12.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC C0221 PARKING POSITION SWITCH

DTC DETECTING CONDITION:

- Defective parking brake switch
- Defective harness connector

TROUBLE SYMPTOM:

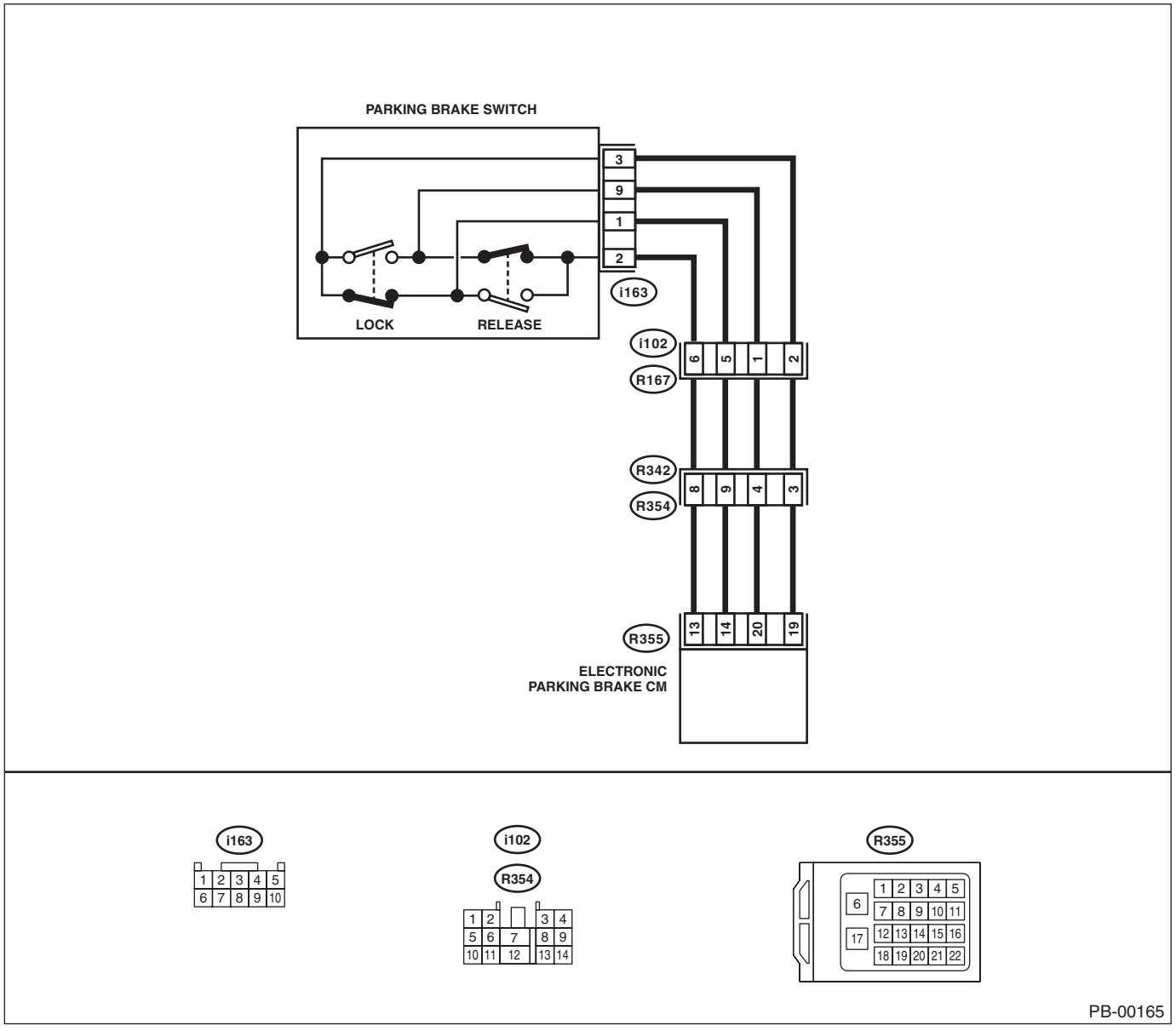
- Brake warning light blinks.
- Parking brake system does not operate.

NOTE:

- When the parking brake switch is stopped at the mid-operation, or operated too slowly, this DTC may be stored; this is not malfunction, however.
- When the parking brake switch is pressed or pulled for 90 seconds or more, the brake warning light blinks and subsequent switch operations are not accepted. When turning the ignition switch from OFF to ON, the operation enabled status is restored.

WIRING DIAGRAM:

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



	Step	Check	Yes	No
1	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from the electronic parking brake CM, and parking brake switch. 3) Measure the resistance of harness between electronic parking brake CM and parking brake switch connector. ***Connector & terminal*** ***(R355) No. 13 — (i163) No. 2:*** ***(R355) No. 14 — (i163) No. 1:*** ***(R355) No. 20 — (i163) No. 9:*** ***(R355) No. 19 — (i163) No. 3:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair the harness and connector between electronic parking brake CM and parking brake switch connector.
2	**CHECK HARNESS.** Measure the resistance of harness between parking brake switch connector and chassis ground. ***Connector & terminal*** ***(i163) No. 2 — Chassis ground:*** ***(i163) No. 1 — Chassis ground:*** ***(i163) No. 9 — Chassis ground:*** ***(i163) No. 3 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Repair ground short of harness between electronic parking brake CM and parking brake switch connector.
3	**CHECK HARNESS.** Measure the voltage between parking brake switch connector and chassis ground. ***Connector & terminal*** ***(i163) No. 2 (+) — Chassis ground (–):*** ***(i163) No. 1 (+) — Chassis ground (–):*** ***(i163) No. 9 (+) — Chassis ground (–):*** ***(i163) No. 3 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Repair short to power supply of harness between electronic parking brake CM and parking brake switch connector.
4	**CHECK PARKING BRAKE SWITCH.** Check the parking brake switch. <Ref. to PB-19, INSPECTION, Parking Brake Switch.>	Is the parking brake switch normal?	Go to step **5**.	Replace the parking brake switch. <Ref. to PB-18, Parking Brake Switch.>
5	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

B: DTC C0222 HILL HOLD SWITCH CIRCUIT

DTC DETECTING CONDITION:

