Back Door Lock Latch Switch Circuit

DESCRIPTION

The full latch switch and half latch switch are built into the back door lock assembly. The full latch switch detects when the latch is not completely engaged. This switch turns on when the back door is open or the latch is not completely engaged. The half latch switch detects when the latch is completely engaged. This switch turns on when the latch is in the overstroke position.

The power back door ECU is connected to the back door lock assembly via terminals FUL and HAF, and latch position signals are input to the ECU.

The power back door ECU applies voltage to terminal 2 of the back door lock assembly via terminal FUL. When the full latch switch is on (there is continuity between the switch terminals), a half-engaged state signal is input to the ECU. When the switch is off (there is no continuity between the switch terminals), a state signal other than a half-engaged state is input.

The power back door ECU applies voltage to terminal 3 of the back door lock assembly via terminal HAF. When the half latch switch is on (there is continuity between the switch terminals), an engaged state signal is input to the ECU. When the switch is off (there is no continuity between the switch terminals), a state signal other than an engaged state is input.

NOTICE:
The power back door ECU records the back door positions in the memory. In the case where any of the batteries, fuses, power back door ECU and power back door drive unit are removed and then reinstalled, the power back door ECU loses the memory of the door positions. In such a case, resetting the power back door system is necessary. Refer to the resetting operation (See page ED-33).

WIRING DIAGRAM

B109780E04
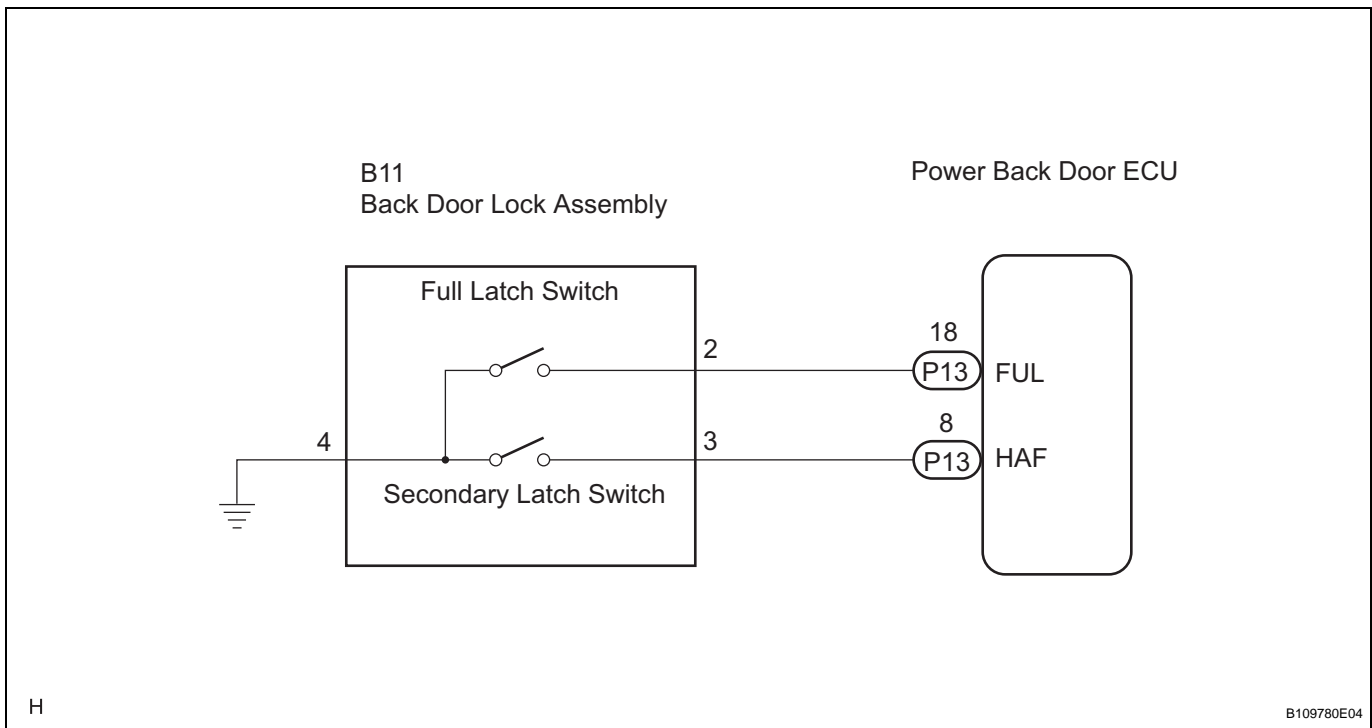
1	INSPECT BACK DOOR LOCK ASSEMBLY
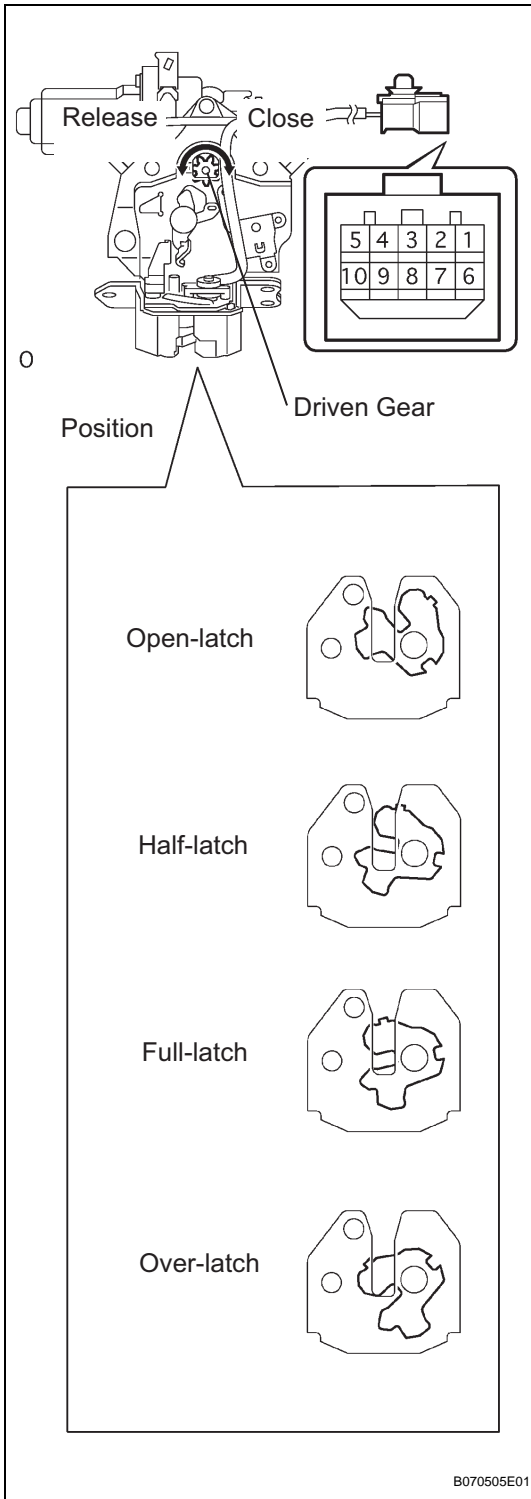
(a) Remove the back door lock assembly.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance:
(Full-latch switch)

