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2012 NISSAN Qashqai OEM Service and Repair Workshop Manual

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If two or more DTCs are detected, Refer to [DTC Inspection Priority Chart](#), and determine trouble diagnosis order.



NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform "Component Function Check" if "DTC CONFIRMATION PROCEDURE" is not included the corresponding DTC. Although DTC cannot be detected during this check, his simplified check procedure is an effective alternative.

If the result of "Component Function Check" is NG, it is the same as the detection of DTC by "DTC CONFIRMATION PROCEDURE".

Is DTC detected?

YES>>

[GO TO 7.](#)

NO>>

Refer to [Intermittent Incident](#).

6. DETECT MALFUNCTIONING SYSTEM BY "SYMPTOM TABLE"

Based on the confirmed symptom verification result in step 4, identify the place to start the trouble diagnosis based on the possible causes and symptom. Refer to [Symptom Table](#).

Is a malfunctioning part detected?

YES>>

[GO TO 7.](#)

NO>>

Monitor input data from related sensors or check voltage of related VCM terminals using CONSULT. Refer to [Physical Values](#).

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is a malfunctioning part detected?

YES>>

[GO TO 8.](#)

NO>>

Refer to [Intermittent Incident](#).

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is displayed, erase it. Refer to [Diagnosis Description](#).

>>

[GO TO 9.](#)

9. FINAL CHECK

Perform DTC CONFIRMATION PROCEDURE or DTC Component Function Check again, and then check that the malfunction have been completely repaired. When symptom was described from the customer, refer to confirmed symptom in step 4 or 5, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1>>

(DTC is detected): [GO TO 7.](#)

YES-2>>

(Symptom remains): [GO TO 4.](#)

NO>>

Before delivery the vehicle to the customer, always erase DTC.

Sample

DESCRIPTION

There are many operating conditions that lead to the malfunction of EV control system. A good grasp of such conditions can make troubleshooting faster and more accurate.

KEY POINT	
WHAT	Vehicle and parts
WHEN	Date, Frequencies
WHERE	Road conditions
HOW	Operating conditions, Weather conditions, Symptoms

In general, each customer feels differently about symptoms. It is important to fully understand the symptoms or conditions for a customer complaint.

Utilize a diagnostic worksheet like the WORKSHEET SAMPLE below in order to organize all the information for troubleshooting.

**NOTE:**

Some conditions may cause a DTC to be detected.

Diagnostic Work Sheet

DIAGNOSTIC WORKSHEET

Diagnostic worksheet					
Customer name		License plate No.		Date of first registration	
		Model			
Acceptance Date		VIN		Mileage	km (mile)

Question	Group	Information from the customer	
Vehicle condition at malfunction occurrence	R/Q/N/O	<input type="checkbox"/> READY (R) <input type="checkbox"/> Quick charge (Q) <input type="checkbox"/> Normal charge (N) <input type="checkbox"/> Others (O)	
Symptom	R	<input type="checkbox"/> "READY" not enabled <input type="checkbox"/> Poor drivability <input type="checkbox"/> Shock <input type="checkbox"/> Vibration <input type="checkbox"/> Driving impossible <input type="checkbox"/> Noise <input type="checkbox"/> Poor shifting <input type="checkbox"/> Poor braking <input type="checkbox"/> Poor acceleration <input type="checkbox"/> Low electricity consumption <input type="checkbox"/> Switch malfunction <input type="checkbox"/> Warning lamp ON <input type="checkbox"/> Others (_____)	
		Details of symptom	
		Information display indication	
		Electricity consumption	_____ km (mile)/kW
		Li-ion battery remaining energy	_____ / _____
	Q, N	<input type="checkbox"/> Charging unable <input type="checkbox"/> Charging discontinued <input type="checkbox"/> Slow charging <input type="checkbox"/> Poor timer charging <input type="checkbox"/> Poor remote charging <input type="checkbox"/> Immediate charging unable <input type="checkbox"/> Others (_____)	
		Details of symptom	
		Quick charger monitor indication	
	O	<input type="checkbox"/> A/C inoperative <input type="checkbox"/> Poor A/C <input type="checkbox"/> Dead 12V battery <input type="checkbox"/> Others (_____)	
		Details of symptom	
	Location/status of occurrence	R/O	<input type="checkbox"/> Not applicable <input type="checkbox"/> Ordinary road <input type="checkbox"/> Highway <input type="checkbox"/> Mountain pass <input type="checkbox"/> Rough road <input type="checkbox"/> Level road <input type="checkbox"/> Uphill <input type="checkbox"/> Downhill <input type="checkbox"/> Left/right turn <input type="checkbox"/> Others (_____)
		Q/N/O	<input type="checkbox"/> Start of charge <input type="checkbox"/> During charging <input type="checkbox"/> After the end of charging <input type="checkbox"/> During standby of timer charging <input type="checkbox"/> During timer charging <input type="checkbox"/> At the end of timer charging <input type="checkbox"/> During remote charging <input type="checkbox"/> Others (_____)