- Defective hill hold switch
- Defective harness connector

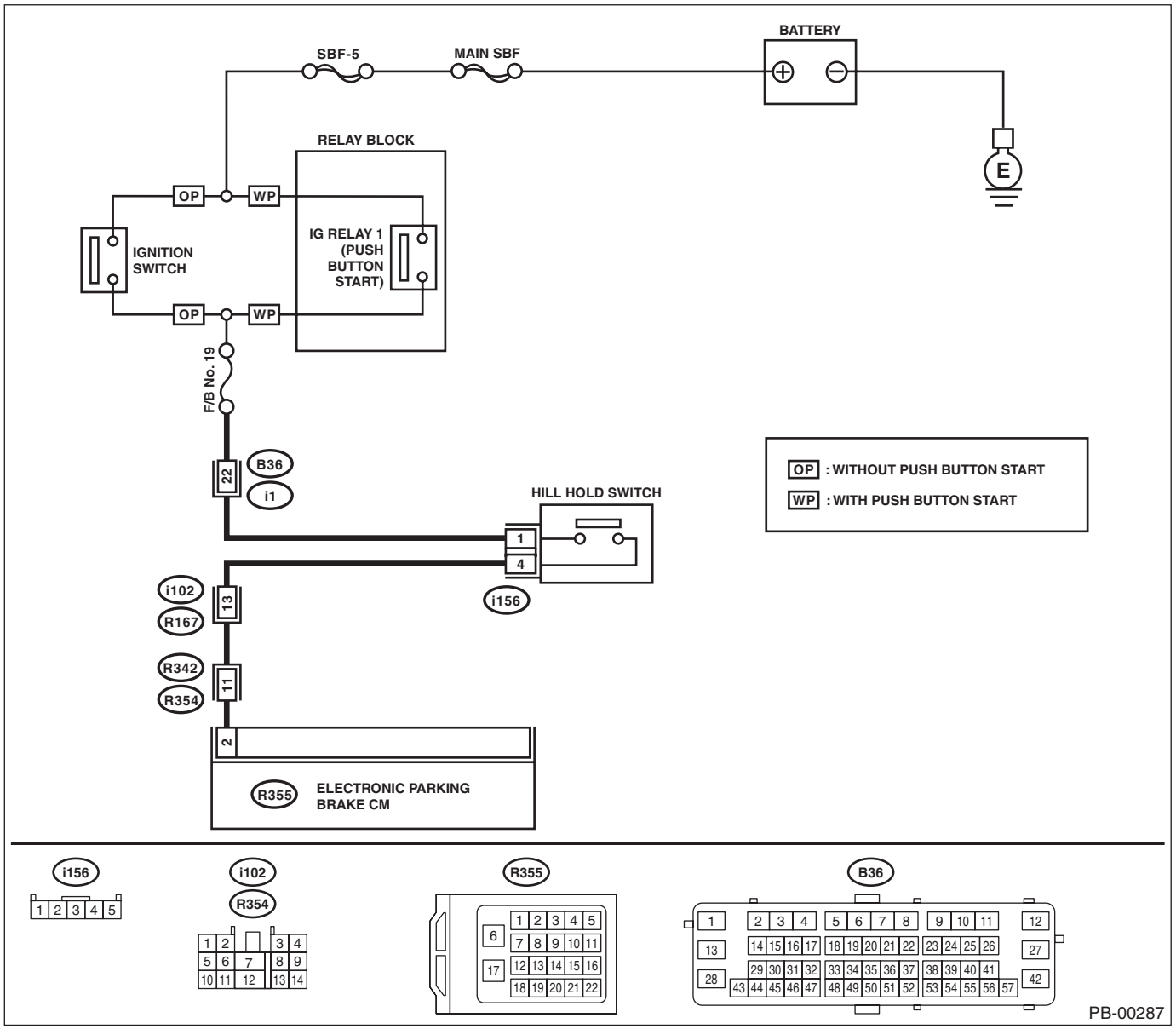
TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function cannot be set.

NOTE:
When the hill hold switch is pressed for 30 seconds or more, the hill hold indicator goes off, the brake warning light blinks, and subsequent switch operations are not accepted. When turning the ignition switch from OFF to ON, the operation enabled status is restored.

WIRING DIAGRAM:

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



	Step	Check	Yes	No
1	**CHECK HILL HOLD SWITCH POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from hill hold switch. 3) Turn the ignition switch to ON. 4) Measure the voltage between hill hold switch connector and chassis ground. ***Connector & terminal*** ***(i156) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit of hill hold switch.
2	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from the electronic parking brake CM. 3) Measure the resistance of harness between hill hold switch and electronic parking brake CM connector. ***Connector & terminal*** ***(i156) No. 4 — (R355) No. 2:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair the harness and connector between hill hold switch and electronic parking brake CM connector.
3	**CHECK HARNESS.** Measure the resistance of harness between hill hold switch connector and chassis ground. ***Connector & terminal*** ***(i156) No. 4 — Chassis ground:***	Is the resistance less than 1 MΩ?	Go to step **4**.	Repair ground short of harness between hill hold switch and electronic parking brake CM connector.
4	**CHECK HARNESS.** Measure the voltage between hill hold switch connector and chassis ground. ***Connector & terminal*** ***(i156) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **5**.	Repair short to power supply of harness between hill hold switch and electronic parking brake CM connector.
5	**CHECK HILL HOLD SWITCH.** Check the hill hold switch. <Ref. to PB-19, HILL HOLD SWITCH, INSPECTION, Parking Brake Switch.>	Is the hill hold switch normal?	Go to step **6**.	Replace the hill hold switch. <Ref. to PB-18, REMOVAL, Parking Brake Switch.>
6	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

C: DTC C0231 ECM FAILURE

DTC DETECTING CONDITION:
Faulty signal received from engine control module (ECM)
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

NOTE:
Refer to EN section for diagnostic procedure. <Ref. to EN(H4DO)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H6DO)(diag)-2, Basic Diagnostic Procedure.>

D: DTC C0232 AT ABNORMAL

DTC DETECTING CONDITION:
Faulty signal received from transmission control module (TCM)
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

NOTE:
Refer to CVT or 5AT section for diagnostic procedure. <Ref. to CVT(diag)-2, Basic Diagnostic Procedure.> <Ref. to 5AT(diag)-2, Basic Diagnostic Procedure.>

E: DTC C0233 MT SHIFT SWITCH CIRCUIT

DTC DETECTING CONDITION:

- Defective neutral position switch
- Defective back-up light switch
- Defective harness connector

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

	Step	Check	Yes	No
1	**CHECK OUTPUT OF NEUTRAL POSITION SWITCH USING SUBARU SELECT MONITOR.** 1) Select “Current Data Display & Save” for “Engine Control System” on Subaru Select Monitor. <Ref. to EN(H4DO)(diag)-38, Subaru Select Monitor.> <Ref. to EN(H6DO)(diag)-40, Subaru Select Monitor.> 2) Read the «Neutral switch» output displayed on the screen.	Is “Neutral” displayed on the screen at neutral state?	Go to step **2**.	Perform the diagnosis for the engine. <Ref. to EN(H4DO)(diag)-45, Read Diagnostic Trouble Code (DTC).> <Ref. to EN(H6DO)(diag)-48, Read Diagnostic Trouble Code (DTC).>
2	**CHECK OUTPUT OF BACK-UP LIGHT SWITCH USING SUBARU SELECT MONITOR.** 1) Select “Current Data Display & Save” for “Integ. unit mode” on Subaru Select Monitor. <Ref. to BC(diag)-12, Read Current Data.> 2) Read the «MT Reverse Switch» output displayed on the screen.	Is “ON” displayed on the screen at reverse state?	Go to step **3**.	Check DTC of integrated unit. <Ref. to BC(diag)-10, Read Diagnostic Trouble Code (DTC).>
3	**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 **4**.
4	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 2) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 3) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **5**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

F: DTC C0234 VDC FAILURE

DTC DETECTING CONDITION:

Faulty signal received from VDC control module

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.
- Parking brake system occasionally may not operate.

