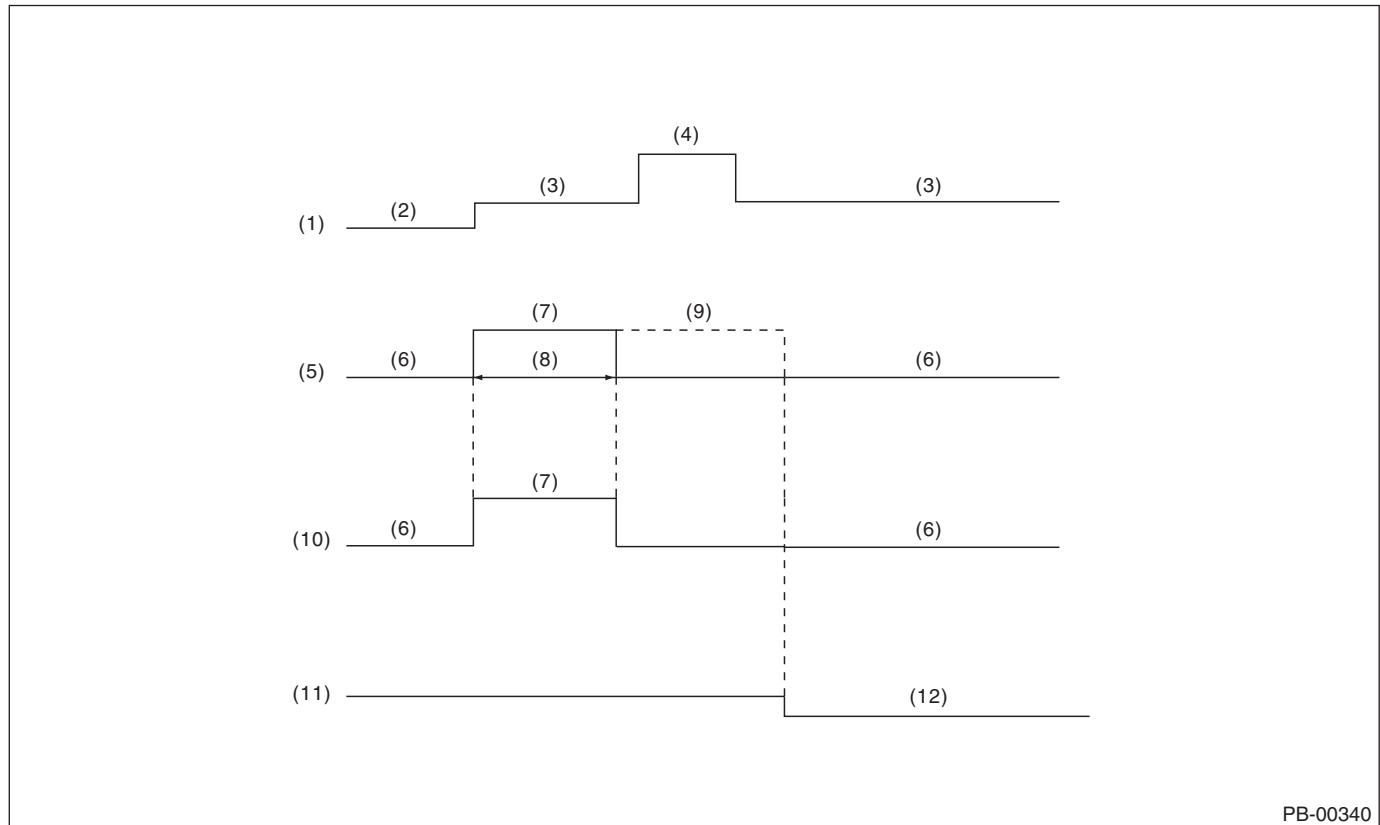


Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

10.Warning Light Illumination Pattern

A: INSPECTION



PB-00340

- | | | |
|---------------------|---|---|
| (1) Ignition switch | (5) Brake warning light (EBD warning light) | (9) If the parking brake is being operated, illumination continues until the brake is released. |
| (2) OFF | (6) Light OFF | (10) Hill hold indicator light |
| (3) ON | (7) Light ON | (11) Parking brake |
| (4) Engine start | (8) Approx. 2 seconds | (12) Released |

1) When warning lights or indicator lights do not illuminate in accordance with this illumination pattern, there must be an electrical malfunction.

