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2011 NISSAN 370Z OEM Service and Repair Workshop Manual

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YES>>

Replace high voltage junction box. Refer to [HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly](#).

NO>>

INSPECTION END

18. HIGH VOLTAGE JUNCTION BOX COVER INSPECTION-1

Check high voltage junction box cover installation condition visually and tactually.

CAUTION:

When reconnecting the high voltage junction box cover, insert it slowly and directly.

Is the inspection result normal?

YES>>

[GO TO 19.](#)

NO>>

Repair or replace error-detected parts.

19. HIGH VOLTAGE JUNCTION BOX COVER INSPECTION-2

Remove junction box cover and check continuity of the connection detection connector (junction box cover side).

CAUTION:

When reconnecting the high voltage junction box cover, insert it slowly and directly.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts.

20. CHECK VCM POWER SUPPLY CIRCUIT

Check VCM power supply circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES>>

[GO TO 21.](#)

NO>>

Repair or replace error-detected parts.

21. PERFORM CONFIRMATION PROCEDURE AGAIN-2

 With CONSULT

1. Securely reconnect the high voltage harness.

2. Perform DTC confirmation procedure again. Refer to [Confirmation Procedure](#).

Is DTC P1598-96 detected again?

YES>>

Replace VCM. Refer to [VCM : Removal & Installation](#).

NO>>

INSPECTION END

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P168B	73	System main relay	Diagnosis condition	When switching power switch READY⇒OFF (When switching system main relay 1 ON⇒OFF)
			Signal	CAN communication
			Threshold	After system main relay 1 OFF command, the inverter (front) voltage exceeds the specified value
			Detection time	—

POSSIBLE CAUSE

- Harness and connector (System main relay 1 circuit or pre-charge relay circuit)
- System main relay 1
- Pre-charge relay

FAIL-SAFE

- Restart is prohibited
- High-voltage system is normally stopped

1. PRECONDITIONING

1. Press the power switch for at least 2 seconds to turn the high voltage system OFF and then check that the charging status indicator is not illuminated.

**NOTE:**

When the high voltage system is turned ON, the charging status indicator blinks green with a frequency of 1 second.

2. After the high voltage system is turned OFF, open the driver's side door, get out of the vehicle, close the driver's side door and wait for at least 5 minutes.

CAUTION:

- **Since the auto ACC function causes the accessory power to be turned ON, do not perform any vehicle operation including locking the doors or opening and closing of the doors during the standby state.**

If an operation is performed, wait an additional 5 minutes from that time.

- **Check that 12V battery voltage is 11 V or more.**

>>

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2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY and wait at least 10 seconds.
2. Press the power switch for at least 2 seconds to turn the high voltage system OFF and then check that the charging status indicator is not illuminated.
3. Check self-diagnostic result in "EV/HEV".

Is DTC detected?

YES>>

Refer to [DTC Diagnosis Procedure](#).

NO-1>>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2>>

Confirmation after repair: INSPECTION END

1. CHECK DTC PRIORITY

If DTC P168B-73 is displayed with P168A-11, P168A-12, P168A-13, P168D-11, P168D-12, P168D-13, P168E-11, P168E-12 or P168E-13, first perform the trouble diagnosis for P168A-11, P168A-12, P168A-13, P168D-11, P168D-12, P168D-13, P168E-11, P168E-12 or P168E-13.

Is applicable DTC detected?

YES>>

Perform trouble diagnosis for applicable DTC. Refer to [DTC Index](#).

NO>>

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2. CHECK SYSTEM MAIN RELAY DRIVE CIRCUIT VOLTAGE

1. Power switch OFF.
2. Disconnect Li-ion battery harness connector (E9).
3. Power switch ON.
4. Check voltage between Li-ion battery and ground.

+		
Li-ion battery	-	Voltage
Terminal		
19		
26	Ground	More than approximately 10V
33		

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

[GO TO 3](#)

3. CHECK LBC POWER SUPPLY CIRCUIT

Check LBC power supply circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

Check Li-ion battery internal circuit. Refer to [Circuit Diagram](#)(66kWh LI-ION BATTERY), [Circuit Diagram](#)(91kWh LI-ION BATTERY).

NO>>

Repair or replace error-detected parts.

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P168C	72	System main relay	Diagnosis condition	Immediately after vehicle is set to READY (When switching system main relay 2 OFF⇒ON)
			Signal	CAN communication
			Threshold	After system main relay 2 ON command, the inverter (front) voltage is below the specified value
			Detection time	—

POSSIBLE CAUSE

- Harness and connector (System main relay 2 circuit or pre-charge relay circuit)
- System main relay 2
- Pre-charge relay

FAIL-SAFE

High-voltage system is normally stopped

1. PRECONDITIONING

1. Press the power switch for at least 2 seconds to turn the high voltage system OFF and then check that the charging status indicator is not illuminated.

**NOTE:**

When the high voltage system is turned ON, the charging status indicator blinks green with a frequency of 1 second.

2. After the high voltage system is turned OFF, open the driver's side door, get out of the vehicle, close the driver's side door and wait for at least 5 minutes.

CAUTION:

- **Since the auto ACC function causes the accessory power to be turned ON, do not perform any vehicle operation including locking the doors or opening and closing of the doors during the standby state.**

If an operation is performed, wait an additional 5 minutes from that time.

- **Check that 12V battery voltage is 11 V or more.**

>>

[GO TO 2](#) .

2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY and wait at least 10 seconds.
2. Check self-diagnostic result in "EV/HEV".

Is DTC detected?

YES>>

Refer to [DTC Diagnosis Procedure](#).

NO-1>>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2>>

Confirmation after repair: INSPECTION END

1. CHECK DTC PRIORITY

If DTC P168C-72 is displayed with P168A-11, P168A-12, P168A-13, P168D-11, P168D-12, P168D-13, P168E-11, P168E-12 or P168E-13, first perform the trouble diagnosis for P168A-11, P168A-12, P168A-13, P168D-11, P168D-12, P168D-13, P168E-11, P168E-12 or P168E-13.

Is applicable DTC detected?

YES>>

Perform trouble diagnosis for applicable DTC. Refer to [DTC Index](#).

NO>>

[GO TO 2](#)

2. CHECK SYSTEM MAIN RELAY DRIVE CIRCUIT VOLTAGE

1. Power switch OFF.
2. Disconnect Li-ion battery harness connector (E9).
3. Power switch ON.
4. Check voltage between Li-ion battery and ground.

+		
Li-ion battery	-	Voltage
Terminal		
19		
26	Ground	More than approximately 10V
33		

Is the inspection result normal?

YES>>

[GO TO 4](#)

NO>>

[GO TO 3](#)

3. CHECK LBC POWER SUPPLY CIRCUIT

Check LBC power supply circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

Check Li-ion battery internal circuit. Refer to [Circuit Diagram](#)(66kWh LI-ION BATTERY), [Circuit Diagram](#)(91kWh LI-ION BATTERY).

NO>>

Repair or replace error-detected parts.

4. CHECK SYSTEM MAIN RELAY CONTROL CIRCUIT

1. Disconnect VCM harness connector.
2. Check for continuation between Li-ion battery harness connector and VCM harness connector.

+		-		Continuation
Li-ion battery		VCM		
Connector	Terminal	Connector	Terminal	
E9	1	E47	90	Existing
	7		89	
	14		72	

Is the inspection result normal?

YES>>

Replace VCM. Refer to [VCM : Removal & Installation](#).

NO>>

Repair or replace error-detected parts.

Sample