NOTE:

Refer to VDC section for diagnostic procedure. <Ref. to VDC(diag)-2, Basic Diagnostic Procedure.>

G: DTC C0235 IGNITION SWITCH CIRCUIT

DTC DETECTING CONDITION:

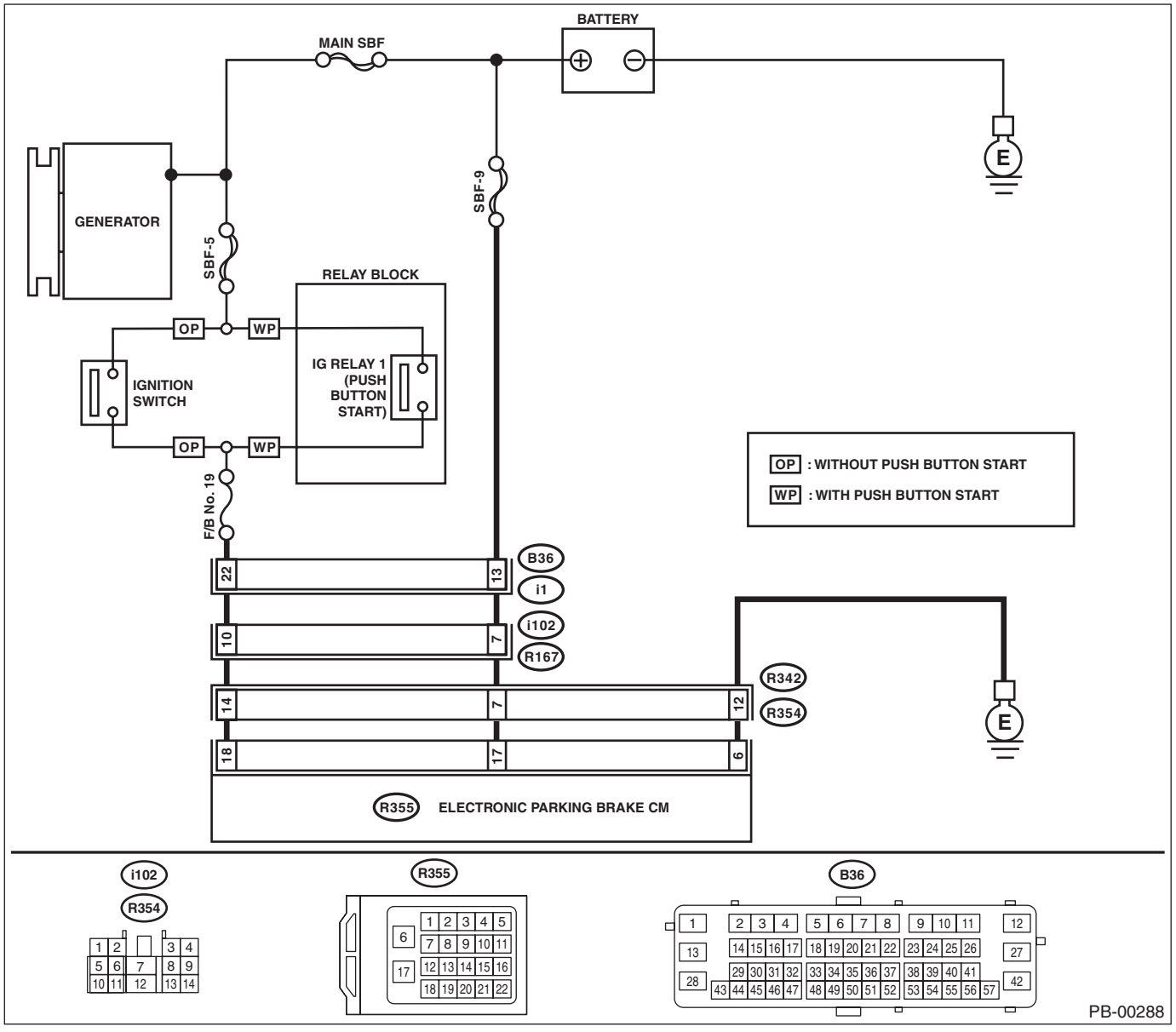
IGN input of the electronic parking brake control module and IGN input of VDC control module do not match.

TROUBLE SYMPTOM:

- Parking brake cannot be released.
- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

WIRING DIAGRAM:

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



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE FOR ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from the electronic parking brake CM. 3) Turn the ignition switch to ON. 4) Measure the resistance between electronic parking brake CM connector and chassis ground. ***Connector & terminal (R355) No. 18 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit.
2	**CHECK GROUND CIRCUIT OF ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between electronic parking brake CM connector and chassis ground. ***Connector & terminal (R355) No. 6 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the defective ground circuit of the electronic parking brake CM.
3	**CHECK VDC.** 1) Turn the ignition switch to ON. 2) Check DTC of VDC. <Ref. to VDC(diag)-23, Read Diagnostic Trouble Code (DTC).>	Is DTC of VDC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-35, List of Diagnostic Trouble Code (DTC).>	Go to step **4**.
4	**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 **5**.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of power supply circuit, ground circuit and electronic parking brake CM connector?	Repair the connector.	Go to step **6**.
6	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

