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2015 NISSAN Primera Sedan OEM Service and Repair Workshop Manual

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Monitor item (Unit)		Remarks
		Type 7: Error other than types 1 - 5
Ignition power supply		Displays the power supply state based on the power switch ON signal.
GADE		Displayed but not used.
Power supply voltage	(V)	Displays the 12V power supply voltage that is input into the electric shift control module.
Travel distance	(km or mile)	Displays the total mileage (odometer value) when the DTC was detected.  NOTE: This is a duplicated display with the “ODO/TRIP METER” display, however the value may be different.
Target shift position		Displays the target shift position which is recognized by the electric shift control module.
Actual shift position		Displays the shift position which is recognized by the electric shift control module.
Parking actuator relay		Displays the instruction state sent from the electric shift control module to the parking actuator relay.
Park lock state		Displays the status of the parking mechanism.
Ignition signal		Displays the input status of the power switch signal.
ECU control mode		Displays the system control status that was judged by the electric shift control module.
Motor drive mode 1		Displays the motor driving status of the parking actuator (when normal).
CPU reset		Displays whether or not the data inside the electric shift control module is reset when shift change occurs.
Motor drive mode 2		Displays the motor driving status of the parking actuator (when encoder provisional error was detected).
U voltage	(V)	Displays the A/D conversion value for the motor U-phase terminal voltage.
V voltage	(V)	Displays the A/D conversion value for the motor V-phase terminal voltage.
W voltage	(V)	Displays the A/D conversion value for the motor W-phase terminal voltage.
Power supply voltage (after filter)	(V)	Monitors the main power voltage value of the electric shift control module and displays the monitor value.
Motor control mode		Displays the motor control state inside the parking actuator.
Target park lock/unlock counter value	(count)	Displays the target count value of the parking actuator.
Current park lock/unlock counter value	(count)	Displays the encoder count value after parking actuator activation.
Current monitor	(A)	Displays the parking actuator electrical current value during wall contact control.
Current monitor (resistor diagnosis)	(A)	Displays the parking actuator electrical current value when diagnosis of the current detection circuit is performed.
Encoder temporary error flag		Displays the encoder provisional error status inside the parking actuator.
Record counter	(count)	Displays the malfunction detection count.

DATA MONITOR



NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item (Unit)		Remarks
Lever position 1		Displays that the selector lever is in the R position.
Lever position 2		Displays that the selector lever is in the Nr position.
Lever position 3		Displays that the selector lever is in the H position.
Lever position 4		Displays that the selector lever is in the Nd position.
Lever position 5		Displays that the selector lever is in the D/B position.
P position 1		Displays the operating status of the P position switch.
System error type		Displays the malfunction type when a malfunction occurred in the system. Type 1: Shift input system error Type 2: Parking actuator system error Type 3: Internal error of electric shift control module Type 4: P position switch input error Type 5: Parking actuator heating protection state Type 6: — Type 7: Error other than types 1 - 5
Ignition power supply		Displays the power supply state based on the power switch ON signal.
GADE		Displayed but not used.
Power supply voltage	(V)	Displays the 12V power supply voltage that is input into the electric shift control module.
Travel distance	(km or mile)	Displays the total mileage (odometer value).
Target shift position		Displays the target shift position which is recognized by the electric shift control module.
Actual shift position		Displays the shift position which is recognized by the electric shift control module.
Parking actuator relay		Displays the instruction state sent from the electric shift control module to the parking actuator relay.
Park lock state		Displays the status of the parking mechanism.
Shift sensor 1		Displays the signal status of the electric shift sensor No.1.
Shift sensor 2		Displays the signal status of the electric shift sensor No.2.
Shift sensor 3		Displays the signal status of the electric shift sensor No.3.
Shift sensor 4		Displays the signal status of the electric shift sensor No.4.
Shift sensor 5		Displays the signal status of the electric shift sensor No.5.
Shift sensor 6		Displays the signal status of the electric shift sensor No.6.
Shift sensor 7		Displays the signal status of the electric shift sensor No.7.
Shift sensor 8		Displays the signal status of the electric shift sensor No.8.
P position switch signal		Displays the signal status of P position switch No.1 and No.2.
Ignition signal		Displays the input status of the power switch signal.
Range shift inhibit		Displays the status of shift operation inhibition due to low voltage.
Shifter error status		Display the malfunction status of the electric shift sensors.

