LAN SECTION В LAN SYSTEM c

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< PRECAUTION > PRECAUTION А PRECAUTIONS **Precautions for Trouble Diagnosis** INFOID:000000011464647 В **CAUTION:** • Never apply 7.0 V or more to the measurement terminal. • Use a tester with open terminal voltage of 7.0 V or less. Turn the ignition switch OFF and disconnect the battery cable from the negative terminal when checking the harness. D Precautions for Harness Repair INFOID:000000011464648 • Solder the repaired area and wrap tape around the soldered area. NOTE: Ε A fray of twisted lines must be within 110 mm (4.33 in). F OK: Soldered and taped SKIB8766E Н Bypass connection is never allowed at the repaired area. NOTE: Bypass connection may cause CAN communication error. The spliced wire becomes separated and the characteristics of twisted NG: Bypass connection line are lost. X Κ SKIB8767E L Replace the applicable harness as an assembly if error is detected on the shield lines of CAN communication line.

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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

SYSTEM

CAN COMMUNICATION SYSTEM

CAN COMMUNICATION SYSTEM : 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. DIAG ON CAN

DIAG ON CAN : Description

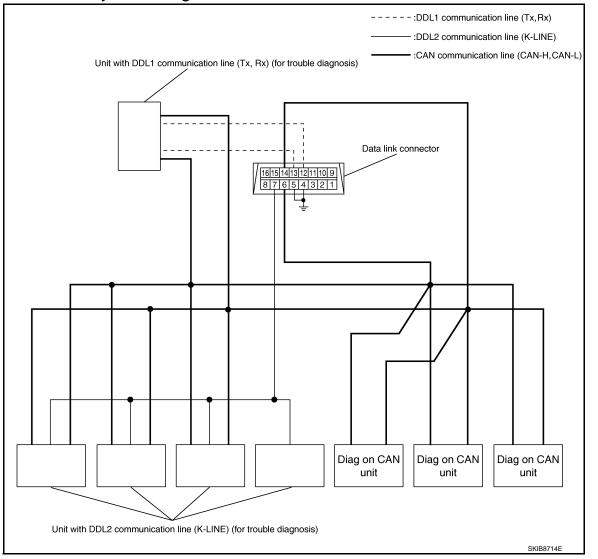
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INFOID:000000011464651

INFOID:000000011464649

"Diag on CAN" is a diagnosis method which uses the CAN communication line for the communication between the control unit and the diagnostic tool.

DIAG ON CAN : System Diagram



< SYSTEM DESCRIPTION >

[CAN FUNDAMENTAL]

Name	Harness	Description	
DDL1	Tx Rx	For communications with the diagnostic tool. (CAN-H and CAN-L are used for control- ling)	A
DDL2	K-LINE	For communications with the diagnostic tool. (CAN-H and CAN-L are used for control- ling)	В
Diag on CAN	CAN-H CAN-L	For communications with the diagnostic tool. (CAN-H and CAN-L are also used for con- trol and diagnoses.)	
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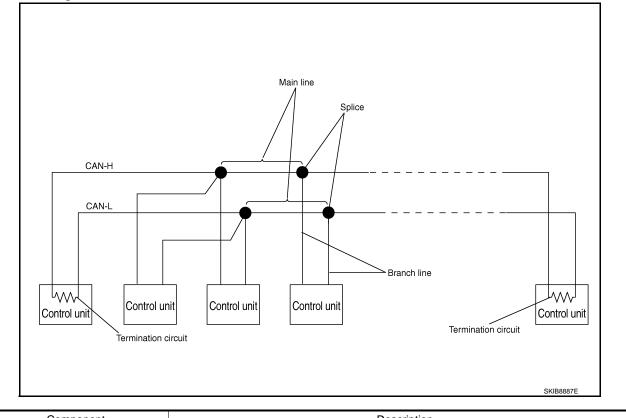
< SYSTEM DESCRIPTION >

TROUBLE DIAGNOSIS

[CAN FUNDAMENTAL]

INFOID:000000011464652

System Diagram



Component	Description
Main line	CAN communication line between splices
Branch line	CAN communication line between splice and a control unit
Splice	A point connecting a branch line with a main line
Termination circuit	Circuit connected across the CAN communication system. (Resistor)

Condition of Error Detection

INFOID:000000011464653

DTC (e.g. U1000 and U1001) of CAN communication is indicated on SELF-DIAG RESULTS on CONSULT if a CAN communication signal is not transmitted or received between units for 2 seconds or more.

CAN COMMUNICATION SYSTEM ERROR

- CAN communication line open (CAN-H, CAN-L, or both)
- CAN communication line short (ground, between CAN communication lines, other harnesses)
- Error of CAN communication control circuit of the unit connected to CAN communication line

WHEN DTC OF CAN COMMUNICATION IS INDICATED EVEN THOUGH CAN COMMUNICATION SYSTEM IS NORMAL

- Removal/installation of parts: Error may be detected when removing and installing CAN communication unit and related parts while turning the ignition switch ON. (A DTC except for CAN communication may be detected.)
- Fuse blown out (removed): CAN communication of the unit may cease.
- Voltage drop: Error may be detected if voltage drops due to discharged battery when turning the ignition switch ON (Depending on the control unit which carries out CAN communication).
- Error may be detected if the power supply circuit of the control unit, which carries out CAN communication, malfunctions (Depending on the control unit which carries out CAN communication).
- Error may be detected if reprogramming is not completed normally.

CAUTION:

< SYSTEM DESCRIPTION >

[CAN FUNDAMENTAL]

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CAN communication system is normal if DTC of CAN communication is indicated on SELF-DIAG RESULTS of CONSULT under the above conditions. Erase the memory of the self-diagnosis of each unit.

Symptom When Error Occurs in CAN Communication System

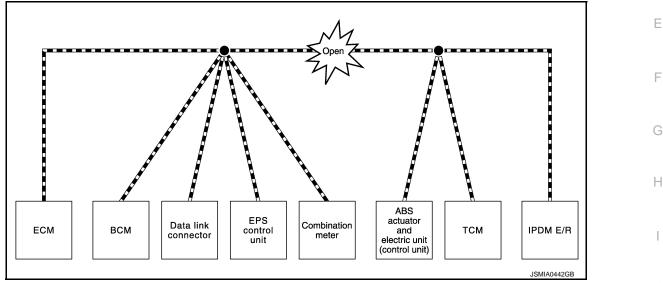
In CAN communication system, multiple units mutually transmit and receive signals. Each unit cannot transmit and receive signals if any error occurs on CAN communication line. Under this condition, multiple control units related to the root cause malfunction or go into fail-safe mode.

ERROR EXAMPLE

NOTE:

Each vehicle differs in symptom of each unit under fail-safe mode and CAN communication line wiring.

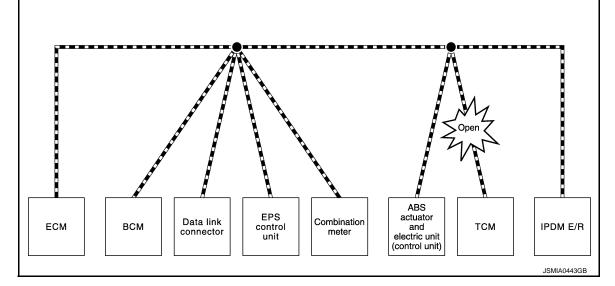
Example: Main Line Between Data Link Connector and ABS Actuator and Electric Unit (Control Unit) Open Circuit



Unit name	Major symptom	
ECM	Engine torque limiting is affected, and shift harshness increases.	
BCM	 Reverse warning chime does not sound. The front wiper moves under continuous operation mode even though the front wiper switch being in the intermittent position. 	
EPS control unit	The steering effort increases.	
Combination meter	 The shift position indicator and OD OFF indicator turn OFF. The speedometer is inoperative. The odo/trip meter stops. 	
ABS actuator and electric unit (control unit)	Normal operation.	
ТСМ	No impact on operation.	
IPDM E/R	When the ignition switch is ON,The headlamps (Lo) turn ON.The cooling fan continues to rotate.	

< SYSTEM DESCRIPTION >

Example: TCM Branch Line Open Circuit



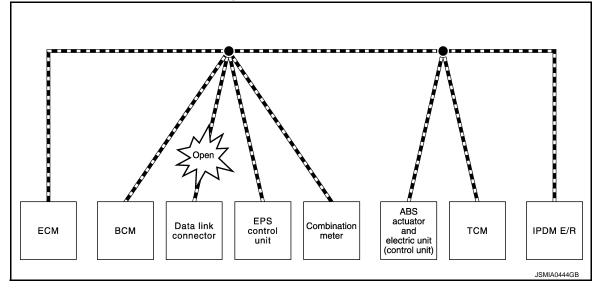
Unit name	Major symptom
ECM	Engine torque limiting is affected, and shift harshness increases.
BCM	Reverse warning chime does not sound.
EPS control unit	Normal operation.
Combination meter	Shift position indicator and O/D OFF indicator turn OFF.Warning lamps turn ON.
ABS actuator and electric unit (control unit)	Normal operation.
ТСМ	No impact on operation.
IPDM E/R	Normal operation.

NOTE:

The model (all units on CAN communication system are Diag on CAN) cannot perform CAN diagnosis with CONSULT if the following error occurs. The error is judged by the symptom.

Error	Difference of symptom	
Data link connector branch line open circuit	Normal operation.	
CAN-H, CAN-L harness short-circuit	Most of the units which are connected to the CAN communication system enter fail-safe mode or are deactivated.	

Example: Data Link Connector Branch Line Open Circuit



< SYSTEM DESCRIPTION >

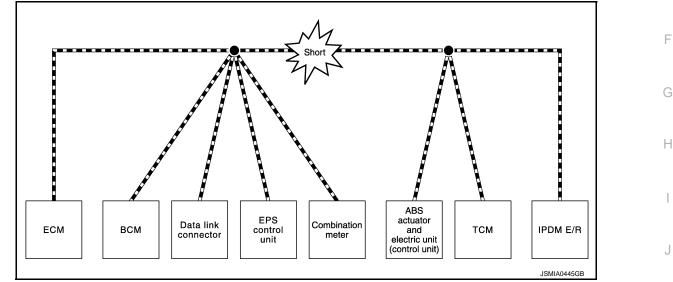
Е

Unit name	Major symptom	A
ECM		
BCM		
EPS control unit		В
Combination meter	Normal operation.	
ABS actuator and electric unit (control unit)		C
ТСМ		
IPDM E/R		
		D

NOTE:

When data link connector branch line is open, transmission and reception of CAN communication signals are not affected. Therefore, no symptoms occur. However, be sure to repair malfunctioning circuit.

Example: CAN-H, CAN-L Harness Short Circuit



Unit name	Major symptom	K
ECM	Engine torque limiting is affected, and shift harshness increases.Engine speed drops.	
	 Reverse warning chime does not sound. The front wiper moves under continuous operation mode even though the front wiper switch being in the intermittent position. 	L
BCM	 The room lamp does not turn ON. The engine does not start (if an error or malfunction occurs while turning the ignition switch OFF.) 	LA
	The steering lock does not release (if an error or malfunction occurs while turning the ignition switch OFF.)	Ν
EPS control unit	The steering effort increases.	
Combination meter	 The tachometer and the speedometer do not move. Warning lamps turn ON. Indicator lamps do not turn ON. 	0
ABS actuator and electric unit (control unit)	Normal operation.	
ТСМ	No impact on operation.	Р
IPDM E/R	When the ignition switch is ON,The headlamps (Lo) turn ON.The cooling fan continues to rotate.	

CAN Diagnosis with CONSULT

CAN diagnosis on CONSULT extracts the root cause by receiving the following information.

INFOID:000000011464655

< SYSTEM DESCRIPTION >

Response to the system call

- Control unit diagnosis information
- Self-diagnosis
- CAN diagnostic support monitor

Self-Diagnosis

INFOID:0000000011464656

If communication signals cannot be transmitted or received among units communicating via CAN communication line, CAN communication-related DTC is displayed on the CONSULT "Self Diagnostic Result" screen. **NOTE:**

The following table shows examples of CAN communication-related DTC. For other DTC, refer to the applicable sections.

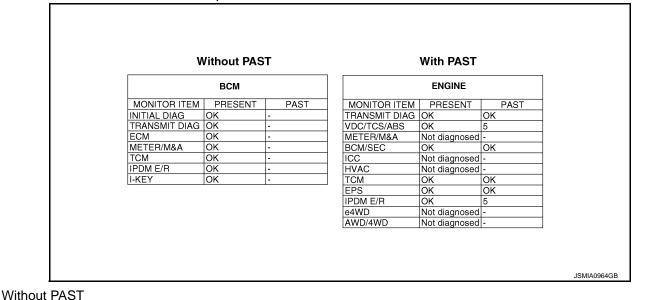
DTC	Self-diagnosis item (CONSULT indication)	DTC detection condition		Inspection/Action
	U1000 CAN COMM CIRCUIT	ECM	When ECM is not transmitting or receiving CAN communication signal of OBD (emission-related diagnosis) for 2 seconds or more.	
01000		Except for ECM	When a control unit (except for ECM) is not transmitting or receiving CAN communication signal for 2 seconds or more.	Start the inspection. Re- fer to the applicable sec- tion of the indicated
U1001	CAN COMM CIRCUIT	When ECM is not transmitting or receiving CAN communi- cation signal other than OBD (emission-related diagnosis) for 2 seconds or more.		control unit.
U1002	SYSTEM COMM	When a control unit is not transmitting or receiving CAN communication signal for 2 seconds or less.		
U1010	CONTROL UNIT(CAN)	When an error is detected during the initial diagnosis for CAN controller of each control unit.		Replace the control unit indicating "U1010".

CAN Diagnostic Support Monitor

INFOID:000000011464657

MONITOR ITEM (CONSULT)

Example: CAN DIAG SUPPORT MNTR indication



 Item
 PRESENT
 Description

 Initial diagnosis
 OK
 Normal at present

 NG
 Control unit error (Except for some control units)

< SYSTEM DESCRIPTION >

[CAN FUNDAMENTAL]

Item	PRESENT	Description	
	OK	Normal at present	A
Transmission diagnosis		Unable to transmit signals for 2 seconds or more.	
	UNKWN	Diagnosis not performed	В
	OK	Normal at present	
Control unit name		Unable to receive signals for 2 seconds or more.	
(Reception diagnosis)	UNKWN	Diagnosis not performed	С
		No control unit for receiving signals. (No applicable optional parts)	

With PAST

Item	PRESENT	PAST	Description
Transmission diagnosis		OK	Normal at present and in the past
	ОК	1 – 39	Normal at present, but unable to transmit signals for 2 seconds or more in the past. (The number indicates the number of ignition switch cycles from OFF to ON.)
	UNKWN	0	Unable to transmit signals for 2 seconds or more at present.
Control unit name (Reception diagnosis)		OK	Normal at present and in the past
	ок	1 – 39	Normal at present, but unable to receive signals for 2 seconds or more in the past. (The number indicates the number of ignition switch cycles from OFF to ON.)
	UNKWN	0	Unable to receive signals for 2 seconds or more at present.
		Diagnosis not performed.	
	Not diagnosed	-	No control unit for receiving signals. (No applicable optional parts)

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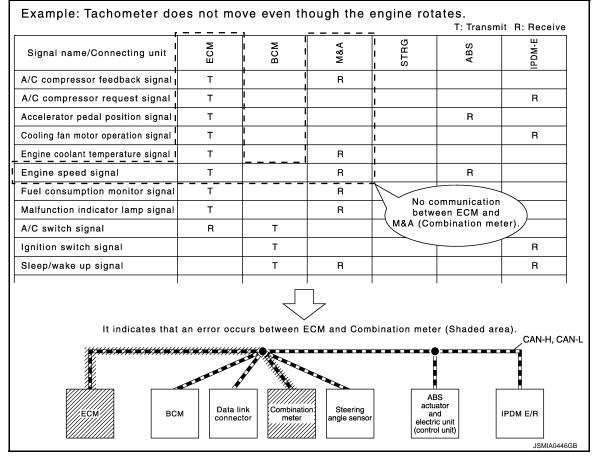
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< SYSTEM DESCRIPTION >

How to Use CAN Communication Signal Chart

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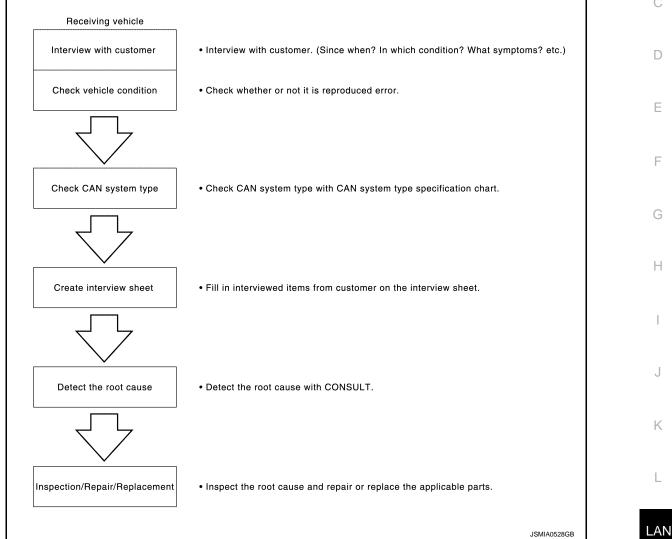
The CAN communication signal chart lists the signals needed for trouble diagnosis. It is useful for detecting the root cause by finding a signal related to the symptom, and by checking transmission and reception unit.



BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Trouble Diagnosis Flow Chart

DESCRIPTION



DETAIL OF TROUBLE DIAGNOSIS FLOW CHART

1.INTERVIEW WITH CUSTOMER

Interview with the customer is important to detect the root cause of CAN communication system errors and to understand vehicle condition and symptoms for proper trouble diagnosis.

Points in interview

- What: Parts name, system name
- When: Date, Frequency
- Where: Road condition, Place
- In what condition: Driving condition/environment
- Result: Symptom

Notes for checking error symptoms:

- Check normal units as well as error symptoms.
- Example: Circuit between ECM and the combination meter is judged normal if the customer indicates tachometer functions normally.

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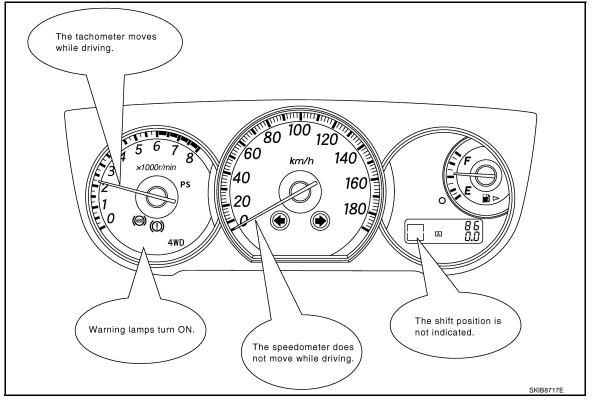
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LAN-17

< BASIC INSPECTION >

- When a CAN communication system error is present, multiple control units may malfunction or go into failsafe mode.
- Indication of the combination meter is important to detect the root cause because it is the most obvious to the customer, and it performs CAN communication with many units.



>> GO TO 2.

2.INSPECTION OF VEHICLE CONDITION

Check whether the symptom is reproduced or not.

NOTE:

Do not turn the ignition switch OFF or disconnect the 12V battery cable while reproducing the error. The error may temporarily correct itself, making it difficult to determine the root cause.

>> GO TO 3.

3. CHECK OF CAN SYSTEM TYPE (HOW TO USE CAN SYSTEM TYPE SPECIFICATION CHART)

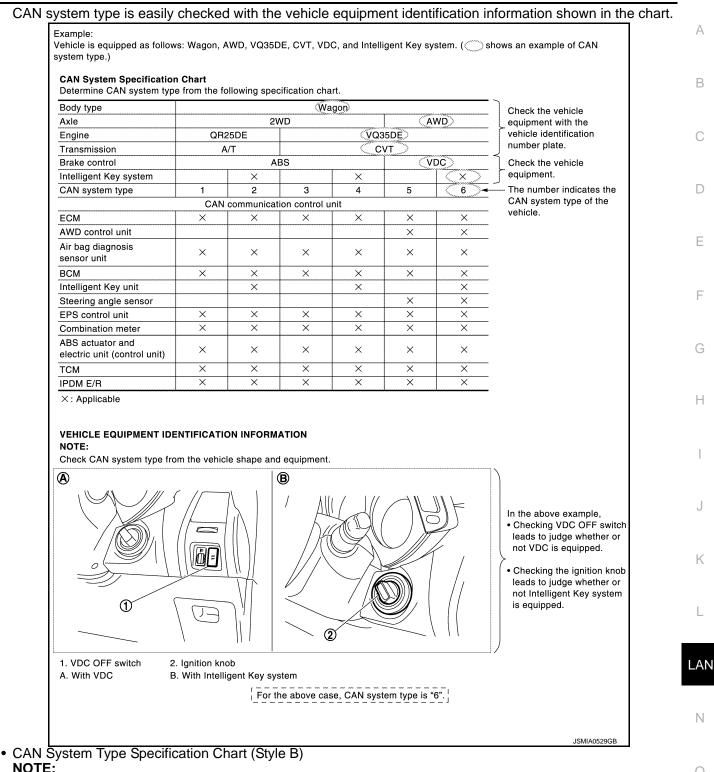
Determine CAN system type based on vehicle equipment. **NOTE:**

- This chart is used if CONSULT does not automatically recognize CAN system type.
- There are two styles for CAN system type specification charts. Depending on the number of available system types, either style A or style B may be used.
- CAN System Type Specification Chart (Style A)
 NOTE:

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

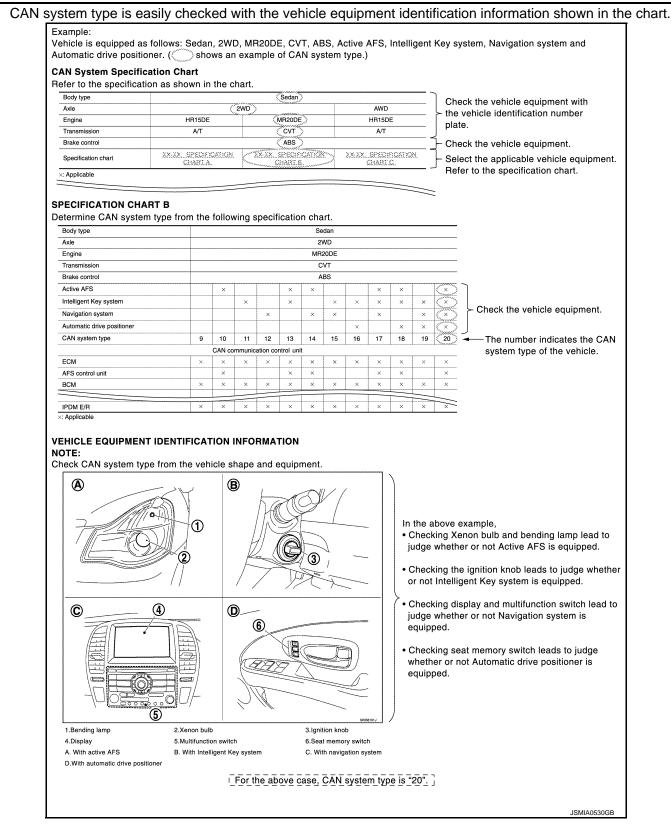
[CAN FUNDAMENTAL]



DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[CAN FUNDAMENTAL]



>> GO TO 4.

4.CREATE INTERVIEW SHEET

Fill out the symptom described by the customer, vehicle condition, and CAN system type on the interview sheet. **NOTE:**

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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[CAN FUNDAMENTAL]

Date received: 3, Feb. 2006	
Type: DBA-KG11 VIN No.: KG11-005040	
Model: BDRARGZG11EDA-E-J-	
First registration: 10, Jan. 2001 Mileage: 62,140	
CAN system type: Type 19	
Symptom (Results from interview with customer)	
Headlamps suddenly turn ON while driving the vehicle.	
The engine does not restart after stopping the vehicle and turning the ignition switch OFF. The cooling fan continues rotating while turning the ignition switch ON.	
Condition at inspection	
Error Symptom: Present / Past	
The engine does not start. While turning the ignition switch ON, • The headlamps (Lo) turn ON, and the cooling fan continues rotating. • The interior lamp does not turn ON.	
JSMIA0531GB	

>> GO TO 6.

6.REPAIR OR REPLACE MALFUNCTIONING PART

Repair or replace malfunctioning parts identified by CAN diagnosis function of CONSULT.

Maine line>>Refer to LAN-41, "Main Line". Branch line>> Refer to LAN-41, "Branch Line". Shoort line>> Refer to LAN-41, "Short Circuit".

Revision: 2014 October

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HOW TO USE THIS MANUAL HOW TO USE THIS SECTION

Caution

INFOID:000000011464661

[CAN]

• This section describes information peculiar to a vehicle and inspection procedures.

• For trouble diagnosis procedure, refer to LAN-17, "Trouble Diagnosis Flow Chart".

Abbreviation List

INFOID:000000011464662

Unit name abbreviations in CONSULT CAN diagnosis and in this section are as per the following list.

Abbreviation	Unit name
4WD	AWD control module
A-BAG	Air bag diagnosis sensor unit
ABS	ABS actuator and electric unit (control unit)
AV	NAVI control unit
AVM	Around view monitor control unit
BCM	BCM
DLC	Data link connector
ECM	ECM
EPS	EPS control unit
HVAC	A/C auto amp.
IPDM-E	IPDM E/R
M&A	Combination meter
MDU	Multi display unit
STRG	Steering angle sensor
ТСМ	TCM

< PRECAUTION > PRECAUTION PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT **PRE-TENSIONER**" INFOID:000000011464663

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 D 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 AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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 POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions for Removing Battery Terminal

When removing the 12V battery terminal, turn OFF the ignition ٠ switch and wait at least 30 seconds. NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

 For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC. NOTE:

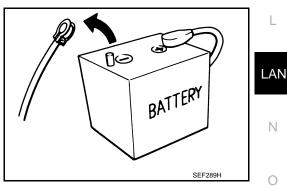
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The removal of 12V battery may cause a DTC detection error.

Precautions for Trouble Diagnosis

CAUTION:

- Never apply 7.0 V or more to the measurement terminal.
- Use a tester with open terminal voltage of 7.0 V or less.





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PRECAUTIONS

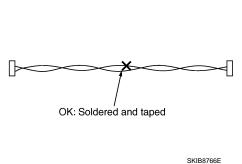
< PRECAUTION >

• Turn the ignition switch OFF and disconnect the battery cable from the negative terminal when checking the harness.

Precautions for Harness Repair

• Solder the repaired area and wrap tape around the soldered area. NOTE:

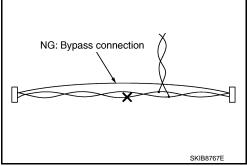
A fray of twisted lines must be within 110 mm (4.33 in).



• Bypass connection is never allowed at the repaired area.

