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2015 NISSAN Pulsar OEM Service and Repair Workshop Manual

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+			
Electric shift con	ntrol module	-	Voltage
Connector	nector Terminal		
	27		
M203	28	Ground	Approx. 0 V
	29		

<u>Is the inspection result normal?</u>

YES>>

GO TO 4.

NO>>

Repair or replace the error-detected parts.

4. PARKING ACTUATOR RELAY INSPECTION

Check parking actuator relay. Refer to Component Inspection.

Is the inspection result normal?

YES>>

Replace electric shift control module. Refer to ELECTRIC SHIFT CONTROL MODULE: Removal & Installation.

NO>>

Replace parking actuator relay.

DTC DETECTION LOGIC

DTC	,	CONSULT screen terms	DTC detection condition	
			Diagnosis condition	Power switch ON
P18B4	00	Park Status	Signal (terminal)	Current position signal
F 10D4	00	raik Status	Threshold	There is an error in the calculation results of the electric shift control module and an error value was detected in circuit board component.
			Diagnosis delay time	3 seconds or more

POSSIBLE CAUSE

- Actuator position learning incomplete
- Electric shift control module

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.



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

>>

GO TO 2.

2. CHECK FOR DTC DETECTION

(II)With CONSULT

- 1. Set the power switch to ON and wait at least 3 seconds.
- 2. Set the vehicle to READY.
- 3. 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.)
- 4. Operate the selector lever as follows. (Keep the selector lever at each shift position for at least 3 seconds.)

CAUTION:

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

$$\bullet \quad H \ \rightarrow \ N \ \rightarrow \ R \ \rightarrow \ N \ \rightarrow \ D \ \rightarrow \ N \ \rightarrow \ H$$

- 5. Set the power switch to OFF and wait at least 60 seconds.
- 6. Set the power switch to ON again.
- 7. Perform self-diagnosis for "SHIFT".
 - If more than one DTC is detected, also perform diagnosis based on the DTC Inspection Priority Chart (Refer to <u>DTC Inspection Priority Chart.</u>).

Is "P18B4-00" 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. REPLACEMENT OF THE ELECTRIC SHIFT CONTROL MODULE

 $Replace\ electric\ shift\ control\ module.\ Refer\ to\ \underline{ELECTRIC\ SHIFT\ CONTROL\ MODULE\ :\ Removal\ \&\ Installation}.$

>>

END



DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detection condition	
			Diagnosis condition	When parking actuator is driven.
			Signal (terminal)	Parking actuator control signal
P1897	00	Encoder	Threshold	Even when the electric shift control module drives the parking actuator, the encoder signal is not outputted.
			Diagnosis delay time	_

POSSIBLE CAUSE

• Encoder

(Parking actuator)

- Electric shift control module
- Harness or connectors

(Open or short-circuit of the harness of each 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.



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

>>

GO TO 2.

2. CHECK FOR DTC DETECTION

(II)With CONSULT

- 1. Set the vehicle to READY.
- 2. Shift the selector lever to the N position and wait for at least 10 seconds.

CAUTION:

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

- 3. Press the P position switch to shift to the P position and wait for at least 10 seconds.
- 4. 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 "P1897-00" 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. ENCODER POWER SUPPLY INSPECTION

- 1. Power switch OFF.
- 2. Disconnect the parking actuator harness connector.
- 3. Power switch ON.
- 4. Check the voltage between parking actuator harness connector and ground.

+			
Parking actuator		-	Voltage
Connector	Terminal		
F15	9	Ground	Approx. 5 V

Is the inspection result normal?

YES>>

GO TO 2.

NO>>

GO TO 3.

2. CHECK THE CIRCUIT BETWEEN THE ELECTRIC SHIFT CONTROL MODULE AND ENCODER (SIGNAL)

- 1. Power switch OFF.
- 2. Disconnect electric shift control module harness connector.
- 3. 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	Continuity
	15		5	
M202	23	F15	8	Existed
	24		3	

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

Electric shift co	ntrol module		Continuity	
Connector	Terminal	_	Continuity	
	15			
M202	23	Ground Not existe	Not existed	
	24			

Is the inspection result normal?

YES>>

Replace reduction gear due to the malfunction of encoder (in parking actuator). Refer to <u>REDUCTION GEAR</u>: <u>Unit Removal & Installation</u>.

Repair or replace the error-detected parts.

3. CHECK THE CIRCUIT BETWEEN THE ELECTRIC SHIFT CONTROL MODULE AND ENCODER (POWER)

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

Electric shift co	ntrol module	Parking a	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M202	16	F15	9	Existed

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

Electric shift control module			Continuity
Connector	Terminal		Continuity
M202	16	Ground	Not existed

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.

DTC DETECTION LOGIC

DTC	,	CONSULT screen terms	DTC detection condition		DTC detection condition	
			Diagnosis condition	Power switch ON		
			Signal (terminal)	_		
P0606	00	Control Module	Threshold	An error was detected in program processing by the electric shift control module.		
			Diagnosis delay time	_		

POSSIBLE CAUSE

Electric shift control module internal error (FLOW error)

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.

