# 12. Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## A: DTC C1211 FR WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT

NOTE:
For the diagnostic procedure, refer to “DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT”. <Ref. to VDC(diag)-41, DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## B: DTC C1221 FL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT

NOTE:
For the diagnostic procedure, refer to “DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT”. <Ref. to VDC(diag)-41, DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## C: DTC C1231 RR WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT

NOTE:
For the diagnostic procedure, refer to “DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT”. <Ref. to VDC(diag)-41, DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## D: DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT

**DTC DETECTING CONDITION:**

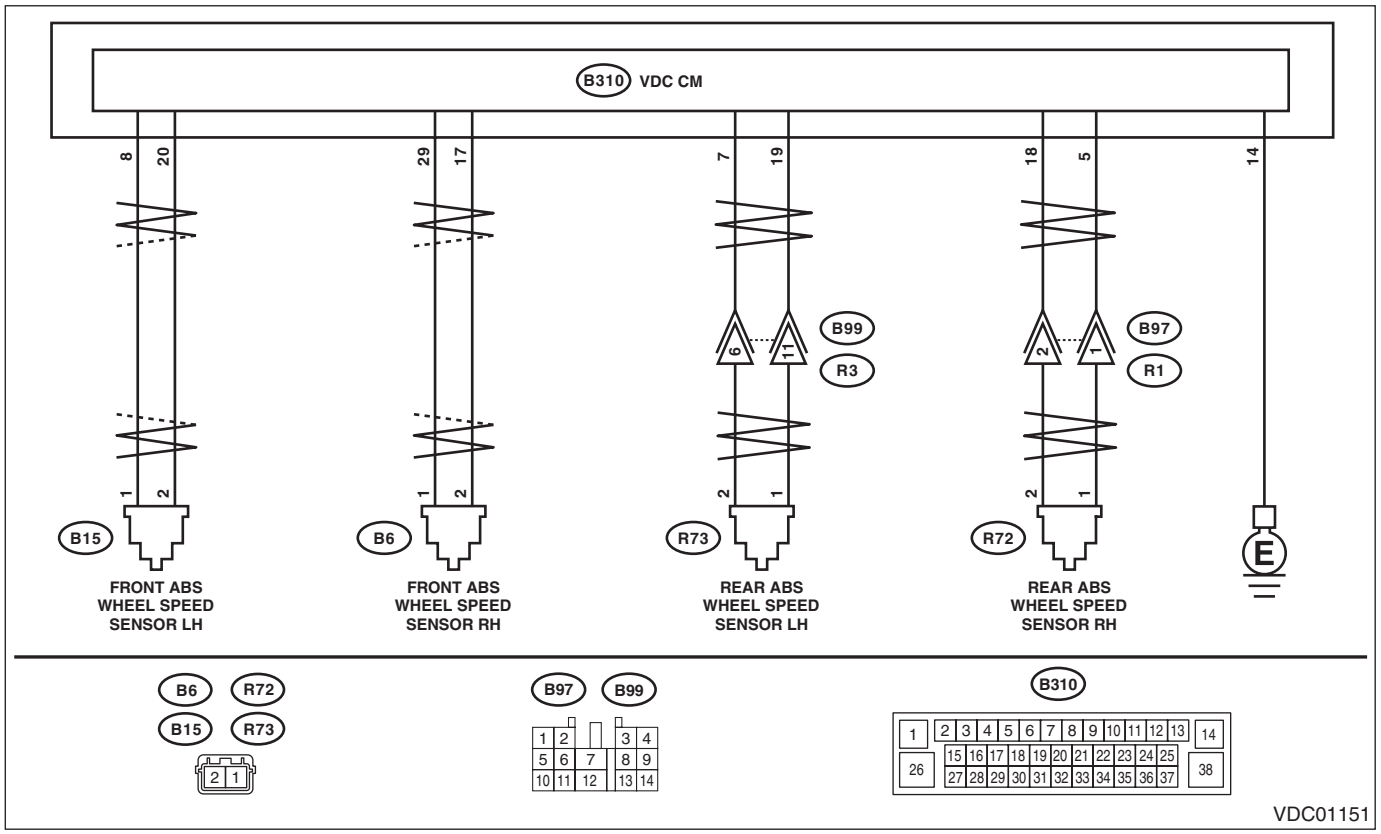
- Defective ABS wheel speed sensor (broken wire, input voltage too high)
- Defective harness connector

**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**

Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK POOR CONTACT OF CONNECTOR.**<br>Check if there is poor contact between VDCCM&H/U and ABS wheel speed sensor. | Is there poor contact? | Repair the connector. | Go to step **2**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 2 | **CHECK HARNESS CONNECTOR BETWEEN VDCCM&H/U AND ABS WHEEL SPEED SENSOR.**<br>1) Disconnect the connector (B310) from the VDCCM&H/U.<br>2) Disconnect the connector from ABS wheel speed sensor.<br>3) Measure the resistance between VDCCM&H/U connector and ABS wheel speed sensor connector.<br>***Connector & terminal***<br>***DTC C1211***<br>***(B310) No. 29 — (B6) No. 1:***<br>***(B310) No. 17 — (B6) No. 2:***<br>***DTC C1221***<br>***(B310) No. 8 — (B15) No. 1:***<br>***(B310) No. 20 — (B15) No. 2:***<br>***DTC C1231***<br>***(B310) No. 5 — (R72) No. 1:***<br>***(B310) No. 18 — (R72) No. 2:***<br>***DTC C1241***<br>***(B310) No. 19 — (R73) No. 1:***<br>***(B310) No. 7 — (R73) No. 2:*** | Is the resistance less than 1 Ω? | Go to step **3**. | Repair the harness connector between VDCCM&H/U and ABS wheel speed sensor. |
| 3 | **CHECK GROUND SHORT OF HARNESS.**<br>Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***DTC C1211***<br>***(B310) No. 29 — Chassis ground:***<br>***DTC C1221***<br>***(B310) No. 8 — Chassis ground:***<br>***DTC C1231***<br>***(B310) No. 5 — Chassis ground:***<br>***DTC C1241***<br>***(B310) No. 19 — Chassis ground:*** | Is the resistance 1 MΩ or more? | Go to step **4**. | Repair the harness connector between VDCCM&H/U and ABS wheel speed sensor. |
| 4 | **CHECK ABS WHEEL SPEED SENSOR POWER SUPPLY CIRCUIT.**<br>1) Connect the VDCCM&H/U connector.<br>2) Connect the ABS wheel speed sensor connector.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between ABS wheel speed sensor connector and chassis ground.<br>***Connector & terminal***<br>***DTC C1211***<br>***(B6) No. 2 (+) — Chassis ground (–):***<br>***DTC C1221***<br>***(B15) No. 2 (+) — Chassis ground (–):***<br>***DTC C1231***<br>***(R72) No. 2 (+) — Chassis ground (–):***<br>***DTC C1241***<br>***(R73) No. 2 (+) — Chassis ground (–):*** | Is the voltage 5 — 16 V? | Go to step **6**. | Go to step **5**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **CHECK VDCCM&H/U POWER SUPPLY CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the VDCCM&H/U connector.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between VDCCM&H/U connector terminals.<br>***Connector & terminal***<br>***(B310) No. 4 (+) — (B310) No. 14 (–):***<br>***(B310) No. 1 (+) — (B310) No. 14 (–):***<br>***(B310) No. 26 (+) — (B310) No. 14 (–):*** | Is the voltage 10 — 15 V? | Go to step **6**. | Check the generator, battery and VDCCM&H/U power supply circuit. |
| 6 | **CHECK ABS WHEEL SPEED SENSOR SIGNAL.**<br>1) Install the ABS wheel speed sensor.<br>2) Prepare an oscilloscope.<br>3) Check the ABS wheel speed sensor. <Ref. to VDC-39, CHECK ABS WHEEL SPEED SENSOR UNIT, INSPECTION, Front ABS Wheel Speed Sensor.> | Is the pattern the same waveform as shown in the figure? | Go to step **7**. | Replace the ABS wheel speed sensor. <Ref. to VDC-37, Front ABS Wheel Speed Sensor.> |
| 7 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **8**. |
| 8 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## E: DTC C1212 FR WHEEL SPEED SENSOR SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1242 RL WHEEL SPEED SENSOR SYSTEM”. <Ref. to VDC(diag)-44, DTC C1242 RL WHEEL SPEED SENSOR SYSTEM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## F: DTC C1222 FL WHEEL SPEED SENSOR SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1242 RL WHEEL SPEED SENSOR SYSTEM”. <Ref. to VDC(diag)-44, DTC C1242 RL WHEEL SPEED SENSOR SYSTEM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## G: DTC C1232 RR WHEEL SPEED SENSOR SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1242 RL WHEEL SPEED SENSOR SYSTEM”. <Ref. to VDC(diag)-44, DTC C1242 RL WHEEL SPEED SENSOR SYSTEM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## H: DTC C1242 RL WHEEL SPEED SENSOR SYSTEM

**DTC DETECTING CONDITION:**

- Defective ABS wheel speed sensor signal (noise, irregular signal, etc.)
- Defective harness connector

**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK OUTPUT OF ABS WHEEL SPEED SENSOR USING SUBARU SELECT MONITOR.**<br>1) Select "Current Data Display & Save" on the Subaru Select Monitor.<br>2) Read the defective ABS wheel speed sensor output. | Does the speed indicated on the display change in response to the speedometer reading during acceleration/deceleration when the steering wheel is in the straight-ahead position? | Go to step **2**. | Go to step **7**. |
| 2 | **CHECK POOR CONTACT OF CONNECTOR.**<br>Turn the ignition switch to OFF. | Is there poor contact of connectors between VDCCM&H/U and ABS wheel speed sensor? | Repair the connector. | Go to step **3**. |
| 3 | **CHECK CAUSE OF SIGNAL NOISE.**<br>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.**<br>Check if the noise sources (such as an antenna) are installed near the sensor harness. | Are noise sources installed? | Install the noise sources apart from sensor harness. | Go to step **5**. |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |
| 7 | **CHECK INSTALLATION OF ABS WHEEL SPEED SENSOR.** | Is the ABS wheel speed sensor installation bolt tightened to 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)? | Go to step **8**. | Tighten the ABS wheel speed sensor installation bolts. |
| 8 | **CHECK ABS WHEEL SPEED SENSOR SIGNAL.**<br>1) Install the ABS wheel speed sensor.<br>2) Prepare an oscilloscope.<br>3) Check the ABS wheel speed sensor. <Ref. to VDC-39, CHECK ABS WHEEL SPEED SENSOR UNIT, INSPECTION, Front ABS Wheel Speed Sensor.> | Does the oscilloscope indicate the waveform pattern like shown in the figure when the tire is slowly turned? Does the oscilloscope indication repeat the waveform pattern like shown in the figure when the tire is slowly turned in equal speed for one rotation or more? | Go to step **10**. | Go to step **9**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 9 | **CHECK ABS WHEEL SPEED SENSOR OR MAGNETIC ENCODER.** | Are there foreign matter, breakage or damage at the tip of ABS wheel speed sensor or magnetic encoder? | Remove dirt thoroughly. Also replace the ABS wheel speed sensor or magnetic encoder as a unit with hub unit bearing if it is broken or damaged. | Go to step **10**. |
| 10 | **CHECK CAUSE OF SIGNAL NOISE.**<br>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 **11**. | Install the radio wave devices and electronic components properly. |
| 11 | **CHECK CAUSE OF SIGNAL NOISE.**<br>Check if the noise sources (such as an antenna) are installed near the sensor harness. | Are noise sources installed? | Install the noise sources apart from sensor harness. | Go to step **12**. |
| 12 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **13**. |
| 13 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference.<br>NOTE:<br>Though the ABS warning light may remain on at this time, this is normal. Drive the vehicle at 60 km/h (37 MPH) or more in order to turn ABS warning light off. Be sure to drive the vehicle and check that the warning light goes off. |

## I: DTC C1251 WHEEL SPEED SENSOR SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/ EXCESSIVE INPUT”. <Ref. to VDC(diag)-41, DTC C1241 RL WHEEL SPEED SENSOR SYSTEM WIRE BREAK/EXCESSIVE INPUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## J: DTC C1252 WHEEL SPEED SENSOR SIGNAL OF ONE OF THE WHEELS

**DTC DETECTING CONDITION:**

- Defective ABS wheel speed sensor signal (noise, irregular signal, etc.)
- Defective magnetic encoder
- When a wheel is turned freely for a long time

**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

NOTE:
Brake warning light comes on as well as ABS warning light when EBD does not operate.

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **WHETHER A WHEEL TURNED FREELY OR NOT.**<br>Check if the wheels have been turned freely for one minute or more, such as when the vehicle is jacked-up, under full-lock cornering or when the wheels are not in contact with road surface. | Did the wheels turn freely? | VDC is normal. Clear the memory.<br>NOTE:<br>This diagnostic trouble code may sometimes occur if the wheels turn freely for a long time, for example when the vehicle is towed or jacked-up, or when steering wheel is continuously turned all the way. | Go to step **2**. |
| 2 | **CHECK TIRE SPECIFICATIONS.**<br>Turn the ignition switch to OFF. | Are the tire specifications correct? | Go to step **3**. | Replace the tire. |
| 3 | **CHECK WEAR OF TIRE.** | Is the tire worn excessively? | Replace the tire. | Go to step **4**. |
| 4 | **CHECK TIRE INFLATION PRESSURE.** | Is the tire pressure correct? | Go to step **5**. | Adjust the tire pressure. |
| 5 | **CHECK INSTALLATION OF ABS WHEEL SPEED SENSOR.** | Are the ABS wheel speed sensor installation bolts tightened to 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)? (For four wheels) | Go to step **6**. | Tighten the ABS wheel speed sensor installation bolts. |
| 6 | **CHECK ABS WHEEL SPEED SENSOR SIGNAL.**<br>1) Install the ABS wheel speed sensor.<br>2) Prepare an oscilloscope.<br>3) Check the ABS wheel speed sensor. <Ref. to VDC-39, CHECK ABS WHEEL SPEED SENSOR UNIT, INSPECTION, Front ABS Wheel Speed Sensor.> | Does the oscilloscope indicate the waveform pattern like shown in the figure when the tire is slowly turned? Does the oscilloscope indication repeat the waveform pattern like shown in the figure when the tire is slowly turned in equal speed for one rotation or more? (For all four wheels) | Go to step **8**. | Go to step **7**. |
| 7 | **CHECK ABS WHEEL SPEED SENSOR OR MAGNETIC ENCODER.** | Are there foreign matter, breakage or damage at the tip of ABS wheel speed sensor or magnetic encoder? (For all four wheels) | Remove dirt thoroughly. Also replace the ABS wheel speed sensor or magnetic encoder as a unit with hub unit bearing if it is broken or damaged. | Go to step **8**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 8 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **9**. |
| 9 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## K: DTC C1311 FR INLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## L: DTC C1312 FR OUTLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## M: DTC C1321 FL INLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## N: DTC C1322 FL OUTLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## O: DTC C1331 RR INLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## P: DTC C1332 RR OUTLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## Q: DTC C1341 RL INLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## R: DTC C1342 RL OUTLET SOLENOID VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## S: DTC C1351 VDC CHANGE-OVER VALVE 1 (P)

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## T: DTC C1352 VDC CHANGE-OVER VALVE 1 (S)

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## U: DTC C1361 VDC CHANGE-OVER VALVE 2 (P)

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## V: DTC C1362 VDC CHANGE-OVER VALVE 2 (S)

