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2016 NISSAN 370Z Roadster OEM Service and Repair Workshop Manual

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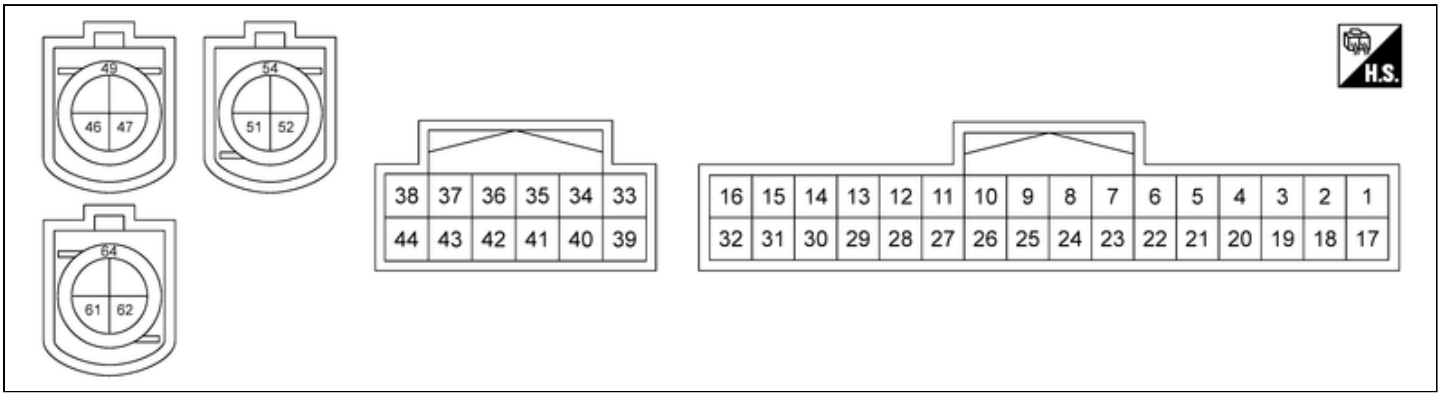
SIEMD-16480117913502

TERMINAL LAYOUT



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PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard	Reference value
+	–	Signal name	Input/ Output			
1 (LA/R)	21 (B) 28 (B)	Battery power supply	Input	Power switch OFF	6 – 16 V	Battery voltage
2 (LA/W)	—	Diagnostic CAN communication-L	Input/ Output	—	—	—
3 (LA/L)	—	Diagnostic CAN communication-H	Input/ Output	—	—	—
4 (LA/W)	—	Diagnostic CAN communication-L	Input/ Output	—	—	—
5 (LA/L)	—	Diagnostic CAN communication-H	Input/ Output	—	—	—
6 (R)	—	Drivetrain CAN communication 2-L	Input/ Output	—	—	—
7 (GR)	—	Drivetrain CAN communication 2-H	Input/ Output	—	—	—
10 (G)	—	Chassis CAN communication 3-L	Input/ Output	—	—	—
11 (GR)	—	Chassis CAN communication 3-H	Input/ Output	—	—	—
15 (L)	—	—	—	—	—	—

Terminal No. (Wire color)		Description		Condition	Standard	Reference value
+	–	Signal name	Input/ Output			
16 (R)	—	—	—	—	—	—
17 (LA/SB)	21 (B) 28 (B)	Power switch ON power supply	Input	Power switch ON	7 – 16 V	Battery voltage
18 (SB)	21 (B) 28 (B)	Accessory power supply	Input	Power switch ACC	7 – 16 V	Battery voltage
19 (LA/SB)	—	IT CAN communication-H	Input/ Output	—	—	—
20 (LA/V)	—	IT CAN communication-L	Input/ Output	—	—	—
21 (B)	Ground	Ground	—	Power switch ON	—	Approx. 0 V
22 (SB)*1 (LA/SB)*2	—	IT CAN communication-H	Input/ Output	—	—	—
23 (V)*1 (LA/V)*2	—	IT CAN communication-L	Input/ Output	—	—	—
28 (B)	Ground	Ground	—	Power switch ON	—	Approx. 0 V
29 (BG)	—	—	—	—	—	—
30 (G)	—	—	—	—	—	—
31 (W)	—	—	—	—	—	—
33 (L)	—	Vehicle CAN communication 3-H	Input/ Output	—	—	—
34 (P)	—	Vehicle CAN communication 3-L	Input/ Output	—	—	—

