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2010 NISSAN Patrol LWB OEM Service and Repair Workshop Manual

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PRECAUTIONS FOR SUPPLEMENTAL RESTRAINT SYSTEM (SRS) AIR BAG AND SEAT BELT PRE-TENSIONER: Precautions

RDE-001931877

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.

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, it is recommended that all maintenance and repair be performed by
 an authorized NISSAN/INFINITI dealer.
- Improper repair, 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/power switch 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/power switch OFF, disconnect the 12V battery or batteries, and wait at least 3 minutes before performing any service.

	Tool name	Usage		
Insulated rubber gloves	RDE-001888438-01-MCIA0149ZZ	Removing and installing high voltage components NOTE: For low voltage work up to 600 V		
Leather gloves	RDE-001888438-02-PCIA0066ZZ	Insulated rubber gloves protection		
Insulated safety shoes	RDE-001888438-03-PCIA0011ZZ	Removing and installing high voltage components NOTE: Withstand voltage: 500 V		
Face shield	RDE-001888438-07-PCIA0167ZZ	 Removing and installing high voltage components To protect face from the spatter on the work to electric line [Comply with EN166.] 		
Insulated helmet	RDE-001888438-05-PCIA0013ZZ	Removing and installing high voltage components NOTE: Withstand voltage: 500 V		
Insulated circuit tester	RDE-001888438-06-PCIA0014ZZ	Measuring insulated resistance, voltage, and equipotential NOTE: $Voltage: DC/AC\ 0\ V-600\ V$ Insulated resistance: 500 V / 2000 MQ Resistance resolution: 0.001 Q		

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition		
			Diagnosis condition	Always	
P3101	P3101 61 V	VCM	Signal	_	
P3101 01 V	V CIVI	Threshold	An internal error in the VCM is detected		
			Detection time	—	

POSSIBLE CAUSE

VCM

FAIL-SAFE

Traction motor output is cut



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.



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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GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- (I) With CONSULT
 - 1. Power switch ON 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. PERFORM CONFIRMATION PROCEDURE AGAIN

(E) With CONSULT

- 1. Erase DTC.
- 2. Perform DTC confirmation procedure again. Refer to Confirmation Procedure.

Is DTC P3101-61 detected again?

YES>>

Replace VCM. Refer to <u>VCM</u>: Removal & Installation.

NO>>

INSPECTION END



DTC DETECTION LOGIC

DTC CONSULT scr		CONSULT screen terms		DTC detecting condition		
			1	Diagnosis condition	Power switch ON	
		VCM		Signal	CAN communication	
				Threshold	A VCM internal torque calculation error is detected	
				Detection time	More than 10 seconds	
			2	Diagnosis condition	Always	
P3101	62			Signal	—	
F 5101	P3101 62			Threshold	A VCM internal error is detected	
				Detection time	More than 10 seconds	
			3 -	Diagnosis condition	Always	
				Signal	_	
				Threshold	Externally required torque up becomes more than the standard	
				Detection time	More than 0.2 seconds	

POSSIBLE CAUSE

VCM

FAIL-SAFE

• Type 1

Traction motor output is cut or not applicable

• Type 2 and 3

Traction motor output is cut

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.



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

- (I) With CONSULT
 - 1. Power switch ON 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. PERFORM CONFIRMATION PROCEDURE AGAIN

(E) With CONSULT

- 1. Erase DTC.
- 2. Perform DTC confirmation procedure again. Refer to Confirmation Procedure.

Is DTC P3101-62 detected again?

YES>>

Replace VCM. Refer to <u>VCM</u>: Removal & Installation.

NO>>

INSPECTION END



DTC DETECTION LOGIC

With ProPILOT Assist

DTC		CONSULT screen terms	DTC detecting condition			
			Diagnosis condition	Power switch ON		
P1564 00	ACCD or stark	Signal	ProPILOT Assist steering switch			
	00	ASCD switch	Threshold	When an input signal from the ProPILOT Assist steering switch is abnormal		
			Detection time	_		

With ProPILOT Assist 2.0

DTC		CONSULT screen terms	DTC detecting condition			
			Diagnosis condition	Power switch ON		
P1564 00	ACCD 't-l	Signal	ProPILOT Assist 2.0 steering switch			
	ASCD switch	Threshold	When an input signal from the ProPILOT Assist 2.0 steering switch is abnormal			
			Detection time			

POSSIBLE CAUSE

With ProPILOT Assist

- Harness and connector (The steering switch circuit is open or shorted)
- ProPILOT Assist steering switch
- VCM

With ProPILOT Assist 2.0

- Harness and connector (The steering switch circuit is open or shorted)
- ProPILOT Assist 2.0 steering switch
- VCM

FAIL-SAFE

With ProPILOT Assist

Not applicable

With ProPILOT Assist 2.0

Not applicable