**DTC DETECTING CONDITION:**

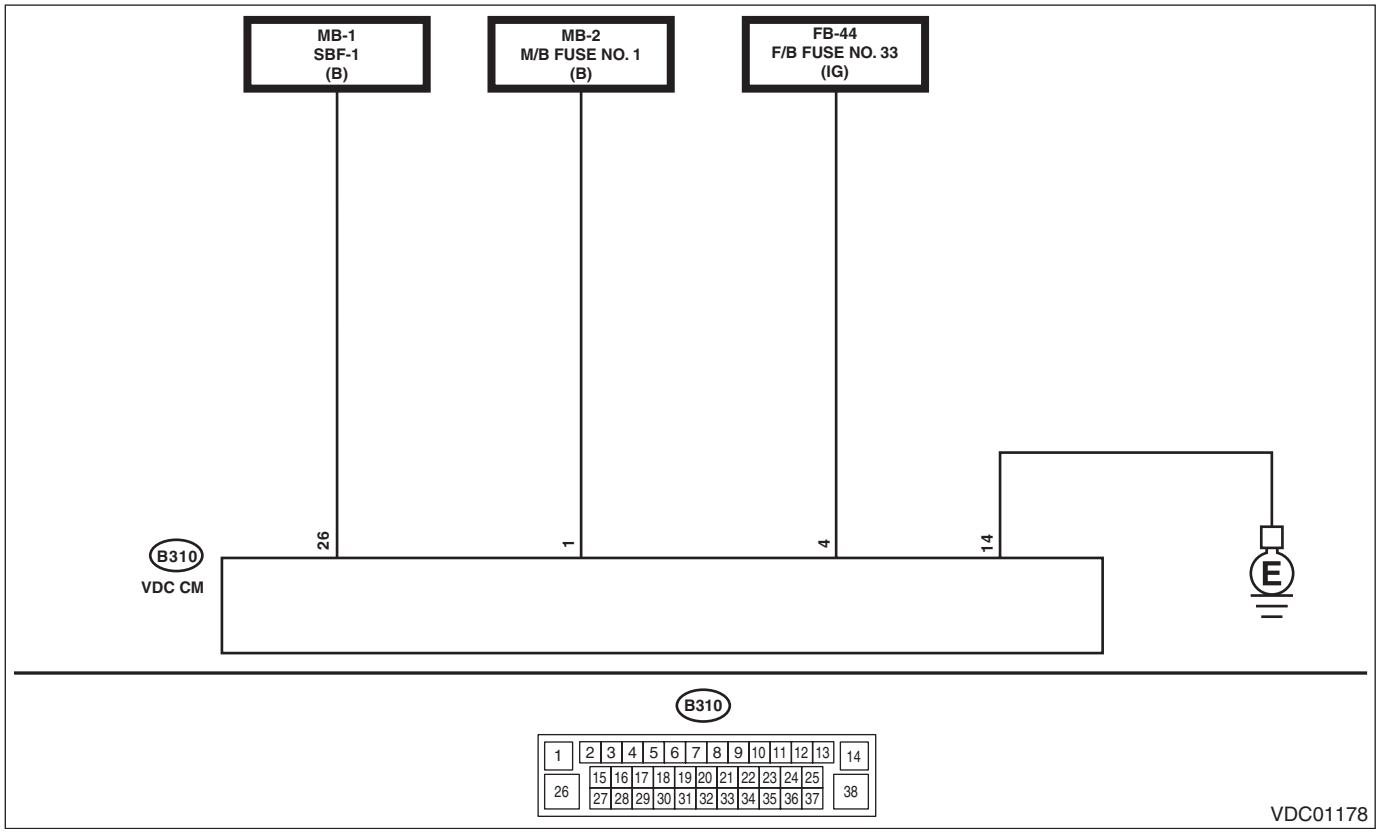
- Defective harness connector
- Defective VDCH/U solenoid valve

**TROUBLE SYMPTOM:**

- ABS does not operate.
- EBD does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**

Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from the VDCCM&H/U.<br>3) Run the engine at idle.<br>4) Measure the voltage between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 4 (+) — (B310) No. 14 (–):***<br>***(B310) No. 1 (+) — (B310) No. 14 (–):***<br>***(B310) No. 26 (+) — (B310) No. 14 (–):*** | Is the voltage 10 — 15 V? | Go to step **2**. | Repair the power supply circuit. |

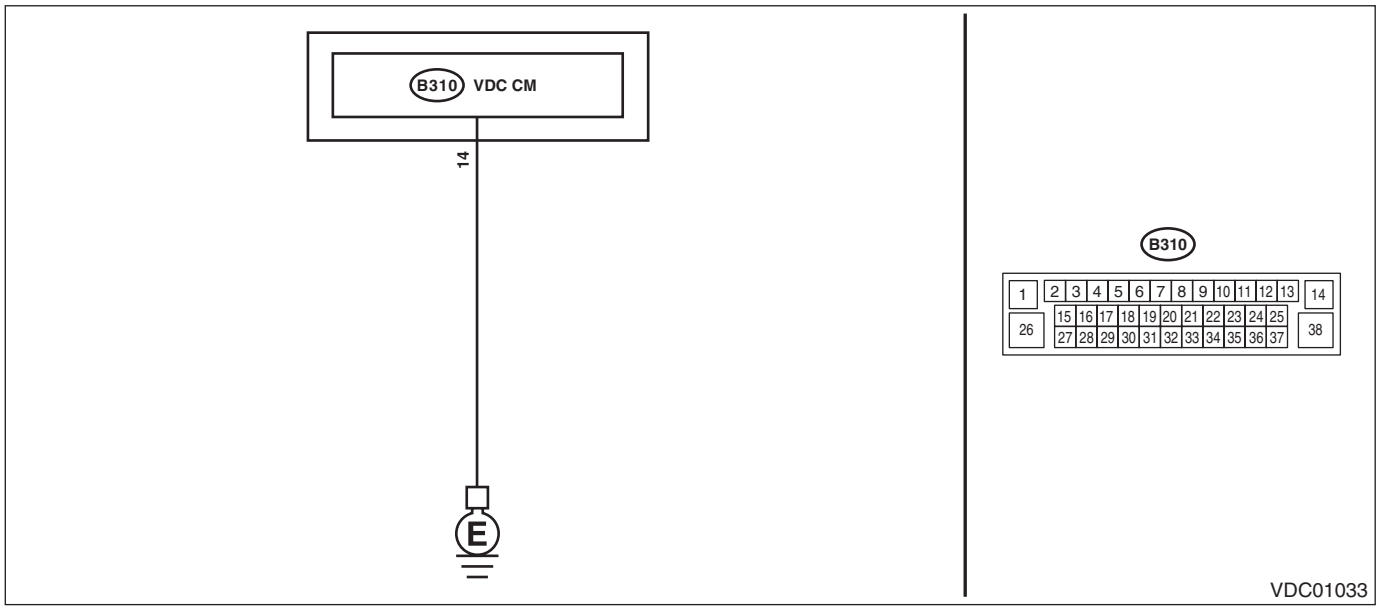
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 2 | **CHECK VDCCM&H/U GROUND CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 14 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **3**. | Repair the VDCCM&H/U ground harness. |
| 3 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of connector between generator, battery and VDCCM&H/U? | Repair the connector. | Go to step **4**. |
| 4 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **5**. |
| 5 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## W: DTC C1411 ECU

**DTC DETECTING CONDITION:**
Defective VDCCM

**TROUBLE SYMPTOM:**
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**
Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U GROUND CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from the VDCCM&H/U.<br>3) Measure the resistance between VDCCM&H/U and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 14 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **2**. | Repair the VDCCM&H/U ground harness. |
| 2 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of the connector between the battery, ignition switch and VDCCM&H/U? | Repair the connector. | Go to step **3**. |
| 3 | **CHECK CAUSE OF SIGNAL NOISE.** | 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.** | Is there a noise source (such as an antenna) installed near the sensor harness and VDCCM? | Install the noise sources apart from sensor harness and VDCCM. | Go to step **5**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## X: DTC C1412 PARAMETER

**DTC DETECTING CONDITION:**
VDCCM parameter selection error
**TROUBLE SYMPTOM:**
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

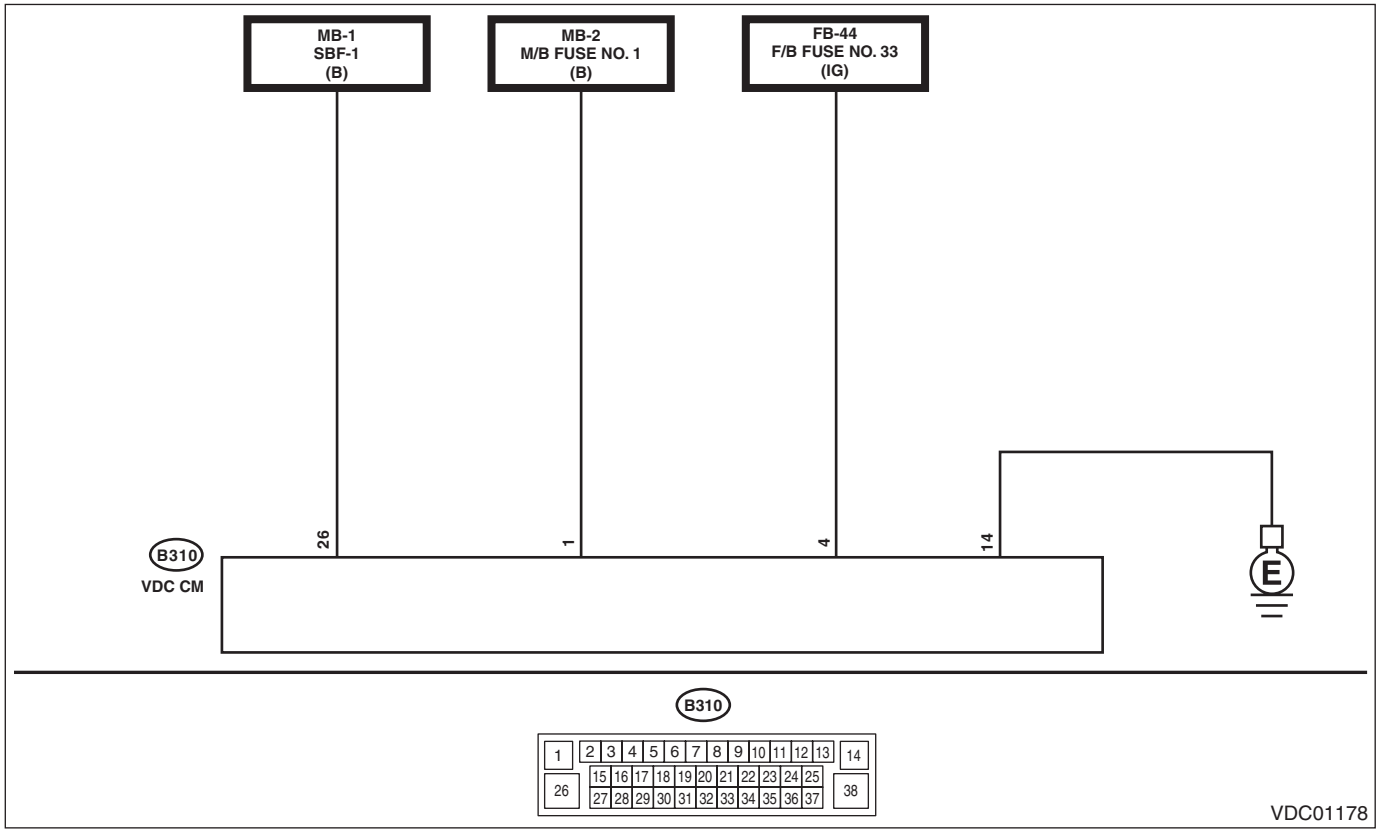
NOTE:
When the VDCCM or VDCCM&H/U is replaced, this DTC may be stored.

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U IDENTIFICATION SYMBOL.**<br>Check the identification symbol attached on the H/U. <Ref. to VDC-2, SPECIFICATION, General Description.> | Is the identification symbol correct? | Go to step **2**. | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 2 | **CHECK PARAMETER SELECTED IN VDCCM.**<br><Ref. to VDC(diag)-18, PARAMETER CHECK, OPERATION, Subaru Select Monitor.> | Does the parameter registered in the VDCCM match the relevant vehicle? | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Select and register the correct parameter. <Ref. to VDC(diag)-18, PARAMETER SELECTION, OPERATION, Subaru Select Monitor.> |

# Y: DTC C1413 POWER SUPPLY VOLT ERROR

**DTC DETECTING CONDITION:**
Improper VDCCM&H/U power supply voltage
**TROUBLE SYMPTOM:**
- ABS does not operate.
- EBD may not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

NOTE:
Warning lights go off if voltage returns.
**WIRING DIAGRAM:**
Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK GENERATOR.**<br>1) Start the engine.<br>2) Run the engine at idle after warming up.<br>3) Measure the voltage between generator terminal B and chassis ground.<br>***Terminals***<br>***Generator terminal B (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **2**. | Repair the generator. |
| 2 | **CHECK BATTERY TERMINAL.**<br>Turn the ignition switch to OFF. | Are the positive and negative battery terminals clamped tightly? | Go to step **3**. | Tighten the terminal. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 3 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>1) Disconnect the connector from the VDCCM&H/U.<br>2) Run the engine at idle.<br>3) Operate devices such as headlights, air conditioner, rear defogger, etc. which produce an electrical load.<br>4) Measure the voltage between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 4 (+) — (B310) No. 14 (–):***<br>***(B310) No. 1 (+) — (B310) No. 14 (–):***<br>***(B310) No. 26 (+) — (B310) No. 14 (–):*** | Is the voltage 10 — 15 V? | Go to step **4**. | Repair the power supply circuit. |
| 4 | **CHECK VDCCM&H/U GROUND CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 14 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **5**. | Repair the VDCCM&H/U ground harness. |
| 5 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of connector between generator, battery and VDCCM&H/U? | Repair the connector. | Go to step **6**. |
| 6 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

# Z: DTC C1421 ECM CONTROL SYSTEM

**DTC DETECTING CONDITION:**
ECM malfunctioning
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK COOPERATION CONTROL FEASIBILITY OF ECM USING SUBARU SELECT MONITOR.**<br>1) Start the engine, and run the engine at idle approximately 5 minutes.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Check the «E/G Control Stop Flag» displayed on screen. | Is the «E/G Control Stop Flag» “1”? | Go to step **4**. | Go to step **2**. |
| 2 | **CHECK WARNING LIGHT.**<br>Check whether the VDC warning light illuminates after driving for 1 minute or more at a speed of 10 km/h (6 MPH) or more. | Does the VDC warning light illuminate? | Go to step **3**. | VDC is normal. Perform the Clear Memory Mode.<br>NOTE:<br>DTC may be recorded if cranking is performed during driving. |
| 3 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of ECM connector? | Repair the connector. | Go to step **4**. |
| 4 | **CHECK ECM.**<br>Refer to the basic diagnostic procedure of ENGINE (DIAGNOSTICS). | Is ECM normal? | Go to step **5**. | Replace the ECM. <Ref. to FU(H4DOTC)-134, Engine Control Module (ECM).> <Ref. to FU(H4DO)-94, Engine Control Module (ECM).> |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Perform the Clear Memory Mode. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## AA:DTC C1422 VDC INTERRUPTION FOR ENGINE CONVENIENCE

**DTC DETECTING CONDITION:**
ECM prohibits the cooperation control.
**TROUBLE SYMPTOM:**
VDC does not operate.

NOTE:
- For the diagnostic procedure, refer to “DTC C1421 ECM CONTROL SYSTEM”. <Ref. to VDC(diag)-56, DTC C1421 ECM CONTROL SYSTEM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
- Warning lights go off if the cooperation control of ECM returns.

## AB:DTC C1423 DIFFERENT ECU SPECIFICATIONS

**DTC DETECTING CONDITION:**
Different control module specification
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)

NOTE:
When parameter selection for VDCCM is improper, this DTC may be memorized.

