12.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC C0021 FRONT RIGHT ABS SENSOR CIRCUIT OPEN OR SHORT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “RL WHEEL SPEED SENSOR CIRCUIT OPEN/HIGH INPUT”. <Ref. to VDC(diag)-40, DTC C0027 REAR LEFT ABS SENSOR CIRCUIT OPEN OR SHORT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

B: DTC C0023 FRONT LEFT ABS SENSOR CIRCUIT OPEN OR SHORT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “RL WHEEL SPEED SENSOR CIRCUIT OPEN/HIGH INPUT”. <Ref. to VDC(diag)-40, DTC C0027 REAR LEFT ABS SENSOR CIRCUIT OPEN OR SHORT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

C: DTC C0025 REAR RIGHT ABS SENSOR CIRCUIT OPEN OR SHORT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “RL WHEEL SPEED SENSOR CIRCUIT OPEN/HIGH INPUT”. <Ref. to VDC(diag)-40, DTC C0027 REAR LEFT ABS SENSOR CIRCUIT OPEN OR SHORT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

D: DTC C0027 REAR LEFT ABS SENSOR CIRCUIT OPEN OR SHORT

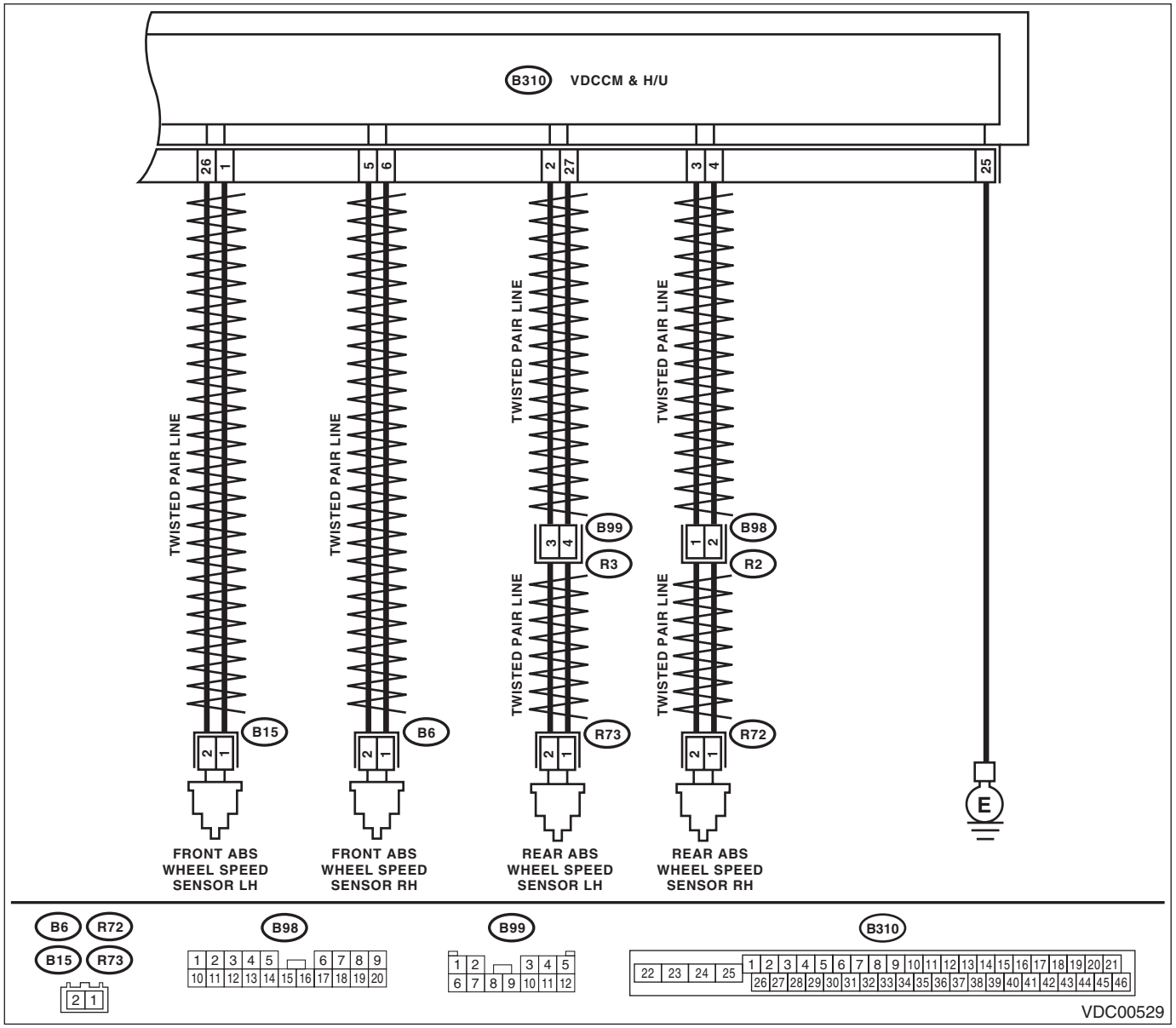
DTC DETECTING CONDITION:

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

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTOR.** 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.** 1) Disconnect the connector (B310) from the VDCCM&H/U. 2) Disconnect the connector from ABS wheel speed sensor. 3) Measure the resistance between VDCCM&H/U connector and ABS wheel speed sensor connector. ***Connector & terminal*** ***DTC C0021*** ***(B310) No. 6 — (B6) No. 1:*** ***(B310) No. 5 — (B6) No. 2:*** ***DTC C0023*** ***(B310) No. 1 — (B15) No. 1:*** ***(B310) No. 26 — (B15) No. 2:*** ***DTC C0025*** ***(B310) No. 4 — (R72) No. 1:*** ***(B310) No. 3 — (R72) No. 2:*** ***DTC C0027*** ***(B310) No. 27 — (R73) No. 1:*** ***(B310) No. 2 — (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.** Measure the resistance between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***DTC C0021*** ***(B310) No. 6 — Chassis ground:*** ***DTC C0023*** ***(B310) No. 1 — Chassis ground:*** ***DTC C0025*** ***(B310) No. 4 — Chassis ground:*** ***DTC C0027*** ***(B310) No. 27 — 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.** 1) Connect the VDCCM&H/U connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between ABS wheel speed sensor connector and chassis ground. ***Connector & terminal*** ***DTC C0021*** ***(B6) No. 2 (+) — Chassis ground (–):*** ***DTC C0023*** ***(B15) No. 2 (+) — Chassis ground (–):*** ***DTC C0025*** ***(R72) No. 2 (+) — Chassis ground (–):*** ***DTC C0027*** ***(R73) No. 2 (+) — Chassis ground (–):***	Is the voltage 5 — 16 V?	Go to step **6**.	Go to step **5**.
5	**CHECK VDCCM&H/U POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the VDCCM&H/U connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between VDCCM&H/U connector terminals. ***Connector & terminal*** ***(B310) No. 28 (+) — (B310) No. 25 (–):***	Is the voltage 10 — 15 V?	Go to step **6**.	Check the generator, battery and VDCCM&H/U power supply circuit.