Tester Connection	Door Lock Latch Position	Specified Condition
2 - 4	Open-latch	10 kΩ or higher
2 - 4	Half-latch	10 kΩ or higher
2 - 4	Full-latch	10 kΩ or higher
2 - 4	Over-latch	Below 1 Ω

(Half-latch switch)

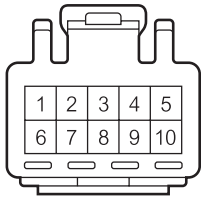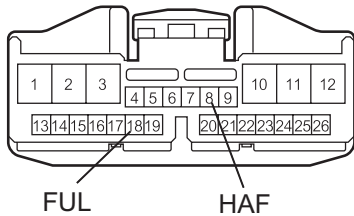| Tester Connection	Door Lock Latch Position	Specified Condition
3 - 4	Open-latch	Below 1 Ω
3 - 4	Half-latch	10 kΩ or higher
3 - 4	Full-latch	10 kΩ or higher
3 - 4	Over-latch	10 kΩ or higher

NG	REPLACE BACK DOOR LOCK ASSEMBLY

Release   Close

5 4 3 2 1
10 9 8 7 6

0

Position

Driven Gear

Open-latch

Half-latch

Full-latch

Over-latch

B070505E01

OK

ED

| 2 | CHECK WIRE HARNESS (BACK DOOR LOCK ASSEMBLY - POWER BACK DOOR ECU) |

Wire Harness Side:

B11
Back Door Lock Assembly

```
1  2  3  4  5
6  7  8  9  10
```

P13
Power Back Door ECU

```
1  2  3   4 5 6 7 8 9   10 11 12
13 14 15 16 17 18 19   20 21 22 23 24 25 26
```

FUL   HAF

H   B111702E04

(a) Disconnect the back door lock assembly connector.
(b) Disconnect the power back door ECU connector.
(c) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
B11-2 - P13-18 (FUL)	**Always**	**Below 1 Ω**
B11-3 - P13-8 (HAF)	**Always**	**Below 1 Ω**
B11-4 - Body ground	**Always**	**Below 1 Ω**

| NG > | **REPAIR OR REPLACE HARNESS OR CONNECTOR** |

| OK |

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

ED