



<b>MAIN LINE BETWEEN BCM AND M&amp;A CIRCUIT</b> .....	<b>48</b>	<b>ABS BRANCH LINE CIRCUIT</b> .....	<b>67</b>
Diagnosis Procedure .....	48	Diagnosis Procedure .....	67
<b>MAIN LINE BETWEEN M&amp;A AND STRG CIRCUIT</b> .....	<b>49</b>	<b>IPDM-E BRANCH LINE CIRCUIT</b> .....	<b>68</b>
Diagnosis Procedure .....	49	Diagnosis Procedure .....	68
<b>MAIN LINE BETWEEN STRG AND DLC CIRCUIT</b> .....	<b>50</b>	<b>CAN COMMUNICATION CIRCUIT</b> .....	<b>69</b>
Diagnosis Procedure .....	50	Diagnosis Procedure .....	69
<b>MAIN LINE BETWEEN DLC AND TCM CIRCUIT</b> .....	<b>51</b>	<b>CAN COMMUNICATION CIRCUIT 1</b> .....	<b>71</b>
Diagnosis Procedure .....	51	Diagnosis Procedure .....	71
<b>MAIN LINE BETWEEN TCM AND ABS CIRCUIT</b> .....	<b>52</b>	<b>CAN COMMUNICATION CIRCUIT 2</b> .....	<b>73</b>
Diagnosis Procedure .....	52	Diagnosis Procedure .....	73
<b>ECM BRANCH LINE CIRCUIT</b> .....	<b>53</b>	<b>CAN GATEWAY</b>	
Diagnosis Procedure .....	53	<b>PRECAUTION</b> .....	<b>75</b>
<b>4WD BRANCH LINE CIRCUIT</b> .....	<b>54</b>	<b>PRECAUTIONS</b> .....	<b>75</b>
Diagnosis Procedure .....	54	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	75
<b>A-BAG BRANCH LINE CIRCUIT</b> .....	<b>55</b>	Precaution for Battery Service .....	75
Diagnosis Procedure .....	55	Precautions for Removing Battery Terminal .....	75
<b>BCM BRANCH LINE CIRCUIT</b> .....	<b>56</b>	<b>SYSTEM DESCRIPTION</b> .....	<b>76</b>
Diagnosis Procedure .....	56	<b>COMPONENT PARTS</b> .....	<b>76</b>
<b>E-SUS BRANCH LINE CIRCUIT</b> .....	<b>57</b>	Component Parts Location .....	76
Diagnosis Procedure .....	57	<b>SYSTEM</b> .....	<b>77</b>
<b>AV BRANCH LINE CIRCUIT</b> .....	<b>58</b>	System Description .....	77
Diagnosis Procedure .....	58	<b>DIAGNOSIS SYSTEM (CAN GATEWAY)</b> .....	<b>78</b>
<b>HVAC BRANCH LINE CIRCUIT</b> .....	<b>59</b>	CONSULT Function .....	78
Diagnosis Procedure .....	59	<b>ECU DIAGNOSIS INFORMATION</b> .....	<b>79</b>
<b>M&amp;A BRANCH LINE CIRCUIT</b> .....	<b>60</b>	<b>CAN GATEWAY</b> .....	<b>79</b>
Diagnosis Procedure .....	60	Reference Value .....	79
<b>STRG BRANCH LINE CIRCUIT</b> .....	<b>61</b>	DTC Inspection Priority Chart .....	79
Diagnosis Procedure .....	61	DTC Index .....	79
<b>CGW BRANCH LINE CIRCUIT (CAN COMMUNICATION CIRCUIT 1)</b> .....	<b>62</b>	<b>WIRING DIAGRAM</b> .....	<b>81</b>
Diagnosis Procedure .....	62	<b>CAN GATEWAY SYSTEM</b> .....	<b>81</b>
<b>DLC BRANCH LINE CIRCUIT</b> .....	<b>63</b>	Wiring Diagram .....	81
Diagnosis Procedure .....	63	<b>BASIC INSPECTION</b> .....	<b>83</b>
<b>TPMS BRANCH LINE CIRCUIT</b> .....	<b>64</b>	<b>ADDITIONAL SERVICE WHEN REPLACING CAN GATEWAY</b> .....	<b>83</b>
Diagnosis Procedure .....	64	Description .....	83
<b>TCM BRANCH LINE CIRCUIT</b> .....	<b>65</b>	Work Procedure .....	83
Diagnosis Procedure .....	65	<b>CONFIGURATION (CAN GATEWAY)</b> .....	<b>84</b>
<b>TCU BRANCH LINE CIRCUIT</b> .....	<b>66</b>	Description .....	84
Diagnosis Procedure .....	66	Work Procedure .....	84
		<b>DTC/CIRCUIT DIAGNOSIS</b> .....	<b>85</b>
		<b>U1000 CAN COMM CIRCUIT</b> .....	<b>85</b>
		Description .....	85

DTC Logic .....	85	<b>AV BRANCH LINE CIRCUIT</b> .....	101	A
Diagnosis Procedure .....	85	Diagnosis Procedure .....	101	
<b>U1010 CONTROL UNIT (CAN)</b> .....	86	<b>HVAC BRANCH LINE CIRCUIT</b> .....	102	B
Description .....	86	Diagnosis Procedure .....	102	
DTC Logic .....	86	<b>M&amp;A BRANCH LINE CIRCUIT</b> .....	103	C
Diagnosis Procedure .....	86	Diagnosis Procedure .....	103	
<b>B2600 CONFIG ERROR</b> .....	87	<b>STRG BRANCH LINE CIRCUIT</b> .....	104	D
Description .....	87	Diagnosis Procedure .....	104	
DTC Logic .....	87	<b>DLC BRANCH LINE CIRCUIT</b> .....	105	E
Diagnosis Procedure .....	87	Diagnosis Procedure .....	105	
<b>POWER SUPPLY AND GROUND CIRCUIT</b> .....	88	<b>TPMS BRANCH LINE CIRCUIT</b> .....	106	F
Diagnosis Procedure .....	88	Diagnosis Procedure .....	106	
<b>REMOVAL AND INSTALLATION</b> .....	89	<b>TCM BRANCH LINE CIRCUIT</b> .....	107	G
<b>CAN GATEWAY</b> .....	89	Diagnosis Procedure .....	107	
Removal and Installation .....	89	<b>ABS BRANCH LINE CIRCUIT</b> .....	108	H
<b>CAN SYSTEM (TYPE 1)</b>		Diagnosis Procedure .....	108	
<b>DTC/CIRCUIT DIAGNOSIS</b> .....	90	<b>IPDM-E BRANCH LINE CIRCUIT</b> .....	109	I
<b>MAIN LINE BETWEEN 4WD AND BCM CIRCUIT</b> .....	90	Diagnosis Procedure .....	109	
Diagnosis Procedure .....	90	<b>CAN COMMUNICATION CIRCUIT</b> .....	110	J
<b>MAIN LINE BETWEEN BCM AND M&amp;A CIRCUIT</b> .....	91	Diagnosis Procedure .....	110	
Diagnosis Procedure .....	91	<b>CAN SYSTEM (TYPE 2)</b>		K
<b>MAIN LINE BETWEEN M&amp;A AND STRG CIRCUIT</b> .....	92	<b>DTC/CIRCUIT DIAGNOSIS</b> .....	112	L
Diagnosis Procedure .....	92	<b>MAIN LINE BETWEEN 4WD AND BCM CIRCUIT</b> .....	112	
<b>MAIN LINE BETWEEN STRG AND DLC CIRCUIT</b> .....	93	Diagnosis Procedure .....	112	
Diagnosis Procedure .....	93	<b>MAIN LINE BETWEEN BCM AND M&amp;A CIRCUIT</b> .....	113	
<b>MAIN LINE BETWEEN DLC AND TCM CIRCUIT</b> .....	94	Diagnosis Procedure .....	113	
Diagnosis Procedure .....	94	<b>MAIN LINE BETWEEN M&amp;A AND STRG CIRCUIT</b> .....	114	
<b>MAIN LINE BETWEEN TCM AND ABS CIRCUIT</b> .....	95	Diagnosis Procedure .....	114	LAN
Diagnosis Procedure .....	95	<b>MAIN LINE BETWEEN STRG AND DLC CIRCUIT</b> .....	115	
<b>ECM BRANCH LINE CIRCUIT</b> .....	96	Diagnosis Procedure .....	115	N
Diagnosis Procedure .....	96	<b>MAIN LINE BETWEEN DLC AND TCM CIRCUIT</b> .....	116	
<b>4WD BRANCH LINE CIRCUIT</b> .....	97	Diagnosis Procedure .....	116	O
Diagnosis Procedure .....	97	<b>MAIN LINE BETWEEN TCM AND ABS CIRCUIT</b> .....	117	
<b>A-BAG BRANCH LINE CIRCUIT</b> .....	98	Diagnosis Procedure .....	117	P
Diagnosis Procedure .....	98	<b>ECM BRANCH LINE CIRCUIT</b> .....	118	
<b>BCM BRANCH LINE CIRCUIT</b> .....	99	Diagnosis Procedure .....	118	
Diagnosis Procedure .....	99	<b>4WD BRANCH LINE CIRCUIT</b> .....	119	
<b>E-SUS BRANCH LINE CIRCUIT</b> .....	100	Diagnosis Procedure .....	119	
Diagnosis Procedure .....	100			

<b>A-BAG BRANCH LINE CIRCUIT</b> .....	<b>120</b>	<b>DLC BRANCH LINE CIRCUIT</b> .....	<b>128</b>
Diagnosis Procedure .....	120	Diagnosis Procedure .....	128
<b>BCM BRANCH LINE CIRCUIT</b> .....	<b>121</b>	<b>TPMS BRANCH LINE CIRCUIT</b> .....	<b>129</b>
Diagnosis Procedure .....	121	Diagnosis Procedure .....	129
<b>E-SUS BRANCH LINE CIRCUIT</b> .....	<b>122</b>	<b>TCM BRANCH LINE CIRCUIT</b> .....	<b>130</b>
Diagnosis Procedure .....	122	Diagnosis Procedure .....	130
<b>AV BRANCH LINE CIRCUIT</b> .....	<b>123</b>	<b>TCU BRANCH LINE CIRCUIT</b> .....	<b>131</b>
Diagnosis Procedure .....	123	Diagnosis Procedure .....	131
<b>HVAC BRANCH LINE CIRCUIT</b> .....	<b>124</b>	<b>ABS BRANCH LINE CIRCUIT</b> .....	<b>132</b>
Diagnosis Procedure .....	124	Diagnosis Procedure .....	132
<b>M&amp;A BRANCH LINE CIRCUIT</b> .....	<b>125</b>	<b>IPDM-E BRANCH LINE CIRCUIT</b> .....	<b>133</b>
Diagnosis Procedure .....	125	Diagnosis Procedure .....	133
<b>STRG BRANCH LINE CIRCUIT</b> .....	<b>126</b>	<b>CAN COMMUNICATION CIRCUIT 1</b> .....	<b>134</b>
Diagnosis Procedure .....	126	Diagnosis Procedure .....	134
<b>CGW BRANCH LINE CIRCUIT (CAN COM- MUNICATION CIRCUIT 1)</b> .....	<b>127</b>	<b>CAN COMMUNICATION CIRCUIT 2</b> .....	<b>136</b>
Diagnosis Procedure .....	127	Diagnosis Procedure .....	136

PRECAUTION

PRECAUTIONS

Precautions for Trouble Diagnosis

INFOID:000000011490037

**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.

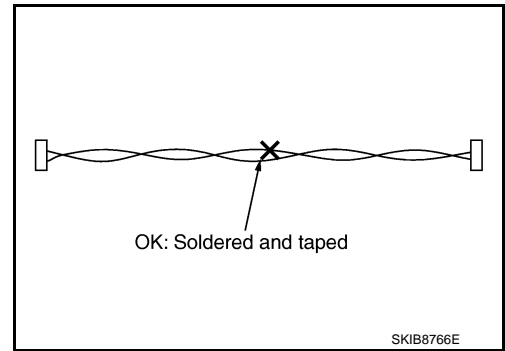
Precautions for Harness Repair

INFOID:000000011490038

- Solder the repaired area and wrap tape around the soldered area.

**NOTE:**

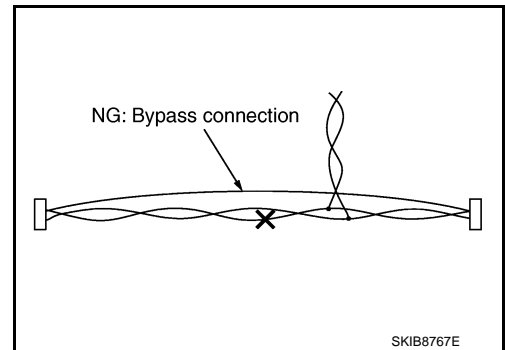
A fray of twisted lines must be within 110 mm (4.33 in).



- 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.

A  
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LAN

# SYSTEM DESCRIPTION

## SYSTEM

### CAN COMMUNICATION SYSTEM

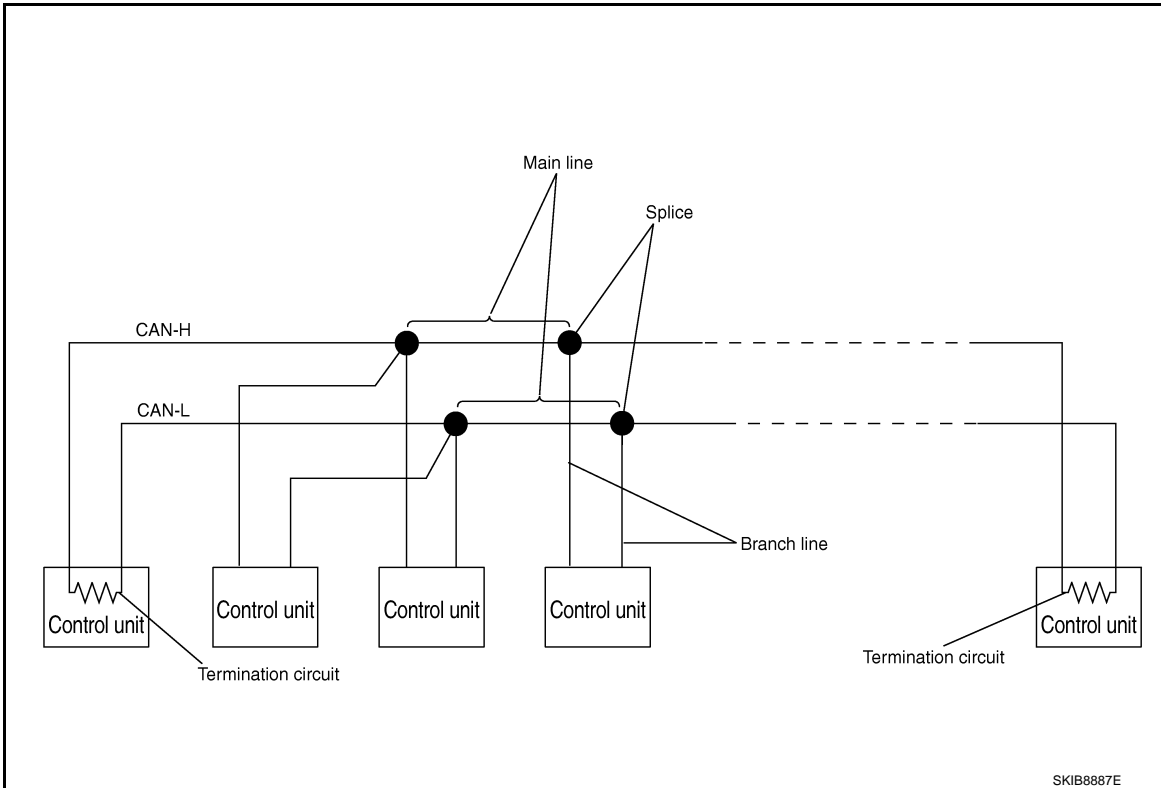
#### CAN COMMUNICATION SYSTEM : System Description

INFOID:000000011490039

- CAN communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with two communication lines (CAN-H and CAN-L).
- Control units on the CAN network transmit signals using the CAN communication control circuit. They receive only necessary signals from other control units to operate various functions.
- CAN communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

#### CAN COMMUNICATION SYSTEM : System Diagram

INFOID:000000011490040

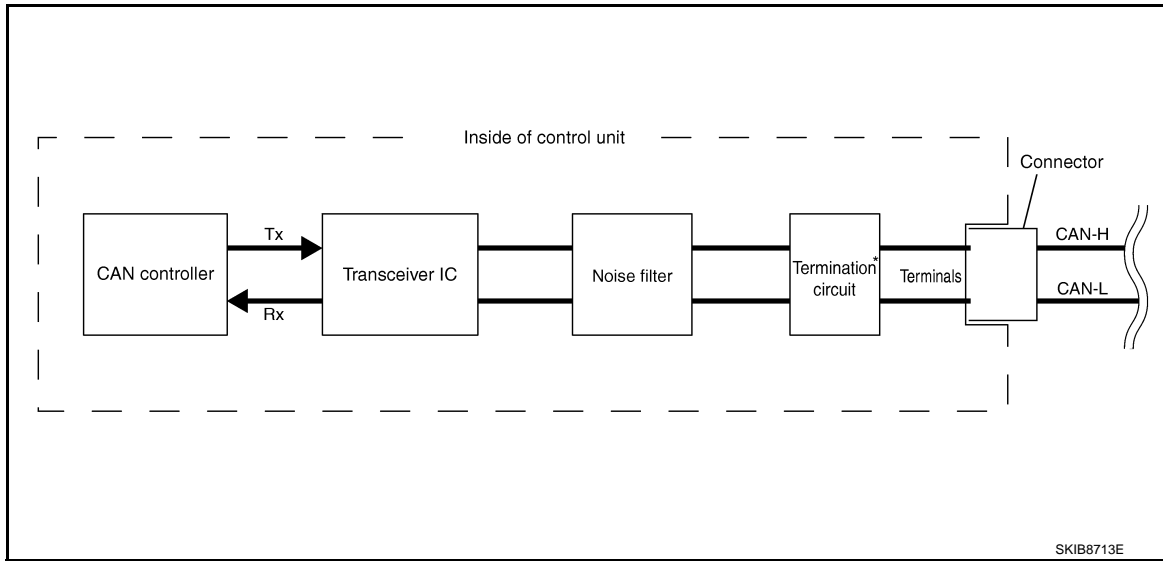


Each control unit passes an electric current to the termination circuits when transmitting CAN communication signal. The termination circuits produce an electrical potential difference between CAN-H and CAN-L. CAN communication system transmits and receives CAN communication signals by the potential difference.

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	Refer to <a href="#">LAN-7, "CAN COMMUNICATION SYSTEM : CAN Communication Control Circuit"</a> .

CAN COMMUNICATION SYSTEM : CAN Communication Control Circuit

INFOID:000000011490041



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.
Noise filter	It eliminates noise of CAN communication signal.
Termination circuit* (Resistance of approx. 120 Ω)	It produces potential difference.

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

DIAG ON CAN

DIAG ON CAN : Description

INFOID:000000011490042

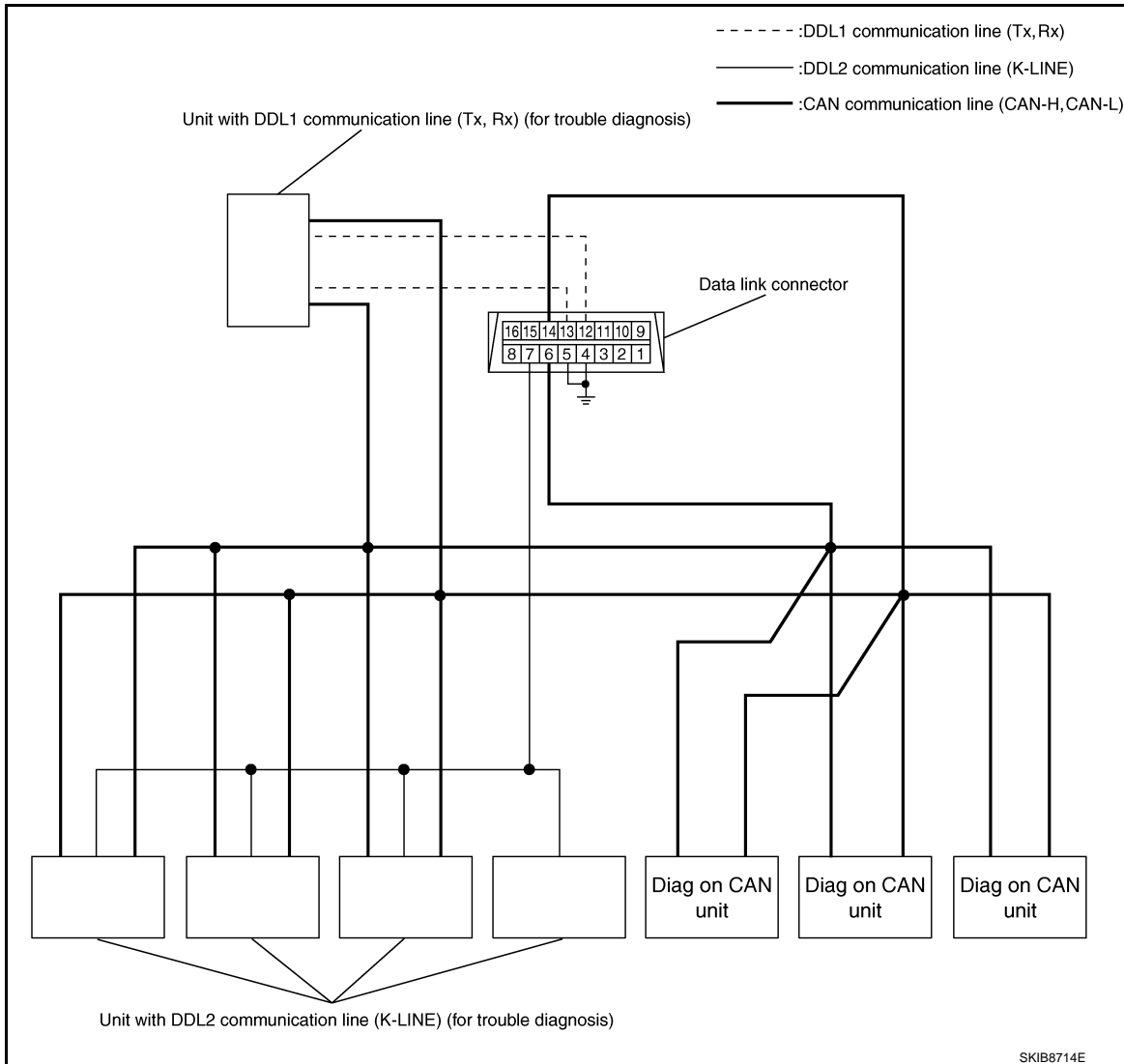
“Diag on CAN” is a diagnosis using CAN communication instead of previous DDL1 and DDL2 communication lines, between control units and diagnosis unit.

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LAN

## DIAG ON CAN : System Diagram

INFOID:000000011490043



Name	Harness	Description
DDL1	Tx Rx	It is used for trouble diagnosis. (CAN-H and CAN-L are used for controlling)
DDL2	K-LINE	It is used for trouble diagnosis. (CAN-H and CAN-L are used for controlling)
Diag on CAN	CAN-H CAN-L	It is used for trouble diagnosis and control.