	Step	Check	Yes	No
6	**CHECK ABS WHEEL SPEED SENSOR SIGNAL.** 1) Install the ABS wheel speed sensor. 2) Prepare an oscilloscope. 3) Check the ABS wheel speed sensor. <Ref. to VDC-23, ABS WHEEL SPEED SENSOR, 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.
7	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

E: DTC C0022 FRONT RIGHT ABS SENSOR SIGNAL

NOTE:
For the diagnostic procedure, refer to DTC C0028 “RL WHEEL SPEED SENSOR SIGNAL”. <Ref. to VDC(diag)-43, DTC C0028 REAR LEFT ABS SENSOR SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

F: DTC C0024 FRONT LEFT ABS SENSOR SIGNAL

NOTE:
For the diagnostic procedure, refer to DTC C0028 “RL WHEEL SPEED SENSOR SIGNAL”. <Ref. to VDC(diag)-43, DTC C0028 REAR LEFT ABS SENSOR SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

G: DTC C0026 REAR RIGHT ABS SENSOR SIGNAL

NOTE:
For the diagnostic procedure, refer to DTC C0028 “RL WHEEL SPEED SENSOR SIGNAL”. <Ref. to VDC(diag)-43, DTC C0028 REAR LEFT ABS SENSOR SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

H: DTC C0028 REAR LEFT ABS SENSOR SIGNAL

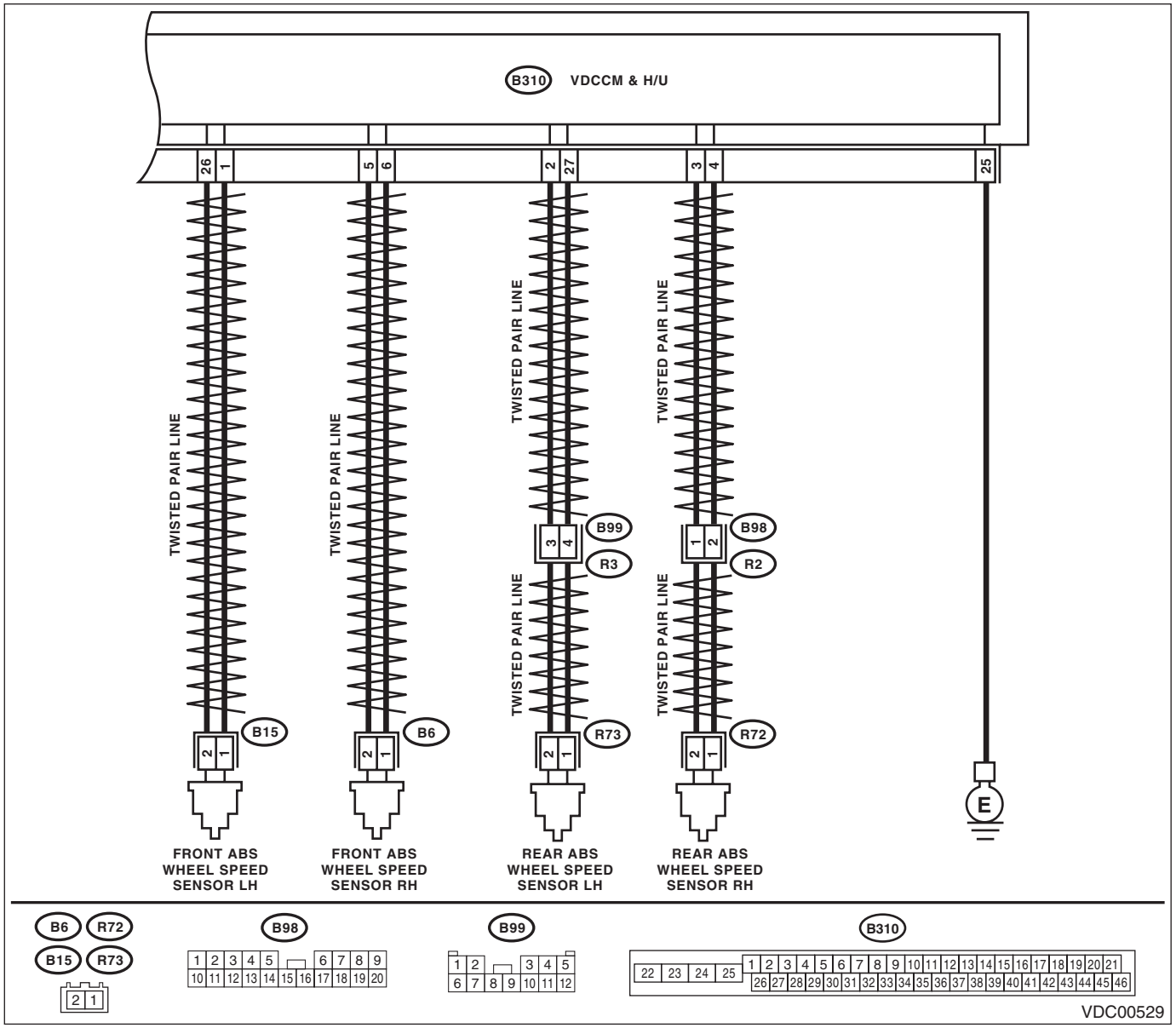
DTC DETECTING CONDITION:

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

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK OUTPUT OF ABS WHEEL SPEED SENSOR USING SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. 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**.

	Step	Check	Yes	No
2	**CHECK POOR CONTACT OF CONNECTOR.** 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.** Make sure the radio wave devices and electronic components are installed correctly.	Are the radio wave devices and electronic components installed correctly?	Go to step **4**.	Install the radio wave devices and electronic components properly.
4	**CHECK CAUSE OF SIGNAL NOISE.** Check if the noise sources (such as an antenna) are installed near the sensor harness.	Are noise sources installed?	Install the noise sources apart from sensor harness.	Go to step **5**.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, 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 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.** 1) Install the ABS wheel speed sensor. 2) Prepare an oscilloscope. 3) Check the ABS wheel speed sensor. <Ref. to VDC-23, ABS WHEEL SPEED SENSOR, 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**.
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.** 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.** Check if the noise sources (such as an antenna) are installed near the sensor harness.	Is the noise sources installed?	Go to step **12**.	Install the noise sources apart from sensor harness.

