ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	UNKWN	_
METER A/C AMP No indication — UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN — — UNKWN — — UNKWN — — — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — UNKWN — — — — Symptoms:	METER A/C AMP No indication — UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN UNKWN — — UNKWN — — UNKWN — — — UNKWN — — — — AUTO DRIVE POS. No indication NG UNKWN UNKWN — UNKWN — — — — UNKWN — UNKWN — UNKWN — — — — — Symptoms:	NTELLIGENT KEY	No indication		UNKWN	_		_	_	_	_	_	UNKWN	_	_	_		_
ABS	ABS	ВСМ	No indication	NG	UNKWN	UNKWN		_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKWN
Attach copy of Attach copy of Attach copy of Attach copy of	Attach copy of Attach copy of Attach copy of Attach copy of	METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
PDM E/R	PDM E/R	ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
Symptoms: Attach copy of Attach copy of	Symptoms: Attach copy of Attach copy of	AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_		_
Symptoms: Attach copy of Attach copy of	Symptoms: Attach copy of Attach copy of	PDM E/R	No indication		UNKWN	UNKWN		_	_	_	_	_	UNKWN	_	_	_		
											Ati SELI	tach cop ECT SY	oy of STEM					

	Attach o display co CAN DIAG SUPPORT N	ntrol unit	
Attach copy of ENGINE SELF-DIAG RESULTS	Attach copy of A/T SELF-DIAG RESULTS	Attach copy of AIR PRESSURE MONITOR SELF-DIAG RESULTS	Attach copy of ALL MODE AWD/4WD SELF-DIAG RESULTS
Attach copy of ICC SELF-DIAG RESULTS	Attach copy of INTELLIGENT KEY SELF-DIAG RESULTS	Attach copy of BCM SELF-DIAG RESULTS	Attach copy of METER A/C AMP SELF-DIAG RESULTS
Attach copy of ABS SELF-DIAG RESULTS	Attach copy of AUTO DRIVE POS. SELF-DIAG RESULTS	Attach copy of IPDM E/R SELF-DIAG RESULTS	

Attach copy of ENGINE CAN DIAG SUPPORT MNTR Attach copy of A/T CAN DIAG SUPPORT MNTR Attach copy of AIR PRESSURE MONITOR CAN DIAG SUPPORT MNTR

Attach copy of ALL MODE AWD/4WD CAN DIAG SUPPORT MNTR

Attach copy of ICC CAN DIAG SUPPORT MNTR

Attach copy of INTELLIGENT KEY CAN DIAG SUPPORT MNTR Attach copy of BCM
CAN DIAG SUPPORT MNTR

Attach copy of METER A/C AMP CAN DIAG SUPPORT MNTR

Attach copy of ABS CAN DIAG SUPPORT MNTR Attach copy of AUTO DRIVE POS. CAN DIAG SUPPORT MNTR

Attach copy of IPDM E/R CAN DIAG SUPPORT MNTR

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Revision: 2004 November LAN-215 2004 FX35/FX45

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CHECK SHEET RESULTS (EXAMPLE)

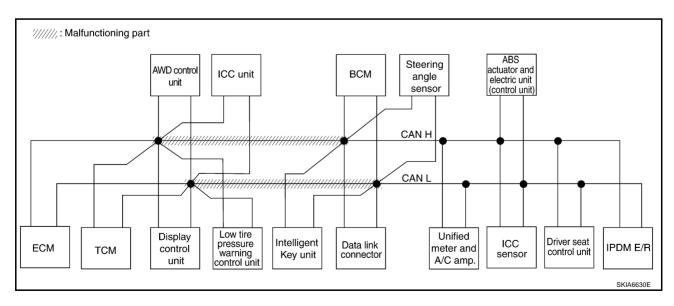
NOTE:

If "NG" is displayed on "INITIAL DIAG (Initial diagnosis)" or "CAN COMM" for the diagnosed control unit, replace the control unit.

Case 1

Check harness between TCM and data link connector. Refer to <u>LAN-237</u>, "Circuit Check Between TCM and Data Link Connector" .

								CAN DIAG	3 SUPPOI	RT MNTR	1					
SELECT SYS	TEM screen	Initial	Transmit						Rece	eive diagr	osis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDI E/F
ENGINE	_	NG	UNKWN	_	UNKWN	-	_	_	UNKWN	_	UNKWN	_	UNIWN	_	UNKWN	UNK
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	1	UNK W N	_	UNK W N	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CANCAC 2	_	CANORC 5	_	_	CANO
AIR PRESSURE MONITOR	No indication	N	UNKWN	_	_	_	_	_	_	_	_	-	UNKWN	_	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	-	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UN I ₩N	-	_	UNK VN	n uk wu	-
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	_	UNKWN	ı	_	_	_	_
всм	No indication	NG	UNKWN	UNK WN	_	_	_	_	_	UNKWN	_	ı	UNKWN	_	_	UNKV
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNK W N	Ω νέγ ΜΝ	UNKWN	UNKWN	UNK WN	UNKWN	UNKWN	_	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNK W N	UNKWN	_	_	nuk wu	_	_	_	UNKWN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNK\\N	_	-	_	_	_	UNKWN	-	UNKWN	_	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_
		-											•			



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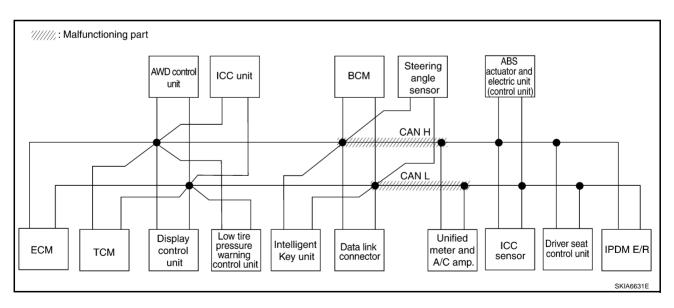
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Case 2

Check harness between data link connector and unified meter and A/C amp. Refer to <u>LAN-238</u>, "Circuit Check <u>Between Data Link Connector and Unified Meter and A/C Amp."</u>.

							(CAN DIAC	3 SUPPOI	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit			ı			Rece	eive diagn	osis			ı		
		diagnosis		ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	1	UNIVN	_	UNKWN	u nk (w
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	-	Ω ΝΚ ₩Ν	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	_	CAN CIRC 6	_	_	ı	CAN CIRC 2	ı	CANCIRC 5	_	_	CANCA
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	-	_	_	_	UNKWN	_	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNK WN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	-	UNKWN	_	_	UNK VN	UNK WN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	_	UNKWN	_	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNION	_	_	UNK/W
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	_	UNK VN	_	_	_	UNIWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN		_	_	_	_



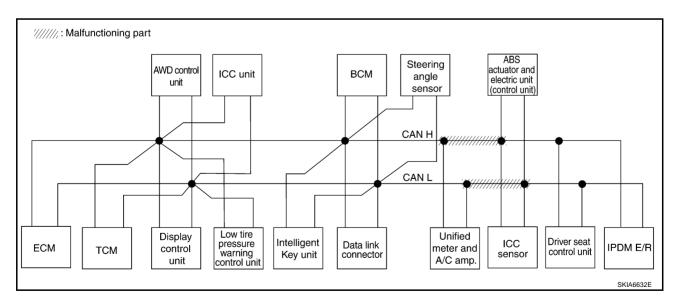
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Case 3

Check harness between unified meter and A/C amp. and ABS actuator and electric unit (control unit). Refer to LAN-238, "Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)".