## TROUBLE DIAGNOSIS

### Condition of Error Detection

INFOID:000000011490044

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.

**NOTE:**

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 control unit.

### Symptom When Error Occurs in CAN Communication System

INFOID:000000011490045

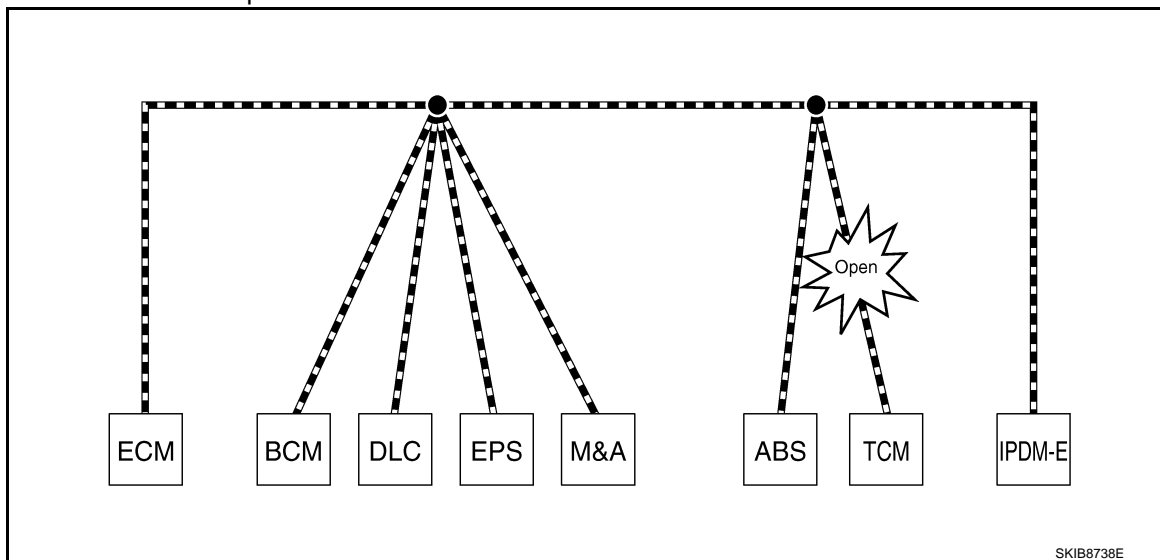
In CAN communication system, multiple units mutually transmit and receive signals. Each unit cannot transmit and receive signals if any error occurs on CAN communication line. Under this condition, multiple control units related to the root cause malfunction or go into fail-safe mode.

#### ERROR EXAMPLE

**NOTE:**

- Each vehicle differs in symptom of each unit under fail-safe mode and CAN communication line wiring.
- Refer to [LAN-20. "Abbreviation List"](#) for the unit abbreviation.

Example: TCM branch line open circuit



Unit name	Symptom
ECM	Engine torque limiting is affected, and shift harshness increases.
BCM	Reverse warning chime does not sound.

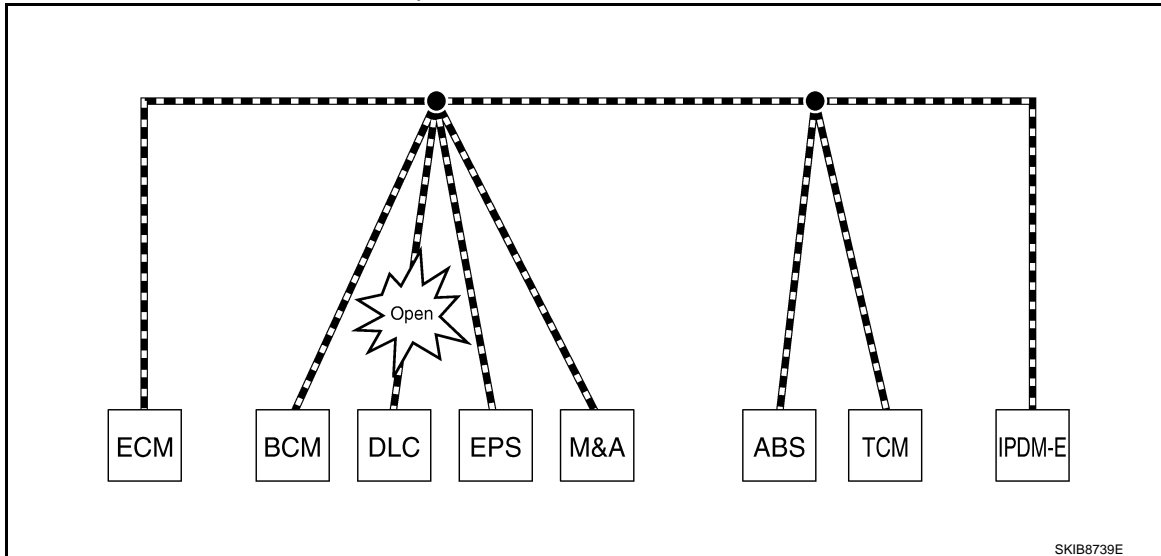
# TROUBLE DIAGNOSIS

< SYSTEM DESCRIPTION >

[CAN FUNDAMENTAL]

Unit name	Symptom
EPS control unit	Normal operation.
Combination meter	<ul style="list-style-type: none"> <li>Shift position indicator and OD OFF indicator turn OFF.</li> <li>Warning lamps turn ON.</li> </ul>
ABS actuator and electric unit (control unit)	Normal operation.
TCM	No impact on operation.
IPDM E/R	Normal operation.

Example: Data link connector branch line open circuit



Unit name	Symptom
ECM	Normal operation.
BCM	
EPS control unit	
Combination meter	
ABS actuator and electric unit (control unit)	
TCM	
IPDM E/R	

**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.
- 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.

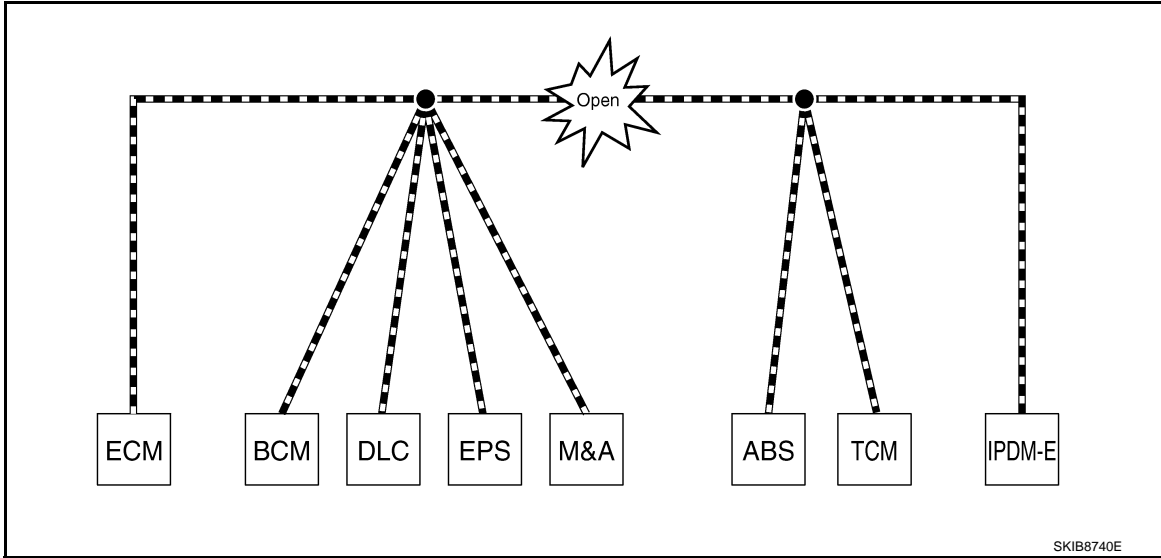
Error	Difference of symptom
Data link connector branch line open circuit	Normal operation.
CAN-H, CAN-L harness short-circuit	Most of the units which are connected to the CAN communication system enter fail-safe mode or are deactivated.

# TROUBLE DIAGNOSIS

< SYSTEM DESCRIPTION >

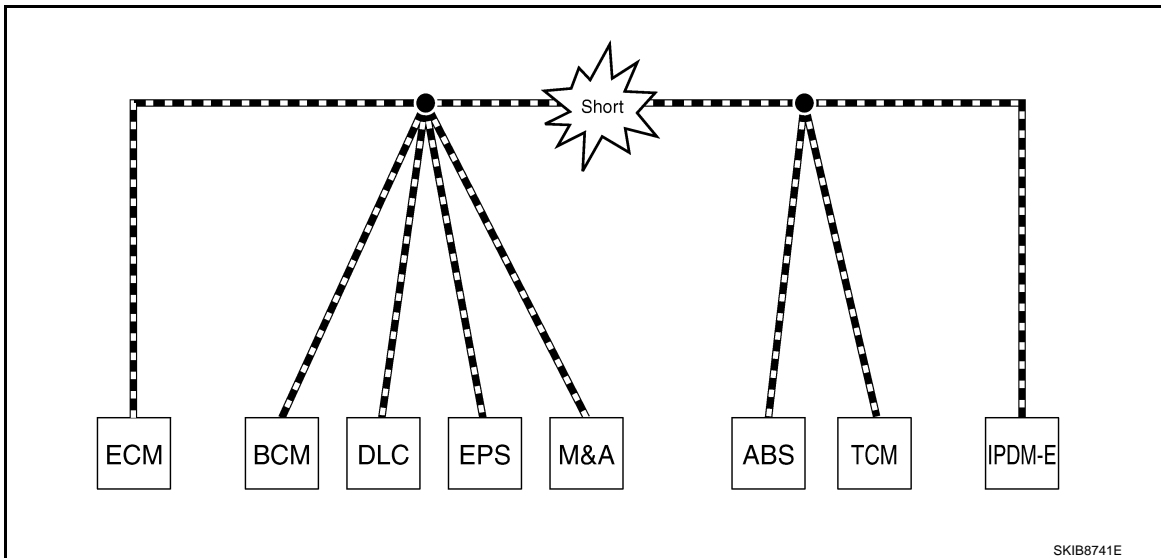
[CAN FUNDAMENTAL]

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



Unit name	Symptom
ECM	Engine torque limiting is affected, and shift harshness increases.
BCM	<ul style="list-style-type: none"> <li>• Reverse warning chime does not sound.</li> <li>• The front wiper moves under continuous operation mode even though the front wiper switch being in the intermittent position.</li> </ul>
EPS control unit	The steering effort increases.
Combination meter	<ul style="list-style-type: none"> <li>• The shift position indicator and OD OFF indicator turn OFF.</li> <li>• The speedometer is inoperative.</li> <li>• The odo/trip meter stops.</li> </ul>
ABS actuator and electric unit (control unit)	Normal operation.
TCM	No impact on operation.
IPDM E/R	When the ignition switch is ON, <ul style="list-style-type: none"> <li>• The headlamps (Lo) turn ON.</li> <li>• The cooling fan continues to rotate.</li> </ul>

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



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O  
P

LAN

# TROUBLE DIAGNOSIS

[CAN FUNDAMENTAL]

< SYSTEM DESCRIPTION >

Unit name	Symptom
ECM	<ul style="list-style-type: none"> <li>Engine torque limiting is affected, and shift harshness increases.</li> <li>Engine speed drops.</li> </ul>
BCM	<ul style="list-style-type: none"> <li>Reverse warning chime does not sound.</li> <li>The front wiper moves under continuous operation mode even though the front wiper switch being in the intermittent position.</li> <li>The room lamp does not turn ON.</li> <li>The engine does not start (if an error or malfunction occurs while turning the ignition switch OFF.)</li> <li>The steering lock does not release (if an error or malfunction occurs while turning the ignition switch OFF.)</li> </ul>
EPS control unit	The steering effort increases.
Combination meter	<ul style="list-style-type: none"> <li>The tachometer and the speedometer do not move.</li> <li>Warning lamps turn ON.</li> <li>Indicator lamps do not turn ON.</li> </ul>
ABS actuator and electric unit (control unit)	Normal operation.
TCM	No impact on operation.
IPDM E/R	When the ignition switch is ON, <ul style="list-style-type: none"> <li>The headlamps (Lo) turn ON.</li> <li>The cooling fan continues to rotate.</li> </ul>

## CAN Diagnosis with CONSULT

INFOID:000000011490046

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

- Response to the system call
- Control unit diagnosis information
- Self-diagnosis
- CAN diagnostic support monitor

## Self-Diagnosis

INFOID:000000011490047

If communication signals cannot be transmitted or received among control 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.	Start the inspection. Refer to the applicable section of the indicated control unit.
		Except for ECM	When a control unit (except for ECM) is not transmitting or receiving CAN communication signal for 2 seconds or more.	
U1001	CAN COMM CIRCUIT	When ECM is not transmitting or receiving CAN communication signal other than OBD (emission-related diagnosis) for 2 seconds or more.		
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.		

## CAN Diagnostic Support Monitor

INFOID:000000011490048

### MONITOR ITEM (CONSULT)

# TROUBLE DIAGNOSIS

< SYSTEM DESCRIPTION >

[CAN FUNDAMENTAL]

Example: CAN DIAG SUPPORT MNTR indication

Without PAST			With PAST		
<b>BCM</b>			<b>ENGINE</b>		
MONITOR ITEM	PRESENT	PAST	MONITOR ITEM	PRESENT	PAST
INITIAL DIAG	OK	-	TRANSMIT DIAG	OK	OK
TRANSMIT DIAG	OK	-	VDC/TCS/ABS	OK	5
ECM	OK	-	METER/M&A	Not diagnosed	-
METER/M&A	OK	-	BCM/SEC	OK	OK
TCM	OK	-	ICC	Not diagnosed	-
IPDM E/R	OK	-	HVAC	Not diagnosed	-
I-KEY	OK	-	TCM	OK	OK
			EPS	OK	OK
			IPDM E/R	OK	5
			e4WD	Not diagnosed	-
			AWD/4WD	Not diagnosed	-

JSMIA0964GB

Without PAST

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

With PAST

Item	PRESENT	PAST	Description
Transmission diagnosis	OK	OK	Normal at present and in the past
		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	OK	Normal at present and in the past
		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.
	Not diagnosed	-	Diagnosis not performed. No control unit for receiving signals. (No applicable optional parts)

## MONITOR ITEM (ON-BOARD DIAGNOSIS)

### NOTE:

For some models, CAN communication diagnosis result is received from the vehicle monitor.

# TROUBLE DIAGNOSIS

[CAN FUNDAMENTAL]

< SYSTEM DESCRIPTION >

Example: Vehicle Display

Item	Result indicated	Error counter	Description
CAN_COMM (Initial diagnosis)	OK	0	Normal at present
	NG	1 – 50	Control unit error (The number indicates how many times diagnosis has been run.)
CAN_CIRC_1 (Transmission diagnosis)	OK	0	Normal at present
	UNKWN	1 – 50	Unable to transmit for 2 seconds or more at present. (The number indicates how many times diagnosis has been run.)
CAN_CIRC_2 – 9 (Reception diagnosis of each unit)	OK	0	Normal at present
	UNKWN	1 – 50	Unable to transmit for 2 seconds or more at present. (The number indicates how many times diagnosis has been run.)
			Diagnosis not performed.
			No control unit for receiving signals. (No applicable optional parts)

## How to Use CAN Communication Signal Chart

INFOID:000000011490049

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.

Example: Tachometer does not move even though the engine rotates.

T: Transmit R: Receive

Signal name/Connecting unit	ECM	BCM	M&A	STRG	ABS	IPDM-E
A/C compressor feedback signal	T		R			
A/C compressor request signal	T					R
Accelerator pedal position signal	T				R	
Cooling fan motor operation signal	T					R
Engine coolant temperature signal	T		R			
Engine speed signal	T		R		R	
Fuel consumption monitor signal	T		R			
Malfunction indicator lamp signal	T		R			
A/C switch signal	R	T				
Ignition switch signal		T				R
Sleep/wake up signal		T	R			R

↓

It indicates that an error occurs between ECM and M&A (Shaded area).

CAN-H, CAN-L

SKIB8715E

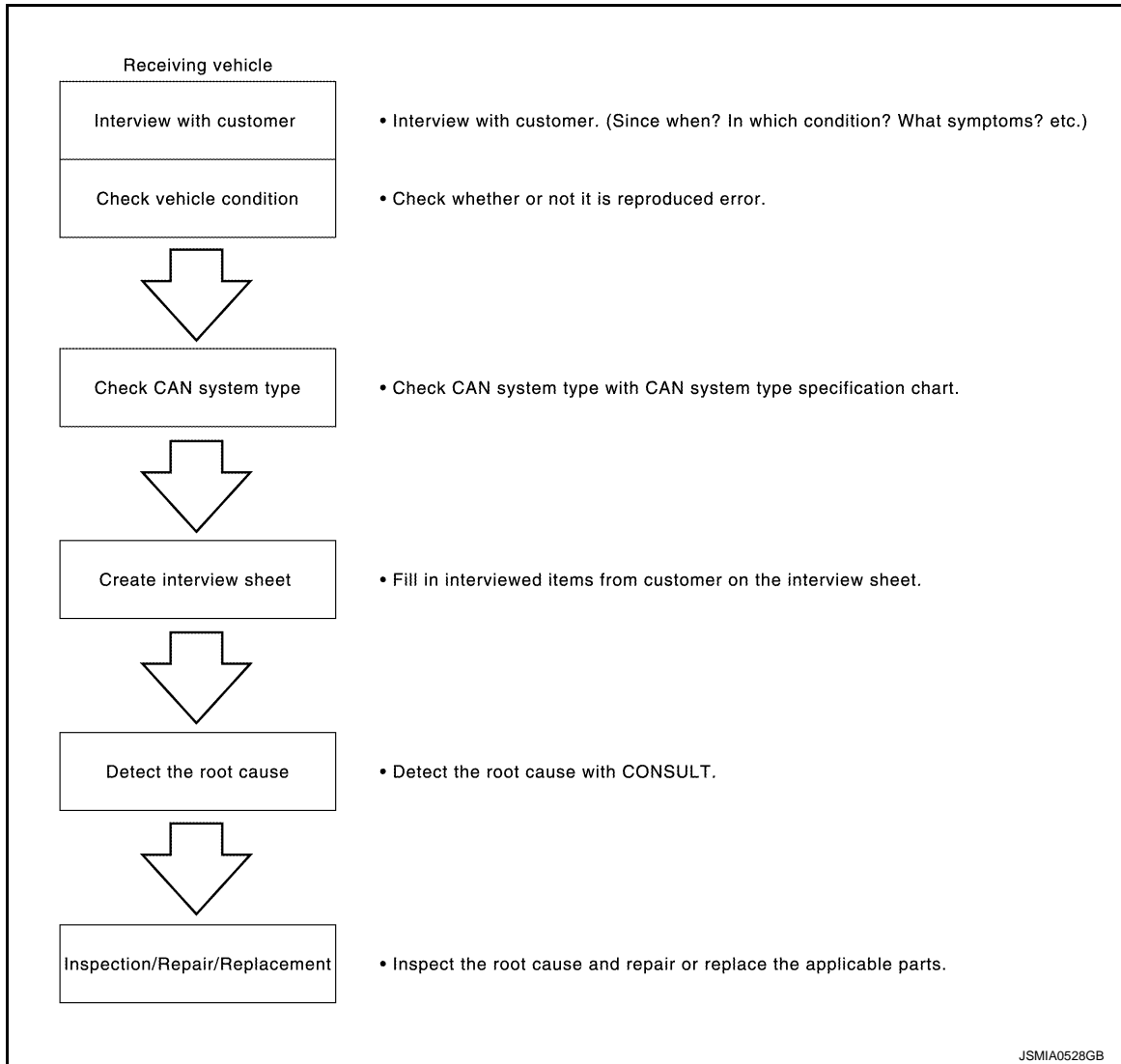
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Trouble Diagnosis Flow Chart

INFOID:000000011490050

#### 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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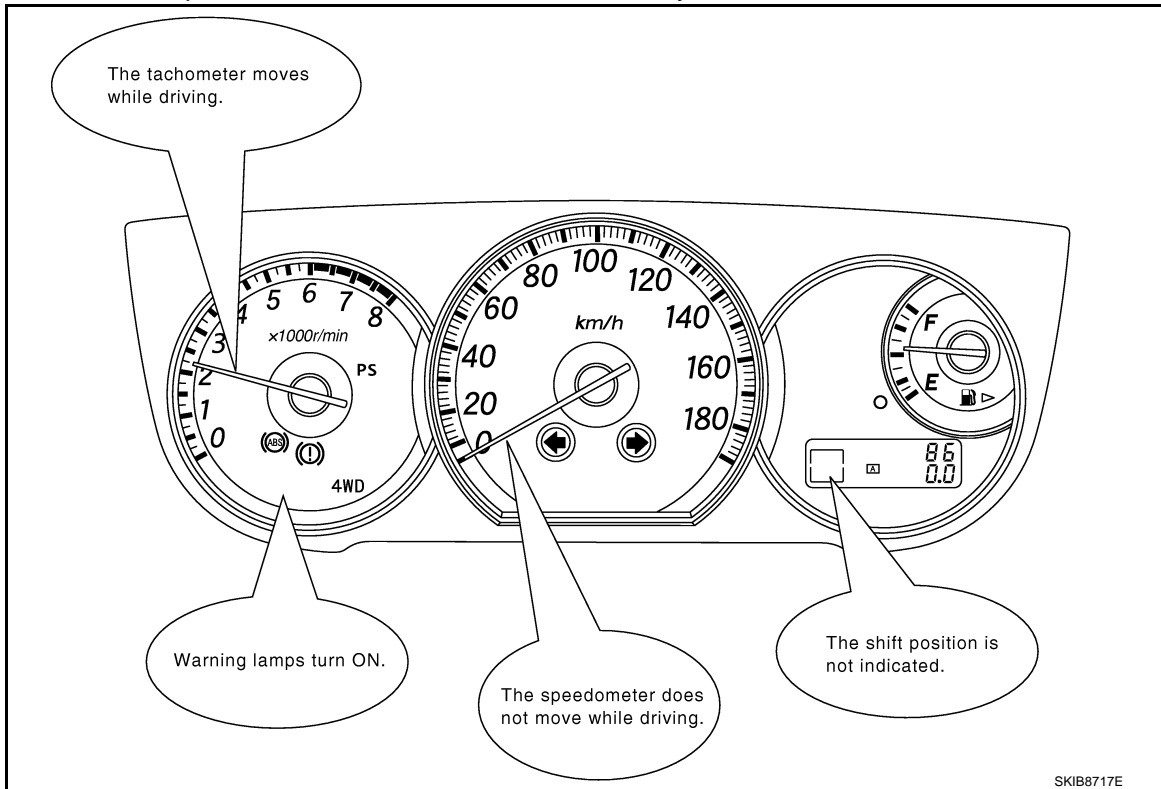
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# DIAGNOSIS AND REPAIR WORKFLOW

[CAN FUNDAMENTAL]

## < BASIC INSPECTION >

- When a CAN communication system error is present, multiple control units may malfunction or go into fail-safe 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]

CAN system type is easily checked with the vehicle equipment identification information shown in the chart.