Question	Group	Information from the customer	
Driving condition	R	<input type="checkbox"/> At the system startup <input type="checkbox"/> During READY (Vehicle stopped) <input type="checkbox"/> At start <input type="checkbox"/> During acceleration <input type="checkbox"/> During driving with a constant speed <input type="checkbox"/> During coasting <input type="checkbox"/> During braking <input type="checkbox"/> Right before stopping <input type="checkbox"/> Right after stopping <input type="checkbox"/> During POWER OFF operation <input type="checkbox"/> A/C ON <input type="checkbox"/> During shift change <input type="checkbox"/> Others (_____)	
		Vehicle speed	_____ km (MPH)
		Accelerator pedal opening angle	_____ /8
Quick charger	Q	Quick charger maker	<input type="checkbox"/> Not applicable <input type="checkbox"/> Applicable (_____)
		Location	_____
		Model number	_____
		Serial number	_____
		Setting	_____
		Others	_____
Wall outlet	N	<input type="checkbox"/> Not applicable <input type="checkbox"/> Applicable	
		Location	_____
		Voltage	_____ V
		Breaker	_____ A
		Other information	_____
Li-ion battery remaining energy	Q/N/O	<input type="checkbox"/> Not applicable <input type="checkbox"/> Applicable (_____)	
Shift position/operation	R	<input type="checkbox"/> P <input type="checkbox"/> R <input type="checkbox"/> N <input type="checkbox"/> D <input type="checkbox"/> ECO <input type="checkbox"/> When operating (_____ ⇒ _____)	
Weather condition		<input type="checkbox"/> Not applicable <input type="checkbox"/> Applicable	
		Weather	_____
		Temperature	_____ °C (or °F)
Occurrence frequency	R/Q/N/O	<input type="checkbox"/> All the time <input type="checkbox"/> Once <input type="checkbox"/> Sometimes (_____ times in the past) <input type="checkbox"/> Others (_____)	
Timing of recovery from malfunction		<input type="checkbox"/> POWER OFF <input type="checkbox"/> Removal of 12V battery terminal <input type="checkbox"/> Shift lever operation <input type="checkbox"/> During driving <input type="checkbox"/> READY <input type="checkbox"/> Others (_____)	

[Memo]

Vehicle specification needs to be written with CONSULT because it is not written after replacing the VCM.

CONSULT connects to network and then it downloads the configuration data from the server. Then CONSULT writes the vehicle specification to the VCM.

**NOTE:**

For details the operation, refer to “CONSULT Operation Manual”.

When replacing VCM, the following procedure must be performed.

- Replace ECU
- Write VIN data
- MAC key writing
- Accelerator pedal released position learning

CAUTION:

When replacing the VCM, always replace it with a new one. The functions controlled by the VCM does not operate properly in case of reuse of the VCM from another vehicle.

Sample

1. WRITING VEHICLE SPECIFICATION

 With CONSULT

Perform writing vehicle specification to VCM according to "Replace ECU" in CONSULT Operation Manual.

>>

[GO TO 2.](#)

2. WRITE VIN DATA

Refer to [Work Procedure](#).

>>

[GO TO 3.](#)

3. WRITE MAC KEY

Refer to [Work Procedure](#).

>>

[GO TO 4.](#)

4. LEARN ACCELERATOR PEDAL RELEASED POSITION

Refer to [Work Procedure](#).

>>

[GO TO 5.](#)

5. CHECK DTC

1. Turn OFF high voltage system by pushing power switch for two seconds or longer, and check that charge indicator is turned OFF.



NOTE:

When high voltage system is ON, charge indicator flashes green every second.

2. After turning OFF the high voltage system, open driver's door, get out vehicle, close driver's door, and wait for 5 minutes or more.

CAUTION:

- Since the accessory power is turned ON by the auto ACC function, never operate the vehicle such as door lock operation or door open/close during standby.

If operating the vehicle, wait for least 5 minutes from that point.

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

3. Power switch ON

4. Check DTC. If DTC is not detected, erase DTC.

>>

END

Sample

Description

VIN Registration is an operation to register the VIN in VCM. (For details, refer to [Work Procedure.](#))

Sample