NOTE:

Bypass connection may cause CAN communication error. The spliced wire becomes separated and the characteristics of twisted line are lost.



• Replace the applicable harness as an assembly if error is detected on the shield lines of CAN communication line.

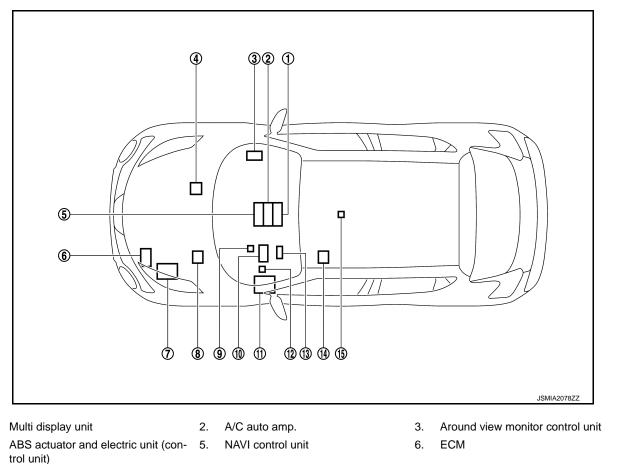
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COMPONENT PARTS

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS

Component Parts Location



7. IPDM E/R

1.

4.

- 10. Combination meter
- 13. Steering angle sensor
- 8. TCM
- 11. BCM
- 14. AWD control module
- 9. EPS control unit
- 12. Data link connector
- 15. Air bag diagnosis sensor unit

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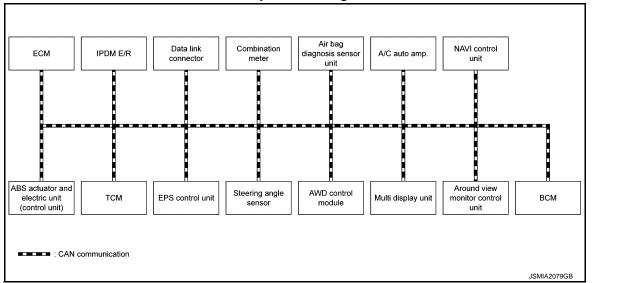
[CAN]

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SYSTEM CAN COMMUNICATION SYSTEM

CAN COMMUNICATION SYSTEM : System Diagram

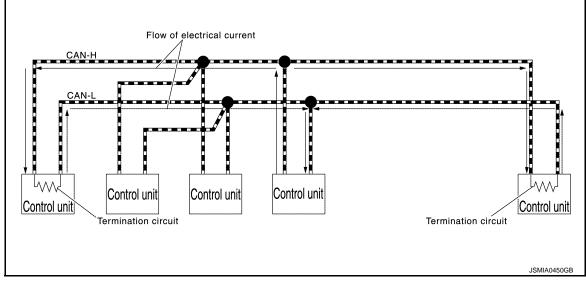


CAN COMMUNICATION SYSTEM : System Description

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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.
- Termination circuits (resistors) are connected across the CAN communication system. When transmitting a CAN communication signal, each control unit passes a current to the CAN-H line and the current returns to the CAN-L line. The current flows separately into the termination circuits connected across the CAN communication system and the termination circuits drop voltage to generate a potential difference between the CAN-H line and the CAN-L line. The system produces digital signals for signal communications, by using the potential difference.



CAN Communication Line

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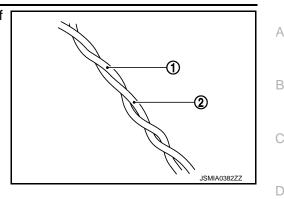
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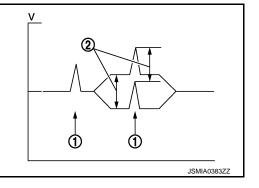
The CAN communication line is a twisted pair wire consisting of strands of CAN-H (1) and CAN-L (2) and has noise immunity.



NOTE:

The CAN communication system has the characteristics of noise-resistant because this system produces digital signals by using the potential difference between the CAN-H line and the CAN-L line and has the twisted pair wire structure.

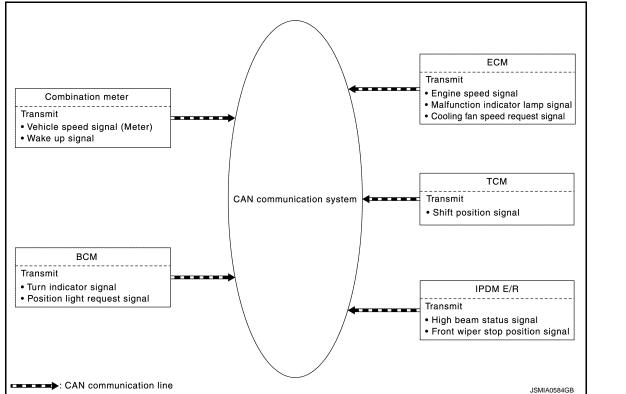
Since the CAN-H line and the CAN-L line are always adjacent to each other, the same degree of noise occurs, respectively, when a noise (1) occurs. Although the noise changes the voltage, the potential difference (2) between the CAN-H line and the CAN-L line is insensitive to noise. Therefore, noise-resistant signals can be obtained.



CAN Signal Communications

Each control unit of the CAN communication system transmits signals through the CAN communication control circuit included in the control unit and receives only necessary signals from each control unit to perform various kinds of control.

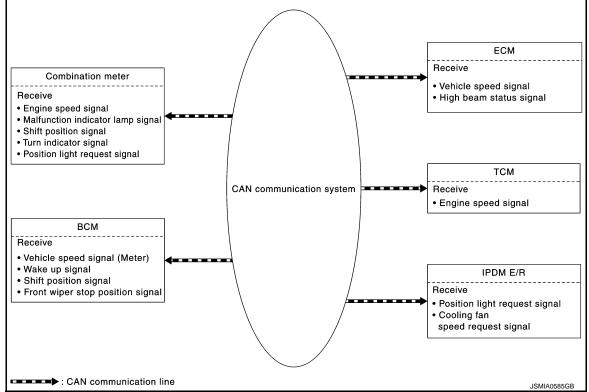
Example: Transmitted signals





< SYSTEM DESCRIPTION >

• Example: Received signals

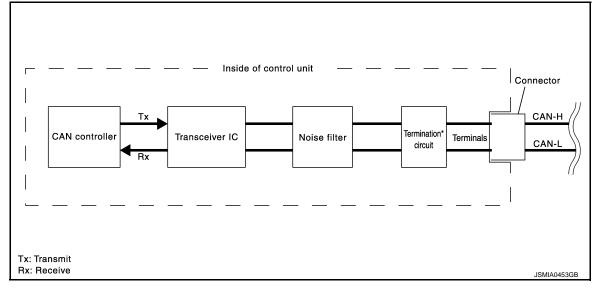


NOTE:

The above signal names and signal communications are provided for reference purposes. For CAN communications signals of this vehicle, refer to <u>LAN-30</u>, <u>"CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart"</u>.

CAN COMMUNICATION SYSTEM : CAN Communication Control Circuit

CAN communication control circuit is incorporated into the control unit and transmits/receives CAN communication signals.



Component	System description
CAN controller	It controls CAN communication signal transmission and reception, error detection, etc.
Transceiver IC	It converts digital signal into CAN communication signal, and CAN communication signal into digital signal.

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Component	System description	^
Noise filter	It eliminates noise of CAN communication signal.	A
Termination circuit [*] (Resistance of approx. 120 Ω)	Generates a potential difference between CAN-H and CAN-L.	В

*: These are the only control units wired with both ends of CAN communication system.

CAN COMMUNICATION SYSTEM : CAN System Specification Chart

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Determine CAN system type from the following specification chart. **NOTE:**

Refer to LAN-17. "Trouble Diagnosis Flow Chart" for how to use CAN system specification chart.

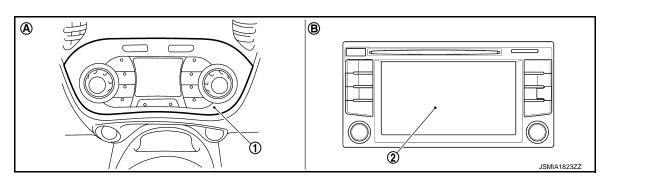
Body type					Hatch bac	:k				
Axle			2	ND				AWD		-
Engine					MR16DD	Т	1			-
Transmission		M/T				С	VT			-
Brake control					VDC					_
Navigation system			×			×			×	-
Integrated Control system		×	×		×	×		×	×	-
CAN system type	1	2	3	4	5	6	7	8	9	_
	C	AN comm	unication	unit				•		-
ECM	×	×	×	×	×	×	×	×	×	_
AWD control module							×	Х	×	-
ABS actuator and electric unit (control unit)	×	×	×	×	×	×	×	×	×	-
IPDM E/R	×	×	х	×	×	×	×	х	×	_
ТСМ				×	×	×	×	х	×	_
Air bag diagnosis sensor unit	×	×	×	×	×	×	×	×	×	-
Around view monitor control unit			×			×			×	-
A/C auto amp.		×	×		×	×		×	×	-
NAVI control unit			×			×			×	
Data link connector	×	×	×	×	×	×	×	×	×	
EPS control unit	×	×	×	×	×	×	×	×	×	
Combination meter	×	×	×	×	×	×	×	×	×	
Multi display unit		×	×		×	×		×	×	
Steering angle sensor	×	×	×	×	×	×	×	×	×	- 1
BCM	×	×	×	×	×	×	×	×	×	-

 \times : Applicable

VEHICLE EQUIPMENT IDENTIFICATION INFORMATION

NOTE:

Check CAN system type from the vehicle shape and equipment.



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< SYSTEM DESCRIPTION >

- 1. Multi display unit
- 2. 5 inch display
- A. With Integrated Control system B. With navigation system

CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart

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Refer to <u>LAN-16, "How to Use CAN Communication Signal Chart"</u> for how to use CAN communication signal chart.

NOTE:

• Refer to LAN-22, "Abbreviation List" for the abbreviations of the connecting units.

	5	Δ	S	Ш	5	Z		S	A	G	Q		⋝
Signal name/Connecting unit	ECM	4WD	ABS	IPDM-E	TCM	AVM	AV	EPS	M&A	STRG	HVAC	MDU	BCM
A/C compressor request signal	Т			R									
Accelerator pedal position signal	Т	R	R		R								
ASCD status signal	Т								R				
Boost pressure signal	Т											R	
Closed throttle position signal	Т				R								
Cooling fan speed request signal	Т			R									
Facility and OVT into material control simple	Т				R								
Engine and CVT integrated control signal	R				Т								
Engine coolant temperature signal	Т								R		R		
	Т	R	R		R				R*1			R	
Engine speed signal					т				R*2				
Engine status signal	т							R	R			R	R
Engine torque signal	т	R										R	
Fuel consumption monitor signal	т								R			R	
Malfunctioning indicator signal	т								R				
Oil pressure warning lamp signal	т								R				
Power generation command value signal	т			R									
Speed limiter operation signal	т								R				
Starter motor relay cut off signal	т			R									R
AWD mode indicator signal		т							R				
AWD warning lamp signal		Т							R				
Current AWD mode signal		Т	R										
Target engine torque signal	R	Т											
Torque vectoring indicator signal		т							R				
ABS malfunction signal			Т		R								
ABS operation signal		R	Т		R				R				
ABS warning lamp signal			Т						R				
Brake warning lamp signal			Т						R				
Decel G sensor signal		R	т									R	
Request drive torque signal		R	т										
Side G sensor signal		R	т									R	
-		R	т										
Stop lamp switch signal					R								Т
Target throttle position signal	R		Т							<u> </u>			

< SYSTEM DESCRIPTION >

Signal name/Connecting unit	ECM	4WD	ABS	IPDM-E	TCM	AVM	AV	EPS	M&A	STRG	HVAC	MDU	BCM	А
TCS malfunction signal		R	Т										<u> </u>	
TCS operation signal		R	т		R								-	В
VDC malfunction signal		R	Т										-	
VDC OFF indicator lamp signal			Т						R					C
VDC operation signal		R	т		R								-	C
VDC warning lamp signal			Т						R					
Vehicle speed signal (ABS)	R	R	Т		R	R		R	R				R	D
Yaw rate signal		R	Т											
Back-up lamp switch signal ^{*1}				т									R	Е
				т									R	
				т									R	
	R													F
				т									R	
Ignition switch ON signal														
Detention switch signal T Front wiper stop position signal T High beam status signal R Ignition switch ON signal T Ignition switch signal T Interlock/PNP switch signal T								G						
t wiper stop position signal R beam status signal R on switch ON signal on switch signal														
High beam status signal R T Image: Constraint of the signal of the signa	Т	Н												
High beam status signal R T Image: Constraint of the signal of the signa														
gnition switch ON signal R I T T G R <td></td>														
									Т				R	
Sleep-ready signal				т									R	
				т									R	J
Starter control relay signal				R									Т	
				т									R	
Starter relay status signal				R									Т	Κ
Starter motor relay/Starter motor control relay con- trol signal	R			т										
ATF temperature signal		R			Т									
Current gear position signal		R	R		Т									
CVT indicator signal					Т				R					LAN
CVT ratio signal		R			Т									
Input shaft revolution signal	R	R			Т									
Manual mode shift refusal signal					Т				R					Ν
N range signal			R		Т									
Next gear position signal			R		Т									0
Output shaft revolution signal	R	R			Т									
P range signal			R		Т									
R range signal			R		Т									Ρ
Shift position signal			R*2		Т				R				R	
Vehicle speed signal (TCM)					Т								R	
Drive mode select signal ^{*3}	R				T								+	
						Т			R				+	
Buzzer output signal						· ·			R				т	

[CAN]

< SYSTEM DESCRIPTION >

Signal name/Connecting unit	ECM	4WD	ABS	IPDM-E	TCM	AVM	AV	EPS	M&A	STRG	HVAC	MDU	BCM
View change signal						Т	R						
Camera OFF signal						R	Т						
Camera switch signal						R	Т						
EPS operation signal	R							Т					
EPS warning lamp signal								Т	R				
Brake fluid level switch signal			R						Т				
Manual mode shift down signal					R				Т				
Manual mode shift up signal					R				Т				
Manual mode signal					R				Т				
Non-manual mode signal					R				Т				
Paddle shift up signal ^{*4}					R				Т				
Paddle shift down signal ^{*4}					R				Т				
Odometer signal									Т			R	R
Parking brake switch signal		R	R						Т				
Seat belt buckle switch signal (driver side) signal									Т				R
Vehicle speed signal (Meter)	R		R	R				R	Т			R	R
Wake up signal									Т				R
Steering angle sensor malfunction signal		R								Т			
Steering angle sensor signal		R	R			R				Т			
Steering calibration signal			R							Т			
ECO mode signal					R			R			R	Т	
NORMAL mode signal					R			R				Т	
SPORT mode signal					R			R				Т	
A/C display signal											Т	R	
A/C ECO setting signal											R	Т	
A/C operation signal											R	Т	
Rear window defogger switch signal ^{*5}												Т	R
Idle up request signal	R												Т
A/C ON signal	R												Т
Blower fan ON signal	R												Т
Daytime running light request signal ^{*6}				R									Т
Door switch signal				R					R				Т
Engine start operation indicator lamp signal									R				Т
Front fog light request signal				R									Т
Front wiper request signal				R									Т
Front wiper service position signal				R									Т
High beam request signal				R					R				Т
Horn reminder signal				R									Т
Key warning lamp signal									R				Т
LOCK warning lamp signal									R				Т
Low beam request signal	1			R									Т
Low tire pressure warning lamp signal									R				Т

< SYSTEM DESCRIPTION >

Signal name/Connecting unit	ECM	4WD	ABS	IPDM-E	TCM	AVM	AV	EPS	M&A	STRG	HVAC	MDU	BCM	
	Ш	4	4	ЪЦ	F	A		ш	2	'v	Ĩ	2	В	
Position light request signal				R					R			R	Т	
				R									Т	
Rear window defogger control signal	R			Т								R*5		
Shift P warning lamp signal									R				Т	(
Sleep wake up signal				R					R			R	Т	
Theft warning horn request signal				R									Т	
TPMS malfunction warning lamp signal									R				Т	
Turn indicator signal									R				Т	
*1: M/T models														
*2: CVT models														
*3: With Integrated Control System														
*4: NISMO RS models														

*5: With automatic air conditioning

*6: With daytime running light system

NOTE:

CAN data of the air bag diagnosis sensor unit is not used by usual service work, thus it is omitted.

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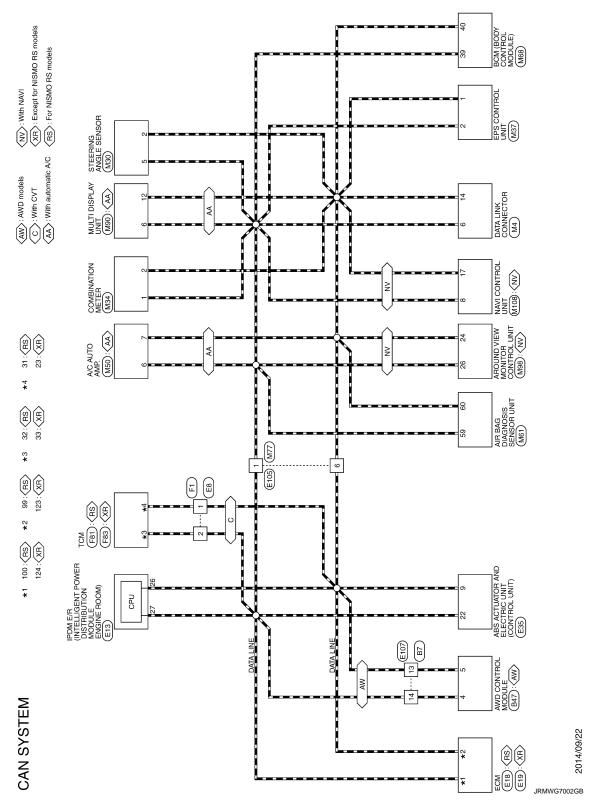
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CAN SYSTEM



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Connector No.	Connect		Connect	Æ	F	H-S-				Terminal	No.	-	4	9	=	12	13	14	35	36	37	22	54	55	28	62	63	64	65	99	67	89	2	71	72	73	76	78	56	80	83	à
SENSOR GROUND	POWER SUPPLY FOR ECM	SENSOR POWER SUPPLY	ECM GROUND	FCM GROLIND	ACCELERATOR PEDAL POSITION SENSOR 1	SENSOR GROUND	ECM GROUND				ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)				9 11 12 13 14 15 16 17	26 27 28 29 30]		Signal Name [Specification]	BAT (MTR)	BAT (SUL) GND (SOL)	GND (MTR)	VDC_OFF_SW	ASCD_CANCEL_SW	CAN-L	DP RR	DS FR	VCC	SERIAL+	DS RR	IGN	REVERSE SIGNAL	Æ	CAN-H	DP FL	LH_SENS_VB	DS FL	GND	SERIAL-	RR_LH_SENS_SIG	
Y SENSO	G POWER SL		a S	- 89	Ê		GR		or No. E35	Г		or Type RH28FB-NU4-UH	l		1 2 5 6 8	3 4 212223		J	Color Of	Wire	W .			œ	50	د م	BR	M	U	2	~		W REVERS	Y DP FR			G RRU	BR	8	M	BE	
~	σ	>		- 89	śα	GR	152 GR		Connector No. E35	Г	Connector Name ABS ACTUATOR AND ELE	Connector Type RH28FB-NU4-UH	1		568	4			ъ	Wire						+	11 BR	12 W		ď	*	>	× :	~	-	LG	RR	27 BR	┝		30 BE	
R GROUND 144 Y	FOR ECM (BACKUP) 145 G	TCH 146 V	æ,	149 GR	DFF) 150 R 1	AMP SWITCH 151 GR	CH 152	FUEL PUMP RELAY	ENSOR 2 Connector No.		CM Connector Name	MOTOR POWER SUPPLY Connector Type		DR 1 HEATER	EATER 1.5. 11 2 56 8	around 3 4			Terminal Color Of	No. Wire	W			134 142 146 150 5 R	9				13	5TEM PRESSURE SENSOR 14 R	SATION LINE (CAN-L) 15 Y	16 V	× :	21 Y	POSITION SWITCH 22 L	DN SWITCH 23 LG	CH [26 G G RR	27	28	29	.VE 30	J T
SENSOR GROUND 144 Y	POWER SUPPLY FOR ECM (BACKUP) 145 G	CLUTCH PEDAL POSITION SWITCH 146 V	147 GR	SFUSOR GROUND 149 GR	ECM RELAY (SELF SHAT-OFF) 150 R /	STOP LAMP SWITCH 151 GR	POSITION SWITCH 152		2 Connector No.	SENSOR GROUND	Connector Name	THROTTLE CONTROL MOTOR POWER SUPPLY Connector Type	ECM GROUND		SENSOR 2 HEATER 1.S. 11 2 56 8	ECM GROUND 3 4			Terminal Color Of	Wire			133 141 145 149	134 142 146 150 5 R	10011001401417 151			[Seconfication] 12	13	EVAP CONTROL SYSTEM PRESSURE SENSOR 14 R	SATION LINE (CAN-L) 15 Y	CAN COMMUNICATION LINE (CAN-H) 16 V	SENSOR POWER SUPPLY 17 W	FUEL TANK TEMPERATURE SENSOR 21 Y	CLUTCH PEDAL POSITION SWITCH 22 L	IGNITION SWITCH 23 LG	ERING SWITCH 26 G RR	27	STOP LAMP SWITCH 28	BRAKE PEDAL POSITION SWITCH 29	30	І т

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CAN SYSTEM

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59 L CAN+H 60 P CAN+L	Commettor No. M69 Commettor Nume BCM (BODY CONTROL MODULE) Commettor Trans. HAUREH-NH		Terminal Color Of No. Signal Name [Specification] No. Wre CoMBI SW INPUT 5 3 GR COMBI SW INPUT 4 4 BR COMBI SW INPUT 3		9 R STOP LAMP SW 1 10 W 13 RP DOOR LK & UNLK SW LOCK 13 RP DOOR LK & UNLK SW UN OCK	BS ≫ ≻ > d	23 R SECUENT NO LAMP CONT 24 SB DONGLE LAW 25 LG NATS ANT ANP 26 BR THERMO AMP	27 Y A/C SW 28 LG BLOWER FAN SW 29 SB HAZARD 30 I R NOOR OPENER SW	I < ≺ LGR	35 R COMBISWOUTPUT 2 36 P COMBISWOUTPUT 1 37 G DETENT SW 38 SB RECEIVER COMM
14 LG BLOWER FAN ON SIGNAL 15 Y A.C BILOWER FAN ON SIGNAL 17 BR A.M SIGNAL 4	INTAKE	g m α > α σ ≻ >	Connector No. M61 Connector Name AIR BAG DIAGNOSIS SENSOR UNIT Connector Type INH28FY-EX		19 52 54 23 24 22 18 51 33 60 59 25 1	Terminal Color Of Wo. Signal Name [Specification] No. Wire I 1 BR IGN 3 Y DR 1 (+)	4 Y INFLATOR DR1-8DR2- 5 Y DR1 × 10 6 Y DR1 × 10 7 Y INFLATOR AS1+	8 Y AS2 (+) 9 Y AS2 (-) 18 L0 EC2S (+) 19 V FC2S (+)		51 R FMXSS SISK RH+ 52 Q FMXSS SISK RH+ 53 Y FMXSS SISK LH+ 54 BR FMXSS SISK LH+
36 γ MANUAL MODE SIGNAL 37 G NON-MANUAL MODE SIGNAL 38 P ALTERNALA MODE SIGNAL	ctor No. M37 ctor Name EPS CONTF	Connector Type HS HS	Terminal Cator Of Supral Name [Specification] No. Write Control (Supral Name [Specification] 1 P CAN-H CON-H C	4 LG ICN	Connector Name A/O AUTO AMP. Connector Type TH40FW-NH	11.8 11.8 12.2	Terminal Color Of Signal Name [Specification] No.	2 LG IN-VEHIOLE SENSOR SIGNAL 3 V INTAKE SENSOR SIGNAL 4 GR AMBIENT ESUSOR SIGNAL 5 P SINI (AAD SENSOR SIGNAL	L P INTAKE A/C AUTO	I L SERSOR GROUND 11 LG IGN1 12 Y BATTERY POWER SUPPLY 13 GR POWER TRANSISTOR CONTROL SIGNAL
CAN SYSTEM Terminal Color Of Signal Name [Specification] No. Wre Signal Name [Specification]		Connector No. M24 Connector Name COMBINATION METER Connector Type TH40PW-NM MAS	전 11 11 11 11 11 11 11 11 11 11 11 11 11	agnar tve VEHICLE SPE	5 G PADDLE SHIFTER UP SWITCH SIGNAL 6 BR FUEL LEVEL SENSOR SIGNAL 7 R AIR BAG SIGNAL 8 P _		ACC MANUAL MOI WASHER LI SEC	19 GR AMBIENT SENSOR SIGNAL 20 R AMBIENT SENSOR GROUND 21 B GROUND 27 B GROUND	E E F	27 LG BATTERP POWER EXPONENT 28 GR IONITION SIGNAL 29 V PASSENGER SEAT BELT WARNING SIGNAL 31 P A/O AUTO AMP: CONNECTION RECOGNITION SIGNAL

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CAN SYSTEM

[CAN]

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Interview Sheet

INFOID:000000011464674

[CAN]

NOTE:

Refer to LAN-17, "Trouble Diagnosis Flow Chart" for how to use interview sheet.

CAN Communication System D	iagnosis Interview Sheet
	Date received:
Туре:	VIN No.:
Model:	
First registration:	Mileage:
CAN system type:	
Symptom (Results from interview with custom	er)
Condition at inspection	
Error symptom : Present / Past	
	SKIB8898E

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS MALFUNCTION AREA CHART

Main Line

INFOID:000000011464675 B

[CAN]

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Malfunction area	Reference	
Main line between IPDM E/R and air bag diagnosis sensor unit	LAN-42, "Diagnosis Procedure"	
Main line between IPDM E/R and A/C auto amp.	LAN-43. "Diagnosis Procedure"	
Main line between air bag diagnosis sensor unit and data link connector	LAN-44, "Diagnosis Procedure"	
Main line between A/C auto amp. and data link connector	LAN-45, "Diagnosis Procedure"	
warah Lina	1	

Branch Line

INFOID:000000011464676

Malfunction area	Reference
ECM branch line circuit	LAN-46, "Diagnosis Procedure"
AWD control module branch line circuit	LAN-47, "Diagnosis Procedure"
ABS actuator and electric unit (control unit) branch line circuit	LAN-48. "Diagnosis Procedure"
IPDM E/R branch line circuit	LAN-49, "Diagnosis Procedure"
TCM branch line circuit	LAN-50, "Diagnosis Procedure"
Air bag diagnosis sensor unit branch line circuit	LAN-51, "Diagnosis Procedure"
Around view monitor control unit branch line circuit	LAN-52, "Diagnosis Procedure"
A/C auto amp. branch line circuit	LAN-53, "Diagnosis Procedure"
NAVI control unit branch line circuit	LAN-54, "Diagnosis Procedure"
Data link connector branch line circuit	LAN-55. "Diagnosis Procedure"
EPS control unit branch line circuit	LAN-56, "Diagnosis Procedure"
Combination meter branch line circuit	LAN-57, "Diagnosis Procedure"
Multi display unit branch line circuit	LAN-58. "Diagnosis Procedure"
Steering angle sensor branch line circuit	LAN-59, "Diagnosis Procedure"
BCM branch line circuit	LAN-60, "Diagnosis Procedure"

Short Circuit

INFOID:000000011464677

Malfunction area	Reference	
CAN communication circuit	LAN-61, "Diagnosis Procedure"	N

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MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

Diagnosis Procedure

INFOID:000000011464678

[CAN]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R ha	rness connector	Harness	Continuity	
Connector No.	Terminal No.	Connector No. Terminal No.		Continuity
E13	27	F105	1	Existed
EIS	26	E105	6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

Check the continuity between the harness connector and the data link connector.