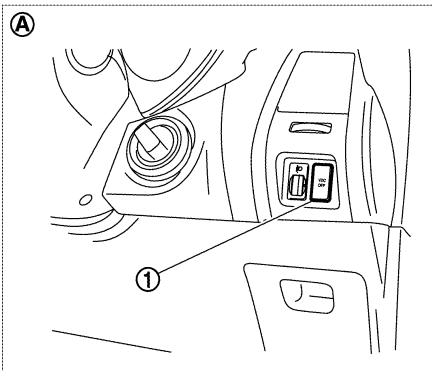
Example:  
Vehicle is equipped as follows: Wagon, AWD, VQ35DE, CVT, VDC, and Intelligent Key system. (○ shows an example of CAN system type.)

**CAN System Specification Chart**  
Determine CAN system type from the following specification chart.

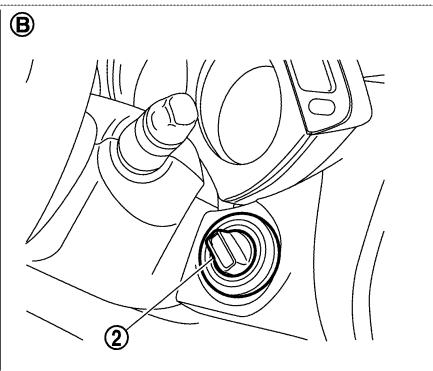
Body type	Wagon					
Axle	2WD			AWD		
Engine	QR25DE			VQ35DE		
Transmission	A/T			CVT		
Brake control	ABS			VDC		
Intelligent Key system		×		×		×
CAN system type	1	2	3	4	5	6
CAN communication control unit						
ECM	×	×	×	×	×	×
AWD control unit					×	×
Air bag diagnosis sensor unit	×	×	×	×	×	×
BCM	×	×	×	×	×	×
Intelligent Key unit		×		×		×
Steering angle sensor					×	×
EPS control unit	×	×	×	×	×	×
Combination meter	×	×	×	×	×	×
ABS actuator and electric unit (control unit)	×	×	×	×	×	×
TCM	×	×	×	×	×	×
IPDM E/R	×	×	×	×	×	×

× : Applicable

**VEHICLE EQUIPMENT IDENTIFICATION INFORMATION**  
**NOTE:**  
Check CAN system type from the vehicle shape and equipment.



1. VDC OFF switch  
A. With VDC



2. Ignition knob  
B. With Intelligent Key system

For the above case, CAN system type is "6".

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• CAN System Type Specification Chart (Style B)

**NOTE:**

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[CAN FUNDAMENTAL]

CAN system type is easily checked with the vehicle equipment identification information shown in the chart.

Example:  
Vehicle is equipped as follows: Sedan, 2WD, MR20DE, CVT, ABS, Active AFS, Intelligent Key system, Navigation system and Automatic drive positioner. (○ shows an example of CAN system type.)

**CAN System Specification Chart**  
Refer to the specification as shown in the chart.

Body type	Sedan		
Axle	2WD	MR20DE	AWD
Engine	HR15DE	MR20DE	HR15DE
Transmission	A/T	CVT	A/T
Brake control	ABS		
Specification chart	XX.XX... SPECIFICATION CHART A.	XX.XX... SPECIFICATION CHART B.	XX.XX... SPECIFICATION CHART C.

×: Applicable

} Check the vehicle equipment with the vehicle identification number plate.  
} Check the vehicle equipment.  
} Select the applicable vehicle equipment. Refer to the specification chart.

---

**SPECIFICATION CHART B**  
Determine CAN system type from the following specification chart.

Body type	Sedan											
Axle	2WD											
Engine	MR20DE											
Transmission	CVT											
Brake control	ABS											
Active AFS		×			×	×		×	×	×		
Intelligent Key system			×		×		×	×	×	×		
Navigation system				×		×		×		×		
Automatic drive positioner								×	×	×		
CAN system type	9	10	11	12	13	14	15	16	17	18	19	20
CAN communication control unit												
ECM	×	×	×	×	×	×	×	×	×	×	×	×
AFS control unit		×			×	×			×	×		×
BCM	×	×	×	×	×	×	×	×	×	×	×	×
IPDM E/R	×	×	×	×	×	×	×	×	×	×	×	×

×: Applicable

} Check the vehicle equipment.  
} ← The number indicates the CAN system type of the vehicle.

---

**VEHICLE EQUIPMENT IDENTIFICATION INFORMATION**  
**NOTE:**  
Check CAN system type from the vehicle shape and equipment.

In the above example,

- Checking Xenon bulb and bending lamp lead to judge whether or not Active AFS is equipped.
- Checking the ignition knob leads to judge whether or not Intelligent Key system is equipped.
- Checking display and multifunction switch lead to judge whether or not Navigation system is equipped.
- Checking seat memory switch leads to judge whether or not Automatic drive positioner is equipped.

1. Bending lamp  
4. Display  
A. With active AFS  
D. With automatic drive positioner

2. Xenon bulb  
5. Multifunction switch  
B. With Intelligent Key system

3. Ignition knob  
6. Seat memory switch  
C. With navigation system

For the above case, CAN system type is "20".

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>> 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 >

[CAN FUNDAMENTAL]

Interview Sheet (Example)

CAN Communication System Diagnosis Interview Sheet	
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)	
<ul style="list-style-type: none"><li>•Headlamps suddenly turn ON while driving the vehicle.</li><li>•The engine does not restart after stopping the vehicle and turning the ignition switch OFF.</li><li>•The cooling fan continues rotating while turning the ignition switch ON.</li></ul>	
Condition at inspection	
Error Symptom: Present / Past	
<p>The engine does not start. While turning the ignition switch ON,</p> <ul style="list-style-type: none"><li>•The headlamps (Lo) turn ON, and the cooling fan continues rotating.</li><li>•The interior lamp does not turn ON.</li></ul>	

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>> GO TO 5.

## 5.DETECT THE ROOT CAUSE

CAN diagnosis function of CONSULT detects a root cause.

>> GO TO 6.

## 6.REPAIR OR REPLACE MALFUNCTIONING PART

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

Main line>>Refer to [LAN-45, "Main Line"](#).  
Branch line>> Refer to [LAN-45, "Branch Line"](#).  
Short circuit>> Refer to [LAN-46, "Short Circuit"](#).

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## HOW TO USE THIS SECTION

< HOW TO USE THIS MANUAL >

[CAN]

# HOW TO USE THIS MANUAL

## HOW TO USE THIS SECTION

### Caution

INFOID:000000011490051

- This section describes information peculiar to a vehicle and inspection procedures.
- For trouble diagnosis procedure, refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

### Abbreviation List

INFOID:000000011490052

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

Abbreviation	Unit name
4WD	AWD control unit
A-BAG	Air bag diagnosis sensor unit
ABS	ABS actuator and electric unit (control unit)
AV	AV control unit
BCM	BCM
CGW	CAN gateway
DLC	Data link connector
ECM	ECM
E-SUS	E-SUS control unit
HVAC	A/C auto amp.
IPDM-E	IPDM E/R
M&A	Combination meter
STRG	Steering angle sensor
TCM	TCM
TCU	Vehicle data transmitter
TPMS	Low tire pressure warning control unit

PRECAUTION

PRECAUTIONS

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

INFOID:000000011490053

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

Precaution for Battery Service

INFOID:000000011490054

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Precautions for Removing Battery Terminal

INFOID:000000011490055

- When removing the 12V battery terminal, turn OFF the ignition 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.

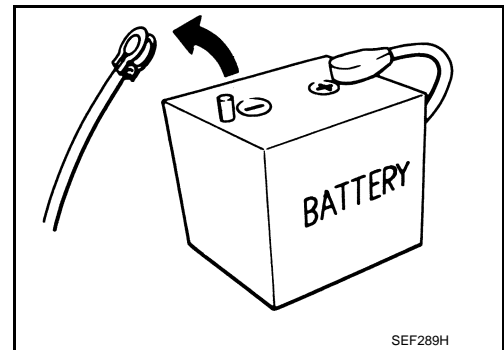
**NOTE:**

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:**

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



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# PRECAUTIONS

< PRECAUTION >

[CAN]

## Precautions for Trouble Diagnosis

INFOID:000000011490056

### 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.

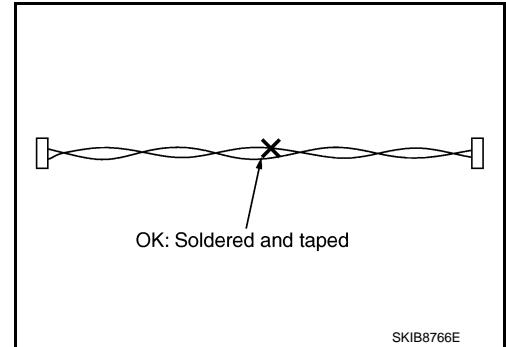
## Precautions for Harness Repair

INFOID:000000011490057

- Solder the repaired area and wrap tape around the soldered area.

### NOTE:

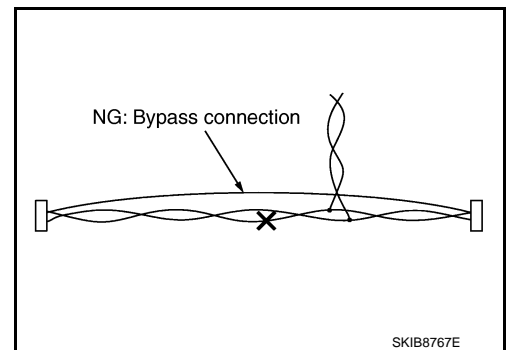
A fray of twisted lines must be within 110 mm (4.33 in).



- 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.

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[CAN]

## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Interview Sheet

INFOID:000000011490058

#### CAN Communication System Diagnosis Interview Sheet

Date received:

Type:

VIN No.:

Model:

First registration:

Mileage:

CAN system type:

Symptom (Results from interview with customer)

Condition at inspection

Error symptom : Present / Past

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# CAN COMMUNICATION SYSTEM

< SYSTEM DESCRIPTION >

[CAN]

## SYSTEM DESCRIPTION

### CAN COMMUNICATION SYSTEM

#### CAN System Specification Chart

INFOID:000000011490059

Determine CAN system type from the following specification chart.

**NOTE:**

Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#) for how to use CAN system specification chart.

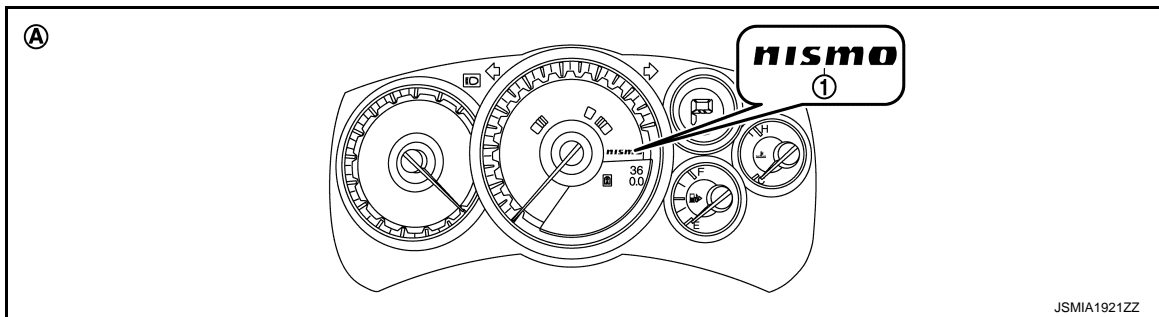
×: Applicable

Body type	Coupe	
Axle	AWD	
Engine	VR38DETT	
Transmission	Dual clutch transmission	
Brake control	VDC	
NissanConnect NISMO plus		×
CAN system type	1	2

#### VEHICLE EQUIPMENT IDENTIFICATION INFORMATION

**NOTE:**

Check CAN system type from the vehicle shape and equipment.



- 1. NISMO logo
- A. With NissanConnect NISMO plus

#### CAN Communication Signal Chart

INFOID:000000011490060

Refer to [LAN-14, "How to Use CAN Communication Signal Chart"](#) for how to use CAN communication signal chart.

**NOTE:**

Refer to [LAN-20, "Abbreviation List"](#) for the abbreviations of the connecting units.

T: Transmit R: Receive

Signal name	ECM	4WD	BCM	E-SUS	AV	HVAC	M&A	STRG	CGW	TPMS	TCM	TCU	ABS	IPDM-E
A/C compressor feedback signal	T					R								
A/C compressor request signal	T													R
Accelerator pedal position signal	T	R			R						R		R	
ASCD status signal	T				R		R							
Cooling fan speed request signal	T													R
Engine and transmission integrated control signal	T										R			
	R										T			
Engine coolant temperature signal	T					R	R							
					R		T							



# CAN COMMUNICATION SYSTEM

< SYSTEM DESCRIPTION >

[CAN]

Signal name	ECM	4WD	BCM	E-SUS	AV	HVAC	M&A	STRG	CGW	TPMS	TCM	TCU	ABS	IPDM-E	A
Engine estimated torque signal	T										R				B
Engine speed signal	T	R		R			R				R		R		C
Engine status signal	T		R		R		R								D
Fuel consumption monitor signal	T						R								E
					R		T								F
Malfunctioning indicator lamp signal	T						R								G
Power generation command value signal	T													R	H
Vehicle condition signal	T											R			I
		T										R			J
				T								R			K
							T					R			L
								T				R			M
											T		R		N
												T	R	T	O
AWD clutch high temperature warning display signal		T					R								P
AWD signal		T											R		Q
AWD system warning display signal		T					R								R
AWD warning lamp signal		T					R								S
Front/rear tire size discrepancy warning display signal		T					R								T
Front torque distribution rate signal		T					R								U
					R		T								V
Buzzer output signal			T				R								W
Buzzer request signal			T				R								X
			R							T					Y
Daytime running light request signal			T											R	Z
Door switch signal			T				R								AA
Front wiper request signal			T												AB
High beam request signal			T				R								AC
Horn reminder signal			T												AD
Ignition switch ON signal			T												AE
			R												AF
Key warning lamp signal			T				R								AG
Low beam request signal			T												AH
Meter display signal			T				R								AI
Position light request signal			T				R								AJ
Rear window defogger control signal			T												AK
	R				R										AL
Run-flat tire warning display signal			T				R								AM
			R							T					AN
Sleep wake up signal			T				R		R						AO

# CAN COMMUNICATION SYSTEM

< SYSTEM DESCRIPTION >

[CAN]

Signal name	ECM	4WD	BCM	E-SUS	AV	HVAC	M&A	STRG	CGW	TPMS	TCM	TCU	ABS	IPDM-E
Starter control relay signal			T											R
Starter relay status signal			T											R
			R											T
Steering lock relay signal			T											R
			R											T
Theft warning horn request signal			T											R
Tire pressure warning lamp signal			T		R		R							
			R		R					T				
Trunk switch signal			T				R							
Turn indicator signal			T				R							
A/C switch operation signal					T	R								
Rear window defogger switch signal			R		T									
Voice recognition signal					T	R								
A/C display signal					R	T								
A/C switch signal	R					T								
Blower fan motor switch signal	R					T								
Air-Fuel ration signal					R		T							
Boost pressure signal					R		T							
Distance to empty signal					R		T							
Engine oil pressure signal					R		T							
Engine oil temperature signal					R		T							
Fuel level sensor signal	R						T							
Odometer signal			R				T							
Parking brake switch signal		R	R				T							
Seat belt buckle switch signal			R				T							
Shift position signal					R		T							
			R*				R				T		R	
Sleep-ready signal			R				T							
			R											T
Transmission oil pressure signal					R		T							
							R				T			
Transmission oil temperature signal					R		T							
		R					R				T			
Vehicle speed signal	R		R		R		T			R	R			R
	R	R	R	R	R		R			R	R		T	
Wake up signal			R				T							
Steering angle sensor signal		R		R	R			T					R	
Low tire pressure warning display signal							R			T				
Tire pressure monitoring system warning display signal							R			T				
Tire pressure signal					R					T				
Input shaft revolution signal	R										T			

# CAN COMMUNICATION SYSTEM

< SYSTEM DESCRIPTION >

[CAN]

Signal name	ECM	4WD	BCM	E-SUS	AV	HVAC	M&A	STRG	CGW	TPMS	TCM	TCU	ABS	IPDM-E
Output shaft revolution signal	R										T			
SAVE mode control signal	R	R									T			
Shift lever position check display signal							R				T			
Shift lever position warning display signal							R				T			
Snow mode switch signal	R										T			
Transmission clutch high temperature warning display signal							R				T			
Transmission oil high temperature warning display signal							R				T			
Transmission self-diagnosis signal	R										T			
Transmission system check display signal							R				T			
Transmission system warning display signal							R				T			
Transmission warning light signal							R				T			
ABS malfunction signal							R						T	
ABS operation signal				R							R		T	
ABS warning display signal							R						T	
Brake pressure control signal				R	R								T	
Brake warning lamp signal							R						T	
Decel G signal		R			R								T	
Side G sensor signal		R		R	R						R		T	
Stop lamp switch signal				R									T	
VDC OFF indicator lamp signal							R						T	
VDC malfunction signal							R						T	
VDC operation signal											R		T	
VDC-R mode signal		R											T	
VDC warning display signal							R						T	
VDC warning lamp signal							R						T	
Yaw rate sensor signal		R			R								T	
Front wiper stop position signal			R											T
High beam status signal	R													T
Hood switch signal			R											T
Low beam status signal	R													T
Push-button ignition switch status signal			R											T
Steering lock unit status signal			R											T

\*: P, N position signal only

**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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# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

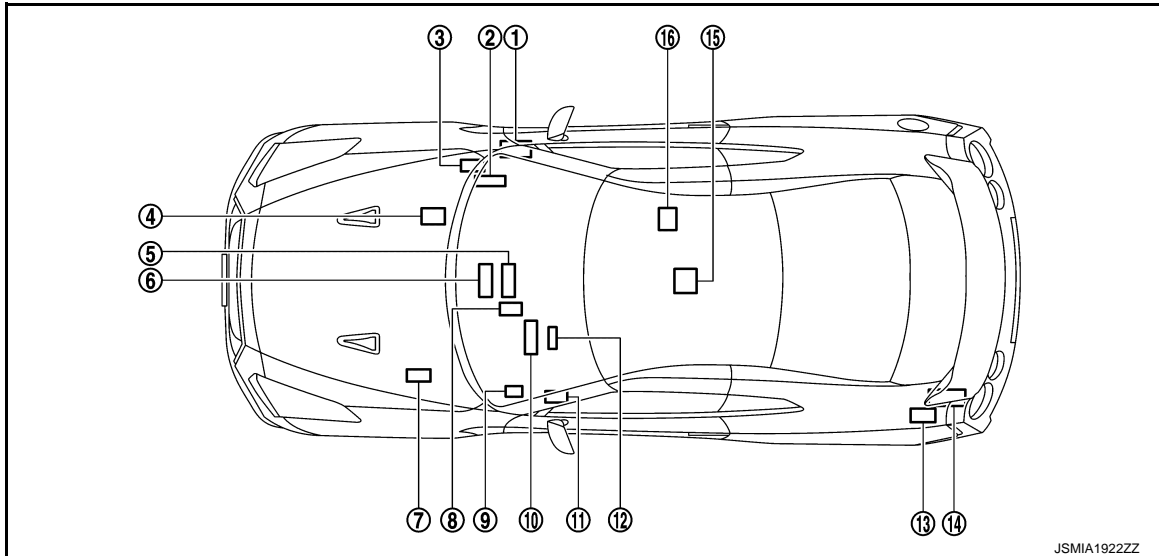
[CAN]

## DTC/CIRCUIT DIAGNOSIS

### CAN COMMUNICATION SYSTEM

#### Component Parts Location

INFOID:000000011490061



- |  |  |  |
|--|--|--|
| 1. BCM M122  | 2. ECM M107                                    | 3. E-SUS control unit M110             |
| 4. IPDM E/R E6                                       | 5. AV control unit M203                        | 6. A/C auto amp. M66                   |
| 7. ABS actuator and electric unit (control unit) E41 | 8. CAN gateway M125                            | 9. Data link connector M24             |
| 10. Combination meter M53                            | 11. Low tire pressure warning control unit M14 | 12. Steering angle sensor M37          |
| 13. TCM B45  | 14. Vehicle data transmitter B72               | 15. Air bag diagnosis sensor unit M157 |
| 16. AWD control unit B213                            |  |  |

# CAN COMMUNICATION SYSTEM

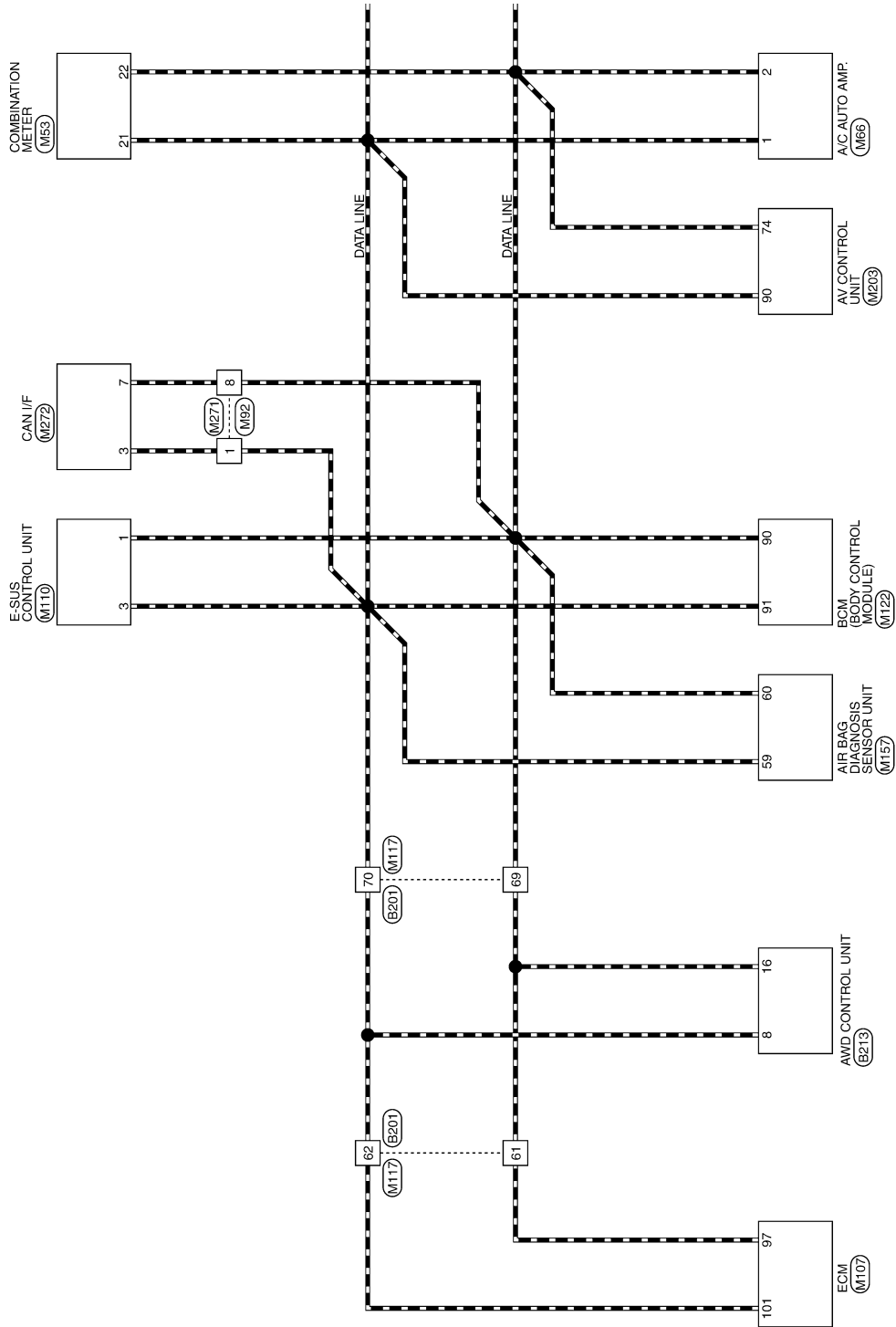
< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## Wiring Diagram - CAN SYSTEM (EXCEPT NISMO) -