	Step	Check	Yes	No
12	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference. NOTE: Though the ABS warning light remains on at this time, this is normal. Drive the vehicle at 12 km/h (7 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 C0029 ANY OF WHEEL SENSORS SIGNAL

DTC DETECTING CONDITION:

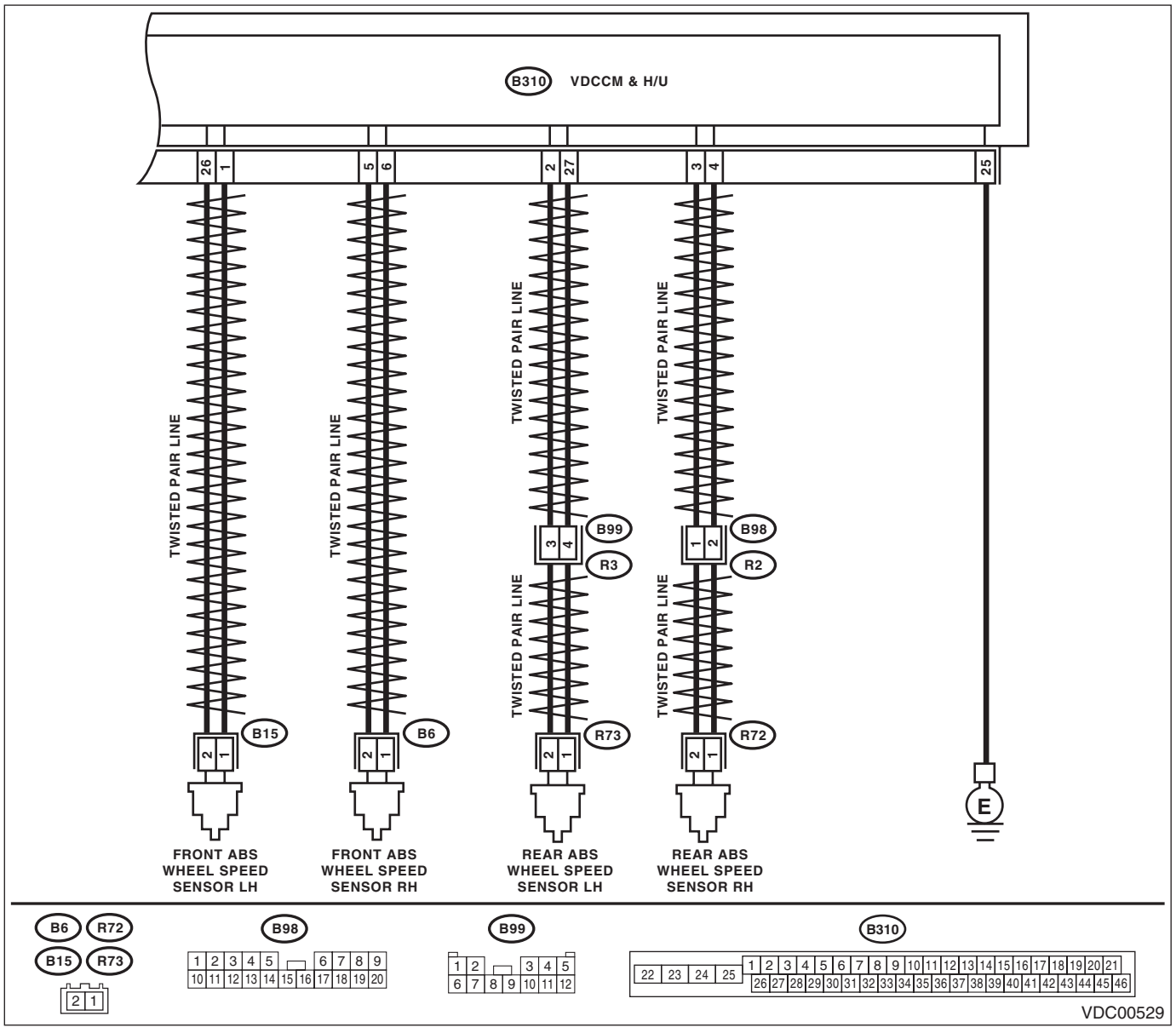
- Defective ABS wheel speed sensor signal (noise, irregular signal, etc.)
- Defective magnetic encoder
- When a wheel is turned freely for a long time

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.

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

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**WHETHER A WHEEL TURNED FREELY OR NOT.** 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. NOTE: 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.** 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 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.** 1) Install the ABS wheel speed sensor. 2) Prepare an oscilloscope. 3) Check the ABS wheel speed sensor. <Ref. to VDC-23, ABS WHEEL SPEED SENSOR, 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 **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?	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**.
8	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **9**.

Step		Check	Yes	No
9	CHECK OTHER DTC DETECTION.	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference. NOTE: Though the ABS warning light remains on at this time, this is normal. Drive the vehicle at 12 km/h (7 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.

J: DTC C0031 FR HOLD VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

K: DTC C0032 FR PRESSURE REDUCING VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

L: DTC C0033 FL HOLD VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

M: DTC C0034 FL PRESSURE REDUCING VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

N: DTC C0035 RR HOLD VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

O: DTC C0036 RR PRESSURE REDUCING VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

P: DTC C0037 RL HOLD VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Q: DTC C0038 RL PRESSURE REDUCING VALVE MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

R: DTC C0039 ANY ONE OF FOUR SOLENOID VALVES

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

S: DTC C0061 NORMAL OPENING VALVE 1 MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

T: DTC C0062 NORMAL OPENING VALVE 2 MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

U: DTC C0063 NORMAL CLOSING VALVE 1 MALFUNCTION

NOTE:
For the diagnostic procedure, refer to C0064 “NORMAL CLOSING VALVE 2 MALFUNCTION”. <Ref. to VDC(diag)-50, DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

