

Your Ultimate Source for OEM Repair Manuals

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2015 NISSAN Terrano OEM Service and Repair Workshop Manual

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1. PRECONDITIONING

If another DTC “Confirmation Procedure” was performed immediately before this task, make sure to OFF the power switch, exit the vehicle and close all doors (including the back door), and wait for at least 60 seconds until the combination meter OFF before starting the next test.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. If operating it, results in the activation of ACC power supply according to the auto ACC function.

**NOTE:**

After the power switch OFF, there is time needed for data writing by the electric shift control module.

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2. CHECK FOR DTC DETECTION

 With CONSULT

1. Set the vehicle to READY.
2. Press the P position switch to shift to the P position and wait for at least 5 seconds. (Press the P position for at least 1 second.)
3. Perform self-diagnosis for “SHIFT”.
 - If more than one DTC is detected, also perform diagnosis based on the DTC Inspection Priority Chart (Refer to [DTC Inspection Priority Chart](#)).

Is “P0852-00” detect?

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 P POSITION SWITCH INPUT VOLTAGE

With CONSULT

1. Set the vehicle to READY.
2. Select "Data Monitor" in "SHIFT".
3. Select "P position switch 1 voltage" and "P position switch 2 voltage".
4. Operate the P position switch and measure the input voltage to the electric shift control module.

CAUTION:

Perform the operation safely with the wheels blocked, the brake pedal depressed, and the vehicle stopped.

Monitor item	Condition	Value/Status
P position switch 1 voltage	P position switch: Pressed	1.1 - 2.1 V
	P position switch: Released	2.7 - 3.2 V
P position switch 2 voltage	P position switch: Pressed	2.7 - 3.2 V
	P position switch: Released	1.1 - 2.1 V

Without CONSULT

1. Set the vehicle to READY.
2. Operate the P position switch and check the voltage between electric shift control module harness connector and ground.

CAUTION:

Perform the operation safely with the wheels blocked, the brake pedal depressed, and the vehicle stopped.

P position switch	+		-	Condition	Voltage
	Electric shift control module				
	Connector	Terminal			
No.1	M203	46	Ground	P position switch: Pressed	1.4 - 2.0 V
				P position switch: Released	2.8 - 3.2 V
No.2		47		P position switch: Pressed	2.8 - 3.2 V
				P position switch: Released	1.4 - 2.0 V



NOTE:

There may be a difference between the value measured with a circuit tester and the CONSULT monitor value.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

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2. P POSITION SWITCH POWER SUPPLY INSPECTION

1. Power switch ON.
2. Check the voltage between electric shift selector harness connector and ground.

+		-	Voltage
Electric shift selector			
Connector	Terminal		
M200	1	Ground	Approx. 5 V
	13		

Is the inspection result normal?

YES>>

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NO>>

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3. CHECK THE VOLTAGE OF P POSITION SWITCH POWER SUPPLY CIRCUIT

1. Power switch OFF.
2. Disconnect electric shift selector harness connector.
3. Disconnect electric shift control module harness connector.
4. Power switch ON.
5. Check the voltage between electric shift control module harness connector and ground.

+		-	Voltage
Electric shift control module			
Connector	Terminal		
M202	19	Ground	Approx. 0 V
M203	48		

6. Power switch OFF.
7. Check the continuity between electric shift control module harness connector terminals.

Electric shift control module				Continuity
Connector	Terminal	Connector	Terminal	
M202	19	M202	Except 19	Not existed
M203	48	M203	Except 48	

Is the inspection result normal?

YES>>

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NO>>

Repair or replace the error-detected parts.

4. CHECK THE CIRCUIT BETWEEN ELECTRIC SHIFT CONTROL MODULE AND P POSITION SWITCH (SENSOR POWER CIRCUIT)

1. Check the continuity between electric shift control module harness connector and electric shift selector harness connector.

Electric shift control module		Electric shift selector		Continuity
Connector	Terminal	Connector	Terminal	
M202	19	M200	1	Existed
M203	48		13	

2. Check the continuity between electric shift control module harness connector and ground.

Electric shift control module		—	Continuity
Connector	Terminal		
M202	19	Ground	Not existed
M203	48		

Is the inspection result normal?

YES>>

Replace electric shift control module. Refer to [ELECTRIC SHIFT CONTROL MODULE : Removal & Installation](#).

NO>>

Repair or replace the error-detected parts.

5. CHECK P POSITION SWITCH SENSOR GROUND CIRCUIT

1. Power switch OFF.
2. Disconnect electric shift selector harness connector.
3. Disconnect electric shift control module harness connector.
4. Check the continuity between electric shift control module harness connector and electric shift selector harness connector.