H: DTC C0236 CRUISE CONTROLLER COMMUNICATION ERROR

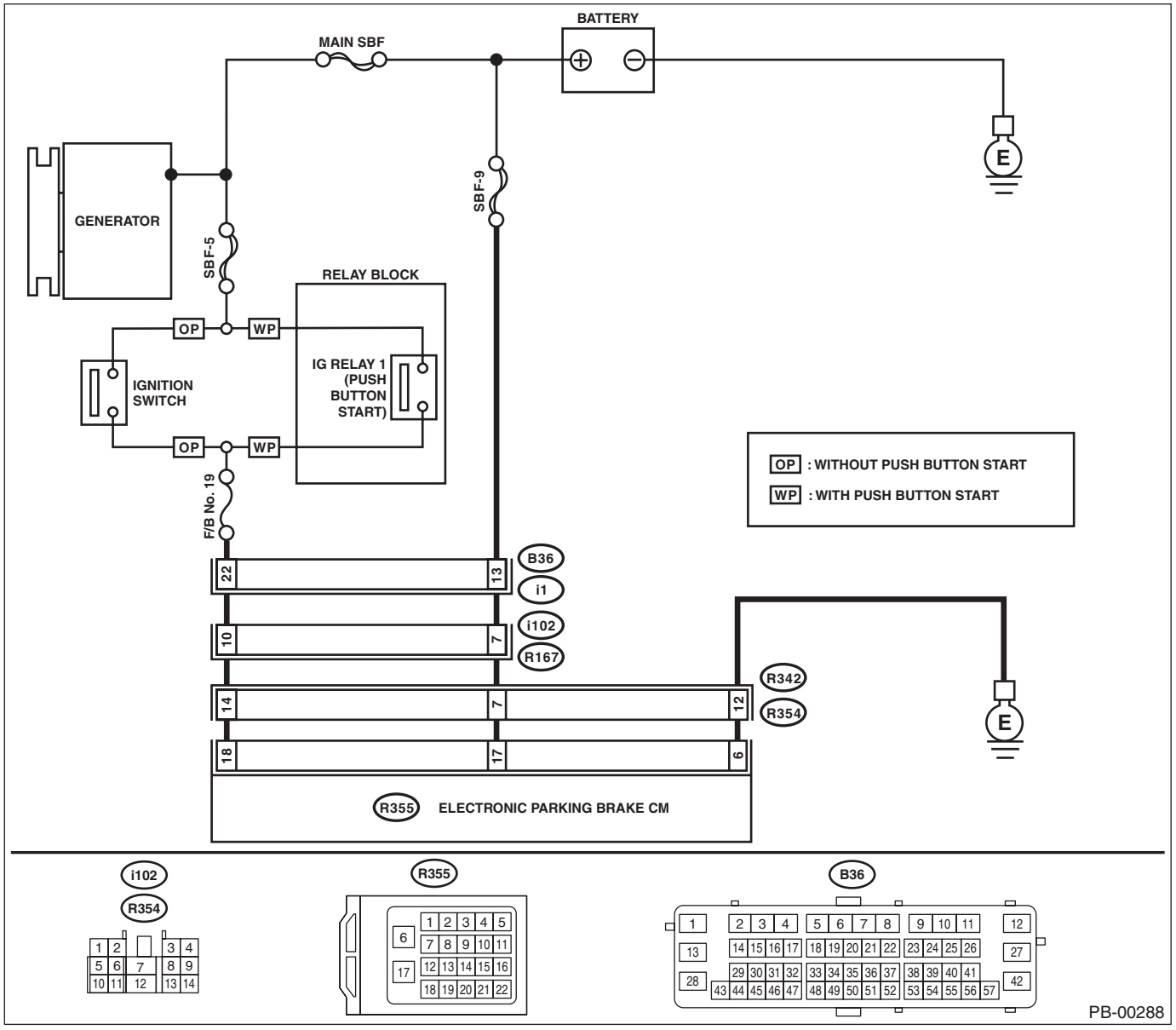
DTC DETECTING CONDITION:
Faulty signal is received from the stereo camera.
TROUBLE SYMPTOM:
EyeSight does not operate.

NOTE:
Refer to the EyeSight (DIAGNOSTICS) section for diagnostic procedure. <Ref. to ES(diag)-2, Basic Diagnostic Procedure.>

I: DTC C0241 ELECTRICAL CONTROL MODULE

DTC DETECTING CONDITION:
Defective electronic parking brake control module
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

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

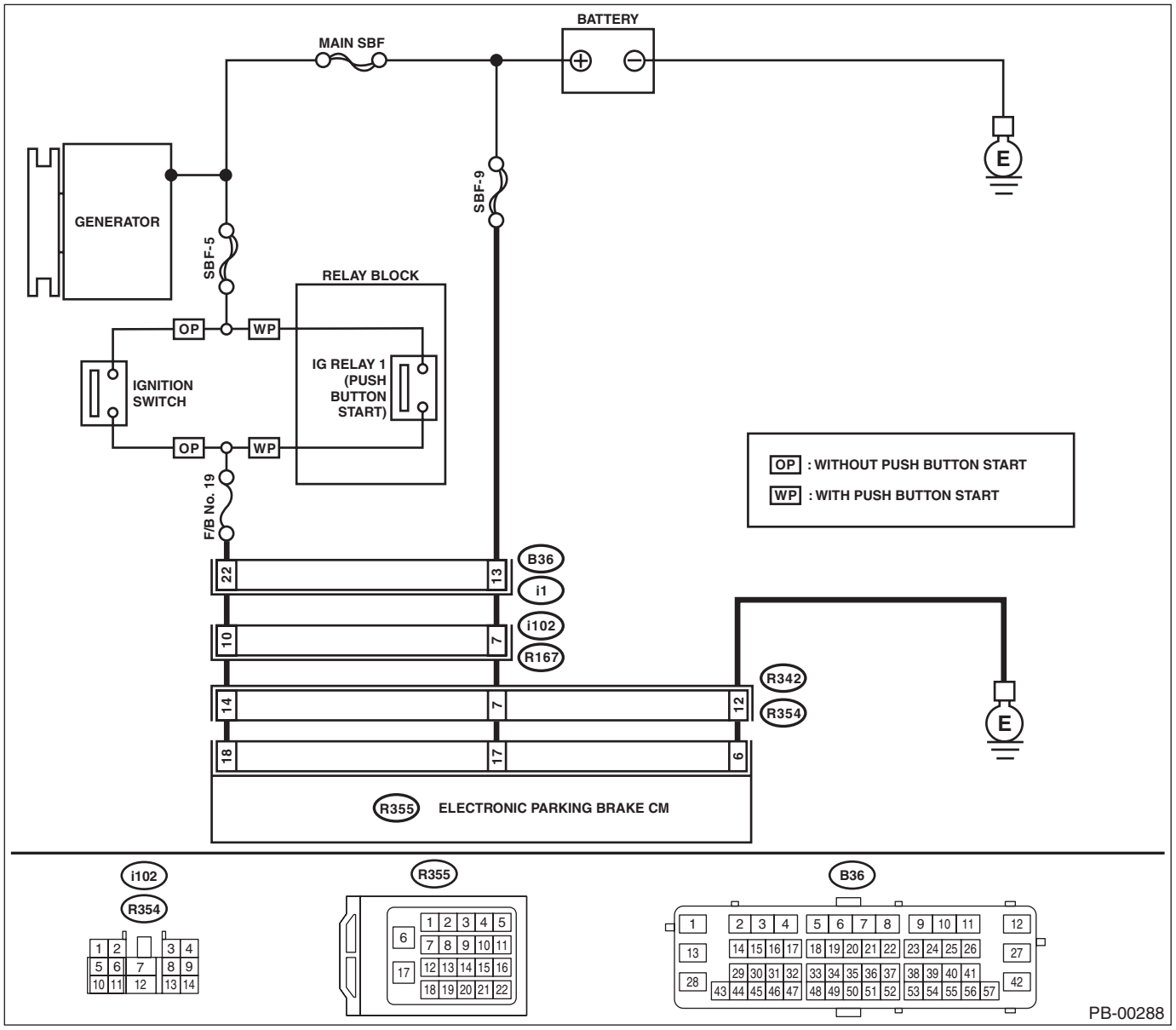


	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE FOR ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from the electronic parking brake CM. 3) Turn the ignition switch to ON. 4) Measure the voltage between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 18 (+) — Chassis ground (–):*** ***(R355) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit.
2	**CHECK GROUND CIRCUIT OF ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 6 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the defective ground circuit of the electronic parking brake CM.
3	**CHECK CAUSE OF SIGNAL NOISE.** Make sure the radio wave devices and electronic components are installed correctly.	Are the radio wave devices and electronic components installed correctly?	Go to step **4**.	Install the radio wave devices and electronic components properly.
4	**CHECK CAUSE OF SIGNAL NOISE.** Check if the noise sources (such as an antenna) are installed near the electronic parking brake CM harness.	Are noise sources installed?	Install the noise sources apart from the electronic parking brake CM harness.	Go to step **5**.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of power supply circuit, ground circuit and electronic parking brake CM connector?	Repair the connector.	Go to step **6**.
6	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