Harness	connector	Data link connector		Continuity	
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity	
M77	1	N44	6	Existed	
IVI <i>T T</i>	6	M4	14	Existed	

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the air bag diagnosis sensor unit.

NO >> Repair the main line between the harness connector M77 and the air bag diagnosis sensor unit.

MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT < DTC/CIRCUIT DIAGNOSIS > [CAN] MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT Diagnosis Procedure Diagnosis Procedure INFOID:00000011732296 1. CHECK CONNECTOR 1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).

- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

IPDM E/R

- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R har	IPDM E/R harness connector Harness connector				_ G
Connector No.	Terminal No.	Connector No.	Terminal No.	- Continuity	
E13	27	E105	1	Existed	H
LIS	26	LIUS	6	Existed	_

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of A/C amp.

2. Check the continuity between the harness connector and the A/C auto amp. harness connector.

Harness connector		A/C auto amp. h	Continuity	1.	
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity	
M77	1	M50	6	Existed	L
10177	6	MOO	7	Existed	

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the A/C auto amp.

NO >> Repair the main line between the harness connector M77 and the A/C auto amp.

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MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

Diagnosis Procedure

INFOID:000000011464679

[CAN]

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the harness connectors E105 and M77.
- 4. Check the continuity between the harness connector and the data link connector.

Harness connector		Data link	Continuity	
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77	1	N44	6	Existed
IVI <i>T 1</i>	6	- M4	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the air bag diagnosis sensor unit and the data link connector.

NO >> Repair the main line between the air bag diagnosis sensor unit and the data link connector.

		WEEN HVAC AN	D DLC CIRCUIT	
< DTC/CIRCUIT DIA		AND DLC CIRC		[CAN]
Diagnosis Proced				INFOID:000000011464680
1.CHECK HARNESS		N CIRCUIT)		141 O.D. 0000000 11404000
 Disconnect the fol ECM A/C auto amp. 	ttery cable from the ne lowing harness conne		nector and the data lir	ak connector
	arness connector	Data link d	1	
	arness connector Terminal No.	Data link o Connector No.	1	Continuity
A/C auto amp. h			connector	

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the A/C auto amp. and the data link connector.

NO >> Repair the main line between the A/C auto amp. and the data link connector.

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ECM BRANCH LINE CIRCUIT

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E18	100	99	Approx. 108 – 132

Except for NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E19	124	123	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: <u>EC-1255</u>, "Removal and Installation"

YES (Past error)>>Error was detected in the ECM branch line.

NO >> Repair the power supply and the ground circuit.

INFOID:000000011464681

4WD BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS	>		[CAN]
4WD BRANCH LINE (VIRCUIT		
Diagnosis Procedure			INFOID:000000011464682
1. CHECK CONNECTOR			
1. Turn the ignition switch OFI			
2. Disconnect the battery cabl	e from the negative te		
 Check the following termina nector side). 	Is and connectors for	damage, bend and loose cor	nection (unit side and con-
- AWD control module			
 Harness connector B7 Harness connector E107 			
Is the inspection result normal?			
YES >> GO TO 2.			
NO >> Repair the terminal			
2. CHECK HARNESS FOR OP	EN CIRCUIT		
1. Disconnect the connector o			
2. Check the resistance betwee	en the AWD control m	nodule harness connector terr	ninals.
AWD co	ontrol module harness conn	ector	
Connector No.	Term	inal No.	Resistance (Ω)
B47	4	5	Approx. 54 – 66
Is the measurement value within	the specification?		
YES >> GO TO 3. NO >> Repair the AWD co	atrol modulo branch liu	20	
3.CHECK POWER SUPPLY A			
Check the power supply and the cedure".	s ground circuit of the	AWD control module. Refer 1	0 DLN-77, "Diagnosis Pro-
Is the inspection result normal?			
YES (Present error)>>Replace			val and Installation".
YES (Past error)>>Error was on NO >> Repair the power set of the power set			
	ipply and the ground (Silouit.	

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ABS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

ABS BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of ABS actuator and electric unit (control unit).
- Check the resistance between the ABS actuator and electric unit (control unit) harness connector terminals.

ABS actuator and electric unit (control unit) harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E35	22	9	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ABS actuator and electric unit (control unit) branch line.

$\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ABS actuator and electric unit (control unit). Refer to <u>BRC-114, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to <u>BRC-138, "Removal</u> <u>and Installation"</u>.

YES (Past error)>>Error was detected in the ABS actuator and electric unit (control unit) branch line.

NO >> Repair the power supply and the ground circuit.

IPDM-E BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOS	ilS >		[CAN]
IPDM-E BRANCH L	INE CIRCUIT		
Diagnosis Procedure			INFOID:000000011464684
1.CHECK CONNECTOR			
	able from the negative terr		loose connection (unit side
Is the inspection result normYES>> GO TO 2.NO>> Repair the term2.CHECK HARNESS FOR	nal and connector.		
 Disconnect the connect Check the resistance be 	or of IPDM E/R. etween the IPDM E/R harne	ess connector terminals.	
	IPDM E/R harness connector		Resistance (Ω)
Connector No.	Termir	nal No.	
E13	27	26	Approx. 54 – 66
-	ithin the encoification?		
Is the measurement value w YES >> GO TO 3. NO >> Repair the IPDM 3. CHECK POWER SUPPL	I E/R branch line. Y AND GROUND CIRCUIT		
Is the measurement value w YES >> GO TO 3. NO >> Repair the IPDN	I E/R branch line. Y AND GROUND CIRCUIT I the ground circuit of the IF		
Is the measurement value w YES >> GO TO 3. NO >> Repair the IPDM 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	I E/R branch line. Y AND GROUND CIRCUIT I the ground circuit of the IF al? lace the IPDM E/R. Refer t	PDM E/R. Refer to <u>PCS-35</u> o <u>PCS-36. "Removal and li</u> R branch line.	, "Diagnosis Procedure".

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TCM BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

- Disconnect the battery cable from the negative terminal. 2.
- Check the following terminals and connectors for damage, bend and loose connection (unit side and con-3. nector side).
- TCM
- Harness connector F1
- Harness connector E8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.check harness for open circuit

- 1. Disconnect the connector of TCM.
- Check the resistance between the TCM harness connector terminals. 2.
- For NISMO RS models

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
F81	32	31	Approx. 54 – 66

Except for NISMO RS models

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
F83	33	23	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the TCM branch line.

 ${f 3.}$ CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to the following.

RE0F10B: <u>TM-278, "Diagnosis Procedure"</u>
 RE0F10D: <u>TM-503, "Diagnosis Procedure"</u>

Is the inspection result normal?

YES (Present error)>>Replace the TCM. Refer to the following.

- RE0F10B: <u>TM-325</u>, "Removal and Installation"
- RE0F10D: TM-547, "Removal and Installation"

YES (Past error)>>Error was detected in the TCM branch line.

NO >> Repair the power supply and the ground circuit.

A-BAG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CA	'N]
A-BAG BRANCH LINE CIRCUIT	
Diagnosis Procedure	164690
 WARNING: Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutor more. (To discharge backup capacitor.) Never use unspecified tester or other measuring device. CHECK CONNECTOR 	tes
 Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose c nection (unit side and connector side). 	on-
Is the inspection result normal?	
YES >> GO TO 2. NO >> Replace the main harness.	
2. CHECK AIR BAG DIAGNOSIS SENSOR UNIT	
Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".	
Is the inspection result normal?	
YES >> Replace the main harness. NO >> Replace parts whose air bag system has a malfunction.	

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AVM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

AVM BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the around view monitor control unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of around view monitor control unit.
- 2. Check the resistance between the around view monitor control unit harness connector terminals.

Around view monitor control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M98	26	24	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the around view monitor control unit branch line.

${f 3.}$ CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the around view monitor control unit. Refer to <u>AV-155</u>, "<u>AROUND VIEW MONITOR CONTROL UNIT</u> : <u>Diagnosis Procedure</u>".

Is the inspection result normal?

YES (Present error)>>Replace the around view monitor control unit. Refer to <u>AV-184</u>, "<u>Removal and Installa-</u> <u>tion</u>".

YES (Past error)>>Error was detected in the around view monitor control unit branch line.

NO >> Repair the power supply and the ground circuit.

HVAC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOS	SIS >		[CAN]
HVAC BRANCH LI	NE CIRCUIT		
Diagnosis Procedure			INFOID:000000011464692
1.CHECK CONNECTOR			
	055		
 Turn the ignition switch Disconnect the battery 	OFF. cable from the negative terr	minal	
3. Check the terminals an	d connectors of the A/C at		and loose connection (unit
side and connector side			
Is the inspection result norm	nal?		
YES >> GO TO 2. NO >> Repair the term	inal and connector		
2.CHECK HARNESS FOR			
 Disconnect the connect Check the resistance be 		narness connector terminals	S.
	A/C auto amp. harness connecto	r	Resistance (Ω)
Connector No.	Termi	nal No.	
M50	6	7	Approx. 54 – 66
Is the measurement value w	vithin the specification?		
YES >> GO TO 3. NO >> Repair the A/C	auto amp. branch line.		
3.CHECK POWER SUPPL	•	r	
Check the power supply ar Diagnosis Procedure".	ia the ground circuit of the	A/C auto amp. Refer to H	<u>IAC-73, "A/C AUTO AMP. :</u>
Is the inspection result norm	nal?		
•		fer to <u>HAC-91, "Removal ar</u>	nd Installation".
	as detected in the A/C auto		
NO >> Repair the pow	er supply and the ground ci	rcuit.	

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AV BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

AV BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of NAVI control unit.
- 2. Check the resistance between the NAVI control unit harness connector terminals.

NAVI control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M108	8	17	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the NAVI control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the NAVI control unit. Refer to <u>AV-155, "NAVI CONTROL</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the NAVI control unit. Refer to AV-176, "Removal and Installation".

YES (Past error)>>Error was detected in the NAVI control unit branch line.

NO >> Repair the power supply and the ground circuit.

INFOID:0000000011464691

DLC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN]	
DLC BRANCH LINE CIRCUIT	^
Diagnosis Procedure	A
1.CHECK CONNECTOR	В
 Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side). 	С
<u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair the terminal and connector.	D
2. CHECK HARNESS FOR OPEN CIRCUIT	_
Check the resistance between the data link connector terminals.	E
Data link connector	

		Data link connector		Resistance (Ω)	_
	Connector No.	Termi	Terminal No.		F
	M4	6	14	Approx. 54 – 66	_
<u> </u> ;	s the measurement value w	vithin the specification?			G

YES (Present error)>>Check CAN system type decision again. YES (Past error)>>Error was detected in the data link connector branch line circuit.

>> Repair the data link connector branch line. NO

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EPS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

EPS BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of EPS control unit.
- 2. Check the resistance between the EPS control unit harness connector terminals.

E	Resistance (Ω)		
Connector No.	Termi		
M37	2	1	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the EPS control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the EPS control unit. Refer to <u>STC-20, "Diagnosis Proce-</u> dure".

Is the inspection result normal?

YES (Present error)>>Replace the EPS control unit. Refer to ST-11, "Removal and Installation".

YES (Past error)>>Error was detected in the EPS control unit branch line.

NO >> Repair the power supply and the ground circuit.

INFOID:000000011464687

M&A BRANCH LINE CIRCUIT

<				
Diagnosis Procedure 1.CHECK CONNECTOR 1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the terminals and connectors of the combination meter for damage, bend and loose connection (unit side and connector side). Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of combination meter. 2. Check the resistance between the combination meter harness connector terminals. Image: Combination meter harness connector Resistance (Ω) M34 1 2 Approx. 54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER: Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Present error)>>Error was detected in the combination meter branch line.	< DTC/CIRCUIT DIAGNOS	ilS >		[CAN]
1. CHECK CONNECTOR 1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the terminals and connectors of the combination meter for damage, bend and loose connection (unit side and connector side). Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of combination meter. 2. Check the resistance between the combination meter harness connector terminals. M34 1 2 Approx.54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to <u>MWI-60, "Removal and Installation".</u> YES (Present error)>>Replace the combination meter branch line. </u>	M&A BRANCH LINE	ECIRCUIT		
 Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the combination meter for damage, bend and loose connection (unit side and connector side). Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. C.CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of combination meter. Check the resistance between the combination meter harness connector terminals. Combination meter harness connector Resistance (Ω) M34 1 2 Approx. 54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>> Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>> Replace the combination meter branch line. 	Diagnosis Procedure			INFOID:000000011464688
 2. Disconnect the battery cable from the negative terminal. 3. Check the terminals and connectors of the combination meter for damage, bend and loose connection (unit side and connector side). Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2. CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of combination meter. 2. Check the resistance between the combination meter harness connector terminals. Combination meter harness connector terminals. Connector No. Connector No. M34 1 2 Approx. 54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER: Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	1.CHECK CONNECTOR			
YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of combination meter. 2. Check the resistance between the combination meter harness connector terminals. Image: Combination meter harness connector Connector No. Terminal No. M34 1 2 Approx. 54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	 Disconnect the battery of Check the terminals and 	able from the negative terr d connectors of the combi		end and loose connection
2. Check the resistance between the combination meter harness connector terminals. Connector No. Terminal No. M34 1 2 Approx. 54 – 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	YES >> GO TO 2. NO >> Repair the termi	nal and connector.		
Connector No. Terminal No. Resistance (Ω) M34 1 2 Approx. 54 – 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. NO >> Repair the combination meter branch line. 3. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.			ter harness connector termir	nals.
Connector No. Terminal No. M34 1 2 Approx. 54 – 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. S.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	Сс	mbination meter harness connec	tor	Bogistones (O)
Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the combination meter branch line. 3. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	Connector No.	Termir	nal No.	Resistance (12)
YES >> GO TO 3. NO >> Repair the combination meter branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the combination meter. Refer to MWI-49, "COMBINATION METER : Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation". YES (Past error)>>Error was detected in the combination meter branch line.	M34	1	2	Approx. 54 – 66
<u>METER : Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u> YES (Present error)>>Replace the combination meter. Refer to <u>MWI-60, "Removal and Installation"</u> . YES (Past error)>>Error was detected in the combination meter branch line.	YES >> GO TO 3. NO >> Repair the comb 3. CHECK POWER SUPPL	vination meter branch line. Y AND GROUND CIRCUIT		
NO >> Repair the power supply and the ground circuit.	METER : Diagnosis Procedu Is the inspection result norm YES (Present error)>>Repl	<u>ire"</u> . <u>al?</u> ace the combination meter	. Refer to <u>MWI-60, "Remova</u>	
	NO >> Repair the powe	r supply and the ground ci	rcuit.	

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MDU BRANCH LINE CIRCUIT

MDU BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of multi display unit.

2. Check the resistance between the multi display unit harness connector terminals.

Ν	Resistance (Ω)		
Connector No.	Termi		
M90	6	12	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the multi display unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the multi display unit. Refer to <u>AV-222, "MULTI DISPLAY</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the multi display unit. Refer to DMS-16, "Removal and Installation".

YES (Past error)>>Error was detected in the multi display unit branch line.

NO >> Repair the power supply and the ground circuit.

INFOID:000000011464693

STRG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN]
STRG BRANCH LINE CIRCUIT
Diagnosis Procedure
1.CHECK CONNECTOR
 Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the steering angle sensor for damage, bend and loose connection (unit side and connector side).
Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT
 Disconnect the connector of steering angle sensor. Check the resistance between the steering angle sensor harness connector terminals.
Steering angle sensor harness connector Resistance (Ω)
Connector No. Terminal No.
M30 5 2 Approx. 54 – 66
Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the steering angle sensor branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT
Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52</u> , "Wiring Dia- gram". <u>Is the inspection result normal?</u> YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141</u> , "Removal and Installation". YES (Past error)>>Error was detected in the steering angle sensor branch line. NO >> Repair the power supply and the ground circuit.

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BCM BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of BCM.

2. Check the resistance between the BCM harness connector terminals.

	Resistance (Ω)		
Connector No.	Termi		
M68	39	40	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the BCM branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the BCM. Refer to <u>BCS-86, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the BCM. Refer to BCS-93. "Removal and Installation".

YES (Past error)>>Error was detected in the BCM branch line.

NO >> Repair the power supply and the ground circuit.

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOS				[CAN]
	TION CIRCU	JIT		
Diagnosis Procedure				INFOID:000000011464695
1.CONNECTOR INSPECT	ION			
 Turn the ignition switch Disconnect the battery of Disconnect all the unit of Check terminals and co 	cable from the neg onnectors on CAI nnectors for dama	N communica	ation system.	
<u>s the inspection result norm</u> YES >> GO TO 2.	<u>iai :</u>			
NO >> Repair the term	nal and connecto	or.		
2. CHECK HARNESS CON	TINUITY (SHOR	T CIRCUIT)		
Check the continuity betwee	n the data link co	nnector term	inals.	
	Data link conn	ector		
Connector No.		Terminal N	lo.	Continuity
M4	6		14	Not existed
YES >> GO TO 3. NO >> Check the harn CHECK HARNESS CON	TINUITY (SHOR	T CIRCUIT)	the ground.	
Connector No.	connector Terminal N	0.		Continuity
M4	6		Ground	Not existed
s the inspection result norm YES >> GO TO 4. NO >> Check the harm 4.CHECK ECM AND BCM 1. Remove the ECM and t 2. Check the resistance be For NISMO RS models	ess and repair the TERMINATION C he BCM.	CIRCUIT		
ECM	R	esistance (Ω)		
Terminal No.				
Except for NISMO RS n		prox. 108 – 132		
ECM Terminal No.		esistance (Ω)		
	23 App	orox. 108 – 132		
3. Check the resistance be	tween the BCM t	erminals.	_	
BCM		esistance (Ω)		
Terminal No.	0 App	prox. 108 – 132		
	- ,,,hh			

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CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 5.

NO >> Replace the ECM and/or the BCM.

5. CHECK SYMPTOM

Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

Inspection result

Reproduced>>GO TO 6.

Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.

6.CHECK UNIT REPRODUCTION

Perform the reproduction test as per the following procedure for each unit.

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect one of the unit connectors of CAN communication system. **NOTE:**

ECM and BCM have a termination circuit. Check other units first.

4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

NOTE:

Although unit-related error symptoms occur, do not confuse them with other symptoms.

Inspection result

Reproduced>>Connect the connector. Check other units as per the above procedure.

Non-reproduced>>Replace the unit whose connector was disconnected.

DTC/CIRCUIT DIAC			D A-BAG CIRCU	SYSTEM (TYPE 1)]
		SIS	-	
	WEEN IPDM-E		CIRCUIT	
Diagnosis Proced	ure			INFOID:000000011732303
CHECK CONNECT	OR			
 Check the followir and harness side) Harness connecto Harness connecto the inspection result YES >> GO TO 2. NO >> Repair the CHECK HARNESS Disconnect the fol IPDM E/R Harness connecto 	ttery cable from the ne ng terminals and conr r E105 or M77 t normal? e terminal and connect c CONTINUITY (OPEN lowing harness conne	nectors for damage, I tor. N CIRCUIT) ectors.		ection (connector side
	ness connector		or and the harness co	nnector.
Connector No.	Terminal No.	Connector No.	connector Terminal No.	Continuity
E13	27 26	E105	1	Existed
			0	Existed
s the inspection result YES >> GO TO 3. NO >> Repair the		e IPDM E/R and the I	narness connector E10	
YES >> GO TO 3. NO >> Repair the				
YES >> GO TO 3. NO >> Repair the CHECK HARNESS	e main line between th	N CIRCUIT)	narness connector E10	
YES >> GO TO 3. NO >> Repair the CHECK HARNESS Check the continuity b	e main line between th CONTINUITY (OPEN	N CIRCUIT) onnector and the data	narness connector E10)5.
YES >> GO TO 3. NO >> Repair the CHECK HARNESS Check the continuity b	e main line between th CONTINUITY (OPEN etween the harness co connector Terminal No.	N CIRCUIT) onnector and the data	narness connector E10 n link connector. connector Terminal No.	05. Continuity
YES >> GO TO 3. NO >> Repair the CHECK HARNESS Check the continuity b Harness	e main line between th CONTINUITY (OPEN etween the harness connector	N CIRCUIT) onnector and the data Data link	narness connector E10 I link connector.)5.

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732304

[CAN SYSTEM (TYPE 1)]

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the harness connectors E105 and M77.
- 4. Check the continuity between the harness connector and the data link connector.

Harness connector		Data link connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77	1	M4	6	Existed
	6	1014	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the air bag diagnosis sensor unit and the data link connector.

NO >> Repair the main line between the air bag diagnosis sensor unit and the data link connector.

ECM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 1)]

	ECIRCUIT		
iagnosis Procedure			INFOID:000000011732305
.CHECK CONNECTOR			
. Check the terminals and connector side). <u>the inspection result norm</u> YES >> GO TO 2. NO >> Repair the termi	able from the negative termin d connectors of the ECM for <u>al?</u> nal and connector.		ose connection (unit side and
.CHECK HARNESS FOR			
 Disconnect the connect Check the resistance be For NISMO RS models 	tween the ECM harness con	nector terminals.	
	ECM harness connector		Resistance (Ω)
Connector No.	Terminal	No.	
E18	100	99	Approx. 108 – 132
Except for NISMO RS m	ECM harness connector Terminal	No	Resistance (Ω)
E19	124	123	Approx. 108 – 132
the measurement value w YES >> GO TO 3. NO >> Repair the ECM CHECK POWER SUPPL			
heck the power supply and	the ground circuit of the ECI		g.
For NISMO RS models: EC	lels: <u>EC-777, "Diagnosis Pro</u>	<u>cedure"</u>	
For NISMO RS models: EC Except for NISMO RS models the inspection result norm	al?		
For NISMO RS models: EC Except for NISMO RS models the inspection result norm YES (Present error)>>Repl • For NISMO RS • Except for NIS YES (Past error)>>Error was	<u>al?</u> ace the ECM. Refer to the fo S models: <u>EC-578, "Removal</u> MO RS models: <u>EC-1255, "F</u> as detected in the ECM brand	Ilowing. Land Installation" Removal and Installatio ch line.	<u>n"</u>
For NISMO RS models: <u>E(</u> Except for NISMO RS models) <u>s the inspection result norm</u> YES (Present error)>>Repl • For NISMO RS • Except for NIS YES (Past error)>>Error was	<u>al?</u> ace the ECM. Refer to the fo S models: <u>EC-578, "Removal</u> MO RS models: <u>EC-1255, "F</u>	Ilowing. Land Installation" Removal and Installatio ch line.	<u>n"</u>

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< DTC/CIRCUIT DIAGNOSIS >

ABS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732306

[CAN SYSTEM (TYPE 1)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of ABS actuator and electric unit (control unit).
- 2. Check the resistance between the ABS actuator and electric unit (control unit) harness connector terminals.

ABS actuator	Resistance (Ω)		
Connector No.	Terminal No.		Tresistance (22)
E35	22	9	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ABS actuator and electric unit (control unit) branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ABS actuator and electric unit (control unit). Refer to <u>BRC-114, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to <u>BRC-138, "Removal</u> <u>and Installation"</u>.

YES (Past error)>>Error was detected in the ABS actuator and electric unit (control unit) branch line.

NO >> Repair the power supply and the ground circuit.

IPDM-E BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 1)]

< DTC/CIRCUIT DIAGNOS		[1	CAN SYSTEM (TYPE 1)]	
PDM-E BRANCH L	INE CIRCUIT			
Diagnosis Procedure			INFOID:00000001173230	
1.CHECK CONNECTOR				
	OFF. cable from the negative termind connectors of the IPDM E/		oose connection (unit side	
Is the inspection result norm YES >> GO TO 2. NO >> Repair the term 2.CHECK HARNESS FOR	inal and connector.			
1. Disconnect the connect		ss connector terminals.		
	IPDM E/R harness connector	arness connector Resistance (Ω)		
Connector No.	Termina	l No.	Resistance (52)	
E13	27	26	Approx. 54 – 66	
	vithin the specification?			
Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error w	I E/R branch line. Y AND GROUND CIRCUIT the ground circuit of the IPE	PCS-36, "Removal and In branch line.	-	

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A-BAG BRANCH LINE CIRCUIT

CIRCUIT

INFOID:000000011732308

Diagnosis Procedure

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2. CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

DLC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 1)]

CIC/CIRCUIT DIAGNUS	15 >		
DLC BRANCH LINE	CIRCUIT		
Diagnosis Procedure			INFOID:00000001173230
_			
.CHECK CONNECTOR			
 Turn the ignition switch (Disconnect the battery c 		erminal.	
. Check the terminals and	d connectors of the data	a link connector for damage,	bend and loose connection
(connector side and harr the inspection result norm	,		
YES >> GO TO 2.			
NO >> Repair the termi	nal and connector.		
CHECK HARNESS FOR	OPEN CIRCUIT		
heck the resistance betwee	en the data link connecto	or terminals.	
	Data link connector		
Connector No.	Ter	minal No.	Resistance (Ω)
M4	6	14	Approx. 54 – 66

< DTC/CIRCUIT DIAGNOSIS >

EPS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732310

[CAN SYSTEM (TYPE 1)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of EPS control unit.
- 2. Check the resistance between the EPS control unit harness connector terminals.

EPS control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		ivesistance (22)
M37	2	1	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the EPS control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the EPS control unit. Refer to <u>STC-20, "Diagnosis Proce-</u> dure".

Is the inspection result normal?

YES (Present error)>>Replace the EPS control unit. Refer to ST-11, "Removal and Installation".

YES (Past error)>>Error was detected in the EPS control unit branch line.

NO >> Repair the power supply and the ground circuit.