							(CAN DIAC	3 SUPPO	RT MNTR						
SELECT SYS	ΓEM screen	Initial	Transmit						Rec	eive diagn	osis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDN E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_	UNKWN	-	UNKWN	nwkw
A/T	_	NG	UNKWN	UNKWN	_	_	-	_	UNKWN	_	1	_	UNKWN	ı	υ νκ ⁄γν	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	1	_	CANCA
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	_	UNKWN	-	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNK NN	n uk wu	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	_	UNKWN	_	_	1	_	_
всм	No indication	NG	UNKWN	UNKWN	-	_	ı	1	_	UNKWN	1	_	UNKWN	ı	_	UN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	1	UNKWN	_
ABS	_	NG	UNKWN	n uk wu	UNKWN	_	_	nuk wu	_	_	_	UM WN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_



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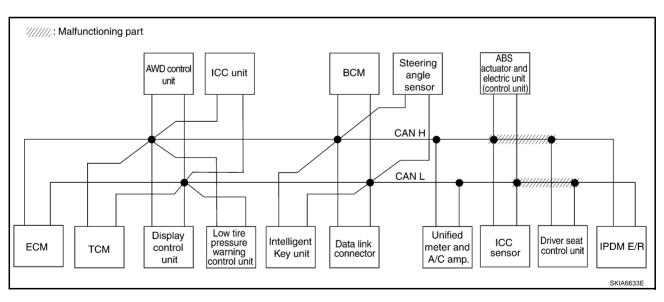
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Case 4

Check harness between ABS actuator and electric unit (control unit) and driver seat control unit. Refer to <u>LAN-239</u>, "Circuit Check Between ABS Actuator and Electric Unit (Control Unit) and Driver Seat Control Unit".

							(CAN DIAC	SUPPO							
SELECT SYST	ΓEM screen	Initial	Transmit					111/5	Rec	eive diagn	osis BCM		METER	ICC	VDC/TCS	IPDM
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	/e4WD	I-KEY	/SEC	STRG		SENSOR	/ABS	E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	nwkw
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	ı	_	CANOR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	ı	ı	_	ı	_	_	1	_	UNKWN	ı	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	1	ı	-	ı	_	_	ı	-	UNKWN	ı	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	1	_	ı	_	ı	UNKWN	1	ı	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	ı	_	-	_	-	UNKWN	-	ı	ı	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	ı	ı	_	ı	_	UNKWN	ı	_	UNKWN	1	_	nukw
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	-	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_		_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	1	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_

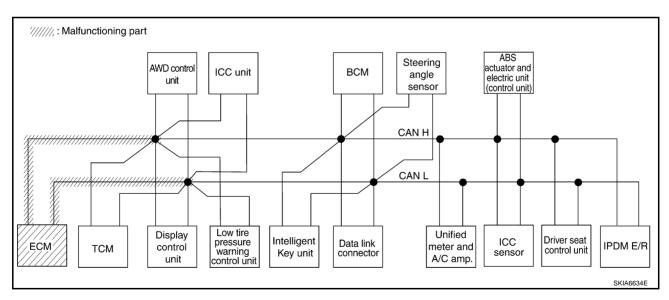


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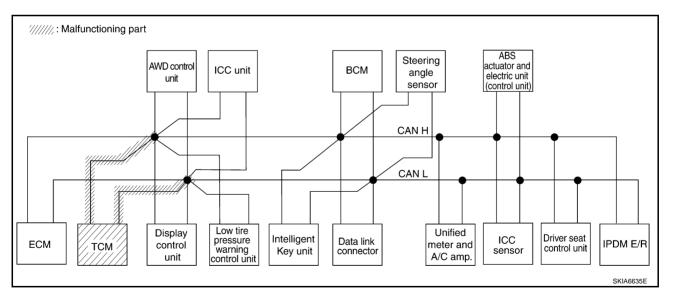
Case 5
Check ECM circuit. Refer to <u>LAN-240, "ECM Circuit Check"</u>.

			1				(CAN DIAC	3 SUPPO							
SELECT SYST	ΓEM screen	Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	eive diagr I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN		UNK WN	_	_	_	UNKWN	_	UNIWN	_	UNK WN		UNKWN	UNK/WI
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	-	UNKWN	-	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CANCAC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	1	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNR WN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNK WN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	_	_	_	_	UNKWN	_	_	-	_	_
ВСМ	No indication	NG	UNKWN	UNK WN	_	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNK WN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	1	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	1	_	_



Case 6
Check TCM circuit. Refer to LAN-240, "TCM Circuit Check".

							(CAN DIAC	SUPPO	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit			1	ı			eive diagn					ı	
		diagnosis	diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	-	UNKWN	-	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKW
A/T	_	NG	Ω ΝΚ ΑΝΙ	UNKWN	_	_	_	-	UNK WN	_	1	-	UNKWN	1	UNK W N	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	ı	_	_	CAN CIRC 2	_	CAN CIRC 5	ı	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı		_	_	ı	_	-	ı	-	UNKWN	ı	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_		_	-	-	_	UNKWN	-	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNAWN	_	_	-	_	-	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	1	_	_	_	_	_	_	UNKWN	-	_	1	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	-	_	_	ı	_	UNKWN	1	-	UNKWN	ı	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	1	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNK/WN	_	_	UNKWN	_	_	-	UNKWN	-	1	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	-	n иk {\w}ν	_	_	_	_	_	UNKWN	_	UNKWN	-	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	-	_	_



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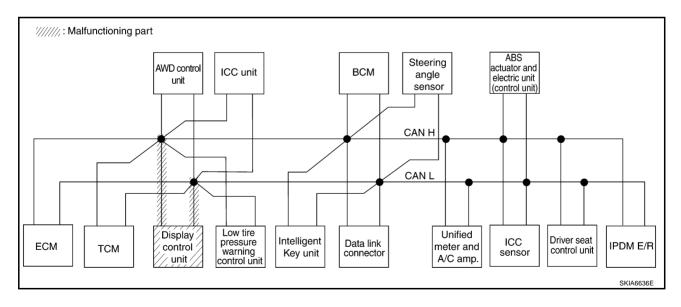
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Case 7
Check display control unit circuit. Refer to <u>LAN-241</u>, "<u>Display Control Unit Circuit Check"</u>.