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U IDENTIFICATION SYMBOL.**<br>Check the identification symbol attached on the H/U. <Ref. to VDC-2, SPECIFICATION, General Description.> | Is the identification symbol correct? | Go to step **2**. | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 2 | **CHECK PARAMETER SELECTED IN VDCCM.**<br><Ref. to VDC(diag)-18, PARAMETER CHECK, OPERATION, Subaru Select Monitor.> | Does the parameter registered in the VDCCM match the relevant vehicle? | CVT model: Go to step **3**.<br>MT model: Go to step **5**. | Select and register the correct parameter. <Ref. to VDC(diag)-18, PARAMETER SELECTION, OPERATION, Subaru Select Monitor.> |
| 3 | **CHECK TCM SPECIFICATION.**<br>Check the TCM specification. | Is the specification of TCM same as vehicle specification? | Go to step **4**. | Replace the TCM. <Ref. to CVT(TR580)-144, Transmission Control Module (TCM).> <Ref. to CVT(TR690)-123, Transmission Control Module (TCM).> |
| 4 | **CHECK CVT SYSTEM.**<br>1) Start the engine.<br>2) Check the DTC in CVT system. | Is DTC of CVT system displayed? | Perform the diagnosis according to DTC. <Ref. to CVT(diag)-35, List of Diagnostic Trouble Code (DTC).> | Go to step **5**. |
| 5 | **CHECK ECM SPECIFICATION.**<br>Check the ECM specification. | Is the specification of ECM same as vehicle specification? | Go to step **6**. | Replace the ECM. <Ref. to FU(H4DOTC)-134, Engine Control Module (ECM).> <Ref. to FU(H4DO)-94, Engine Control Module (ECM).> |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 6 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## AC:DTC C1424 ECM FAILURE

**DTC DETECTING CONDITION:**
ECM malfunctioning
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK ECM.**<br>1) Start the engine.<br>2) Check DTC of ECM. | Is DTC displayed? | Perform the diagnosis according to DTC. | Go to step **2**. |
| 2 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **3**. |
| 3 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## AD:DTC C1431 AT ABNORMAL

**DTC DETECTING CONDITION:**
Defective TCM
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK TCM.**<br>1) Start the engine.<br>2) Check DTC of TCM. | Is DTC displayed? | Perform the diagnosis according to DTC. | Go to step **2**. |
| 2 | **CHECK VDCCM&H/U.**<br>1) Turn the ignition switch to OFF.<br>2) After turning the ignition switch to ON for approx. 10 seconds, turn it to OFF.<br>3) Turn the ignition switch to ON again.<br>4) Connect all connectors.<br>5) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>6) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>7) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **3**. |
| 3 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## AE:DTC C1432 DIFFERENT ECU SPECIFICATIONS

NOTE:
For the diagnostic procedure, refer to “DTC C1423 DIFFERENT ECU SPECIFICATIONS”. <Ref. to VDC(diag)-58, DTC C1423 DIFFERENT ECU SPECIFICATIONS, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## AF:DTC C1441 EyeSight REQUEST PRESSURE ABNORMAL

**DTC DETECTING CONDITION:**
Defective stereo camera
**TROUBLE SYMPTOM:**
EyeSight does not operate. (Model with EyeSight)

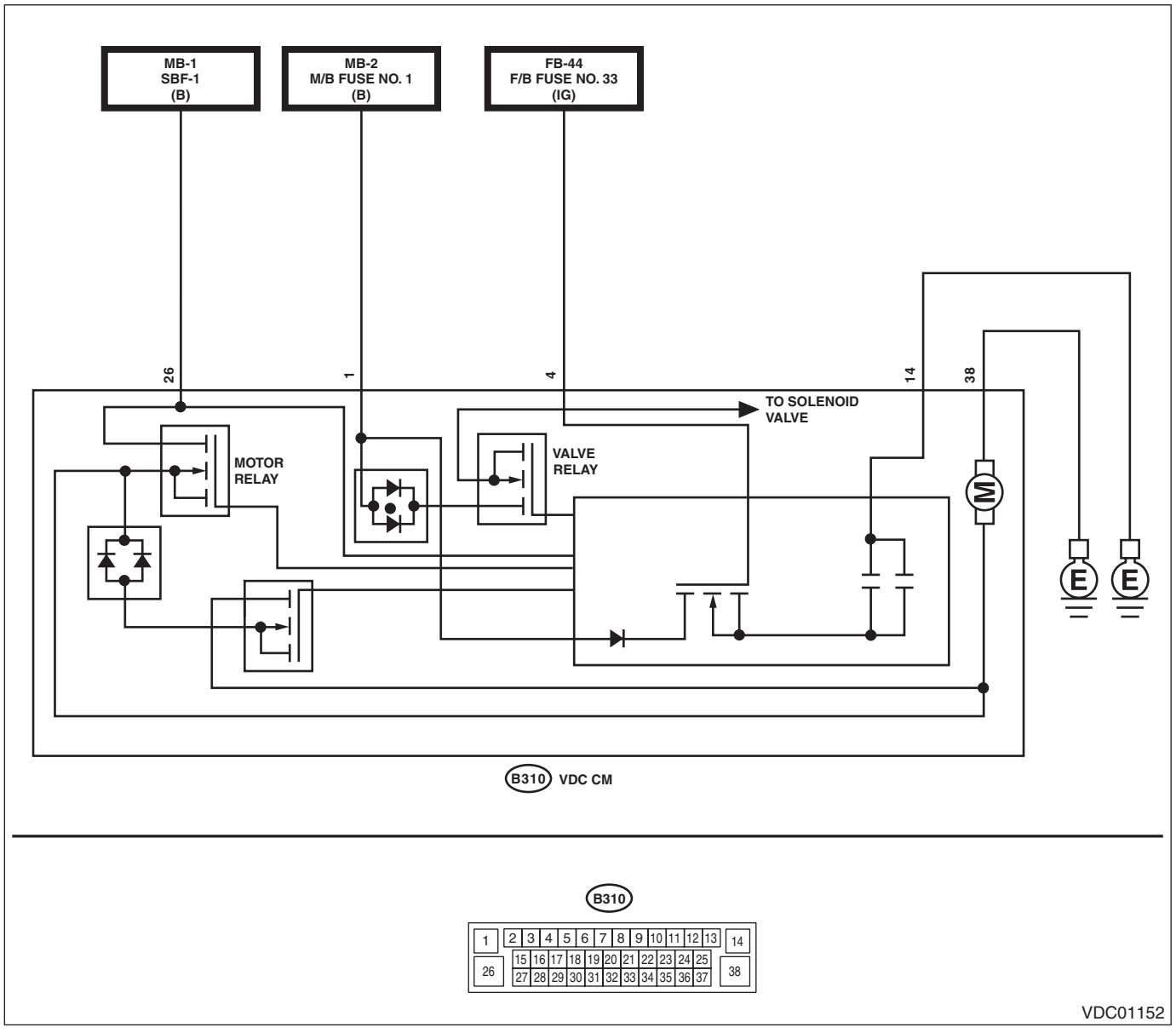
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Go to step **2**. |
| 2 | **CHECK LAN SYSTEM.**<br>Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.> | Is there any fault in LAN system? | Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-99, List of Diagnostic Trouble Code (DTC).> | Go to step **3**. |
| 3 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of the stereo camera connector? | Repair the connector. | Go to step **4**. |
| 4 | **CHECK STEREO CAMERA.**<br>Perform the diagnosis for the EyeSight system. <Ref. to ES(diag)-2, Basic Diagnostic Procedure.> | Is the stereo camera normal? | Go to step **5**. | Perform the diagnosis for the EyeSight system. <Ref. to ES(diag)-78, List of Diagnostic Trouble Code (DTC).> |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | It results from a temporary noise interference. |

# AG:DTC C1511 VALVE RELAY

**DTC DETECTING CONDITION:**
Defective valve relay

**TROUBLE SYMPTOM:**
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**
Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>



| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from the VDCCM&H/U.<br>3) Run the engine at idle.<br>4) Measure the voltage between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 1 (+) — Chassis ground (–):***<br>***(B310) No. 4 (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **2**. | Repair the power supply circuit. |
| 2 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>Calculate the voltage difference measured in step 1.<br>A: (B310) No. 1 (+) — Chassis ground (–):<br>B: (B310) No. 4 (+) — Chassis ground (–): | Is the voltage difference between A and B 2 V or more? | Repair the power supply circuit. | Go to step **3**. |
| 3 | **CHECK VDCCM&H/U GROUND CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 14 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **4**. | Repair the VDCCM&H/U ground harness. |
| 4 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of connector between generator, battery and VDCCM&H/U? | Repair the connector. | Go to step **5**. |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## AH:DTC C1512 VALVE SYSTEM

NOTE:
For the diagnostic procedure, refer to “DTC C1362 VDC CHANGE-OVER VALVE 2 (S)”. <Ref. to VDC(diag)-49, DTC C1362 VDC CHANGE-OVER VALVE 2 (S), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## AI: DTC C1521 MOTOR RELAY

**DTC DETECTING CONDITION:**

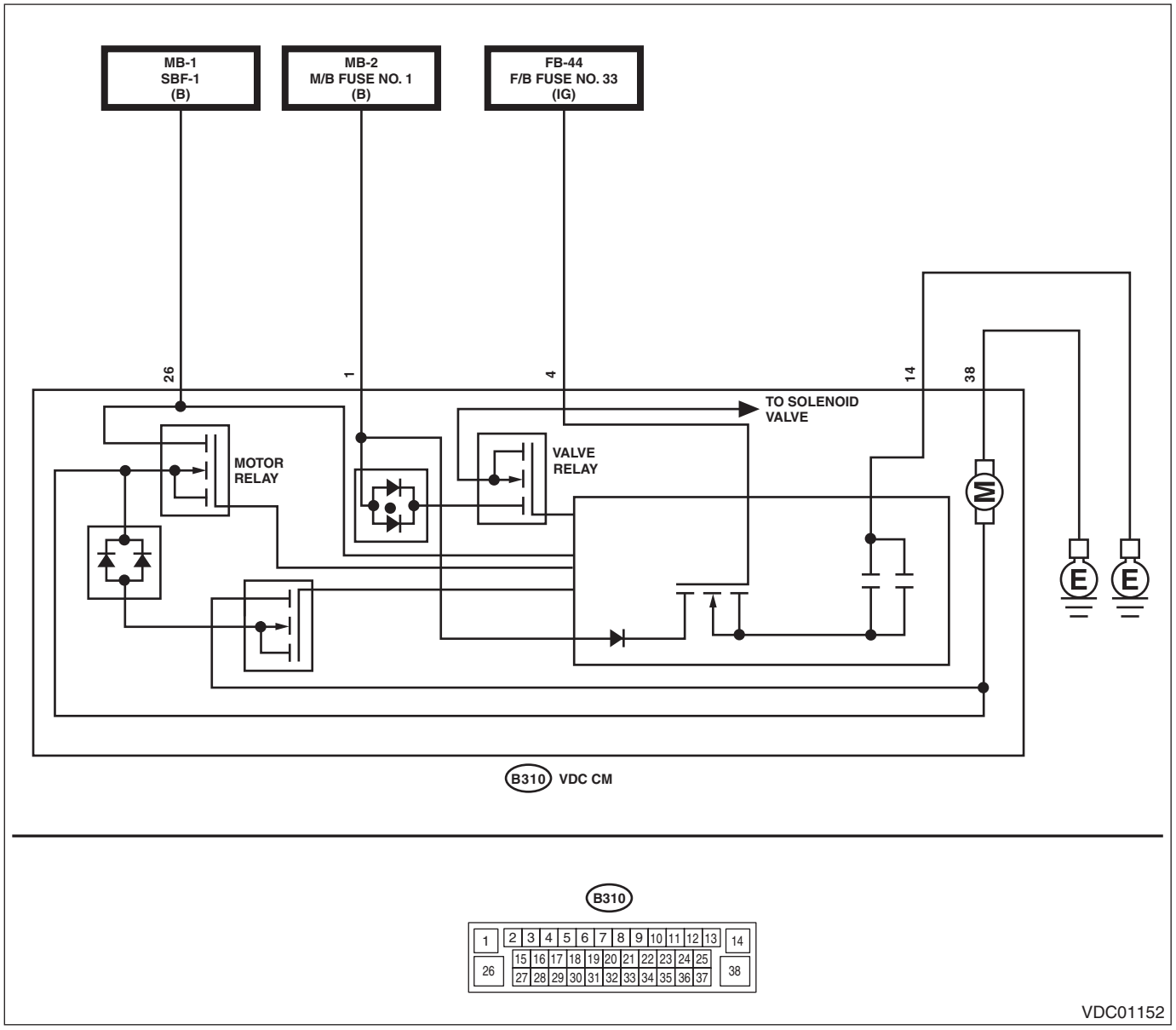
- Defective motor and motor relay
- Defective harness connector

**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**

Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>



| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from the VDCCM&H/U.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 4 (+) — Chassis ground (–):***<br>***(B310) No. 26 (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **2**. | Repair the VDCCM&H/U power supply circuit. |
| 2 | **CHECK VDCCM&H/U INPUT VOLTAGE.**<br>Calculate the voltage difference measured in step 1.<br>A: (B310) No. 4 (+) — Chassis ground (–):<br>B: (B310) No. 26 (+) — Chassis ground (–): | Is the voltage difference between A and B 2 V or more? | Repair the power supply circuit. | Go to step **3**. |
| 3 | **CHECK INSTALLATION OF VDCCM&H/U GROUND.** | Is the VDCCM&H/U ground terminal installation bolt tightened to 13 N·m (1.3 kgf-m, 9.6 ft-lb)? | Go to step **4**. | Tighten the VDCCM&H/U ground terminal installation bolt. |
| 4 | **CHECK VDCCM&H/U GROUND CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 14 — Chassis ground:***<br>***(B310) No. 38 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **5**. | Repair the VDCCM&H/U ground harness. |
| 5 | **CHECK VDCCM&H/U MOTOR RELAY.**<br>Measure the resistance between VDCCM&H/U terminals.<br>***Terminals***<br>***No. 26 — No. 38:*** | Is the resistance 1 MΩ or more? | Go to step **6**. | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 6 | **CHECK POOR CONTACT OF CONNECTORS.**<br>Turn the ignition switch to OFF. | Is there poor contact of connector between generator, battery and VDCCM&H/U? | Repair the connector. | Go to step **7**. |
| 7 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **8**. |

| Step | | Check | Yes | No |
|---|---|---|---|---|
| 8 | CHECK OTHER DTC DETECTION. | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs.<br>NOTE:<br>Though the ABS warning light, and the VDC warning light & VDC indicator light may remain lit at this point, this is normal. Drive the vehicle at 40 km/h (25 MPH) or more in order to turn off the ABS warning light, and the VDC warning light & VDC indicator light. Be sure to drive the vehicle and check that the warning light goes off. |