Electric shift control module		Electric shift selector		Continuity
Connector	Terminal	Connector	Terminal	
M203	41	M200	12	Existed
	50		24	

5. Check the continuity between electric shift control module harness connector and ground.

Electric shift control module		—	Continuity
Connector	Terminal		
M203	41	Ground	Not existed
	50		

Is the inspection result normal?

YES>>

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NO>>

6. CHECK THE VOLTAGE OF P POSITION SWITCH SIGNAL CIRCUIT

1. Power switch ON.
2. Check the voltage between electric shift control module harness connector and ground.

P position switch	+		-	Voltage
	Electric shift control module			
	Connector	Terminal		
No.1	M203	46	Ground	Approx. 0 V
No.2		47		

3. Power switch OFF.
4. Check the continuity between electric shift control module harness connector terminals.

P position switch	Electric shift control module				Continuity
	Connector	Terminal	Connector	Terminal	
No.1	M203	46	M203	Except 46	Not existed
No.2		47		Except 47	

Is the inspection result normal?

YES>>

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NO>>

Repair or replace the error-detected parts.

7. CHECK THE CIRCUIT BETWEEN ELECTRIC SHIFT CONTROL MODULE AND P POSITION SWITCH (SWITCH SIGNAL CIRCUIT)

1. Check the continuity between electric shift control module harness connector and electric shift selector harness connector.

P position switch	Electric shift control module		Electric shift selector		Continuity
	Connector	Terminal	Connector	Terminal	
No.1	M203	46	M200	6	Existed
No.2		47		18	

2. Check the continuity between electric shift control module harness connector and ground.

P position switch	Electric shift control module		—	Continuity
	Connector	Terminal		
No.1	M203	46	Ground	Not existed
No.2		47		

Is the inspection result normal?

YES>>


Due to the malfunction of the P position switch, replace the electric shift selector. Refer to [ELECTRIC SHIFT SELECTOR : Removal & Installation](#).

NO>>

Repair or replace the error-detected parts.

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detection condition	
P272A	00	Motor Driver Circuit	Diagnosis condition	Power switch ON
			Signal (terminal)	Parking actuator control signal (U-phase, V-phase, W-phase)
			Threshold	Although all phases (U-phase, V-phase, W-phase) of the parking actuator control signal are de-energized, 1 of the phases is energized.  NOTE: Energized: Approx. 0 V De-energized: 9 - 16 V
			Diagnosis delay time	—

POSSIBLE CAUSE

- Parking actuator relay (OFF stuck)
- Motor coil
(Parking actuator)
- Electric shift control module
- Harness or connectors
(Open of each circuit or ground short-circuit)

FAIL-SAFE

- In case of malfunction in the P position: Shifting from the P position to any other position is prohibited.
- In case of malfunction in a position other than the P position: Shifting to the P position is prohibited.

1. PRECONDITIONING

If another DTC “Confirmation Procedure” was performed immediately before this task, make sure to OFF the power switch, exit the vehicle and close all doors (including the back door), and wait for at least 60 seconds until the combination meter OFF before starting the next test.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. If operating it, results in the activation of ACC power supply according to the auto ACC function.

**NOTE:**

After the power switch OFF, there is time needed for data writing by the electric shift control module.

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2. CHECK FOR DTC DETECTION

 With CONSULT

1. Set the power switch to ON and wait at least 2 seconds.
2. Perform self-diagnosis for “SHIFT”.
 - If more than one DTC is detected, also perform diagnosis based on the DTC Inspection Priority Chart (Refer to [DTC Inspection Priority Chart](#)).

Is “P272A-00” 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 THE CIRCUIT BETWEEN THE ELECTRIC SHIFT CONTROL MODULE AND MOTOR COIL

1. Power switch OFF.
2. Disconnect electric shift control module harness connector.
3. Disconnect the parking actuator harness connector.
4. Check the continuity between electric shift control module harness connector and parking actuator harness connector.

Electric shift control module		Parking actuator		Continuity
Connector	Terminal	Connector	Terminal	
M203	27	F15	1	Existed
	28		6	
	29		7	

5. Check the continuity between electric shift control module harness connector and ground.

Electric shift control module		—	Continuity
Connector	Terminal		
M203	27	Ground	Not existed
	28		
	29		

Is the inspection result normal?

YES>>

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NO>>

Repair or replace the error-detected parts.

2. PARKING ACTUATOR RELAY INSPECTION

1. Power switch OFF.
2. Remove the parking actuator relay.
3. Check parking actuator relay. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

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NO>>

Replace parking actuator relay.

3. CHECK THE CIRCUIT BETWEEN THE PARKING ACTUATOR RELAY AND 12V BATTERY