INFOID:000000011490062

CAN SYSTEM (EXCEPT NISMO)



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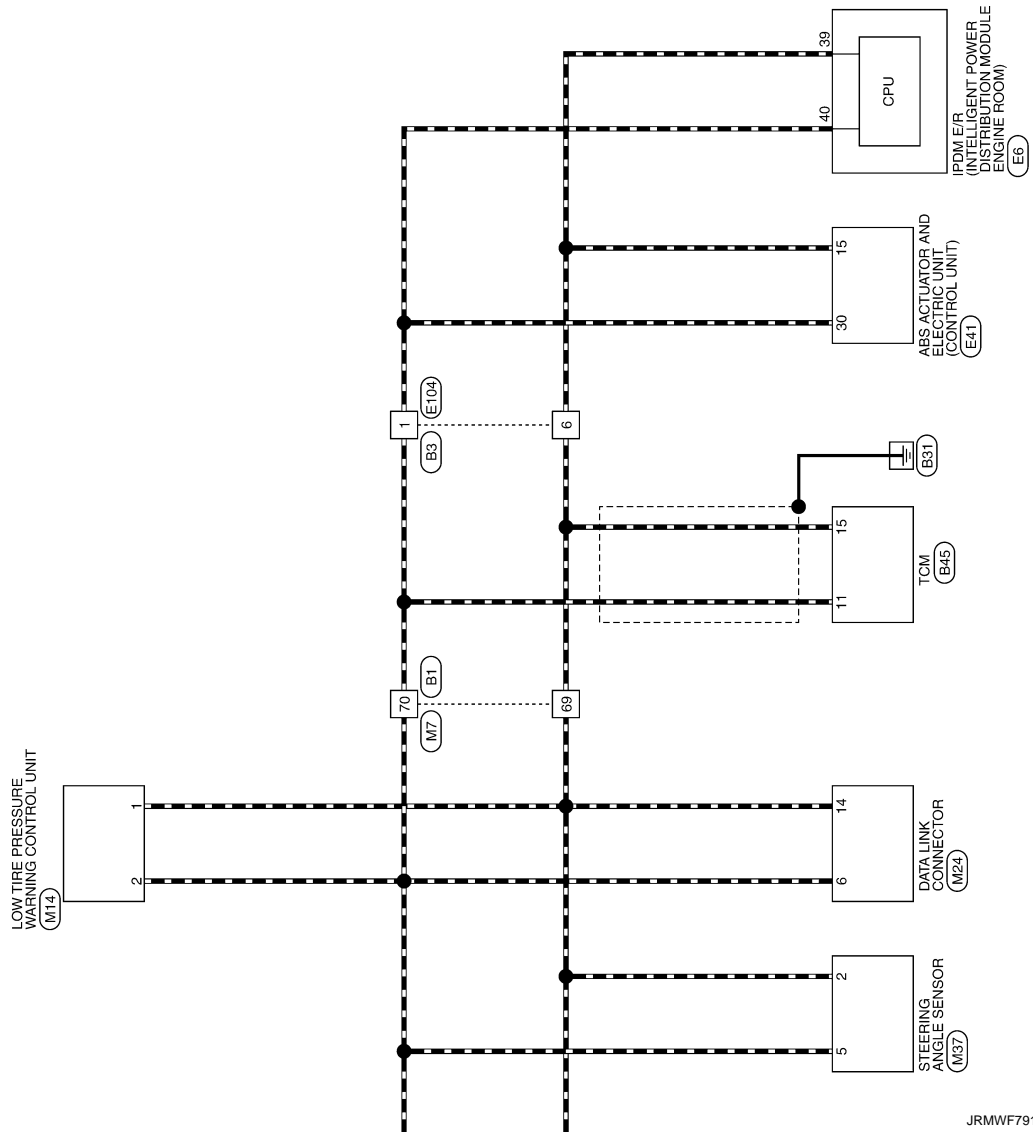
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# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]



# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (Except NISMO)

Connector No.	B1
Wire	WIRE TO WIPE
Connector Name	WIPE TO WIPE
Connector Type	TH80FW-CS16-TM4

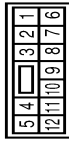


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	P	-
3	V	-
4	W	-
5	Y	-
6	R	-
7	Y	-
8	Y	-
9	R	-
10	R	-
11	Y	-
12	GR	-
13	BG	-
14	Y	-
15	BR	-
16	R	-
17	W	-
18	BR	-
19	W	-
20	GR	-
21	SB	-
22	W	-
23	G	-
24	BG	-
25	L	-
26	P	-
27	GR	-
28	BG	-
31	GR	-
32	L	-
33	V	-
34	BG	-
39	G	-
40	LG	-
41	V	-
42	SB	-
43	P	-
47	R	-
48	B	-

49	W	-
50	SHIELD	-
51	SB	-
52	B	-
53	R	-
54	B	-
56	R	-
57	G	-
58	G	-
59	R	-
60	BR	-
61	Y	-
62	SHIELD	-
63	LG	-
64	R	-
65	G	-
66	BR	-
67	BG	-
69	P	-
70	L	-
71	SHIELD	-
72	SHIELD	- [Without active noise control unit]
72	V	- [With active noise control unit]
73	SB	-
76	R	-
77	SB	-
78	G	-
79	Y	-
80	R	-
81	G	-
82	BR	- [Without active noise control unit]
82	G	- [With active noise control unit]
83	R	- [Without active noise control unit]
83	Y	- [With active noise control unit]
84	SHIELD	-
85	V	-
86	SB	- [Without active noise control unit]
86	W	- [With active noise control unit]
87	L	-
88	P	-
89	SHIELD	-
90	V	-
92	BR	-
93	SB	-
94	GR	-
95	BG	-
96	Y	-
97	Y	-
98	LG	-

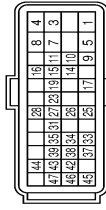
99	R	-
100	G	-

Connector No.	B3
Wire	WIPE TO WIPE
Connector Name	WIPE TO WIPE
Connector Type	NS12FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BG	-
3	BR	-
4	Y	-
5	R	-
6	P	-
7	W	-
8	SB	-
9	LG	-
10	V	-
11	GR	-
12	G	-

Connector No.	B45
Wire	TCM
Connector Name	TCM
Connector Type	RH40FB-R28L-LH-Z



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	POWER SUPPLY (MEMORY BACK-UP)2
3	B	GROUND
4	B	GROUND

5	W	POWER SUPPLY (MEMORY BACK-UP)3
7	B	GROUND
8	B	GROUND
9	P	POWER SUPPLY (MEMORY BACK-UP)1
10	LG	BACK-UP LAMP SIGNAL
11	L	CANH
14	V	POWER OFF
15	P	CANL
16	W	STOP LAMP SWITCH SIGNAL
17	Y	IGNITION SWITCH SIGNAL
19	GR	STARTER RELAY SIGNAL
23	BR	AUTOMANUAL RANGE CHANGE SWITCH 1 SIGNAL
25	L	RANGE SENSOR POWER SOURCE 1
26	LG	RANGE SENSOR POWER SOURCE 2
27	G	RANGE SENSOR NO. 1 SIGNAL
28	V	AUTOMANUAL RANGE CHANGE SWITCH 2 SIGNAL
31	SB	ENGINE SPEED SIGNAL
33	V	RANGE SENSOR NO.1 SIGNAL
34	BG	SAVE MODE SWITCH SIGNAL
35	G	RANGE SENSOR NO.3 SIGNAL
37	GR	R MODE SWITCH SIGNAL
38	R	RANGE SENSOR NO.2 SIGNAL
39	W	PADDLE SHIFTER (SHIFT-UP) SWITCH SIGNAL
42	L	PADDLE SHIFTER (SHIFT-DOWN) SWITCH SIGNAL
43	P	RANGE SENSOR NO.4 SIGNAL
44	GR	RANGE SENSOR NO.5 SIGNAL
45	BG	R MODE LAMP SIGNAL
46	W	SHIFT LOCK SOLENOID CONTROL SIGNAL
47	G	SAVE MODE LAMP SIGNAL

Connector No.	B201
Wire	WIPE TO WIPE
Connector Name	WIPE TO WIPE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	-
7	V	-
8	BG	-
9	W	-

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
LAN  
N  
O  
P

# CAN COMMUNICATION SYSTEM

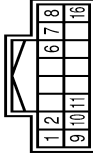
< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (Except NISMO)

10	R	-	-
31	V	-	-
32	LG	-	-
33	BR	-	-
34	L	-	-
40	P	-	-
41	GR	-	-
42	Y	-	-
43	Y	-	-
44	V	-	-
45	W	-	-
51	SB	-	-
52	G	-	-
53	BR	-	-
54	V	-	-
60	R	-	-
61	P	-	-
62	L	-	-
63	LG	-	-
64	GR	-	-
69	P	-	-
70	L	-	-
71	R	-	-
80	L	-	-
81	SB	-	-
82	V	-	-
83	B	-	-
84	Y	-	-
85	BR	-	-
86	SHIELD	-	-
87	W	-	-
96	Y	-	-
98	EG	-	-
99	BR	-	-
100	W	-	-

Connector No.	B213
Connector Name	AWD CONTROL UNIT
Connector Type	TH8FW-NH



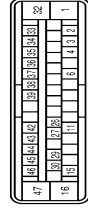
Terminal No.	Color	Wire	Signal Name [Specification]
1	R	R	SOL-L
2	G	V	SOL-
5	V	W	IGN
7	W	W	CAN-LH
8	L	Y	SOLVB
9	Y	B	GROUND
10	B	B	GROUND
11	B	P	CAN-L
16	P	P	CAN-L

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH8FW-NH



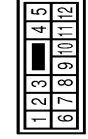
Terminal No.	Color	Wire	Signal Name [Specification]
39	P	P	-
40	L	L	-
41	B/Y	G	-
42	G	G	-
43	SB	W	-
44	W	W	-
46	EG	EG	-

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	AEZ43FB-AJ24



Terminal No.	Color	Wire	Signal Name [Specification]
1	R	R	UBMR
2	V	V	DIAG-K
3	GR	GR	VDC OFF SW
4	W	W	BLS
6	G	G	VDC UP SW
11	Y	Y	CAN-H
15	P	P	CAN-L
16	B	B	GROUND
26	W	W	CAN-L
27	BR	BR	G SENSOR GROUND
29	BG	BG	UZ
30	L	L	CAN-H
32	BG	BG	UBVR
33	W	W	DS FR
34	BG	BG	DP FR
35	Y	Y	VDC TOP POSITION LED
36	L	L	DP RL
37	R	R	DS RL
38	V	V	BRAKE FLUID LEVEL SW
39	G	G	G SENSOR POWER
42	V	V	DS RR
43	LG	LG	DP RR
44	SB	SB	VDC TOP POSITION LED
45	W	W	DP FL
46	R	R	DS FL
47	B	B	GROUND

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
1	L	L	-
2	Y	Y	-
3	BR	BR	-
4	V	V	-
5	R	R	-
6	P	P	-
7	W	W	-
8	G	G	-
9	LG	LG	-
10	V	V	-
11	L	L	-
12	R	R	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color	Wire	Signal Name [Specification]
2	L	L	-
3	P	P	-
6	L	L	-
7	W	W	-
8	W	W	-
9	G	G	-
10	R	R	-
11	W	W	-

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# CAN COMMUNICATION SYSTEM

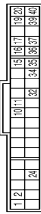
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[CAN]

## CAN SYSTEM (Except NISMO)

20	W	L	OIL LEVEL SENSOR SIGNAL
21	L	CANH	CANH
22	P	CANL	CANL
23	LG	ILLUMINATION CONTROL SWITCH SIGNAL (-)	
24	BR	ILLUMINATION CONTROL SWITCH SIGNAL (+)	
25	G	TRIP AIR RESET SWITCH SIGNAL	
26	BG	ENTER SWITCH SIGNAL	
27	SB	SELECT SWITCH SIGNAL	
28	BR	ALTERNATOR	
29	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)	
30	LG	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)	
31	V	PARKING BRAKE SWITCH SIGNAL	
32	V	WASHER LEVEL SWITCH SIGNAL	
33	L	WASHER LEVEL SWITCH SIGNAL	
34	GR	OIL PRESSURE SENSOR POWER	
35	W	OIL PRESSURE SENSOR SIGNAL	
36	EG	FUEL LEVEL SENSOR SIGNAL	
38	Y	LED HEAD LAMP (LH) WARNING SIGNAL	
40	V	ILLUMINATION CONTROL	

Connector No.	M66
Connector Name	A/C AUTO AMP.
Connector Type	SAB40FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CANH
2	P	CANL
10	L	A/C LAN SIGNAL
11	R	EACH DOOR MOTOR POWER SUPPLY
15	BG	SUNLOAD SENSOR SIGNAL
16	R	INTAKE SENSOR SIGNAL
17	SB	ACC POWER SUPPLY
19	B	GROUND
20	G	IGNITION POWER SUPPLY
24	BG	ECV SIGNAL
32	Y	BLOWER MOTOR CONTROL SIGNAL
34	Y	A/C AUTO AMP. CONTROL SIGNAL
35	P	AMBIENT SENSOR SIGNAL
36	LG	IN-VEHICLE SENSOR SIGNAL
37	BG	SENSOR GROUND

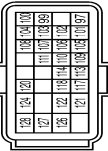
39	B	GROUND
40	Y	BATTERY POWER SUPPLY

Connector No.	M92
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	
8	P	

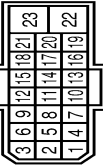
Connector No.	M107
Connector Name	ECM
Connector Type	RH04FGV-RZ8-R-LH-Z



Terminal No.	Color Of Wire	Signal Name [Specification]
97	P	CAN COMMUNICATION LINE
99	SB	SENSOR POWER SUPPLY
100	BR	SENSOR POWER SUPPLY
101	L	CAN COMMUNICATION LINE
102	G	ASCD STEERING SWITCH
103	GR	SENSOR GROUND
104	P	ACCELERATOR PEDAL POSITION SENSOR 1
105	W	ECM RELAY (SELF SHUT-OFF)
106	LG	IGNITION SWITCH
107	BG	SENSOR GROUND
108	L	ACCELERATOR PEDAL POSITION SENSOR 2
109	L	SAVALVE Y
110	P	STOP LAMP SWITCH
111	GR	PNP SIGNAL

113	SB	ENGINE SPEED OUTPUT SIGNAL
114	V	DATA LINK CONNECTOR
117	R	ASC BRAKE SWITCH
118	W	POWER SUPPLY FOR ECM (BACK-UP)
120	BR	SAPMPRLY
121	P	POWER SUPPLY FOR ECM
122	V	POWER SUPPLY FOR ECM
124	B	ECM GROUND
126	L	FUEL PUMP RELAY
127	G	THROTTLE CONTROL MOTOR RELAY
128	B	ECM GROUND

Connector No.	M110
Connector Name	E-SUS CONTROL UNIT
Connector Type	FE021FB-FHC2



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	CANL
2	P	R MODE SW SIG
3	L	CANH
4	W	FRONT G SENSOR SIG
5	BG	R MODE LAMP SIG
6	BR	REAR G SENSOR SIG
7	R	COMP MODE SW SIG
8	G	FRONT G SENSOR
9	LG	COMF MODE LAMP SIG
10	R	FR SHOCK ABSORBER ACTUATOR LOW SIG
11	G	FR SHOCK ABSORBER ACTUATOR HI SIG
12	L	FL SHOCK ABSORBER ACTUATOR LOW SIG
13	G	REAR G SENSOR
14	SB	RR SHOCK ABSORBER ACTUATOR LOW SIG
15	R	FRONT G SENSOR
16	BR	RL SHOCK ABSORBER ACTUATOR HI SIG
17	P	FL SHOCK ABSORBER ACTUATOR HI SIG
18	Y	RL SHOCK ABSORBER ACTUATOR LOW SIG
19	R	IGN
20	V	RR SHOCK ABSORBER ACTUATOR HI SIG
21	R	REAR G SENSOR
22	B	GNL
23	L	BAT

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CST6-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	
7	V	
8	G	
8	W	
10	L	
31	Y	
32	LG	
33	BR	
34	L	
40	G	
41	R	
42	SB	
43	L	
44	R	
45	G	
51	SB	
52	BG	
53	R	
54	GR	
60	L	
61	P	
62	L	
63	Y	
64	LG	
69	P	
70	L	
71	Y	
80	L	
81	G	
82	BR	
83	B	
84	V	
85	SB	
86	SHIELD	
87	W	
96	Y	

# CAN COMMUNICATION SYSTEM

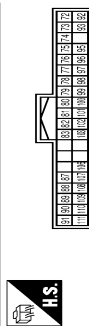
< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (Except NISMO)

98	G	-	COMBI SW INPUT 2
99	V	-	HAZARD SW
100	W	-	S/L UNIT COMM

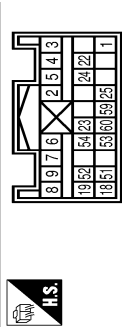
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color of Wire	Signal Name (Specification)
72	R	ROOM ANT2-
73	G	ROOM ANT2+
74	SB	PASSENGER DOOR ANT-
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANTI-
79	BR	ROOM ANTI+
80	GR	IMMOBI ANTENNA CONTROL
81	L	IMMOBI ANTENNA SIGNAL
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
89	BR	PUSH SW
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL OUTPUT
93	V	ON IND.
95	EG	ACC RELAY CONT
96	SB	A/T SHIFT SELECTOR POWER SUPPLY
97	L	S/L CONDITION 1
98	R	S/L CONDITION 2
99	G	SHIFT P
100	W	PASSENGER DOOR REQUEST SW
101	V	DRIVER DOOR REQUEST SW
102	EG	BLOWER FAN MOTOR RELAY CONT
103	LG	RETLESS ENTRY RECEIVER POWER SUPPLY
105	P	S/L UNIT POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4

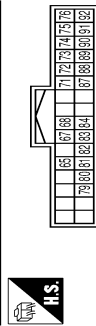
109	Y	-	COMBI SW INPUT 2
110	G	-	HAZARD SW
111	Y	-	S/L UNIT COMM

Connector No.	M157
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH28F-EX



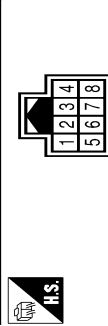
Terminal No.	Color of Wire	Signal Name (Specification)
1	R	IGN
2	B	GROUND
3	Y	DR1 (-) DRZ (-)
4	Y	DR1 (+)
5	Y	DR2 (+)
6	Y	AS2 (+)
7	Y	AS1 (-)
8	Y	AS2 (-)
9	Y	AS1 (+)
18	SB	ECZS (+)
19	V	ECZS (-)
22	SHELD	GROUND
23	R	AIR BAG W/L
24	G	SEAT BELT
25	R	CUTOFF TELLTALE
51	R	SIDE SENS RH2+
52	G	SIDE SENS RH2-
54	BR	SIDE SENS LH2+
59	L	SIDE SENS LH2-
60	P	CAN-L

Connector No.	M203
Connector Name	AV CONTROL UNIT
Connector Type	TH2FM-NH



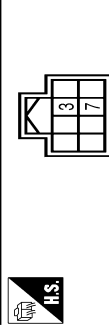
Terminal No.	Color of Wire	Signal Name (Specification)
65	R	PARKING BRAKE
67	W	COMPOSITE IMAGE GND
68	B	COMPOSITE IMAGE SIGNAL
71	SHELD	MICROPHONE GND
72	L	MICROPHONE VCC
73	V	COMM (CONT-DISP)
74	P	CAN-L
75	R	AV COMM (L)
76	R	AV COMM (L)
79	R	ILLUMINATION
80	W	IGNITION
81	BG	REVERSE
82	V	VEHICLE SPEED (8-PULSE)
83	SHELD	SHIELD
84	B	COMPOSITE SYNCHRONIZING SIGNAL
87	P	MICROPHONE SIGNAL
88	SHELD	SHIELD
89	SB	COMM (DISP-CONT)
90	L	CAN-H
91	G	AV COMM (H)
92	G	AV COMM (H)

Connector No.	M271
Connector Name	WIRE TO WIRE
Connector Type	TH98FW-NH



Terminal No.	Color of Wire	Signal Name (Specification)
1	L	-
8	P	-

Connector No.	M272
Connector Name	CAN I/F
Connector Type	TH98FW-NH



Terminal No.	Color of Wire	Signal Name (Specification)
3	L	CAN-H
7	P	CAN-L

A  
B  
C  
D  
E  
F  
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I  
J  
K  
L  
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# CAN COMMUNICATION SYSTEM

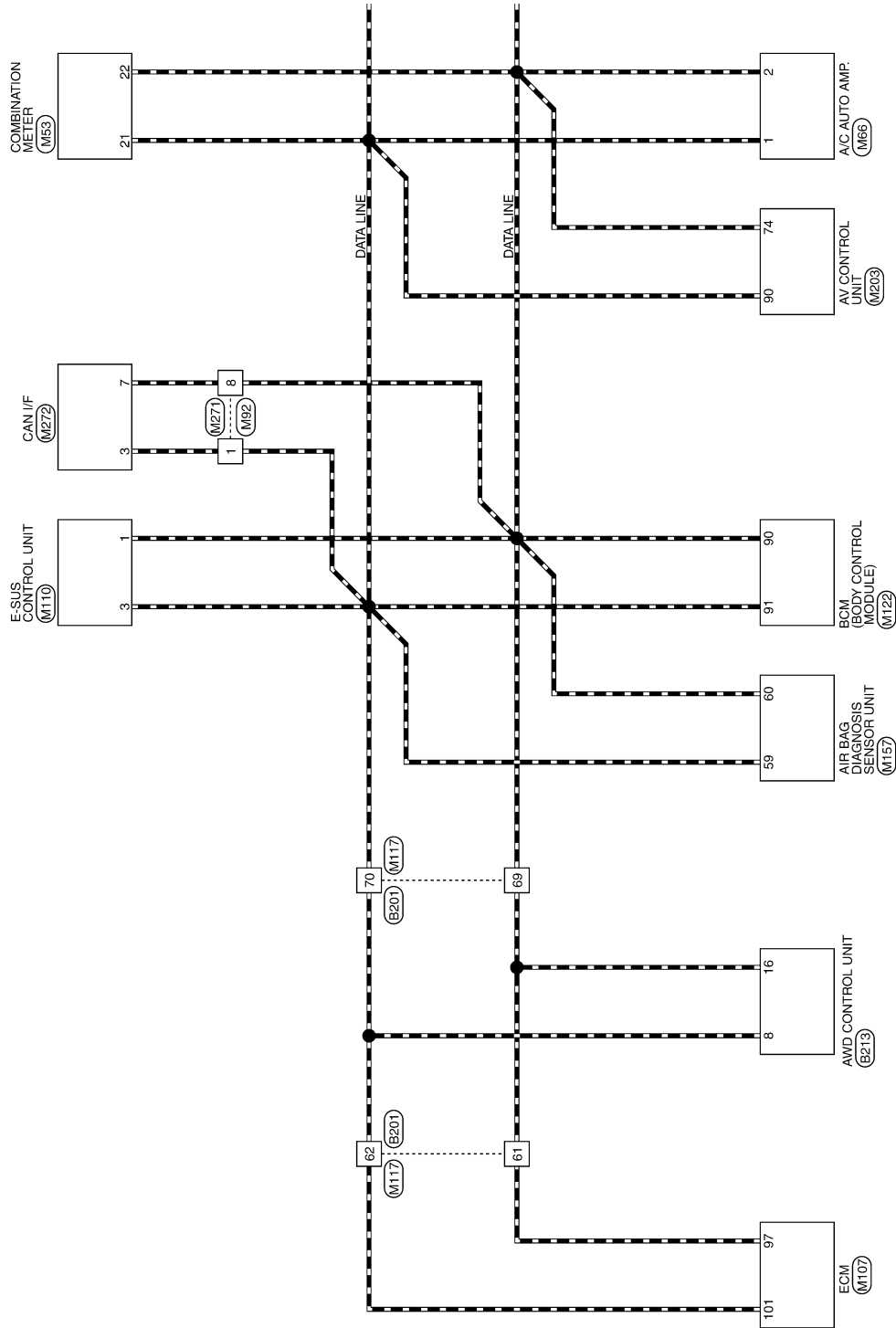
[CAN]