J: DTC C0242 POWER SUPPLY VOLTAGE FAILURE

DTC DETECTING CONDITION:
Defective power supply voltage for the electronic parking brake control module
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

NOTE:
Warning lights go off if voltage returns.
WIRING DIAGRAM:
Parking brake / brake fluid level warning light system <Ref. to WI-229, Parking Brake / Brake Fluid Level Warning Light System.>



	Step	Check	Yes	No
1	**CHECK GENERATOR.** 1) Start the engine. 2) Run the engine at idle after warming up. 3) Measure the voltage between generator terminal B and chassis ground. ***Terminals*** ***Generator terminal B (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the generator.
2	**CHECK BATTERY TERMINAL.** Turn the ignition switch to OFF.	Are the positive and negative battery terminals clamped tightly?	Go to step **3**.	Tighten the terminal.
3	**CHECK INPUT VOLTAGE FOR ELECTRONIC PARKING BRAKE CM.** 1) Disconnect the connectors from the electronic parking brake CM. 2) Run the engine at idle. 3) Operate devices such as headlights, air conditioner, defogger, etc. which produce an electrical load. 4) Measure the voltage between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 18 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **4**.	Repair the power supply circuit.
4	**CHECK GROUND CIRCUIT OF ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 6 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair the defective ground circuit of the electronic parking brake CM.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of power supply circuit, ground circuit and electronic parking brake CM connector?	Repair the connector.	Go to step **6**.
6	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

K: DTC C0242 INTERNAL POWER SUPPLY VOLTAGE ABNORMAL

NOTE:
For the diagnostic procedure, refer to “DTC C0242 POWER SUPPLY VOLTAGE FAILURE”. <Ref. to PB(diag)-42, DTC C0242 POWER SUPPLY VOLTAGE FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

L: DTC C0243 PARAMETER SELECTION ERROR

DTC DETECTING CONDITION:
Parameter selection error for the electronic parking brake control module
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

NOTE:
After performing Parameter Initialization Mode, 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.>

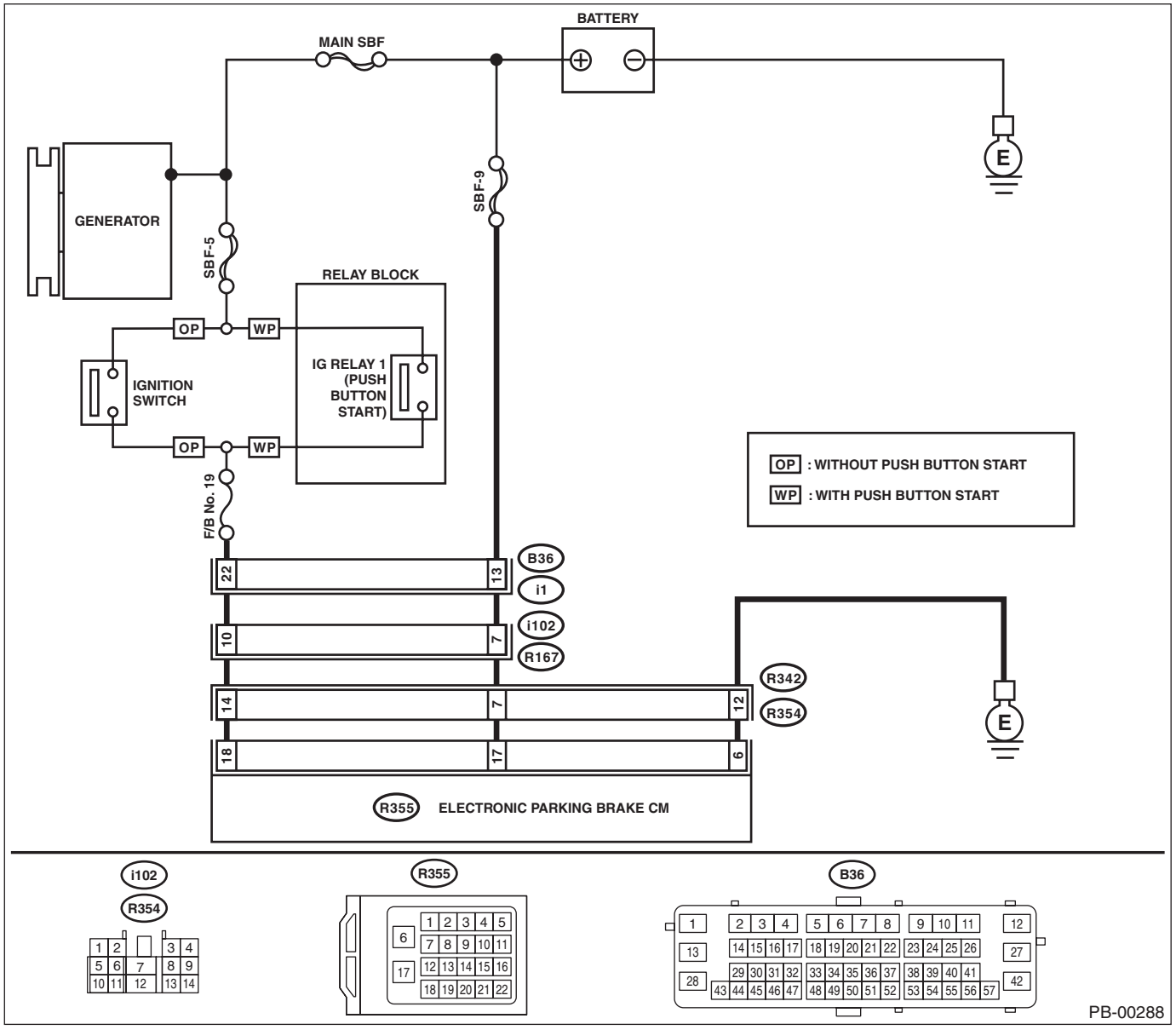
	Step	Check	Yes	No
1	**CHECK ECM, TCM AND COMBINATION METER.** Check that ECM, TCM and combination meter with correct specifications are installed.	Are correct ECM, TCM and combination meter installed?	Go to step **2**.	Replace with parts with correct specifications.
2	**INITIALIZE PARAMETER USING SUBARU SELECT MONITOR.** 1) Using the Subaru Select Monitor, initialize the parameter for the electronic parking brake CM. <Ref. to PB(diag)-17, PARAMETER INITIALIZATION MODE, OPERATION, Subaru Select Monitor.> 2) Perform calibration of the force sensor. <Ref. to PB(diag)-16, FORCE SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.> 3) Perform calibration of the clutch sensor. <Ref. to PB(diag)-17, CLUTCH SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.> 4) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	It results from a temporary noise interference.

