MAZDA 5 J74G

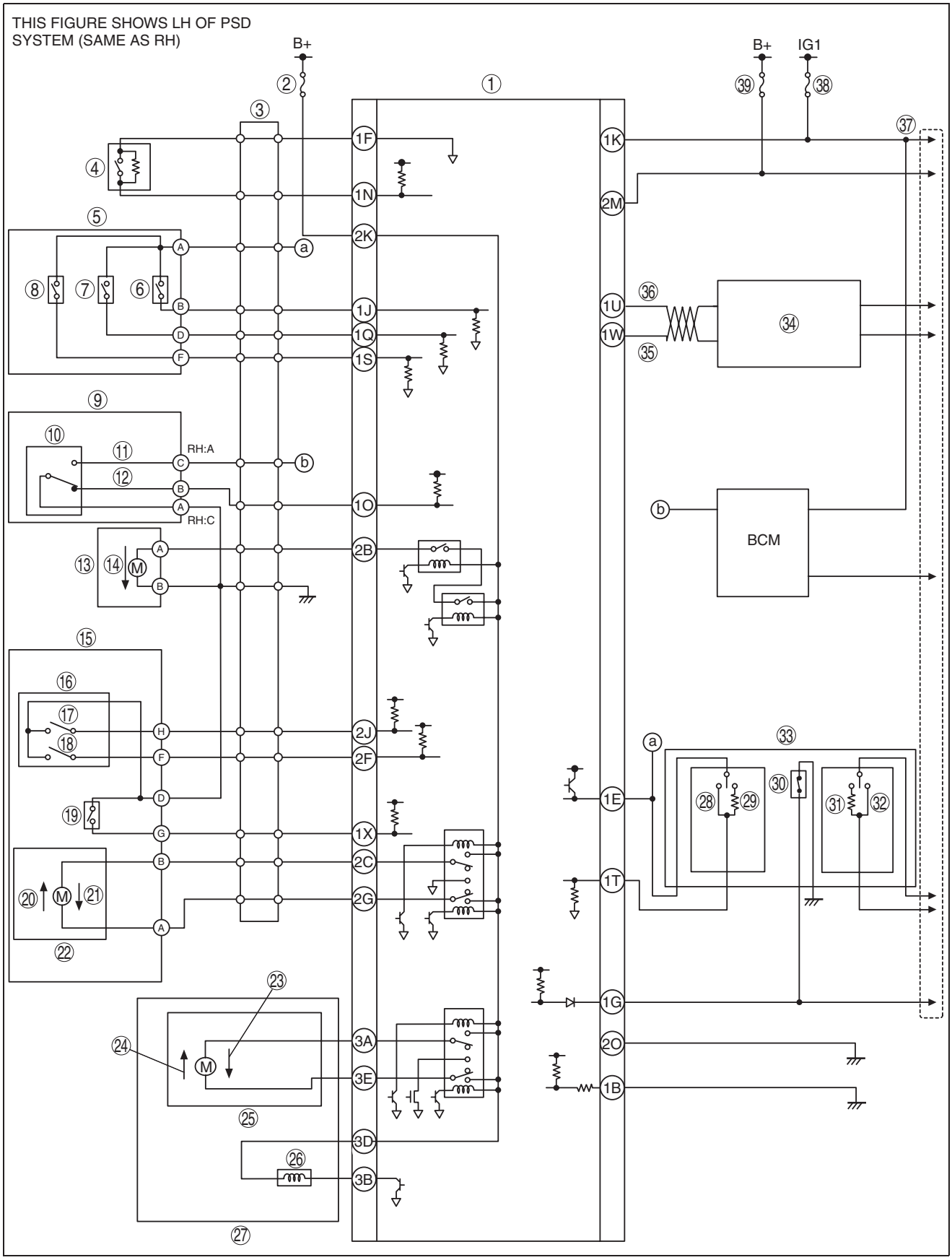
BODY & ACCESSORIES

09 SECTION

09-02A ON-BOARD DIAGNOSTIC [POWER SLIDING DOOR (PSD) SYSTEM]

ON-BOARD DIAGNOSTIC WIRING DIAGRAM [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7960000



am5ezn0000194

1	PSD control module (LH)
2	P.SLIDE LH 20A

3	Constant power supply wiring harness
4	PSD touch sensor
5	Remote controller
6	Handle switch 1
7	Handle switch 2
8	Handle switch 3
9	Sliding door lock actuator
10	Sliding door lock-link switch
11	Unlock
12	Lock
13	Latch release actuator
14	Release
15	Sliding door latch and lock motor
16	Latch position switch
17	Full latch
18	Half-latch
19	Return switch
20	Return
21	Close
22	Sliding door lock motor
23	Open (RH: close)
24	Close (RH: open)
25	PSD motor
26	Magnetic brake
27	PSD drive unit
28	Open
29	Close
30	PSD OFF switch
31	Close
32	Open
33	PSD front switch
34	DLC-2
35	HS-CAN-L
36	HS-CAN-H
37	To RH PSD system
38	METER 10A fuse
39	ROOM 15A fuse

FOREWORD [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7960100

- The PSD control module stores DTCs and freeze frame data if a malfunction occurs in the PSD system.
- DTCs are indicated by a five-digit number. Freeze frame data consists of status and two-digit fault codes.
- The status indicates the PSD operation which was being performed when the fault code was recorded, and the fault code indicates possible malfunctioning parts. Refer to the status table and DTC table for details. (See 09-02A-10 STATUS TABLE [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
- A maximum of four status and fault codes are stored in the order a malfunction is detected, and old ones are cleared.
- Freeze frame data may be stored independently when a DTC is not detected. Therefore, verify DTCs, status and fault code of freeze frame data before performing troubleshooting.
- The DTCs and freeze frame data stored in the PSD control module are cleared if the battery is disconnected.
- Status and fault code of freeze frame data can be verified using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].)