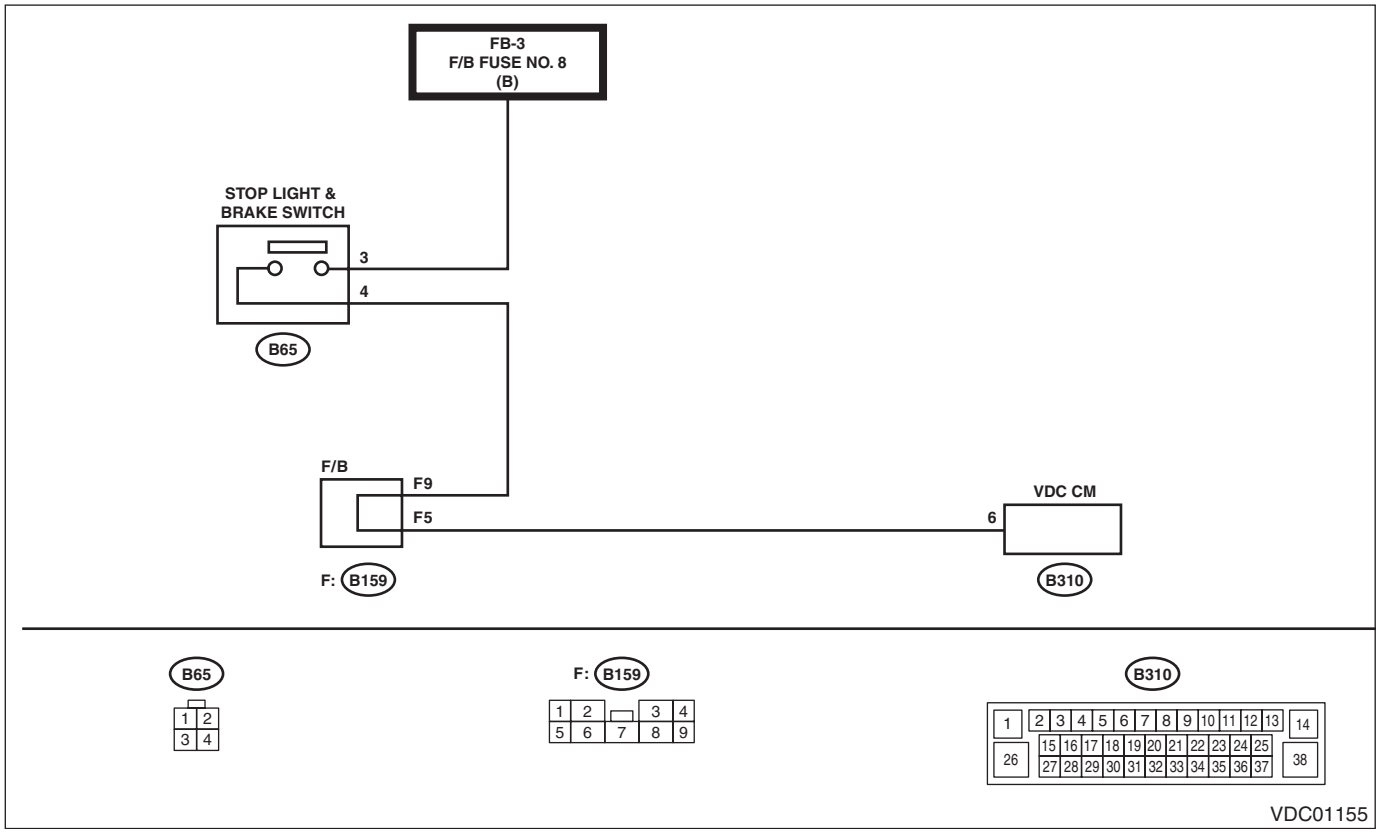
# AJ:DTC C1531 BLS OFF FAULT

**DTC DETECTING CONDITION:**
Defective stop light switch
**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

## 1. NON-TURBO MODEL (WITHOUT EyeSight AND X MODE)

**WIRING DIAGRAM**:
Stop light system <Ref. to WI-401, NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>



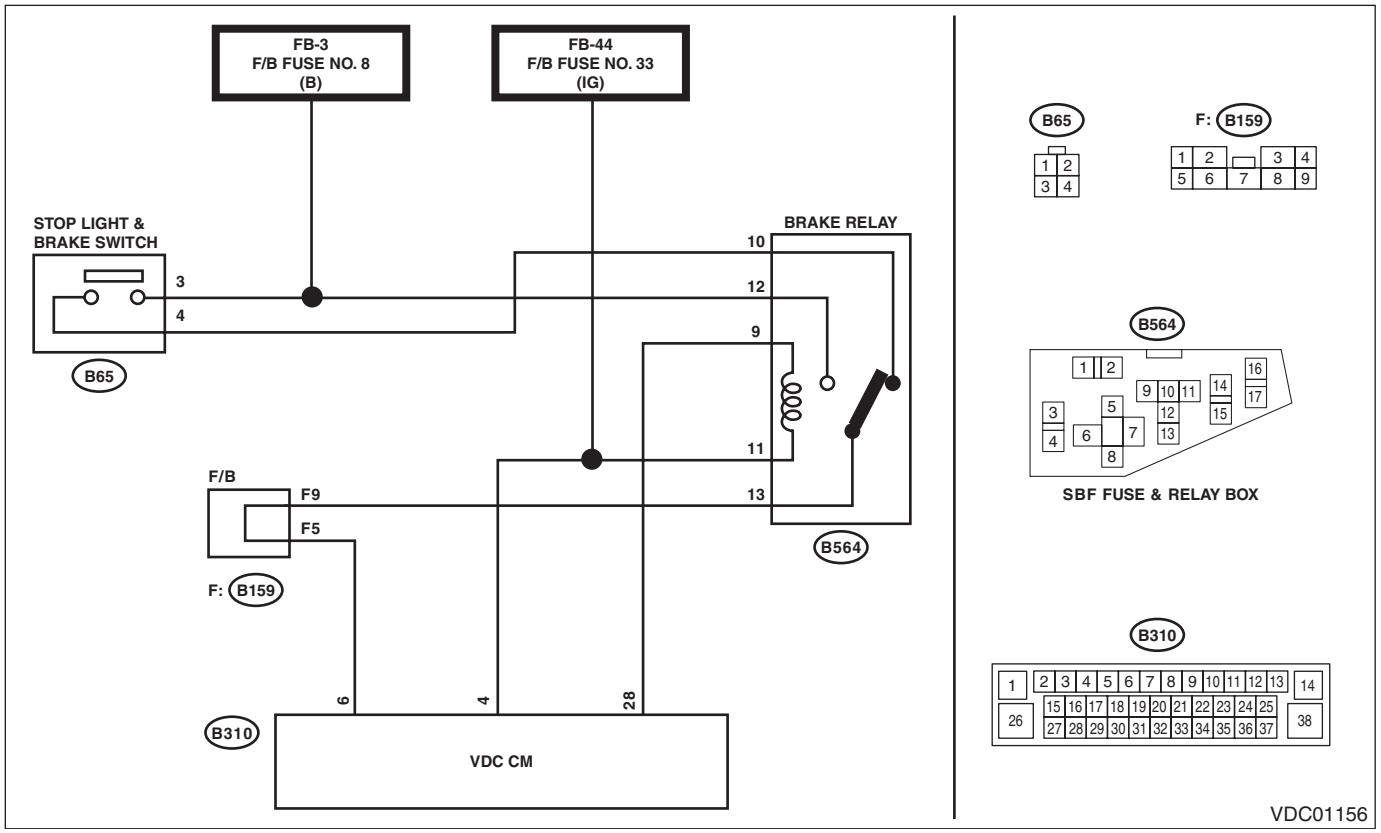

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK STOP LIGHT SWITCH.**<br>Check the stop light switch. <Ref. to BR-76, INSTALLATION, Stop Light Switch.> | Is the installation position of the stop light switch correct? | Go to step **2**. | Adjust the installation position of the stop light switch. <Ref. to BR-76, INSTALLATION, Stop Light Switch.> |
| 2 | **CHECK STOP LIGHT SWITCH.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the stop light switch connector.<br>3) Measure the resistance of stop light switch terminals.<br>***Connector & terminal (B65) No. 3 — No. 4:*** | Is the resistance 1 Ω or less when the stop light switch is ON (when pedal is depressed)? | Go to step **3**. | Replace the stop light switch. <Ref. to BR-74, Stop Light Switch.> |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 3 | **CHECK STOP LIGHT POWER SUPPLY.**<br>Measure the voltage between stop light switch terminal and chassis ground.<br>***Connector & terminal***<br>***(B65) No. 3 (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **4**. | Repair the stop light power supply circuit. |
| 4 | **CHECK STOP LIGHT SWITCH HARNESS.**<br>1) Disconnect the connector from the VDCCM&H/U.<br>2) Measure the resistance between VDCCM&H/U and stop light switch.<br>***Connector & terminal***<br>***(B65) No. 4 — (B310) No. 6:*** | Is the resistance less than 1 Ω? | Go to step **5**. | Repair the stop light switch circuit. |
| 5 | **CHECK POOR CONTACT OF CONNECTORS.** | Is there poor contact of connector between stop light switch and VDCCM&H/U? | Repair the connector. | Go to step **6**. |
| 6 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## 2. EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE)

**WIRING DIAGRAM**:

Stop light system <Ref. to WI-403, EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK STOP LIGHT.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the ground cable from battery.<br>3) Remove the stop lights. | Are the stop lights OK? | Go to step **2**. | Replace the stop lights. |
| 2 | **CHECK STOP LIGHT SWITCH.**<br>Check the stop light switch. <Ref. to BR-76, INSTALLATION, Stop Light Switch.> | Is the installation position of the stop light switch correct? | Go to step **3**. | Adjust the installation position of the stop light switch. <Ref. to BR-76, INSTALLATION, Stop Light Switch.> |
| 3 | **CHECK STOP LIGHT SWITCH.**<br>1) Disconnect the stop light switch connector.<br>2) Measure the resistance of stop light switch terminals.<br>***Connector & terminal***<br>***(B65) No. 3 — No. 4:*** | Is the resistance less than 1 Ω when the stop light switch is ON (when pedal is depressed)? | Go to step **4**. | Replace the stop light switch. <Ref. to BR-74, Stop Light Switch.> |
| 4 | **CHECK BRAKE LIGHT RELAY.**<br>Measure the resistance between brake light relay terminals.<br>***Connector & terminal***<br>***(B564) No. 10 — No. 13:*** | Is the resistance less than 1 Ω? | Go to step **5**. | Replace the brake light relay. |
| 5 | **CHECK VDCCM&H/U CONNECTOR.**<br>Disconnect the connector from the VDCCM&H/U. | Is there poor contact or damage of the VDCCM&H/U connector? | Repair the VDCCM&H/U connector. | Go to step **6**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 6 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>Measure the resistance of stop light switch circuit.<br>***Connector & terminal***<br>***(B310) No. 6 — (B564) No. 13:***<br>***(B65) No. 4 — (B564) No. 10:***<br>***(B65) No. 3 — (F/B fuse) No. 8:*** | Is the resistance less than 1 Ω? | Go to step **7**. | Repair the stop light switch circuit. |
| 7 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>1) Connect all connectors.<br>2) Connect the ground cable to battery.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between brake light relay and chassis ground.<br>***Connector & terminal***<br>***(B564) No. 13 (+) — Chassis ground (–):*** | Is the voltage 10 V or more when the stop light switch is ON (when pedal is depressed)? | Go to step **8**. | Repair the stop light switch circuit. |
| 8 | **CHECK VDCCM&H/U.**<br>1) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>2) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>3) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **9**. |
| 9 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

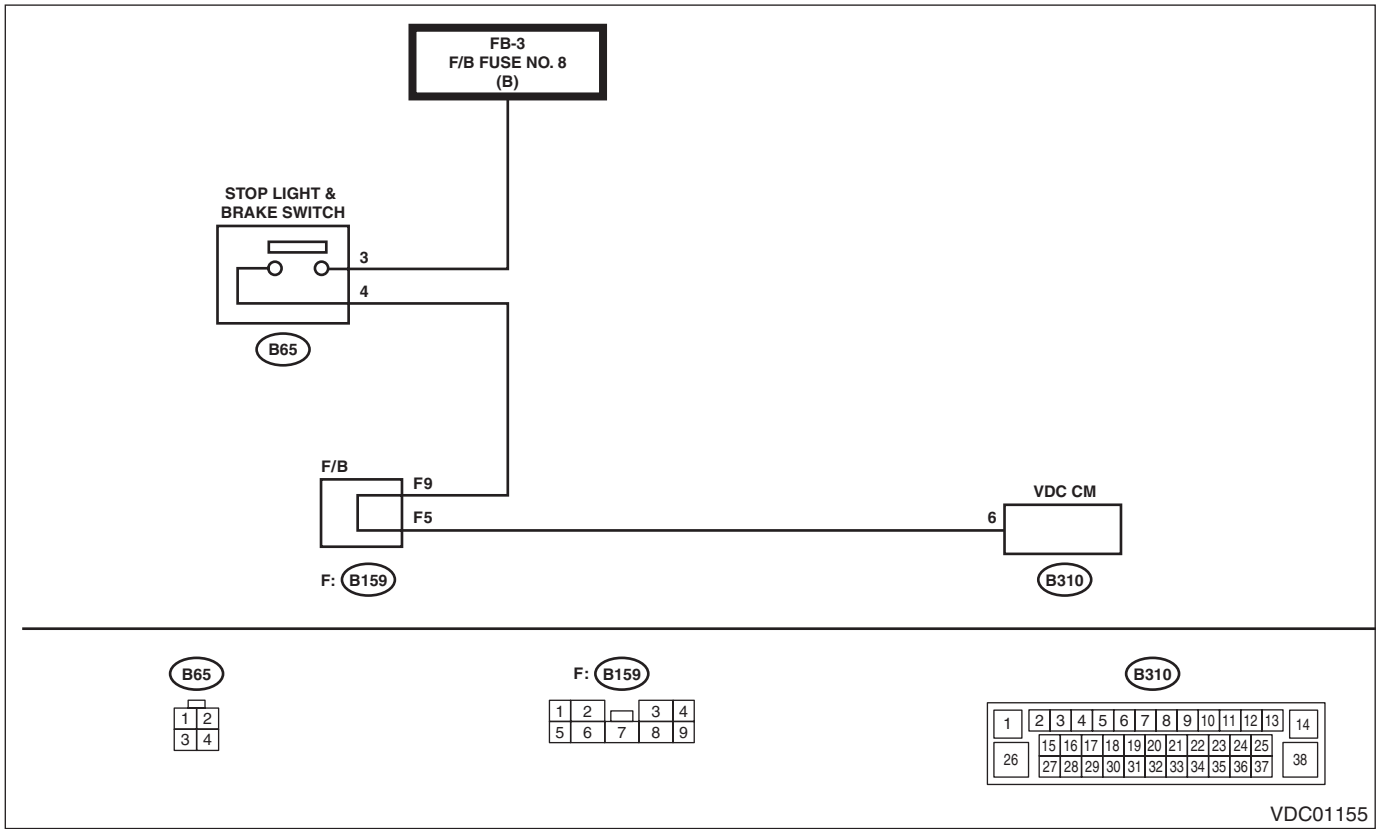
# AK:DTC C1532 BLS ON FAULT

**DTC DETECTING CONDITION:**
Defective stop light switch
**TROUBLE SYMPTOM:**

- ABS does not operate sometimes.
- VDC does not operate sometimes.
- Hill start assist does not operate.
- Hill descent control does not operate sometimes. (Model with X MODE)
- EyeSight does not operate sometimes. (Model with EyeSight)