								CAN DIAC	3 SUPPO	RT MNTR	 					-
SELECT SYST	ΓEM screen	Initial	Transmit			ı	1		Rec	eive diagr	osis	1	1	ı		
		diagnosis		ECM	ТСМ	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKWI
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CANCIAC 1	CANCAC 3	_	_	CANCIAC 6	_	_	_	CANCAC 2	_	CANCAC 5	_	_	CANCAC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	_	UNKWN	_	-	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	_	UNKWN	_	_	_	_	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKWN
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	Ω ΝΑ ΜΝ	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_
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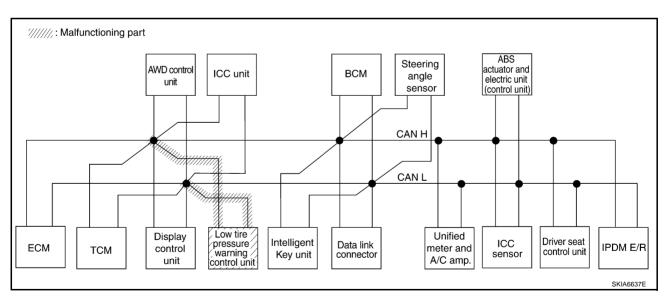
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Case 8

Check low tire pressure warning control unit circuit. Refer to <u>LAN-241</u>, "<u>Low Tire Pressure Warning Control Unit Circuit Check"</u>.

							(CAN DIAG		RT MNTR						
SELECT SYST	ΓEM screen	_Initial _	Transmit						ı	eive diagn			LAFTER	ICC	VDC/TCS	IPDM
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	SENSOR		E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	-	UNKWN	_	UNKWN	1	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	-	_	ı	ı	UNKWN	1	ı	1	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	_	CANCIAC 6	_	_		CAN CIRC 2	1	CAN CIRC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	-	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	_	_	_	_	UNKWN	_	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_

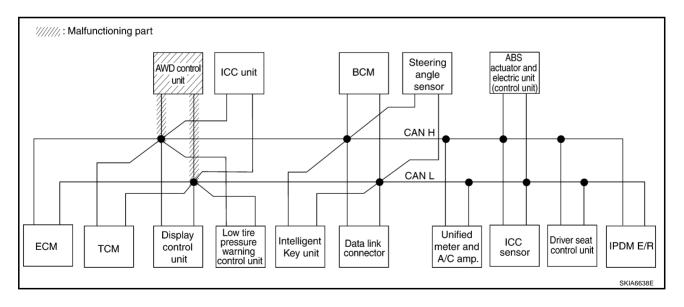


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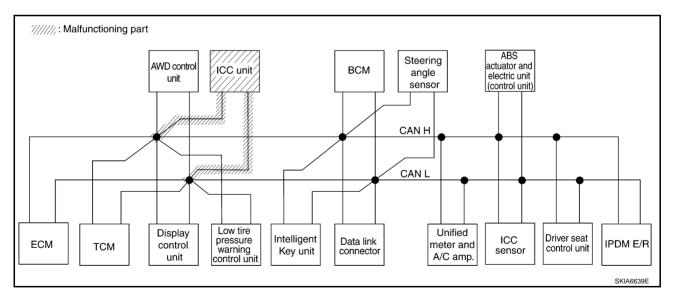
Case 9
Check AWD control unit circuit. Refer to <u>LAN-242</u>, "AWD Control Unit Circuit Check" .

								CAN DIAC	SUPPOI	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit						Rece	eive diagr	osis					
		diagnosis	diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDI E/R
ENGINE	_	NG	UNKWN	-	UNKWN	_	-	_	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	UNKV
A/T	_	NG	UNKWN	UNKWN	_	_	ı	_	UNKWN	_	_	ı	UNKWN	1	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	-	_	CAN CIF
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	-	_	_	_	UNKWN	_	-	_
ALL MODE AWD/4WD	-	NG	n uk wu	UNIWN	_	_	-	_	1	_	_	_	n uk wu	_	UNK V N	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	-	_	1	_	UNKWN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	-	_	1	_	UNKWN	-	_	-	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	1	UNKWN	_	-	UNKWN	_	_	UNKV
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_		UNK WN	1	_	_	UNKWN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	-	_	ı	_	UNKWN	-	UNKWN	-	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	_	-	_	UNKWN		_	-	_	_



Case 10
Check ICC unit circuit. Refer to LAN-242, "ICC Unit Circuit Check".

			ı	-				CAN DIAC	SUPPO							
SELECT SYST	ΓEM screen	Initial	Transmit					AVA/D	Reci ICC	eive diagn	osis BCM		METER	ICC	VDC/TCS	IPDM
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	/e4WD	I-KEY	/SEC	STRG	/M&A	SENSOR		E/R
ENGINE	_	NG	UNKWN	1	UNKWN	_	_	_	UNYWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNK WN	_	-	_	UNKWN	ı	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	ı	_	_	CAN CIRC 2	_	CAN CIRC 5	ı	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	_	_	_	UNKWN	-	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN		UNKWN	-
ICC	_	NG	Ω N WN	∩ /k \w	n uk wu	_	_	_	-	_	Ω ΝΚ ₩Ν	-	_	UNKWN	UNKVN	-
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	_	_	_	_	UNKWN	_	-	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	-	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_		_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	-	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	-	_	_



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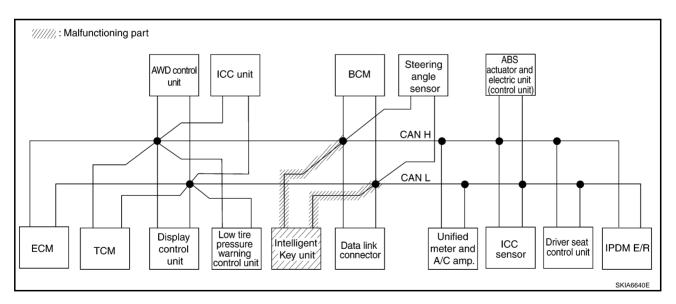
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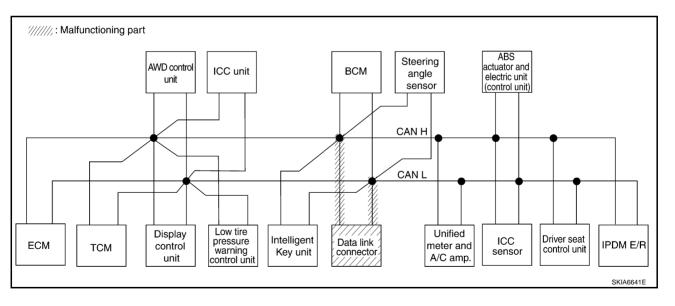
Case 11
Check Intelligent Key unit circuit. Refer to <u>LAN-243</u>, "Intelligent Key Unit Circuit Check".

							(CAN DIAC	3 SUPPOI	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit						Rece	eive diagn	osis					
		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDN E/R
ENGINE	_	NG	UNKWN	_	UNKWN	ı	_	-	UNKWN	ı	UNKWN	-	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	1	-	-	-	UNKWN	ı	_	-	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	l	CAN CIRC 6	ı	_	1	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	ı	ı	ı	_	ı	_	ı	_	-	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	1	_	_	_	_	-	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	_	-	_	_	_	UNKWN	_	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNK WN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_



Case 12
Check data link connector circuit. Refer to LAN-243, "Data Link Connector Circuit Check".