M: DTC C0251 ACTUATOR LINE (ABNORMAL)

DTC DETECTING CONDITION:
Defective electronic parking brake control module

TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

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



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE FOR ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from the electronic parking brake CM. 3) Turn the ignition switch to ON. 4) Measure the voltage between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 18 (+) — Chassis ground (–):*** ***(R355) No. 17 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit.
2	**CHECK GROUND CIRCUIT OF ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between electronic parking brake CM connector and chassis ground. ***Connector & terminal*** ***(R355) No. 6 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the defective ground circuit of the electronic parking brake CM.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of power supply circuit, ground circuit and electronic parking brake CM connector?	Repair the connector.	Go to step **4**.
4	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Release the parking brake, and then operate again. 5) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **5**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

N: DTC C0252 MOTOR MALFUNCTION

NOTE:
• For the diagnostic procedure, refer to “DTC C0251 ACTUATOR LINE (ABNORMAL)”. <Ref. to PB(diag)-45, DTC C0251 ACTUATOR LINE (ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
• When the operation and release of the parking brake is repeated excessively, this DTC may be stored.

O: DTC C0253 ACTUATOR STROKE EXCESS

DTC DETECTING CONDITION:
Actuator stroke too long
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

	Step	Check	Yes	No
1	**CHECK PARKING BRAKE ASSEMBLY.** Check the parking brake cable connection of parking brake assembly.	Is there any trouble with the parking brake shoe lever or the parking brake cable connection?	Repair the parking brake cable connection. Go to step **2**.	Go to step **2**.
2	**CHECK PARKING BRAKE ASSEMBLY.** Check the parking brake assembly disc rotor and shoe assembly. <Ref. to PB-16, INSPECTION, Parking Brake Assembly (Rear Disc Brake).>	Are the disc rotor and shoe assembly normal?	Adjust the shoe clearance of the parking brake assembly. <Ref. to PB-17, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).> Go to step **3**.	Replace the defective parts, and adjust the shoe clearance of the parking brake assembly. <Ref. to PB-17, ADJUSTMENT, Parking Brake Assembly (Rear Disc Brake).> Go to step **3**.
3	**PERFORM CALIBRATION OF FORCE SENSOR USING SUBARU SELECT MONITOR.** 1) Perform calibration of force sensor using the Subaru Select Monitor. <Ref. to PB(diag)-16, FORCE SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.> 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	It results from poor adjustment of the shoe clearance.

P: DTC C0261 IMPROPER CAN COMMUNICATION

DTC DETECTING CONDITION:
Defective CAN communication
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

NOTE:
For the diagnostic procedure, refer to LAN section. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

Q: DTC C0262 TCM COMMUNICATION CIRCUIT

DTC DETECTING CONDITION:

No CAN signal received from transmission control module (TCM).

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

	Step	Check	Yes	No
1	**CHECK AT SYSTEM OR CVT SYSTEM.** 1) Start the engine. 2) Check the DTC in AT system or CVT system.	Is DTC of AT system or CVT system displayed?	Perform the diagnosis according to DTC of AT system or CVT system. <Ref. to 5AT(diag)-33, List of Diagnostic Trouble Code (DTC).> <Ref. to CVT(diag)-28, 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 there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

R: DTC C0263 ECM COMMUNICATION CIRCUIT

DTC DETECTING CONDITION:

No CAN signal received from engine control module (ECM).

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

Step		Check	Yes	No
1	**CHECK ECM.** 1) Start the engine. 2) Check DTC of ECM.	Is DTC of ECM displayed?	Perform the diagnosis according to DTC concerning ECM.	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 there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

S: DTC C0264 VDC COMMUNICATION SYSTEM

DTC DETECTING CONDITION:
No CAN signal received from VDC control module.
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Parking brake system does not operate.

	Step	Check	Yes	No
1	**CHECK VDC SYSTEM.** 1) Start the engine. 2) 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 DTCs for the VDC system. <Ref. to VDC(diag)-35, 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 there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

T: DTC C0265 BODY INTEGRATED MODULE COMMUNICATION CIRCUIT

DTC DETECTING CONDITION:

No CAN signal received from body integrated unit.

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT.** 1) Start the engine. 2) Check DTC of body integrated unit. <Ref. to BC(diag)-10, Read Diagnostic Trouble Code (DTC).>	Is DTC of the body integrated unit displayed?	Perform the diagnosis according to DTC for the body integrated unit. <Ref. to BC(diag)-24, List of Diagnostic Trouble Code (DTC).>	Go to step **2**.
2	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **3**.
3	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

U: DTC C0266 CRUISE CONTROLLER COMMUNICATION SYSTEM

DTC DETECTING CONDITION:
No CAN signal received from the stereo camera.
TROUBLE SYMPTOM:
EyeSight does not operate.

	Step	Check	Yes	No
1	**CHECK STEREO CAMERA.** 1) Start the engine. 2) Check DTC of the stereo camera. <Ref. to ES(diag)-40, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is a DTC of the stereo camera displayed?	Perform the diagnosis according to DTC of the stereo camera. <Ref. to ES(diag)-78, 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, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC of LAN system displayed?	Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

V: DTC C0267 METER COMMUNICATION SYSTEM

DTC DETECTING CONDITION:
No CAN signal received from combination meter.
TROUBLE SYMPTOM:
- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.
- EyeSight does not operate.

	Step	Check	Yes	No
1	**CHECK COMBINATION METER.** Check the DTC of combination meter. <Ref. to IDI-11, DTC DISPLAY MODE, OPERATION, Combination Meter System.>	Is DTC of combination meter displayed?	Perform the diagnosis according to DTC of the combination meter. <Ref. to IDI-11, DTC DISPLAY MODE, OPERATION, Combination Meter System.>	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 there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-54, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

W: DTC C0271 FORCE SENSOR LINE (ABNORMAL)

NOTE:
For the diagnostic procedure, refer to “DTC C0251 ACTUATOR LINE (ABNORMAL)”. <Ref. to PB(diag)-45, DTC C0251 ACTUATOR LINE (ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

X: DTC C0272 TEMPERATURE SENSOR LINE (ABNORMAL)

NOTE:
- For the diagnostic procedure, refer to “DTC C0251 ACTUATOR LINE (ABNORMAL)”. <Ref. to PB(diag)-45, DTC C0251 ACTUATOR LINE (ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
- When the operation and release of the parking brake is repeated excessively, this DTC may be stored.