M&A BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 1)]

	E CIRCUIT			
Diagnosis Procedure			INFOID:000000011732311	
I.CHECK CONNECTOR				
	cable from the negative term id connectors of the combir		pend and loose connection	
<u>s the inspection result norm</u> YES >> GO TO 2. NO >> Repair the term CHECK HARNESS FOR	inal and connector.			
	or of combination meter. etween the combination met	er harness connector term	nals.	
С	Combination meter harness connector Resistance (Q)		Resistance (Ω)	
Connector No.	Termina		. ,	
M34 the measurement value v	1	2	Approx. 54 – 66	
CHECK POWER SUPPL Check the power supply an AETER : Diagnosis Proced the inspection result norm		combination meter. Refer to) <u>MWI-49, "COMBINATION</u>	
YES (Past error)>>Error w	lace the combination meter. as detected in the combinat er supply and the ground cir	ion meter branch line.	al and Installation".	

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< DTC/CIRCUIT DIAGNOSIS >

STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732312

[CAN SYSTEM (TYPE 1)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of steering angle sensor.

2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	Steering angle sensor harness connector		
Connector No.	Terminal No.		Resistance (Ω)
M30	5	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

NO >> Repair the power supply and the ground circuit.

BCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 1)]

Diagnosis Procedure			INFOID:000000011732313
1.CHECK CONNECTOR			
 Check the terminals and connector side). 	able from the negative termi connectors of the BCM for		ose connection (unit side and
<u>s the inspection result norm</u> YES >> GO TO 2. NO >> Repair the termi 2.CHECK HARNESS FOR	nal and connector.		
 Disconnect the connector Check the resistance be 	or of BCM. tween the BCM harness cor	nector terminals.	
BCM harness connector			
	BCM harness connector		Resistance (O)
Connector No.	BCM harness connector Termina	No.	Resistance (Ω)
M68	Termina 39	No. 40	 Resistance (Ω) Approx. 108 – 132
M68 S the measurement value w YES >> GO TO 3. NO >> Repair the BCM 3.CHECK POWER SUPPL Check the power supply and Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	Termina 39 thin the specification? branch line. Y AND GROUND CIRCUIT the ground circuit of the BC	40 M. Refer to <u>BCS-86, "D</u> 93. "Removal and Insta ch line.	Approx. 108 – 132

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect all the unit connectors on CAN communication system.
- 4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Continuity
M4	6 14		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link	Data link connector		Continuity
Connector No.	Terminal No.	Ground	Continuity
 M4	6	Ground	Not existed
1014	14		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

E	СМ	Resistance (Ω)	
Termi	nal No.		
100	99	Approx. 108 – 132	

Except for NISMO RS models

E	СМ	Resistance (Ω)	
Terminal No.			
124	123	Approx. 108 – 132	

3. Check the resistance between the BCM terminals.

В	CM	Resistance (Ω)	
Terminal No.		Resistance (12)	
39	40	Approx. 108 – 132	

INFOID:000000011732314

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN SYST	FEM (TYPE 1)]
Is the measurement value within the specification?	
YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.	
5. СНЕСК ЗУМРТОМ	
Connect all the connectors. Check if the symptoms described in the "Symptom (Results fror customer)" are reproduced.	n interview with
Inspection result	
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure whe detected.	en past error is
6. CHECK UNIT REPRODUCTION	
Perform the reproduction test as per the following procedure for each unit.	
1. Turn the ignition switch OFF.	
2. Disconnect the battery cable from the negative terminal.	
 Disconnect one of the unit connectors of CAN communication system. NOTE: 	
ECM and BCM have a termination circuit. Check other units first.	
 Connect the battery cable to the negative terminal. Check if the symptoms described in (Results from interview with customer)" are reproduced. 	ו the "Symptom
NOTE:	
Although unit-related error symptoms occur, do not confuse them with other symptoms.	
Inspection result	
Reproduced>>Connect the connector. Check other units as per the above procedure. Non-reproduced>>Replace the unit whose connector was disconnected.	

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MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732315

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R ha	mess connector	Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
E13	27	E105	1	Existed
LIJ	26		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of A/C amp.

2. Check the continuity between the harness connector and the A/C auto amp. harness connector.

Harness	connector	A/C auto amp. harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77	1	M50	6	Existed
	6		7	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the A/C auto amp.

NO >> Repair the main line between the harness connector M77 and the A/C auto amp.

RCUIT		INFOID:000000011732316
onnector and	the data link	connector.
nk connector		Continuity
Termir	nal No.	Continuity
(6	Existed
1	14	Existed
n the A/C aut d the data lin	•	the data link connec-

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[CAN SYSTEM (TYPE 2)]

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732317

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

	ECM harness connector		
Connector No.	Terminal No.		Resistance (Ω)
E18	100 99		Approx. 108 – 132

Except for NISMO RS models

ECM harness connector		Resistance (Ω)	
Connector No.	Terminal No.		Resistance (22)
E19	124 123		Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: <u>EC-1255</u>, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

ABS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 2)]

	CIRCUIT			
Diagnosis Procedure			INFOID:000000011732318	
CHECK CONNECTOR				
 Check the terminals and and loose connection (u 	able from the negative term connectors of the ABS act nit side and connector side)	uator and electric unit (cor	ntrol unit) for damage, bend	
s the inspection result norm YES >> GO TO 2. NO >> Repair the termi	nal and connector.			
2. CHECK HARNESS FOR	OPEN CIRCUIT			
	or of ABS actuator and elect etween the ABS actuator ar		t) harness connector termi-	
ABS actuator a	and electric unit (control unit) harne	ess connector		
			Resistance (0)	
Connector No.	Termina	al No.	Resistance (Ω)	
E35 s the measurement value w	22	al No. 9	Resistance (Ω) Approx. 54 – 66	
E35 <u>s the measurement value w</u> YES >> GO TO 3. NO >> Repair the ABS 3. CHECK POWER SUPPL Check the power supply and <u>3RC-114.</u> "Diagnosis Proceed <u>s the inspection result norm</u> YES (Present error)>>Repl <u>and Installation</u> " YES (Past error)>>Error was	22 <u>ithin the specification?</u> actuator and electric unit (construction) Y AND GROUND CIRCUIT d the ground circuit of the or- <u>dure"</u> . <u>al?</u> ace the ABS actuator and e	9 ontrol unit) branch line. ABS actuator and electric electric unit (control unit). R ator and electric unit (control	Approx. 54 – 66 unit (control unit). Refer to efer to <u>BRC-138, "Removal</u>	

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IPDM-E BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732319

[CAN SYSTEM (TYPE 2)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of IPDM E/R.

2. Check the resistance between the IPDM E/R harness connector terminals.

	IPDM E/R harness connector	Resistance (Ω)	
Connector No.	Terminal No.		
E13	27	26	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the IPDM E/R branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the IPDM E/R. Refer to <u>PCS-35, "Diagnosis Procedure"</u>. <u>Is the inspection result normal?</u>

YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".

YES (Past error)>>Error was detected in the IPDM E/R branch line.

[CAN SYSTEM (TYPE 2)]

A-BAG BRANCH LINE CIRCUIT А **Diagnosis** Procedure INFOID:000000011732320 WARNING: В Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.) • Never use unspecified tester or other measuring device. С 1.CHECK CONNECTOR 1. Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. 2. D Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose con-3. nection (unit side and connector side). Is the inspection result normal? Е YES >> GO TO 2. NO >> Replace the main harness. 2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT F Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow". Is the inspection result normal? YES >> Replace the main harness. NO >> Replace parts whose air bag system has a malfunction. Н

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HVAC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732321

[CAN SYSTEM (TYPE 2)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the A/C auto amp. for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of A/C auto amp.
- 2. Check the resistance between the A/C auto amp. harness connector terminals.

	A/C auto amp. harness connector			
Connector No.	Termi	Resistance (Ω)		
M50	6	7	Approx. 54 – 66	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the A/C auto amp. branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the A/C auto amp. Refer to <u>HAC-73, "A/C AUTO AMP.</u>: <u>Diagnosis Procedure</u>".

Is the inspection result normal?

YES (Present error)>>Replace the A/C auto amp. Refer to HAC-91, "Removal and Installation".

YES (Past error)>>Error was detected in the A/C auto amp. branch line.

DLC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 2)]

DIC/CIRCUIT DIAGNO	515 >		
DLC BRANCH LINI	ECIRCUIT		
Diagnosis Procedure			INFOID:00000001173232
CHECK CONNECTOR			
. Turn the ignition switch	OFF		
	cable from the negative terr	ninal.	
. Check the terminals ar	nd connectors of the data li		bend and loose connection
connector side and ha the inspection result norn	-		
YES >> GO TO 2.	<u>nal (</u>		
	ninal and connector.		
CHECK HARNESS FOR	R OPEN CIRCUIT		
heck the resistance betwe	een the data link connector t	erminals.	
	Data link connector		Resistance (Ω)
Connector No.		nal No.	
M4	6	14	Approx. 54 – 66
YES (Present error)>>Che YES (Past error)>>Error w	eck CAN system type decisi vas detected in the data link i link connector branch line.	connector branch line circ	uit.
YES (Present error)>>Che YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.
YES (Present error)>>Che YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.
YES (Present error)>>Che YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.
YES (Present error)>>Che YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.
YES (Present error)>>Che YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.
YES (Past error)>>Error w	as detected in the data link	connector branch line circ	uit.

EPS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732323

[CAN SYSTEM (TYPE 2)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of EPS control unit.
- 2. Check the resistance between the EPS control unit harness connector terminals.

E	EPS control unit harness connector			
Connector No.	Termi	Resistance (Ω)		
M37	2	1	Approx. 54 – 66	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the EPS control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the EPS control unit. Refer to <u>STC-20, "Diagnosis Proce-</u> dure".

Is the inspection result normal?

YES (Present error)>>Replace the EPS control unit. Refer to ST-11, "Removal and Installation".

YES (Past error)>>Error was detected in the EPS control unit branch line.

M&A BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 2)]

Diagnosis Procedure			INFOID:000000011732324
1.CHECK CONNECTOR			
	cable from the negative terr d connectors of the combi		bend and loose connection
s the inspection result norm YES >> GO TO 2. NO >> Repair the term 2.CHECK HARNESS FOR	inal and connector.		
1. Disconnect the connect	or of combination meter. etween the combination me	ter harness connector tern	ninals.
Co	ombination meter harness connec	tor	Posistance (O)
Connector No.	Termir	al No.	Resistance (Ω)
M34	1	2	Approx. 54 – 66
3. CHECK POWER SUPPL Check the power supply an <u>METER : Diagnosis Procedu</u> <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	d the ground circuit of the ource".	combination meter. Refer . Refer to <u>MWI-60, "Remo</u> tion meter branch line.	to <u>MWI-49, "COMBINATION</u> val and Installation".

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MDU BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732325

[CAN SYSTEM (TYPE 2)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of multi display unit.

2. Check the resistance between the multi display unit harness connector terminals.

Ν	Multi display unit harness connector		
Connector No.	Termi	Resistance (Ω)	
M90	6	12	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the multi display unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the multi display unit. Refer to <u>AV-222, "MULTI DISPLAY</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the multi display unit. Refer to DMS-16, "Removal and Installation".

YES (Past error)>>Error was detected in the multi display unit branch line.

STRG BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 2)]

iagnosis Procedure	
	INFOID:000000011732326
CHECK CONNECTOR	
Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the steering angle sensor for damage, (unit side and connector side).	bend and loose connection
the inspection result normal? (ES >> GO TO 2.	
NO >> Repair the terminal and connector.	
CHECK HARNESS FOR OPEN CIRCUIT	
Disconnect the connector of steering angle sensor. Check the resistance between the steering angle sensor harness connector te	erminals.
Steering angle sensor harness connector	Resistance (Ω)
Connector No. Terminal No.	
M30 5 2	Approx. 54 – 66
 the measurement value within the specification? (ES >> GO TO 3. NO >> Repair the steering angle sensor branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the steering angle sensor. Re am". 	fer to <u>BRC-52, "Wiring Dia-</u>
the inspection result normal? (ES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Re</u> (ES (Past error)>>Error was detected in the steering angle sensor branch line. NO >> Repair the power supply and the ground circuit.	emoval and Installation".

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BCM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732327

[CAN SYSTEM (TYPE 2)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of BCM.

2. Check the resistance between the BCM harness connector terminals.

	BCM harness connector		
Connector No.	Termi	Resistance (Ω)	
M68	39	40	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the BCM branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the BCM. Refer to <u>BCS-86, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the BCM branch line.

CAN COMMUNICATION CIRCUIT

[CAN SYSTEM (TYPE 2)]

CAN COMMUNIC		CIRCUIT		
Diagnosis Procedure	;			INF0ID:000000011732328
1.CONNECTOR INSPEC	TION			
	cable from connectors connectors	s on CAN commu		
Is the inspection result nor YES >> GO TO 2. NO >> Repair the terr 2.CHECK HARNESS CO	minal and c		T)	
Check the continuity betwe				
	Data	a link connector		Oractionaita
Connector No.		Termir	nal No.	Continuity
M4		6	14	Not existed
Is the inspection result nor YES >> GO TO 3. NO >> Check the har 3. CHECK HARNESS CO Check the continuity betwee	ness and re NTINUITY	(SHORT CIRCUI	Т)	
Data lin	k connector			
Connector No.	Т	erminal No.	Ground	Continuity
M4		6 14		Not existed
Is the inspection result nor YES >> GO TO 4. NO >> Check the har 4. CHECK ECM AND BCM 1. Remove the ECM and 2. Check the resistance I - For NISMO RS model	ness and re M TERMIN the BCM. petween the	ATION CIRCUIT	se.	
	S	e ECM terminals.		
	S	e ECM terminals.		
ECM Terminal No.	S	e ECM terminals. Resistance (Ω	2)	
ECM	S 99		·	
ECM Terminal No.	99	Resistance (Ω	·	
ECM Terminal No. 100	99	Resistance (Ω Approx. 108 – 1	32	
ECM Terminal No. 100 - Except for NISMO RS	99	Resistance (Ω	32	
ECM Terminal No. 100 - Except for NISMO RS ECM Terminal No.	99	Resistance (Ω Approx. 108 – 1	32 2)	
ECM Terminal No. 100 - Except for NISMO RS ECM Terminal No.	99 models 123	Resistance (Ω Approx. 108 – 1 Resistance (Ω Approx. 108 – 1	32 2)	
ECM Terminal No. 100 - Except for NISMO RS ECM Terminal No. 124	99 models 123	Resistance (Ω Approx. 108 – 1 Resistance (Ω Approx. 108 – 1 e BCM terminals.	32 2) 32	
ECM Terminal No. 100 - Except for NISMO RS ECM Terminal No. 124 3. Check the resistance I	99 models 123	Resistance (Ω Approx. 108 – 1 Resistance (Ω Approx. 108 – 1	32 2) 32 2) 32	

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 5.

NO >> Replace the ECM and/or the BCM.

5. CHECK SYMPTOM

Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

Inspection result

Reproduced>>GO TO 6.

Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.

6.CHECK UNIT REPRODUCTION

Perform the reproduction test as per the following procedure for each unit.

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect one of the unit connectors of CAN communication system. **NOTE:**

ECM and BCM have a termination circuit. Check other units first.

4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

NOTE:

Although unit-related error symptoms occur, do not confuse them with other symptoms.

Inspection result

Reproduced>>Connect the connector. Check other units as per the above procedure.

Non-reproduced>>Replace the unit whose connector was disconnected.

< DTC/CIRCUIT DIA			ICAN	SYSTEM (TYPE 3)]
DTC/CIRCU		SIS		
MAIN LINE BET			RCUIT	
Diagnosis Proced				
				INFOID:000000011732329
1. CHECK CONNECT 1. Turn the ignition s				
 Disconnect the ba Check the followin and harness side) Harness connector Harness connector Harness connector Is the inspection result YES >> GO TO 2. NO >> Repair the 2.CHECK HARNESS Disconnect the fol IPDM E/R Harness connector 	ttery cable from the ne ng terminals and conr r E105 or M77 <u>t normal?</u> e terminal and connect c CONTINUITY (OPEN lowing harness conne ors E105 and M77	or. I CIRCUIT)		ection (connector side
	-	E/R harness connecto	r and the harness co	nnector.
	ness connector	Harness co		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
E13	27 26	E105	6	Existed
s the inspection result	-		0	Existed
3.CHECK HARNESS 1. Disconnect the co 2. Check the continu Harness	CONTINUITY (OPEN nnector of A/C amp. ity between the harne	ss connector and the A A/C auto amp. har	VC auto amp. harnes	
Connector No.	Terminal No.	Connector No.	Terminal No.	-
M77	1	M50	6	Existed
Is the inspection result	6		7	Existed
	>Check CAN system			

MAIN LINE BETWEEN HVAC AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN HVAC AND DLC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732330

[CAN SYSTEM (TYPE 3)]

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the following harness connectors.
- ECM
- A/C auto amp.
- 4. Check the continuity between the A/C auto amp. harness connector and the data link connector.

A/C auto amp. h	arness connector	Data link	connector	Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M50	6	M4	6	Existed
MOO	7	1014	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

NO >> Repair the main line between the A/C auto amp. and the data link connector.

YES (Past error)>>Error was detected in the main line between the A/C auto amp. and the data link connector.

ECM BRANCH LINE CIRCUIT

gnosis Procedure HECK CONNECTOR Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the ECM for damage, bend and loose connection (unit side and connector side). e inspection result normal? S >> GO TO 2. >> > Repair the terminal and connector. HECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of ECM. Check the resistance between the ECM harness connector terminals. For NISMO RS models ECM harness connector ECM harness connector ECM harness connector terminal No. E18 100 99 Approx. 108 – 132 Except for NISMO RS models ECM harness connector ECM harne	IN BRAINCH LIN	IE CIRCUIT		
CHECK CONNECTOR Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the ECM for damage, bend and loose connection (unit side and connector side). e inspection result normal? S >> GO TO 2. >> >> Repair the terminal and connector. CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of ECM. Check the resistance between the ECM harness connector terminals. For NISMO RS models ECM harness connector Connector No. E18 100 9 Approx. 108 – 132 Except for NISMO RS models ECM harness connector Resistance (Ω) Connector No. Terminal No. E19 124 123 Approx. 108 – 132 e measurement value within the specification? S > S or O TO 3. Proved the ECM branch line. HECK POWER SUPPLY AND GROUND CIRCUIT Che the power supply and the ground circuit of the ECM. Refer to the following. r NISMO RS models: EC-183. "Diagnosis Procedure" cept for NISMO RS models: EC-777. "Diagnosis Procedure" e inspection result normal? S (Present error)>> Repair the ECM. Refer to the following. r F				INFOID:00000001173233
Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the terminals and connectors of the ECM for damage, bend and loose connection (unit side and connector side). e inspection result normal? S >> GO TO 2. >>> Repair the terminal and connector. CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of ECM. Check the resistance between the ECM harness connector terminals. For NISMO RS models ECM harness connector Resistance (Ω) Connector No. Terminal No. ECM harness connector Resistance (Ω) Connector No. Terminal No. Resistance (Ω) Connector No. Terminal	-			
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Ρ

ABS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732332

[CAN SYSTEM (TYPE 3)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of ABS actuator and electric unit (control unit).
- Check the resistance between the ABS actuator and electric unit (control unit) harness connector terminals.

ABS actuator	and electric unit (control unit) har	ness connector	Resistance (Ω)
Connector No.	Termi	nal No.	
E35	22	9	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ABS actuator and electric unit (control unit) branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ABS actuator and electric unit (control unit). Refer to <u>BRC-114, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to <u>BRC-138, "Removal</u> <u>and Installation"</u>.

YES (Past error)>>Error was detected in the ABS actuator and electric unit (control unit) branch line.

IPDM-E BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 3)]

IPDM-E BRANCH LINE CIRCUIT Diagnosis Procedure Meroconcontracts 1.CHECK CONNECTOR 1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side). Is the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of IPDM E/R. 2. Check the resistance between the IPDM E/R harness connector terminals. IPDM E/R harness connector Resistance (Ω) Connector No. Terminal No. Resistance (Ω) Connector No. Terminal	< DTC/CIRCUIT DIAGNOS	SIS >		[CAN SYSTEM (TYPE 3)]
I. CHECK CONNECTOR 1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side). s the inspection result normal? YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of IPDM E/R. 2. Check the resistance between the IPDM E/R harness connector terminals. Impose Yes Resistance (Ω) Connector No. Terminal No. E13 27 26 Approx. 54 - 66 s the measurement value within the specification? YES >> GO TO 3. NO NO >> Repair the IPDM E/R branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". S the inspection result normal? YES (Present error)>> Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Present error)>> Error was detected in the IPDM E/R branch line. YES (Present error)>> Error was detected in the IPDM E/R branch line.	PDM-E BRANCH L	INE CIRCUIT		
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2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of IPDM E/R. 2. Check the resistance between the IPDM E/R harness connector terminals. IPDM E/R harness connector Resistance (Ω) Connector No. Terminal No. Connector No. Terminal No. E13 27 26 Approx. 54 – 66 s the measurement value within the specification? YES >> GO TO 3. O >> Repair the IPDM E/R branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". s the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line.	 Disconnect the battery of 3. Check the terminals and and connector side). <u>s the inspection result norm</u> YES >> GO TO 2. 	cable from the negative terr d connectors of the IPDM I al?		nd loose connection (unit side
Image: Disconnect the connector of IPDM E/R. 2. Check the resistance between the IPDM E/R harness connector terminals. IPDM E/R harness connector Resistance (Ω) Connector No. Terminal No. E13 27 26 Approx. 54 – 66 s the measurement value within the specification? YES >> GO TO 3. NO >> Repair the IPDM E/R branch line. 3. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". s the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line. PCS-36, "Removal and Installation".	• ·			
Connector No. Terminal No. Resistance (Ω) E13 27 26 Approx. 54 – 66 s the measurement value within the specification? YES >> GO TO 3. YES >> GO TO 3. NO >> Repair the IPDM E/R branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". s the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line. PCS-36, "Removal and Installation".			ess connector terminals.	
Connector No. Terminal No. Resistance (Ω) E13 27 26 Approx. 54 – 66 s the measurement value within the specification? YES >> GO TO 3. YES >> GO TO 3. Sthe measurement value within the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". s the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line.		IPDM E/R harness connector		
s the measurement value within the specification? YES >> GO TO 3. NO >> Repair the IPDM E/R branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". s the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line.	Connector No.		nal No.	Resistance (Ω)
YES >> GO TO 3. NO >> Repair the IPDM E/R branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the IPDM E/R. Refer to PCS-35, "Diagnosis Procedure". Is the inspection result normal? YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation". YES (Past error)>>Error was detected in the IPDM E/R branch line.	E13	27	26	Approx. 54 – 66
	NO >> Repair the IPDN CHECK POWER SUPPL Check the power supply and <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error was	Y AND GROUND CIRCUIT I the ground circuit of the IF <u>al?</u> lace the IPDM E/R. Refer t as detected in the IPDM E/	PDM E/R. Refer to <u>PCS-3</u> to <u>PCS-36. "Removal and</u> /R branch line.	

Revision: 2014 October

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A-BAG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732334

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

AVM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 3)]

CHECK CONNECTOR Turn the ignition switch OF Disconnect the battery cat Check the terminals and c	· c		
Disconnect the battery cat	E		
connection (unit side and o	le from the negative te onnectors of the arour connector side).		for damage, bend and loose
the inspection result normal? YES >> GO TO 2. NO >> Repair the termina	-		
CHECK HARNESS FOR O			
Disconnect the connector Check the resistance betw		r control unit. nonitor control unit harness	connector terminals.
Around view	monitor control unit harnes	s connector	Resistance (Ω)
Connector No.	Terr	minal No.	
M98	26	24	Approx. 54 – 66
CHECK POWER SUPPLY	view monitor control u	ЛТ	
heck the power supply and AROUND VIEW MONITOR C the inspection result normal	ONTROL UNIT : Diagr		ontrol unit. Refer to <u>AV-155,</u>
•	e the around view mor		/-184, "Removal and Installa-
	supply and the ground		

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HVAC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732336

[CAN SYSTEM (TYPE 3)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the A/C auto amp. for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of A/C auto amp.
- 2. Check the resistance between the A/C auto amp. harness connector terminals.

	A/C auto amp. harness connecto	r	Resistance (Ω)
Connector No.	Termi	nal No.	
M50	6	7	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the A/C auto amp. branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the A/C auto amp. Refer to <u>HAC-73, "A/C AUTO AMP. :</u> <u>Diagnosis Procedure</u>".

Is the inspection result normal?

YES (Present error)>>Replace the A/C auto amp. Refer to HAC-91, "Removal and Installation".

YES (Past error)>>Error was detected in the A/C auto amp. branch line.

AV BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 3)]

AV BRANCH LINE	CIRCUIT		
Diagnosis Procedure			INFOID:000000011732337
1.CHECK CONNECTOR			
	cable from the negative tern d connectors of the NAVI co e).	minal. ontrol unit for damage, bend	and loose connection (unit
YES >> GO TO 2. NO >> Repair the term	inal and connector		
2.CHECK HARNESS FOR			
1. Disconnect the connect	or of NAVI control unit.		
2. Check the resistance be	etween the NAVI control un	it harness connector termina	als.
N	AVI control unit harness connect	or	Resistance (Ω)
Connector No.		nal No.	
M108	8	17	Approx. 54 – 66
Is the measurement value w YES >> GO TO 3. NO >> Repair the NAV 3. CHECK POWER SUPPL	I control unit branch line.	r	
Check the power supply an UNIT : Diagnosis Procedure	<u>,"</u>	NAVI control unit. Refer to	AV-155, "NAVI CONTROL
YES (Past error)>>Error wa	lace the NAVI control unit.		and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732338

[CAN SYSTEM (TYPE 3)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).
- Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Data link connector		Resistance (Ω)
Connector No.	Termi	nal No.	
M4	6	14	Approx. 54 – 66

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

EPS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 3)]

Diagnosis Procedure			INFOID:000000011732339
1 .CHECK CONNECTOR			
 Check the terminals and side and connector side side and connector side side and connector side side and connection result norm YES >> GO TO 2. NO >> Repair the termination of termination of the termination of termi	able from the negative terr d connectors of the EPS co). <u>al?</u> nal and connector. OPEN CIRCUIT or of EPS control unit.	ontrol unit for damage, bend	l and loose connection (unit
	Etween the EPS control unit	t harness connector termina	als.
Connector No.		nal No.	Resistance (Ω)
M37	2	1	Approx. 54 – 66
3. CHECK POWER SUPPL			STC-20, "Diagnosis Proce-
<u>dure"</u> . <u>Is the inspection result norm</u> YES (Present error)>>Repl YES (Past error)>>Error wa NO >> Repair the powe	ace the EPS control unit. F	trol unit branch line.	nd Installation".

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< DTC/CIRCUIT DIAGNOSIS >

M&A BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732340

[CAN SYSTEM (TYPE 3)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of combination meter.
- 2. Check the resistance between the combination meter harness connector terminals.

Co	ombination meter harness connect	ctor	Resistance (Ω)
Connector No.	Termi	nal No.	
M34	1	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the combination meter branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION</u> <u>METER : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation".

YES (Past error)>>Error was detected in the combination meter branch line.