V: DTC C0064 NORMAL CLOSING VALVE 2 MALFUNCTION

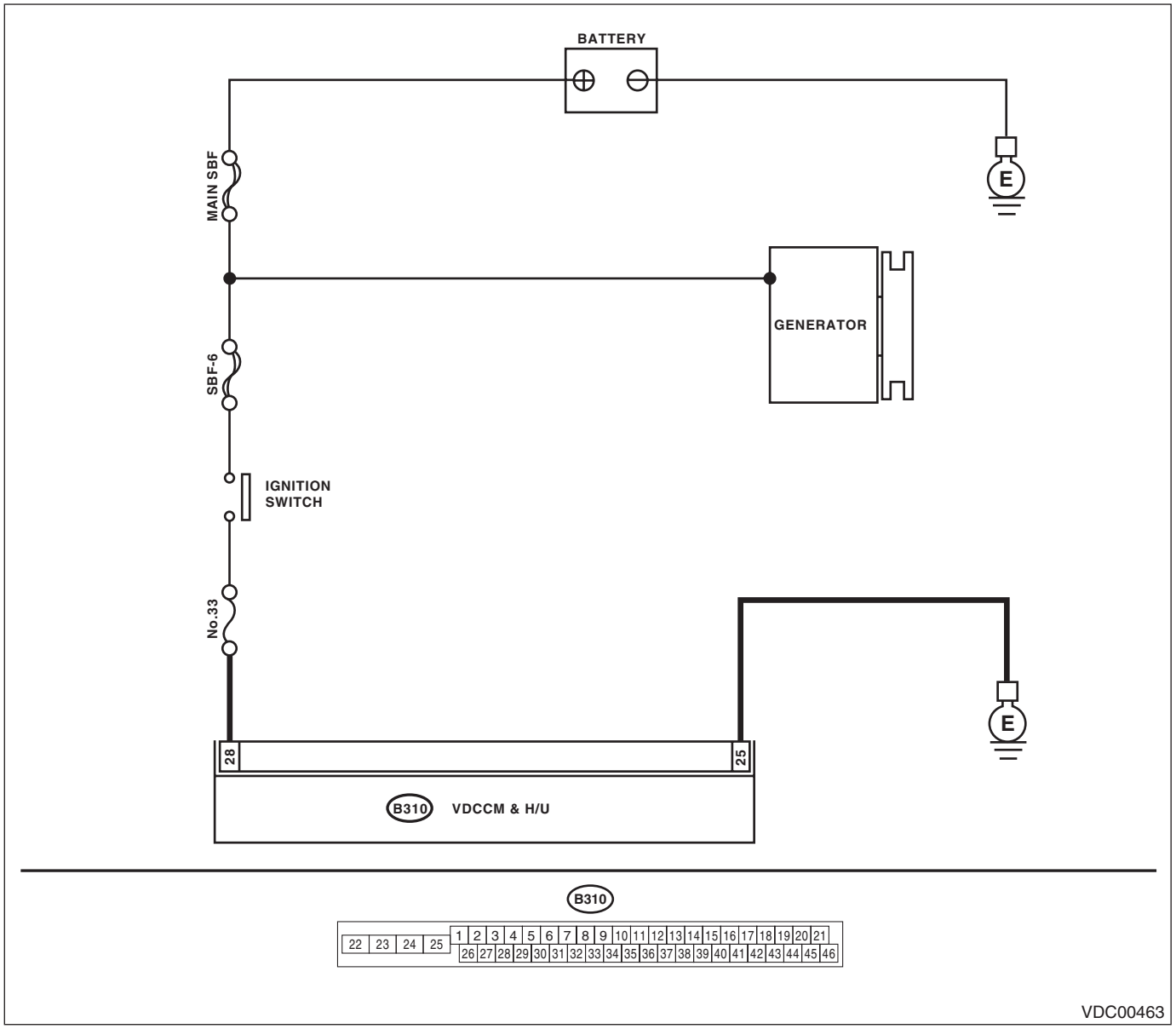
DTC DETECTING CONDITION:

- Defective harness connector
- Defective VDCH/U solenoid valve

TROUBLE SYMPTOM:

- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

WIRING DIAGRAM:

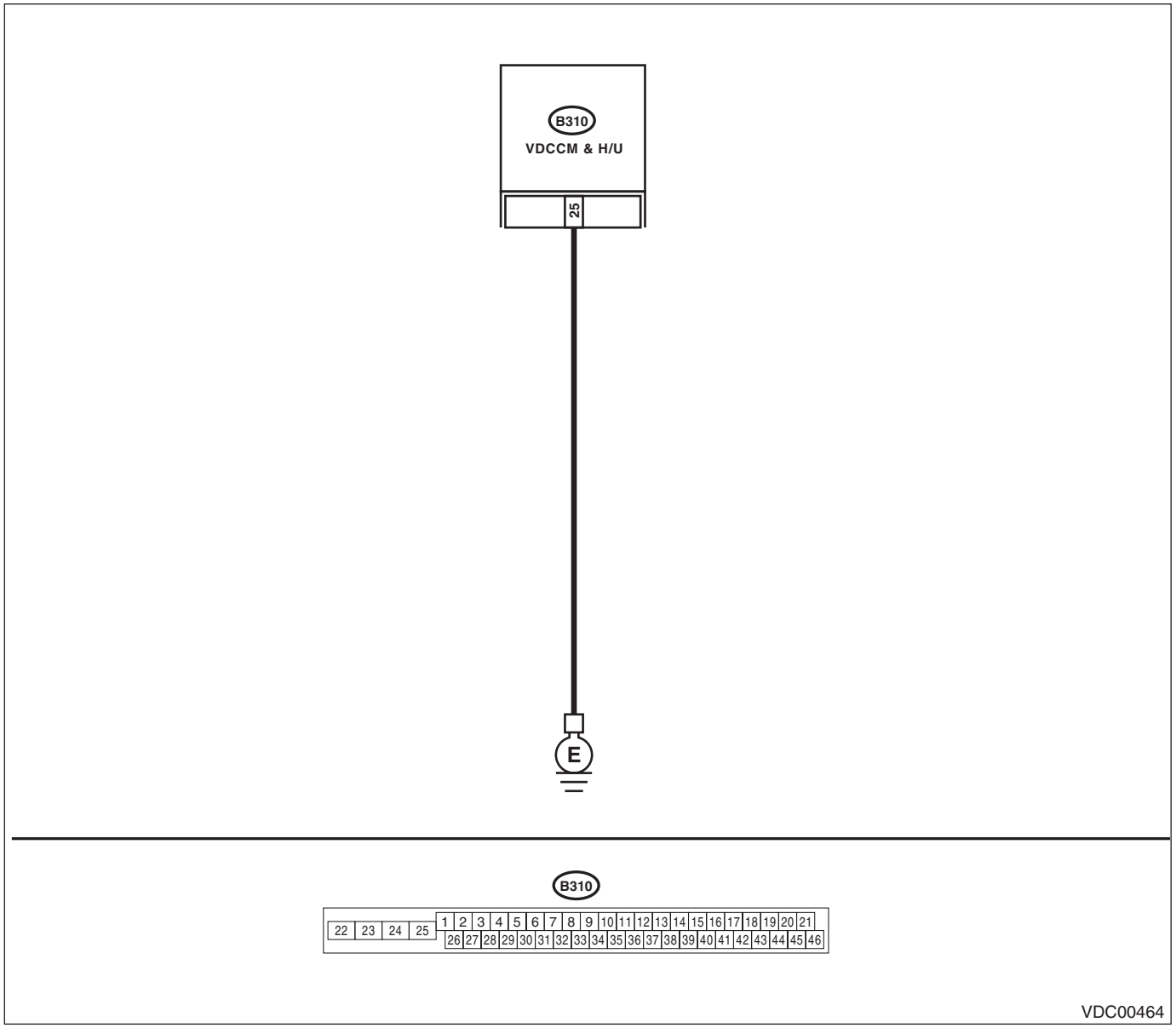


	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Run the engine at idle. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 28 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit.
2	**CHECK VDCCM&H/U GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 25 — 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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U. <Ref. to VDC-7, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

W: DTC C0041 ECM

DTC DETECTING CONDITION:
Defective VDCCM&H/U
TROUBLE SYMPTOM:
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK VDCCM&H/U GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Measure the resistance between VDCCM&H/U and chassis ground. ***Connector & terminal*** ***(B310) No. 25 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **2**.	Repair the VDCCM&H/U ground harness.