End Of Sie

DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7960300

Caution

- **Only some of the PSD system DTCs can be recorded as past malfunctions. Therefore, when verifying DTCs after the vehicle is in the repair shop, verify that the same DTCs are displayed again after clearing the DTCs, even if the repair procedure indicates to replace the part.**
- **Some of the PSD system DTCs cannot be detected unless the PSD system is operating. Therefore, always perform the PSD open/close operation on both sides before performing the DTC inspection.**
- **The PSD system DTCs are cleared if the negative battery cable is disconnected or the ROOM fuse is removed.**

CMDTC Self Test

1. Connect the M-MDS (IDS) to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the IDS.
   (1) Select “Self Test”.
   (2) Select “All CMDTCs”.
3. Verify the DTC according to the directions on the screen.
   - If any DTCs are displayed, perform troubleshooting according to the corresponding DTC inspection.
4. After completion of repairs, clear all DTCs stored in the PSD control module. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].)

ODDTC Self Test

1. Connect the M-MDS (IDS) to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the IDS.
   (1) Select “Self Test”.
   (2) Select “Modules”.
   (3) Select “LPSDM” or “RPSDM”.
3. Verify the DTC according to the directions on the screen.
   - If any DTCs are displayed, perform troubleshooting according to the corresponding DTC inspection.
4. After completion of repairs, clear all DTCs stored in the PSD control module. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].)

CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7960400

CMDTC Memory Clearing Procedure

1. Connect the M-MDS (IDS) to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the IDS.
   (1) Select “Self Test”.
   (2) Select “All CMDTCs”.
3. Verify the DTC according to the directions on the screen.
4. Press the clear button on the DTC screen to clear the DTC.
5. Switch the ignition to off.
6. Switch the ignition to ON and wait for **5 s or more**.
7. Perform DTC inspection. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].)
8. Verify that no DTCs are displayed.

ODDTC Memory Clearing Procedure

1. Connect the M-MDS (IDS) to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the IDS.
   (1) Select “Self Test”.
   (2) Select “Modules”.
   (3) Select “LPSDM” or “RPSDM”.
3. Verify the DTC according to the directions on the screen.
4. Press the clear button on the DTC screen to clear the DTC.
5. Switch the ignition to off.
6. Switch the ignition to ON and wait for **5 s or more**.
7. Perform DTC inspection. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].)
8. Verify that no DTCs are displayed.

DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7960500

PSD Control Module (LH)

×: Applicable
—: Not applicable

DTC	Fault code	Warning / indicator light	Description	Fail-safe function	DC	Self test type*1	Memory function	Page
B1317	82	—	Battery positive voltage is high	×	—	C	×	(See 09-02A-11 DTC B1317 [POWER SLIDING DOOR (PSD) SYSTEM].)
B1342	31	—	PSD control module (LH) malfunction	×	—	C	×	(See 09-02A-12 DTC B1342 [POWER SLIDING DOOR (PSD) SYSTEM].)
	32	—		×	—		×	
	33	—		×	—		×	
	34	—		×	—		×	
	35	—		×	—		×	
	36	—		×	—		×	
	37	—		×	—		×	
	38	—		×	—		×	
	39	—		×	—		×	
	59	—		×	—		×	
B202B	52	—	Improper sliding door (LH) position	×	—	C	×	(See 09-02A-13 DTC B202A, B202B [POWER SLIDING DOOR (PSD) SYSTEM].)
	53	—		×	—		×	
	55	—		×	—		×	
	56	—		×	—		×	
	57	—		—	—		×	
B2057	47	—	Switch common (LH) circuit malfunction (short to ground)	×	—	C	×	(See 09-02A-14 DTC B2057, B2058 [POWER SLIDING DOOR (PSD) SYSTEM].)
B259A	21	—	Sliding door lock motor (LH) circuit malfunction (open circuit)	—	—	C	×	(See 09-02A-19 DTC B259A, B259B [POWER SLIDING DOOR (PSD) SYSTEM].)
B259C	22	—	Sliding door lock motor (LH) circuit malfunction (excess current)	×	—	C	×	(See 09-02A-21 DTC B259C, B259D [POWER SLIDING DOOR (PSD) SYSTEM].)
B259E	58	—	PSD motor (LH) circuit malfunction (excess current)	×	—	C	×	(See 09-02A-23 DTC B259E, B259F [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A0	51	—	PSD motor (LH) circuit malfunction (shortage of current)	×	—	C	×	(See 09-02A-25 DTC B25A0, B25A1 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A2	25	—	Latch position switch (LH) circuit malfunction	—	—	C	×	(See 09-02A-26 DTC B25A2, B25A3 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A4	26	—	Latch release actuator (LH) circuit malfunction (open circuit)	—	—	C	×	(See 09-02A-29 DTC B25A4, B25A5, B25A6, B25A7 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A6		—	Handle switch 1 (LH) circuit malfunction	—	—	C	×	