< DTC/CIRCUIT DIAGNOSIS >

## Wiring Diagram - CAN SYSTEM (NISMO) -

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CAN SYSTEM (NISMO)



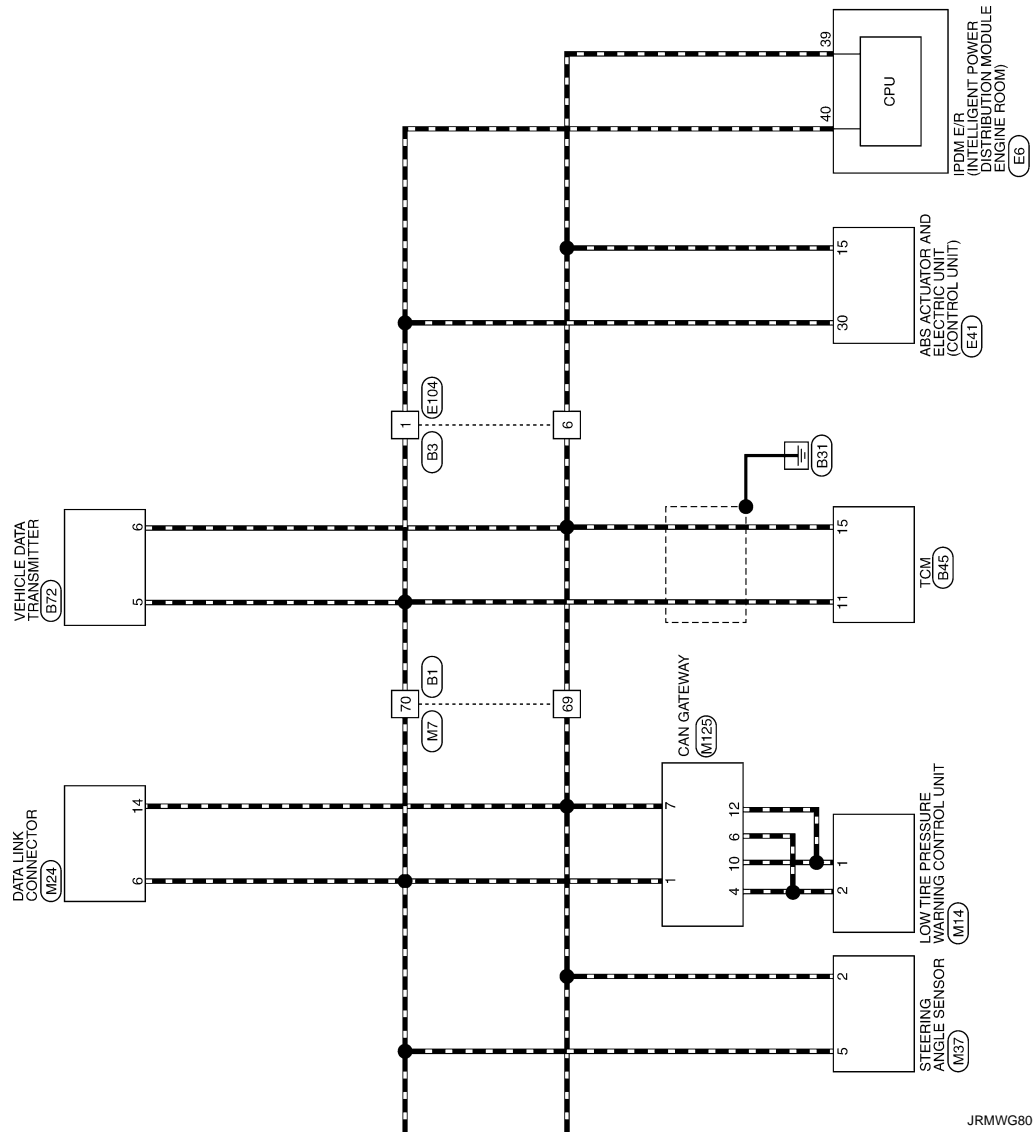
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# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]



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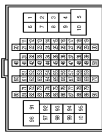
# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (NISMO)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

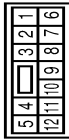


Terminal No.	Color Of Wire	Signal Name [Specification]
2	L	-
3	P	-
6	V	-
7	W	-
8	W	-
9	Y	-
10	R	-
11	Y	-
12	GR	- [Without active noise control unit]
13	BG	- [With active noise control unit]
14	Y	-
15	BR	-
16	R	-
17	W	-
18	BR	-
20	GR	-
21	SB	-
22	W	-
23	G	-
24	BG	-
25	L	-
26	P	-
27	GR	-
28	BG	-
31	GR	-
32	L	-
33	V	-
34	BG	-
39	G	-
40	LG	-
41	Y	-
42	SB	-
43	P	-
47	R	-
48	B	-

49	W	-
50	SHIELD	-
51	SB	-
52	B	-
53	R	-
54	B	-
56	R	-
57	G	-
58	G	-
59	R	-
60	BR	-
61	Y	-
62	SHIELD	-
63	LG	-
64	R	-
65	G	-
66	BR	-
67	BG	-
69	P	-
70	L	-
71	SHIELD	-
72	SHIELD	- [Without active noise control unit]
73	V	- [With active noise control unit]
73	SB	-
76	R	-
77	SB	-
78	G	-
79	Y	-
80	R	-
81	G	-
82	BR	- [Without active noise control unit]
82	G	- [With active noise control unit]
83	R	- [With active noise control unit]
83	Y	- [Without active noise control unit]
84	SHIELD	-
85	V	-
86	SB	- [Without active noise control unit]
86	W	- [With active noise control unit]
87	L	-
88	P	-
89	SHIELD	-
90	V	-
92	B	-
93	SB	-
94	GR	-
95	BG	-
96	Y	-
97	Y	-
98	LG	-

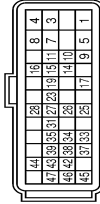
99	R	-
100	G	-

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BG	-
3	BR	-
4	Y	-
5	R	-
6	P	-
7	W	-
8	SB	-
9	LG	-
10	V	-
11	GR	-
12	G	-

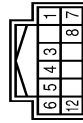
Connector No.	B45
Connector Name	TCM
Connector Type	RH40FB-RZ8-LHZ



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	POWER SUPPLY (MEMORY BACK-UP)2
3	B	GROUND
4	B	GROUND

5	W	POWER SUPPLY (MEMORY BACK-UP)3
7	B	GROUND
8	B	GROUND
9	P	POWER SUPPLY (MEMORY BACK-UP)-1
10	LG	BACK-UP LAMP SIGNAL
11	L	CANH
14	V	POWER OFF
15	P	CANL
16	W	STOP LAMP SWITCH SIGNAL
17	Y	IGNITION SWITCH SIGNAL
19	GR	STARTER RELAY SIGNAL
23	BR	AUTO MANUAL RANGE CHANGE SWITCH 1 SIGNAL
25	L	RANGE SENSOR POWER SOURCE 1
26	LG	RANGE SENSOR POWER SOURCE 2
27	G	RANGE SENSOR NO. 1 SIGNAL
28	V	AUTO MANUAL RANGE CHANGE SWITCH 2 SIGNAL
31	SB	ENGINE SPEED SIGNAL
33	V	RANGE SENSOR NO. 1 SIGNAL
34	BG	SAVE MODE SWITCH SIGNAL
35	G	RANGE SENSOR NO. 3 SIGNAL
37	GR	R MODE SWITCH SIGNAL
38	R	RANGE SENSOR NO. 2 SIGNAL
39	W	PADDLE SHIFTER (SHIFT-UP) SWITCH SIGNAL
42	L	PADDLE SHIFTER (SHIFT-DOWN) SWITCH SIGNAL
43	P	RANGE SENSOR NO. 4 SIGNAL
44	GR	RANGE SENSOR NO. 5 SIGNAL
45	BG	R MODE LAMP SIGNAL
46	W	SHIFT LOCK SOLENOID CONTROL SIGNAL
47	G	SAVE MODE LAMP SIGNAL

Connector No.	B72
Connector Name	VEHICLE DATA TRANSMITTER
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	BATTERY
3	L	IT COMMUNICATION (H)
4	P	IT COMMUNICATION (L)
5	L	CANH

# CAN COMMUNICATION SYSTEM

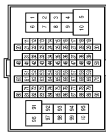
< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (NISMO)

6	P	CAN-L
7	G	IGN SIGNAL
8	SB	ACC POWER SUPPLY
12	B	GROUND

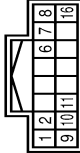
Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-GS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	-
7	V	-
8	EG	-
9	W	-
10	R	-
31	V	-
32	LG	-
33	BR	-
34	L	-
40	P	-
41	GR	-
42	Y	-
43	Y	-
44	V	-
45	W	-
51	SB	-
52	G	-
53	BR	-
54	V	-
60	R	-
61	P	-
62	L	-
63	LG	-
64	GR	-
69	P	-
70	L	-
71	R	-
80	L	-
81	SB	-
82	V	-

83	B	-
84	Y	-
85	BR	-
86	SHIELD	-
87	W	-
96	Y	-
98	EG	-
99	BR	-
100	W	-

Connector No.	B213
Connector Name	AMD CONTROL UNIT
Connector Type	TH16FW-NH



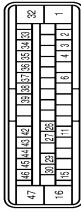
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	SOL+
2	G	SOL-
6	V	-
7	W	IGN
8	L	CAN-H
9	Y	SOLVB
10	B	GROUND
11	B	GROUND
16	P	CAN-L

Connector No.	E6
Connector Name	FROM ECU INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	RY	-
42	G	-
43	SB	-
44	W	-
46	BG	-

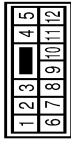
Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	AEZ43FB-AJ24



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	LBMR
2	V	DIAG-K
3	GR	VDC OFF SW
4	W	BLS
6	G	VDC LIP SW
11	Y	CAN-H
15	P	GROUND
16	B	GROUND
26	W	CAN-L
27	BR	G SENSOR GROUND
29	BG	UZ
30	L	CAN-H
32	BG	UBVR

33	W	DS FR
34	BG	DP FR
35	Y	VDC TOP POSITION LED
36	L	DP RL
37	R	DS RL
38	V	BRAKE FLUID LEVEL SW
39	G	G SENSOR POWER
42	V	DS RR
43	LG	DP RR
44	SB	VDC TOP POSITION LED
45	W	DS FL
46	R	DS FL
47	B	GROUND

Connector No.	E104
Connector Name	WIRE TO WIRE
Connector Type	NS22MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	Y	-
3	BR	-
4	Y	-
5	R	-
6	P	-
7	W	-
8	G	-
9	LG	-
10	V	-
11	L	-
12	R	-

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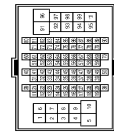
# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (NISMO)

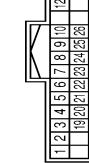
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
2	L	-
3	P	-
6	L	-
7	W	-
8	W	-
9	G	-
10	R	-
11	W	-
12	SB	-
13	G	-
14	W	-
15	BR	-
16	R	-
17	EG	-
18	SB	-
20	GR	-
21	L	-
22	R	-
23	G	-
24	BR	-
25	L	-
26	LG	-
27	W	-
28	R	-
31	GR	-
32	L	-
33	V	-
34	EG	-
39	W	-
40	EG	-
41	R	-
42	V	-
43	W	-
47	G	-
48	R	-
49	W	-

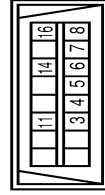
50	SHIELD	-
51	SB	-
52	B	-
53	R	-
54	B	-
56	R	-
57	G	-
58	G	-
59	R	-
60	BR	-
61	Y	-
62	SHIELD	-
63	GR	-
64	R	-
65	G	-
66	BR	-
67	EG	-
69	P	-
70	L	-
71	SHIELD	-
72	SHIELD	- [Without active noise control unit]
72	V	- [With active noise control unit]
73	LG	-
76	R	-
77	SB	-
78	G	-
79	Y	-
80	R	-
81	G	-
82	BR	- [Without active noise control unit]
82	G	- [With active noise control unit]
83	R	- [Without active noise control unit]
84	Y	- [With active noise control unit]
84	SHIELD	-
85	V	-
86	LG	- [Without active noise control unit]
86	W	- [With active noise control unit]
87	L	-
88	P	-
89	SHIELD	-
90	V	-
92	LG	-
93	Y	-
94	G	-
95	R	-
96	Y	-
97	R	-
98	G	-
99	L	-
100	W	-

Connector No.	M14
Connector Name	LOW FREQ PRESSURE WARNING CONTROL UNIT
Connector Type	TH82FW-NH



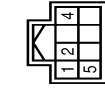
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	CANL
2	L	CANLH
3	EG	RR TUNER (SIG)
4	L	RL TUNER (SIG)
5	R	FR TUNER (SIG)
6	W	FL TUNER (SIG)
7	SB	RR TUNER (PWR)
8	GR	RL TUNER (PWR)
9	R	FR TUNER (PWR)
10	LG	FL TUNER (PWR)
12	W	SW SIG
15	G	IGN
19	R	RR TUNER (RSSI)
20	BG	RL TUNER (RSSI)
21	P	FR TUNER (RSSI)
22	G	FL TUNER (RSSI)
23	GR	RR TUNER (GND)
24	V	RL TUNER (GND)
25	L	FR TUNER (GND)
26	BR	FL TUNER (GND)
30	G	FLASHER SIG
32	B	GROUND

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	G	-
14	P	-
16	Y	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH86FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CANL
4	BG	IGN
5	L	CANH

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# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (NISMO)

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	BATTERY POWER SUPPLY
2	W	IGNITION POWER SUPPLY
3	B	GROUND
4	B	ILLUMINATION GROUND
5	B	GROUND
6	W	METER CONTROL SWITCH GROUND
7	Y	AC AUTO AMP CONNECTION SIGNAL
8	SB	AMBIENT SENSOR SIGNAL
9	P	VEHICLE SPEED SIGNAL (2-PULSE)
12	L	OIL PRESSURE SENSOR GROUND
13	V	VEHICLE SPEED SIGNAL (8-PULSE)
14	B	AIR BAG SIGNAL
15	R	LED HEAD LAMP (RH) WARNING SIGNAL
18	L	FUEL LEVEL SENSOR GROUND
19	R	OIL LEVEL SENSOR SIGNAL
20	W	GROUND
21	L	CAN-H
22	P	CAN-L
23	LG	ILLUMINATION CONTROL SWITCH SIGNAL (I)
24	BR	ILLUMINATION CONTROL SWITCH SIGNAL (O)
25	G	TRIP A/B RESET SWITCH SIGNAL
26	BG	ENTER SWITCH SIGNAL
27	SB	SELECT SWITCH SIGNAL
28	BR	ALTERNATOR
29	G	SEAT BELT BRACKLE SWITCH SIGNAL (PASSENGER SIDE)
30	LG	SEAT BELT BRACKLE SWITCH SIGNAL (DRIVER SIDE)
31	V	PARKING BRAKE SWITCH SIGNAL
32	V	WASHER LEVEL SWITCH SIGNAL
33	L	WASHER LEVEL SWITCH SIGNAL
34	GR	OIL PRESSURE SENSOR POWER
35	W	OIL PRESSURE SENSOR SIGNAL
38	BG	FUEL LEVEL SENSOR SIGNAL
39	Y	LED HEAD LAMP (LH) WARNING SIGNAL
40	V	ILLUMINATION CONTROL

Connector No.	M66
Connector Name	A/C AUTO AMP
Connector Type	SAB40FW



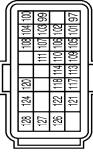
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	P	CAN-L
10	L	A/C LAMP SIGNAL
11	R	EACH DOOR MOTOR POWER SUPPLY
15	BG	SUNLOAD SENSOR SIGNAL
16	R	INTAKE SENSOR SIGNAL
17	SB	ACC POWER SUPPLY
19	B	GROUND
20	G	IGNITION POWER SUPPLY
24	BG	ECV SIGNAL
32	L	BLOWER MOTOR CONTROL SIGNAL
34	Y	AC AUTO AMP CONNECTION SIGNAL
35	P	AMBIENT SENSOR SIGNAL
36	LG	IN-VEHICLE SENSOR SIGNAL
37	BG	SENSOR GROUND
39	B	GROUND
40	Y	BATTERY POWER SUPPLY

Connector No.	M82
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-NH



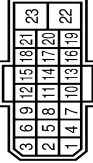
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
8	P	-

Connector No.	M107
Connector Name	ECM
Connector Type	RH24FGY-RZ8-RL-H-Z



Terminal No.	Color Of Wire	Signal Name [Specification]
97	P	CAN COMMUNICATION LINE
99	SB	SENSOR POWER SUPPLY
100	BR	SENSOR POWER SUPPLY
101	L	CAN COMMUNICATION LINE
102	G	ASC2 STEERING SWITCH
103	GR	SENSOR GROUND
104	P	ACCELERATOR PEDAL POSITION SENSOR 1
105	W	ECM RELAY (SELF SHUT-OFF)
106	LG	IGNITION SWITCH
107	BG	SENSOR GROUND
108	L	ACCELERATOR PEDAL POSITION SENSOR 2
109	L	SAVALVERLY
110	P	STOP LAMP SWITCH
111	GR	PNP SIGNAL
113	SB	ENGINE SPEED OUTPUT SIGNAL
114	V	DATA LINK CONNECTOR
117	R	ASC2 BRAKE SWITCH
118	W	POWER SUPPLY FOR ECM (BACK-UP)
120	BR	SAPMPRLY
121	P	POWER SUPPLY FOR ECM
122	V	POWER SUPPLY FOR ECM
124	B	ECM GROUND
126	L	FUEL PUMP RELAY
127	G	THROTTLE CONTROL MOTOR RELAY
128	B	ECM GROUND

Connector No.	M110
Connector Name	E-SUS CONTROL UNIT
Connector Type	FEC21FB-FHC2



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	CAN-L
2	P	R MODE SW SIG
3	L	CAN-H
4	W	FRONT G SENSOR SIG
5	BG	R MODE LAMP SIG
6	BR	REAR G SENSOR SIG
7	R	COMP-MODE SW SIG
8	G	FRONT G SENSOR
9	LG	CONF MODE LAMP SIG
10	R	FR SHOCK ABSORBER ACTUATOR LOW SIG
11	G	FR SHOCK ABSORBER ACTUATOR HI SIG
12	L	FL SHOCK ABSORBER ACTUATOR LOW SIG
13	G	REAR G SENSOR
14	SB	FR SHOCK ABSORBER ACTUATOR LOW SIG
15	R	FRONT G SENSOR
16	BR	RL SHOCK ABSORBER ACTUATOR HI SIG
17	P	FL SHOCK ABSORBER ACTUATOR HI SIG
18	Y	RL SHOCK ABSORBER ACTUATOR LOW SIG
19	R	IGN
20	V	RR SHOCK ABSORBER ACTUATOR HI SIG
21	R	REAR G SENSOR+
22	B	GND
23	L	BAT

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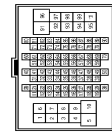
# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN SYSTEM (NISMO)

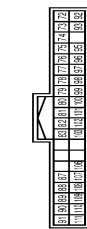
Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	-
7	V	-
8	G	-
9	W	-
10	Y	-
31	LG	-
32	BR	-
33	L	-
34	G	-
40	R	-
41	R	-
42	SB	-
43	L	-
44	R	-
45	G	-
51	SB	-
52	BG	-
53	R	-
54	GR	-
60	L	-
61	P	-
62	L	-
63	Y	-
64	LG	-
69	P	-
70	L	-
71	Y	-
80	L	-
81	G	-
82	BR	-
83	B	-
84	V	-
85	SB	-
86	SHIELD	-
87	W	-
96	Y	-

98	G	-
99	V	-
100	W	-

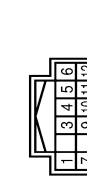
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
72	R	ROOM ANT2-
73	G	ROOM ANT2+
74	SB	PASSENGER DOOR ANT-
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1-
79	BR	ROOM ANT1+
80	GR	IMMOBI ANTENNA CONTROL
81	L	IMMOBI ANTENNA SIGNAL
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
89	BR	PUSH SW
90	P	CANL
91	L	CANH
92	LG	KEY SLOT ILL OUTPUT
93	V	ON IND
95	BG	ACC RELAY CONT
96	SB	A/T SHIFT SELECTOR POWER SUPPLY
97	L	S/L CONDITION 1
98	R	S/L CONDITION 2
99	G	SHIFT P
100	W	PASSENGER DOOR REQUEST SW
101	V	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY COAT
103	LG	RETLESS ENTRY RECEIVER POWER SUPPLY
106	P	S/L UNIT POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4

109	Y	COMBI SW INPUT 2
110	G	HAZARD SW
111	Y	S/L UNIT COMM

Connector No.	M125
Connector Name	CAN GATEWAY
Connector Type	TH12FM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CANH
3	W	BATTERY
4	L	CANH
5	B	GROUND
6	L	CANH
7	P	CANL
9	R	IGNITION
10	P	CANL
11	B	GROUND
12	P	CANL

Connector No.	M157
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	NH28FY-EX



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	IGN
2	B	GROUND
3	Y	DR1 (L) DR2 (-)
4	Y	DR1 (+)
5	Y	DR2 (+)

6	Y	AS2 (+)
7	Y	AS1 (-)
8	Y	AS2 (+)
9	Y	AS2 (-)
18	SB	ECZS (+)
19	V	ECZS (-)
22	SHIELD	GROUND
23	R	AIR BAG W/L
24	G	SEAT BELT
25	R	CUTOFF TELLTALE
51	R	SIDE SENS. RH2+
52	G	SIDE SENS. RH2-
53	Y	SIDE SENS. LH2+
54	BR	SIDE SENS. LH2-
59	L	CANH
60	P	CANL