MDU BRANCH LINE CIRCUIT

Diagnosis Procedure			INFOID:00000001173234
•			IN 012.00000001173234
CHECK CONNECTOR			
 Turn the ignition switch OI Disconnect the battery cal Check the terminals and c side and connector side). <u>s the inspection result normal</u> YES >> GO TO 2. NO >> Repair the termina CHECK HARNESS FOR O 	ble from the negative term connectors of the multi dis <u>?</u> al and connector.		nd and loose connection (unit
Disconnect the connector			
2. Check the resistance betv		harness connector termi	nals.
Mul	ti display unit harness connecto	r	
Connector No.	Termin	al No.	Resistance (Ω)
M90	6	10	
	in the energification?	12	Approx. 54 – 66
3. CHECK POWER SUPPLY	splay unit branch line. AND GROUND CIRCUIT		<u> </u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure".	splay unit branch line. AND GROUND CIRCUIT the ground circuit of the		<u> </u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure". s the inspection result normal YES (Present error)>>Replac YES (Past error)>>Error was	isplay unit branch line. AND GROUND CIRCUIT the ground circuit of the <u>?</u> ce the multi display unit. F	multi display unit. Refer Refer to <u>DMS-16, "Remov</u> lay unit branch line.	to <u>AV-222, "MULTI DISPLAY</u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure". s the inspection result normal YES (Present error)>>Replac YES (Past error)>>Error was	isplay unit branch line. AND GROUND CIRCUIT the ground circuit of the ? ce the multi display unit. F detected in the multi disp	multi display unit. Refer Refer to <u>DMS-16, "Remov</u> lay unit branch line.	to <u>AV-222, "MULTI DISPLAY</u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure". s the inspection result normal YES (Present error)>>Replac YES (Past error)>>Error was	isplay unit branch line. AND GROUND CIRCUIT the ground circuit of the ? ce the multi display unit. F detected in the multi disp	multi display unit. Refer Refer to <u>DMS-16, "Remov</u> lay unit branch line.	to <u>AV-222, "MULTI DISPLAY</u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure". s the inspection result normal YES (Present error)>>Replac YES (Past error)>>Error was	isplay unit branch line. AND GROUND CIRCUIT the ground circuit of the ? ce the multi display unit. F detected in the multi disp	multi display unit. Refer Refer to <u>DMS-16, "Remov</u> lay unit branch line.	to <u>AV-222, "MULTI DISPLAY</u>
YES >> GO TO 3. NO >> Repair the multi d 3.CHECK POWER SUPPLY Check the power supply and JNIT : Diagnosis Procedure". s the inspection result normal YES (Present error)>>Replac YES (Past error)>>Error was	isplay unit branch line. AND GROUND CIRCUIT the ground circuit of the ? ce the multi display unit. F detected in the multi disp	multi display unit. Refer Refer to <u>DMS-16, "Remov</u> lay unit branch line.	to <u>AV-222, "MULTI DISPLAY</u>

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STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732342

[CAN SYSTEM (TYPE 3)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of steering angle sensor.
- 2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	ering angle sensor harness conne	ector	Resistance (Ω)
Connector No.	Termi	nal No.	
M30	5	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

BCM BRANCH LINE CIRCUIT

Diagnosis Procedure			INFOID:00000001173234
1.CHECK CONNECTOR	-		
3. Check the terminals an connector side).	cable from the negative term d connectors of the BCM fo		oose connection (unit side and
Is the inspection result norm	al?		
YES >> GO TO 2. NO >> Repair the term	inal and connector		
2. CHECK HARNESS FOR			
1. Disconnect the connect			
	etween the BCM harness cor	nector terminals.	
	BCM harness connector		
Connector No.	BCM harness connector Termina	I No.	Resistance (Ω)
Connector No. M68		I No. 40	Resistance (Ω) Approx. 108 – 132
M68 Is the measurement value w	Termina 39		
M68 Is the measurement value w YES >> GO TO 3.	Termina 39 rithin the specification?		
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM	Termina 39 rithin the specification? I branch line.		
$\frac{M68}{Is the measurement value w}}$ $\frac{Is the measurement value w}{YES} >> GO TO 3.$ $NO >> Repair the BCW$ $3.CHECK POWER SUPPLE$	Termina 39 vithin the specification? I branch line. Y AND GROUND CIRCUIT	40	Approx. 108 – 132
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCW 3. CHECK POWER SUPPL Check the power supply and	Termina 39 /ithin the specification? I branch line. Y AND GROUND CIRCUIT I the ground circuit of the BC	40	Approx. 108 – 132
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm	Termina 39 vithin the specification? I branch line. Y AND GROUND CIRCUIT I the ground circuit of the BC nal?	40 M. Refer to <u>BCS-86, "I</u>	Approx. 108 – 132
M68 Is the measurement value w YES >> GO TO 3. NO >> Repair the BCW 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error w	Termina 39 /ithin the specification? I branch line. Y AND GROUND CIRCUIT I the ground circuit of the BC	40 M. Refer to <u>BCS-86, "I</u> 93. "Removal and Inst ch line.	Approx. 108 – 132

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

1. Turn the ignition switch OFF.

2. Disconnect the battery cable from the negative terminal.

3. Disconnect all the unit connectors on CAN communication system.

4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

Data link connector			Continuity
Connector No.	Terminal No.		Continuity
M4	6 14		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link connector			Continuity	
Connector No.	Terminal No.	Ground	Continuity	
M4	6	Gibunu	Not existed	
	14		Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

E	Resistance (Ω)		
Terminal No.			
100	99	Approx. 108 – 132	

Except for NISMO RS models

ECM		Resistance (Ω)	
Terminal No.			
124	123	Approx. 108 – 132	

3. Check the resistance between the BCM terminals.

BCM		Resistance (Ω)	
Terminal No.			
39	40	Approx. 108 – 132	

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN SYSTEM (TYPE 3)]
Is the measurement value within the specification?
YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.
5. СНЕСК ЅҮМРТОМ
Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.
Inspection result
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.
6. CHECK UNIT REPRODUCTION
Perform the reproduction test as per the following procedure for each unit. 1. Turn the ignition switch OFF.
 Disconnect the battery cable from the negative terminal. Disconnect one of the unit connectors of CAN communication system. NOTE:
ECM and BCM have a termination circuit. Check other units first. 4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom"
(Results from interview with customer)" are reproduced. NOTE: Although unit-related error symptoms occur, do not confuse them with other symptoms.
Inspection result

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MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 4)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

Diagnosis Procedure

INFOID:0000000011732345

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R har	IPDM E/R harness connector Harness connector		Continuity	
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
E13	27	E105	1	Existed
E13 -	26	L 103	6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

${ m 3.}$ CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

Check the continuity between the harness connector and the data link connector.

Harness	connector	Data link connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77	1	M4	6	Existed
	6	1014	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the air bag diagnosis sensor unit.

NO >> Repair the main line between the harness connector M77 and the air bag diagnosis sensor unit.

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the harness connectors E105 and M77.
- 4. Check the continuity between the harness connector and the data link connector.

Harness of	connector	Data link connector		Continuity	-
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity	
N77	1	N44	6	Existed	_
M77	6	M4	14	Existed	_

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the air bag diagnosis sensor unit and the data link connector.

NO >> Repair the main line between the air bag diagnosis sensor unit and the data link connector.

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[CAN SYSTEM (TYPE 4)]

INFOID:000000011732346

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732347

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E18	100	99	Approx. 108 – 132

Except for NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Terminal No.		1(63)3(8)106 (22)
E19	124	123	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: EC-1255, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

ABS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 4)]

	CIRCUIT			
Diagnosis Procedure				
.CHECK CONNECTOR				
. Check the terminals and	able from the negative termin connectors of the ABS actunit side and connector side).		ntrol unit) for damage, bend	
NO >> Repair the termi	nal and connector.			
CHECK HARNESS FOR	OPEN CIRCUIT			
	or of ABS actuator and electri etween the ABS actuator and		it) harness connector termi-	
ABS actuator a	nd electric unit (control unit) harnes	s connector	Resistance (Ω)	
Connector No.	Terminal	No.		
E35				
the measurement value w	22 thin the specification?	9	Approx. 54 – 66	
the measurement value w YES >> GO TO 3. NO >> Repair the ABS CHECK POWER SUPPL heck the power supply and RC-114. "Diagnosis Proceed the inspection result norm YES (Present error)>>Repl and Installation" YES (Past error)>>Error wa	thin the specification? actuator and electric unit (co Y AND GROUND CIRCUIT d the ground circuit of the A lure". al? ace the ABS actuator and ele	ntrol unit) branch line. BS actuator and electric ectric unit (control unit). F tor and electric unit (cont	unit (control unit). Refer to Refer to <u>BRC-138, "Removal</u>	

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IPDM-E BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732349

[CAN SYSTEM (TYPE 4)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of IPDM E/R.

2. Check the resistance between the IPDM E/R harness connector terminals.

IPDM E/R harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E13	27	26	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the IPDM E/R branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the IPDM E/R. Refer to <u>PCS-35, "Diagnosis Procedure"</u>. <u>Is the inspection result normal?</u>

YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".

YES (Past error)>>Error was detected in the IPDM E/R branch line.

TCM BRANCH LINE CIRCUIT

	E CIRCUIT		
gnosis Procedure			INFOID:0000000117323
HECK CONNECTOR			
Check the following terr nector side). TCM Harness connector F1 Harness connector E8 <u>e inspection result norm</u> S >> GO TO 2. >> Repair the term CHECK HARNESS FOR Disconnect the connect	cable from the negative termir minals and connectors for dan <u>nal?</u> inal and connector.	nage, bend and loose	connection (unit side and cor
For NISMO RS models	TCM harness connector		
Connector No.	Terminal	No.	Resistance (Ω)
F81	32	31	Approx. 54 – 66
Except for NISMO RS r	nodels		
	TCM harness connector		Resistance (Ω)
Connector No.	Terminal	No.	
F83	33	23	Approx. 54 – 66
e measurement value v S >> GO TO 3.	vithin the specification?		

A-BAG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732350

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

DLC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 4)]

EPS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732352

[CAN SYSTEM (TYPE 4)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of EPS control unit.
- 2. Check the resistance between the EPS control unit harness connector terminals.

E	Resistance (Ω)		
Connector No.	Termi		
M37	2	1	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the EPS control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the EPS control unit. Refer to <u>STC-20, "Diagnosis Proce-</u> dure".

Is the inspection result normal?

YES (Present error)>>Replace the EPS control unit. Refer to ST-11, "Removal and Installation".

YES (Past error)>>Error was detected in the EPS control unit branch line.

M&A BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 4)]

Diagnosis Procedure			INFOID:000000011732353	
1.CHECK CONNECTOR				
	cable from the negative term d connectors of the combir		bend and loose connection	
Is the inspection result norm YES >> GO TO 2. NO >> Repair the termi				
2. CHECK HARNESS FOR	OPEN CIRCUIT			
	or of combination meter. Stween the combination met	er harness connector term	inals.	
Co	Combination meter harness connector		Resistance (Ω)	
Connector No.	Termin	al No.		
M34	1	2	Approx. 54 – 66	
3.CHECK POWER SUPPL	d the ground circuit of the c		o <u>MWI-49, "COMBINATION</u>	
YES (Present error)>>Rep YES (Past error)>>Error wa		ion meter branch line.	val and Installation".	
YES (Past error)>>Error wa	al? lace the combination meter. as detected in the combinat	ion meter branch line.	val and Installation".	

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STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732354

[CAN SYSTEM (TYPE 4)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of steering angle sensor.
- 2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	Resistance (Ω)		
Connector No.	Terminal No.		
M30	5	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

BCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 4)]

Diagnosis Procedure			INFOID:00000001173235	
1.CHECK CONNECTOR				
 Check the terminals ar connector side). <u>s the inspection result norm</u> YES >> GO TO 2. 	cable from the negative termi ad connectors of the BCM for <u>nal?</u> inal and connector.		e connection (unit side and	
Disconnect the connect the connect the connect the connect the resistance b	etween the BCM harness con	nector terminals.		
	BCM harness connector Resistance (Ω)		Resistance (Ω)	
Connector No.	Termina	No		
M68	39 vithin the specification?	40	Approx. 108 – 132	
M68 Is the measurement value v YES >> GO TO 3. NO >> Repair the BCN 3. CHECK POWER SUPPI	vithin the specification? I branch line. Y AND GROUND CIRCUIT	40		
M68 <u>Is the measurement value value</u>	vithin the specification? I branch line. Y AND GROUND CIRCUIT d the ground circuit of the BC hal?	40 M. Refer to <u>BCS-86, "Dia</u>	gnosis Procedure".	
M68 Is the measurement value w YES >> GO TO 3. NO >> Repair the BCM 3.CHECK POWER SUPPI Check the power supply an Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error w	vithin the specification? /I branch line. _Y AND GROUND CIRCUIT d the ground circuit of the BC	40 M. Refer to <u>BCS-86, "Dia</u> 93. "Removal and Install: ch line.	gnosis Procedure".	
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPI Check the power supply an <u>Is the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	vithin the specification? I branch line. _Y AND GROUND CIRCUIT d the ground circuit of the BC <u>nal?</u> place the BCM. Refer to <u>BCS-</u> vas detected in the BCM brand	40 M. Refer to <u>BCS-86, "Dia</u> 93. "Removal and Install: ch line.	gnosis Procedure".	

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

1. Turn the ignition switch OFF.

2. Disconnect the battery cable from the negative terminal.

3. Disconnect all the unit connectors on CAN communication system.

4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

	Data link connector			
Connector No.	Terminal No.		Continuity	
M4	6	14	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link	connector		Continuity
Connector No.	Terminal No.	- Ground	Continuity
M4	6		Not existed
WI4	14		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

E	СМ	Resistance (Ω)
Terminal No.		
100	99	Approx. 108 – 132

Except for NISMO RS models

ECM		Resistance (Ω)	
Terminal No.		1001010100 (22)	
124	123	Approx. 108 – 132	

3. Check the resistance between the BCM terminals.

BCM		Resistance (Ω)
Terminal No.		
39	40	Approx. 108 – 132

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN SYSTEM (TYPE 4)]
Is the measurement value within the specification?
YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.
5. СНЕСК ЗҮМРТОМ
Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.
Inspection result
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.
6. CHECK UNIT REPRODUCTION
Perform the reproduction test as per the following procedure for each unit.
1. Turn the ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
 Disconnect one of the unit connectors of CAN communication system. NOTE:
ECM and BCM have a termination circuit. Check other units first.
4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.
NOTE:
Although unit-related error symptoms occur, do not confuse them with other symptoms.
Inspection result
Reproduced>>Connect the connector. Check other units as per the above procedure.

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MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 5)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732357

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R hai	ness connector	Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
E13	27	E105	1	Existed
L13	26		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of A/C amp.

2. Check the continuity between the harness connector and the A/C auto amp. harness connector.

Harness	connector	A/C auto amp. harness connector		Continuity	
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity	
M77 —	1	MEO	6	Existed	
	6	M50	7	Existed	

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the A/C auto amp.

NO >> Repair the main line between the harness connector M77 and the A/C auto amp.

-	C/CIRCUIT DIAG	MAIN LINE BETW SNOSIS > WEEN HVAC A		[CAN	T N SYSTEM (TYPE 5)]
Dia	gnosis Proced	ure			INFOID:000000011732358
1. c	HECK HARNESS	CONTINUITY (OPEN	I CIRCUIT)		
2. 3. - -	Disconnect the foll ECM A/C auto amp.	vitch OFF. tery cable from the ne owing harness conne ty between the A/C au	ctors.	nector and the data li	nk connector.
	A/C auto amp. ha	arness connector	Data link	connector	Questionity
	Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
	M50	6	M4	6	Existed
	VISU	7	1014	14	Existed
YE	S (Past error)>>Er tor.	>Check CAN system t	e main line between		d the data link connec- or.

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[CAN SYSTEM (TYPE 5)]

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732359

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

Connector No. Terminal No.		ECM harness connector		
E19 100 00 Approx 109 122	Connector No.	Terminal No.		Resistance (Ω)
E10 100 99 Applox. 100 132	E18	100	99	Approx. 108 – 132

Except for NISMO RS models

	ECM harness connector		Resistance (Ω)
Connector No.	Terminal No.		Tresistance (32)
E19	124	123	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: EC-1255, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

ABS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 5)]

ABS BRANCH LINE	CIRCUIT			
Diagnosis Procedure			INFOID:000000011732360	
1 .CHECK CONNECTOR				
3. Check the terminals and	able from the negative term I connectors of the ABS actu nit side and connector side).	uator and electric unit (control unit) for damage, bend	
YES >> GO TO 2. NO >> Repair the termi	nal and connector.			
CHECK HARNESS FOR	OPEN CIRCUIT			
 Check the resistance be nals. 		d electric unit (control	unit) harness connector termi-	
	and electric unit (control unit) harne		Resistance (Ω)	
Connector No. Terminal No.				
E35 s the measurement value w	22	9	Approx. 54 – 66	
3. CHECK POWER SUPPL Check the power supply an <u>BRC-114, "Diagnosis Procee</u> s the inspection result norm	d the ground circuit of the A <u>dure"</u> . <u>al?</u>	ABS actuator and elect	ric unit (control unit). Refer to . Refer to <u>BRC-138, "Removal</u>	
and Installation" YES (Past error)>>Error wa		ator and electric unit (co		

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IPDM-E BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732361

[CAN SYSTEM (TYPE 5)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of IPDM E/R.

2. Check the resistance between the IPDM E/R harness connector terminals.

	IPDM E/R harness connector		
Connector No.	Terminal No.		Resistance (Ω)
E13	27	26	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the IPDM E/R branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the IPDM E/R. Refer to <u>PCS-35, "Diagnosis Procedure"</u>. <u>Is the inspection result normal?</u>

YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".

YES (Past error)>> Error was detected in the IPDM E/R branch line.

TCM BRANCH LINE CIRCUIT

J.CHECK CONNECTOR I. Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. B. Check the following terminals and connectors for damage, bend and loose connection (unit side and nector side). TCM Harness connector F1 Harness connector E8 s the inspection result normal? YES > GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. F81 32 33 23 Approx.54 - 66 Except for NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx.54 - 66 sthe measurement value within the specification? YES > GO TO 3. Repair the TCM branch line. O.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to	iagnosis Procedure .CHECK CONNECTOR Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose comnector side). TCM Harness connector F1 Harness connector F2 Harness connector F3 Harness connector F4 Harness connector F8 the inspection result normal? (FS >> GO TO 2. VO >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. F81 32 S2 31 Except for NISMO RS models TCM harness connector Connector No. Terminal No. F83 33 23 the measurement value within the specification? (FS >> GO TO 3. vO >> Repair the TCM branch line. . .CHECK POWER SUPPLY AND GROUND CIRCUIT Teck the power supply and the ground circuit of the TCM. Refer to the following. <th>IC/CIRCUIT DIAGNUS</th> <th>-</th> <th></th> <th></th>	IC/CIRCUIT DIAGNUS	-		
•CHECK CONNECTOR Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connection (unit side and nector side). TCM Harness connector F1 Harness connector result normal? (ES >> GO TO 2. VO >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Resistance (Ω) F81 32 33 23 Approx. 54 – 66 Except for NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx. 54 – 66 TCM harness connector KES >> GO TO 3. Resistance (Ω) Connector No. Terminal No. Resistance (Ω) KES >> GO TO 3. Approx. 54 – 66 the measurement value within the specification? KES (CHECK POWE	CHECK CONNECTOR Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? (YES >> GO TO 2.) \O >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. F83 33 23 the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. . .CHECK POWER SUPPLY AND GROUND CIRCUIT Theck the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-303. "Diagnosis Procedure" REOF10B: TM-325. "Removal and Installation" • REOF10B: TM-325. "Removal and Installat	M BRANCH LINI			
Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connection (unit side and nector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? YES YES VO >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Resistance (Q) Connector No. Terminal No. Resistance (Q) Connector No. <td>Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? (FS) >> GO TO 2. (V) >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. F83 33 23 the measurement value within the specification? (FS) >> GO TO 3. VO >> Repair the TCM branch line. . . .CHECK POWER SUPPLY AND GROUND CIRCUIT Teket the power supply and the ground circuit of the TCM. Refer to the following. REOF 10B: TM-278. "Diagnosis Procedure" the inspection result normal? (FES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-</td> <td>gnosis Procedure</td> <td></td> <td></td> <td>INFOID:000000011732388</td>	Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? (FS) >> GO TO 2. (V) >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. F83 33 23 the measurement value within the specification? (FS) >> GO TO 3. VO >> Repair the TCM branch line. . . .CHECK POWER SUPPLY AND GROUND CIRCUIT Teket the power supply and the ground circuit of the TCM. Refer to the following. REOF 10B: TM-278. "Diagnosis Procedure" the inspection result normal? (FES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-	gnosis Procedure			INFOID:000000011732388
Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connection (unit side and nector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? YES YES >> GO TO 2. NO >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. F81 32 S33 23 Approx. 54 – 66 Except for NISMO RS models Connector No. TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx. 54 – 66 Except for NISMO RS models Connector No. Terminal No. Resistance (Ω) KE Papair the TCM branch line. COTO 3. NO >> Repair the TCM	Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the following terminals and connectors for damage, bend and loose connector side). TCM Harness connector F1 Harness connector E8 the inspection result normal? (FS) >> GO TO 2. (V) >> Repair the terminal and connector. .CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Check the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. F83 33 23 the measurement value within the specification? (FS) >> GO TO 3. VO >> Repair the TCM branch line. . . .CHECK POWER SUPPLY AND GROUND CIRCUIT Teket the power supply and the ground circuit of the TCM. Refer to the following. REOF 10B: TM-278. "Diagnosis Procedure" the inspection result normal? (FES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-	HECK CONNECTOR			
TCM harness connectorResistance (Ω)Connector No.Terminal No.Resistance (Ω)F813231Approx. 54 – 66Except for NISMO RS modelsTCM harness connectorResistance (Ω)Connector No.Terminal No.F833323Approx. 54 – 66the measurement value within the specification?(ES>> GO TO 3.NONO>> Repair the TCM branch lineCHECK POWER SUPPLY AND GROUND CIRCUITheck the power supply and the ground circuit of the TCM. Refer to the following.RE0F10B: TM-278. "Diagnosis Procedure"RE0F10D: TM-503, "Diagnosis Procedure"Refer to the following.RE0F10D: TM-503, "Diagnosis Procedure"the inspection result normal?(FS (Present error)>>Replace the TCM. Refer to the following.	TCM harness connector Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. Terminal No. F83 33 23 the measurement value within the specification? (ES >> GO TO 3. NO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: TM-278. "Diagnosis Procedure" RE0F10D: TM-503, "Diagnosis Procedure" the inspection result normal? (ES (Present error)>>Replace the TCM. Refer to the following. . RE0F10B: TM-325, "Removal and Installation" . RE0F10D: TM-547, "Removal and Installation" . RE0F10D: TM-547, "Removal and Installation"	Disconnect the battery of Check the following terr nector side). TCM Harness connector F1 Harness connector E8 the inspection result norm S >> GO TO 2. >> Repair the term CHECK HARNESS FOR Disconnect the connect Check the resistance be	able from the negative tern ninals and connectors for da al? nal and connector. OPEN CIRCUIT or of TCM.	amage, bend and loose o	connection (unit side and con-
Connector No. Terminal No. Resistance (Ω) F81 32 31 Approx. 54 – 66 Except for NISMO RS models Except for NISMO RS models Resistance (Ω) Connector No. Terminal No. Resistance (Ω) F83 33 23 Approx. 54 – 66 the measurement value within the specification? Resistance (Ω) Resistance (Ω) ES >> GO TO 3. O >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT Refer to the following. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" Refer to the following. REOF10D: TM-503. "Diagnosis Procedure" Refer to the following. REOF10D: TM-503. "Diagnosis Procedure" Refer to the following. ES (Present error)>> Replace the TCM. Refer to the following. Refer to the following.	Connector No. Terminal No. F81 32 31 Except for NISMO RS models TCM harness connector Connector No. Terminal No. F83 33 23 the measurement value within the specification? ES ES >> GO TO 3. O O >> Repair the TCM branch line. . .CHECK POWER SUPPLY AND GROUND CIRCUIT . teck the power supply and the ground circuit of the TCM. Refer to the following. . RE0F10B: TM-278. "Diagnosis Procedure" RE0F10D: TM-503. "Diagnosis Procedure" the inspection result normal? . ES (Present error)>>Replace the TCM. Refer to the following. . RE0F10B: TM-325. "Removal and Installation" . RE0F10D: TM-547. "Removal and Installation"	For NISMO RS models	TCM harness connector		
TCM harness connector Resistance (Ω) Connector No. Terminal No. Resistance (Ω) F83 33 Terminal No. Resistance (Ω) Resistance (Ω) Connector No. Terminal No. Resistance (Ω) Resistance (Ω) (ΩS S GO TO 3. NO NO PREPAIR TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT heck the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278, "Diagnosis Procedure" REOF10D: TM-503, "Diagnosis Procedure" He inspection result normal? (ES (Present error)>>Replace the TCM. Refer to the following.	Except for NISMO RS models TCM harness connector Connector No. Terminal No. F83 33 the measurement value within the specification? (ES >> GO TO 3. NO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-503, "Diagnosis Procedure" the inspection result normal? (ES (Present error)>>Replace the TCM. Refer to the following. REOF10B: TM-325, "Removal and Installation" REOF10D: TM-547, "Removal and Installation" (ES (Past error)>>Error was detected in the TCM branch line.	Connector No.		al No.	— Resistance (Ω)
TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx. 54 – 66 the measurement value within the specification? (ES >> GO TO 3.) (ES >> Repair the TCM branch line. (EECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-503. "Diagnosis Procedure" the inspection result normal? (ES (Present error)>>Replace the TCM. Refer to the following. (ES (Present error)>>Replace the TCM. Refer to the following.	TCM harness connector Connector No. Terminal No. F83 33 23 the measurement value within the specification? (ES >> GO TO 3. VO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: TM-278. "Diagnosis Procedure" RE0F10D: TM-503. "Diagnosis Procedure" the inspection result normal? (FS (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-325. "Removal and Installation" • RE0F10D: TM-547. "Removal and Installation" (FS (Past error)>>Error was detected in the TCM branch line.	F81	32	31	Approx. 54 – 66
Connector No. Terminal No. Resistance (Ω) F83 33 23 Approx. 54 – 66 the measurement value within the specification? (ES >> GO TO 3. (ES >> GO TO 3.) VO >> Repair the TCM branch line. . . .CHECK POWER SUPPLY AND GROUND CIRCUIT . . heck the power supply and the ground circuit of the TCM. Refer to the following. . RE0F10B: TM-278. "Diagnosis Procedure" . RE0F10D: TM-503. "Diagnosis Procedure" . the inspection result normal? . . (ES (Present error)>>Replace the TCM. Refer to the following. .	Connector No. Terminal No. F83 33 23 the measurement value within the specification? (ES >> GO TO 3. (ES >> GO TO 3. (ES COMPARIANCE) NO >> Repair the TCM branch line. (EECK POWER SUPPLY AND GROUND CIRCUIT) neck the power supply and the ground circuit of the TCM. Refer to the following. (EOF108: TM-278. "Diagnosis Procedure") RE0F1010: TM-503. "Diagnosis Procedure" (ES (Present error)>> Replace the TCM. Refer to the following. (ES (Present error)>> Replace the TCM. Refer to the following. (ERE0F10B: TM-325, "Removal and Installation") (ES (Past error)>> Error was detected in the TCM branch line. (ES (Past error)>> Error was detected in the TCM branch line.	Except for NISMO RS n	odels		
Connector No. Terminal No. F83 33 23 Approx. 54 – 66 the measurement value within the specification? (ES >> GO TO 3. IO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT neck the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-503. "Diagnosis Procedure" the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following.	F833323the measurement value within the specification?'ES>> GO TO 3.IO>> Repair the TCM branch lineCHECK POWER SUPPLY AND GROUND CIRCUITneck the power supply and the ground circuit of the TCM. Refer to the following.REOF10B: TM-278, "Diagnosis Procedure"REOF10D: TM-503, "Diagnosis Procedure"(ES (Present error)>>Replace the TCM. Refer to the following.		TCM harness connector		
the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. • CHECK POWER SUPPLY AND GROUND CIRCUIT heck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: <u>TM-278</u> . "Diagnosis Procedure" RE0F10D: <u>TM-503</u> , "Diagnosis Procedure" the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following.	the measurement value within the specification? (ES >> GO TO 3. NO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT heck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: <u>TM-278</u> , "Diagnosis Procedure" RE0F10D: <u>TM-503</u> , "Diagnosis Procedure" the inspection result normal? (ES (Present error)>>Replace the TCM. Refer to the following. . RE0F10B: <u>TM-325</u> , "Removal and Installation" . RE0F10D: <u>TM-547</u> , "Removal and Installation" (ES (Past error)>>Error was detected in the TCM branch line.	Connector No.	Termin	al No.	- Resistance (12)
<pre>/ES >> GO TO 3. NO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT meck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: <u>TM-278</u>, "Diagnosis Procedure" RE0F10D: <u>TM-503</u>, "Diagnosis Procedure" the inspection result normal? /ES (Present error)>>Replace the TCM. Refer to the following.</pre>	<pre>/ES >> GO TO 3. NO >> Repair the TCM branch line. .CHECK POWER SUPPLY AND GROUND CIRCUIT heck the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: <u>TM-278</u>, "Diagnosis Procedure" RE0F10D: <u>TM-503</u>, "Diagnosis Procedure" the inspection result normal? /ES (Present error)>>Replace the TCM. Refer to the following.</pre>	F83	33	23	Approx. 54 – 66
 RE0F10D: <u>TM-547, "Removal and Installation"</u> (Past error)>>Error was detected in the TCM branch line. 	JO >> Repair the power supply and the ground circuit.	 >> Repair the TCM CHECK POWER SUPPL ck the power supply and E0F10B: TM-278, "Diagn E0F10D: TM-503, "Diagn is inspection result norm S (Present error)>>Rep RE0F10B: TM RE0F10B: TM RE0F10D: TM S (Past error)>>Error was 	Y AND GROUND CIRCUIT the ground circuit of the To <u>tosis Procedure</u> " <u>al?</u> ace the TCM. Refer to the -325, "Removal and Installa -547, "Removal and Installa as detected in the TCM brain	CM. Refer to the following following. ation" ation" nch line.	<u>g</u> .