DTC	Fault code	Warning / indicator light	Description	Fail-safe function	DC	Self test type*1	Memory function	Page
B25A8	27	—	Return switch (LH) circuit malfunction	×	—	C	×	(See 09-02A-31 DTC B25A8, B25A9 [POWER SLIDING DOOR (PSD) SYSTEM].)
B2699	85	—	PSD touch sensor (LH) circuit malfunction (short to power supply or open circuit)	×	—	C	×	(See 09-02A-32 DTC B2699, B2700 [POWER SLIDING DOOR (PSD) SYSTEM].)
U0073	91	—	CAN system communication error (HS-CAN)	×	—	C	×	(See 09-02A-35 DTC U0073/U0100/U0101/U0140 [POWER SLIDING DOOR (PSD) SYSTEM].)
U0100	92	—	Communication error to PCM	—	—	C	×	
	93	—		—	—		×	
	95	—		—	—		×	
	98	—		—	—		×	
U0101*2	96	—	Communication error to TCM	—	—	C	×	
U0140	94	—	Communication error to BCM	—	—	C	×	
—	23	—	Latch position switch (LH) circuit malfunction	—	—	—	×	(See 09-02A-35 FAULT CODE 23, 24, 28 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	24	—		—	—	—	×	
—	28	—		—	—	—	×	
—	54	—	Improper sliding door (LH) position	×	—	—	×	(See 09-02A-47 FAULT CODE 54 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	61	—	Jamming during open operation	—	—	—	×	(See 09-02A-48 FAULT CODE 61, 62, 63, 64, 65, 67, 68 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	62	—		—	—	—	×	
—	63	—		—	—	—	×	
—	64	—		—	—	—	×	
—	65	—		—	—	—	×	
—	67	—		—	—	—	×	
—	68	—		—	—	—	×	
—	71	—	Jamming during close operation	—	—	—	×	(See 09-02A-53 FAULT CODE 71, 72, 73, 74, 75, 76, 77, 78, 79 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	72	—		—	—	—	×	
—	73	—		—	—	—	×	
—	74	—		—	—	—	×	
—	75	—		—	—	—	×	
—	76	—		—	—	—	×	
—	77	—		—	—	—	×	
—	78	—		—	—	—	×	
—	79	—		—	—	—	×	
—	81	—	Sliding door (LH) operation time is not normal	×	—	—	×	(See 09-02A-56 FAULT CODE 81 [POWER SLIDING DOOR (PSD) SYSTEM].)

*1 : C: CMDTC self test, D: ODDTC self test
*2 : ATX

PSD Control Module (RH)

×: Applicable
—: Not applicable

DTC	Fault code	Warning / indicator light	Description	Fail-safe function	DC	Self test type*1	Memory function	Page
B1317	82	—	Battery positive voltage is high	×	—	C	×	(See 09-02A-11 DTC B1317 [POWER SLIDING DOOR (PSD) SYSTEM].)
B1342	31	—	PSD control module (RH) malfunction	×	—	C	×	(See 09-02A-12 DTC B1342 [POWER SLIDING DOOR (PSD) SYSTEM].)
	32	—		×	—		×	
	33	—		×	—		×	
	34	—		×	—		×	
	35	—		×	—		×	
	36	—		×	—		×	
	37	—		×	—		×	
	38	—		×	—		×	
	39	—		×	—		×	
	59	—		×	—		×	
B202A	52	—	Improper sliding door (RH) position	×	—	C	×	(See 09-02A-13 DTC B202A, B202B [POWER SLIDING DOOR (PSD) SYSTEM].)
	53	—		×	—		×	
	55	—		×	—		×	
	56	—		×	—		×	
	57	—		—	—		×	
B2058	47	—	Switch common (RH) circuit malfunction (short to ground)	×	—	C	×	(See 09-02A-14 DTC B2057, B2058 [POWER SLIDING DOOR (PSD) SYSTEM].)
B259B	21	—	Sliding door lock motor (RH) circuit malfunction (open circuit)	—	—	C	×	(See 09-02A-19 DTC B259A, B259B [POWER SLIDING DOOR (PSD) SYSTEM].)
B259D	22	—	Sliding door lock motor (RH) circuit malfunction (excess current)	×	—	C	×	(See 09-02A-21 DTC B259C, B259D [POWER SLIDING DOOR (PSD) SYSTEM].)
B259F	58	—	PSD motor (RH) circuit malfunction (excess current)	×	—	C	×	(See 09-02A-23 DTC B259E, B259F [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A1	51	—	PSD motor (RH) circuit malfunction (shortage of current)	×	—	C	×	(See 09-02A-25 DTC B25A0, B25A1 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A3	25	—	Latch position switch (RH) circuit malfunction	—	—	C	×	(See 09-02A-26 DTC B25A2, B25A3 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A5	26	—	Latch release actuator (RH) circuit malfunction (open circuit)	—	—	C	×	(See 09-02A-29 DTC B25A4, B25A5, B25A6, B25A7 [POWER SLIDING DOOR (PSD) SYSTEM].)
B25A7		—	Handle switch 1 (RH) circuit malfunction	—	—	C	×	

DTC	Fault code	Warning / indicator light	Description	Fail-safe function	DC	Self test type*1	Memory function	Page
B25A9	27	—	Return switch (RH) circuit malfunction	×	—	C	×	(See 09-02A-31 DTC B25A8, B25A9 [POWER SLIDING DOOR (PSD) SYSTEM].)
B2700	85	—	PSD touch sensor (RH) circuit malfunction (short to power supply or open circuit)	×	—	C	×	(See 09-02A-32 DTC B2699, B2700 [POWER SLIDING DOOR (PSD) SYSTEM].)
U0073	91	—	CAN system communication error (HS-CAN)	×	—	C	×	(See 09-02A-35 DTC U0073/U0100/U0101/U0140 [POWER SLIDING DOOR (PSD) SYSTEM].)
U0100	92	—	Communication error to PCM	—	—	C	×	
	93	—		—	—		×	
	95	—		—	—		×	
	98	—		—	—		×	
U0101*2	96	—	Communication error to TCM	—	—	C	×	
U0140	94	—	Communication error to BCM	—	—	C	×	
—	23	—	Latch position switch (RH) circuit malfunction	—	—	—	×	(See 09-02A-35 FAULT CODE 23, 24, 28 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	24	—		—	—	—	×	
—	28	—		—	—	—	×	
—	54	—	Improper sliding door (RH) position	×	—	—	×	(See 09-02A-47 FAULT CODE 54 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	61	—	Jamming during open operation	—	—	—	×	(See 09-02A-48 FAULT CODE 61, 62, 63, 64, 65, 67, 68 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	62	—		—	—	—	×	
—	63	—		—	—	—	×	
—	64	—		—	—	—	×	
—	65	—		—	—	—	×	
—	67	—		—	—	—	×	
—	68	—		—	—	—	×	
—	71	—	Jamming during close operation	—	—	—	×	(See 09-02A-53 FAULT CODE 71, 72, 73, 74, 75, 76, 77, 78, 79 [POWER SLIDING DOOR (PSD) SYSTEM].)
—	72	—		—	—	—	×	
—	73	—		—	—	—	×	
—	74	—		—	—	—	×	
—	75	—		—	—	—	×	
—	76	—		—	—	—	×	
—	77	—		—	—	—	×	
—	78	—		—	—	—	×	
—	79	—		—	—	—	×	
—	81	—	Sliding door (RH) operation time is not normal	×	—	—	×	(See 09-02A-56 FAULT CODE 81 [POWER SLIDING DOOR (PSD) SYSTEM].)