							(CAN DIAC	SUPPO							
SELECT SYST	TEM screen	.Initial .	Transmit							eive diagn			METER	ICC	VDC/TCS	IPDM
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	SENSOR	/ABS	E/R
ENGINE	_	NG	UNKWN	ı	UNKWN	ı	_	ı	UNKWN	ı	UNKWN	ı	UNKWN	1	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	-	-	_	_	UNKWN	-	-	ı	UNKWN	ı	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	ı	l	CAN CIRC 6	ı	_	1	CAN CIRC 2	ı	CAN CIRC 5	ı	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	_	_	-	UNKWN	-	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	-	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	-
INTELLIGENT KEY	No indication	_	UNKWN	1	-	_	-	_	_	_	UNKWN	-	-	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	-	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	-	_	_



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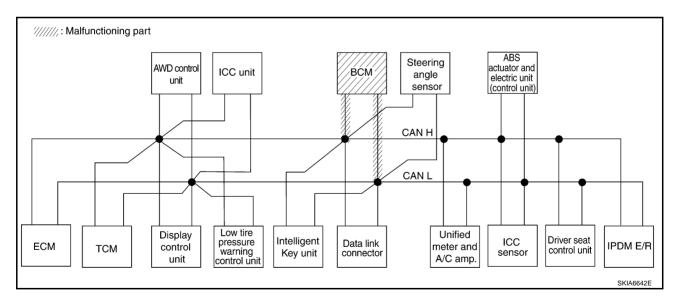
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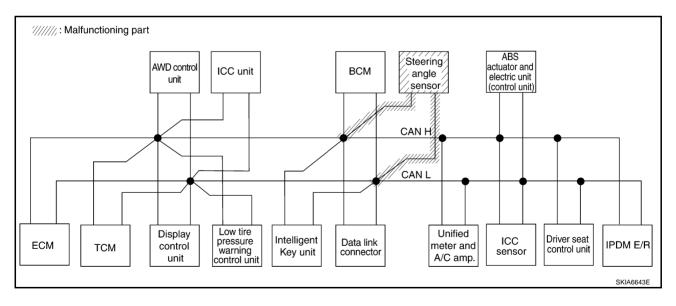
Case 13
Check BCM circuit. Refer to <u>LAN-244, "BCM Circuit Check"</u>.

							(CAN DIAC	SUPPOI							
SELECT SYST	ΓEM screen	Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	eive diagr I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN		UNKWN	_	_	_	UNKWN	_	UNKWN	_	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	-	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	-	_	CANCIAC 2	_	CAN CIRC 5	1	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ALL MODE AWD/4WD	-	NG	UNKWN	UNKWN	_	_	_	_	-	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNK WN	_	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	_	_	_	_	_	UNKWN	_	_	-	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNK W N	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	-	_	_	_	_	UNK WN	_	UNKWN	-	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNK WN	_	_	1	_	_



Case 14
Check steering angle sensor circuit. Refer to <u>LAN-244</u>, "Steering Angle Sensor Circuit Check".

							(CAN DIAC	SUPPO							
SELECT SYST	ΓEM screen	Initial	Transmit							eive diagn				100	уро тоо	LIDDA
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	1	UNKWN	I	ı	ı	UNKWN	ĺ	UNKWN	ı	UNKWN	1	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	ı	-	_	-	UNKWN	ı	ı	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	-	_	_	_	_	-	_	-	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	-	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	_	_	_	_	_	UNKWN	-	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	_		UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNK/VN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_



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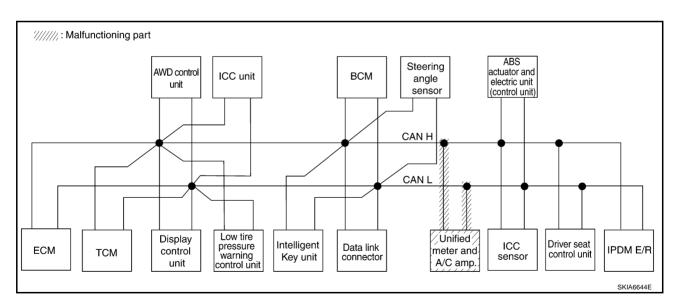
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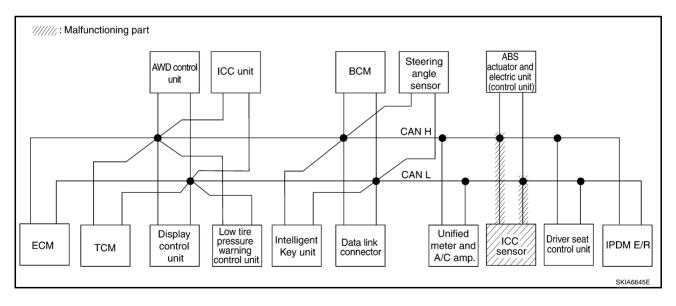
Case 15
Check unified meter and A/C amp. circuit. Refer to LAN-245, "Unified Meter and A/C Amp. Circuit Check".

							(CAN DIAC	SUPPO							
SELECT SYST	ΓEM screen	Initial	Transmit							eive diagn			l			
		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDN E/R
ENGINE	_	NG	UNKWN	-	UNKWN	_	_	ı	UNKWN	ı	UNKWN	ı	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	1	_	_	-	UNKWN	ı	ı	ı	UNK N N	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	l	-	CAN CIRC 6	ı	_	ı	CAN CIRC 2	ı	CANCIAC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	-	_	-	UNK WN	_	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	-	UNK WN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	-
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	-	_	_	_	UNKWN	-	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	-
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	-	_	-
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_



Case 16
Check ICC sensor circuit. Refer to LAN-245, "ICC Sensor Circuit Check".

							(CAN DIAC	SUPPO							
SELECT SYST	TEM screen	Initial	Transmit					NA/D	Rece ICC	eive diagn	osis BCM		METER	ICC	VDC/TCS	IPDM
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	/e4WD	I-KEY	/SEC	STRG		SENSOR	/ABS	E/R
ENGINE	_	NG	UNKWN	ı	UNKWN	ı	_	-	UNKWN	ı	UNKWN	ı	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	-	-	_	_	UNKWN	-	-	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 6	_	_	-	CAN CIRC 2	-	CAN CIRC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	_	_	_	-	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	-	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	_	_	_	_	_	UNKWN	-	_	_	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	-	_	_	UNKWN	_		UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	1	UNKWN	_	_	_	_	_	UNKWN	-	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_



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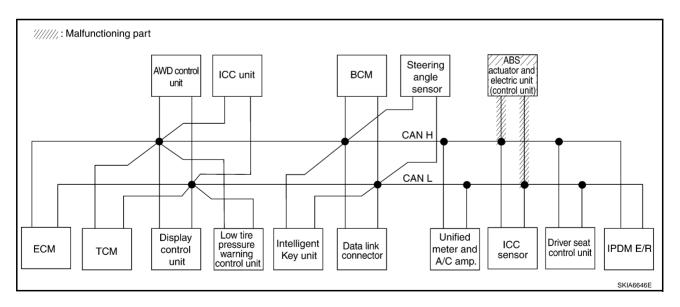
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Case 17

Check ABS actuator and electric unit (control unit) circuit. Refer to <u>LAN-246</u>, "ABS Actuator and Electric Unit (Control Unit) Circuit Check".