## 1. NON-TURBO MODEL (WITHOUT EyeSight AND X MODE)

**WIRING DIAGRAM**:
Stop light system <Ref. to WI-401, NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>



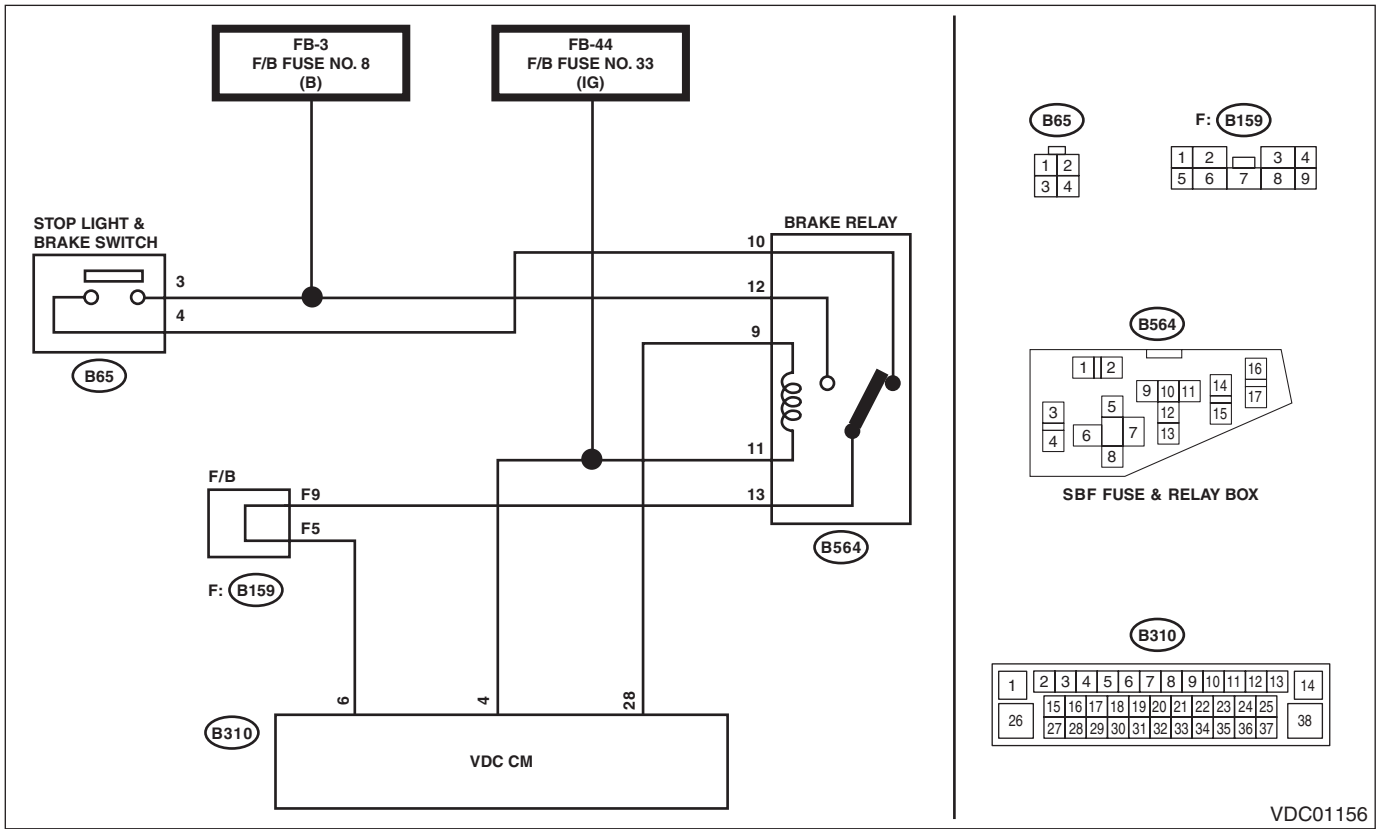

| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK STOP LIGHT SWITCH.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the stop light switch connector.<br>3) Measure the resistance of stop light switch terminals.<br>***Connector & terminal***<br>***(B65) No. 3 — No. 4:*** | Is the resistance 1 MΩ or more when stop light switch is OFF (when pedal is not depressed)? | Go to step **2**. | Replace the stop light switch. <Ref. to BR-74, Stop Light Switch.> |
| 2 | **CHECK STOP LIGHT SWITCH HARNESS.**<br>1) Disconnect the connector from the VDCCM&H/U.<br>2) Measure the resistance between VDCCM&H/U connector and chassis ground.<br>***Connector & terminal***<br>***(B310) No. 6 — Chassis ground:*** | Is the resistance less than 1 MΩ? | Go to step **3**. | Repair the stop light switch circuit. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 3 | **INTERVIEW CUSTOMERS.**<br>Make sure that the operation was performed in which accelerator pedal and brake pedal were depressed simultaneously (with depressing brake pedal with left foot). | Were the acceleration pedal and brake pedal depressed simultaneously? | System is normal. (DTC may be recorded while brake is applied during driving.) | Go to step **4**. |
| 4 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **5**. |
| 5 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## 2. EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE)

**WIRING DIAGRAM**:

Stop light system <Ref. to WI-403, EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **INTERVIEW CUSTOMERS.**<br>Make sure that the operation was performed in which accelerator pedal and brake pedal were depressed simultaneously (with depressing brake pedal with left foot). | Were the acceleration pedal and brake pedal depressed simultaneously? | System is normal. (DTC may be recorded while brake is applied during driving.) | Go to step **2**. |
| 2 | **CHECK BRAKE LIGHT RELAY.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the ground cable from battery.<br>3) Measure the resistance between brake light relay terminals.<br>***Connector & terminal***<br>***(B564) No. 12 — No. 13:*** | Is the resistance less than 1 Ω? | Replace the brake light relay. | Go to step **3**. |
| 3 | **CHECK VDCCM&H/U CONNECTOR.**<br>Disconnect the connector from the VDCCM&H/U. | Is there poor contact or damage of the VDCCM&H/U connector? | Repair the VDCCM&H/U connector. | Go to step **4**. |
| 4 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>1) Connect the ground cable to battery.<br>2) Turn the ignition switch to ON.<br>3) Measure the voltage between stop light switch and chassis ground.<br>***Connector & terminal***<br>***(B564) No. 13 (+) — Chassis ground (–):*** | Is the voltage 10 V or more when the stop light switch is OFF (when pedal is not depressed)? | Repair the stop light switch circuit. | Go to step **5**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## AL:DTC C1541 CLUTCH OFF FAULT

NOTE:
For the diagnostic procedure, refer to “DTC C1542 CLUTCH ON FAULT”. <Ref. to VDC(diag)-76, DTC C1542 CLUTCH ON FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## AM:DTC C1542 CLUTCH ON FAULT

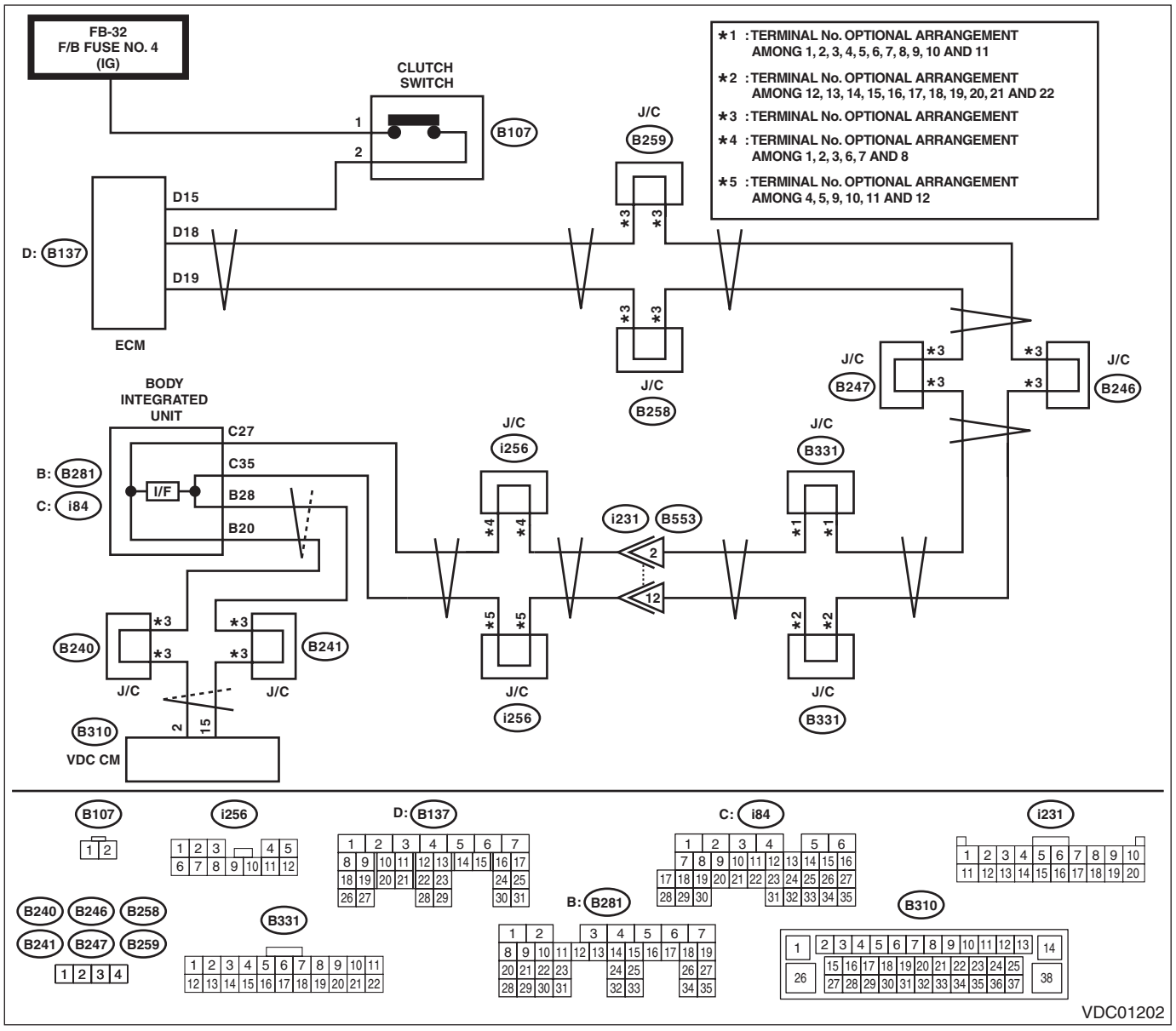
**DTC DETECTING CONDITION:**
Abnormal clutch signal
**TROUBLE SYMPTOM:**
Hill start assist does not operate.

NOTE:
Depending on the user clutch operation patterns, the hill start assist warning light may illuminate for a while, and then go off.
**Illumination condition:**
While the vehicle speed is 10 km/h (6 MPH) or above, and the clutch switch signal ON (depressed) condition continues five minutes or more, if the vehicle speed lowers to 10 km/h (6 MPH) or below, the module judge as abnormal (clutch switch stuck ON), and then turn on the warning light.
**Turning off condition:**
If the clutch switch signal OFF (foot released) condition continues for 2 second, the module turns off the warning light.
The hill start assist function does not operate, while the warning light illuminates.

**WIRING DIAGRAM:**

Engine electrical system <Ref. to WI-166, NON-TURBO MODEL (WITHOUT PUSH BUTTON START), WIRING DIAGRAM, Engine Electrical System.>

CAN communication system <Ref. to WI-96, NON-TURBO MODEL, WIRING DIAGRAM, CAN Communication System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK LAN SYSTEM.**<br>Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.> | Is there any fault in LAN system? | Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-99, List of Diagnostic Trouble Code (DTC).> | Go to step **2**. |

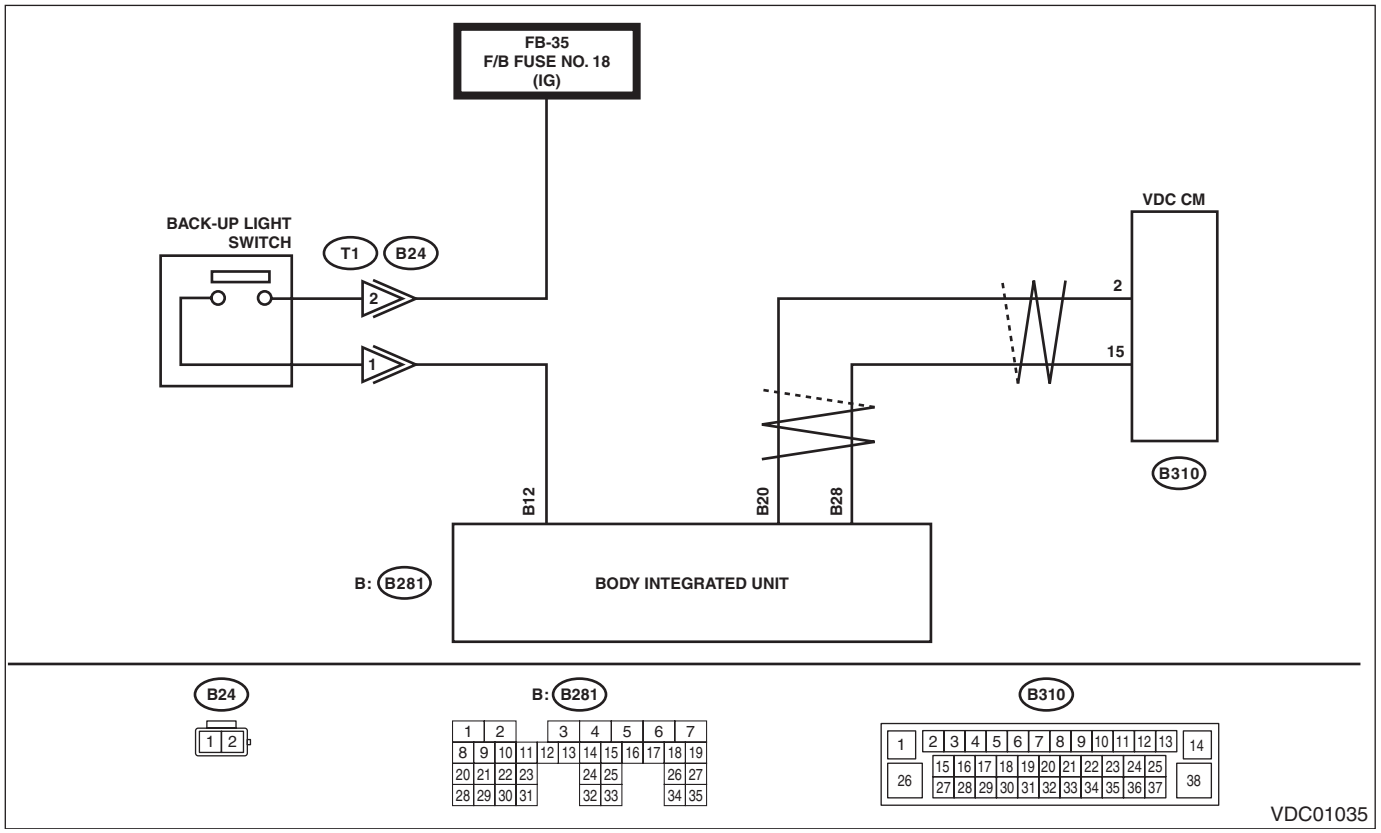
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 2 | **CHECK CLUTCH SIGNAL USING SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” on the Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>2) Read the «Clutch Switch» displayed on display. | Is “OFF” displayed when the clutch pedal is not depressed, and is “ON” displayed when depressed? | Go to step **5**. | Go to step **3**. |
| 3 | **CHECK CLUTCH SIGNAL OF ECM USING SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” on Subaru Select Monitor. <Ref. to EN(H4DO)(diag)-41, DISPLAY OF ENGINE FREEZE FRAME DATA, OPERATION, Subaru Select Monitor.><br>2) Read the «Clutch Switch» displayed on display. | Is “OFF” displayed when the clutch pedal is not depressed, and is “ON” displayed when depressed? | Go to step **5**. | Go to step **4**. |
| 4 | **CHECK HARNESS BETWEEN ECM AND CLUTCH SWITCH.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connectors from ECM and clutch switch.<br>3) Measure the resistance of harness between ECM and clutch switch connector.<br>***Connector & terminal (B137) No. 15 — (B107) No. 2:*** | Is the resistance less than 1 Ω? | Repair the power supply circuit of clutch switch. Or replace the clutch switch. <Ref. to CL-29, Clutch Switch.> | Repair the harness between ECM and clutch switch connector. |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## AN:DTC C1561 REVERSE OFF FAULT

NOTE:
For the diagnostic procedure, refer to “DTC C1562 REVERSE ON FAULT”. <Ref. to VDC(diag)-79, DTC C1562 REVERSE ON FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