*1 : C: CMDTC self test, D: ODDTC self test
*2 : ATX

FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7466300

Caution

- **The PSD system freeze frame data are indicated by status and fault codes.**
- **The PSD system freeze frame data are cleared if the negative battery cable is disconnected or the ROOM fuse is removed.**

Note
- Use the IDS (laptop PC) because the PDS (pocket PC) does not support the freeze frame data.

1. Connect the M-MDS to the DLC-2.
2. After vehicle identification, the following can be selected from the M-MDS initialization screen.
   (1) “Electrical components”
   (2) “LPSDM and RPSDM service function”
3. Then, select the following from the screen menu.
   (1) “LPSDM” or “RPSDM”
   (2) “FFD”
4. Verify the status and fault code according to the directions of the screen. (See 09-02A-10 STATUS TABLE [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
5. After completion of repairs, remove/install the negative battery cable to clear the freeze frame data stored in the module.

STATUS TABLE [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7466600

—: Not applicable

Status code	Operation when malfunction occurred	Sliding door position when PSD operation started
00	PSD operation is stopped	—
10	Open operation using the PSD front switch	Full-latch
11	Open operation using the PSD front switch	Full-latch
12	Open operation using the PSD front switch	Half-latch
13	Open operation using the PSD front switch	Half-latch
20	Open operation using the transmitter PSD button	Full-latch
21	Open operation using the transmitter PSD button	Full-latch
22	Open operation using the transmitter PSD button	Half-latch
23	Open operation using the transmitter PSD button	Half-latch
41	Open operation using the sliding door outer handle	Full-latch
42	Open operation using the sliding door inner handle	Full-latch
43	Open operation using the sliding door inner or outer handle	Full-latch
44	Open operation using the sliding door outer handle	Full-latch
45	Open operation using the sliding door inner handle	Full-latch
46	Open operation using the sliding door inner or outer handle	Full-latch
51	Open operation using the sliding door outer handle	Half-latch
52	Open operation using the sliding door inner handle	Half-latch
53	Open operation using the sliding door outer handle	Half-latch
54	Open operation using the sliding door inner handle	Half-latch
60	Manual open operation	Near fully close
70	Open operation using the PSD front switch	Half open
81	Open operation using the sliding door outer handle	Half open
82	Open operation using the sliding door inner handle	Half open
83	Open operation using the transmitter PSD button	Half open
100	Reverse open operation due to jamming during close operation	Half open
101	Reverse open operation due to jamming during close operation	Fully open
110	Close operation using the PSD front switch	Fully open
111	Close operation using the PSD front switch	Fully open
120	Close operation using the transmitter PSD button	Fully open
121	Close operation using the transmitter PSD button	Fully open
141	Close operation using the sliding door outer handle	Fully open
142	Close operation using the sliding door inner handle	Fully open
143	Close operation using the sliding door outer handle	Fully open
144	Close operation using the sliding door inner handle	Fully open
150	Manual close operation	Near fully open
160	Close operation using the PSD front switch	Half open
170	Close operation using the sliding door inner handle	Half open

Status code	Operation when malfunction occurred	Sliding door position when PSD operation started
190	Reverse close operation due to jamming during open operation	Half open
191	Reverse close operation due to jamming during open operation	Half open
192	Reverse close operation after open operation stopped in the fully open position	Half open
90*1	—	—
91*1	—	—
92*1	—	—
93*1	—	—
94*1	—	—
95*1	—	—
102*1	—	—
180*1	—	—
181*1	—	—
193*1	—	—
200*1	—	—
201*1	—	—
202*1	—	—
203*1	—	—
204*1	—	—
205*1	—	—
206*1	—	—
210*1	—	—
240*1	—	—

*1 : Code is output, but cannot be used as status. If displayed, perform the PSD open/close operation.

INPUT/OUTPUT SIGNAL MONITOR INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7466400

Caution

- **The input/output signal monitor inspection of the PSD system is used for displaying the input/output signals on the screen to control the PSD system. The data calculated by the PSD control module are displayed.**

Note

- Use the IDS (laptop PC) because the PDS (pocket PC) does not support the input/output signal monitor.

1. Connect the M-MDS to the DLC-2.
2. After vehicle identification, the following can be selected from the M-MDS initialization screen.
   (1) “Electrical component”
   (2) “LPSDM and RPSDM service function”
3. Then, select the following from the screen menu.
   (1) “LPSDM” or “RPSDM”
   (2) “I/O Signal Monitor”
4. Verify the input/output signals according to the directions on the screen.
   - Inspect the PSD control module if an input/output signal error is detected. (See 09-11-27 POWER SLIDING DOOR (PSD) CONTROL MODULE INSPECTION.)

DTC B1317 [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7920400

DTC B1317	Battery positive voltage is high
DETECTION CONDITION	• The PSD control module power supply voltage is **17.8 V or more** with the PSD OFF switch off.
FAIL-SAFE FUNCTION	• PSD operation is stopped.