< DTC/CIRCUIT DIAGNOSIS >

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A-BAG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732362

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2. CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

HVAC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 5)]

Diagnosis Procedure			INFOID:000000011732363
CHECK CONNECTOR			
. Turn the ignition switch			
			d and loose connection (unit
s the inspection result norm	al?		
YES >> GO TO 2. NO >> Repair the termi	inal and connector		
2.CHECK HARNESS FOR			
Disconnect the connect			
		harness connector terminal	S.
	A/C auto amp. harness connec	tor	
Connector No.	Terr	ninal No.	- Resistance (Ω)
M50	6	7	Approx. 54 – 66
s the measurement value w	-	7	Approx. 54 – 66
s the measurement value w YES >> GO TO 3.	ithin the specification?	7	Approx. 54 – 66
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a	ithin the specification? auto amp. branch line.		Approx. 54 – 66
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL	ithin the specification? auto amp. branch line. Y AND GROUND CIRCL	ИТ	
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL	ithin the specification? auto amp. branch line. Y AND GROUND CIRCL	ИТ	Approx. 54 – 66 HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th	ИТ	
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". S the inspection result norm YES (Present error)>>Rep	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u>	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCU d the ground circuit of th al? lace the A/C auto amp. R as detected in the A/C auto	IIT ne A/C auto amp. Refer to <u>I</u> efer to <u>HAC-91, "Removal a</u> to amp. branch line.	HAC-73, "A/C AUTO AMP. :

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< DTC/CIRCUIT DIAGNOSIS >

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732364

[CAN SYSTEM (TYPE 5)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).
- Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Resistance (Ω)
M4	6	14	Approx. 54 – 66

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

EPS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 5)]

EPS BRANCH LINE	ECIRCUIT		
Diagnosis Procedure			INFOID:000000011732365
1.CHECK CONNECTOR			
	cable from the negative tern d connectors of the EPS co		d and loose connection (unit
s the inspection result norm YES >> GO TO 2. NO >> Repair the term	inal and connector.		
2.CHECK HARNESS FOR	OPEN CIRCUIT		
 Disconnect the connect Check the resistance be 	or of EPS control unit. etween the EPS control uni	t harness connector termin	als.
	EPS control unit harness connecto		Resistance (Ω)
Connector No. M37	Termin 2	nal No. 1	Approx. 54 – 66
YES >> GO TO 3. NO >> Repair the EPS 3. CHECK POWER SUPPL	control unit branch line. Y AND GROUND CIRCUI	r	
Check the power supply an <u>dure"</u> . s the inspection result norm	-	EPS control unit. Refer to	STC-20, "Diagnosis Proce-
YES (Present error)>>Rep		Refer to ST-11 "Removal a	
	as detected in the EPS cor er supply and the ground ci	trol unit branch line.	nd Installation".
	as detected in the EPS cor	trol unit branch line.	nd Installation".
	as detected in the EPS cor	trol unit branch line.	nd Installation".
	as detected in the EPS cor	trol unit branch line.	nd Installation".

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< DTC/CIRCUIT DIAGNOSIS >

M&A BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732366

[CAN SYSTEM (TYPE 5)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of combination meter.
- 2. Check the resistance between the combination meter harness connector terminals.

Combination meter harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M34	1	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the combination meter branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION</u> <u>METER : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation".

YES (Past error)>>Error was detected in the combination meter branch line.

MDU BRANCH LINE CIRCUIT

Diagnosis Procedure	ECIRCUIT		
Diagnosis Procedure			INFOID:000000011732367
1. CHECK CONNECTOR			
	able from the negative terr connectors of the multi dis).		d and loose connection (unit
YES >> GO TO 2.			
NO >> Repair the termi			
2.CHECK HARNESS FOR	OPEN CIRCUIT		
 Disconnect the connect Check the resistance be 	or of multi display unit. tween the multi display uni	t harness connector termin	als.
M	ulti display unit harness connecto	n	Resistance (Ω)
Connector No.	Termir	al No.	
M90	6	12	Approx. 54 – 66
Is the measurement value w YES >> GO TO 3. NO >> Repair the multi 3. CHECK POWER SUPPL	ithin the specification? display unit branch line. Y AND GROUND CIRCUIT	-	
Is the measurement value w YES >> GO TO 3. NO >> Repair the multi 3. CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure	ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the	-	
Is the measurement value w YES >> GO TO 3. NO >> Repair the multi 3.CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the 	multi display unit. Refer to Refer to <u>DMS-16, "Remova</u> blay unit branch line.	9 <u>AV-222, "MULTI DISPLAY</u>
Is the measurement value w YES >> GO TO 3. NO >> Repair the multi 3.CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the 	multi display unit. Refer to Refer to <u>DMS-16, "Remova</u> blay unit branch line.	9 <u>AV-222, "MULTI DISPLAY</u>
Is the measurement value w YES >> GO TO 3. NO >> Repair the multi 3.CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the 	multi display unit. Refer to Refer to <u>DMS-16, "Remova</u> play unit branch line.	9 <u>AV-222, "MULTI DISPLAY</u>

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STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732368

[CAN SYSTEM (TYPE 5)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of steering angle sensor.
- 2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	Steering angle sensor harness connector		
Connector No.	Terminal No.		Resistance (Ω)
M30	5	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

BCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 5)]

Diagnosis Procedure			INFOID:00000001173236
1.CHECK CONNECTOR			
3. Check the terminals and connector side).	able from the negative termin d connectors of the BCM for		ose connection (unit side and
<u>s the inspection result norm</u> YES >> GO TO 2. NO >> Repair the termi 2.CHECK HARNESS FOR	nal and connector.		
 Disconnect the connect Check the resistance be 	or of BCM. Here a the BCM harness conr	nector terminals.	
	BCM harness connector		
	BCIM Harness connector		Resistance (Q)
Connector No.	Terminal 1	No.	Resistance (Ω)
M68 s the measurement value w	Terminal 1 39	No. 40	Resistance (Ω) Approx. 108 – 132
M68 Is the measurement value w YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm	Terminal t 39 ithin the specification? branch line. Y AND GROUND CIRCUIT I the ground circuit of the BCM al?	40 1. Refer to <u>BCS-86, "D</u>	Approx. 108 – 132
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	Terminal t 39 ithin the specification? branch line. Y AND GROUND CIRCUIT I the ground circuit of the BCM	40 1. Refer to <u>BCS-86, "E</u> 13. <u>"Removal and Insta</u> h line.	Approx. 108 – 132
M68 <u>Is the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	Terminal I 39 ithin the specification? branch line. Y AND GROUND CIRCUIT I the ground circuit of the BCM al? ace the BCM. Refer to <u>BCS-9</u> as detected in the BCM branc	40 1. Refer to <u>BCS-86, "E</u> 13. <u>"Removal and Insta</u> h line.	Approx. 108 – 132

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect all the unit connectors on CAN communication system.
- 4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Continuity
M4	6	14	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link	Data link connector		Continuity
Connector No.	Terminal No.	Ground	Continuity
 M4	6	Gibunu	Not existed
1014	14		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

ECM		Resistance (Ω)
Termi	nal No.	
100	99	Approx. 108 – 132
Even and fam NUC		

Except for NISMO RS models

ECM		Resistance (Ω)
Termi	nal No.	1001010100 (22)
124	123	Approx. 108 – 132

3. Check the resistance between the BCM terminals.

B	CM	Resistance (Ω)	
Termi	nal No.		
39	40	Approx. 108 – 132	

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >	[CAN SYSTEM (TYPE 5)]
s the measurement value within the specification?	
YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.	
CHECK SYMPTOM	
Connect all the connectors. Check if the symptoms describe customer)" are reproduced.	in the "Symptom (Results from interview with
nspection result	
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the tro detected.	uble diagnosis procedure when past error is
CHECK UNIT REPRODUCTION	
Perform the reproduction test as per the following procedure for . Turn the ignition switch OFF.	r each unit.
	ion system.
ECM and BCM have a termination circuit. Check other un Connect the battery cable to the negative terminal. Check	
NOTE: Although unit-related error symptoms occur, do not confus	e them with other symptoms.
Reproduced>>Connect the connector. Check other units as p Non-reproduced>>Replace the unit whose connector was dis	
 Disconnect one of the unit connectors of CAN communication NOTE: ECM and BCM have a termination circuit. Check other un Connect the battery cable to the negative terminal. Check (Results from interview with customer)" are reproduced. NOTE: Although unit-related error symptoms occur, do not confust Inspection result Reproduced>>Connect the connector. Check other units as produced 	ts first. k if the symptoms described in the "Symptom e them with other symptoms. er the above procedure.

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MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 6)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732371

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
E13	27	E105	1	Existed
LIJ	26		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of A/C amp.

2. Check the continuity between the harness connector and the A/C auto amp. harness connector.

Harness connector		s connector A/C auto amp. harness connector		
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77	1	M50	6	Existed
	6		7	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the A/C auto amp.

NO >> Repair the main line between the harness connector M77 and the A/C auto amp.

DTC/CIRCUIT DIAG			[CAN	SYSTEM (TYPE 6)]
Diagnosis Procedu	Jre			INFOID:000000011732372
CHECK HARNESS	CONTINUITY (OPEN	CIRCUIT)		
 Disconnect the follo ECM A/C auto amp. 	tery cable from the negoting harness connective ty between the A/C au	tors.	nector and the data lir	k connector.
A/C auto amp. ha	arness connector	Data link c	connector	Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M50	6	M4	6	Existed
1000	7		14	Existed
	Check CAN system ty ror was detected in the		a A/C auto amp, and	

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[CAN SYSTEM (TYPE 6)]

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732373

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

Connector No. Terminal No.	ECM harness connector			Resistance (Ω)	
	Connector No.	Termi	nal No.	(122)	
E18 100 99 Approx. 108 – 132	E18	100	99	Approx. 108 – 132	

Except for NISMO RS models

	ECM harness connector		Resistance (Ω)	
Connector No.	Termi	nal No.		
E19	124	123	Approx. 108 – 132	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: EC-1255, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

ABS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 6)]

ABS BRANCH LINE			
Diagnosis Procedure			INFOID:000000011732374
1 .CHECK CONNECTOR			
Check the terminals and	able from the negative termin I connectors of the ABS actua nit side and connector side).		ntrol unit) for damage, bend
YES >> GO TO 2. NO >> Repair the termi	nal and connector.		
2. CHECK HARNESS FOR	OPEN CIRCUIT		
	or of ABS actuator and electric etween the ABS actuator and		it) harness connector termi-
ABS actuator a	and electric unit (control unit) harness	s connector	Resistance (Q)
ABS actuator a	and electric unit (control unit) harness Terminal		Resistance (Ω)
Connector No. E35 s the measurement value w	Terminal 22		Resistance (Ω) Approx. 54 – 66
Connector No. E35 s the measurement value w YES >> GO TO 3. NO >> Repair the ABS CHECK POWER SUPPLY Check the power supply and SRC-114. "Diagnosis Proceed s the inspection result norm YES (Present error)>>Repl and Installation"	Terminal 1 22 ithin the specification? actuator and electric unit (cor Y AND GROUND CIRCUIT d the ground circuit of the AB dure". al? ace the ABS actuator and ele	No. 9 Introl unit) branch line. BS actuator and electric ectric unit (control unit). F	Approx. 54 – 66 a unit (control unit). Refer to Refer to <u>BRC-138, "Removal</u>
Connector No. E35 s the measurement value w YES >> GO TO 3. NO >> Repair the ABS J.CHECK POWER SUPPLY Check the power supply and SRC-114. "Diagnosis Proceeds s the inspection result norm YES (Present error)>>Repland Installation" YES (Past error)>>Error was	Terminal I 22 ithin the specification? actuator and electric unit (cor Y AND GROUND CIRCUIT d the ground circuit of the AB dure". al? ace the ABS actuator and ele	9 ntrol unit) branch line. BS actuator and electric ectric unit (control unit). F or and electric unit (cont	Approx. 54 – 66 a unit (control unit). Refer to Refer to <u>BRC-138, "Removal</u>

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IPDM-E BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732375

[CAN SYSTEM (TYPE 6)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of IPDM E/R.

2. Check the resistance between the IPDM E/R harness connector terminals.

	IPDM E/R harness connector		
Connector No.	Termi	nal No.	Resistance (Ω)
E13	27	26	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the IPDM E/R branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the IPDM E/R. Refer to <u>PCS-35, "Diagnosis Procedure"</u>. <u>Is the inspection result normal?</u>

YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".

YES (Past error)>>Error was detected in the IPDM E/R branch line.

TCM BRANCH LINE CIRCUIT

Check the following term nector side). TCM Harness connector F1 Harness connector E8 he inspection result norm ES >> GO TO 2. O >> Repair the termi CHECK HARNESS FOR Disconnect the connector	OFF. able from the negative term ninals and connectors for da al? nal and connector. OPEN CIRCUIT	image, bend and loose	INFOID:000000011732:
CHECK CONNECTOR Turn the ignition switch (Disconnect the battery c Check the following term nector side). TCM Harness connector F1 Harness connector E8 the inspection result normation ES >> GO TO 2. O >> Repair the terminic CHECK HARNESS FOR Disconnect the connector Check the resistance be	able from the negative term ninals and connectors for da al? nal and connector. OPEN CIRCUIT or of TCM.	image, bend and loose	
Turn the ignition switch (Disconnect the battery c Check the following term nector side). TCM Harness connector F1 Harness connector E8 <u>he inspection result norm</u> ES >> GO TO 2. O >> Repair the termin CHECK HARNESS FOR Disconnect the connector Check the resistance be	able from the negative term ninals and connectors for da al? nal and connector. OPEN CIRCUIT or of TCM.	image, bend and loose	connection (unit side and cor
Disconnect the battery c Check the following term nector side). TCM Harness connector F1 Harness connector E8 the inspection result norm ES >> GO TO 2. O >> Repair the termi CHECK HARNESS FOR Disconnect the connector Check the resistance be	able from the negative term ninals and connectors for da al? nal and connector. OPEN CIRCUIT or of TCM.	image, bend and loose	connection (unit side and cor
	TCM harness connector		
Connector No.	Termina	al No.	Resistance (Ω)
F81	32	31	Approx. 54 – 66
Except for NISMO RS m	odels		
	TCM harness connector		Papistanaa (O)
Connector No.	Termina	al No.	Resistance (Ω)
F83	33	23	Approx. 54 – 66
eck the power supply and RE0F10B: <u>TM-278, "Diagn</u> RE0F10D: <u>TM-503, "Diagn</u> <u>he inspection result norm</u> ES (Present error)>>Repl • RE0F10B: <u>TM</u>	Y AND GROUND CIRCUIT the ground circuit of the TC osis Procedure" osis Procedure"	ollowing. <u>tion"</u> t <u>ion"</u>	ng.

< DTC/CIRCUIT DIAGNOSIS >

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A-BAG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732376

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

AVM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 6)]

Diagnosis Procedure			INFOID:000000011732377
1.check connector			
	able from the negative termin I connectors of the around vie		for damage, bend and loose
s the inspection result norma YES >> GO TO 2. NO >> Repair the termin	nal and connector.		
2.CHECK HARNESS FOR		tral unit	
	or of around view monitor con tween the around view monito		onnector terminals.
Around vi	ew monitor control unit harness con	nector	Resistance (Ω)
Connector No.	Terminal I		
M98	26	24	Approx. 54 – 66
s the measurement value wi	ithin the specification?		
YES >> GO TO 3. NO >> Repair the arour 3. CHECK POWER SUPPLY	nd view monitor control unit br Y AND GROUND CIRCUIT		
YES >> GO TO 3. NO >> Repair the arour CHECK POWER SUPPLY Check the power supply an AROUND VIEW MONITOR	nd view monitor control unit but Y AND GROUND CIRCUIT Ind the ground circuit of the a CONTROL UNIT : Diagnosis	around view monitor co	ntrol unit. Refer to <u>AV-155,</u>
YES >> GO TO 3. NO >> Repair the arour 3.CHECK POWER SUPPLY Check the power supply an 'AROUND VIEW MONITOR Is the inspection result normation YES (Present error)>>Replation Tion". YES (Past error)>>Error was	nd view monitor control unit by Y AND GROUND CIRCUIT Id the ground circuit of the a <u>CONTROL UNIT : Diagnosis</u> al? ace the around view monitor of as detected in the around view	around view monitor co <u>Procedure"</u> . control unit. Refer to <u>AV</u> v monitor control unit br	-184, "Removal and Installa-
NO >> Repair the arour 3.CHECK POWER SUPPLY Check the power supply an <u>"AROUND VIEW MONITOR</u> Is the inspection result normation YES (Present error)>>Replace <u>tion"</u> . YES (Past error)>>Error was	nd view monitor control unit by Y AND GROUND CIRCUIT Id the ground circuit of the a <u>CONTROL UNIT : Diagnosis</u> al? ace the around view monitor of	around view monitor co <u>Procedure"</u> . control unit. Refer to <u>AV</u> v monitor control unit br	-184, "Removal and Installa-

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HVAC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732378

[CAN SYSTEM (TYPE 6)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the A/C auto amp. for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of A/C auto amp.
- 2. Check the resistance between the A/C auto amp. harness connector terminals.

A/C auto amp. harness connector			Resistance (Ω)
Connector No.	Terminal No.		Tresistance (12)
M50	6	7	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the A/C auto amp. branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the A/C auto amp. Refer to <u>HAC-73, "A/C AUTO AMP.</u>: <u>Diagnosis Procedure</u>".

Is the inspection result normal?

YES (Present error)>>Replace the A/C auto amp. Refer to HAC-91, "Removal and Installation".

YES (Past error)>>Error was detected in the A/C auto amp. branch line.

AV BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 6)]

AV BRANCH LINE (CIRCUIT		
Diagnosis Procedure			INFOID:000000011732379
1.CHECK CONNECTOR			
 Check the terminals and side and connector side <u>s the inspection result norm</u> YES >> GO TO 2. 	cable from the negative ter d connectors of the NAVI c). hal?		nd and loose connection (unit
NO >> Repair the termi			
CHECK HARNESS FOR Disconnect the connect Check the resistance be	or of NAVI control unit.	nit harness connector term	inals.
	IAVI control unit harness connec		Resistance (Ω)
Connector No. M108	Term 8	inal No.	Approx. 54 – 66
YES >> GO TO 3. NO >> Repair the NAV CHECK POWER SUPPL	l control unit branch line. Y AND GROUND CIRCUI	Т	
NIT : Diagnosis Procedure	<u>"</u> .	e NAVI control unit. Refer	to <u>AV-155, "NAVI CONTROL</u>
s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa NO >> Repair the powe	lace the NAVI control unit.	ontrol unit branch line.	al and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732380

[CAN SYSTEM (TYPE 6)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).
- Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Data link connector		Resistance (Ω)
Connector No.	Terminal No.		
M4	6	14	Approx. 54 – 66

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

EPS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 6)]

EPS BRANCH LINE	E CIRCUIT		
Diagnosis Procedure			INFOID:000000011732381
.CHECK CONNECTOR			
 Check the terminals and side and connector side 	cable from the negative terr d connectors of the EPS co e).		d and loose connection (unit
s the inspection result norm YES >> GO TO 2. NO >> Repair the term CHECK HARNESS FOR	inal and connector.		
Disconnect the connectCheck the resistance be	or of EPS control unit. etween the EPS control uni		als.
E Connector No.	EPS control unit harness connecto	or nal No.	Resistance (Ω)
M37	2	1	Approx. 54 – 66
CHECK POWER SUPPL heck the power supply an <u>ure"</u> . the inspection result norm YES (Present error)>>Rep	nal? lace the EPS control unit. F	EPS control unit. Refer to Refer to <u>ST-11, "Removal a</u>	STC-20, "Diagnosis Proce- nd Installation".
	as detected in the EPS con er supply and the ground ci		

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< DTC/CIRCUIT DIAGNOSIS >

M&A BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732382

[CAN SYSTEM (TYPE 6)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of combination meter.
- 2. Check the resistance between the combination meter harness connector terminals.

Combination meter harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M34	1	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the combination meter branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION</u> <u>METER : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation".

YES (Past error)>>Error was detected in the combination meter branch line.

MDU BRANCH LINE CIRCUIT

	E CIRCUIT		
Diagnosis Procedure			INFOID:000000011732383
1.CHECK CONNECTOR			
 Check the terminals and side and connector side 	able from the negative term I connectors of the multi disp).		d and loose connection (unit
s the inspection result norm YES >> GO TO 2. NO >> Repair the termi	nal and connector.		
2.CHECK HARNESS FOR			
 Disconnect the connect Check the resistance be 	tween the multi display unit.	harness connector termir	nals.
M	lulti display unit harness connector		Resistance (Ω)
Connector No.	Termina		
M90	6	12	Approx. 54 – 66
s the measurement value w YES >> GO TO 3. NO >> Repair the multi	display unit branch line.		
3. CHECK POWER SUPPLY			
3. CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure	d the ground circuit of the r 	multi display unit. Refer t	o <u>AV-222, "MULTI DISPLAY</u>
3. CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	d the ground circuit of the r 	efer to <u>DMS-16, "Remova</u> lay unit branch line.	
3. CHECK POWER SUPPL Check the power supply and UNIT : Diagnosis Procedure Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	d the ground circuit of the r <u>-</u> : al? ace the multi display unit. Re as detected in the multi displ	efer to <u>DMS-16, "Remova</u> lay unit branch line.	
3. CHECK POWER SUPPL' Check the power supply and <u>JNIT : Diagnosis Procedure</u> <u>s the inspection result norm</u> YES (Present error)>>Repl YES (Past error)>>Error wa	d the ground circuit of the r <u>-</u> : al? ace the multi display unit. Re as detected in the multi displ	efer to <u>DMS-16, "Remova</u> lay unit branch line.	

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STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732384

[CAN SYSTEM (TYPE 6)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of steering angle sensor.
- 2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	Steering angle sensor harness connector		
Connector No.	Terminal No.		Resistance (Ω)
M30	5	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

BCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 6)]

Diagnosis Procedure			INFOID:000000011732385
1 .CHECK CONNECTOR			
 Check the terminals and connector side). 	able from the negative termina connectors of the BCM for c		se connection (unit side and
<u>s the inspection result norm</u> YES >> GO TO 2. NO >> Repair the termin CHECK HARNESS FOR	nal and connector.		
Disconnect the connector. Check the resistance be	or of BCM. tween the BCM harness conn	ector terminals.	
	BCM harness connector		Resistance (O)
Connector No.	BCM harness connector Terminal N	0.	Resistance (Ω)
M68 s the measurement value w	Terminal N 39	o. 40	– Resistance (Ω) Approx. 108 – 132
M68 <u>s the measurement value wi</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPLY Check the power supply and <u>s the inspection result norma</u> YES (Present error)>>Reply YES (Past error)>>Error was	Terminal N 39 thin the specification? branch line. Y AND GROUND CIRCUIT the ground circuit of the BCM	40 . Refer to <u>BCS-86, "Di</u> 3. <u>"Removal and Insta</u> I line.	Approx. 108 – 132 agnosis Procedure".