	Step	Check	Yes	No
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?	Install the noise source apart from the sensor harness.	Go to step **5**.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

X: DTC C0041 PARAMETER SELECTION ERROR

DTC DETECTING CONDITION:
VDCCM parameter selection error
TROUBLE SYMPTOM:
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

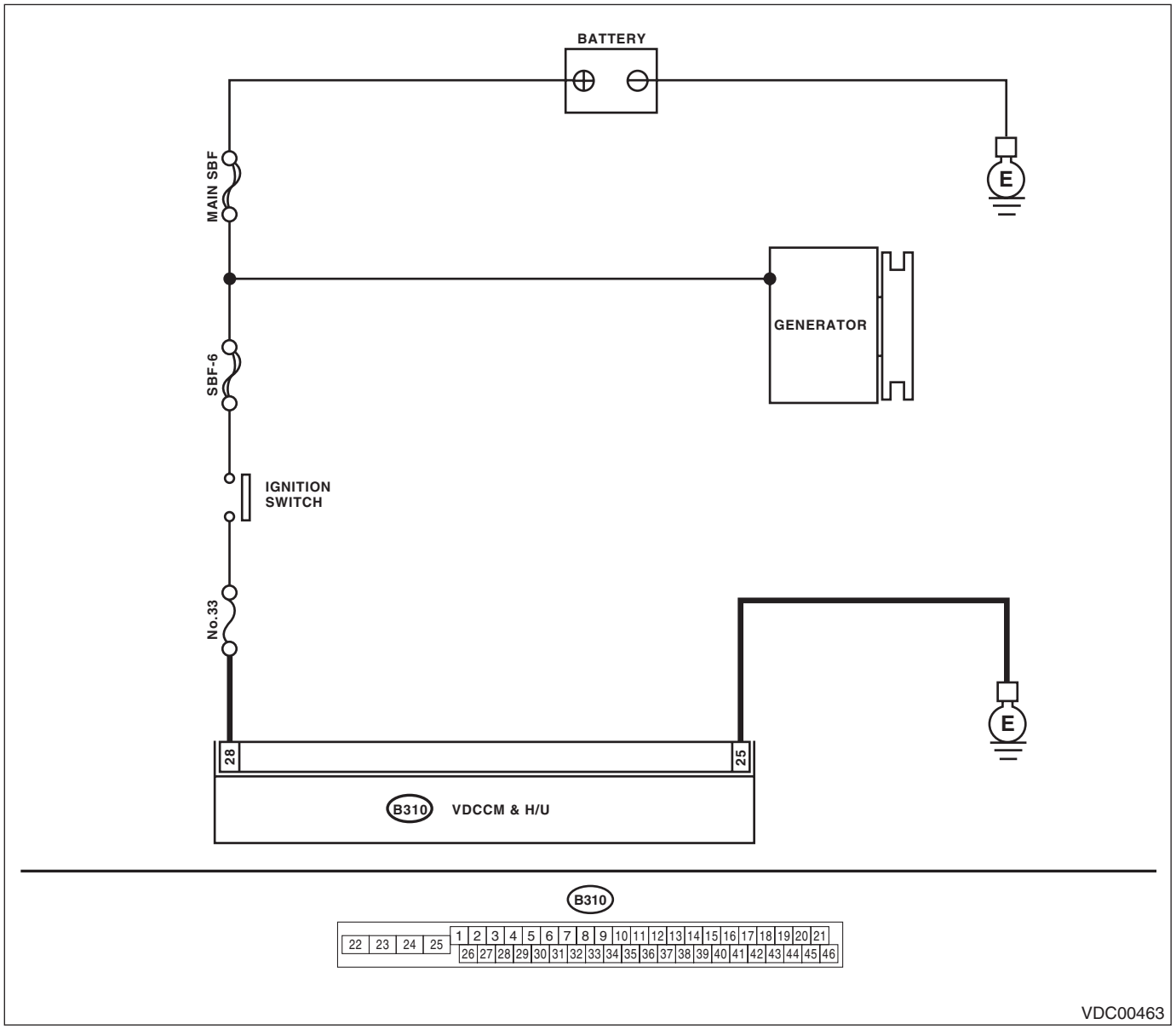
NOTE:
When the VDCCM or VDCCM&H/U is replaced, this DTC may be stored.

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U REPLACEMENT HISTORY.**	Is there history of VDCCM replacement by itself?	Go to step **2**.	Go to step **3**.
2	**CHECK VDCCM IDENTIFICATION SYMBOL.** Check the identification symbol of the seal attached on the side of the VDCCM. AT: S1 MT: S5 (WRX-SS) S2 (except for WRX-SS)	Is the identification symbol correct?	Go to step **4**.	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
3	**CHECK VDCCM&H/U IDENTIFICATION SYMBOL.** Check the identification symbol stamped on the upper part of the H/U. AT: S1 MT: S5 (WRX-SS) S2 (except for WRX-SS)	Is the identification symbol correct?	Go to step **4**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
4	**CHECK PARAMETER SELECTED IN VDCCM.** <Ref. to VDC(diag)-19, PARAMETER CHECK, OPERATION, Subaru Select Monitor.>	Does the parameter registered in the VDCCM match the relevant vehicle?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, 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 C0042 POWER SUPPLY VOLTAGE FAILURE

DTC DETECTING CONDITION:
Improper VDCCM&H/U power supply voltage
TROUBLE SYMPTOM:
- ABS does not operate.
- EBD may not operate.
- VDC does not operate.

NOTE:
Warning lights go off if voltage returns.
WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK GENERATOR.** 1) Start the engine. 2) Run the engine at idle after warming up. 3) Measure the voltage between generator terminal B and chassis ground. ***Terminals*** ***Generator terminal B (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the generator.
2	**CHECK BATTERY TERMINAL.** Turn the ignition switch to OFF.	Are the positive and negative battery terminals clamped tightly?	Go to step **3**.	Tighten the terminal.
3	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Disconnect the connector from the VDCCM&H/U. 2) Run the engine at idle. 3) Operate devices such as headlights, air conditioner, defogger, etc. which produce an electrical load. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 28 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **4**.	Repair the power supply circuit.
4	**CHECK VDCCM&H/U GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 25 — 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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

Z: DTC C0044 TCM COMMUNICATION CIRCUIT

DTC DETECTING CONDITION:
No CAN signal from TCM.
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-30, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of TCM connector?	Repair the connector.	Go to step **3**.
3	**CHECK TCM.**	Is the TCM normal?	Go to step **4**.	Replace the TCM. <Ref. to 4AT-61, Transmission Control Module (TCM).>
4	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

AA:DTC C0045 INCORRECT VDC CONTROL MODULE SPECIFICATIONS

DTC DETECTING CONDITION:
Different control module specification
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