DTC B1317	Battery positive voltage is high
POSSIBLE CAUSE	• Battery malfunction • Generator malfunction • PSD control module malfunction
SYSTEM WIRING DIAGRAM	—

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA** • Perform the freeze frame data inspection using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Verify the status and fault codes.	—	Note down the status and fault codes, then go to the next step.
2	**PERFORM PCM DTC INSPECTION** • Perform the PCM DTC inspection using the M-MDS. (See 01-02A-3 ON-BOARD DIAGNOSTIC TEST [MZR 1.8, MZR 2.0].) (See 01-02B-2 ON-BOARD DIAGNOSTIC TEST [MZR 2.0 DISI i-stop].) (Under Preparation) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See 01-02A-9 DTC TABLE [MZR 1.8, MZR 2.0].) (See 01-02B-7 DTC TABLE [MZR 2.0 DISI i-stop].) (Under Preparation)
		No	Go to the next step.
3	**INSPECT BATTERY** • Inspect the battery. (See 01-17A-5 BATTERY INSPECTION [MZR 1.8, MZR 2.0].) (See 01-17B-7 BATTERY INSPECTION [MZR 2.0 DISI i-stop].) (Under Preparation) • Is there any malfunction?	Yes	Replace the battery, then go to Step 5. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION [MZR 1.8, MZR 2.0].) (See 01-17B-2 BATTERY REMOVAL/INSTALLATION [MZR 2.0 DISI i-stop].) (Under Preparation)
		No	Go to the next step.
4	**INSPECT GENERATOR** • Inspect the generator. (See 01-17A-7 GENERATOR INSPECTION [MZR 1.8, MZR 2.0].) (See 01-17B-10 GENERATOR INSPECTION [MZR 2.0 DISI i-stop].) (Under Preparation) • Is there any malfunction?	Yes	Replace the generator, then go to the next step. (See 01-17A-7 GENERATOR REMOVAL/INSTALLATION [MZR 1.8, MZR 2.0].) (See 01-17B-9 GENERATOR REMOVAL/INSTALLATION [MZR 2.0 DISI i-stop].) (Under Preparation)
		No	Go to the next step.
5	**VERIFY TROUBLESHOOTING COMPLETED** • Clear the DTC using the M-MDS. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].) • If status code is noted down in Step 1: — Perform the same operation as status table. • If status code is not noted down in Step 1: — Perform the PSD open/close operation. • Perform the PSD control module DTC inspection using the M-MDS. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PSD control module. (See 09-11-26 POWER SLIDING DOOR (PSD) CONTROL MODULE REMOVAL/INSTALLATION.) Go to the next step.
		No	Go to the next step.
6	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
		No	DTC troubleshooting completed.

DTC B1342 [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7920500

B1342	PSD control module (LH)/(RH) malfunction
DETECTION CONDITION	• PSD control module detects the internal malfunction.

B1342	PSD control module (LH)/(RH) malfunction
FAIL-SAFE FUNCTION	• The buzzer sounds and PSD operation is stopped. (Fault code 31, 32, 33, 34, 35, 36, 59) • The buzzer sounds using start operation and PSD operation is not activated. (Fault code 37, 38, 39, 59)
POSSIBLE CAUSE	• PSD control module malfunction
SYSTEM WIRING DIAGRAM	—

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA** • Perform the freeze frame data inspection using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the fault code 31, 32, 33, 34, 35, 36, 37, 38, 39 or 59 present?	Yes	Go to the applicable fault code inspection. (See 09-02A-38 FAULT CODE 31, 32 [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-39 FAULT CODE 33, 59 [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-42 FAULT CODE 34, 35, 36 [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-45 FAULT CODE 37, 38 [POWER SLIDING DOOR (PSD) SYSTEM].) (See 09-02A-46 FAULT CODE 39 [POWER SLIDING DOOR (PSD) SYSTEM].)
		No	Note down the status codes, then go to the next step.
2	**PERFORM DTC INSPECTION AND VERIFY THAT MALFUNCTIONING PART IS PSD CONTROL MODULE** • Clear the DTC using the M-MDS. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].) • If status code is noted down in Step 1: — Perform the same operation as status table. • If status code is not noted down in Step 1: — Perform the PSD open/close operation. • Perform the PSD control module DTC inspection using the M-MDS. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the same DTC present?	Yes	Replace the PSD control module, then go to the next step. (See 09-11-26 POWER SLIDING DOOR (PSD) CONTROL MODULE REMOVAL/INSTALLATION.)
		No	Go to the next step.
3	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
		No	DTC troubleshooting completed.

DTC B202A, B202B [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7379000

DESCRIPTION	• **B202A** **— Improper sliding door (RH) position** • **B202B** **— Improper sliding door (LH) position**
DETECTION CONDITION	• Door position detection pulse signal or door position malfunction is detected during sliding door open/close operation. — Fault code 52: Door pulse count value (door movement distance) is not within specification after **2 s** have elapsed since PSD operation started. — Fault code 53: Door pulse count value (door movement distance) exceeds the fully-open or fully-closed position. — Fault code 55: Door movement speed exceeds measurement limitation. — Fault code 56: Motor pulse count value and motor rotation speed are less than the specification while the clutch is being engaged. — Fault code 57: Motor pulse does not stop within a specified time after the clutch is released.
FAIL-SAFE FUNCTION	• Fault code 52, 53, 55, 56 — The buzzer sounds and PSD operation is stopped. • Fault code 57 — —

DESCRIPTION	• **B202A** **— Improper sliding door (RH) position** • **B202B** **— Improper sliding door (LH) position**
POSSIBLE CAUSE	• PSD control module malfunction — Door speed sensor malfunction — Motor speed sensor malfunction • PSD drive unit malfunction
SYSTEM WIRING DIAGRAM	—