Connector No.	M203
Connector Name	AV CONTROL UNIT
Connector Type	TH32FM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
65	R	PARKING BRAKE
67	W	COMPOSITE IMAGE GND
68	R	COMPOSITE IMAGE SIGNAL
71	SHIELD	MICROPHONE GND
72	L	MICROPHONE VCC
73	V	COMM (CONT-DISP)
74	P	CANL
75	R	AV COMM (L)
76	R	AV COMM (R)
79	R	ILLUMINATION
80	W	IGNITION
81	BG	REVERSE
82	V	VEHICLE SPEED (8-PULSE)
83	SHIELD	SHIELD
84	B	COMPOSITE SYNCHRONIZING SIGNAL
87	B	MICROPHONE SIGNAL
88	SHIELD	SHIELD
89	SB	COMM (DISP-CONT)

# CAN COMMUNICATION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

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**CAN SYSTEM (NISMO)**

90	L	CANH
91	G	AV COMM (H)
92	G	AV COMM (H)

Connector No.	M271
Connector Name	WIRE TO WIRE
Connector Type	TH88MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	P	-

Connector No.	M272
Connector Name	CAN I/F
Connector Type	TH88FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	CANH
7	P	CANL

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LAN

# MALFUNCTION AREA CHART

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

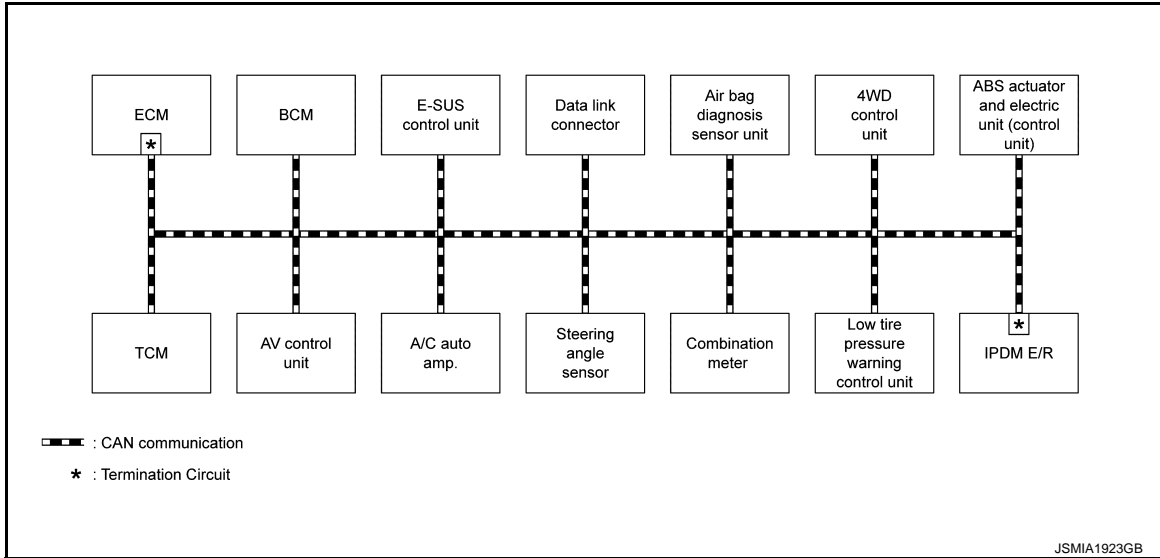
## MALFUNCTION AREA CHART

### System Description

INFOID:000000011490064

### SYSTEM DIAGRAM

Except NISMO

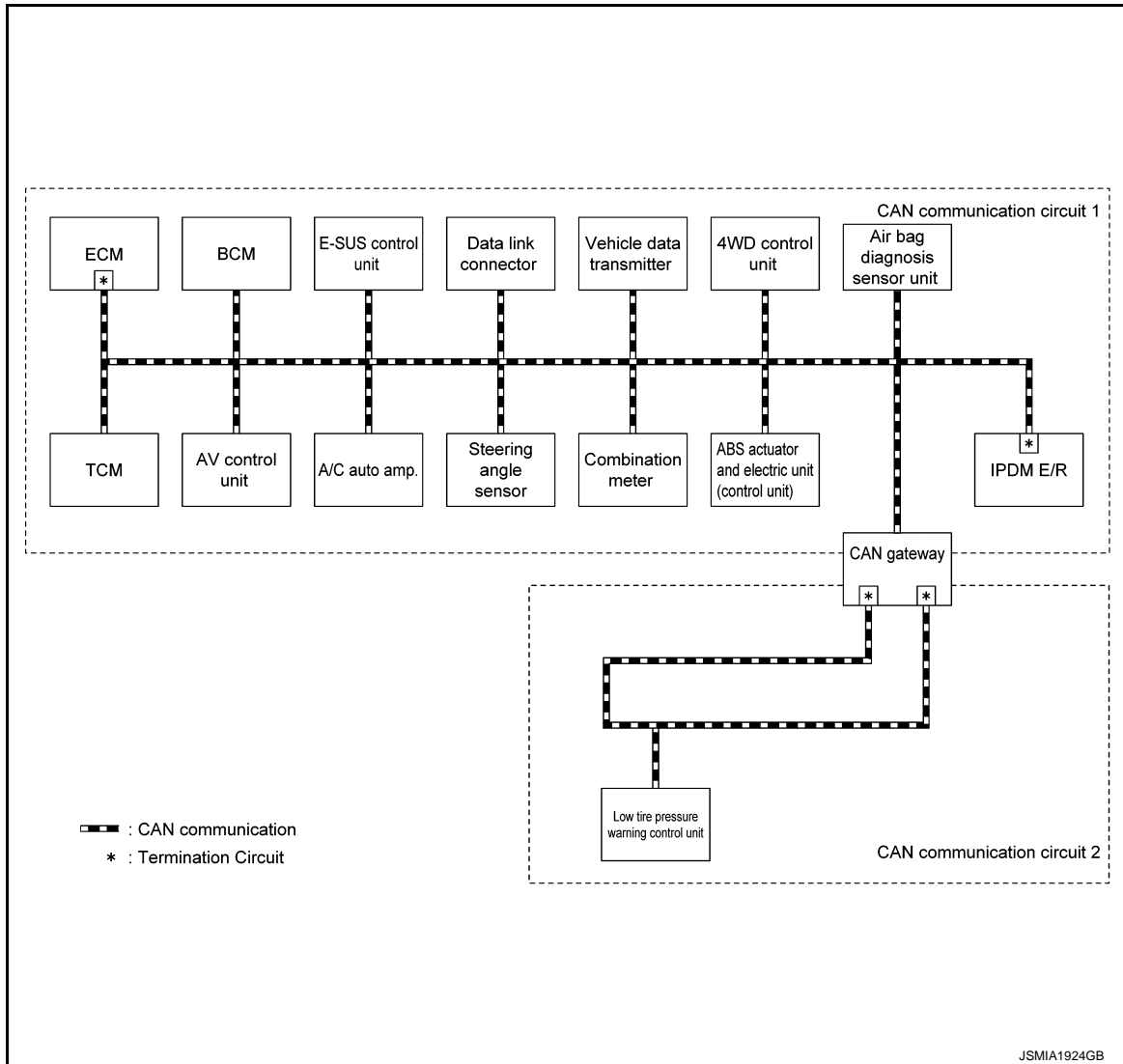


# MALFUNCTION AREA CHART

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

NISMO



## Main Line

INFOID:000000011490065

Malfunction area	Reference
Main line between AWD control unit and BCM	<a href="#">LAN-47. "Diagnosis Procedure"</a>
Main line between BCM and combination meter	<a href="#">LAN-48. "Diagnosis Procedure"</a>
Main line between combination meter and steering angle sensor	<a href="#">LAN-49. "Diagnosis Procedure"</a>
Main line between steering angle sensor and data link connector	<a href="#">LAN-50. "Diagnosis Procedure"</a>
Main line between data link connector and TCM	<a href="#">LAN-51. "Diagnosis Procedure"</a>
Main line between TCM and ABS actuator and electric unit (control unit)	<a href="#">LAN-52. "Diagnosis Procedure"</a>

## Branch Line

INFOID:000000011490066

Malfunction area	Reference
ECM branch line circuit	<a href="#">LAN-53. "Diagnosis Procedure"</a>
AWD control unit branch line circuit	<a href="#">LAN-54. "Diagnosis Procedure"</a>
Air bag diagnosis sensor unit branch line circuit	<a href="#">LAN-55. "Diagnosis Procedure"</a>

# MALFUNCTION AREA CHART

[CAN]

< DTC/CIRCUIT DIAGNOSIS >

Malfunction area	Reference
BCM branch line circuit	<a href="#">LAN-56. "Diagnosis Procedure"</a>
E-SUS control unit branch line circuit	<a href="#">LAN-57. "Diagnosis Procedure"</a>
AV control unit branch line circuit	<a href="#">LAN-58. "Diagnosis Procedure"</a>
A/C auto amp. branch line circuit	<a href="#">LAN-59. "Diagnosis Procedure"</a>
Combination meter branch line circuit	<a href="#">LAN-60. "Diagnosis Procedure"</a>
Steering angle sensor branch line circuit	<a href="#">LAN-61. "Diagnosis Procedure"</a>
CAN gateway branch line circuit	<a href="#">LAN-62. "Diagnosis Procedure"</a>
Data link connector branch line circuit	<a href="#">LAN-63. "Diagnosis Procedure"</a>
Low tire pressure warning control unit branch line circuit	<a href="#">LAN-64. "Diagnosis Procedure"</a>
TCM branch line circuit	<a href="#">LAN-65. "Diagnosis Procedure"</a>
Vehicle data transmitter branch line circuit	<a href="#">LAN-66. "Diagnosis Procedure"</a>
ABS actuator and electric unit (control unit) branch line circuit	<a href="#">LAN-67. "Diagnosis Procedure"</a>
IPDM E/R branch line circuit	<a href="#">LAN-68. "Diagnosis Procedure"</a>

## Short Circuit

INFOID:000000011490067

Malfunction area	Reference
CAN communication circuit	<a href="#">LAN-69. "Diagnosis Procedure"</a>
CAN communication circuit 1	<a href="#">LAN-71. "Diagnosis Procedure"</a>
CAN communication circuit 2	<a href="#">LAN-73. "Diagnosis Procedure"</a>

# MAIN LINE BETWEEN 4WD AND BCM CIRCUIT

[CAN]

< DTC/CIRCUIT DIAGNOSIS >

## MAIN LINE BETWEEN 4WD AND BCM CIRCUIT

### Diagnosis Procedure

INFOID:000000011490068

#### 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 B201
  - Harness connector M117

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair the terminal and connector.

#### 2.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors B201 and M117.
2. Check the continuity between the harness connector terminals.

Connector No.	Terminal No.		Continuity
B201	62	70	Existed
	61	69	Existed

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Repair the main line between the AWD control unit and the harness connector B201.

#### 3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of BCM.
2. Check the continuity between the harness connector and the BCM harness connector.

Harness connector		BCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M117	70	M122	91	Existed
	69		90	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 AWD control unit and the BCM.  
NO >> Repair the main line between the harness connector M117 and the BCM.

LAN

# MAIN LINE BETWEEN BCM AND M&A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## MAIN LINE BETWEEN BCM AND M&A CIRCUIT

### Diagnosis Procedure

INFOID:000000011490069

#### 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
  - BCM
  - Combination meter
4. Check the continuity between the BCM harness connector and the combination meter harness connector.

BCM harness connector		Combination meter harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M122	91	M53	21	Existed
	90		22	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 BCM and the combination meter.

NO >> Repair the main line between the BCM and the combination meter.



# MAIN LINE BETWEEN M&A AND STRG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## MAIN LINE BETWEEN M&A AND STRG CIRCUIT

### Diagnosis Procedure

INFOID:000000011490070

#### 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
  - Combination meter
  - Steering angle sensor
4. Check the continuity between the combination meter harness connector and the steering angle sensor harness connector.

Combination meter harness connector		Steering angle sensor harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M53	21	M37	5	Existed
	22		2	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 combination meter and the steering angle sensor.

NO >> Repair the main line between the combination meter and the steering angle sensor.

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# MAIN LINE BETWEEN STRG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## MAIN LINE BETWEEN STRG AND DLC CIRCUIT

### Diagnosis Procedure

INFOID:000000011490071

#### 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
  - Steering angle sensor
4. Check the continuity between the steering angle sensor harness connector and the data link connector.

Steering angle sensor harness connector		Data link connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M37	5	M24	6	Existed
	2		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 steering angle sensor and the data link connector.

NO >> Repair the main line between the steering angle sensor and the data link connector.

# MAIN LINE BETWEEN DLC AND TCM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## MAIN LINE BETWEEN DLC AND TCM CIRCUIT

### Diagnosis Procedure

INFOID:000000011490072

#### 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 M7
  - Harness connector B1

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

#### 2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors M7 and B1.
2. Check the continuity between the data link connector and the harness connector.

Data link connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M24	6	M7	70	Existed
	14		69	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the data link connector and the harness connector M7.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of TCM.
2. Check the continuity between the harness connector and the TCM harness connector.

Harness connector		TCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B1	70	B45	11	Existed
	69		15	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 data link connector and the TCM.

NO >> Repair the main line between the harness connector B1 and the TCM.

LAN

# MAIN LINE BETWEEN TCM AND ABS CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## MAIN LINE BETWEEN TCM AND ABS CIRCUIT

### Diagnosis Procedure

INFOID:000000011490073

#### 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 B3
  - Harness connector E104

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.
  - TCM
  - Harness connectors B3 and E104
2. Check the continuity between the TCM harness connector and the harness connector.

TCM harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B45	11	B3	1	Existed
	15		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the TCM and the harness connector B3.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

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

Harness connector		ABS actuator and electric unit (control unit) harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
E104	1	E41	30	Existed
	6		15	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 TCM and the ABS actuator and electric unit (control unit).

NO >> Repair the main line between the harness connector E104 and the ABS actuator and electric unit (control unit).

# ECM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## ECM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490074

#### 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).
  - ECM
  - Harness connector M117
  - Harness connector B201

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.

ECM harness connector		Resistance (Ω)
Connector No.	Terminal No.	
M107	101                      97	Approx. 108 – 132

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the ECM branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ECM. Refer to [EC-191, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the ECM. Refer to [EC-20, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the ECM branch line.  
NO >> Repair the power supply and the ground circuit.

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# 4WD BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## 4WD BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490075

#### 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 AWD 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 AWD control unit.
2. Check the resistance between the AWD control unit harness connector terminals.

AWD control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B213	8	16	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AWD control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AWD control unit. Refer to [DLN-20, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AWD control unit. Refer to [DLN-44, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the AWD control unit branch line.  
NO >> Repair the power supply and the ground circuit.

# A-BAG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## A-BAG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490076

#### **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-5, "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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# BCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## BCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490077

#### 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.		
M122	91	90	Approx. 54 – 66

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 [BCS-41, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the BCM. Refer to [BCS-89, "Exploded View"](#).  
YES (Past error)>>Error was detected in the BCM branch line.  
NO >> Repair the power supply and the ground circuit.



# E-SUS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## E-SUS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490078

#### 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 E-SUS 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 E-SUS control unit.
2. Check the resistance between the E-SUS control unit harness connector terminals.

E-SUS control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M110	3	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the E-SUS control unit branch line.

#### 3.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the E-SUS control unit. Refer to [SCS-44, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the E-SUS control unit. Refer to [SCS-61, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the E-SUS control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# AV BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## AV BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490079

#### 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 AV 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 AV control unit.
2. Check the resistance between the AV control unit harness connector terminals.

AV control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M203	90	74	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AV control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AV control unit. Refer to [AV-137, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AV control unit. Refer to [AV-166, "Exploded View"](#).  
YES (Past error)>>Error was detected in the AV control unit branch line.  
NO >> Repair the power supply and the ground circuit.

# HVAC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## HVAC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490080

#### 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.		
M66	1	2	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 [HAC-59, "A/C AUTO AMP. : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the A/C auto amp. Refer to [HAC-96, "Exploded View"](#).  
YES (Past error)>>Error was detected in the A/C auto amp. branch line.  
NO >> Repair the power supply and the ground circuit.

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# M&A BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## M&A BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490081

#### 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 ( $\Omega$ )
Connector No.	Terminal No.		
M53	21	22	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-68, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the combination meter. Refer to [MWI-113, "Exploded View"](#).  
YES (Past error)>>Error was detected in the combination meter branch line.  
NO >> Repair the power supply and the ground circuit.

# STRG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## STRG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490082

#### 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.

Steering angle sensor harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M37	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 [BRC-125, "Wiring Diagram - BRAKE CONTROL SYSTEM - \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the steering angle sensor. Refer to [BRC-153, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
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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# CGW BRANCH LINE CIRCUIT (CAN COMMUNICATION CIRCUIT 1)

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CGW BRANCH LINE CIRCUIT (CAN COMMUNICATION CIRCUIT 1)

### Diagnosis Procedure

INFOID:000000011490083

#### 1. CHECK DTC

Check DTC of the CAN gateway with CONSULT.

Is U1010 or B2600 indicated?

- YES >> Perform a diagnosis of the indicated DTC.
- NO >> GO TO 2.

#### 2. 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 CAN gateway for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair the terminal and connector.

#### 3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of CAN gateway.
2. Check the resistance between the CAN gateway harness connector terminals.

CAN gateway harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M125	1	7	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 4.
- NO >> Repair the CAN gateway branch line (CAN communication circuit 1 side).

#### 4. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the CAN gateway. Refer to [LAN-88. "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the CAN gateway. Refer to [LAN-89. "Removal and Installation"](#).
- YES (Past error)>>Error was detected in the CAN gateway branch line (CAN communication circuit 1 side).
- NO >> Repair the power supply and the ground circuit.

# DLC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## DLC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490084

#### 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 ( $\Omega$ )
Connector No.	Terminal No.		
M24	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.

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# TPMS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## TPMS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490085

#### 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 low tire pressure warning 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 low tire pressure warning control unit.
2. Check the resistance between the low tire pressure warning control unit harness connector terminals.

Low tire pressure warning control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M14	2	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the low tire pressure warning control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the low tire pressure warning control unit. Refer to [WT-40, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the low tire pressure warning control unit. Refer to [WT-77, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the low tire pressure warning control unit branch line.  
NO >> Repair the power supply and the ground circuit.



# TCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## TCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490086

#### 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 TCM 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 TCM.
2. Check the resistance between the TCM harness connector terminals.

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B45	11	15	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Replace the body harness.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to [TM-310, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the TCM. Refer to [TM-373, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the TCM branch line.  
NO >> Repair the power supply and the ground circuit.

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# TCU BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## TCU BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490087

#### 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 vehicle data transmitter 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 vehicle data transmitter.
2. Check the resistance between the vehicle data transmitter harness connector terminals.

Vehicle data transmitter harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B72	5	6	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the vehicle data transmitter branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the vehicle data transmitter. Refer to [AV-224, "VEHICLE DATA TRANSMITTER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the vehicle data transmitter. Refer to [AV-229, "Removal and Installation"](#).  
YES (Past error)>>Error was detected in the vehicle data transmitter branch line.  
NO >> Repair the power supply and the ground circuit.

# ABS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## ABS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490088

#### 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) harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E41	30	15	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 [BRC-110. "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to [BRC-150. "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
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.

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# IPDM-E BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## IPDM-E BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490089

#### 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.		
E6	40	39	Approx. 108 – 132

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 [PCS-19, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the IPDM E/R. Refer to [PCS-35, "Exploded View"](#).  
YES (Past error)>>Error was detected in the IPDM E/R branch line.  
NO >> Repair the power supply and the ground circuit.

# CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN COMMUNICATION CIRCUIT

### Diagnosis Procedure

INFOID:000000011490090

#### 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.	
M24	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		Ground	Continuity
Connector No.	Terminal No.		
M24	6		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 IPDM E/R TERMINATION CIRCUIT

1. Remove the ECM and the IPDM E/R.
2. Check the resistance between the ECM terminals.

ECM		Resistance (Ω)
Terminal No.		
101	97	Approx. 108 – 132

3. Check the resistance between the IPDM E/R terminals.

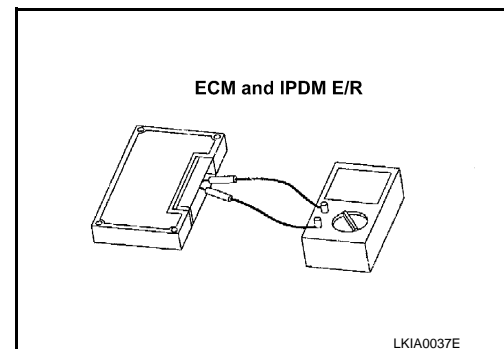
IPDM E/R		Resistance (Ω)
Terminal No.		
40	39	Approx. 108 – 132

Is the measurement value within the specification?

- YES >> GO TO 5.  
NO >> Replace the ECM and/or the IPDM E/R.

#### 5.CHECK SYMPTOM

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



LKIA0037E

# CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

---

## 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 IPDM E/R 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.

# CAN COMMUNICATION CIRCUIT 1

[CAN]

< DTC/CIRCUIT DIAGNOSIS >

## CAN COMMUNICATION CIRCUIT 1

### Diagnosis Procedure

INFOID:000000011490091

#### 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 circuit 1.
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.	
M24	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		Ground	Continuity
Connector No.	Terminal No.		
M24	6		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 IPDM E/R TERMINATION CIRCUIT

1. Remove the ECM and the IPDM E/R.
2. Check the resistance between the ECM terminals.

ECM		Resistance ( $\Omega$ )
Terminal No.		
101	97	Approx. 108 – 132

3. Check the resistance between the IPDM E/R terminals.

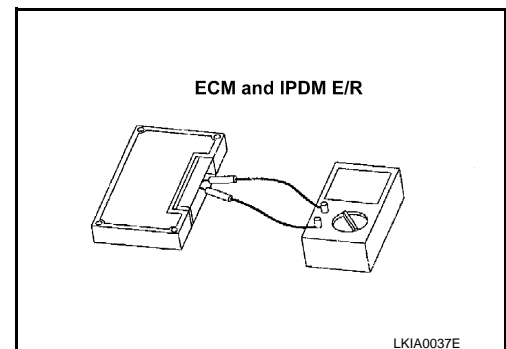
IPDM E/R		Resistance ( $\Omega$ )
Terminal No.		
40	39	Approx. 108 – 132

Is the measurement value within the specification?

- YES >> GO TO 5.  
NO >> Replace the ECM and/or the IPDM E/R.

#### 5. CHECK SYMPTOM

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



# CAN COMMUNICATION CIRCUIT 1

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

---

## 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 circuit 1.

**NOTE:**

ECM and IPDM E/R 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.



# CAN COMMUNICATION CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

## CAN COMMUNICATION CIRCUIT 2

### Diagnosis Procedure

INFOID:000000011490092

#### 1.CHECK DTC

Check DTC of the CAN gateway with CONSULT.

Is U1010 or B2600 indicated?

- YES >> Perform a diagnosis of the indicated DTC.
- NO >> GO TO 2.