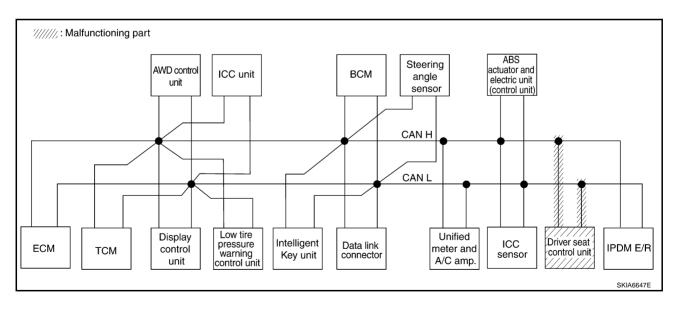
							(CAN DIAC	3 SUPPOI	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit							eive diagn			I	100		T
		diagnosis	diagnosis	ECM	TCM	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	ı	UNKWN	_	_	-	UNKWN	_	UNKWN	_	UNKWN	ı	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	ı	_	_	1	UNKWN	_	ı	_	UNKWN	ı	UNK W N	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	1	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	-	_	_	_	_	-	_	_	_	UNKWN	-	_	-
ALL MODE AWD/4WD	-	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	UNK WN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	_	_	_	_	_	_	UNKWN	_	_	-	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	_	UNKWN	_	_	UNKW
METER A/C AMP	No indication	-	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	-	UNK WN	-
ABS	_	NG	UNKWN	UNK W N	UNKWN	_	_	UNKVN	_	_	_	UNKVN	_		_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	1	_	_



Case 18

Check driver seat control unit circuit. Refer to LAN-246, "Driver Seat Control Unit Circuit Check".

							(CAN DIAC	3 SUPPOI	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit						Rece	eive diagn	osis		ı			
		diagnosis	diagnosis	ECM	ТСМ	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDN E/R
ENGINE	_	NG	UNKWN	_	UNKWN	ı	_	-	UNKWN	ı	UNKWN	ı	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNKWN	UNKWN	1	-	-	-	UNKWN	ı	1	ı	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	l	CAN CIRC 6	ı	_	1	CAN CIRC 2	ı	CAN CIRC 5	_	_	CAN CIR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	ı	ı	_	ı	_	ı	ı	ı	UNKWN	_	_	-
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	1	_	_	_	_	-	_	-	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	ı	-	-	_	ı	UNKWN	1	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	1	-	_	_	_	1	UNKWN	1	_	_	_	_
всм	No indication	NG	UNKWN	UNKWN	ı	I	_	ı	_	UNKWN	1	ı	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	_	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	-	UNKWN	_	_	_	_	_	UNKWN		UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_



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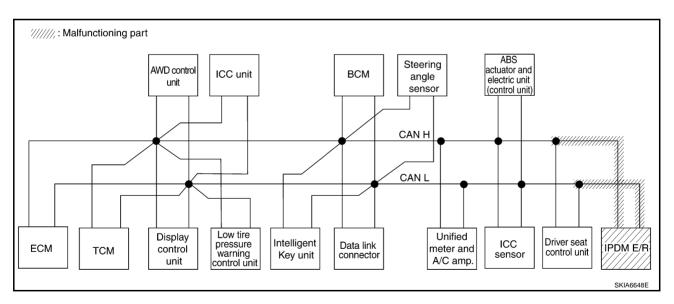
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Case 19
Check IPDM E/R circuit. Refer to LAN-247, "IPDM E/R Circuit Check".

							(CAN DIAC	3 SUPPO	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit				1		Rec	eive diagn			ı	ı	1	
		diagnosis	diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDN E/R
ENGINE	_	NG	UNKWN	1	UNKWN	I	_	ı	UNKWN	_	UNKWN	ı	UNKWN	_	UNKWN	UNIM
A/T	_	NG	UNKWN	UNKWN	-	-	_	_	UNKWN	_	-	_	UNKWN	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	-	-	CAN CIRC 6	_	_	_	CAN CIRC 2	_	CAN CIRC 5	_	_	CANOR
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	_	_	_	_	_	UNKWN	_	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	UNKWN	_	_	_	_	_	UNKWN	-	_	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	-	-	_	_	_	_	_	UNKWN	_	_	_	_	_
всм	No indication	NG	UNKWN	UNKWN	-		_	-	_	UNKWN	_	_	UNKWN	_	_	UNK
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	_	_	_	_	_



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Case 20

Check CAN communication circuit. Refer to <u>LAN-248</u>, "CAN Communication Circuit Check".

								CAN DIAC	SUPPO	RT MNTR						
SELECT SYST	ΓEM screen	Initial	Transmit						Rec	eive diagn	osis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNAWN	_	UNKWN	_	_	_	UNWWN	_	UNYWN	-	UNKWN	_	UNKWN	UNKW
A/T	_	NG	UNK WN	UNWWN	_	_	_	_	UNKWN	_	-	-	UNK N N	_	UNK N N	_
Display control unit	_	CAN COMM	CANORC 1	CANORC 3	_	_	CANORC 6	_	1	_	CANORC 2	-	CANORC 5	_	_	CANORO
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_		_	_	ı	ı	_	ı	l	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNK WN	Π ΜΑ ΜΝ	_	_	_		ı	_	-	ı	UNKWN	_	NNR WN	_
ICC	_	NG	UNK W N	nuk w u	UNK W N	_	_	_	-	_	UNKWN	-	_	UN K ₩N	n uk wu	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	1	_	UNKWN	-	_	_	_	_
BCM	No indication	NG	UNKWN	UNKWN	-	_	_	ı	I	UNKWN	1	ı	UNKWN	_	_	UNKW
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	1	_	_	UNKWN	_
ABS	_	NG	n uk wu	UNK W N	UNK WN	_	_	Π ΜΑ ΜΝ	-	_	_	UNK\\\	_	_	_	-
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	_	_	-	_	UNKWN	1	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	-	_	_	_	UNKWN	-	_	_	_	_

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Case 21

Check IPDM E/R ignition relay circuit continuously sticks "OFF". Refer to $\underline{\text{LAN-253, "IPDM E/R Ignition Relay Circuit Check"}}$.

								CAN DIAC	3 SUPPOI	RT MNTR						
SELECT SYST	TEM screen	Initial	Transmit						Rece	eive diagn	osis					
		diagnosis		ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	I-KEY	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	Ω ΝΚ ₩Ν	_	_	_	UNKWN	_	UNKWN	-	UNKWN	1	UNK WN	UNKW
A/T	_	NG	UNKWN	UNKWN	_	_	_	_	UNKWN	_	_	1	UNKWN	-	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	ı	CAN CIRC 5	ı	_	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	ı	_	_	1	ı	UNKWN	ı	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	_	_	ı	_	_	ı	ı	UNKWN	ı	UNKWN	_
ICC	_	NG	UNKWN	UNKWN	n ικ ₩и	_	_	_	_	_	UNKWN	-	_	UNKWN	UNK VN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	_	_	_	_	_	UNKWN	1	1	1	_	_
всм	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	-	_	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	UNKWN	UNKWN	_	_	UNKWN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	-	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_

Case 22

Check IPDM E/R ignition relay circuit continuously sticks "ON". Refer to LAN-253, "IPDM E/R Ignition Relay Circuit Check" .