Y: DTC C0273 STROKE SENSOR LINE (ABNORMAL)

NOTE:
For the diagnostic procedure, refer to “DTC C0251 ACTUATOR LINE (ABNORMAL)”. <Ref. to PB(diag)-45, DTC C0251 ACTUATOR LINE (ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Z: DTC C0274 CLUTCH SENSOR CIRCUIT

DTC DETECTING CONDITION:

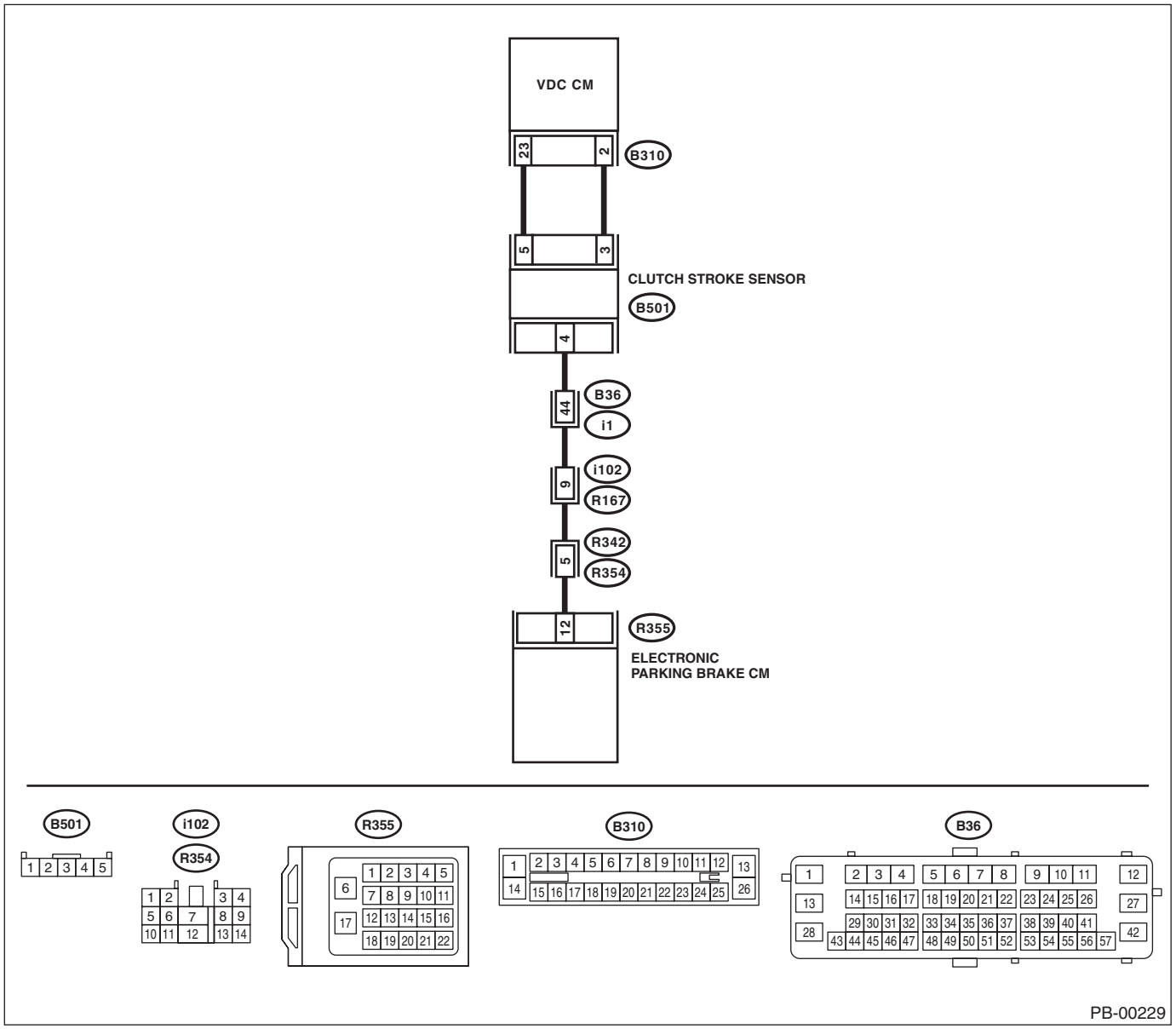
- Defective clutch stroke sensor
- Defective harness connector

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.
- Parking brake is not released even after depressing the clutch pedal to release the parking brake switch.

WIRING DIAGRAM:

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



	Step	Check	Yes	No
1	**PERFORM CALIBRATION OF CLUTCH SENSOR USING SUBARU SELECT MONITOR.** 1) Select "Maintenance Operation Mode" on Subaru Select Monitor. 2) Perform the Clutch Sensor Calibration Mode. <Ref. to PB(diag)-17, CLUTCH SENSOR CALIBRATION MODE, OPERATION, Subaru Select Monitor.> 3) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **2**.	It results from poor calibration of the clutch stroke sensor.
2	**CHECK OUTPUT OF CLUTCH STROKE SENSOR USING SUBARU SELECT MONITOR.** 1) Select "Current Data Display & Save" on the Subaru Select Monitor. <Ref. to PB(diag)-13, Subaru Select Monitor.> 2) Read the clutch stroke sensor output displayed on the screen.	When the clutch pedal is operated, does the stroke sensor output value displayed on the screen change in accordance with the clutch pedal?	Go to step **11**.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from clutch stroke sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between clutch stroke sensor connector terminals. ***Connector & terminal*** ***(B501) No. 3 (+) — (B501) No. 5 (–):***	Is the voltage 5 V or more?	Go to step **7**.	Go to step **4**.
4	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from VDCCM. 3) Measure the resistance of harness between clutch stroke sensor and VDCCM connector. ***Connector & terminal*** ***(B501) No. 3 — (B310) No. 2:*** ***(B501) No. 5 — (B310) No. 23:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair the harness and connector between clutch stroke sensor and VDCCM connector.
5	**CHECK HARNESS.** Measure the resistance of harness between clutch stroke sensor and chassis ground. ***Connector & terminal*** ***(B501) No. 3 — Chassis ground:*** ***(B501) No. 5 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair the ground short of harness between clutch stroke sensor and VDCCM connector.
6	**CHECK HARNESS.** Measure the voltage between clutch stroke sensor and chassis ground. ***Connector & terminal*** ***(B501) No. 3 (+) — Chassis ground (–):*** ***(B501) No. 5 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Check DTC of VDC. <Ref. to VDC(diag)-23, Read Diagnostic Trouble Code (DTC).>	Repair short to power supply of harness between clutch stroke sensor and VDCCM connector.
7	**CHECK HARNESS.** 1) Disconnect the connectors from the electronic parking brake CM. 2) Measure the resistance of harness between clutch stroke sensor and electronic parking brake CM connector. ***Connector & terminal*** ***(B501) No. 4 — (B355) No. 12:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair the harness and connector between clutch stroke sensor and electronic parking brake CM connector.