#### 2.CONNECTOR INSPECTION

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

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair the terminal and connector.

#### 3.CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of CAN gateway.
2. Check the continuity between the CAN gateway harness connector terminals.

CAN gateway harness connector			Continuity
Connector No.	Terminal No.		
M125	4	6	Existed
	10	12	Existed

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Check the harness and repair the root cause.

#### 4.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the CAN gateway. Refer to [LAN-88, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Repair the power supply and the ground circuit.

#### 5.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 circuit 2.
4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Repair the terminal and connector.

#### 6.CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the CAN gateway harness connector terminals.

CAN gateway harness connector			Continuity
Connector No.	Terminal No.		
M125	4	10	Not existed

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Check the harness and repair the root cause.

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## CAN COMMUNICATION CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

[CAN]

### 7. CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the CAN gateway harness connector and the ground.

CAN gateway harness connector		Ground	Continuity
Connector No.	Terminal No.		
M125	4		Not existed
	10		Not existed

Is the inspection result normal?

YES >> GO TO 8.

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

### 8. CHECK CAN GATEWAY TERMINATION CIRCUIT

1. Remove the CAN gateway.
2. Check the resistance between the CAN gateway terminals.

CAN gateway harness connector		Resistance ( $\Omega$ )
Terminal No.		
4	10	Approx. 108 – 132
6	12	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 9.

NO >> Replace the CAN gateway.

### 9. 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 10.

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

### 10. 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 circuit 2.

**NOTE:**

CAN gateway has two termination circuits. 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.

PRECAUTION

PRECAUTIONS

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

INFOID:000000011490093

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

Precaution for Battery Service

INFOID:000000011490094

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Precautions for Removing Battery Terminal

INFOID:000000011490095

- When removing the 12V battery terminal, turn OFF the ignition 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.

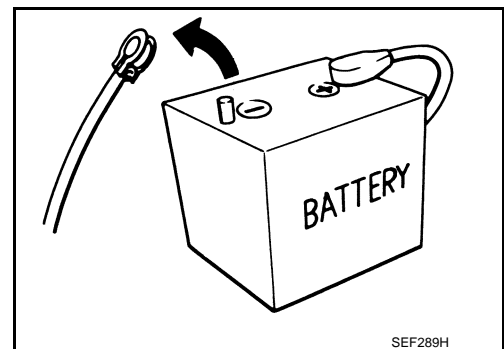
**NOTE:**

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:**

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



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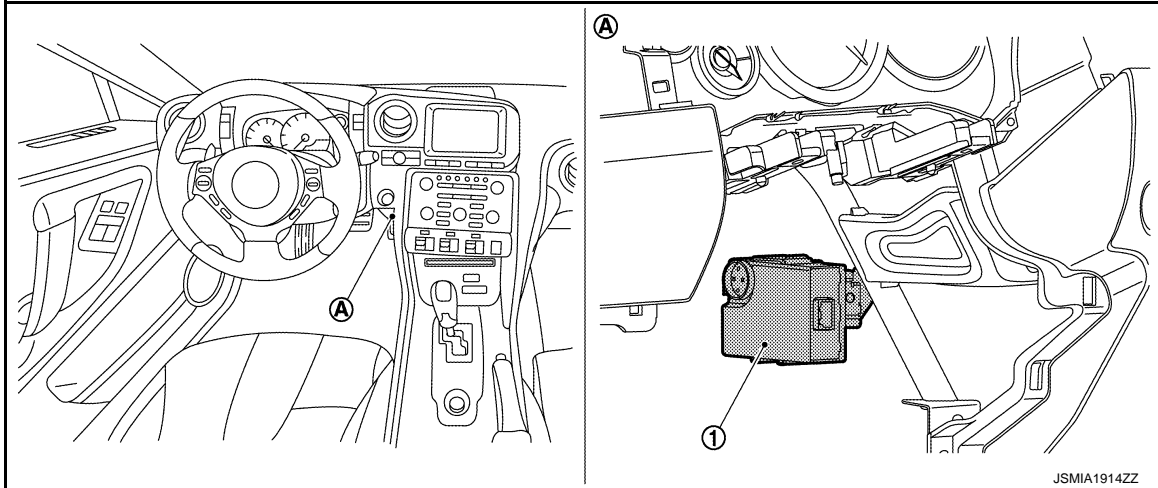
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

INFOID:000000011490096

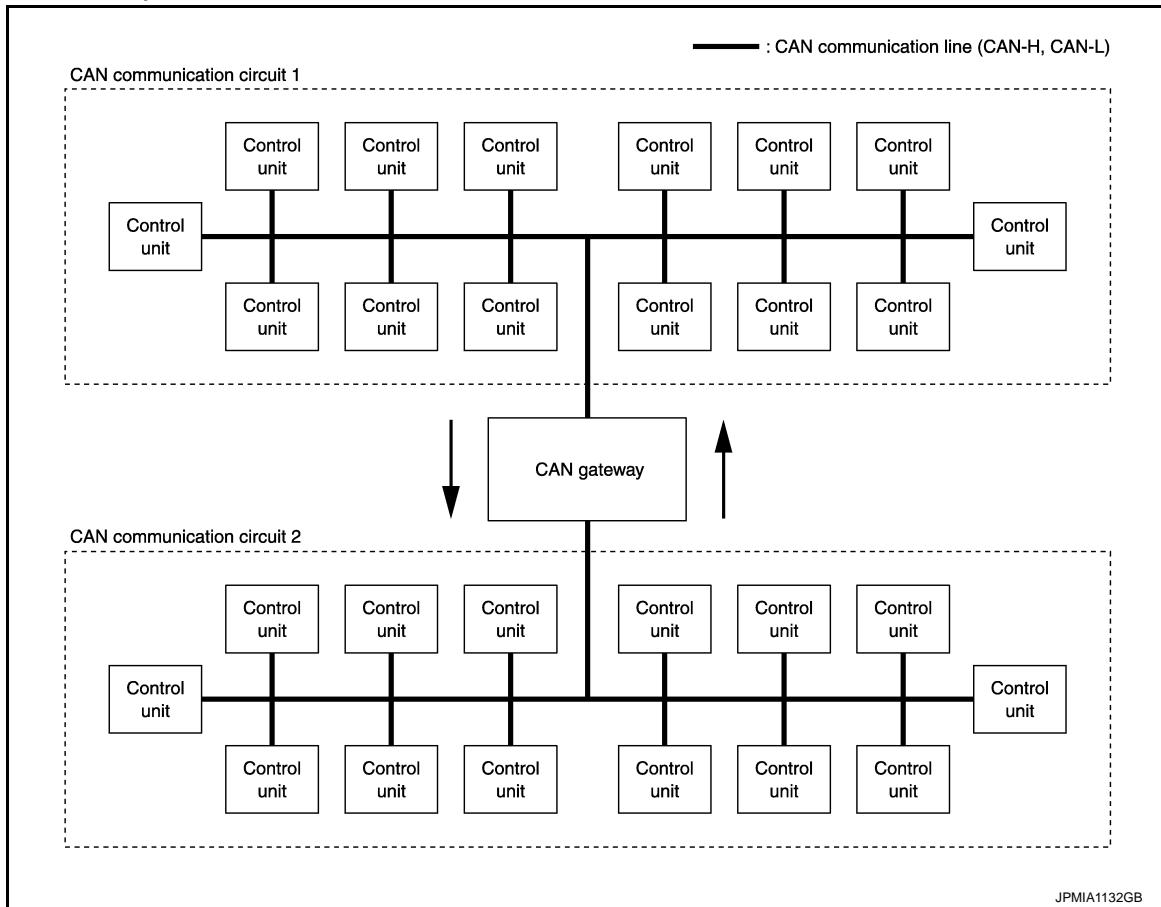


- 1. CAN gateway
- A. Behind the instrument lower panel (driver)

## SYSTEM

### System Description

INFOID:000000011490097



- The CAN gateway system communicates between two CAN communication circuits.
- This system selects and transmits only necessary information.

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# DIAGNOSIS SYSTEM (CAN GATEWAY)

< SYSTEM DESCRIPTION >

[CAN GATEWAY]

## DIAGNOSIS SYSTEM (CAN GATEWAY)

### CONSULT Function

INFOID:000000011490098

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with CAN gateway.

Diagnosis mode	Function Description
Ecu Identification	The CAN gateway part number is displayed.
Self Diagnostic Result	Displays the diagnosis results judged by CAN gateway.
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.
Configuration	<ul style="list-style-type: none"><li>• Read and save the vehicle specification.</li><li>• Write the vehicle specification when replacing CAN gateway.</li></ul>

#### SELF DIAGNOSTIC RESULT

Refer to [LAN-79, "DTC Index"](#).

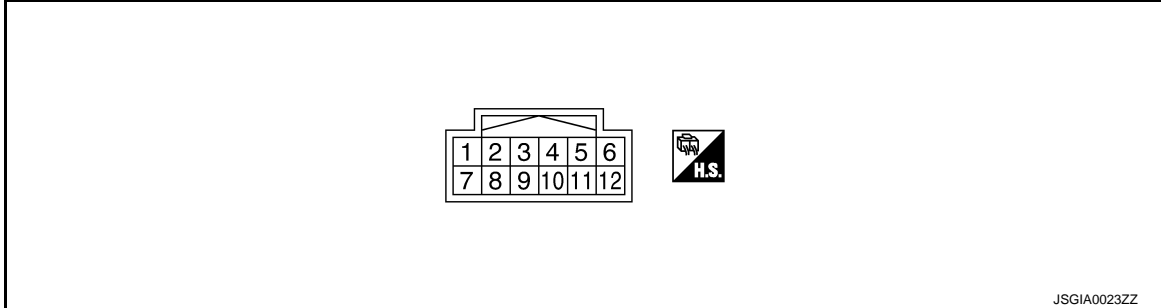
ECU DIAGNOSIS INFORMATION

CAN GATEWAY

Reference Value

INFOID:000000011490099

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
1 (L)	—	CAN-H (CAN communication circuit 1)	Input/ Output	—	—
3 (W)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
4 (L)	—	CAN-H (CAN communication circuit 2)	Input/ Output	—	—
5 (B)	Ground	Ground	—	Ignition switch ON	0 V
6 (L)	—	CAN-H (CAN communication circuit 2)	Input/ Output	—	—
7 (P)	—	CAN-L (CAN communication circuit 1)	Input/ Output	—	—
9 (R)	Ground	Ignition power supply	Input	Ignition switch ON	Battery voltage
10 (P)	—	CAN-L (CAN communication circuit 2)	Input/ Output	—	—
11 (B)	Ground	Ground	—	Ignition switch ON	0 V
12 (P)	—	CAN-L (CAN communication circuit 2)	Input/ Output	—	—

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DTC Inspection Priority Chart

INFOID:000000011490100

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	<ul style="list-style-type: none"> <li>B2600: CONFIG ERROR</li> <li>U1010: CONTROL UNIT(CAN)</li> </ul>
2	U1000: CAN COMM CIRCUIT

DTC Index

INFOID:000000011490101

NOTE:

# CAN GATEWAY

[CAN GATEWAY]

## < ECU DIAGNOSIS INFORMATION >

- The details of time display are as follows.
  - CRNT: A malfunction is detected now
  - PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame Data).
  - The number is 0 when is detected now
  - The number increases like 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
  - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

DTC		Reference
No DTC is detected. Further testing may be required.		—
U1000: CAN COMM CIRCUIT		<a href="#">LAN-85</a>
U1010: CONTROL UNIT(CAN)		<a href="#">LAN-86</a>
B2600: CONFIG ERROR	WRONG DATA	<a href="#">LAN-87</a>
	NOT CONFIGURED	



# CAN GATEWAY SYSTEM

< WIRING DIAGRAM >

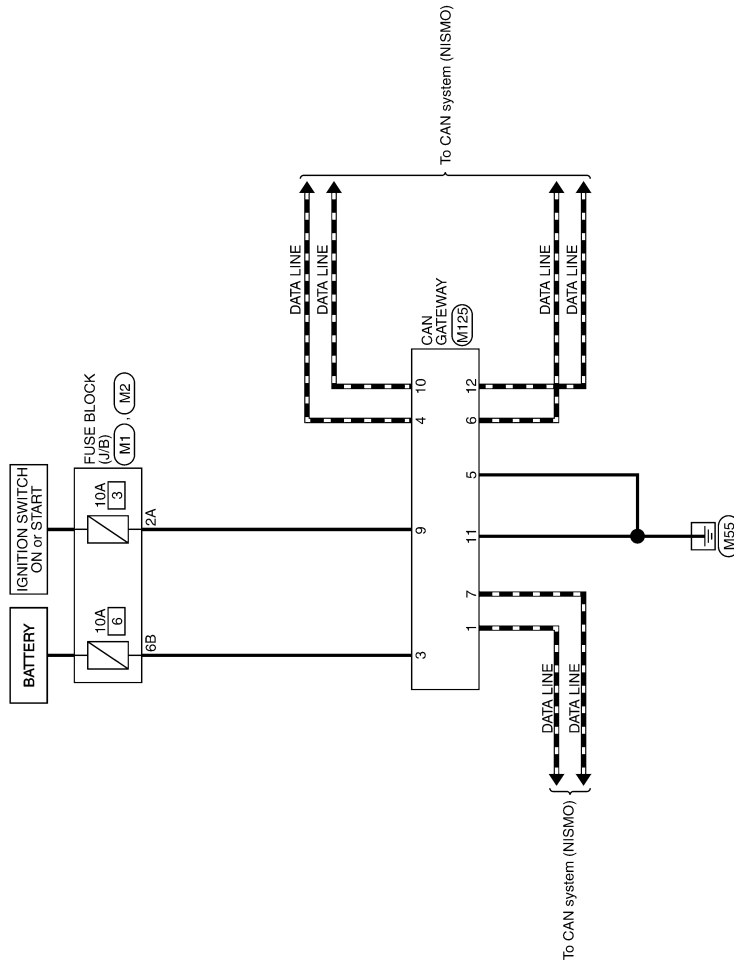
[CAN GATEWAY]

## WIRING DIAGRAM

### CAN GATEWAY SYSTEM

#### Wiring Diagram

INFOID:000000011490102



CAN GATEWAY SYSTEM

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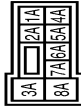
# CAN GATEWAY SYSTEM

< WIRING DIAGRAM >

[CAN GATEWAY]

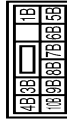
## CAN GATEWAY SYSTEM

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



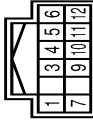
Terminal No.	Color Of Wire	Signal Name [Specification]
1A	V	-
2A	G	-
3A	L	-
4A	LG	-
5A	SB	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10B	Y	-
9B	R	-
8B	P	-
7B	G	-
6B	BG	-
5B	Y	-
4B	R	-
3B	R	-
2B	R	-
1B	SB	-

Connector No.	M125
Connector Name	CAN GATEWAY
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CANH
3	W	BATTERY
4	Y	CANH
5	B	GROUND
6	L	CANH
7	P	CAN-L
9	R	IGNITION
10	P	CAN-L
11	B	GROUND
12	P	CAN-L

# BASIC INSPECTION

## ADDITIONAL SERVICE WHEN REPLACING CAN GATEWAY

### Description

INFOID:000000011490103

#### BEFORE REPLACEMENT

When replacing CAN gateway, save or print current vehicle specification with CONSULT configuration before replacement.

**NOTE:**

If “Before Replace ECU” of “Read / Write Configuration” can not be used, use the “Manual Configuration” after replacing CAN gateway.

#### AFTER REPLACEMENT

**CAUTION:**

Follow the instructions listed below. Failure to do this may cause malfunctions to the CAN gateway.:

- When replacing CAN gateway, you must perform “Read / Write Configuration” or “Manual Configuration” with CONSULT.
- Complete the procedure of “Read / Write Configuration” or “Manual Configuration” in order.
- If you set incorrect “Read / Write Configuration” or “Manual Configuration”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform “Read / Write Configuration” or “Manual Configuration” except for new CAN gateway.

### Work Procedure

INFOID:000000011490104

#### 1.SAVING VEHICLE SPECIFICATION

ⓂCONSULT Configuration

Perform “Before Replace ECU” of “Read / Write Configuration” to save or print current vehicle specification. Refer to [LAN-84, "Description"](#).

**NOTE:**

If “Before Replace ECU” of “Read / Write Configuration” can not be used, use the “Manual Configuration” after replacing CAN gateway.

>> GO TO 2.

#### 2.REPLACE CAN GATEWAY

Replace CAN gateway. Refer to [LAN-89, "Removal and Installation"](#).

>> GO TO 3.

#### 3.WRITING VEHICLE SPECIFICATION

ⓂCONSULT Configuration

Perform “After Replace ECU” of “Read / Write Configuration” or “Manual Configuration” to write vehicle specification. Refer to [LAN-84, "Work Procedure"](#).

>> WORK END

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## CONFIGURATION (CAN GATEWAY)

### Description

INFOID:000000011490105

Vehicle specification needs to be written with CONSULT because it is not written after replacing CAN gateway. Configuration has three functions as follows

Function		Description
Read / Write Configuration	Before Replace ECU	<ul style="list-style-type: none"> <li>Reads the vehicle configuration of current CAN gateway.</li> <li>Saves the read vehicle configuration.</li> </ul>
	After Replace ECU	Writes the vehicle configuration with saved data.
Manual Configuration		Writes the vehicle configuration with manual selection.

**CAUTION:**

**Follow the instructions listed below. Failure to do this may cause malfunctions to the CAN gateway.:**

- When replacing CAN gateway, you must perform “Read / Write Configuration” or “Manual Configuration” with CONSULT.
- Complete the procedure of “Read / Write Configuration” or “Manual Configuration” in order.
- If you set incorrect “Read / Write Configuration” or “Manual Configuration”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform “Read / Write Configuration” or “Manual Configuration” except for new CAN gateway.

### Work Procedure

INFOID:000000011490106

#### 1. WRITING MODE SELECTION

CONSULT Configuration

Select “Re/programming, Configuration” of CAN gateway.

When writing saved data>>GO TO 2.

When writing manually>>GO TO 3.

#### 2. PERFORM “AFTER REPLACE ECU” OF “READ / WRITE CONFIGURATION”

CONSULT Configuration

Perform “After Replace ECU” of “Read / Write Configuration”.

>> GO TO 4.

#### 3. PERFORM “MANUAL CONFIGURATION”

CONSULT Configuration

1. Select “Manual Configuration”.
2. Touch “Next”.
3. Touch “OK”.
4. Check that the configuration has been successfully written and touch “End”.

>> GO TO 4.

#### 4. CHECK ALL ECU SELF-DIAGNOSIS RESULTS

1. Erase all ECU self-diagnosis results using CONSULT.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON and wait for 2 seconds or more.
4. Check that all ECU self-diagnosis results have no DTC (e.g. U1000 and U1001) of CAN communication.

>> WORK END

# DTC/CIRCUIT DIAGNOSIS

## U1000 CAN COMM CIRCUIT

### Description

INFOID:0000000011490107

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with two communication lines (CAN-H and CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.  
 CAN Communication Signal Chart. Refer to [LAN-24, "CAN Communication Signal Chart"](#).

### DTC Logic

INFOID:0000000011490108

### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When CAN gateway cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

### Diagnosis Procedure

INFOID:0000000011490109

#### 1. PERFORM SELF DIAGNOSTIC

- Turn the ignition switch ON and wait for 2 seconds or more.
- Check "Self Diagnostic Result".

Is "U1000: CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).
- NO >> Refer to [GI-39, "Intermittent Incident"](#).

LAN

# U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[CAN GATEWAY]

## U1010 CONTROL UNIT (CAN)

### Description

INFOID:000000011490110

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with two communication lines (CAN-H and CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to [LAN-24, "CAN Communication Signal Chart"](#).

### DTC Logic

INFOID:000000011490111

### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT(CAN)	When an error is detected during the initial diagnosis for CAN controller of CAN gateway.	CAN gateway

### Diagnosis Procedure

INFOID:000000011490112

#### 1. REPLACE CAN GATEWAY

When DTC "U1010: CONTROL UNIT(CAN)" is detected, replace CAN gateway.

>> Replace CAN gateway. Refer to [LAN-89, "Removal and Installation"](#).

# B2600 CONFIG ERROR

< DTC/CIRCUIT DIAGNOSIS >

[CAN GATEWAY]

## B2600 CONFIG ERROR

### Description

INFOID:0000000011490113

The CAN gateway requires initial settings to judge necessary information, according to a vehicle specification.

### DTC Logic

INFOID:0000000011490114

### DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Probable cause
B2600	CONFIG ERROR WRONG DATA	When errors are detected in the configuration data stored in the CAN gateway.	CAN gateway
	CONFIG ERROR NOT CONFIGURED	When no data are stored in the CAN gateway.	

### Diagnosis Procedure

INFOID:0000000011490115

#### 1. REPLACE CAN GATEWAY

When DTC "B2600: CONFIG ERROR" is detected, replace CAN gateway.

>> Replace CAN gateway. Refer to [LAN-89, "Removal and Installation"](#).

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# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN GATEWAY]

## POWER SUPPLY AND GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000011490116

#### 1.CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery power supply	6
Ignition power supply	3

#### Is the fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 2.

#### 2.CHECK POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the connector of CAN gateway.
3. Check voltage between CAN gateway harness connector and ground.

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
CAN gateway		Ignition switch	Battery voltage
Connector	Terminal		
M125	3	OFF	
	9	ON	

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

#### 3.CHECK GROUND CIRCUIT

Check continuity between CAN gateway harness connector and ground.

CAN gateway		Ground	Continuity
Connector	Terminal		
M125	5		Existed
	11		

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.



## REMOVAL AND INSTALLATION

### CAN GATEWAY

#### Removal and Installation

INFOID:000000011490117

**CAUTION:**

Before replacing CAN gateway, perform “Before Replace ECU” of “Read / Write Configuration” to save or print current vehicle specification. Refer to [LAN-83, "Description"](#).

#### REMOVAL

1. Remove instrument lower panel (driver). Refer to [IP-13, "Removal and Installation"](#).
2. Disconnect CAN gateway connector.
3. Remove mounting screw to remove CAN gateway.

#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:**

To prevent malfunction, be sure to perform “After Replace ECU” of “Read / Write Configuration” or “Manual Configuration” when replacing CAN gateway. Refer to [LAN-83, "Description"](#).

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# MAIN LINE BETWEEN 4WD AND BCM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## DTC/CIRCUIT DIAGNOSIS

### MAIN LINE BETWEEN 4WD AND BCM CIRCUIT

#### Diagnosis Procedure

INFOID:000000011490118

#### 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 B201
  - Harness connector M117

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

#### 2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors B201 and M117.
2. Check the continuity between the harness connector terminals.

Connector No.	Terminal No.		Continuity
B201	62	70	Existed
	61	69	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the AWD control unit and the harness connector B201.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of BCM.
2. Check the continuity between the harness connector and the BCM harness connector.

Harness connector		BCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M117	70	M122	91	Existed
	69		90	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the AWD control unit and the BCM.

NO >> Repair the main line between the harness connector M117 and the BCM.

# MAIN LINE BETWEEN BCM AND M&A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## MAIN LINE BETWEEN BCM AND M&A CIRCUIT

### Diagnosis Procedure

INFOID:0000000011490119

#### 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
  - BCM
  - Combination meter
4. Check the continuity between the BCM harness connector and the combination meter harness connector.