			I				(CAN DIAG	SUPPOR							
SELECT SYST	EM screen	Initial diagnosis	Transmit diagnosis	ECM	тсм	DISPLAY	TIRE-P	AWD /4WD	ICC /e4WD	eive diagn	BCM /SEC	STRG	METER /M&A	ICC SENSOR	VDC/TCS /ABS	IPDM E/R
ENGINE	_	NG	UNKWN	_	UNKWN	_	_	_	UNKWN	_	UNKWN	-	UNKWN	_	UNKWN	UNKWN
A/T	_	NG	UNKWN	UNAMN	_	-	_	_	UNKWN	_	_	_	UNK W N	_	UNKWN	_
Display control unit	_	CAN COMM	CAN CIRC 1	CAN CIRC 3	_	_	CAN CIRC 6	_	_	_	CAN CIRC 2	-	CAN CIRC 5	_	-	CAN CIRC
AIR PRESSURE MONITOR	No indication	NG	UNKWN	_	_	_	_	_	_	_	_	_	UNKWN	_	_	_
ALL MODE AWD/4WD	_	NG	UNKWN	UNKWN	_	-	_	_	-	_	-	-	UNKWN	_	UNKWN	_
ICC	1	NG	UNKWN	UNKWN	UNKWN	1	_	ı	_	ı	UNKWN	1	ı	UNKWN	UNKWN	_
INTELLIGENT KEY	No indication	_	UNKWN	_	_	-	_	_	_	-	UNKWN	1	1	-	_	_
ВСМ	No indication	NG	UNKWN	UNKWN	_	_	_	_	_	UNKWN	_	-	UNKWN	_	_	UNKWI
METER A/C AMP	No indication	_	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	UNKWN	-	_	_	UNKWN	_
ABS	_	NG	UNKWN	Ω ΝΚ∕ ΝΝ	UNKWN	_	_	UMA MN	_	_	_	UNKWN	_	_	_	_
AUTO DRIVE POS.	No indication	NG	UNKWN	_	UNKWN	_	-	_	_	_	UNKWN	_	UNKWN	_	_	_
IPDM E/R	No indication	_	UNKWN	UNKWN	_	_	_	_	_	_	UNKWN	-	_	_	_	_

Circuit Check Between TCM and Data Link Connector

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1. CHECK HARNESS FOR OPEN CIRCUIT

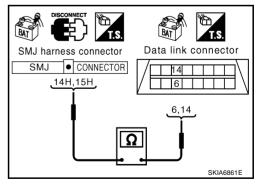
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and harness connector M82.
- Check continuity between harness connector M82 terminals 14H (L), 15H (R) and data link connector M5 terminals 6 (L), 14 (R).

14H (L) - 6 (L) : Continuity should exist. 15H (R) - 14 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-211, "Work Flow" .

NG >> Repair harness.



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Circuit Check Between Data Link Connector and Unified Meter and A/C Amp.

1. CHECK HARNESS FOR OPEN CIRCUIT

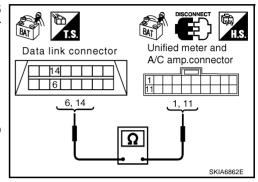
- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Disconnect ECM connector and unified meter and A/C amp. connector.
- Check continuity between data link connector M5 terminals 6 (L), 14 (R) and unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R).

6 (L) - 1 (L) : Continuity should exist. 14 (R) - 11 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-211, "Work Flow" .

NG >> Repair harness.



Circuit Check Between Unified Meter and A/C Amp. and ABS Actuator and Electric Unit (Control Unit)

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector M41
- Harness connector E211

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

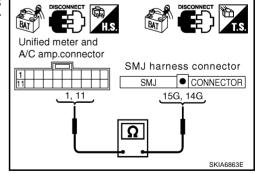
2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect unified meter and A/C amp. connector and harness connector M41.
- Check continuity between unified meter and A/C amp. harness connector M55 terminals 1 (L), 11 (R) and harness connector M41 terminals 15G (L), 14G (R).

1 (L) - 15G (L) : Continuity should exist. 11 (R) - 14G (R) : Continuity should exist.

OK or NG

OK >> GO TO 3. NG >> Repair harness.



3. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check continuity between harness connector E211 terminals 15G (L), 14G (R) and ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R).

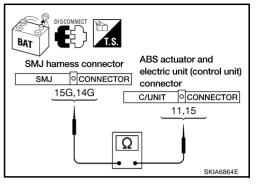
15G (L) - 11 (L) 14G (R) - 15 (R) : Continuity should exist.

: Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-211. "Work Flow".

NG >> Repair harness.



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

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector and harness connector E205.
- Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and harness connector E205 terminals 3 (L), 10 (R).

11 (L) - 3 (L)

: Continuity should exist.

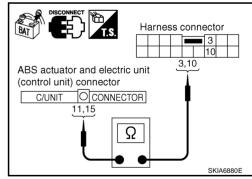
15 (R) - 10 (R)

: Continuity should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair harness.



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$\overline{3}$. Check harness for open circuit

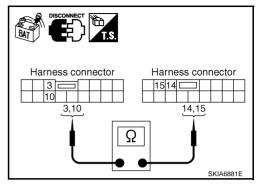
- 1. Disconnect harness connector B8.
- 2. Check continuity between harness connector B5 terminals 3 (L), 10 (R) and harness connector B8 terminals 14 (L), 15 (R).

3 (L) - 14 (L) : Continuity should exist. 10 (R) - 15 (R) : Continuity should exist.

OK or NG

OK >> Connect all the connectors and diagnose again. Refer to LAN-211, "Work Flow".

NG >> Repair harness.



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ECM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ECM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

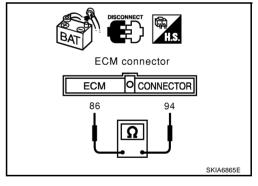
- 1. Disconnect ECM connector.
- 2. Check resistance between ECM harness connector M90 terminals 94 (L) and 86 (R).

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

OK or NG

OK >> Replace ECM.
NG >> Repair harnes

>> Repair harness between ECM and harness connector M82.



AKS00C2J

TCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- A/T assembly connector
- Harness connector F102
- Harness connector M82

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

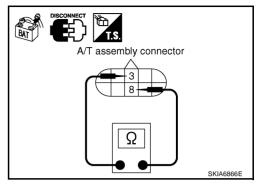
- Disconnect A/T assembly connector.
- 2. Check resistance between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace control valve with TCM.

NG >> Repair harness between A/T assembly and display control unit.



Display Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of display control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

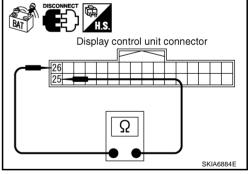
- 1. Disconnect display control unit connector.
- Check resistance between display control unit harness connector M76 terminals 25 (L) and 26 (R).

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

OK or NG

OK >> Replace display control unit. NG

>> Repair harness between display control unit and harness connector M82.



Low Tire Pressure Warning Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of low tire pressure warning control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect low tire pressure warning control unit connector.
- 2. Check resistance between low tire pressure warning control unit harness connector M74 terminals 9 (L) and 21 (R).

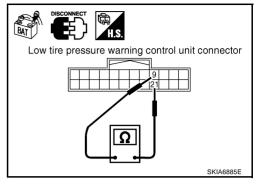
9 (L) - 21 (R) : Approx.
$$54 - 66\Omega$$

OK or NG

OK >> Replace low tire pressure warning control unit.

NG

>> Repair harness between low tire pressure warning control unit and harness connector M82.