Terminal No. (Wire color)		Description		Condition	Standard	Reference value
+	–	Signal name	Input/ Output			
37 (BR)	—	ITS CAN communication 4-H	Input/ Output	—	—	—
38 (W)	—	ITS CAN communication 4-L	Input/ Output	—	—	—
43 (P)	—	ITS CAN communication 1-L	Input/ Output	—	—	—
44 (BR)	—	ITS CAN communication 1-H	Input/ Output	—	—	—
46 (Y)	—	Ethernet (+)	—	—	—	—
47 (G)	—	Ethernet (-)	—	—	—	—
49 (Shield)	—	Shield	—	—	—	—
51 (Y)	—	Ethernet (+)	—	—	—	—
52 (G)	—	Ethernet (-)	—	—	—	—
54 (Shield)	—	Shield	—	—	—	—
56 (Y)	—	Ethernet (+)	—	—	—	—
62 (G)	—	Ethernet (-)	—	—	—	—
64 (Shield)	—	Shield	—	—	—	—

*1: With BOSE audio system

*2: Without BOSE audio system

Diagnosis Procedure

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1. CHECK FUSE

Check that the following fuse are not blown.

Signal name	Fuse No.
Battery	18
Power switch ON	3
Power switch ACC or ON	53

Is the fuse blown (open)?

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. Power switch OFF.
2. Disconnect the connector of 8CH CAN gateway.
3. Check voltage between 8CH CAN gateway harness connector and ground.

Terminals			Condition	Voltage (Standard)	Voltage (Reference value)
(+)		(−)			
8CH CAN gateway			Power switch		
Connector	Terminal				
M40	1	Ground	OFF	6 – 16 V	Battery voltage
	17		ON	7 – 16 V	Battery voltage
	18		ACC	7 – 16 V	Battery voltage

Is the measurement value normal?

YES>>

GO TO 3.

NO>>

Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between 8CH CAN gateway harness connector and ground.

8CH CAN gateway		Ground	Continuity
Connector	Terminal		
M40	21		Existed
	28		

Does continuity exist?

YES>>

INSPECTION END

NO>>

Repair harness or connector.

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DTC DETECTION LOGIC

DTC No.	CONSULT screen terms	DTC detected condition	
U2340-87	CAN communication error (ECM)	Diagnosis condition	When power switch is ON.
		Signal (terminal)	CAN communication signal
		Threshold	Lost communication with ECM
		Diagnosis delay time	4 seconds or more

POSSIBLE CAUSE

- Harness or connector

  (CAN communication line)
- 8CH CAN gateway
- ECM malfunction

FAIL-SAFE

System continue normal control.

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1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Power switch ON and wait at least 4 seconds or more.
2. Select “Self Diagnostic Result” mode of “8ch CAN GATEWAY 2” using CONSULT.
3. Check DTC.

Is DTC U2340-87 detected?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Intermittent Incident

NO-2>>

Confirmation after repair: INSPECTION END

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1. PERFORM DTC CONFIRMATION PROCEDURE AGAIN

1. Power switch ON.
2. Erase DTC.
3. Perform DTC confirmation procedure again. Refer to Confirmation Procedure.
4. Check DTC.

Is DTC “U2340-87” detected?

YES>>

Perform trouble diagnosis procedure for CAN communication system. Refer to Trouble Diagnosis Flow Chart.

NO>>

INSPECTION END

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DTC DETECTION LOGIC

DTC No.	CONSULT screen terms	DTC detected condition	
U2343-87	CAN communication error (VCM/HCM)	Diagnosis condition	When power switch is ON.
		Signal (terminal)	CAN communication signal
		Threshold	Lost communication with VCM
		Diagnosis delay time	4 seconds or more

POSSIBLE CAUSE

- Harness or connector

  (CAN communication line)
- 8CH CAN gateway
- VCM malfunction

FAIL-SAFE

System continue normal control.