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA** • Perform the freeze frame data inspection using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Verify the status and fault codes.	—	Note down the status and fault codes, then go to the next step.
2	**PERFORM DTC INSPECTION AND VERIFY THAT MALFUNCTIONING PART IS PSD CONTROL MODULE** • Clear the DTC using the M-MDS. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].) • If status code is noted down in Step 1: — Perform the same operation as status table. • If status code is not noted down in Step 1: — Perform the PSD open/close operation. • Perform the PSD control module DTC inspection using the M-MDS. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the same DTC present?	Yes	Replace the PSD control module, then go to the next step. (See 09-11-26 POWER SLIDING DOOR (PSD) CONTROL MODULE REMOVAL/INSTALLATION.)
		No	Go to Step 4.
3	**PERFORM DTC INSPECTION AND VERIFY THAT MALFUNCTIONING PART IS PSD DRIVE UNIT** • Clear the DTC using the M-MDS. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].) • If status code is noted down in Step 1: — Perform the same operation as status table. • If status code is not noted down in Step 1: — Perform the PSD open/close operation. • Perform the PSD control module DTC inspection using the M-MDS. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the same DTC present?	Yes	Replace the PSD drive unit, then go to the next step. (See 09-11-24 POWER SLIDING DOOR (PSD) DRIVE UNIT REMOVAL/INSTALLATION.)
		No	Go to the next step.
4	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
		No	DTC troubleshooting completed.

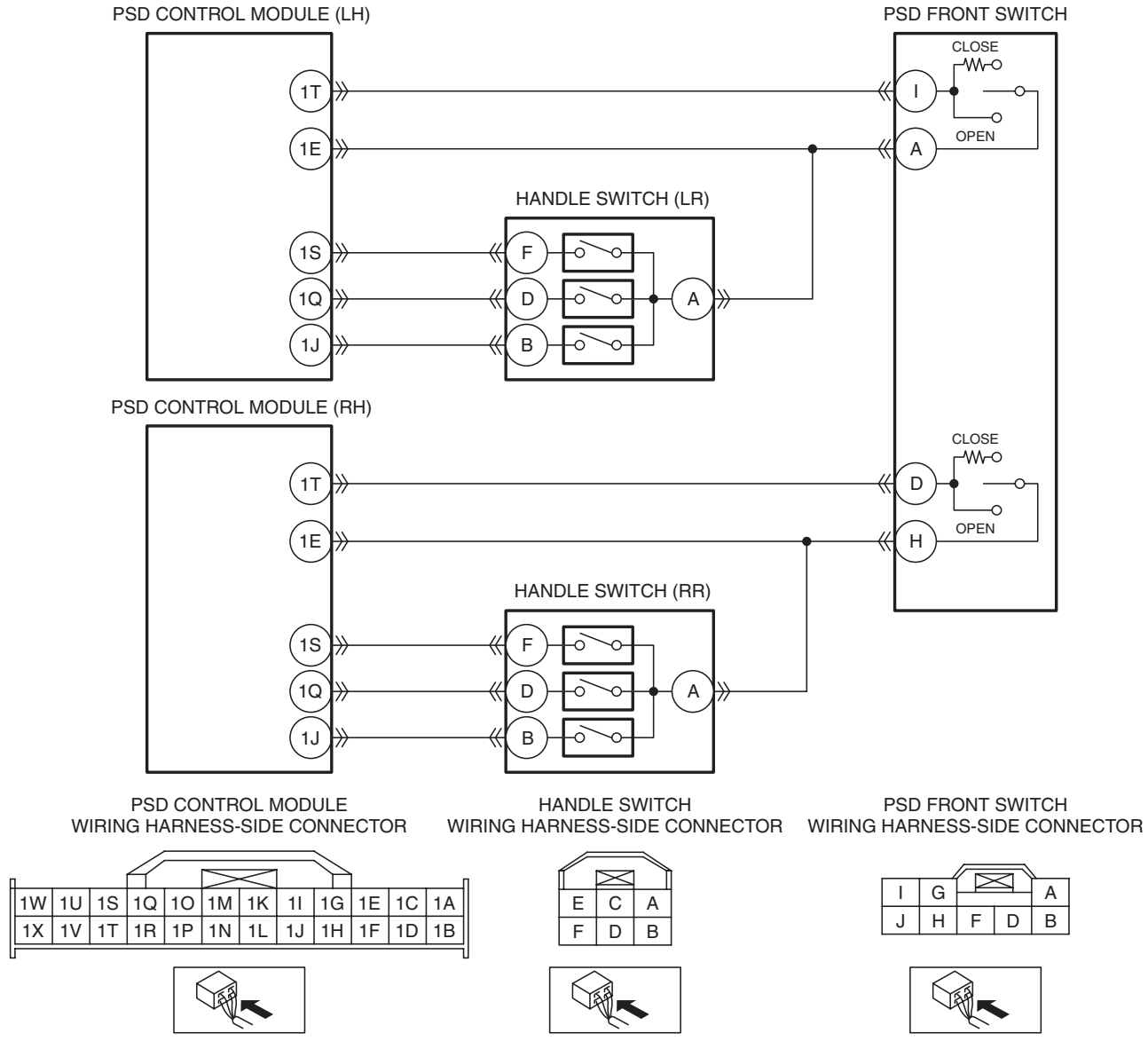
DTC B2057, B2058 [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7379300

DESCRIPTION	• **B2057** **— Switch common (LH) circuit malfunction (short to ground)** • **B2058** **— Switch common (RH) circuit malfunction (short to ground)**
DETECTION CONDITION	• Short to ground in switch common circuit when the switch common output is on.