# AO:DTC C1562 REVERSE ON FAULT

**DTC DETECTING CONDITION:**
Abnormal reverse signal
**TROUBLE SYMPTOM:**
Hill start assist does not operate.
**WIRING DIAGRAM:**
Back-up light system <Ref. to WI-90, NON-TURBO MODEL, WIRING DIAGRAM, Back-up Light System.>
CAN communication system <Ref. to WI-96, NON-TURBO MODEL, WIRING DIAGRAM, CAN Communication System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK LAN SYSTEM.**<br>Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.> | Is there any fault in LAN system? | Perform the diagnosis according to DTC for LAN system. <Ref. to LAN(diag)-99, List of Diagnostic Trouble Code (DTC).> | Go to step **2**. |
| 2 | **CHECK REVERSE SIGNAL USING SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” on the Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>2) Read the «Reverse Signal» displayed on display. | Is “OFF” displayed when the shift lever is placed in any position other than reverse, and is “ON” displayed in reverse position? | Go to step **5**. | Go to step **3**. |
| 3 | **CHECK BACK-UP LIGHT ILLUMINATION.**<br>1) Turn the ignition switch to ON.<br>2) Place the shift lever in reverse position. | Does the back-up light illuminate? | Go to step **4**. | Repair the back-up light circuit. |

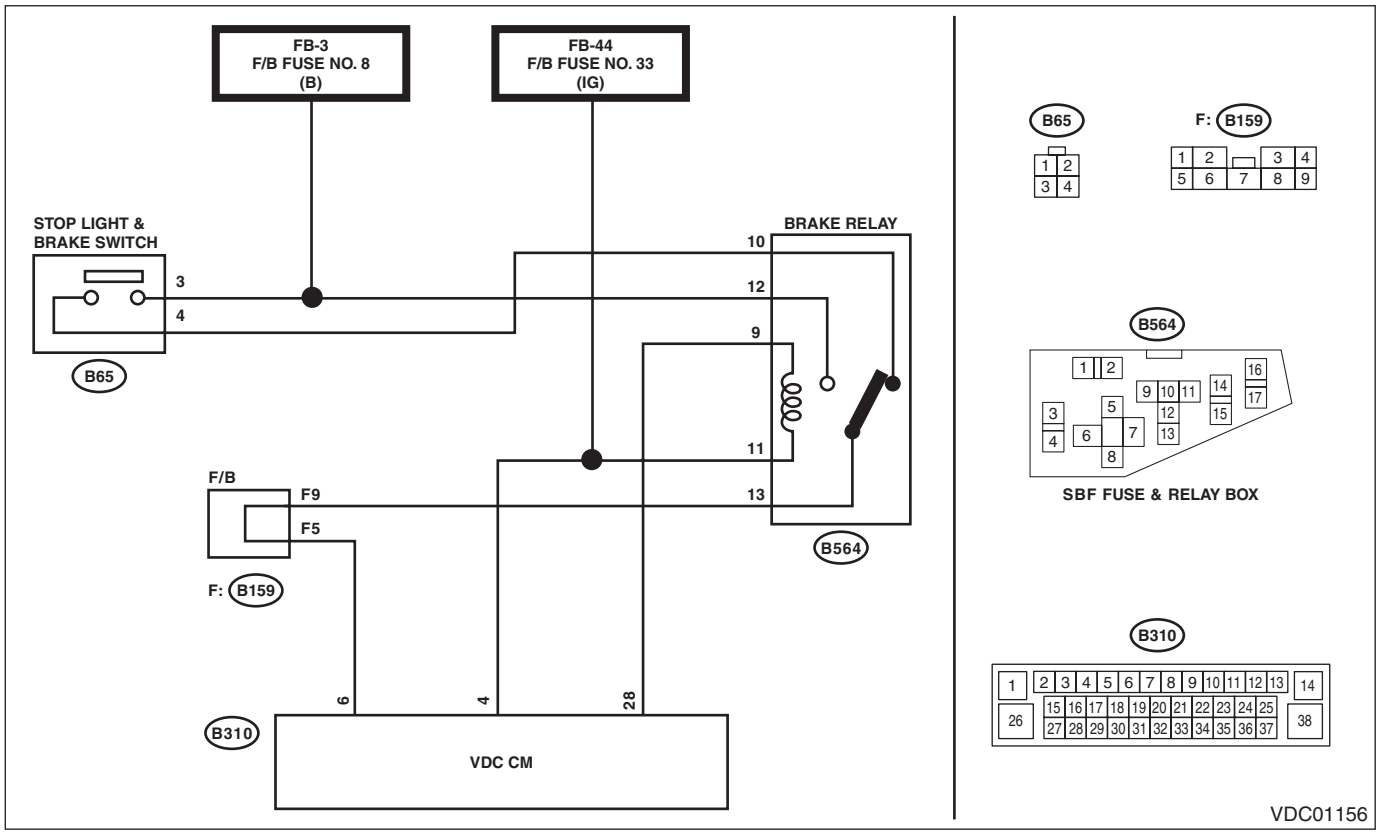
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 4 | **CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND BACK-UP LIGHT SWITCH.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connectors from body integrated unit and back-up light switch.<br>3) Measure the resistance of harness between body integrated unit and back-up light switch connector.<br>***Connector & terminal***<br>***(B281) No. 12 — (B24) No. 1:*** | Is the resistance less than 1 Ω? | Replace the back-up light switch. <Ref. to 6MT-40, Switches and Harness.> | Repair the harness between body integrated unit and back-up light switch connector. |
| 5 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

# AP:DTC C1571 BRAKE LAMP RELAY OFF MALFUNCTION

**DTC DETECTING CONDITION:**
Defective brake light relay signal

**TROUBLE SYMPTOM:**
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)
- Brake lights do not illuminate sometimes.

**WIRING DIAGRAM:**
Stop light system <Ref. to WI-403, EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK DTC.**<br>Check the DTC using Subaru Select Monitor. | Are any DTCs related to the stop light switch displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Go to step **2**. |
| 2 | **CHECK BRAKE LIGHT RELAY.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the ground cable from battery.<br>3) Remove the brake light relay.<br>4) Measure the resistance between brake light relay terminals (B564)No. 9 — (B564)No. 11 when the battery voltage is applied.<br>***Connector & terminal***<br>***(B564) No. 12 — No. 13:*** | Is the resistance less than 1 Ω? | Go to step **3**. | Replace the brake light relay. |
| 3 | **CHECK VDCCM&H/U CONNECTOR.**<br>Disconnect the connector from the VDCCM&H/U. | Is there poor contact or damage of the VDCCM&H/U connector? | Repair the VDCCM&H/U connector. | Go to step **4**. |

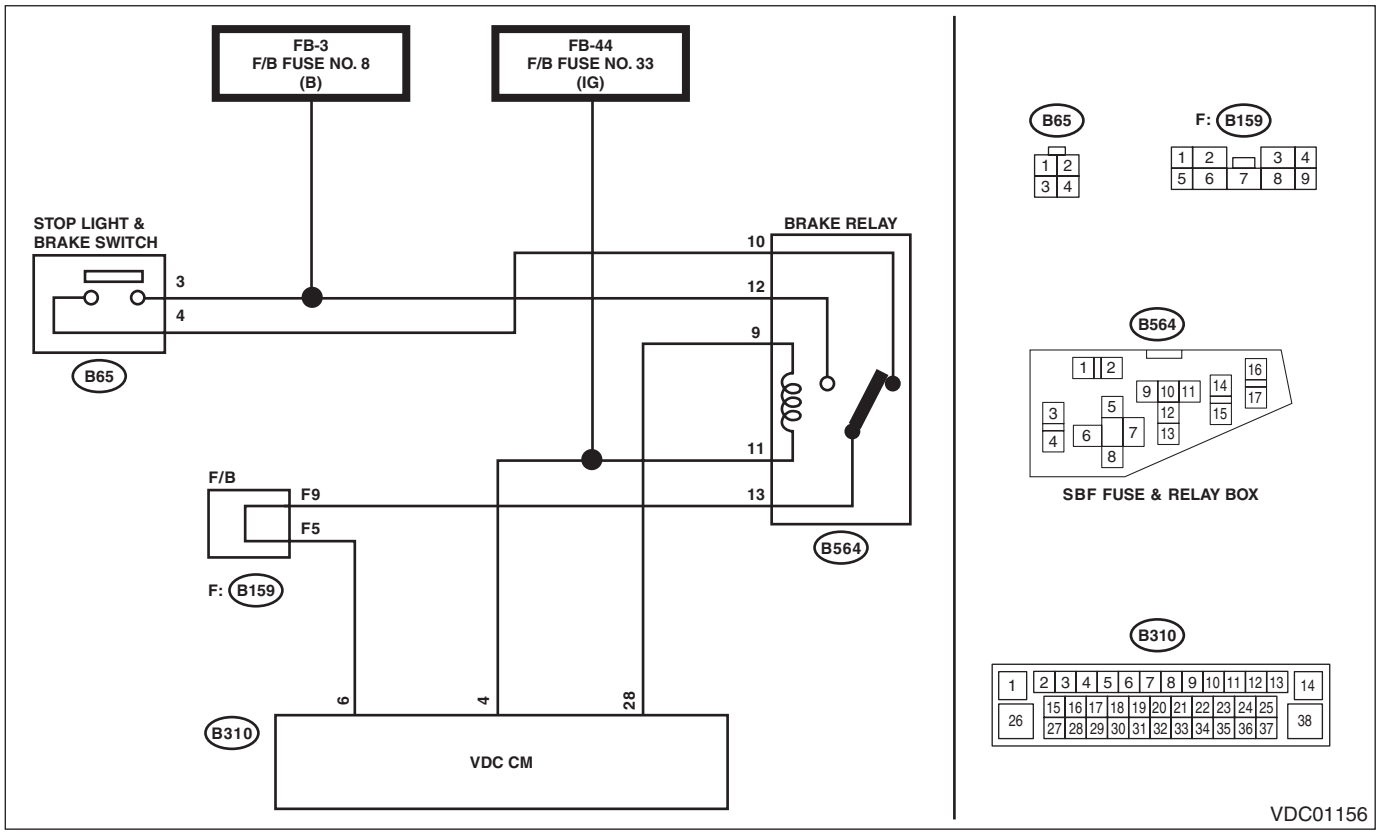
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 4 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>Measure the resistance between brake light relay and the fuse.<br>***Connector & terminal***<br>***(B564) No. 12 — (F/B fuse) No. 8:*** | Is the resistance less than 1 Ω? | Go to step **5**. | Repair the stop light switch circuit. |
| 5 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>1) Connect all connectors.<br>2) Connect the ground cable to battery.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between brake light relay and chassis ground.<br>***Connector & terminal***<br>***(B564) No. 12 (+) — Chassis ground (–):*** | Is the voltage 10 V or more? | Go to step **6**. | Repair the stop light switch circuit. |
| 6 | **CHECK BRAKE LIGHT RELAY CIRCUIT.**<br>1) Turn the ignition switch to OFF.<br>2) Remove the brake light relay.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between brake light relay and chassis ground.<br>***Connector & terminal***<br>***(B564) No. 9 (+) — Chassis ground (–):*** | Is the voltage 10 V or more? | Repair the faulty brake light circuit. | Go to step **7**. |
| 7 | **CHECK VDCCM&H/U.**<br>1) Turn the ignition switch to OFF.<br>2) Connect all connectors and relays.<br>3) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **8**. |
| 8 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

# AQ:DTC C1572 BRAKE LAMP RELAY ON MALFUNCTION

**DTC DETECTING CONDITION:**
Defective brake light relay signal

**TROUBLE SYMPTOM:**
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)
- Brake lights do not go off sometimes.

**WIRING DIAGRAM:**
Stop light system <Ref. to WI-403, EXCEPT FOR NON-TURBO MODEL (WITHOUT EyeSight AND X MODE), WIRING DIAGRAM, Stop Light System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK FUSE.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the ground cable from battery.<br>3) Check the fuse (No. 33). | Is the fuse blown out? | Replace the fuse (No. 33). | Go to step **2**. |
| 2 | **CHECK BRAKE LIGHT RELAY.**<br>Measure the resistance between brake light relay terminals.<br>***Connector & terminal***<br>***(B564) No. 9 — No. 11:*** | Is the resistance less than 1 Ω? | Go to step **3**. | Replace the brake light relay. |
| 3 | **CHECK VDCCM&H/U CONNECTOR.**<br>Disconnect the connector from the VDCCM&H/U. | Is there poor contact or damage of the VDCCM&H/U connector? | Repair the VDCCM&H/U connector. | Go to step **4**. |
| 4 | **CHECK BRAKE LIGHT RELAY CIRCUIT.**<br>Measure the resistance between the brake light relay and VDCCM&H/U connector.<br>***Connector & terminal***<br>***(B564) No. 9 — (B310) No. 28:***<br>***(B564) No. 11 — (F/B fuse) No. 33:*** | Is the resistance less than 1 Ω? | Go to step **5**. | Repair the faulty brake light circuit. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **CHECK BRAKE LIGHT RELAY CIRCUIT.**<br>1) Connect all connectors.<br>2) Connect the ground cable to battery.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between brake light relay and chassis ground.<br>***Connector & terminal***<br>***(B564) No. 11 (+) — Chassis ground (–):*** | Is the voltage 10 V or more? | Go to step **6**. | Repair the faulty brake light circuit. |
| 6 | **CHECK VDCCM&H/U.**<br>1) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>2) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

# AR:DTC C1711 STEERING ANGLE SENSOR ABNORMAL

**DTC DETECTING CONDITION:**

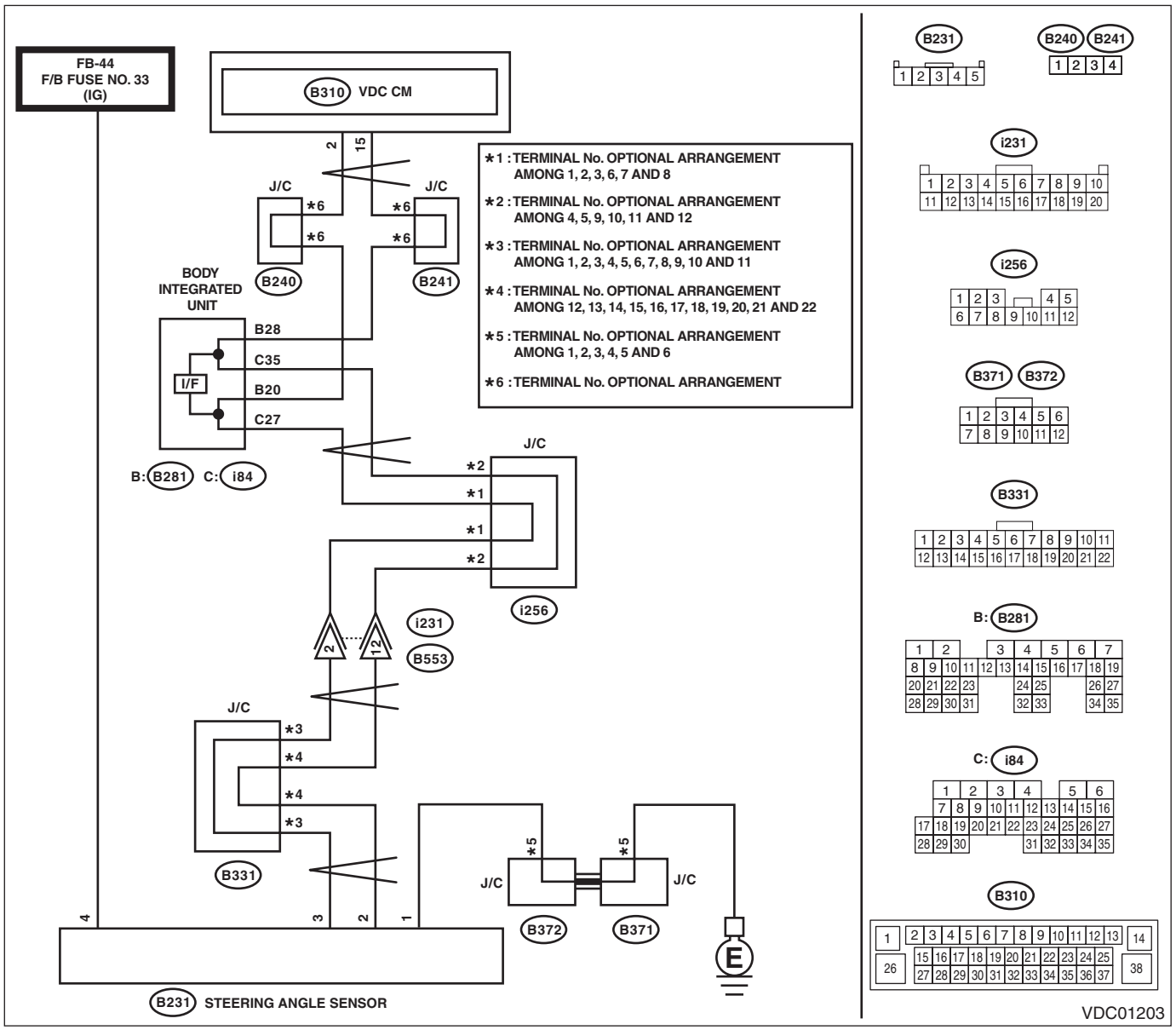
Defective steering angle sensor

**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X mode)
- EyeSight does not operate. (Model with EyeSight)

**WIRING DIAGRAM:**

Vehicle dynamics control system <Ref. to WI-418, Vehicle Dynamics Control System.>



| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK POWER SUPPLY FOR STEERING ANGLE SENSOR.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from steering angle sensor.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between steering angle sensor and chassis ground.<br>***Connector & terminal***<br>***(B231) No. 4 (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **2**. | Repair the steering angle sensor power supply circuit. |
| 2 | **CHECK GROUND CIRCUIT OF STEERING ANGLE SENSOR.**<br>Measure the resistance between steering angle sensor and chassis ground.<br>***Connector & terminal***<br>***(B231) No. 1 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **3**. | Repair ground circuit in the steering angle sensor. |
| 3 | **CHECK STEERING ANGLE SENSOR HARNESS.**<br>1) Disconnect the connector from the VDCCM&H/U.<br>2) Measure the resistance between VDCCM&H/U and steering angel sensor.<br>***Connector & terminal***<br>***(B231) No. 2 — (B310) No. 15:***<br>***(B231) No. 3 — (B310) No. 2:*** | Is the resistance less than 1 Ω? | Go to step **4**. | Repair the harness between the steering angle sensor and VDCCM&H/U. |
| 4 | **CHECK GROUND SHORT CIRCUIT OF STEERING ANGLE SENSOR HARNESS.**<br>Measure the resistance between steering angle sensor and chassis ground.<br>***Connector & terminal***<br>***(B231) No. 2 — Chassis ground:***<br>***(B231) No. 3 — Chassis ground:*** | Is the resistance 10 Ω or more? | Go to step **5**. | Repair the harness between the steering angle sensor and VDCCM&H/U. |
| 5 | **CHECK STEERING WHEEL.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Check the steering wheel for deviation from center. | Is the deviation from the center of steering wheel less than 5°? | Go to step **6**. | Perform the centering adjustment of steering wheel, and perform the VDC sensor midpoint setting mode. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 6 | **CHECK OUTPUT OF STEERING ANGLE SENSOR USING SUBARU SELECT MONITOR.**<br>1) Adjust steering wheel to the center position.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Read the «Steering Angle Sensor» displayed on display. | Is the indicated reading of the «Steering Angle Sensor» on the monitor display –10° — 10°? | Perform the VDC sensor midpoint setting mode. Go to step **7**. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Check the installation of the steering wheel and steering angle sensor. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 7 | **CHECK STEERING ANGLE SENSOR USING SUBARU SELECT MONITOR.**<br>1) Turn the ignition switch to OFF.<br>2) Connect all connectors.<br>3) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>4) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>5) Read the DTC. | Is the same DTC displayed? | Go to step **8**. | Go to step **9**. |
| 8 | **CHECK VDCCM&H/U.**<br>1) Turn the ignition switch to OFF.<br>2) Replace the steering angle sensor. <Ref. to VDC-33, Steering Angle Sensor.><br>3) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>4) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>5) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **10**. |
| 9 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |
| 10 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Original steering angle sensor malfunction |

# AS:DTC C1721 YAW RATE SENSOR ABNORMAL

**DTC DETECTING CONDITION:**
Defective yaw rate & G sensor
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

## 1. MODELS WITHOUT EyeSight

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **INTERVIEW CUSTOMERS.**<br>Check if the vehicle ran the road with banks or sandy surface (which does not mean a dirt road). | Did the vehicle run the road with banks or sandy surface (which does not mean a dirt road)? | VDCCM&H/U may record DTC when the vehicle ran the road with banks or sandy surface (which does not mean a dirt road). | Go to step **2**. |
| 2 | **CHECK INSTALLATION OF VDCCM&H/U.** | Is VDCCM&H/U installed properly without being tilted?<br>Is the bracket deformation-free?<br>Are the VDCCM&H/U installation bolts installed without missing or getting loose? | Go to step **3**. | Repair the defective part. Go to step **3**.<br>• Install VDCCM&H/U properly.<br>• Replace the bracket if faulty.<br>• Tighten the VDCCM&H/U installation bolt.<br><Ref. to VDC-5, VDC CONTROL MODULE & HYDRAULIC CONTROL UNIT (VDCCM&H/U), COMPONENT, General Description.> |
| 3 | **CHECK OUTPUT OF YAW RATE & G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Select “Current Data Display & Save” on the Subaru Select Monitor.<br>4) Read the «Yaw Rate Sensor» displayed on display. | Is the reading indicated on monitor display –4 — 4 deg/s? | Go to step **4**. | Replace the VDCCM only.<br><Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 4 | **CHECK OUTPUT OF STEERING ANGLE SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Select “Current Data Display & Save” on the Subaru Select Monitor.<br>4) Read the «Steering Angle Sensor» displayed on display. | Is the reading indicated on monitor display –10 — 10°? | Go to step **5**. | Perform the centering adjustment of steering wheel. |

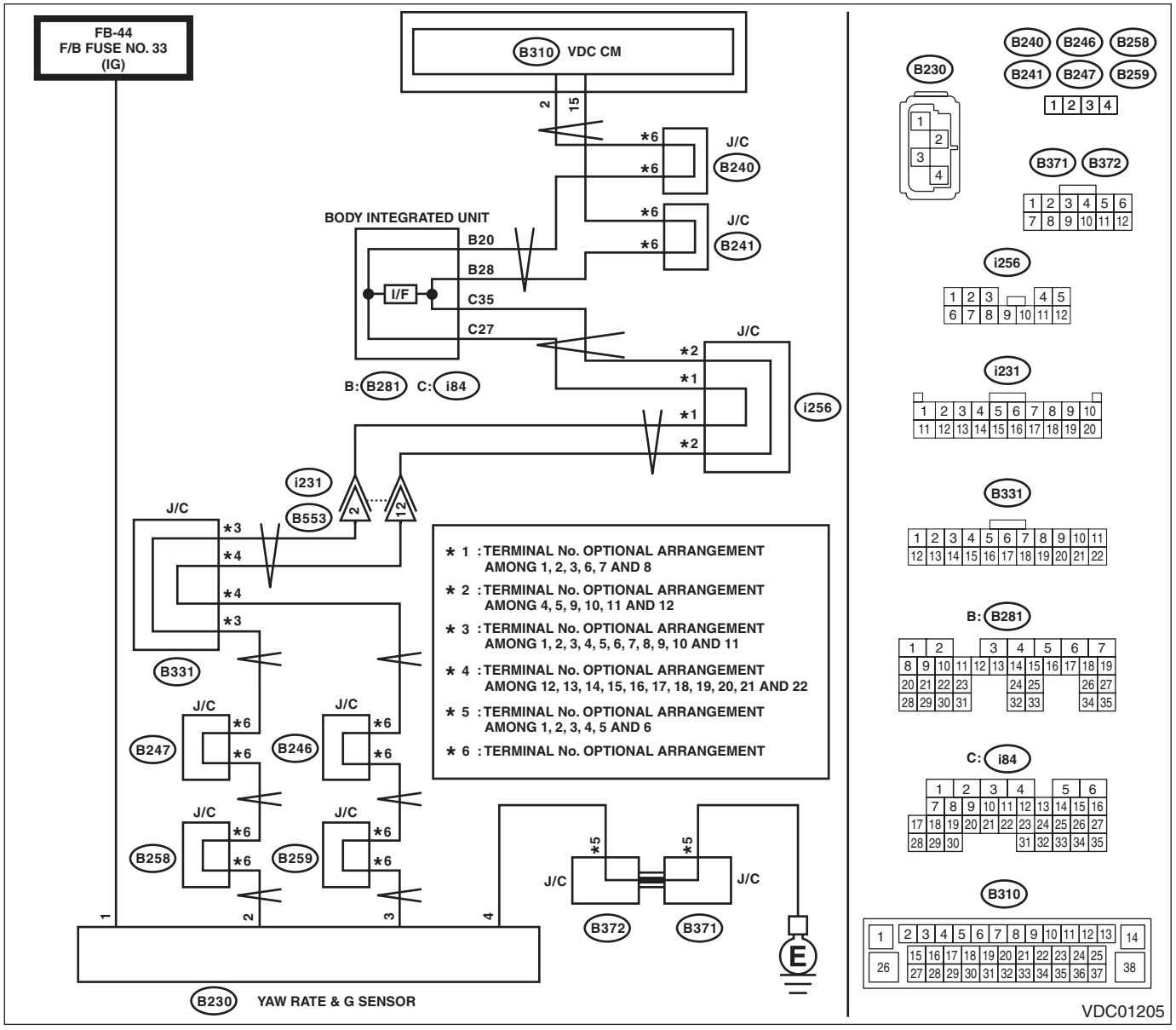
| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **CHECK VDCCM&H/U.**<br>1) Turn the ignition switch to OFF.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **6**. |
| 6 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## 2. MODELS WITH EyeSight

### WIRING DIAGRAM:

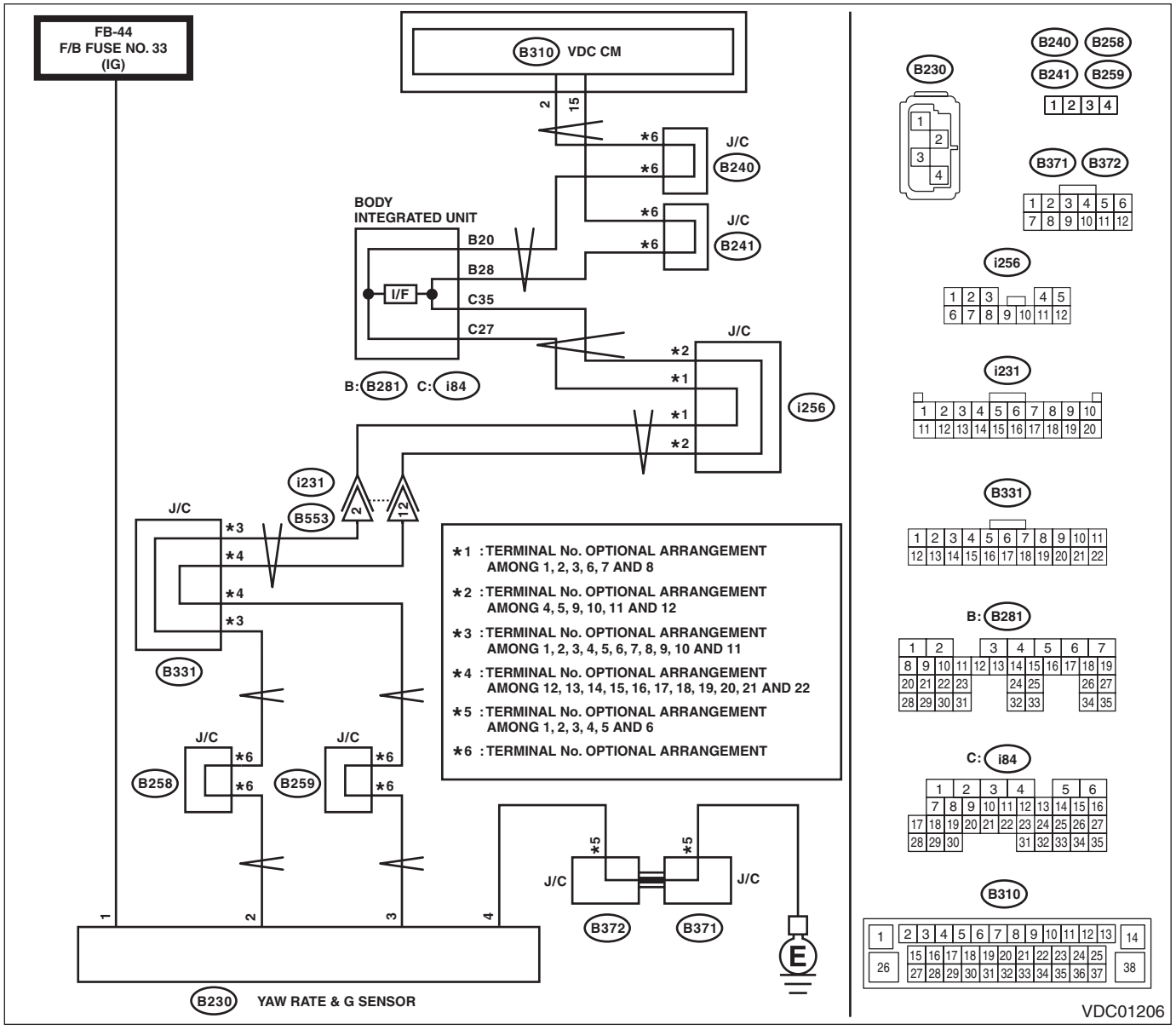
- Non-turbo model

Vehicle dynamics control system <Ref. to WI-418, NON-TURBO MODEL, WIRING DIAGRAM, Vehicle Dynamics Control System.>



- Turbo model

Vehicle dynamics control system <Ref. to WI-424, TURBO MODEL, WIRING DIAGRAM, Vehicle Dynamics Control System.>




| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **INTERVIEW CUSTOMERS.**<br>Check if the vehicle ran the road with banks or sandy surface (which does not mean a dirt road). | Did the vehicle run the road with banks or sandy surface (which does not mean a dirt road)? | VDCCM&H/U may record DTC when the vehicle ran the road with banks or sandy surface (which does not mean a dirt road). | Go to step **2**. |
| 2 | **CHECK YAW RATE & G SENSOR INSTALLATION.** | Is the yaw rate & G sensor installation bolt tightened to 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)? | Go to step **3**. | Tighten the yaw rate & G sensor installation bolt. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 3 | **CHECK POWER SUPPLY OF YAW RATE & G SENSOR.**<br>1) Turn the ignition switch to OFF.<br>2) Disconnect the connector from yaw rate & G sensor.<br>3) Turn the ignition switch to ON.<br>4) Measure the voltage between yaw rate & G sensor and chassis ground.<br>***Connector & terminal***<br>***(B230) No. 1 (+) — Chassis ground (–):*** | Is the voltage 10 — 15 V? | Go to step **4**. | Repair the yaw rate & G sensor power supply circuit. |
| 4 | **CHECK YAW RATE & G SENSOR GROUND CIRCUIT.**<br>Measure the resistance between yaw rate & G sensor and chassis ground.<br>***Connector & terminal***<br>***(B230) No. 4 — Chassis ground:*** | Is the resistance less than 10 Ω? | Go to step **5**. | Repair the yaw rate & G sensor ground circuit. |
| 5 | **CHECK OUTPUT OF YAW RATE & G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Select “Current Data Display & Save” on the Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>4) Read the «Yaw Rate Sensor» displayed on display. | Is the reading indicated on monitor display –4 — 4 deg/s? | Go to step **6**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 6 | **CHECK YAW RATE & G SENSOR.**<br>1) Turn the ignition switch to OFF.<br>2) Connect all connectors.<br>3) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>4) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>5) Read the DTC. | Is the same DTC displayed? | Go to step **7**. | Go to step **8**. |
| 7 | **CHECK VDCCM&H/U.**<br>1) Turn the ignition switch to OFF.<br>2) Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.><br>3) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>4) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>5) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **9**. |
| 8 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |
| 9 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Malfunction is found in original yaw rate & G sensor. |