Monitor item (Unit)		Remarks
ECU control mode		Displays the system control status that was judged by the electric shift control module.
Motor control stop request		Displays the motor control stop request inside the parking actuator.
Open control request		Displays the motor activation request when an encoder provisional error is detected.
Parking actuator relay OFF request		Displays the OFF request status for the parking actuator relay.
Shift sensor 1 voltage	(V)	Displays the voltage value of electric shift sensor No.1.
Shift sensor 2 voltage	(V)	Displays the voltage value of electric shift sensor No.2.
Shift sensor 3 voltage	(V)	Displays the voltage value of electric shift sensor No.3.
Shift sensor 4 voltage	(V)	Displays the voltage value of electric shift sensor No.4.
Shift sensor 5 voltage	(V)	Displays the voltage value of electric shift sensor No.5.
Shift sensor 6 voltage	(V)	Displays the voltage value of electric shift sensor No.6.
Shift sensor 7 voltage	(V)	Displays the voltage value of electric shift sensor No.7.
Shift sensor 8 voltage	(V)	Displays the voltage value of electric shift sensor No.8.
P position switch 1 voltage	(V)	Displays the voltage value of P position switch No.1.
P position switch 2 voltage	(V)	Displays the voltage value of P position switch No.2.
Motor drive mode 1		Displays the motor driving status of the parking actuator (when normal).
Parking actuator working refusal		Displays the operation rejection status for the parking actuator.
CPU reset		Displays whether or not the data inside the electric shift control module is reset when shift change occurs.
Motor drive mode 2		Displays the motor driving status of the parking actuator (when encoder provisional error was detected).
U voltage	(V)	Displays the A/D conversion value for the motor U-phase terminal voltage.
V voltage	(V)	Displays the A/D conversion value for the motor V-phase terminal voltage.
W voltage	(V)	Displays the A/D conversion value for the motor W-phase terminal voltage.
Power supply voltage (after filter)	(V)	Monitors the main power voltage value of the electric shift control module and displays the monitor value.
Motor control mode		Displays the motor control state inside the parking actuator.
Current monitor	(A)	Displays the parking actuator electrical current value during wall contact control.
Current monitor (resistor diagnosis)	(A)	Displays the parking actuator electrical current value when diagnosis of the current detection circuit is performed.
Encoder temporary error flag		Displays the encoder provisional error status inside the parking actuator.

WORK SUPPORT

Item	Usage
ACTUATOR LERNING VALUE ELIMINATION	Erases the learned parking actuator P position.

ECU IDENTIFICATION

Part number of electric shift control module can be read.

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detection condition	
P1893	00	ASIC	Diagnosis condition	Power switch ON
			Signal (terminal)	—
			Threshold	When an error is detected in the electric shift control module.
			Diagnosis delay time	—

POSSIBLE CAUSE

Electric shift control module (ASIC error)

FAIL-SAFE

No impact to vehicle behavior

Sample

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. Power switch from OFF to ON and wait 2 seconds or more.
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 “P1893-00” 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 [ELECTRIC SHIFT CONTROL MODULE : Removal & Installation](#).

>>

END

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detection condition	
P18AC	00	Parking Actuator Relay	Diagnosis condition	Power switch ON
			Signal (terminal)	Motor coil (U-phase, V-phase, W-phase) signal
			Threshold	In spite of the OFF instruction state of parking actuator relay, voltage was detected from all phases of motor coil (U-phase, V-phase, and W-phase).
			Diagnosis delay time	—

POSSIBLE CAUSE

- Parking actuator relay (ON stuck)
- Electric shift control module
- Wiring harness (short-circuit)

FAIL-SAFE

No impact to vehicle behavior

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 “P18AC-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 ELECTRIC SHIFT CONTROL MODULE AND PARKING ACTUATOR RELAY

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

Parking actuator relay		—	Continuity
Connector	Terminal		
E105	2	Ground	Not existed

Is the inspection result normal?

YES>>

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NO>>

Repair or replace the error-detected parts.

2. CHECK THE CIRCUIT BETWEEN PARKING ACTUATOR AND PARKING ACTUATOR RELAY

1. Disconnect the parking actuator harness connector.
2. Check the voltage between parking actuator harness connector and ground.

+		-	Voltage
Parking actuator			
Connector	Terminal		
F15	2	Ground	Approx. 0 V

Is the inspection result normal?

YES>>

[GO TO 3.](#)

NO>>

Repair or replace the error-detected parts.

3. CHECK THE CIRCUIT BETWEEN THE ELECTRIC SHIFT CONTROL MODULE AND PARKING ACTUATOR

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