DESCRIPTION	• **B2057** **— Switch common (LH) circuit malfunction (short to ground)** • **B2058** **— Switch common (RH) circuit malfunction (short to ground)**
FAIL-SAFE FUNCTION	• The buzzer sounds and PSD operation is stopped. • The buzzer sounds using start operation and PSD operation is not activated.
POSSIBLE CAUSE	• Short to ground in wiring harness between the following terminals: — B2057 • PSD front switch terminal A—PSD control module (LH) terminal 1E • Handle switch (LR) terminal A—PSD control module (LH) terminal 1E — B2058 • PSD front switch terminal H—PSD control module (RH) terminal 1E • Handle switch (RR) terminal A—PSD control module (RH) terminal 1E • Handle switch malfunction • PSD front switch malfunction • Short to ground in wiring harness between the following terminals: — B2057 • PSD front switch terminal I—PSD control module (LH) terminal 1T — B2058 • PSD front switch terminal D—PSD control module (RH) terminal 1T • Short to ground in wiring harness between handle switch terminal B and PSD control module terminal 1J • Short to ground in wiring harness between handle switch terminal D and PSD control module terminal 1Q • Short to ground in wiring harness between handle switch terminal F and PSD control module terminal 1S • PSD control module malfunction **Caution** • **Shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of intermittent malfunction.**

DESCRIPTION	• **B2057** **— Switch common (LH) circuit malfunction (short to ground)** • **B2058** **— Switch common (RH) circuit malfunction (short to ground)**



Diagnostic Procedure

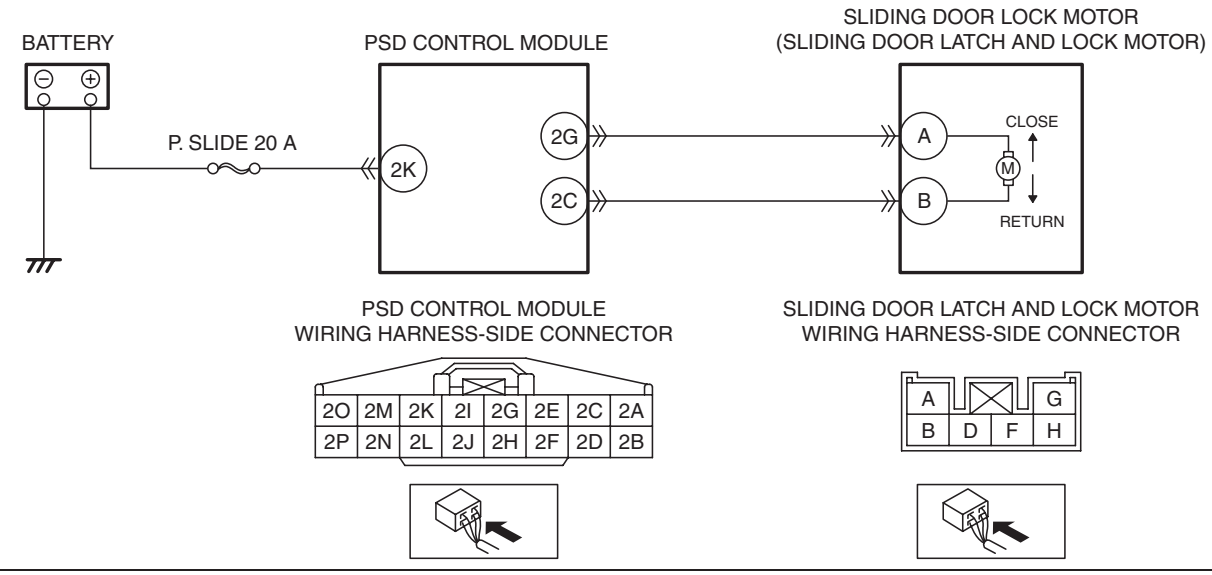
STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA** • Perform the freeze frame data inspection using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Verify the status and fault codes.	—	Note down the status and fault codes, then go to the next step.
2	**DETERMINE MALFUNCTIONING PART** • Perform the input/output signal monitor inspection using the M-MDS. (See 09-02A-11 INPUT/OUTPUT SIGNAL MONITOR INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Operate the PSD system in the following order: — PSD front switch (OPEN) — PSD front switch (CLOSE) — Sliding door outer handle — Sliding door inner handle (OPEN) — Sliding door inner handle (CLOSE) • Are signals normal?	Yes	Go to Step 12.
		No	If all signals are incorrect: • Go to the next step. If PSD front switch signal is incorrect: • Go to Step 6. If sliding door outer handle signal is incorrect: • Go to Step 8. If sliding door inner handle (OPEN) signal is incorrect: • Go to Step 9. If sliding door inner handle (CLOSE) signal is incorrect: • Go to Step 10.
3	**INSPECT SWITCH COMMON CIRCUIT FOR SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the handle switch and PSD front switch connectors. • Inspect for continuity between the following terminal (wiring harness-side) and body ground: — B2057 • PSD front switch terminal A — B2058 • PSD front switch terminal H • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 12.
		No	Go to the next step.
4	**INSPECT HANDLE SWITCH** • Inspect the handle switch. (See 09-14-38 HANDLE SWITCH INSPECTION.) • Is there any malfunction?	Yes	Replace the remote controller, then go to Step 12. (See 09-14-36 REMOTE CONTROLLER REMOVAL/INSTALLATION.)
		No	Go to the next step.
5	**INSPECT PSD FRONT SWITCH** • Inspect the PSD front switch. (See 09-11-32 POWER SLIDING DOOR (PSD) TOUCH SENSOR INSPECTION.) • Is there any malfunction?	Yes	Replace the PSD front switch, then go to Step 12. (See 09-11-29 POWER SLIDING DOOR (PSD) FRONT SWITCH REMOVAL/INSTALLATION.)
		No	Go to Step 12.
6	**INSPECT PSD FRONT SWITCH CIRCUIT FOR SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the PSD front switch and PSD control module connectors. • Inspect for continuity between the following terminal (wiring harness-side) and body ground: — B2057 • PSD front switch terminal I — B2058 • PSD front switch terminal D • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 12.
		No	Go to the next step.
7	**INSPECT PSD FRONT SWITCH** • Inspect the PSD front switch. (See 09-11-32 POWER SLIDING DOOR (PSD) TOUCH SENSOR INSPECTION.) • Is there any malfunction?	Yes	Replace the PSD front switch, then go to Step 12. (See 09-11-29 POWER SLIDING DOOR (PSD) FRONT SWITCH REMOVAL/INSTALLATION.)
		No	Go to Step 12.