AKS00C2M

AWD Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of AWD control unit for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect AWD control unit connector.
- Check resistance between AWD control unit harness connector M92 terminals 8 (L) and 16 (R).

8 (L) - 16 (R) : Approx. 54 -
$$66\Omega$$

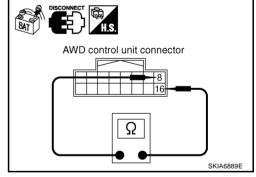
OK or NG

OK >:

>> Replace AWD control unit.

NG

>> Repair harness between AWD control unit and harness connector M82.



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ICC Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of ICC unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

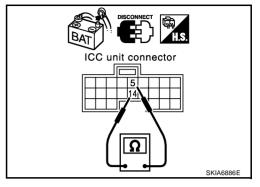
- 1. Disconnect ICC unit connector.
- Check resistance between ICC unit harness connector M88 terminals 14 (L) and 5 (R).

14 (L) - 5 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace ICC unit.

NG >> Repair harness between ICC unit and harness connector M82.



Intelligent Key Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of Intelligent Key unit for damage, bend and loose connection (unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

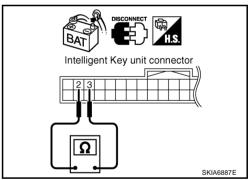
- 1. Disconnect Intelligent Key unit connector.
- Check resistance between Intelligent Key unit harness connector M34 terminals 2 (L) and 3 (R).

2 (L) - 3 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace Intelligent Key unit.

NG >> Repair harness between Intelligent Key unit and data link connector.



Data Link Connector Circuit Check

1. CHECK CONNECTOR

- Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check data link connector and terminals for damage, bend and loose connection (connector side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR OPEN CIRCUIT

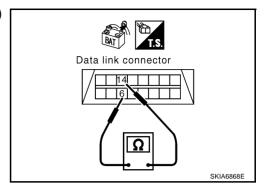
Check resistance between data link connector M5 terminals 6 (L) and 14 (R).

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

OK or NG

OK >> Diagnose again. Refer to LAN-211, "Work Flow".

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



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BCM Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of BCM for damage, bend and loose connection (control module side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

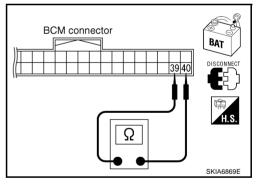
- Disconnect BCM connector.
- 2. Check resistance between BCM harness connector M3 terminals 39 (L) and 40 (R).

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

OK or NG

OK >> Replace BCM. Refer to BCS-15, "Removal and Installation of BCM" .

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



AKS00C2R

Steering Angle Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check terminals and connector of steering angle sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

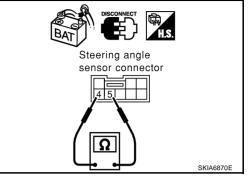
- 1. Disconnect steering angle sensor connector.
- 2. Check resistance between steering angle sensor harness connector M14 terminals 4 (L) and 5 (R).

4 (L) - 5 (R) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace steering angle sensor.

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



Unified Meter and A/C Amp. Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of unified meter and A/C amp. for damage, bend and loose connection (meter side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

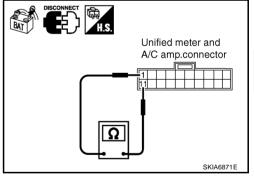
- 1. Disconnect unified meter and A/C amp. connector.
- Check resistance between unified meter and A/C amp. harness connector M55 terminals 1 (L) and 11 (R).

1 (L) - 11 (R) : 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. and harness connector M41.



ICC Sensor Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check terminals and connector of ICC sensor for damage, bend and loose connection (sensor side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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$\overline{2}$. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ICC sensor connector.
- 2. Check resistance between ICC sensor harness connector E39 terminals 3 (L) and 6 (R).

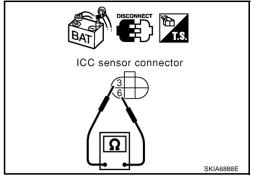
3 (L) - 6 (R) : Approx. 54 -
$$66\Omega$$

OK or NG

OK >> Replace ICC sensor.

NG

>> Repair harness between ICC sensor and ABS actuator and electric unit (control unit).



ABS Actuator and Electric Unit (Control Unit) Circuit Check

AKS00C2U

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check terminals and connector of ABS actuator and electric unit (control unit) for damage, bend and loose connection (control unit side and harness side).

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect ABS actuator and electric unit (control unit) connector.
- 2. Check resistance between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

11 (L) - 15 (R) : Approx. 54 -
$$66\Omega$$

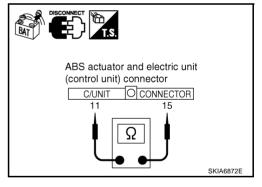
OK or NG

OK

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

NG

>> Repair harness between ABS actuator and electric unit (control unit) and ICC sensor.



AKS00C2V

Driver Seat Control Unit Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control unit side and harness side).
- Driver seat control unit connector
- Harness connector B151
- Harness connector B8

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

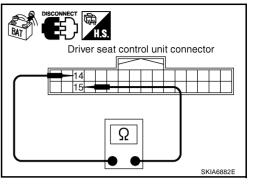
- 1. Disconnect driver seat control unit connector.
- Check resistance between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

14 (OR) - 15 (SB) : Approx. **54 - 66**
$$\Omega$$

OK or NG

OK >> Replace driver seat control unit.

NG >> Repair harness between driver seat control unit and harness connector B5.



AKS00C2W

IPDM E/R Circuit Check

1. CHECK CONNECTOR

- 1. Turn ignition switch OFF.
- Disconnect the negative battery terminal.
- Check following terminals and connectors for damage, bend and loose connection (control module side and harness side).
- IPDM E/R connector
- Harness connector E205
- Harness connector B5

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

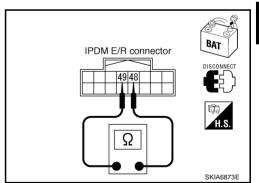
- 1. Disconnect IPDM E/R connector.
- Check resistance between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

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

OK or NG

OK >> Replace IPDM E/R.

NG >> Repair harness between IPDM E/R and harness connector B8.



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CAN SYSTEM (TYPE 6)

[CAN]

CAN Communication Circuit Check

1. CHECK CONNECTOR

AKS00C2X

- 1. Turn ignition switch OFF.
- 2. Disconnect the negative battery terminal.
- 3. Check following terminals and connectors for damage, bend and loose connection (control module side, control unit side, unit side, sensor side, meter side and harness side).
- ECM
- A/T assembly
- Display control unit
- AWD control unit
- Low tire pressure warning control unit
- ICC unit
- Intelligent Key unit
- BCM
- Steering angle sensor
- Unified meter and A/C amp.
- ICC sensor
- ABS actuator and electric unit (control unit)
- Driver seat control unit
- IPDM E/R
- Between ECM and IPDM E/R
- Between ECM and A/T assembly

OK or NG

OK >> GO TO 2.

NG >> Repair terminal or connector.

