

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2012 NISSAN 370Z Coupe OEM Service and Repair Workshop Manual

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CAUTION:

Since there is a risk that secondary trouble may occur, perform DTC trouble diagnosis before performing confirmation procedure.

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.
2. Perform city driving for about 20 minutes.
3. Stop the vehicle.
4. 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

WARNING:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

WARNING:

- When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.
- When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.
- When performing high voltage system operation, be sure to wear insulating protective equipment.
- During tasks involving high voltage systems, clarify a person in charge of the tasks and do not let others touch the vehicle. When the vehicle is not being serviced, use protective items such as an electric-proof cover sheet for covering the high voltage components so as to keep someone from accidentally touching the vehicle.
- Refer to [HIGH VOLTAGE PRECAUTIONS : Precautions](#).

CAUTION:

- Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.
- When you turned the power switch ON with the service plug removed, be sure to erase all the DTCs after trouble diagnosis.

1. CHECK DTC

1. Power switch ON.
2. Check self-diagnostic result in "HV BATTERY".

Is DTC detected?

YES>>

Perform diagnosis for detected DTC.

NO>>

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2. CHECK LI-ION BATTERY INTERNALLY

1. Remove Li-ion battery. Refer to [Removal & Installation](#)(66kWh LI-ION BATTERY 2WD models), [Removal & Installation](#)(66kWh LI-ION BATTERY AWD models), [Removal & Installation](#)(91kWh LI-ION BATTERY 2WD models), [Removal & Installation](#)(91kWh LI-ION BATTERY AWD models).
2. Check Li-ion battery internally for damages.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Sample

DTC Description

| DTC | | CONSULT screen terms | DTC detecting condition | |
|-------|----|------------------------------|-------------------------|--|
| P15A9 | 24 | Charging device power supply | Diagnosis condition | Except during normal charge connector connection and charging. |
| | | | Signal | AC power source |
| | | | Threshold | When detecting a voltage of 70 V or more, while the vehicle is not charging. |
| | | | Detection time | 6 seconds |

POSSIBLE CAUSE

- Power supply environment (Charging device)
- VCM
- On-board charger

FAIL-SAFE

- Quick charge is prohibited
- Normal charge is prohibited

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 timer charge does not overlap with the inspection time.

CAUTION:

- **Just connect the charge cable, but do not perform charging**
- **When the timer charge is not set, since charging is started as soon as the charge cable is connected, proper procedure cannot be performed.**

2. Erase self-diagnostic result in “EV/HEV” using CONSULT.
3. Connect the charge cable.

**NOTE:**

Use an power supply environment (Charging device) that has been checked to operate normally.

4. Power switch ON and wait at least 10 seconds.
5. Check self-diagnostic result in “EV/HEV” using CONSULT.

Is DTC detected?

YES>>

Refer to [DTC Diagnosis Procedure](#).

NO-1>>

To check malfunction symptom before repair: [GO TO 3.](#)

3. CHECK POWER SUPPLY ENVIRONMENT (CHARGING DEVICE) FUNCTION

**NOTE:**

When DTC is not detected using the power supply environment (charging device) that already checked to work properly, the vehicle does not have a problem but the power supply environment (charging device) itself may have.

 With CONSULT

1. Set the timer charge does not overlap with the inspection time.

CAUTION:

- Just connect the charge cable, but do not perform charging
- When the timer charge is not set, since charging is started as soon as the charge cable is connected, proper procedure cannot be performed.

2. Erase self-diagnostic result in “EV/HEV” using CONSULT.
3. Conduct an interview with the customer and confirm the Power supply environment (Charging device) that could not be charged.

**NOTE:**

When the power supply environment (charging device) that prevented charging is unknown, perform trouble cause simulation test. Refer to [Intermittent Incident](#).

4. Connect the charge cable of the power supply environment (charging device) that cannot charge.
5. Power switch ON and wait at least 10 seconds.
6. Check self-diagnostic result in “EV/HEV” using CONSULT.

Is DTC detected?

YES>>

Check the power supply environment (charging device) that has a problem and perform trouble diagnosis.

NO>>

Perform trouble cause simulation test. Refer to [Intermittent Incident](#).

1. CHECK DTC IN ON-BOARD CHARGER

 With CONSULT

1. Power switch ON.
2. Check self-diagnostic result in “CHARGER/POWER DELIVERY MODULE”.

Is DTC detected?

YES>>

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

NO>>

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2. CHECK DTC IN VCM

 With CONSULT

Check self-diagnostic result in “EV/HEV”.

Is DTC detected?

YES>>

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

NO>>

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3. CHECK CHARGE VOLTAGE SIGNAL

 With CONSULT

1. Set the timer charge does not overlap with the inspection time.

CAUTION:

- Just connect the charge cable, but do not perform charging.
- When the timer charge is not set, since charging is started as soon as the charge cable is connected, proper procedure cannot be performed.

2. Connect the charge cable.



NOTE:

Use an power supply environment (Charging device) that has been checked to operate normally.

3. Select “AC voltage” in “DATA MONITOR MODE” of “CHARGER/POWER DELIVERY MODULE” using CONSULT.
4. Check that the “AC voltage” is 70 V or less.

Is the “AC voltage” 70 V or less?

YES>>

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NO>>

[GO TO 5.](#)

4. PERFORM CONFIRMATION PROCEDURE AGAIN-1

 With CONSULT

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

Is DTC P15A9-24 detected again?

YES>>

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

NO>>

Perform trouble cause simulation test. Refer to [Intermittent Incident](#).

5. PERFORM CONFIRMATION PROCEDURE AGAIN-2

 With CONSULT

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

Is DTC P15A9-24 detected again?

YES>>

Replace on-board charger. Refer to [ON-BOARD CHARGER : Disassembly & Assembly](#).

NO>>

Perform trouble cause simulation test. Refer to [Intermittent Incident](#).

DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detecting condition | |
|-------|----|------------------------------|-------------------------|--|
| P15A9 | 2F | Charging device power supply | Diagnosis condition | During normal charge |
| | | | Signal | EVSE communication |
| | | | Threshold | AC input is lost when EVSE voltage is being detected |
| | | | Detection time | More than 100 seconds |

POSSIBLE CAUSE

- EVSE fuse is open
- EVSE circuit is open
- On-board charger

FAIL-SAFE

Normal charge is prohibited