2) When warning lights or indicator lights remain constantly OFF, check the combination meter circuit or CAN communication circuit. <Ref. to PB(diag)-25, BRAKE WARNING LIGHT, HILL HOLD INDICATOR LIGHT DO NOT COME ON, Warning Light Illumination Pattern.>

3) When the hill hold indicator light does not go off, check the combination meter circuit, CAN communication circuit, and electronic parking brake control module. <Ref. to PB(diag)-25, HILL HOLD INDICATOR LIGHT DO NOT GO OFF, Warning Light Illumination Pattern.>

4) When the brake warning light does not go off, check the combination meter circuit, CAN communication circuit, electronic parking brake control module, and VDCCM&H/U. <Ref. to PB(diag)-26, BRAKE WARNING LIGHT DOES NOT GO OFF, Warning Light Illumination Pattern.> <Ref. to PB(diag)-28, BRAKE WARNING LIGHT REMAINS BLINKING, Warning Light Illumination Pattern.>

5) After replacing the electronic parking brake control module, the brake warning light blinks. Make sure to perform the Force Sensor Calibration Mode and Clutch Sensor Calibration Mode. <Ref. to PB(diag)-16, FORCE SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.> <Ref. to PB(diag)-17, CLUTCH SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.>

6) When operation and release of the parking brake is repeated excessively, the brake warning light blinks and the parking brake switch operation may not be accepted for several tens of seconds; this is not malfunction, however.

Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

B: BRAKE WARNING LIGHT, HILL HOLD INDICATOR LIGHT DO NOT COME ON

DETECTING CONDITION:

- Defective combination meter
- Defective CAN communication

TROUBLE SYMPTOM:

When the ignition switch is turned to ON (engine OFF), the brake warning light and hill hold indicator light do not illuminate.

Step	Check	Yes	No
1 CHECK OTHER INDICATOR LIGHT. Turn the ignition switch to ON.	Does other indicator light illuminate soon after "ON"?	Go to step 2.	Perform the diagnosis for combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>
2 CHECK LAN SYSTEM. Check the DTC in LAN system. <Ref. to LAN(diag)-9, Read Diagnostic Trouble Code (DTC).>	Is DTC of LAN system displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Replace the combination meter case assembly. <Ref. to IDI-25, REMOVAL, Combination Meter.>

C: HILL HOLD INDICATOR LIGHT DO NOT GO OFF

DETECTING CONDITION:

- Defective combination meter
- Defective CAN communication

TROUBLE SYMPTOM:

When starting the engine, the hill hold indicator light remains lit.

Step	Check	Yes	No
1 READ DTC. Read the DTC. <Ref. to PB(diag)-21, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to PB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Go to step 2.
2 CHECK LAN SYSTEM. Check the DTC in LAN system. <Ref. to LAN(diag)-9, Read Diagnostic Trouble Code (DTC).>	Is DTC of LAN system displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step 3.
3 CHECK ELECTRONIC PARKING BRAKE CM. With the engine started, display the current data of the electronic parking brake CM using Subaru Select Monitor.	When the hill hold switch is not operated after starting the engine, is the «Hill hold lamp» ON?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step 4.
4 CHECK COMBINATION METER. Check the combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Is combination meter OK?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Replace the combination meter. <Ref. to IDI-25, Combination Meter.>

Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

D: BRAKE WARNING LIGHT DOES NOT GO OFF

DETECTING CONDITION:

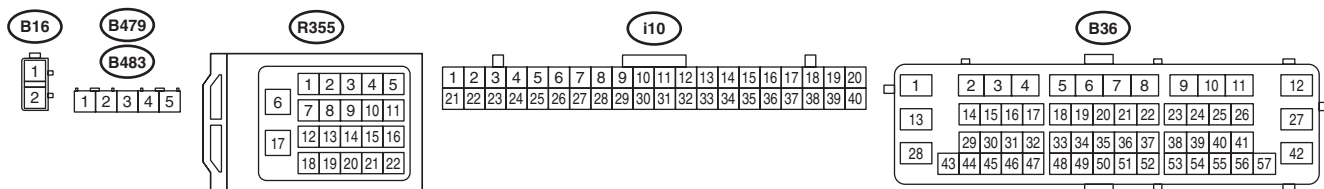
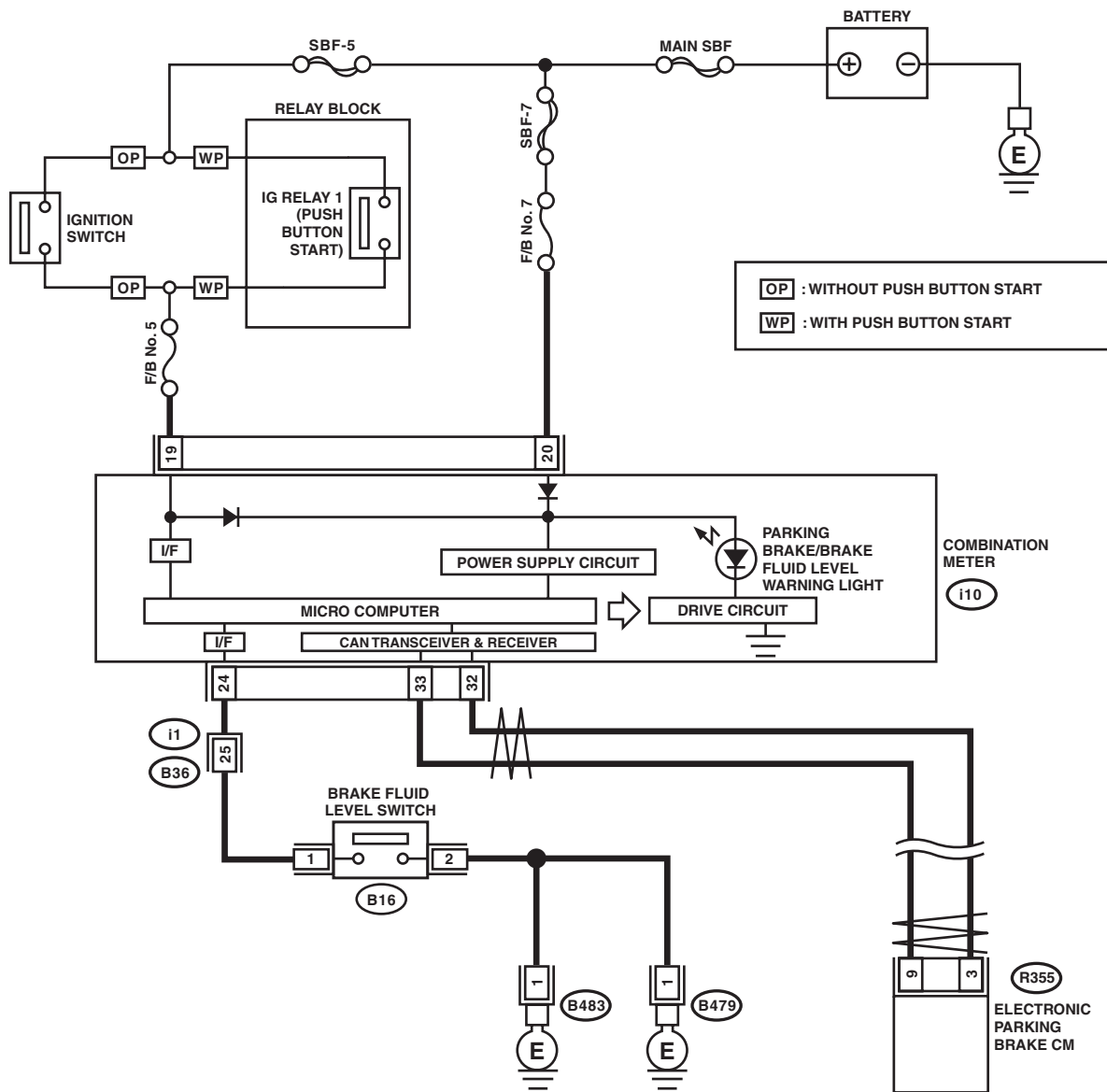
- Brake warning light circuit is shorted.
- Defective sensor/connector

TROUBLE SYMPTOM:

After starting the engine, the brake warning light remains lit or blinking though the parking brake is released.

WIRING DIAGRAM:

Parking brake / brake fluid level warning light system <Ref. to WI-229, Parking Brake / Brake Fluid Level Warning Light System.>



Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

Step	Check	Yes	No
1 READ DTC. Read the DTC. <Ref. to PB(diag)-21, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to PB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Go to step 2.
2 CHECK BRAKE FLUID AMOUNT. Check the amount of brake fluid in the reservoir tank of master cylinder.	Does the level of the brake fluid amount fall between the lines of "MAX" and "MIN"?	Go to step 3.	Replenish brake fluid to the specified value.
3 CHECK BRAKE FLUID LEVEL SWITCH. 1) Turn the ignition switch to OFF. 2) Disconnect the level switch connector (B16) from master cylinder. 3) Measure the resistance of master cylinder terminals. <i>Terminals</i> <i>No. 1 — No. 2:</i>	Is the resistance 1 MΩ or more?	Go to step 4.	Replace the master cylinder. <Ref. to BR-39, Master Cylinder.>
4 CHECK GROUND SHORT OF HARNESS. 1) Disconnect the connector (i10) from combination meter. 2) Measure the resistance between combination meter connector and chassis ground. <i>Connector & terminal</i> <i>(i10) No. 24 — Chassis ground:</i>	Is the resistance 1 MΩ or more?	Go to step 5.	Repair the harness connector between combination meter and brake fluid level switch.
5 CHECK LAN SYSTEM. Check the DTC in LAN system. <Ref. to LAN(diag)-9, Read Diagnostic Trouble Code (DTC).>	Is DTC of LAN system displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step 6.
6 CHECK COMBINATION METER. Check the combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Is combination meter OK?	Go to step 7.	Replace the combination meter. <Ref. to IDI-25, Combination Meter.>
7 CHECK VDC SYSTEM. Check the DTC in VDC system. <Ref. to VDC(diag)-23, Read Diagnostic Trouble Code (DTC).>	Is DTC of VDC system displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-35, List of Diagnostic Trouble Code (DTC).>	Go to step 8.
8 CHECK ELECTRONIC PARKING BRAKE CM. With the parking brake released, display the current data of the electronic parking brake CM using Subaru Select Monitor.	Is the «Brake Warning Light» ON?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step 9.
9 CHECK OTHER DTC DETECTION.	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

E: BRAKE WARNING LIGHT REMAINS BLINKING

DETECTING CONDITION:

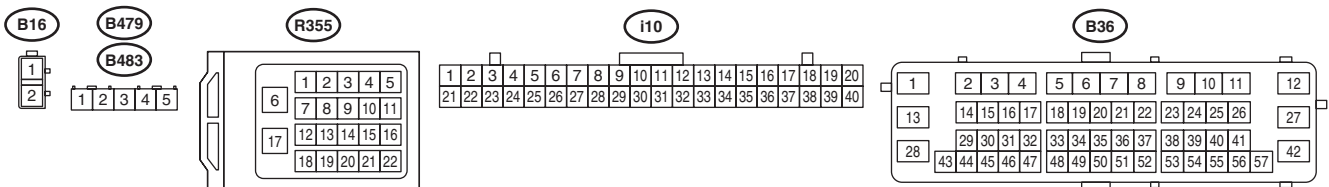
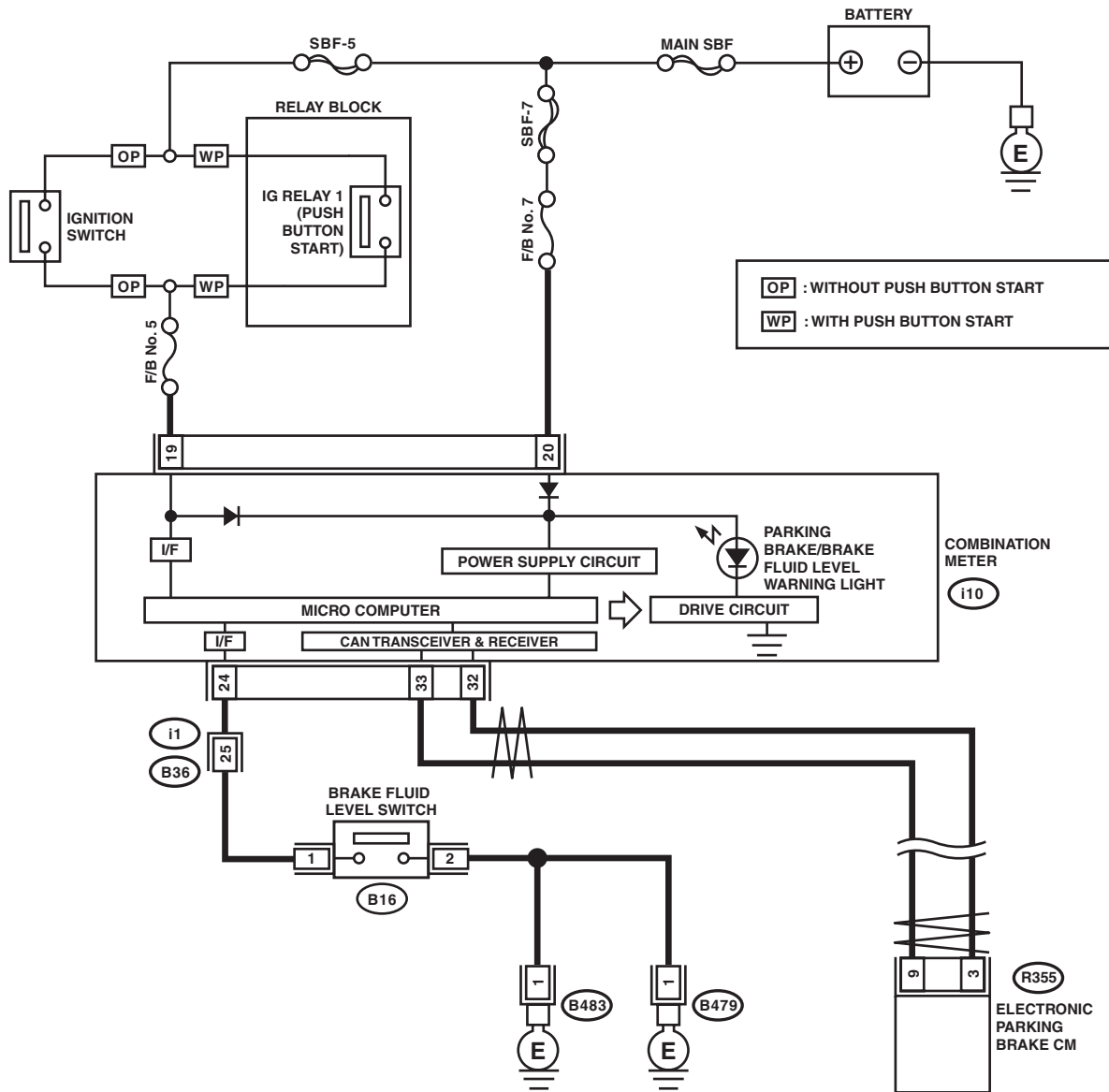
- Brake warning light circuit is shorted.
- Defective sensor/connector