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

	Step	Check	Yes	No
1	**CHECK VDCCM REPLACEMENT HISTORY.**	Is there history of VDCCM replacement by itself?	Go to step **2**.	Go to step **3**.
2	**CHECK VDCCM IDENTIFICATION SYMBOL.** Check the identification symbol of the seal attached on the side of the VDCCM. AT: S1 MT: S5 (WRX-SS) S2 (except for WRX-SS)	Is the identification symbol correct?	Go to step **4**.	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
3	**CHECK VDCCM&H/U IDENTIFICATION SYMBOL.** Check the identification symbol stamped on the upper part of the H/U. AT: S1 MT: S5 (WRX-SS) S2 (except for WRX-SS)	Is the identification symbol correct?	Go to step **4**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
4	**CHECK PARAMETER SELECTED IN VDCCM.** <Ref. to VDC(diag)-19, PARAMETER CHECK, OPERATION, Subaru Select Monitor.>	Does the parameter registered in the VDCCM match the relevant vehicle?	Go to step **5**.	Select and register the correct parameter. <Ref. to VDC(diag)-18, PARAMETER SELECTION, OPERATION, Subaru Select Monitor.>
5	**CHECK TCM SPECIFICATION.** Check the TCM specification.	Is the specification of TCM same as vehicle specification?	Go to step **6**.	Replace the TCM. <Ref. to 4AT-61, Transmission Control Module (TCM).>
6	**CHECK AT SYSTEM.** 1) Start the engine. 2) Check the DTC in AT system.	Is DTC of AT system displayed?	Repair the AT system.	Go to step **7**.
7	**CHECK ECM SPECIFICATION.** Check the ECM specification.	Is the specification of ECM same as vehicle specification?	Go to step **8**.	Replace the ECM. <Ref. to FU(H4SO)-45, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-51, Engine Control Module (ECM).>

	Step	Check	Yes	No
8	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

AB:DTC C0045 TCM MALFUNCTION

DTC DETECTING CONDITION:

Defective TCM

TROUBLE SYMPTOM:

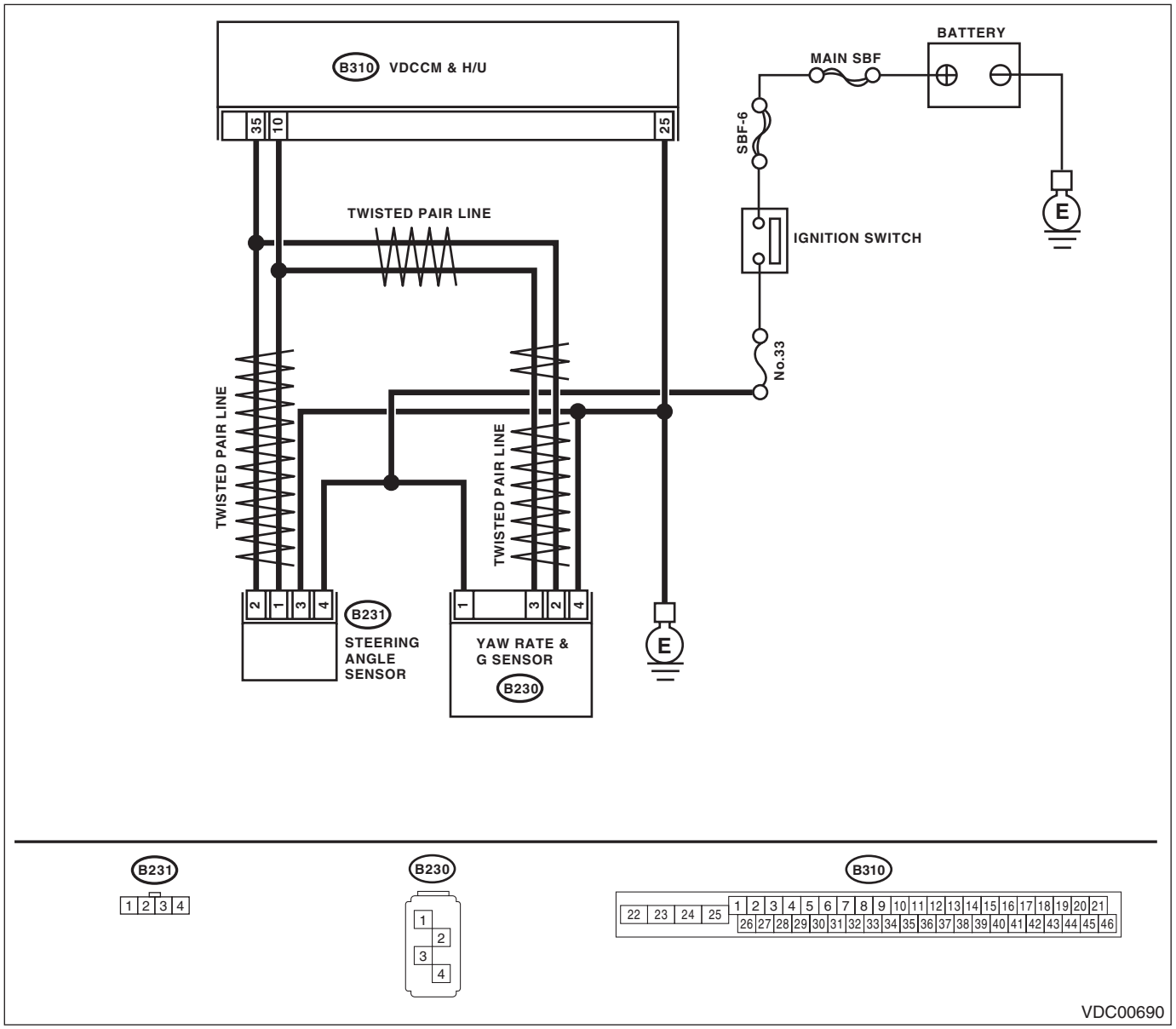
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK AT SYSTEM.** 1) Start the engine. 2) Check the DTC in AT system.	Is DTC of AT system displayed?	Repair the AT system.	Go to step **2**.
2	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

AC:DTC C0047 CAN COMMUNICATION

DTC DETECTING CONDITION:
CAN communication line circuit is open or shorted.
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-30, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of VDCCM&H/U connector?	Repair the connector.	Go to step **3**.