STEP	INSPECTION		ACTION
8	**INSPECT SLIDING DOOR OUTER HANDLE SIGNAL CIRCUIT FOR SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the handle switch and PSD control module connectors. • Inspect for continuity between handle switch terminal B (wiring harness-side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 12.
		No	Go to Step 11.
9	**INSPECT SLIDING DOOR INNER HANDLE (OPEN) SIGNAL CIRCUIT FOR SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the handle switch and PSD control module connectors. • Inspect for continuity between handle switch terminal D (wiring harness-side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 12.
		No	Go to Step 11.
10	**INSPECT SLIDING DOOR INNER HANDLE (CLOSE) SIGNAL CIRCUIT FOR SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the handle switch and PSD control module connectors. • Inspect for continuity between handle switch terminal F (wiring harness-side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 12.
		No	Go to the next step.
11	**INSPECT HANDLE SWITCH** • Inspect the handle switch. (See 09-14-38 HANDLE SWITCH INSPECTION.) • Is there any malfunction?	Yes	Replace the remote controller, then go to the next step. (See 09-14-36 REMOTE CONTROLLER REMOVAL/INSTALLATION.)
		No	Go to the next step.
12	**VERIFY TROUBLESHOOTING COMPLETED** • Make sure to reconnect all disconnected connectors. • Reconnect the negative battery cable. • Clear the DTC using the M-MDS. (See 09-02A-5 CLEARING DTC [POWER SLIDING DOOR (PSD) SYSTEM].) • If status code is noted down in Step 1: — Perform the same operation as status table. • If status code is not noted down in Step 1: — Perform the PSD open/close operation. • Perform the PSD control module DTC inspection using the M-MDS. (See 09-02A-5 DTC INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PSD control module. (See 09-11-26 POWER SLIDING DOOR (PSD) CONTROL MODULE REMOVAL/INSTALLATION.) Go to the next step.
		No	Go to the next step.
13	**VERIFY THAT NO OTHER DTCs ARE PRESENT** • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See 09-02A-6 DTC TABLE [POWER SLIDING DOOR (PSD) SYSTEM].)
		No	DTC troubleshooting completed.

DTC B259A, B259B [POWER SLIDING DOOR (PSD) SYSTEM]

id0902e7379600

DESCRIPTION	• **B259A** **— Sliding door lock motor (LH) circuit malfunction (open circuit)** • **B259B** **— Sliding door lock motor (RH) circuit malfunction (open circuit)**
DETECTION CONDITION	• PSD control module detects that auto closure operation has changed to fail-safe operation by the timer control. **Note** • If the latch position switch change, or the motor lock current is not detected, the system starts the timer control.
FAIL-SAFE FUNCTION	—
POSSIBLE CAUSE	• PSD control module power supply circuit malfunction — Short to ground in wiring harness between P. SLIDE 20 A fuse and PSD control module terminal 2K — P. SLIDE 20 A fuse malfunction — Open circuit in wiring harness between battery positive terminal and PSD control module terminal 2K • Short to ground in wiring harness between the following terminals: — Sliding door latch and lock motor terminal A—PSD control module terminal 2G — Sliding door latch and lock motor terminal B—PSD control module terminal 2C • Open circuit in wiring harness between the following terminals: — Sliding door latch and lock motor terminal A—PSD control module terminal 2G — Sliding door latch and lock motor terminal B—PSD control module terminal 2C • Sliding door lock motor malfunction • PSD control module malfunction **Caution** • **Shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of intermittent malfunction.**



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA** • Perform the freeze frame data inspection using the M-MDS. (See 09-02A-9 FREEZE FRAME DATA INSPECTION [POWER SLIDING DOOR (PSD) SYSTEM].) • Verify the status and fault codes.	—	Note down the status and fault codes, then go to the next step.
2	**INSPECT PSD CONTROL MODULE POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT AND SHORT TO GROUND** • Switch the ignition to off. • Disconnect the negative battery cable. • Disconnect the PSD control module connector. • Reconnect the negative battery cable. • Measure the voltage at the PSD control module terminal 2K (wiring harness-side). • Is the voltage **B+**?	Yes	Go to the next step.
		No	Inspect the P. SLIDE 20 A fuse. • If the fuse is melt: — Repair or replace the wiring harness for a possible short to ground. — Replace the fuse. • If the fuse is deterioration: — Replace the fuse. • If the fuse is normal: — Repair or replace the wiring harness for a possible open circuit. Go to Step 6.
3	**INSPECT SLIDING DOOR LOCK MOTOR CIRCUIT FOR SHORT TO GROUND** • Verify that the PSD control module connector is disconnected. • Disconnect the negative battery cable. • Disconnect the sliding door latch and lock motor connector. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Sliding door latch and lock motor terminal A — Sliding door latch and lock motor terminal B • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 6.
		No	Go to the next step.
4	**INSPECT SLIDING DOOR LOCK MOTOR CIRCUIT FOR OPEN CIRCUIT** • Verify that the PSD control module and sliding door latch and lock motor connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side): — Sliding door latch and lock motor terminal A—PSD control module terminal 2G — Sliding door latch and lock motor terminal B—PSD control module terminal 2C • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 6.
5	**INSPECT SLIDING DOOR LOCK MOTOR** • Inspect the sliding door lock motor. (See 09-14-42 SLIDING DOOR LOCK MOTOR INSPECTION.) • Is there any malfunction?	Yes	Replace the sliding door latch and lock motor, then go to the next step. (See 09-14-40 SLIDING DOOR LATCH AND LOCK MOTOR REMOVAL/INSTALLATION.)
		No	Go to the next step.