TROUBLE SYMPTOM:

After starting the engine, the brake warning light remains lit or blinking though the parking brake is released.

WIRING DIAGRAM:

Parking brake / brake fluid level warning light system <Ref. to WI-229, Parking Brake / Brake Fluid Level Warning Light System.>



PB-00286

Warning Light Illumination Pattern

PARKING BRAKE (DIAGNOSTICS)

Step	Check	Yes	No
1 READ DTC. Read the DTC. <Ref. to PB(diag)-21, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to PB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Go to step 2.
2 CHECK BRAKE FLUID AMOUNT. Check the amount of brake fluid in the reservoir tank of master cylinder.	Does the level of the brake fluid amount fall between the lines of "MAX" and "MIN"?	Go to step 3.	Replenish brake fluid to the specified value.
3 CHECK BRAKE FLUID LEVEL SWITCH. 1) Turn the ignition switch to OFF. 2) Disconnect the level switch connector (B16) from master cylinder. 3) Measure the resistance of master cylinder terminals. <i>Terminals</i> <i>No. 1 — No. 2:</i>	Is the resistance 1 MΩ or more?	Go to step 4.	Replace the master cylinder. <Ref. to BR-39, Master Cylinder.>
4 CHECK GROUND SHORT OF HARNESS. 1) Disconnect the connector (i10) from combination meter. 2) Measure the resistance between combination meter connector and chassis ground. <i>Connector & terminal</i> <i>(i10) No. 24 — Chassis ground:</i>	Is the resistance 1 MΩ or more?	Go to step 5.	Repair the harness connector between combination meter and brake fluid level switch.
5 CHECK LAN SYSTEM. Check the DTC in LAN system. <Ref. to LAN(diag)-9, Read Diagnostic Trouble Code (DTC).>	Is DTC of LAN system displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step 6.
6 CHECK COMBINATION METER. Check the combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Is combination meter OK?	Go to step 7.	Replace the combination meter. <Ref. to IDI-25, Combination Meter.>
7 CHECK VDC SYSTEM. Check the DTC in VDC system. <Ref. to VDC(diag)-23, Read Diagnostic Trouble Code (DTC).>	Is DTC of VDC system displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-35, List of Diagnostic Trouble Code (DTC).>	Go to step 8.
8 CHECK ELECTRONIC PARKING BRAKE CM. With the parking brake released, display the current data of the electronic parking brake CM using Subaru Select Monitor.	Is the «Brake Warning Light» ON?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step 9.
9 CHECK ELECTRONIC PARKING BRAKE CM. With the parking brake released, display the current data of the electronic parking brake CM using Subaru Select Monitor.	Is «Parking System Warning Light» ON?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step 10.
10 CHECK OTHER DTC DETECTION.	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.