## AT:DTC C1731 G SENSOR ABNORMAL

NOTE:
For the diagnostic procedure, refer to “DTC C1732 LATERAL G SENSOR ABNORMAL”. <Ref. to VDC(diag)-94, DTC C1732 LATERAL G SENSOR ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

# AU:DTC C1732 LATERAL G SENSOR ABNORMAL

**DTC DETECTING CONDITION:**
Defective lateral G sensor
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

## 1. MODELS WITHOUT EyeSight

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK INSTALLATION OF VDCCM&H/U.** | Is VDCCM&H/U installed properly without being tilted?<br>Is the bracket deformation-free?<br>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**.<br>• Install VDCCM&H/U properly.<br>• Replace the bracket if faulty.<br>• Tighten the VDCCM&H/U installation bolt.<br><Ref. to VDC-5, VDC CONTROL MODULE & HYDRAULIC CONTROL UNIT (VDCCM&H/U), COMPONENT, General Description.> |
| 2 | **CHECK OUTPUT OF STEERING ANGLE SENSOR USING SUBARU SELECT MONITOR.**<br>1) Park the vehicle straight on a level surface.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Read the «Steering Angle Sensor» displayed on display. | Is the indicated reading of the steering angle sensor on the monitor display –10° — 10°? | Go to step **3**. | Check the installation of steering angle sensor. |
| 3 | **CHECK OUTPUT OF LATERAL G SENSOR AND LONGITUDINAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Park the vehicle straight on a level surface.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Read the «Lateral G Sensor» «Longitudinal G Sensor» displayed on display. | Is the indicated reading of the lateral G sensor and longitudinal G sensor on the monitor display –2 — 2 $m/s^2$? | Go to step **4**. | Recheck from step 1, and if the problem is not solved, go to next. Go to step **7**. |
| 4 | **SET 0 POINT OF LATERAL G SENSOR AND LONGITUDINAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Select “Work Support” on Subaru Select Monitor.<br>2) Perform the VDC sensor midpoint setting mode. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Is the 0 point setting successful? | Go to step **5**. | Recheck from step 1, and when the 0 point setting is not possible, replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 5 | **PERFORM DRIVING TEST.**<br>Drive approximately 10 minutes, and check if the warning lights illuminate or improperly operate during driving.<br>In a safe place, drive the vehicle while alternating acceleration and deceleration as much as possible. | Did the ABS warning light or VDC warning light remain off? Does ABS or VDC operate without malfunction? | Go to step **6**. | Recheck from step 1, and when the warning lights illuminate or improperly operate, replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 6 | **CHECK OUTPUT OF LATERAL G SENSOR AND LONGITUDINAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Park the vehicle on a level surface.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Read the «Lateral G Sensor» «Longitudinal G Sensor» displayed on display. | Is the indicated reading of the lateral G sensor and 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 only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 7 | **CHECK OUTPUT OF LATERAL G SENSOR AND LONGITUDINAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Remove the VDCCM&H/U installation bolt and bracket.<br>2) Keep VDCCM&H/U in a horizontal position.<br>3) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>4) Read the «Lateral G Sensor» «Longitudinal G Sensor» displayed on display. | When the VDCCM&H/U is in a horizontal position, is the indicated reading of the lateral G sensor and 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 only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |

## 2. MODELS WITH EyeSight

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK YAW RATE & G SENSOR INSTALLATION.** | Is the yaw rate & G sensor installation bolt tightened to 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)? | Go to step **2**. | Tighten the yaw rate & G sensor attachment bolt. |
| 2 | **CHECK OUTPUT OF LATERAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Park the vehicle on a level surface.<br>2) Select "Current Data Display & Save" on the Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>3) Read the «Lateral G Sensor» displayed on display. | Is the indicated reading on the monitor display –1.5 — 1.5 $m/s^2$? | Go to step **3**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 3 | **CHECK OUTPUT OF LATERAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Turn the ignition switch to OFF.<br>2) Remove the yaw rate & G sensor from vehicle.<br>3) Turn the ignition switch to ON, and select the "Current Data Display & Save" in Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>4) Read the «Lateral G Sensor» displayed on display. | When the yaw rate & G sensor is inclined 90° to the right, is the indicated value 6.8 — 12.8 $m/s^2$? | Go to step **4**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 4 | **CHECK LATERAL G SENSOR WITH SUBARU SELECT MONITOR.**<br>Read the «Lateral G Sensor» displayed on display. | When the yaw rate & G sensor is inclined 90° to the left, is the indicated value –6.8 — –12.8 $m/s^2$? | Go to step **5**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 5 | **CHECK POOR CONTACT OF CONNECTORS.**<br>Turn the ignition switch to OFF. | Is there poor contact of connector between VDCCM&H/U and yaw rate & G sensor? | Repair the connector. | Go to step **6**. |
| 6 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

# AV:DTC C1733 LONGITUDINAL G SENSOR ABNORMAL

**DTC DETECTING CONDITION:**
Defective longitudinal G sensor
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

## 1. MODELS WITHOUT EyeSight

NOTE:
For the diagnostic procedure, refer to “DTC C1732 LATERAL G SENSOR ABNORMAL”. <Ref. to VDC(diag)-94, DTC C1732 LATERAL G SENSOR ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

## 2. MODELS WITH EyeSight

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **WHETHER A WHEEL TURNED FREELY OR NOT.**<br>Check if the wheels have been turned freely for one minute or more, such as when the vehicle is jacked-up, under full-lock cornering or when the wheels are not in contact with road surface. | Did the wheels turn freely? | VDC is normal. Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.> | Go to step **2**. |
| 2 | **CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.**<br>1) Park the vehicle on a level surface.<br>2) Select “Current Data Display & Save” on the Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>3) Read the «Longitudinal G Sensor» displayed on display. | Is the indicated reading on the monitor display –1.2 — 1.2 $m/s^2$? | Go to step **3**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 3 | **CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.**<br>1) Turn the ignition switch to OFF.<br>2) Remove the yaw rate & G sensor from vehicle. <Ref. to VDC-31, Yaw Rate and G Sensor.><br>3) Turn the ignition switch to ON, and select the “Current Data Display & Save” in Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>4) Read the «Longitudinal G Sensor» displayed on display. | When the yaw rate & G sensor is inclined 90° to the front, is the indicated value 6.8 — 12.8 $m/s^2$? | Go to step **4**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 4 | **CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.**<br>Read the «Longitudinal G Sensor» displayed on display. | When the yaw rate & G sensor is inclined 90° to the rear, is the indicated value –6.8 — –12.8 $m/s^2$? | Go to step **5**. | Replace the yaw rate & G sensor. <Ref. to VDC-31, Yaw Rate and G Sensor.> |
| 5 | **CHECK POOR CONTACT OF CONNECTOR.**<br>Turn the ignition switch to OFF. | Is there poor contact of connector between VDCCM&H/U and yaw rate & G sensor? | Repair the connector. | Go to step **6**. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 6 | **CHECK VDCCM&H/U.**<br>1) Connect all connectors.<br>2) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>3) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>4) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **7**. |
| 7 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | Temporary poor contact occurs. |

## AW:DTC C1741 PRESSURE SENSOR

**DTC DETECTING CONDITION:**
Defective pressure sensor
**TROUBLE SYMPTOM:**
- ABS does not operate.
- VDC does not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK STOP LIGHT SWITCH CIRCUIT.**<br>Check stop light switch open circuit. | Is the stop light switch circuit OK? | Go to step **2**. | Repair the stop light switch circuit.<br>NOTE:<br>If there is malfunction in the stop light circuit, DTC may be recorded in the memory. |
| 2 | **CHECK OUTPUT OF PRESSURE SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” in Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>2) Read the «Pressure Sensor» displayed on display. | With the brake pedal released, is the displayed value 0 — 11 bar? | Go to step **3**. | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 3 | **CHECK OUTPUT OF PRESSURE SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” in Subaru Select Monitor. <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.><br>2) Read the «Pressure Sensor» displayed on display. | When the brake pedal is operated, does the pressure sensor output value displayed on the display change in accordance with the brake pedal? | Go to step **4**. | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 4 | **CHECK PRESSURE SENSOR.**<br>1) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>2) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.><br>3) Read the DTC. | Is the same DTC displayed? | Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Go to step **5**. |
| 5 | **CHECK OTHER DTC DETECTION.** | Is any other DTC displayed? | Perform the diagnosis according to DTC. <Ref. to VDC(diag)-36, List of Diagnostic Trouble Code (DTC).> | It results from a temporary noise interference. |

## AX:DTC C1742 W/C PRESSURE SENSOR

**DTC DETECTING CONDITION:**
Defective pressure sensor
**TROUBLE SYMPTOM:**
EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK OUTPUT OF PRESSURE SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” in Subaru Select Monitor.<br>2) Read the FL wheel cylinder output and FR wheel cylinder output displayed on display. | With the brake pedal released, is the displayed value 0 — 11 bar? | Go to step **2**. | Replace the VDCCM&H/U. |
| 2 | **CHECK OUTPUT OF PRESSURE SENSOR WITH SUBARU SELECT MONITOR.**<br>1) Select “Current Data Display & Save” in Subaru Select Monitor.<br>2) Read the FL wheel cylinder output and FR wheel cylinder output displayed on display. | When the brake pedal is operated, do the FL wheel cylinder output and FR wheel cylinder output displayed on the screen change in accordance with the brake pedal? In addition, is the difference between FR and FL wheel cylinder output values less than 10 bar? | Go to step **3**. | Replace the VDCCM&H/U. |
| 3 | **CHECK PRESSURE SENSOR.**<br>1) Clear the memory. <Ref. to VDC(diag)-23, Clear Memory Mode.><br>2) Perform the Inspection Mode. <Ref. to VDC(diag)-22, Inspection Mode.> | Is the same DTC displayed? | Replace the VDCCM&H/U. | 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. |

## AY:DTC C1811 SYSTEM FAILURE

**DTC DETECTING CONDITION:**
ABS and VDC long time sequential control
**TROUBLE SYMPTOM:**

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.
- Hill start assist does not operate.
- Hill descent control does not operate. (Model with X MODE)
- EyeSight does not operate. (Model with EyeSight)

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK INSTALLATION OF VDCCM&H/U.** | Is VDCCM&H/U installed properly without being tilted?<br>Is the bracket deformation-free?<br>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**.<br>• Install VDCCM&H/U properly.<br>• Replace the bracket if faulty.<br>• Tighten the VDCCM&H/U installation bolt.<br><Ref. to VDC-5, VDC CONTROL MODULE & HYDRAULIC CONTROL UNIT (VDCCM&H/U), COMPONENT, General Description.> |
| 2 | **CHECK STEERING WHEEL.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Check the steering wheel for deviation from center. | Is the deviation from the center of steering wheel less than 5°? | Go to step **3**. | Perform the centering adjustment of steering wheel, and perform the VDC sensor midpoint setting mode. Go to step **3**. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 3 | **CHECK OUTPUT OF STEERING ANGLE SENSOR USING SUBARU SELECT MONITOR.**<br>1) Adjust steering wheel to the center position.<br>2) Connect Subaru Select Monitor, and select “Current Data Display & Save”.<br>3) Read the «Steer Angle Sensor Op» displayed on display. | Is the indicated reading of the «Steer Angle Sensor Op» on the monitor display –10° — 10°? | Go to step **4**. | Check the installation of the steering wheel and steering angle sensor, and replace the parts if necessary. |

| | Step | Check | Yes | No |
|---|---|---|---|---|
| 4 | **CHECK OUTPUT OF SENSORS USING SUBARU SELECT MONITOR.**<br>1) Drive the vehicle on a flat road.<br>2) Park the vehicle straight.<br>3) Connect Subaru Select Monitor, and select "Current Data Display & Save".<br>4) Read output of sensors displayed on display. | Are the indicated reading of sensor outputs following values?<br>Lateral G sensor Output: –2 — 2 m/s$^2$<br>Longitudinal G sensor output: –2 — 2 m/s$^2$<br>Yaw Rate Sensor Output: –4 — 4 deg/s | Go to step **5**. | Recheck from step 1, and if the problem is not solved, go to next. Go to step **8**. |
| 5 | **SET 0 POINT FOR LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.**<br>1) Select "Work Support" on Subaru Select Monitor.<br>2) Perform the VDC sensor midpoint setting mode. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> | Is the 0 point setting successful? | Go to step **6**. | Recheck from step 1, and when the 0 point setting is not possible, replace the VDCCM and the steering angle sensor. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> <Ref. to VDC-33, Steering Angle Sensor.> |
| 6 | **PERFORM DRIVING TEST.**<br>Drive approximately 10 minutes, and check if the warning lights illuminate or improperly operate during driving. | Did the ABS warning light or VDC warning light remain off? Does ABS or VDC operate without malfunction? | Go to step **7**. | Recheck from step 1, and when the warning lights illuminate or improperly operate, replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 7 | **CHECK OUTPUT OF SENSORS USING SUBARU SELECT MONITOR.**<br>1) Park the vehicle on a level surface.<br>2) Connect Subaru Select Monitor, and select "Current Data Display & Save".<br>3) Read output of sensors displayed on display. | Are the indicated reading of sensor outputs following values?<br>Lateral G sensor Output: –2 — 2 m/s$^2$<br>Longitudinal G sensor output: –2 — 2 m/s$^2$<br>Yaw Rate Sensor Output: –4 — 4 deg/s | It results from a temporary noise interference. | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |
| 8 | **CHECK OUTPUT OF SENSORS USING SUBARU SELECT MONITOR.**<br>1) Remove the VDCCM&H/U installation bolt and bracket.<br>2) Keep VDCCM&H/U in a horizontal position.<br>3) Connect Subaru Select Monitor, and select "Current Data Display & Save".<br>4) Read output of sensors displayed on display. | When VDCCM&H/U is in a horizontal position, are the indicated reading of sensor outputs following values?<br>Lateral G sensor Output: –1.5 — 1.5 m/s$^2$<br>Longitudinal G sensor output: –1.5 — 1.5 m/s$^2$<br>Yaw Rate Sensor Output: –4 — 4 deg/s | Check the bracket and brake pipe, and install VDCCM&H/U in a horizontal position to the vehicle. | Replace the VDCCM only. <Ref. to VDC-20, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).> |

## AZ:DTC C1821 BRAKE TEMPERATURE ABNORMAL

**DTC DETECTING CONDITION:**
Abnormal brake disc temperature
**TROUBLE SYMPTOM:**
Hill descent control does not operate. (Model with X MODE)

| Step | | Check | Yes | No |
|---|---|---|---|---|
| 1 | **CHECK DTC.**<br>1) Connect all connectors.<br>2) Read the DTC. | Is the DTC a current malfunction? | Stop the vehicle and turn off the engine until the DTC becomes a past malfunction. | It results from a temporal increase in brake temperature. Check the brake pads, disc rotors, and brake fluid. |

## BA:DTC U0073 CONTROL MODULE COMMUNICATION BUS “A” OFF

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BB:DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BC:DTC U0101 LOST COMMUNICATION WITH TCM

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BD:DTC U0123 LOST COMMUNICATION WITH YAW RATE SENSOR MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BE:DTC U0126 LOST COMMUNICATION WITH STEERING ANGLE SENSOR MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BF:DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BG:DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BH:DTC U0402 INVALID DATA RECEIVED FROM TCM

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BI: DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BJ:DTC U0428 INVALID DATA RECEIVED FROM STEERING ANGLE SENSOR MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BK:DTC U0513 INVALID DATA RECEIVED FROM YAW RATE SENSOR MODULE

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BL:DTC U1235 LOST COMMUNICATION WITH EyeSight

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

## BM:DTC U1433 INVALID DATA RECEIVED FROM EyeSight

NOTE:
Refer to “LAN SYSTEM (DIAGNOSTICS)” for diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>