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect all the unit connectors on CAN communication system.
- 4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Continuity
M4	6	14	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link	Data link connector		Continuity
Connector No.	Terminal No.	Ground	Continuity
 M4	6	Gibunu	Not existed
1014	14		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

ECM		Resistance (Ω)
Termi	Terminal No.	
100	99	Approx. 108 – 132
Even and fam NUC		

Except for NISMO RS models

ECM		Resistance (Ω)	
Terminal No.		1001010100 (22)	
124	123	Approx. 108 – 132	

3. Check the resistance between the BCM terminals.

BCM		Resistance (Ω)	
Terminal No.			
39	40	Approx. 108 – 132	

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN SYSTEM (TYPE 6)] Is the measurement value within the specification? YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.
YES >> GO TO 5.
5.CHECK SYMPTOM
Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.
nspection result
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.
6. CHECK UNIT REPRODUCTION
Perform the reproduction test as per the following procedure for each unit.
1. Turn the ignition switch OFF.
2. Disconnect the battery cable from the negative terminal.
 Disconnect one of the unit connectors of CAN communication system. NOTE:
ECM and BCM have a termination circuit. Check other units first.
4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.
NOTE:
Although unit-related error symptoms occur, do not confuse them with other symptoms.
Inspection result
Reproduced>>Connect the connector. Check other units as per the above procedure. Non-reproduced>>Replace the unit whose connector was disconnected.

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MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 7)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND A-BAG CIRCUIT

Diagnosis Procedure

INFOID:0000000011732390

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R ha	mess connector	Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
E13	27	E105	1	Existed
EIS	26		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

${f 3.}$ CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

Check the continuity between the harness connector and the data link connector.

Harness	connector	Data link	connector	Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M77 1 M4	N44	6	Existed	
	6	1014	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the air bag diagnosis sensor unit.

NO >> Repair the main line between the harness connector M77 and the air bag diagnosis sensor unit.

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN A-BAG AND DLC CIRCUIT

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the harness connectors E105 and M77.
- 4. Check the continuity between the harness connector and the data link connector.

Continuity	connector	Data link	connector	Harness of
Continuity	Terminal No.	Connector No.	Terminal No.	Connector No.
Existed	6	N44	1	N477
Existed	14	M4	M77 6	

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the air bag diagnosis sensor unit and the data link connector.

NO >> Repair the main line between the air bag diagnosis sensor unit and the data link connector.

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INFOID:000000011732391

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[CAN SYSTEM (TYPE 7)]

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ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732392

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

Connector No. Terminal No.		ECM harness connector		
E19 100 00 Approx 109 122	Connector No.	Terminal No.		Resistance (Ω)
E10 100 99 Applox. 100 132	E18	100	99	Approx. 108 – 132

Except for NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E19	124	123	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: <u>EC-183, "Diagnosis Procedure"</u>

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: EC-1255, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

4WD BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 7)]

Diagnosis Procedure			INFOID:000000011732433
1.CHECK CONNECTOR			
1. Turn the ignition switch ()FF		
2. Disconnect the battery c	able from the negative term		nnection (unit side and con-
Harness connector B7 Harness connector E10	7		
is the inspection result norm			
YES >> GO TO 2.			
NO >> Repair the termi			
2.CHECK HARNESS FOR			
	or of AWD control module. tween the AWD control mod	dule harness connector te	rminals.
AW	D control module harness connect	tor	Resistance (Ω)
Connector No.	Termina	al No.	
B47	4	5	Approx. 54 – 66
s the measurement value w YES >> GO TO 3.	ithin the specification?		
YES >> GO TO 3. NO >> Repair the AWD	control module branch line		
YES >> GO TO 3. NO >> Repair the AWD	control module branch line		
YES >> GO TO 3. NO >> Repair the AWD CHECK POWER SUPPL Check the power supply and cedure".	control module branch line Y AND GROUND CIRCUIT		to DLN-77, "Diagnosis Pro-
NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". Is the inspection result norm	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AN	ND control module. Refer	
YES >> GO TO 3. NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". Is the inspection result norm YES (Present error)>>Repl	control module branch line Y AND GROUND CIRCUIT	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u>	
YES >> GO TO 3. NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". s the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AN al? ace the AWD control modul	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u> trol module branch line.	
YES >> GO TO 3. NO >> Repair the AWD CHECK POWER SUPPL Check the power supply and cedure". s the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AV al? ace the AWD control modul as detected in the AWD con	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u> trol module branch line.	
YES >> GO TO 3. NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". s the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AV al? ace the AWD control modul as detected in the AWD con	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u> trol module branch line.	
YES >> GO TO 3. NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AV al? ace the AWD control modul as detected in the AWD con	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u> trol module branch line.	
YES >> GO TO 3. NO >> Repair the AWD 3.CHECK POWER SUPPL Check the power supply and cedure". s the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	control module branch line. Y AND GROUND CIRCUIT I the ground circuit of the AV al? ace the AWD control modul as detected in the AWD con	ND control module. Refer e. Refer to <u>DLN-91, "Rem</u> trol module branch line.	

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ABS BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of ABS actuator and electric unit (control unit).
- 2. Check the resistance between the ABS actuator and electric unit (control unit) harness connector terminals.

ABS actuator	and electric unit (control unit) har	ness connector	Resistance (Ω)
Connector No.	Terminal No.		1(e3)3(d)(ce (32)
E35	22	9	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ABS actuator and electric unit (control unit) branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ABS actuator and electric unit (control unit). Refer to <u>BRC-114, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to <u>BRC-138, "Removal</u> <u>and Installation"</u>.

YES (Past error)>>Error was detected in the ABS actuator and electric unit (control unit) branch line.

NO >> Repair the power supply and the ground circuit.

Revision: 2014 October

IPDM-E BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 7)]

< DTC/CIRCUIT DIAGNOS		[CAN SYSTEM (TYPE 7)]
IPDM-E BRANCH L	INE CIRCUIT		
Diagnosis Procedure			INFOID:00000001173239
1.CHECK CONNECTOR			
	OFF. cable from the negative termi d connectors of the IPDM E/		loose connection (unit side
Is the inspection result norm YES >> GO TO 2. NO >> Repair the term 2.CHECK HARNESS FOR	inal and connector.		
1. Disconnect the connect		ss connector terminals.	
	IPDM E/R harness connector		Posistanco (O)
Connector No.	Termina	l No.	Resistance (Ω)
E13	27	26	Approx. 54 – 66
NO >> Repair the IPDN	I/ E/R branch line.		
Check the power supply and Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error w	Y AND GROUND CIRCUIT d the ground circuit of the IPE nal? lace the IPDM E/R. Refer to as detected in the IPDM E/R er supply and the ground circ	PCS-36, "Removal and Ir branch line.	-

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TCM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732395

[CAN SYSTEM (TYPE 7)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (unit side and connector side).
- TCM
- Harness connector F1
- Harness connector E8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of TCM.
- 2. Check the resistance between the TCM harness connector terminals.
- For NISMO RS models

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
F81	32	31	Approx. 54 – 66

- Except for NISMO RS models

	TCM harness connector		Resistance (Ω)
Connector No.	Termi	nal No.	
F83	33	23	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the TCM branch line.

 ${f 3.}$ CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to the following.

• RE0F10B: TM-278, "Diagnosis Procedure"

• RE0F10D: <u>TM-503, "Diagnosis Procedure"</u>

Is the inspection result normal?

YES (Present error)>>Replace the TCM. Refer to the following.

- RE0F10B: <u>TM-325</u>, "Removal and Installation"
- RE0F10D: TM-547, "Removal and Installation"

YES (Past error)>>Error was detected in the TCM branch line.

[CAN SYSTEM (TYPE 7)]

A-BAG BRANCH LINE CIRCUIT А **Diagnosis** Procedure INFOID:000000011732396 WARNING: В Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.) • Never use unspecified tester or other measuring device. С 1.CHECK CONNECTOR 1. Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. 2. D Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose con-3. nection (unit side and connector side). Is the inspection result normal? Е YES >> GO TO 2. NO >> Replace the main harness. 2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT F Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow". Is the inspection result normal? YES >> Replace the main harness. NO >> Replace parts whose air bag system has a malfunction. Н

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< DTC/CIRCUIT DIAGNOSIS >

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732397

[CAN SYSTEM (TYPE 7)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).
- Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Data link connector		Resistance (Ω)
Connector No.	Termi	nal No.	
M4	6	14	Approx. 54 – 66

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

EPS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 7)]

Diagnosis Procedure			INFOID:000000011732398
CHECK CONNECTOR			
 Check the terminals and side and connector side 	cable from the negative terr d connectors of the EPS co e).		nd and loose connection (unit
the inspection result norm YES >> GO TO 2. NO >> Repair the term	inal and connector.		
2.CHECK HARNESS FOR	OPEN CIRCUIT		
 Disconnect the connect Check the resistance be 	or of EPS control unit. etween the EPS control unit	harness connector termin	nals.
	EPS control unit harness connecto		Resistance (Ω)
Connector No. M37	Termir 2	nal No. 1	Approx. 54 – 66
YES >> GO TO 3. NO >> Repair the EPS CHECK POWER SUPPL	control unit branch line.		
lure".	-	EPS control unit. Refer to	STC-20, "Diagnosis Proce-
<u>dure"</u> . <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	nal? lace the EPS control unit. F	Refer to <u>ST-11, "Removal a</u> trol unit branch line.	
<u>dure"</u> . <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	nal? lace the EPS control unit. F as detected in the EPS con	Refer to <u>ST-11, "Removal a</u> trol unit branch line.	
<u>dure"</u> . <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	nal? lace the EPS control unit. F as detected in the EPS con	Refer to <u>ST-11, "Removal a</u> trol unit branch line.	
<u>dure"</u> . <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error w	nal? lace the EPS control unit. F as detected in the EPS con	Refer to <u>ST-11, "Removal a</u> trol unit branch line.	

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< DTC/CIRCUIT DIAGNOSIS >

M&A BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732399

[CAN SYSTEM (TYPE 7)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of combination meter.
- 2. Check the resistance between the combination meter harness connector terminals.

Co	ombination meter harness connect	ctor	Resistance (Ω)
Connector No.	Termi	nal No.	
M34	1	2	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the combination meter branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION</u> <u>METER : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation".

YES (Past error)>>Error was detected in the combination meter branch line.

STRG BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 7)]

STRG BRANCH LIN			
Diagnosis Procedure			INFOID:000000011732400
1.CHECK CONNECTOR			
	able from the negative terr I connectors of the steering side). al?		bend and loose connection
2.CHECK HARNESS FOR			
1. Disconnect the connect	or of steering angle sensor.	ensor harness connector te	erminals.
Stee	ering angle sensor harness conne	ector	Resistance (Ω)
Connector No.	Termir		1(03)3(01)00 (22)
	101111	nai No.	
M30	5	2	Approx. 54 – 66
M30 <u>S the measurement value w</u> YES >> GO TO 3. NO >> Repair the steer 3. CHECK POWER SUPPL Check the power supply and gram".	5 ithin the specification? ing angle sensor branch lir Y AND GROUND CIRCUIT d the ground circuit of the	2 ne.	
M30 Solution M30 M30 M30 M30 M30 M30 M30 M30	5 ithin the specification? ing angle sensor branch lir Y AND GROUND CIRCUIT d the ground circuit of the al? ace the steering angle sen	2 ne. steering angle sensor. Re sor. Refer to <u>BRC-141, "Re</u> angle sensor branch line.	fer to <u>BRC-52, "Wiring Dia-</u>

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BCM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732401

[CAN SYSTEM (TYPE 7)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of BCM.

2. Check the resistance between the BCM harness connector terminals.

	BCM harness connector		Resistance (Ω)
Connector No.	Termi	nal No.	
M68	39	40	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the BCM branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the BCM. Refer to <u>BCS-86, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the BCM branch line.

CAN COMMUNICATION CIRCUIT

[CAN SYSTEM (TYPE 7)]

DTC/CIRCUIT DIAGNOSI			
CAN COMMUNICAT	ION CIRCUIT		
Diagnosis Procedure			INFOID:000000011732402
	ON		
. Turn the ignition switch C			
2. Disconnect the battery ca	able from the negative terr		
	nnectors on CAN communectors for damage, bend		
Is the inspection result norma	-		
YES >> GO TO 2.			
NO >> Repair the termir			
2.CHECK HARNESS CONT	INUITY (SHORT CIRCUI	T)	
Check the continuity betweer	the data link connector te	erminals.	
	Data link connector		
Connector No.	Termir	nal No.	Continuity
M4	6	14	Not existed
Is the inspection result norma	<u>al?</u>		
YES >> GO TO 3.			
•	ss and repair the root caus		
3. CHECK HARNESS CONT			
Check the continuity betweer	the data link connector a	nd the ground.	
Data link c	onnector		• • • •
Connector No.	Terminal No.	Oracia	Continuity
M4	6	Ground	Not existed
1014	14		Not existed
is the inspection result norma	<u>al?</u>		
YES >> GO TO 4.	as and ropair the root caus	20	
NO >> Check the harner	ss and repair the root caus	Se.	
NO >> Check the harner 4.CHECK ECM AND BCM T	FERMINATION CIRCUIT	se.	
NO >> Check the harner 4.CHECK ECM AND BCM 1 1. Remove the ECM and th	FERMINATION CIRCUIT	se.	
NO >> Check the harner 4. CHECK ECM AND BCM T 1. Remove the ECM and th	ERMINATION CIRCUIT	se.	
NO >> Check the harner 4.CHECK ECM AND BCM 1 1. Remove the ECM and th 2. Check the resistance bet 5. For NISMO RS models	ERMINATION CIRCUIT	se.	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet 5. For NISMO RS models ECM	ERMINATION CIRCUIT		
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No.	rermination CIRCUIT e BCM. ween the ECM terminals. 	:)	
NO >> Check the harner 4.CHECK ECM AND BCM 1 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99	remination CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1	:)	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet For NISMO RS models ECM Terminal No.	remination CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1	:)	
NO >> Check the harner 4.CHECK ECM AND BCM 1 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99	remination CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω) Approx. 108 – 1 odels	2) 32	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99 - Except for NISMO RS models	remination CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1	2) 32	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet For NISMO RS models ECM Terminal No. 100 99 ECM	FERMINATION CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1 odels Resistance (Ω	2) 32 2)	
NO >> Check the harner 4.CHECK ECM AND BCM 1 1. Remove the ECM and th 2. Check the resistance bet For NISMO RS models ECM Terminal No. 100 99 - Except for NISMO RS models ECM Terminal No. 124 124	FERMINATION CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1 odels Resistance (Ω	2) 32 2)	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99 - Except for NISMO RS models ECM ECM 124 121 3. Check the resistance bet	FERMINATION CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1 odels Resistance (Ω Approx. 108 – 1 Approx. 108 – 1	2) 32 2)	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99 - Except for NISMO RS models ECM Terminal No. 124 122 3. Check the resistance bet BCM	TERMINATION CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1 odels Resistance (Ω Approx. 108 – 1 odels Resistance (Ω Approx. 108 – 1 ween the BCM terminals.	2) 32 2) 32	
NO >> Check the harner 4.CHECK ECM AND BCM T 1. Remove the ECM and th 2. Check the resistance bet - For NISMO RS models ECM Terminal No. 100 99 - Except for NISMO RS models ECM ECM 124 121 3. Check the resistance bet	FERMINATION CIRCUIT e BCM. ween the ECM terminals. Resistance (Ω Approx. 108 – 1 odels Resistance (Ω Approx. 108 – 1 Approx. 108 – 1	2) 32 2) 32 2) 32	

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 5.

NO >> Replace the ECM and/or the BCM.

5. CHECK SYMPTOM

Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

Inspection result

Reproduced>>GO TO 6.

Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.

6.CHECK UNIT REPRODUCTION

Perform the reproduction test as per the following procedure for each unit.

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect one of the unit connectors of CAN communication system. **NOTE:**

ECM and BCM have a termination circuit. Check other units first.

4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

NOTE:

Although unit-related error symptoms occur, do not confuse them with other symptoms.

Inspection result

Reproduced>>Connect the connector. Check other units as per the above procedure.

Non-reproduced>>Replace the unit whose connector was disconnected.

MAIN LINE BETWEEN HVAC AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

MAIN LINE BETWEEN HVAC AND DLC CIRCUIT

Diagnosis Procedure

INFOID:0000000011732404

[CAN SYSTEM (TYPE 8)]

1. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect the following harness connectors.
- ECM
- A/C auto amp.
- 4. Check the continuity between the A/C auto amp. harness connector and the data link connector.

A/C auto amp. h	arness connector	Data link	connector	Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M50	6	M4	6	Existed
MSO	7	1014	14	Existed

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

NO >> Repair the main line between the A/C auto amp. and the data link connector.

YES (Past error)>>Error was detected in the main line between the A/C auto amp. and the data link connector.

ECM BRANCH LINE CIRCUIT

DIC/CIRCUIT DIAGNUS	>>>		
CM BRANCH LIN	E CIRCUIT		
agnosis Procedure			INFOID:000000011732405
CHECK CONNECTOR			
Turn the ignition switch	OFF		
Disconnect the battery of	cable from the negative termin		
Check the terminals an connector side).	d connectors of the ECM for	damage, bend and loos	e connection (unit side and
the inspection result norm	ial?		
'ES>> GO TO 2.IO>> Repair the term	inal and connector		
CHECK HARNESS FOR			
Disconnect the connect			
	etween the ECM harness con	nector terminals.	
For NISMO RS models			
	ECM harness connector		
Connector No.	Terminal	No.	Resistance (Ω)
E18	100	99	Approx. 108 – 132
Except for NISMO RS n	nodels		
	ECM harness connector		
Connector No.	Terminal	No.	Resistance (Ω)
E19	124	123	Approx. 108 – 132
the measurement value w	vithin the specification?		
'ES >> GO TO 3.			
IO >> Repair the ECM			
CHECK POWER SUPPL	Y AND GROUND CIRCUIT		
	the ground circuit of the EC		
	<u>C-183, "Diagnosis Procedure</u> dels: <u>EC-777, "Diagnosis Pro</u>		
the inspection result norm			
ES (Present error)>>Rep	lace the ECM. Refer to the fo		
For NISMO R	S models: EC-578, "Removal	and Installation"	
	SMO RS models: <u>EC-1255, "F</u> as detected in the ECM branc		
	er supply and the ground circu		
	-		

< DTC/CIRCUIT DIAGNOSIS >

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4WD BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732434

[CAN SYSTEM (TYPE 8)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (unit side and connector side).
- AWD control module
- Harness connector B7
- Harness connector E107

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of AWD control module.

2. Check the resistance between the AWD control module harness connector terminals.

AM	/D control module harness conne	ctor	Resistance (Ω)
Connector No.	Termi	nal No.	
B47	4	5	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the AWD control module branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AWD control module. Refer to <u>DLN-77, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the AWD control module. Refer to DLN-91, "Removal and Installation".

YES (Past error)>>Error was detected in the AWD control module branch line.

ABS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 8)]

Diagnosis Procedure			INFOID:000000011732406
.CHECK CONNECTOR			
Check the terminals and	able from the negative tern I connectors of the ABS ac nit side and connector side	tuator and electric unit (co	ntrol unit) for damage, bend
YES >> GO TO 2. NO >> Repair the termi	nal and connector.		
CHECK HARNESS FOR	OPEN CIRCUIT		
	or of ABS actuator and elec etween the ABS actuator a		it) harness connector termi-
ABS actuator	and alactric unit (control unit) harn	oss connector	
	and electric unit (control unit) harn		Resistance (Ω)
Connector No. E35	Termin 22		Resistance (Ω) Approx. 54 – 66
Connector No. E35 the measurement value w (ES >> GO TO 3. NO >> Repair the ABS .CHECK POWER SUPPL heck the power supply an <u>RC-114. "Diagnosis Proceed</u> the inspection result norm (ES (Present error)>>Repland Installation"	Termin 22 ithin the specification? actuator and electric unit (or Y AND GROUND CIRCUIT d the ground circuit of the dure". al? ace the ABS actuator and e	9 control unit) branch line. ABS actuator and electric electric unit (control unit). F	Approx. 54 – 66 unit (control unit). Refer to Refer to <u>BRC-138, "Removal</u>

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IPDM-E BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732407

[CAN SYSTEM (TYPE 8)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the IPDM E/R for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of IPDM E/R.

2. Check the resistance between the IPDM E/R harness connector terminals.

IPDM E/R harness connector			Resistance (Ω)
Connector No.	Terminal No.		Resistance (12)
E13	27	26	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the IPDM E/R branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the IPDM E/R. Refer to <u>PCS-35, "Diagnosis Procedure"</u>. <u>Is the inspection result normal?</u>

YES (Present error)>>Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".

YES (Past error)>>Error was detected in the IPDM E/R branch line.

TCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 8)]

Diagnosis Procedure I.CHECK CONNECTOR I. Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. Check the tollowing terminals and connectors for damage, bend and loose connection (unit side and connector side). TCM Harness connector F1 Harness connector F1 Harness connector E8 Is the inspection result normal2 YES >> GO TO 2. NO >> Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT Disconnect the connector of TCM. Connector No. TCM harness connector and the resistance between the TCM harness connector terminals. For NISMO RS models TCM harness connector Connector No. Terminal No. Resistance (Ω) Connector No. Terminal No. Resistance (Ω) Connector No. Terminal No. Resistance (Ω) F81 33 23 Approx.54-66 Is the measurement value within the specification2 YES >> GO TO 3. NO >> Repair the TCM branch line. 3. CHeck POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. REOF100: TM-525, "Removal and Installation" + REOF100: TM-547, "Removal and Installation" + REOF100: TM-525, "Removal and Installation" + REOF100: TM-547, "Removal and Installation" + REOF100: TM-547, "Removal and Installation" + REOF100: TM-525, "Removal and Installation" + REOF100: TM-547, "Removal and Installation" + REO	CM BRANCH LINE	ECIRCUIT		
1. Turn the ignition switch OFF. 2. Disconnect the battery cable from the negative terminal. 3. Check the following terminals and connectors for damage, bend and loose connection (unit side and con nector side). - TCM - Harness connector F1 - Harness connector E8 Is the inspection result normal? YES >> GO TO 2. NO > Repair the terminal and connector. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of TCM. 2.CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of TCM. 2.Check the resistance between the TCM harness connector terminals. - For NISMO RS models TCM harness connector Resistance (Ω) F81 32 31 Approx. 54 - 66 - Except for NISMO RS models Resistance (Ω) F83 33 23 Approx. 54 - 66 Is the measurement value within the specification? YES > GO TO 3. Resistance (Ω) Resistance (Ω) YES > GO TO 3. NO > Repair the TCM branch line. 3 23 Approx. 54 - 66 3 Is the measurement value within the specification? YES > GO TO 3. Resistance (Ω) <	Diagnosis Procedure			INFOID:000000011732408
2. Disconnect the battery cable from the negative terminal. 3. Check the following terminals and connectors for damage, bend and loose connection (unit side and connector side). - TCM - Harness connector F1 - Harness connector F3 Is the inspection result normal? YES YES >> Repair the terminal and connector. 2. CHECK HARNESS FOR OPEN CIRCUIT 1. Disconnect the connector of TCM. 2. Check the resistance between the TCM harness connector terminals. - For NISMO RS models - TCM harness connector Resistance (Ω) Connector No. TERM harness connector Resistance (Ω) Resistance (Ω) Resistance (Ω) <td< td=""><td>.CHECK CONNECTOR</td><td></td><td></td><td></td></td<>	.CHECK CONNECTOR			
2. Check the resistance between the TCM harness connector terminals. For NISMO RS models Connector No. Terminal No. F81 32 31 Approx. 54 - 66 Except for NISMO RS models Connector No. Terminal No. F83 32 31 Approx. 54 - 66 Except for NISMO RS models Connector No. Terminal No. F83 33 23 Approx. 54 - 66 Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. 3.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. • REOF10B: TM-278. "Diagnosis Procedure" • REOF10B: TM-325, "Removal and Installation" • REOF10B: TM-325, "Removal and Installation" • REOF10B: TM-325, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation"	 Disconnect the battery of Check the following term nector side). TCM Harness connector F1 Harness connector E8 <u>s the inspection result norm</u> YES >> GO TO 2. NO >> Repair the term 	able from the negative term ninals and connectors for da <u>al?</u> nal and connector.		onnection (unit side and con-
Connector No. Terminal No. Resistance (Ω) F81 32 31 Approx. 54 – 66 Except for NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. Resistance (Ω) F83 33 23 Approx. 54 – 66 s the measurement value within the specification? YES > GO TO 3. NO >> Repair the TCM branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278, "Diagnosis Procedure" REOF10B: TM-503, "Diagnosis Procedure" s the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • REOF10B: TM-325, "Removal and Installation" • REOF10D: TM-503, "Diagnosis Procedure" * REOF10B: TM-325, "Removal and Installation" • REOF10B: TM-325, "Removal and Installation" • REOF10B: TM-325, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation"	. Check the resistance be	tween the TCM harness co	nnector terminals.	
F81 32 31 Approx. 54 – 66 Except for NISMO RS models TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx. 54 – 66 Sthe measurement value within the specification? YES >> GO TO 3. Approx. 54 – 66 Approx. 54 – 66 Sthe measurement value within the specification? YES >> GO TO 3. Approx. 54 – 66 Approx. 54 – 66 Sthe measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-503, "Diagnosis Procedure" Sthe inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • REOF10B: TM-325, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation"	Connector No			Resistance (Ω)
TCM harness connector Resistance (Ω) Connector No. Terminal No. F83 33 23 Approx. 54 – 66 Stee measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: TM-278. "Diagnosis Procedure" RE0F10D: TM-503, "Diagnosis Procedure" s the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-325, "Removal and Installation" • RE0F10B: TM-325, "Removal and Installation" • RE0F10D: TM-547, "Removal and Installation" • RE0F10D: TM-547, "Removal and Installation" • REOF10D: TM-525, "Removal and Installation" • REOF10D: TM-547, "Removal and Installation" <tr< td=""><td></td><td></td><td></td><td>Approx 54 – 66</td></tr<>				Approx 54 – 66
Connector No. Terminal No. Resistance (Ω) F83 33 23 Approx. 54 – 66 is the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. Stepse for the TCM branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: TM-278, "Diagnosis Procedure" RE0F10D: Sthe inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-325, "Removal and Installation" • RE0F10D: TM-325, "Removal and Installation" • RE0F10D: TM-547, "Removal and Installation" YES (Past error)>>Error was detected in the TCM branch line. YES (Past error)>>Error was detected in the TCM branch line.		nodels		
Connector No. Terminal No. F83 33 23 Approx. 54 – 66 S the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. J.CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. RE0F10B: TM-278. "Diagnosis Procedure" RE0F10D: TM-503. "Diagnosis Procedure" s the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • RE0F10B: TM-325, "Removal and Installation" • RE0F10D: TM-547. "Removal and Installation" • RE0F10D: TM-547. "Removal and Installation" YES (Past error)>>Error was detected in the TCM branch line.	TCM harness connector			Resistance (O)
s the measurement value within the specification? YES >> GO TO 3. NO >> Repair the TCM branch line. 3. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: TM-278. "Diagnosis Procedure" REOF10D: TM-503. "Diagnosis Procedure" s the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • REOF10B: TM-325. "Removal and Installation" • REOF10D: TM-547. "Removal and Installation" YES (Past error)>>Error was detected in the TCM branch line.	Connector No.	Terminal No.		
YES >> GO TO 3. NO >> Repair the TCM branch line. CHECK POWER SUPPLY AND GROUND CIRCUIT Check the power supply and the ground circuit of the TCM. Refer to the following. REOF10B: <u>TM-278</u> . "Diagnosis Procedure" REOF10D: <u>TM-503</u> , "Diagnosis Procedure" s the inspection result normal? YES (Present error)>>Replace the TCM. Refer to the following. • REOF10B: <u>TM-325</u> , "Removal and Installation" • REOF10D: <u>TM-547</u> . "Removal and Installation" YES (Past error)>>Error was detected in the TCM branch line.	F83	33	23	Approx. 54 – 66
	YES >> GO TO 3. NO >> Repair the TCM CHECK POWER SUPPL Check the power supply and REOF10B: <u>TM-278</u> , "Diagr REOF10D: <u>TM-503</u> , "Diagr s the inspection result norm YES (Present error)>>Rep • REOF10B: <u>TM</u> • REOF10B: <u>TM</u> • REOF10D: <u>TM</u> YES (Past error)>>Error wa	branch line. Y AND GROUND CIRCUIT the ground circuit of the To <u>hosis Procedure</u> <u>al?</u> ace the TCM. Refer to the f <u>-325, "Removal and Installa</u> <u>-547, "Removal and Installa</u> as detected in the TCM brai	ollowing. a <u>tion"</u> ation" nch line.	