BCM harness connector		Combination meter harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M122	91	M53	21	Existed
	90		22	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the BCM and the combination meter.

NO >> Repair the main line between the BCM and the combination meter.

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# MAIN LINE BETWEEN M&A AND STRG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## MAIN LINE BETWEEN M&A AND STRG CIRCUIT

### Diagnosis Procedure

INFOID:000000011490120

#### 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
  - Combination meter
  - Steering angle sensor
4. Check the continuity between the combination meter harness connector and the steering angle sensor harness connector.

Combination meter harness connector		Steering angle sensor harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M53	21	M37	5	Existed
	22		2	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15. "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the combination meter and the steering angle sensor.

NO >> Repair the main line between the combination meter and the steering angle sensor.

# MAIN LINE BETWEEN STRG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## MAIN LINE BETWEEN STRG AND DLC CIRCUIT

### Diagnosis Procedure

INFOID:000000011490121

#### 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
  - Steering angle sensor
4. Check the continuity between the steering angle sensor harness connector and the data link connector.

Steering angle sensor harness connector		Data link connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M37	5	M24	6	Existed
	2		14	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the steering angle sensor and the data link connector.

NO >> Repair the main line between the steering angle sensor and the data link connector.

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# MAIN LINE BETWEEN DLC AND TCM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## MAIN LINE BETWEEN DLC AND TCM CIRCUIT

### Diagnosis Procedure

INFOID:000000011490122

#### 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 M7
  - Harness connector B1

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

#### 2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors M7 and B1.
2. Check the continuity between the data link connector and the harness connector.

Data link connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M24	6	M7	70	Existed
	14		69	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the data link connector and the harness connector M7.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of TCM.
2. Check the continuity between the harness connector and the TCM harness connector.

Harness connector		TCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B1	70	B45	11	Existed
	69		15	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the data link connector and the TCM.

NO >> Repair the main line between the harness connector B1 and the TCM.

# MAIN LINE BETWEEN TCM AND ABS CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## MAIN LINE BETWEEN TCM AND ABS CIRCUIT

### Diagnosis Procedure

INFOID:000000011490123

#### 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 B3
  - Harness connector E104

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.
  - TCM
  - Harness connectors B3 and E104
2. Check the continuity between the TCM harness connector and the harness connector.

TCM harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B45	11	B3	1	Existed
	15		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the TCM and the harness connector B3.

#### 3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

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

Harness connector		ABS actuator and electric unit (control unit) harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
E104	1	E41	30	Existed
	6		15	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

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

NO >> Repair the main line between the harness connector E104 and the ABS actuator and electric unit (control unit).

# ECM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## ECM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490124

#### 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).
  - ECM
  - Harness connector M117
  - Harness connector B201

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.

ECM harness connector		Resistance (Ω)
Connector No.	Terminal No.	
M107	101	Approx. 108 – 132
	97	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ECM. Refer to [EC-191, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to [EC-20, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement \(GT-R certified NISSAN dealer\)"](#).

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

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



# 4WD BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## 4WD BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490125

#### 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 AWD 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 AWD control unit.
2. Check the resistance between the AWD control unit harness connector terminals.

AWD control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B213	8	16	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AWD control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AWD control unit. Refer to [DLN-20, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AWD control unit. Refer to [DLN-44, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the AWD control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# A-BAG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## A-BAG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490126

#### **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-5, "Work Flow"](#).

Is the inspection result normal?

YES >> Replace the main harness.

NO >> Replace parts whose air bag system has a malfunction.

# BCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## BCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490127

#### 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.		
M122	91	90	Approx. 54 – 66

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 [BCS-41, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the BCM. Refer to [BCS-89, "Exploded View"](#).  
YES (Past error)>>Error was detected in the BCM branch line.  
NO >> Repair the power supply and the ground circuit.

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# E-SUS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## E-SUS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490128

#### 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 E-SUS 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 E-SUS control unit.
2. Check the resistance between the E-SUS control unit harness connector terminals.

E-SUS control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M110	3	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the E-SUS control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the E-SUS control unit. Refer to [SCS-44, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the E-SUS control unit. Refer to [SCS-61, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the E-SUS control unit branch line.  
NO >> Repair the power supply and the ground circuit.

# AV BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## AV BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011812205

#### 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 AV 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 AV control unit.
2. Check the resistance between the AV control unit harness connector terminals.

AV control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M203	90	74	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AV control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AV control unit. Refer to [AV-137, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AV control unit. Refer to [AV-166, "Exploded View"](#).  
YES (Past error)>>Error was detected in the AV control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# HVAC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## HVAC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490130

#### 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.		
M66	1	2	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 [HAC-59, "A/C AUTO AMP. : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the A/C auto amp. Refer to [HAC-96, "Exploded View"](#).  
YES (Past error)>>Error was detected in the A/C auto amp. branch line.  
NO >> Repair the power supply and the ground circuit.

## M&A BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490131

#### 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.		
M53	21	22	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-68, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the combination meter. Refer to [MWI-113, "Exploded View"](#).  
 YES (Past error)>>Error was detected in the combination meter branch line.  
 NO >> Repair the power supply and the ground circuit.

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# STRG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## STRG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490132

#### 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.

Steering angle sensor harness connector			Resistance ( $\Omega$ )
Connector No.	Terminal No.		
M37	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 [BRC-125, "Wiring Diagram - BRAKE CONTROL SYSTEM - \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the steering angle sensor. Refer to [BRC-153, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the steering angle sensor branch line.  
NO >> Repair the power supply and the ground circuit.



# DLC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## DLC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490133

#### 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.		
M24	6	14	Approx. 54 – 66

Is the measurement value within the specification?

- YES (Present error)>>Diagnose again. Refer to [LAN-15. "Trouble Diagnosis Flow Chart"](#).  
YES (Past error)>>Error was detected in the data link connector branch line circuit.  
NO >> Repair the data link connector branch line.

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# TPMS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## TPMS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490134

#### 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 low tire pressure warning 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 low tire pressure warning control unit.
2. Check the resistance between the low tire pressure warning control unit harness connector terminals.

Low tire pressure warning control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M14	2	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the low tire pressure warning control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the low tire pressure warning control unit. Refer to [WT-40, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the low tire pressure warning control unit. Refer to [WT-77, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the low tire pressure warning control unit branch line.  
NO >> Repair the power supply and the ground circuit.

# TCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## TCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490135

#### 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 TCM 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 TCM.
2. Check the resistance between the TCM harness connector terminals.

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B45	11	15	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Replace the body harness.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to [TM-310, "Description \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the TCM. Refer to [TM-373, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the TCM branch line.  
NO >> Repair the power supply and the ground circuit.

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# ABS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## ABS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490136

#### 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) harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E41	30	15	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 [BRC-110. "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to [BRC-150. "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
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 DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## IPDM-E BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490137

#### 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 ( $\Omega$ )
Connector No.	Terminal No.		
E6	40	39	Approx. 108 – 132

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 [PCS-19, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the IPDM E/R. Refer to [PCS-35, "Exploded View"](#).  
YES (Past error)>>Error was detected in the IPDM E/R branch line.  
NO >> Repair the power supply and the ground circuit.

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# CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## CAN COMMUNICATION CIRCUIT

### Diagnosis Procedure

INFOID:000000011490138

#### 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.	
M24	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		Ground	Continuity
Connector No.	Terminal No.		
M24	6		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 IPDM E/R TERMINATION CIRCUIT

1. Remove the ECM and the IPDM E/R.
2. Check the resistance between the ECM terminals.

ECM		Resistance ( $\Omega$ )
Terminal No.		
101	97	Approx. 108 – 132

3. Check the resistance between the IPDM E/R terminals.

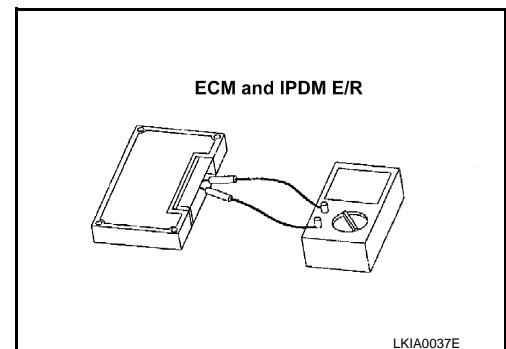
IPDM E/R		Resistance ( $\Omega$ )
Terminal No.		
40	39	Approx. 108 – 132

Is the measurement value within the specification?

- YES >> GO TO 5.  
NO >> Replace the ECM and/or the IPDM E/R.

#### 5. CHECK SYMPTOM

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



# CAN COMMUNICATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

## 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 IPDM E/R 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 4WD AND BCM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## DTC/CIRCUIT DIAGNOSIS

### MAIN LINE BETWEEN 4WD AND BCM CIRCUIT

#### Diagnosis Procedure

INFOID:000000011490139

#### 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 B201
  - Harness connector M117

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

#### 2. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors B201 and M117.
2. Check the continuity between the harness connector terminals.

Connector No.	Terminal No.		Continuity
B201	62	70	Existed
	61	69	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the AWD control unit and the harness connector B201.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of BCM.
2. Check the continuity between the harness connector and the BCM harness connector.

Harness connector		BCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M117	70	M122	91	Existed
	69		90	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the AWD control unit and the BCM.

NO >> Repair the main line between the harness connector M117 and the BCM.



# MAIN LINE BETWEEN BCM AND M&A CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## MAIN LINE BETWEEN BCM AND M&A CIRCUIT

### Diagnosis Procedure

INFOID:000000011490140

#### 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
  - BCM
  - Combination meter
4. Check the continuity between the BCM harness connector and the combination meter harness connector.

BCM harness connector		Combination meter harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M122	91	M53	21	Existed
	90		22	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the BCM and the combination meter.

NO >> Repair the main line between the BCM and the combination meter.

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# MAIN LINE BETWEEN M&A AND STRG CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## MAIN LINE BETWEEN M&A AND STRG CIRCUIT

### Diagnosis Procedure

INFOID:000000011490141

#### 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
  - Combination meter
  - Steering angle sensor
4. Check the continuity between the combination meter harness connector and the steering angle sensor harness connector.

Combination meter harness connector		Steering angle sensor harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M53	21	M37	5	Existed
	22		2	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15. "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the combination meter and the steering angle sensor.

NO >> Repair the main line between the combination meter and the steering angle sensor.

# MAIN LINE BETWEEN STRG AND DLC CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## MAIN LINE BETWEEN STRG AND DLC CIRCUIT

### Diagnosis Procedure

INFOID:000000011490142

#### 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
  - Steering angle sensor
4. Check the continuity between the steering angle sensor harness connector and the data link connector.

Steering angle sensor harness connector		Data link connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M37	5	M24	6	Existed
	2		14	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the steering angle sensor and the data link connector.

NO >> Repair the main line between the steering angle sensor and the data link connector.

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# MAIN LINE BETWEEN DLC AND TCM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## MAIN LINE BETWEEN DLC AND TCM CIRCUIT

### Diagnosis Procedure

INFOID:000000011490143

#### 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 M7
  - Harness connector B1

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

#### 2.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the harness connectors M7 and B1.
2. Check the continuity between the data link connector and the harness connector.

Data link connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
M24	6	M7	70	Existed
	14		69	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the data link connector and the harness connector M7.

#### 3.CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

1. Disconnect the connector of TCM.
2. Check the continuity between the harness connector and the TCM harness connector.

Harness connector		TCM harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B1	70	B45	11	Existed
	69		15	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

YES (Past error)>>Error was detected in the main line between the data link connector and the TCM.

NO >> Repair the main line between the harness connector B1 and the TCM.

# MAIN LINE BETWEEN TCM AND ABS CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## MAIN LINE BETWEEN TCM AND ABS CIRCUIT

### Diagnosis Procedure

INFOID:000000011490144

#### 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 B3
  - Harness connector E104

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.
  - TCM
  - Harness connectors B3 and E104
2. Check the continuity between the TCM harness connector and the harness connector.

TCM harness connector		Harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
B45	11	B3	1	Existed
	15		6	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the main line between the TCM and the harness connector B3.

#### 3. CHECK HARNESS CONTINUITY (OPEN CIRCUIT)

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

Harness connector		ABS actuator and electric unit (control unit) harness connector		Continuity
Connector No.	Terminal No.	Connector No.	Terminal No.	
E104	1	E41	30	Existed
	6		15	Existed

Is the inspection result normal?

YES (Present error)>>Connect all the connectors and diagnose again. Refer to [LAN-15, "Trouble Diagnosis Flow Chart"](#).

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

NO >> Repair the main line between the harness connector E104 and the ABS actuator and electric unit (control unit).

# ECM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## ECM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490145

#### 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).
  - ECM
  - Harness connector M117
  - Harness connector B201

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.

ECM harness connector		Resistance (Ω)
Connector No.	Terminal No.	
M107	101                      97	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> Repair the ECM branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the ECM. Refer to [EC-191, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

YES (Present error)>>Replace the ECM. Refer to [EC-20, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement \(GT-R certified NISSAN dealer\)"](#).

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

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

# 4WD BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## 4WD BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490146

#### 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 AWD 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 AWD control unit.
2. Check the resistance between the AWD control unit harness connector terminals.

AWD control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B213	8	16	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AWD control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AWD control unit. Refer to [DLN-20, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AWD control unit. Refer to [DLN-44, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the AWD control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# A-BAG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## A-BAG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490147

#### **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

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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

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Check the air bag diagnosis sensor unit. Refer to [SRC-5, "Work Flow"](#).

Is the inspection result normal?

YES >> Replace the main harness.

NO >> Replace parts whose air bag system has a malfunction.



# BCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## BCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490148

#### 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.		
M122	91	90	Approx. 54 – 66

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 [BCS-41, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the BCM. Refer to [BCS-89, "Exploded View"](#).  
YES (Past error)>>Error was detected in the BCM branch line.  
NO >> Repair the power supply and the ground circuit.

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# E-SUS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## E-SUS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490149

#### 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 E-SUS 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 E-SUS control unit.
2. Check the resistance between the E-SUS control unit harness connector terminals.

E-SUS control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M110	3	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the E-SUS control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the E-SUS control unit. Refer to [SCS-44, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the E-SUS control unit. Refer to [SCS-61, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the E-SUS control unit branch line.  
NO >> Repair the power supply and the ground circuit.

# AV BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## AV BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011812206

#### 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 AV 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 AV control unit.
2. Check the resistance between the AV control unit harness connector terminals.

AV control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M203	90	74	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the AV control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the AV control unit. Refer to [AV-137, "AV CONTROL UNIT : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the AV control unit. Refer to [AV-166, "Exploded View"](#).  
YES (Past error)>>Error was detected in the AV control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# HVAC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## HVAC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490151

#### 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.		
M66	1	2	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 [HAC-59, "A/C AUTO AMP. : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the A/C auto amp. Refer to [HAC-96, "Exploded View"](#).  
YES (Past error)>>Error was detected in the A/C auto amp. branch line.  
NO >> Repair the power supply and the ground circuit.

## M&A BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490152

#### 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.		
M53	21	22	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-68, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the combination meter. Refer to [MWI-113, "Exploded View"](#).  
 YES (Past error)>>Error was detected in the combination meter branch line.  
 NO >> Repair the power supply and the ground circuit.

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# STRG BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## STRG BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490153

#### 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.

Steering angle sensor harness connector			Resistance ( $\Omega$ )
Connector No.	Terminal No.		
M37	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 [BRC-125, "Wiring Diagram - BRAKE CONTROL SYSTEM - \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the steering angle sensor. Refer to [BRC-153, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the steering angle sensor branch line.  
NO >> Repair the power supply and the ground circuit.

# CGW BRANCH LINE CIRCUIT (CAN COMMUNICATION CIRCUIT 1)

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## CGW BRANCH LINE CIRCUIT (CAN COMMUNICATION CIRCUIT 1)

### Diagnosis Procedure

INFOID:000000011490154

#### 1. CHECK DTC

Check DTC of the CAN gateway with CONSULT.

Is U1010 or B2600 indicated?

YES >> Perform a diagnosis of the indicated DTC.

NO >> GO TO 2.

#### 2. 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 CAN gateway for damage, bend and loose connection (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the terminal and connector.

#### 3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of CAN gateway.
2. Check the resistance between the CAN gateway harness connector terminals.

CAN gateway harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M125	1	7	Approx. 54 – 66

Is the measurement value within the specification?

YES >> GO TO 4.

NO >> Repair the CAN gateway branch line (CAN communication circuit 1 side).

#### 4. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the CAN gateway. Refer to [LAN-88. "Diagnosis Procedure"](#).

Is the inspection result normal?

YES (Present error)>>Replace the CAN gateway. Refer to [LAN-89. "Removal and Installation"](#).

YES (Past error)>>Error was detected in the CAN gateway branch line (CAN communication circuit 1 side).

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

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# DLC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## DLC BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490155

#### 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 ( $\Omega$ )
Connector No.	Terminal No.		
M24	6	14	Approx. 54 – 66

Is the measurement value within the specification?

- YES (Present error)>>Diagnose again. Refer to [LAN-15. "Trouble Diagnosis Flow Chart"](#).  
YES (Past error)>>Error was detected in the data link connector branch line circuit.  
NO >> Repair the data link connector branch line.



# TPMS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## TPMS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490156

#### 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 low tire pressure warning 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 low tire pressure warning control unit.
2. Check the resistance between the low tire pressure warning control unit harness connector terminals.

Low tire pressure warning control unit harness connector			Resistance (Ω)
Connector No.	Terminal No.		
M14	2	1	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the low tire pressure warning control unit branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the low tire pressure warning control unit. Refer to [WT-40, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the low tire pressure warning control unit. Refer to [WT-77, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the low tire pressure warning control unit branch line.  
NO >> Repair the power supply and the ground circuit.

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# TCM BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## TCM BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490157

#### 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 TCM 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 TCM.
2. Check the resistance between the TCM harness connector terminals.

TCM harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B45	11	15	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Replace the body harness.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the TCM. Refer to [TM-310, "Description \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the TCM. Refer to [TM-373, "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
YES (Past error)>>Error was detected in the TCM branch line.  
NO >> Repair the power supply and the ground circuit.

# TCU BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## TCU BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490158

#### 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 vehicle data transmitter 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 vehicle data transmitter.
2. Check the resistance between the vehicle data transmitter harness connector terminals.

Vehicle data transmitter harness connector			Resistance (Ω)
Connector No.	Terminal No.		
B72	5	6	Approx. 54 – 66

Is the measurement value within the specification?

- YES >> GO TO 3.  
NO >> Repair the vehicle data transmitter branch line.

#### 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the vehicle data transmitter. Refer to [AV-224, "VEHICLE DATA TRANSMITTER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the vehicle data transmitter. Refer to [AV-229, "Removal and Installation"](#).  
YES (Past error)>>Error was detected in the vehicle data transmitter branch line.  
NO >> Repair the power supply and the ground circuit.

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# ABS BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## ABS BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490159

#### 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) harness connector			Resistance (Ω)
Connector No.	Terminal No.		
E41	30	15	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 [BRC-110. "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the ABS actuator and electric unit (control unit). Refer to [BRC-150. "Exploded View \(GT-R certified NISSAN dealer\)"](#).  
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 DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## IPDM-E BRANCH LINE CIRCUIT

### Diagnosis Procedure

INFOID:000000011490160

#### 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.		
E6	40	39	Approx. 108 – 132

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 [PCS-19, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES (Present error)>>Replace the IPDM E/R. Refer to [PCS-35, "Exploded View"](#).  
YES (Past error)>>Error was detected in the IPDM E/R branch line.  
NO >> Repair the power supply and the ground circuit.

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# CAN COMMUNICATION CIRCUIT 1

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## CAN COMMUNICATION CIRCUIT 1

### Diagnosis Procedure

INFOID:000000011490161

#### 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 circuit 1.
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.		
M24	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		Ground	Continuity
Connector No.	Terminal No.		
M24	6		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 IPDM E/R TERMINATION CIRCUIT

1. Remove the ECM and the IPDM E/R.
2. Check the resistance between the ECM terminals.

ECM		Resistance ( $\Omega$ )
Terminal No.		
101	97	Approx. 108 – 132

3. Check the resistance between the IPDM E/R terminals.

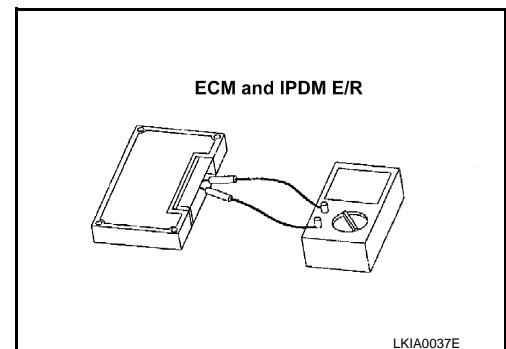
IPDM E/R		Resistance ( $\Omega$ )
Terminal No.		
40	39	Approx. 108 – 132

Is the measurement value within the specification?

- YES >> GO TO 5.  
NO >> Replace the ECM and/or the IPDM E/R.

#### 5. CHECK SYMPTOM

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



# CAN COMMUNICATION CIRCUIT 1

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## 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 circuit 1.

### **NOTE:**

ECM and IPDM E/R 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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# CAN COMMUNICATION CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

## CAN COMMUNICATION CIRCUIT 2

### Diagnosis Procedure

INFOID:000000011490162

#### 1. CHECK DTC

Check DTC of the CAN gateway with CONSULT.

Is U1010 or B2600 indicated?

- YES >> Perform a diagnosis of the indicated DTC.
- NO >> GO TO 2.

#### 2. CONNECTOR INSPECTION

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

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair the terminal and connector.

#### 3. CHECK HARNESS FOR OPEN CIRCUIT

1. Disconnect the connector of CAN gateway.
2. Check the continuity between the CAN gateway harness connector terminals.

CAN gateway harness connector			Continuity
Connector No.	Terminal No.		
M125	4	6	Existed
	10	12	Existed

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Check the harness and repair the root cause.

#### 4. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check the power supply and the ground circuit of the CAN gateway. Refer to [LAN-88, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Repair the power supply and the ground circuit.

#### 5. 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 circuit 2.
4. Check terminals and connectors for damage, bend and loose connection.

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Repair the terminal and connector.

#### 6. CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the CAN gateway harness connector terminals.

CAN gateway harness connector			Continuity
Connector No.	Terminal No.		
M125	4	10	Not existed

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Check the harness and repair the root cause.



## CAN COMMUNICATION CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 2)]

### 7. CHECK HARNESS CONTINUITY (SHORT CIRCUIT)

Check the continuity between the CAN gateway harness connector and the ground.

CAN gateway harness connector		Ground	Continuity
Connector No.	Terminal No.		
M125	4		Not existed
	10		Not existed

Is the inspection result normal?

YES >> GO TO 8.

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

### 8. CHECK CAN GATEWAY TERMINATION CIRCUIT

1. Remove the CAN gateway.
2. Check the resistance between the CAN gateway terminals.

CAN gateway harness connector		Resistance (Ω)
Terminal No.		
4	10	Approx. 108 – 132
6	12	Approx. 108 – 132

Is the measurement value within the specification?

YES >> GO TO 9.

NO >> Replace the CAN gateway.

### 9. 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 10.

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

### 10. 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 circuit 2.

**NOTE:**

CAN gateway has two termination circuits. 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.