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2. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect following connectors.
- ECM connector
- Harness connector M82
- Display control unit connector
- Low tire pressure warning control unit connector
- AWD control unit connector
- ICC unit connector
- Intelligent Key unit connector
- BCM connector
- Steering angle sensor connector
- Unified meter and A/C amp. connector
- Harness connector M41
- 2. Check continuity between data link connector M5 terminals 6 (L) and 14 (R).

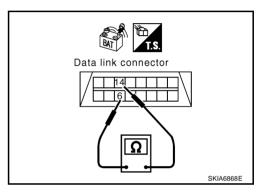
6 (L) - 14 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Check the

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display control unit
 - Harness between data link connector and low tire pressure warning control unit
 - Harness between data link connector and AWD control unit
 - Harness between data link connector and ICC unit
 - Harness between data link connector and Intelligent Key unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41



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3. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between data link connector M5 terminals 6 (L), 14 (R) and ground.

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

OK or NG

OK >> GO TO 4.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between data link connector and ECM
 - Harness between data link connector and harness connector M82
 - Harness between data link connector and display control unit
 - Harness between data link connector and low tire pressure warning control unit
 - Harness between data link connector and AWD control unit
 - Harness between data link connector and ICC unit
 - Harness between data link connector and Intelligent Key unit
 - Harness between data link connector and BCM
 - Harness between data link connector and steering angle sensor
 - Harness between data link connector and unified meter and A/C amp.
 - Harness between data link connector and harness connector M41

4. CHECK HARNESS FOR SHORT CIRCUIT

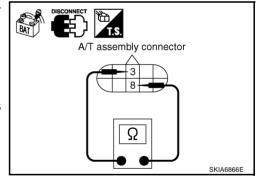
- 1. Disconnect A/T assembly connector.
- 2. Check continuity between A/T assembly harness connector F44 terminals 3 (L) and 8 (R).

3 (L) - 8 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 5.

NG >> Repair harness between A/T assembly and harness connector F102.



Data link connector

14

6, 14,

5. CHECK HARNESS FOR SHORT CIRCUIT

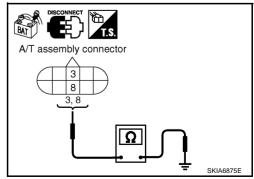
Check continuity between A/T assembly harness connector F44 terminals 3 (L), 8 (R) and ground.

3 (L) - Ground : Continuity should not exist.8 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 6.

NG >> Repair harness between A/T assembly and harness connector F102.



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6. CHECK HARNESS FOR SHORT CIRCUIT

- Disconnect ABS actuator and electric unit (control unit) connector, ICC sensor connector and harness connector E205.
- 2. Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L) and 15 (R).

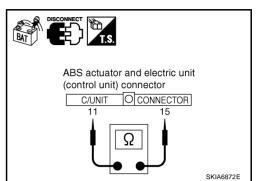
11 (L) - 15 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 7.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205
 - Harness between ABS actuator and electric unit (control unit) and ICC sensor



7. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between ABS actuator and electric unit (control unit) harness connector E56 terminals 11 (L), 15 (R) and ground.

11 (L) - Ground : Continuity should not exist. 15 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 8.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between ABS actuator and electric unit (control unit) and harness connector E211
 - Harness between ABS actuator and electric unit (control unit) and harness connector E205
 - Harness between ABS actuator and electric unit (control unit) and ICC sensor

8. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect harness connector B8.
- Check continuity between harness connector B5 terminals 3 (L) and 10 (R).

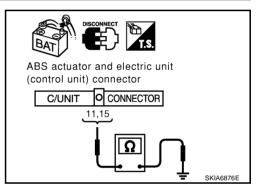
3 (L) - 10 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 9.

NG >> Check th

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8



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9. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between harness connector B5 terminals 3 (L), 10 (R) and ground.

3 (L) - Ground : Continuity should not exist.10 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 10.

NG

- >> Check the following harnesses. If any harness is damaged, repair the harness.
 - Harness between harness connector B5 and harness connector B5
 - Harness between harness connector B5 and harness connector B8

10. CHECK HARNESS FOR SHORT CIRCUIT

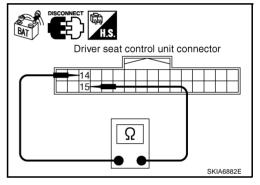
- 1. Disconnect driver seat control unit connector.
- 2. Check continuity between driver seat control unit harness connector B152 terminals 14 (OR) and 15 (SB).

OK or NG

OK >> GO TO 11.

NG

>> Repair harness between driver seat control unit and harness connector B151.



Harness connector

3,10

10

11. CHECK HARNESS FOR SHORT CIRCUIT

Check continuity between driver seat control unit harness connector B152 terminals 14 (OR), 15 (SB) and ground.

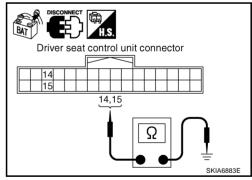
14 (OR) - Ground : Continuity should not exist. 15 (SB) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 12.

NG >> Repair ha

>> Repair harness between driver seat control unit and harness connector B151.



12. CHECK HARNESS FOR SHORT CIRCUIT

- 1. Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector E9 terminals 48 (L) and 49 (R).

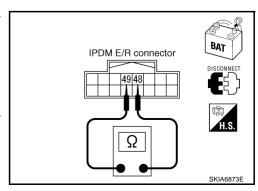
48 (L) - 49 (R) : Continuity should not exist.

OK or NG

OK >> GO TO 13.

NG >> Repair harr

>> Repair harness between IPDM E/R and harness connector E205.



13. CHECK HARNESS FOR SHORT CIRCUIT

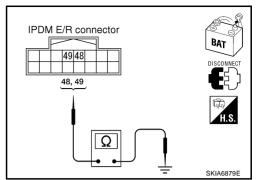
Check continuity between IPDM E/R harness connector E9 terminals 48 (L), 49 (R) and ground.

48 (L) - Ground : Continuity should not exist. 49 (R) - Ground : Continuity should not exist.

OK or NG

OK >> GO TO 14.

NG >> Repair harness between IPDM E/R and harness connector E205.



14. ECM/IPDM E/R INTERNAL CIRCUIT INSPECTION

Check components inspection. Refer to $\underline{\sf LAN-253},\,"{\sf ECM/IPDM}\;{\sf E/R}\;{\sf INTERNAL}\;{\sf CIRCUIT}\;{\sf INSPECTION"}$. OK or NG

OK >> Connect all the connectors and diagnose again. Refer to <u>LAN-211</u>, "Work Flow".

NG >> Replace ECM and/or IPDM E/R.

IPDM E/R Ignition Relay Circuit Check

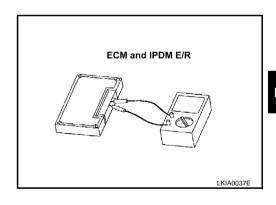
Check the following. If no malfunction is found, replace the IPDM E/R.

- IPDM E/R power supply circuit. Refer to PG-28, "IPDM E/R Power/Ground Circuit Inspection".
- Ignition power supply circuit. Refer to <u>PG-12, "IGNITION POWER SUPPLY IGNITION SW. IN "ON"</u> 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.
- Check resistance between IPDM E/R terminals 48 and 49.

Unit	Terminal	Resistance value (Ω) (Approx.)
ECM	94 - 86	108 - 132
IPDM E/R	48 - 49	100 - 132



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