< DTC/CIRCUIT DIAGNOSIS >

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A-BAG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732409

WARNING:

- Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.)
- Never use unspecified tester or other measuring device.

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the main harness.

2. CHECK AIR BAG DIAGNOSIS SENSOR UNIT

Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow".

Is the inspection result normal?

- YES >> Replace the main harness.
- NO >> Replace parts whose air bag system has a malfunction.

HVAC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 8)]

Diagnosis Procedure			INFOID:000000011732410
1. CHECK CONNECTOR			
 Check the terminals and side and connector side 	able from the negative ter d connectors of the A/C a).		and loose connection (unit
s the inspection result norm YES >> GO TO 2. NO >> Repair the termi 2.CHECK HARNESS FOR	nal and connector.		
I. Disconnect the connect	or of A/C auto amp.	harness connector terminal	S.
Connector No.	A/C auto amp. harness connecto		Resistance (Ω)
Connector No.	Ierm	nal No.	
YES >> GO TO 3.		7	Approx. 54 – 66
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". s the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCUI d the ground circuit of the al? ace the A/C auto amp. Re as detected in the A/C auto	T e A/C auto amp. Refer to <u>t</u> fer to <u>HAC-91, "Removal a</u> o amp. branch line.	HAC-73, "A/C AUTO AMP. :
s the measurement value w YES >> GO TO 3. NO >> Repair the A/C a CHECK POWER SUPPL Check the power supply an Diagnosis Procedure". Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	ithin the specification? auto amp. branch line. Y AND GROUND CIRCUI d the ground circuit of the al? ace the A/C auto amp. Re	T e A/C auto amp. Refer to <u>t</u> fer to <u>HAC-91, "Removal a</u> o amp. branch line.	HAC-73, "A/C AUTO AMP. :

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< DTC/CIRCUIT DIAGNOSIS >

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732411

[CAN SYSTEM (TYPE 8)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).
- Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Resistance (Ω)
M4	6	14	Approx. 54 – 66

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

EPS BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 8)]

Diagnosis Procedure			INFOID:000000011732412
.CHECK CONNECTOR			
Check the terminals and side and connector side	cable from the negative terr d connectors of the EPS co).		nd and loose connection (unit
the inspection result norm YES >> GO TO 2. NO >> Repair the term			
CHECK HARNESS FOR	OPEN CIRCUIT		
 Disconnect the connect Check the resistance be 	or of EPS control unit. etween the EPS control uni	harness connector termi	nals.
	EPS control unit harness connecto		Resistance (Ω)
Connector No. M37	Termir 2	nal No. 1	Approx. 54 – 66
YES >> GO TO 3. NO >> Repair the EPS CHECK POWER SUPPL	control unit branch line. Y AND GROUND CIRCUIT	-	
	d the ground circuit of the	EPS control unit. Refer to	STC-20, "Diagnosis Proce-
	al?		
s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	lace the EPS control unit. F	trol unit branch line.	and Installation".
<u>dure"</u> . <u>s the inspection result norm</u> YES (Present error)>>Rep YES (Past error)>>Error wa NO >> Repair the powe	lace the EPS control unit. F as detected in the EPS con	trol unit branch line.	and Installation".
s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	lace the EPS control unit. F as detected in the EPS con	trol unit branch line.	and Installation".
s the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error wa	lace the EPS control unit. F as detected in the EPS con	trol unit branch line.	and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

M&A BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732413

[CAN SYSTEM (TYPE 8)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of combination meter.
- 2. Check the resistance between the combination meter harness connector terminals.

Combination meter harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M34	1 2		Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the combination meter branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the combination meter. Refer to <u>MWI-49, "COMBINATION</u> <u>METER : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the combination meter. Refer to MWI-60, "Removal and Installation".

YES (Past error)>>Error was detected in the combination meter branch line.

MDU BRANCH LINE CIRCUIT

iagnosis Procedure			INFOID:000000011732414
.CHECK CONNECTOR			
	able from the negative terr I connectors of the multi dis). <u>al?</u>		nd and loose connection (unit
CHECK HARNESS FOR			
	tween the multi display uni		nals.
	lulti display unit harness connecto	or	
			- Resistance (Ω)
Connector No.	Termir		Resistance (Ω)
Connector No. M90 the measurement value w	6	nal No. 12	Approx. 54 – 66
M90 the measurement value w YES >> GO TO 3. NO >> Repair the multi CHECK POWER SUPPL	6 ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the <u>-</u> .	12	
M90 the measurement value w YES >> GO TO 3. NO >> Repair the multi CHECK POWER SUPPL theck the power supply and NIT : Diagnosis Procedure the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	6 ithin the specification? display unit branch line. Y AND GROUND CIRCUIT d the ground circuit of the <u>-</u> . <u>al?</u> ace the multi display unit. F	12 	Approx. 54 – 66

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STRG BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732415

[CAN SYSTEM (TYPE 8)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of steering angle sensor.

2. Check the resistance between the steering angle sensor harness connector terminals.

Ste	Steering angle sensor harness connector		
Connector No.	Terminal No.		Resistance (Ω)
M30	5 2		Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the steering angle sensor branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the steering angle sensor. Refer to <u>BRC-52, "Wiring Dia-gram"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the steering angle sensor. Refer to <u>BRC-141, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the steering angle sensor branch line.

BCM BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 8)]

Diagnosis Procedure			INFOID:000000011732416
1.CHECK CONNECTOR			
3. Check the terminals an connector side).	able from the negative termin d connectors of the BCM for		e connection (unit side and
s the inspection result norm YES >> GO TO 2. NO >> Repair the termi 2.CHECK HARNESS FOR	nal and connector.		
. Disconnect the connect		nector terminals.	
BCM harness connector		Resistance (0)	
	Bolli namess connector		Resistance (Ω)
Connector No.	Terminal	No.	Resistance (Ω)
M68	Terminal 39	No. 40	Resistance (Ω) Approx. 108 – 132
M68 s the measurement value w YES >> GO TO 3. NO >> Repair the BCM 3.CHECK POWER SUPPL	Terminal 39 ithin the specification? branch line. Y AND GROUND CIRCUIT the ground circuit of the BCM	40	Approx. 108 – 132
M68 <u>s the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and <u>s the inspection result norm</u> YES (Present error)>>Reply YES (Past error)>>Error was	Terminal 39 ithin the specification? branch line. Y AND GROUND CIRCUIT the ground circuit of the BCM	40 M. Refer to <u>BCS-86, "Dia</u> 93. "Removal and Install ch line.	Approx. 108 – 132
M68 <u>s the measurement value w</u> YES >> GO TO 3. NO >> Repair the BCM 3. CHECK POWER SUPPL Check the power supply and <u>s the inspection result norm</u> YES (Present error)>>Repl YES (Past error)>>Error was	Terminal 39 ithin the specification? branch line. Y AND GROUND CIRCUIT I the ground circuit of the BCI al? ace the BCM. Refer to <u>BCS-</u> as detected in the BCM branc	40 M. Refer to <u>BCS-86, "Dia</u> 93. "Removal and Install ch line.	Approx. 108 – 132

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< DTC/CIRCUIT DIAGNOSIS >

CAN COMMUNICATION CIRCUIT

Diagnosis Procedure

1.CONNECTOR INSPECTION

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect all the unit connectors on CAN communication system.
- 4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector terminals.

	Data link connector		
Connector No.	Terminal No.		Continuity
M4	6	6 14	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check the harness and repair the root cause.

3.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the data link connector and the ground.

Data link	Data link connector		Continuity	
Connector No.	Terminal No.	Ground	Continuity	
 M4	6	Ground	Not existed	
1014	14		Not existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Check the harness and repair the root cause.

4.CHECK ECM AND BCM TERMINATION CIRCUIT

1. Remove the ECM and the BCM.

2. Check the resistance between the ECM terminals.

- For NISMO RS models

E	СМ	- Resistance (Ω)	
Termi	nal No.		
100	99	Approx. 108 – 132	

Except for NISMO RS models

E	СМ	Resistance (Ω)
Terminal No.		1001010100 (22)
124	123	Approx. 108 – 132

3. Check the resistance between the BCM terminals.

	B	CM	Resistance (Ω)	
	Terminal No.			
-	39	40	Approx. 108 – 132	

INFOID:000000011732417

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS > [CAN SYSTEM (TY	PE 8)]
Is the measurement value within the specification?	
YES >> GO TO 5. NO >> Replace the ECM and/or the BCM.	
5. СНЕСК ЗҮМРТОМ	
Connect all the connectors. Check if the symptoms described in the "Symptom (Results from intervie customer)" are reproduced.	w with
Inspection result	
Reproduced>>GO TO 6. Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past e detected.	error is
6. CHECK UNIT REPRODUCTION	
Perform the reproduction test as per the following procedure for each unit.	
 Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. 	
3. Disconnect one of the unit connectors of CAN communication system.	
NOTE: ECM and BCM have a termination circuit. Check other units first.	
 Connect the battery cable to the negative terminal. Check if the symptoms described in the "Syn (Results from interview with customer)" are reproduced. 	mptom
NOTE:	
Although unit-related error symptoms occur, do not confuse them with other symptoms.	
Inspection result	
Reproduced>>Connect the connector. Check other units as per the above procedure. Non-reproduced>>Replace the unit whose connector was disconnected.	
Non-reproduced>>Replace the unit whose connector was disconnected.	

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MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 9)]

DTC/CIRCUIT DIAGNOSIS MAIN LINE BETWEEN IPDM-E AND HVAC CIRCUIT

Diagnosis Procedure

INFOID:000000011732418

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (connector side and harness side).
- Harness connector E105
- Harness connector M77

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the following harness connectors.

- IPDM E/R
- Harness connectors E105 and M77
- 2. Check the continuity between the IPDM E/R harness connector and the harness connector.

IPDM E/R ha	mess connector	Harness connector Connector No. Terminal No.		Continuity
Connector No.	Terminal No.			Continuity
E13	27	E105	1	Existed
LIJ	26		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the IPDM E/R and the harness connector E105.

3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of A/C amp.

2. Check the continuity between the harness connector and the A/C auto amp. harness connector.

Harness	connector	A/C auto amp. harness connector		A/C auto amp. harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity		
M77	1	MEO	6	Existed		
	6	M50	7	Existed		

Is the inspection result normal?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the main line between the IPDM E/R and the A/C auto amp.

NO >> Repair the main line between the harness connector M77 and the A/C auto amp.

AIN LINE BET	SNOSIS >		-	SYSTEM (TYPE 9)]
Diagnosis Proced	ure			INFOID:000000011732419
1.CHECK HARNESS	CONTINUITY (OPEN	I CIRCUIT)		
 Disconnect the foll ECM A/C auto amp. 	ttery cable from the ne owing harness conne		nector and the data lir	nk connector.
A/C auto amp. ha	arness connector	Data link o	connector	Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	Continuity
M50	6	M4	6	Existed
IVIJU	7	1114		
s the inspection result	-		14	Existed

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[CAN S

ECM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732420

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of ECM.

2. Check the resistance between the ECM harness connector terminals.

For NISMO RS models

Connector No. Terminal No.		ECM harness connector			
E19 100 00 Approx 109 122	Connector No.	Termi	Resistance (Ω)		
E10 100 99 Applox. 100 132	E18	100	99	Approx. 108 – 132	

Except for NISMO RS models

ECM harness connector			Resistance (Ω)
Connector No.	Termi	(122)	
E19	124	123	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

 $\mathbf{3}$. Check power supply and ground circuit

Check the power supply and the ground circuit of the ECM. Refer to the following.

• For NISMO RS models: EC-183, "Diagnosis Procedure"

• Except for NISMO RS models: EC-777, "Diagnosis Procedure"

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to the following.

- For NISMO RS models: EC-578, "Removal and Installation"
- Except for NISMO RS models: EC-1255, "Removal and Installation"
- YES (Past error)>>Error was detected in the ECM branch line.

4WD BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

iagnosis Procedure			INFOID:00000001173243
-			119F01D.00000001173243
.CHECK CONNECTOR			
 Turn the ignition switch O Disconnect the battery ca 		ive terminal	
			ose connection (unit side and con-
nector side). AWD control module			
Harness connector B7			
Harness connector E107	•		
the inspection result normal	<u>?</u>		
YES >> GO TO 2. NO >> Repair the termina	al and connector.		
CHECK HARNESS FOR C			
Disconnect the connector		odule.	
		ntrol module harness connec	ctor terminals.
AWD	control module harnes	ss connector	
			Resistance (Ω)
Connector No.		Terminal No.	
Connector No. B47	4	Terminal No.	Approx. 54 – 66
B47 the measurement value with	-	5	
B47 the measurement value with YES >> GO TO 3.	nin the specificatio	5 n?	
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD c	nin the specification	n? nch line.	
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD o CHECK POWER SUPPLY	nin the specification ontrol module bra AND GROUND C	5 n? nch line. IRCUIT	Approx. 54 – 66
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD o CHECK POWER SUPPLY	nin the specification ontrol module bra AND GROUND C	5 n? nch line. IRCUIT	
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD co CHECK POWER SUPPLY heck the power supply and t	nin the specification ontrol module bra AND GROUND C he ground circuit	5 n? nch line. IRCUIT	Approx. 54 – 66
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u>	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".
B47 the measurement value with YES >> GO TO 3. NO >> Repair the AWD of CHECK POWER SUPPLY heck the power supply and the edure". the inspection result normal YES (Present error)>>Replace YES (Past error)>>Error was	nin the specification ontrol module bra AND GROUND C he ground circuit ? ce the AWD contro detected in the A	5 nch line. IRCUIT of the AWD control module. of module. Refer to <u>DLN-91,</u> WD control module branch I	Approx. 54 – 66 Refer to <u>DLN-77, "Diagnosis Pro-</u> "Removal and Installation".

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ABS BRANCH LINE CIRCUIT

Diagnosis Procedure

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of ABS actuator and electric unit (control unit).
- 2. Check the resistance between the ABS actuator and electric unit (control unit) harness connector terminals.

ABS actuator	Resistance (Ω)		
Connector No.	Terminal No.		
E35	22	9	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ABS actuator and electric unit (control unit) branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ABS actuator and electric unit (control unit). Refer to <u>BRC-114, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to <u>BRC-138, "Removal</u> <u>and Installation"</u>.

YES (Past error)>>Error was detected in the ABS actuator and electric unit (control unit) branch line.

NO >> Repair the power supply and the ground circuit.

Revision: 2014 October

IPDM-E BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

	SIS >		CAN SYSTEM (TYPE 9)]
PDM-E BRANCH L	INE CIRCUIT		
Diagnosis Procedure			INFOID:000000011732422
1.CHECK CONNECTOR			
	OFF. cable from the negative term d connectors of the IPDM E,		loose connection (unit side
s the inspection result norm YES >> GO TO 2. NO >> Repair the term 2.CHECK HARNESS FOR	inal and connector.		
1. Disconnect the connect		es connector terminals.	
	IPDM E/R harness connector		Resistance (Ω)
Connector No.	Termina	l No.	
E13	27	26	Approx. 54 – 66
Check the power supply and Is the inspection result norm YES (Present error)>>Rep YES (Past error)>>Error w	Y AND GROUND CIRCUIT	PCS-36, "Removal and li	-

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TCM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:0000000011732423

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the following terminals and connectors for damage, bend and loose connection (unit side and connector side).
- TCM
- Harness connector F1
- Harness connector E8

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of TCM.
- 2. Check the resistance between the TCM harness connector terminals.
- For NISMO RS models

	Resistance (Ω)		
Connector No.	Termi		
F81	32	31	Approx. 54 – 66

- Except for NISMO RS models

	Resistance (Ω)		
Connector No.	Termi		
F83	33	23	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the TCM branch line.

 ${f 3.}$ CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to the following.

• RE0F10B: TM-278, "Diagnosis Procedure"

RE0F10D: <u>TM-503, "Diagnosis Procedure"</u>

Is the inspection result normal?

YES (Present error)>>Replace the TCM. Refer to the following.

- RE0F10B: <u>TM-325</u>, "Removal and Installation"
- RE0F10D: TM-547, "Removal and Installation"

YES (Past error)>>Error was detected in the TCM branch line.

[CAN SYSTEM (TYPE 9)]

A-BAG BRANCH LINE CIRCUIT А **Diagnosis** Procedure INFOID:000000011732424 WARNING: В Before servicing, turn ignition switch OFF, disconnect battery negative terminal, and wait 3 minutes or more. (To discharge backup capacitor.) • Never use unspecified tester or other measuring device. С 1. CHECK CONNECTOR 1. Turn the ignition switch OFF. Disconnect the battery cable from the negative terminal. 2. D Check the terminals and connectors of the air bag diagnosis sensor unit for damage, bend and loose con-3. nection (unit side and connector side). Is the inspection result normal? Е YES >> GO TO 2. NO >> Replace the main harness. 2.CHECK AIR BAG DIAGNOSIS SENSOR UNIT F Check the air bag diagnosis sensor unit. Refer to SRC-29, "Work Flow". Is the inspection result normal? YES >> Replace the main harness. NO >> Replace parts whose air bag system has a malfunction. Н

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< DTC/CIRCUIT DIAGNOSIS >

AVM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732436

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the around view monitor control unit for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of around view monitor control unit.
- 2. Check the resistance between the around view monitor control unit harness connector terminals.

Around	Resistance (Ω)		
Connector No.	Termi		
M98	26	24	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the around view monitor control unit branch line.

${f 3.}$ CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the around view monitor control unit. Refer to <u>AV-155</u>, <u>"AROUND VIEW MONITOR CONTROL UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the around view monitor control unit. Refer to <u>AV-184</u>, "<u>Removal and Installa-</u> <u>tion</u>".

YES (Past error)>>Error was detected in the around view monitor control unit branch line.

HVAC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

OFF. cable from the negative ter nd connectors of the A/C a e). nal?		
cable from the negative tern nd connectors of the A/C are).		
ninal and connector.		d and loose connection (unit
etween the A/C auto amp.		ıls.
		Resistance (Ω)
6	7	Approx. 54 – 66
LY AND GROUND CIRCUI nd the ground circuit of the <u>mal?</u> place the A/C auto amp. Re vas detected in the A/C auto	e A/C auto amp. Refer to fer to <u>HAC-91, "Removal a</u> o amp. branch line.	
	R OPEN CIRCUIT ctor of A/C auto amp. between the A/C auto amp. A/C auto amp. harness connector A/C auto amp. harness connector Termi 6 within the specification? c auto amp. branch line. LY AND GROUND CIRCUIT and the ground circuit of the mal? place the A/C auto amp. Reveas detected in the A/C auto	R OPEN CIRCUIT ctor of A/C auto amp. between the A/C auto amp. harness connector terminal A/C auto amp. harness connector A/C auto amp. harness connector 6 7 within the specification? c auto amp. branch line. LY AND GROUND CIRCUIT and the ground circuit of the A/C auto amp. Refer to

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AV BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732437

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of NAVI control unit.
- 2. Check the resistance between the NAVI control unit harness connector terminals.

Ν	Resistance (Ω)		
Connector No.	Termi		
M108	8	17	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the NAVI control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the NAVI control unit. Refer to <u>AV-155, "NAVI CONTROL</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the NAVI control unit. Refer to AV-176, "Removal and Installation".

YES (Past error)>>Error was detected in the NAVI control unit branch line.

DLC BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

< DTC/CIRCUIT DIAGNOS			
DLC BRANCH LINE	CIRCUIT		
Diagnosis Procedure			INFOID:000000011732420
1.CHECK CONNECTOR			
1. Turn the ignition switch	OFF		
	able from the negative term	ninal.	
		k connector for damage	e, bend and loose connection
connector side and har (connector side and har			
YES >> GO TO 2.			
NO >> Repair the termi	nal and connector.		
2. CHECK HARNESS FOR	OPEN CIRCUIT		
Check the resistance betwee	en the data link connector te	erminals.	
	Data link connector		Resistance (Ω)
Connector No.	Termina		
M4	6	14	Approx. 54 – 66

EPS BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732427

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

- 1. Disconnect the connector of EPS control unit.
- 2. Check the resistance between the EPS control unit harness connector terminals.

E	Resistance (Ω)		
Connector No.	Terminal No.		
M37	2	1	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the EPS control unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the EPS control unit. Refer to <u>STC-20, "Diagnosis Proce-</u> dure".

Is the inspection result normal?

YES (Present error)>>Replace the EPS control unit. Refer to ST-11, "Removal and Installation".

YES (Past error)>>Error was detected in the EPS control unit branch line.

M&A BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

Diagnosis Procedure			INFOID:000000011732428
1.CHECK CONNECTOR			
	able from the negative term d connectors of the combin		pend and loose connection
s the inspection result norm YES >> GO TO 2. NO >> Repair the termi 2.CHECK HARNESS FOR	nal and connector.		
I. Disconnect the connect		er harness connector term	inals.
Cc	mbination meter harness connector	or	Provintence (O)
Connector No.	Termina	al No.	Resistance (Ω)
M34	1	2	Approx. 54 – 66
3.CHECK POWER SUPPL Check the power supply and METER : Diagnosis Procedu Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	d the ground circuit of the c <u>ire"</u> .	Refer to <u>MWI-60, "Remov</u> on meter branch line.	

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MDU BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732429

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of multi display unit.

2. Check the resistance between the multi display unit harness connector terminals.

Ν	Resistance (Ω)		
Connector No.	Terminal No.		
M90	6	12	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the multi display unit branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the multi display unit. Refer to <u>AV-222, "MULTI DISPLAY</u> <u>UNIT : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the multi display unit. Refer to DMS-16, "Removal and Installation".

YES (Past error)>>Error was detected in the multi display unit branch line.

STRG BRANCH LINE CIRCUIT

[CAN SYSTEM (TYPE 9)]

Diagnosis Procedure			INFOID:00000001173243
1.CHECK CONNECTOR			
	able from the negative terr I connectors of the steering side). <u>al?</u> nal and connector.		e, bend and loose connection
 Check the resistance be 	or of steering angle sensor. tween the steering angle s ering angle sensor harness conne	ensor harness connector	terminals.
Connector No.		nal No.	Resistance (Ω)
M30	5	2	Approx. 54 – 66
3. CHECK POWER SUPPL Check the power supply and		-	efer to <u>BRC-52, "Wiring Dia</u> -
NO >> Repair the steer 3. CHECK POWER SUPPL Check the power supply and gram". Is the inspection result norm YES (Present error)>>Repl YES (Past error)>>Error wa	Y AND GROUND CIRCUIT d the ground circuit of the al? ace the steering angle sen	- steering angle sensor. R sor. Refer to <u>BRC-141, "R</u> angle sensor branch line.	

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BCM BRANCH LINE CIRCUIT

Diagnosis Procedure

INFOID:000000011732431

[CAN SYSTEM (TYPE 9)]

1.CHECK CONNECTOR

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of BCM.

2. Check the resistance between the BCM harness connector terminals.

BCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M68	39	40	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the BCM branch line.

3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the BCM. Refer to <u>BCS-86, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES (Present error)>>Replace the BCM. Refer to <u>BCS-93, "Removal and Installation"</u>.

YES (Past error)>>Error was detected in the BCM branch line.

CAN COMMUNICATION CIRCUIT

[CAN SYSTEM (TYPE 9)]

		CIRCUIT			
Diagnosis Procedure				INFOID:000000011732432	Д
1.CONNECTOR INSPEC					В
1. Turn the ignition switc					L
 Disconnect the battery Disconnect all the unit Check terminals and of 	connector	s on CAN commu			С
Is the inspection result not	mal?				_
YES >> GO TO 2. NO >> Repair the ter	minal and o	connector.			C
2. CHECK HARNESS CC	NTINUITY	(SHORT CIRCUI	Т)		_
Check the continuity betwee	een the dat	ta link connector te	erminals.		E
	Data	a link connector		Continuity	г
Connector No.		Termi	nal No.	Continuity	F
M4		6	14	Not existed	
•	ness and r	epair the root cau			G
3.CHECK HARNESS CC	NTINUITY	(SHORT CIRCUI	T)		F
Check the continuity betwe	een the dat	ta link connector a	nd the ground.		
Data lir	k connector			Continuity	
Connector No.	-	Terminal No.	Ground	Continuity	
M4		6		Not existed	J
Is the inspection result nor	mal?	17		Not existed	
YES >> GO TO 4. NO >> Check the har	ness and r	epair the root cau	se.		K
4.CHECK ECM AND BC		ATION CIRCUIT			L
 Remove the ECM and Check the resistance 		e ECM terminals.		_	
- For NISMO RS model	S				LA
ECM					
Terminal No.		Resistance (2)		Ν
100	99	Approx. 108 – 7	132		
- Except for NISMO RS	models				C
ECM					
Terminal No.		Resistance (2)		F
124	123	Approx. 108 – 7	132		
3. Check the resistance	between th	e BCM terminals.			
BCM					
Terminal No.		Resistanco (C))		
Terminal No.	40	- Resistance (Approx. 108 – 2	·		

CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 5.

NO >> Replace the ECM and/or the BCM.

5. CHECK SYMPTOM

Connect all the connectors. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

Inspection result

Reproduced>>GO TO 6.

Non-reproduced>>Start the diagnosis again. Follow the trouble diagnosis procedure when past error is detected.

6.CHECK UNIT REPRODUCTION

Perform the reproduction test as per the following procedure for each unit.

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Disconnect one of the unit connectors of CAN communication system. **NOTE:**

ECM and BCM have a termination circuit. Check other units first.

4. Connect the battery cable to the negative terminal. Check if the symptoms described in the "Symptom (Results from interview with customer)" are reproduced.

NOTE:

Although unit-related error symptoms occur, do not confuse them with other symptoms.

Inspection result

Reproduced>>Connect the connector. Check other units as per the above procedure.

Non-reproduced>>Replace the unit whose connector was disconnected.