	Step	Check	Yes	No
8	**CHECK HARNESS.** Measure the resistance of harness between clutch stroke sensor and chassis ground. ***Connector & terminal*** ***(B501) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **9**.	Repair ground short of harness between clutch stroke sensor and electronic parking brake CM connector.
9	**CHECK HARNESS.** Measure the voltage between clutch stroke sensor and chassis ground. ***Connector & terminal*** ***(B501) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **10**.	Repair short to power supply of harness between clutch stroke sensor and electronic parking brake CM connector.
10	**CHECK CLUTCH STROKE SENSOR OUTPUT.** 1) Connect all connectors. 2) Turn the ignition switch to ON. 3) Using an oscilloscope, check clutch stroke sensor output. ***Connector & terminal*** ***(B501) No. 4 (+) — Chassis ground (–):***	Is there any output?	Go to step **11**.	Replace the clutch master cylinder. <Ref. to CL-18, Master Cylinder.>
11	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Connect all connectors. 2) Clear the memory. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Go to step **12**.
12	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary poor contact interference.

AA:DTC C0275 LONGITUDINAL G SENSOR CIRCUIT

DTC DETECTING CONDITION:

- Defective longitudinal G sensor
- Defective harness connector

TROUBLE SYMPTOM:

- Brake warning light blinks.
- Hill hold function and accelerator interlocking release function do not operate.

	Step	Check	Yes	No
1	**CHECK INSTALLATION OF VDCCM&H/U.**	Is VDCCM&H/U installed properly without being tilted? Is the bracket deformation-free? Are the VDCCM&H/U installation bolts installed without missing or getting loose?	Go to step **2**.	Repair the defective part. Go to step **2**. • Install VDCCM&H/U properly. • Replace the bracket if faulty. • Tighten the VDCCM&H/U installation bolt. <Ref. to VDC-5, VDC CONTROL MODULE AND HYDRAULIC CONTROL UNIT (VDCCM&H/U), COMPONENT, General Description.>
2	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Park the vehicle on a level surface. 2) Connect Subaru Select Monitor, and select "VDC" and then "Current Data Display & Save". <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 3) Read the «Fr Rr G sensor Output» displayed on display.	Is the indicated reading of the longitudinal G sensor on the monitor display –2 — 2 m/s^2?	Go to step **3**.	Recheck from step 1, and if the problem is not solved, go to next. Go to step **6**.
3	**SET 0 POINT FOR LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Select "VDC", and then "Function Check Sequence". 2) Perform the "Longitudinal G sensor & lateral G sensor 0 point setting mode". <Ref. to VDC-20, LONGITUDINAL G SENSOR & LATERAL G SENSOR 0 POINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Is the 0 point setting successful?	Go to step **4**.	Recheck from step 1, and when the 0 point setting is not possible, replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
4	**PERFORM DRIVING TEST.** Drive the vehicle approximately 10 minutes, and check if the warning lights illuminate/blink or improperly operate during driving. In a safe place, drive the vehicle while alternating acceleration and deceleration as much as possible.	Does the brake warning light remain off? Does the parking brake operate without malfunction?	Go to step **5**.	Recheck from step 1, and if the warning lights illuminate/blink or there is abnormal operation, replace the electronic parking CM. <Ref. to PB-7, Parking Brake Actuator.>

	Step	Check	Yes	No
5	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Park the vehicle on a level surface. 2) Connect Subaru Select Monitor, and select “VDC” and then “Current Data Display & Save”. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 3) Read the «Fr Rr G sensor Output» displayed on display.	Is the indicated reading of the longitudinal G sensor on the monitor display –1.5 — 1.5 m/s^2?	It results from a temporary noise interference.	Recheck from step 1, and if the problem is not solved, replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
6	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Remove the VDCCM&H/U installation bolt and bracket. 2) Keep VDCCM&H/U in a horizontal position. 3) Connect Subaru Select Monitor, and select “VDC” and then “Current Data Display & Save”. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the «Fr Rr G sensor Output» displayed on display.	When the VDCCM&H/U is in a horizontal position, is the indicated reading of the longitudinal G sensor on the monitor display –1.5 — 1.5 m/s^2?	Check the bracket and brake pipe, and install VDCCM&H/U in a horizontal position to the vehicle.	Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

AB:DTC C0281 MID STOP CONDITION

DTC DETECTING CONDITION:
Actuator stops in the mid-stroke
TROUBLE SYMPTOM:
Brake warning light blinks.

NOTE:
• When the actuator stops in the mid-stroke due to power supply error (ex. voltage drop during cranking) during the operation, this DTC is stored. If the actuator operates normally after operating and then releasing the parking brake again, this is not malfunction.
• When being restored from the mid-stroke stop state, the actuator will have full-stroke once, and therefore, operation time may take approximately 10 seconds.

	Step	Check	Yes	No
1	**CHECK ELECTRONIC PARKING BRAKE CM USING SUBARU SELECT MONITOR.** 1) Turn the ignition switch to ON. 2) Release the parking brake. 3) Approximately 10 seconds after releasing the parking brake, clear the memory using the Subaru Select Monitor. <Ref. to PB(diag)-23, Clear Memory Mode.> 4) Read the DTC.	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to PB(diag)-30, List of Diagnostic Trouble Code (DTC).>	It results from a temporary voltage drop.

AC:DTC C0282 EMERGENCY CANCEL STATUS

DTC DETECTING CONDITION:
Emergency release (manual release) of the parking brake was performed.
TROUBLE SYMPTOM:
Brake warning light blinks.

NOTE:
• When emergency release of the parking brake is performed, this DTC is stored. If the actuator operates normally after operating and then releasing the parking brake following the emergency release, this is not malfunction. When the actuator operates normally, the brake warning light goes off.
• When being restored from emergency release state, the actuator will have full-stroke once, and therefore, operation time may take approximately 10 seconds.
• When emergency release is performed, check the electronic parking brake control module and brake shoe. For details, refer to the restoring procedures after emergency release. <Ref. to PB-21, INSPECTION, Emergency Release of Electronic Parking Brake.>

	Step	Check	Yes	No
1	**INTERVIEW CUSTOMERS.** Ask the user if emergency release was performed.	Was the emergency release performed?	Go to step **2**.	Go to step **3**.
2	**CHECK ELECTRONIC PARKING BRAKE CM.** 1) Turn the ignition switch to ON, and then release the parking brake. 2) After approximately 10 seconds, clear the memory using the Subaru Select Monitor. <Ref. to PB(diag)-23, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to PB(diag)-22, Inspection Mode.> 4) Read the DTC.	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to PB(diag)-30, List of Diagnostic Trouble Code (DTC).>	End.
3	**CHECK PARKING BRAKE ASSEMBLY.** Check that the parking brake assembly does not have malfunction. <Ref. to PB-21, INSPECTION, Emergency Release of Electronic Parking Brake.>	Is the parking brake assembly free of malfunction?	Replace the electronic parking brake CM. <Ref. to PB-7, Parking Brake Actuator.>	Repair the parking brake assembly.