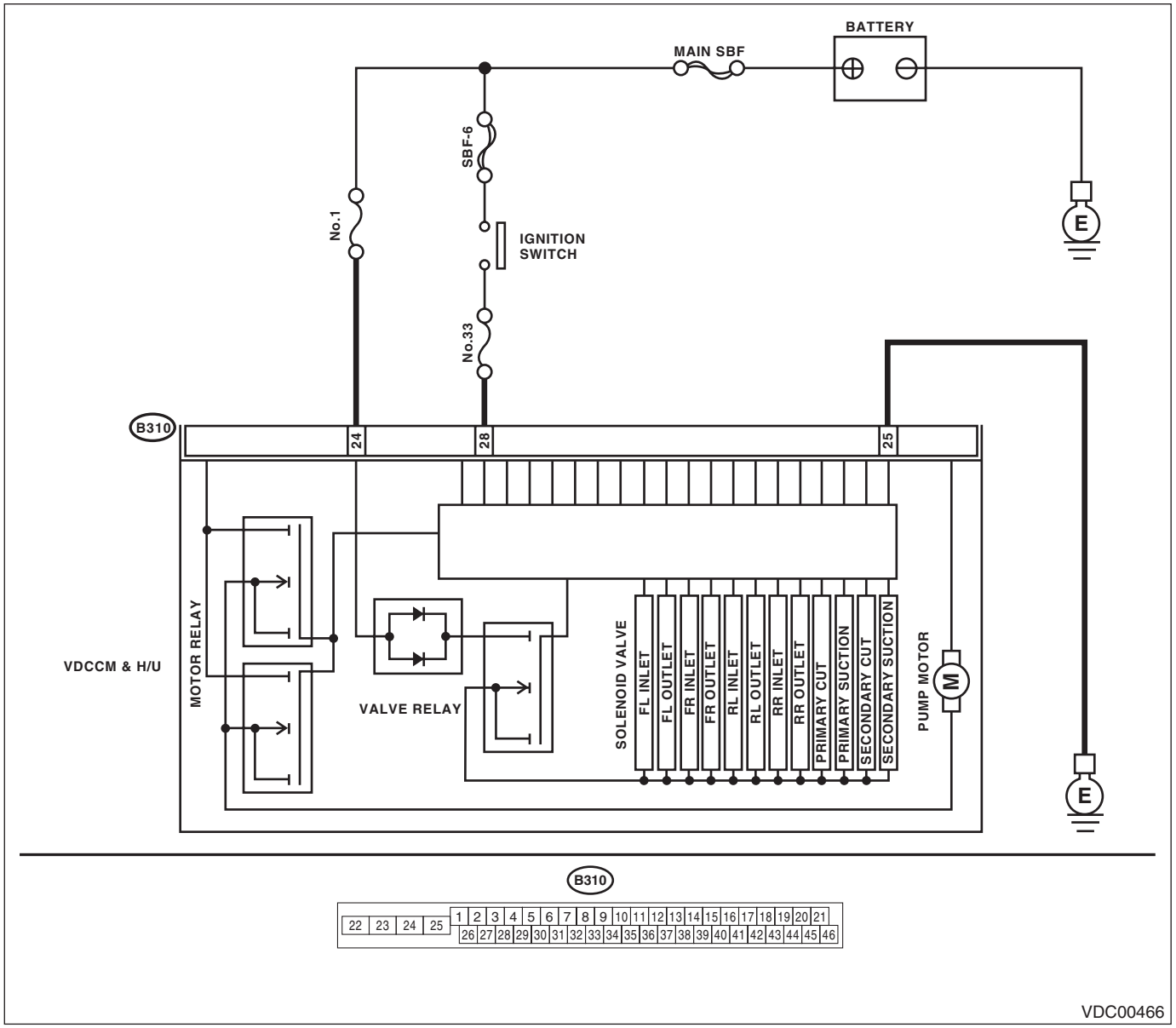
	Step	Check	Yes	No
3	**CHECK OUTPUT OF STEERING ANGLE SENSOR WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Check the steering angle sensor output.	Does the output signal change?	Go to step **4**.	Check output of the steering angle sensor. <Ref. to VDC(diag)-82, DTC C0071 STEER ANGLE SENSOR OP, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
4	**CHECK OUTPUT OF YAW RATE & G SENSOR WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Check the yaw rate & G sensor output.	Does the output signal change?	Go to step **5**.	Check output of the yaw rate & G sensor. <Ref. to VDC(diag)-92, DTC C0072 YAW RATE SENSOR COMMUNICATION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Temporary poor contact occurs.

AD:DTC C0051 VALVE RELAY

DTC DETECTING CONDITION:
Defective valve relay

TROUBLE SYMPTOM:
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Run the engine at idle. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 28 (+) — Chassis ground (–):*** ***(B310) No. 24 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the power supply circuit.
2	**CHECK VDCCM&H/U INPUT VOLTAGE.** Calculate the voltage difference measured in step 1. A: (B310) No. 28 (+) — Chassis ground (–): B: (B310) No. 24 (+) — 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.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 25 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the VDCCM&H/U ground harness.
4	**CHECK VDCCM&H/U VALVE RELAY.** Measure the resistance between VDCCM&H/U connector terminals. ***Connector & terminal*** ***(B310) No. 24 — (B310) No. 25:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AE:DTC C0052 MOTOR AND MOTOR RELAY OFF FAILURE

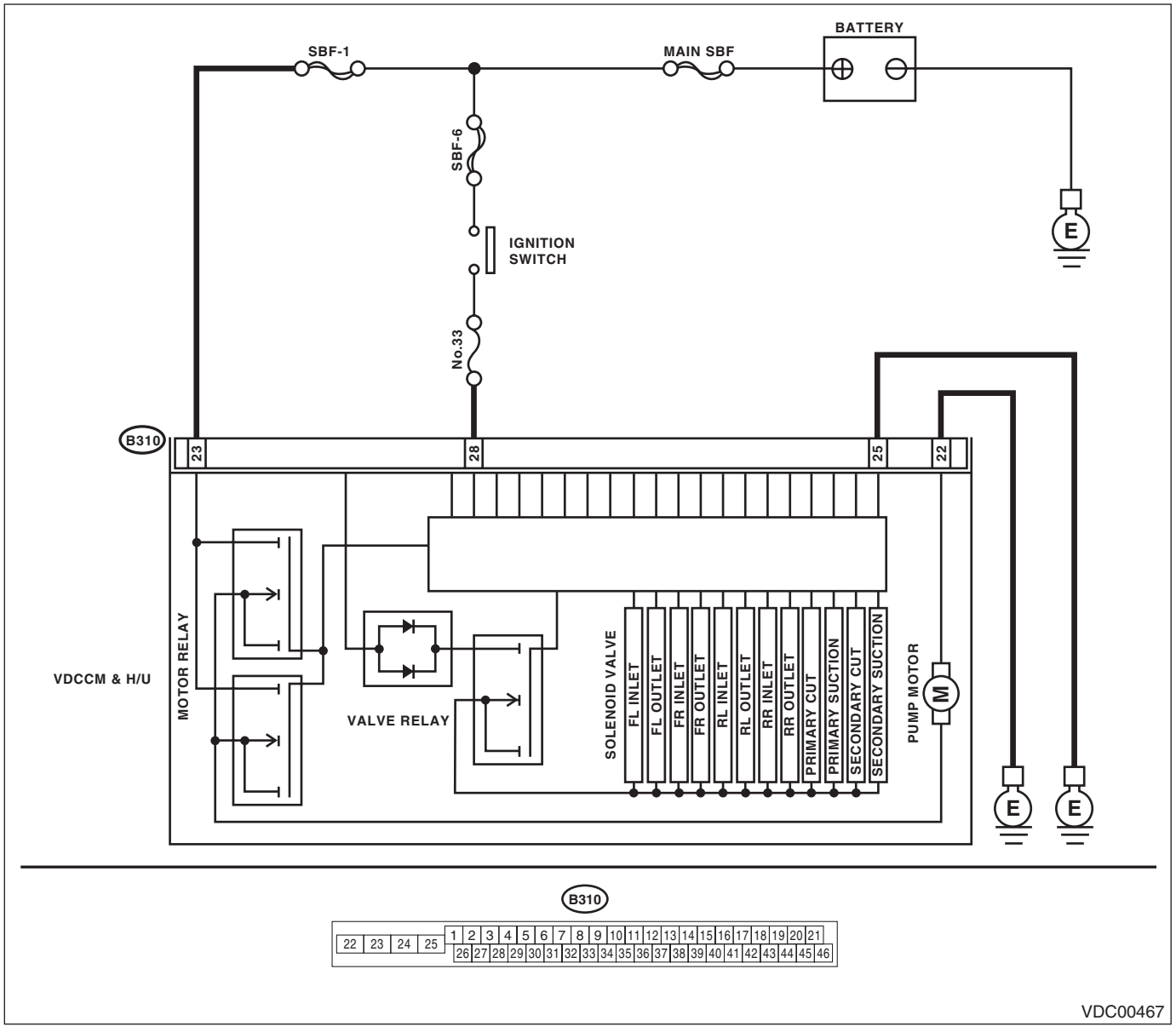
DTC DETECTING CONDITION:

- Defective motor and motor relay
- Defective harness connector

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Turn the ignition switch to ON. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 23 (+) — Chassis ground (–):*** ***(B310) No. 28 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the VDCCM&H/U power supply circuit.
2	**CHECK INSTALLATION OF MOTOR GROUND.**	Is the motor ground terminal installation bolt tightened 33 N·m (3.4 kgf-m, 24.3 ft-lb)?	Go to step **3**.	Tighten the motor ground terminal installation bolt.
3	**CHECK VDCCM&H/U GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 25 — Chassis ground:*** ***(B310) No. 22 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the VDCCM&H/U ground harness.
4	**CHECK VDCCM&H/U MOTOR RELAY.** Measure the resistance between VDCCM&H/U connector terminals. ***Terminals*** ***No. 23 — No. 22:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
5	**CHECK POOR CONTACT OF CONNECTORS.** 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 **6**.
6	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U. <Ref. to VDC-7, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs. NOTE: Though the ABS warning light remains on at this time, this is normal. Drive the vehicle at 12 km/h (7 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.

AF:DTC C0052 MOTOR AND MOTOR RELAY ON FAILURE

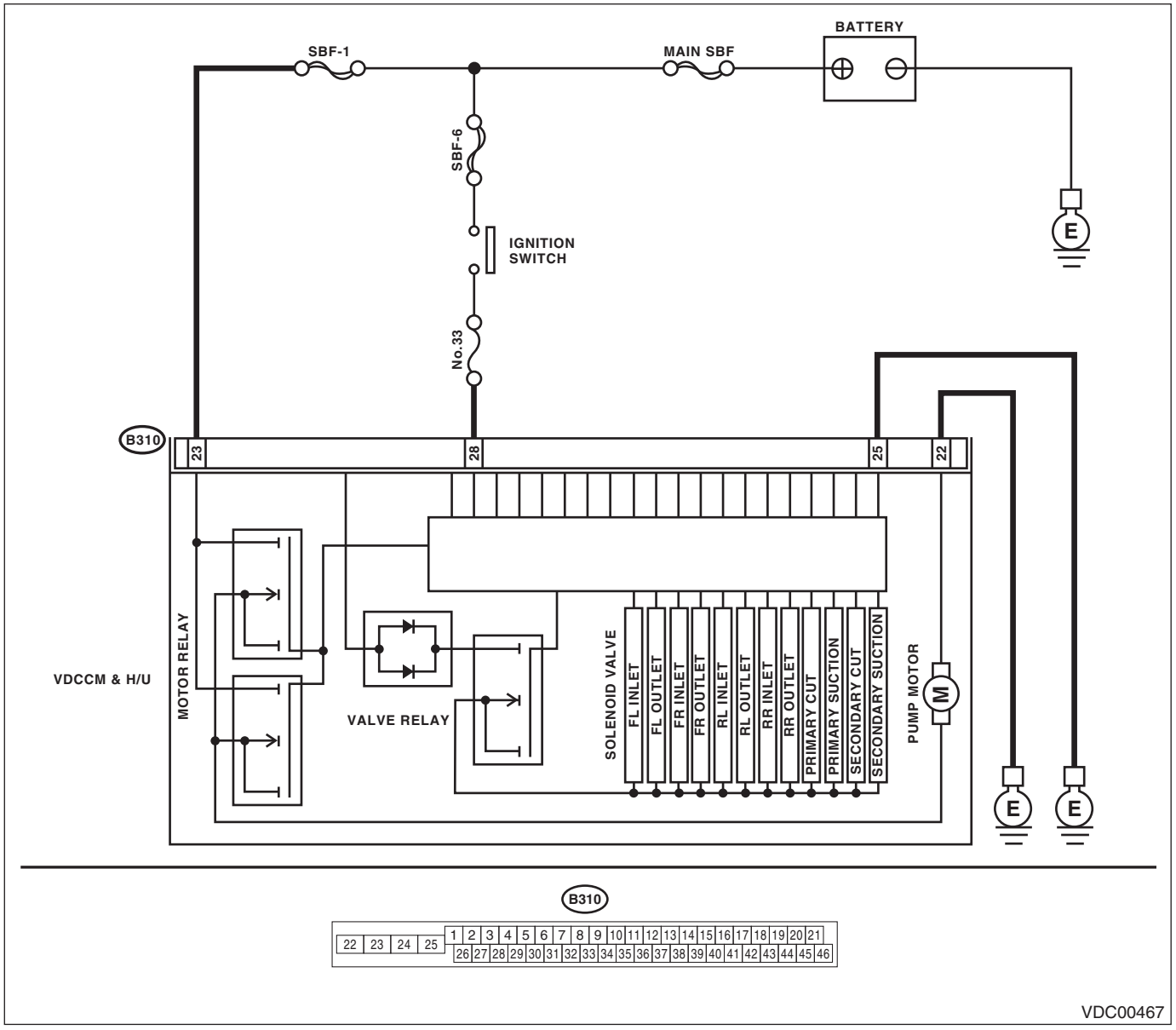
DTC DETECTING CONDITION:

- Defective motor relay
- Defective harness connector

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.
- EBD may not operate.

WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK INSTALLATION OF MOTOR GROUND.**	Is the motor ground terminal installation bolt tightened 33 N·m (3.4 kgf-m, 24.3 ft-lb)?	Go to step **2**.	Tighten the motor ground terminal installation bolt.

	Step	Check	Yes	No
2	**CHECK VDCCM&H/U MOTOR RELAY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Measure the resistance between VDCCM&H/U connector terminals. ***Terminals*** ***No. 23 — No. 22:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs. NOTE: Though the ABS warning light remains on at this time, this is normal. Drive the vehicle at 12 km/h (7 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.

AG:DTC C0052 MOTOR MALFUNCTION

DTC DETECTING CONDITION:

- Defective motor
- Defective motor relay
- Defective harness connector

TROUBLE SYMPTOM:

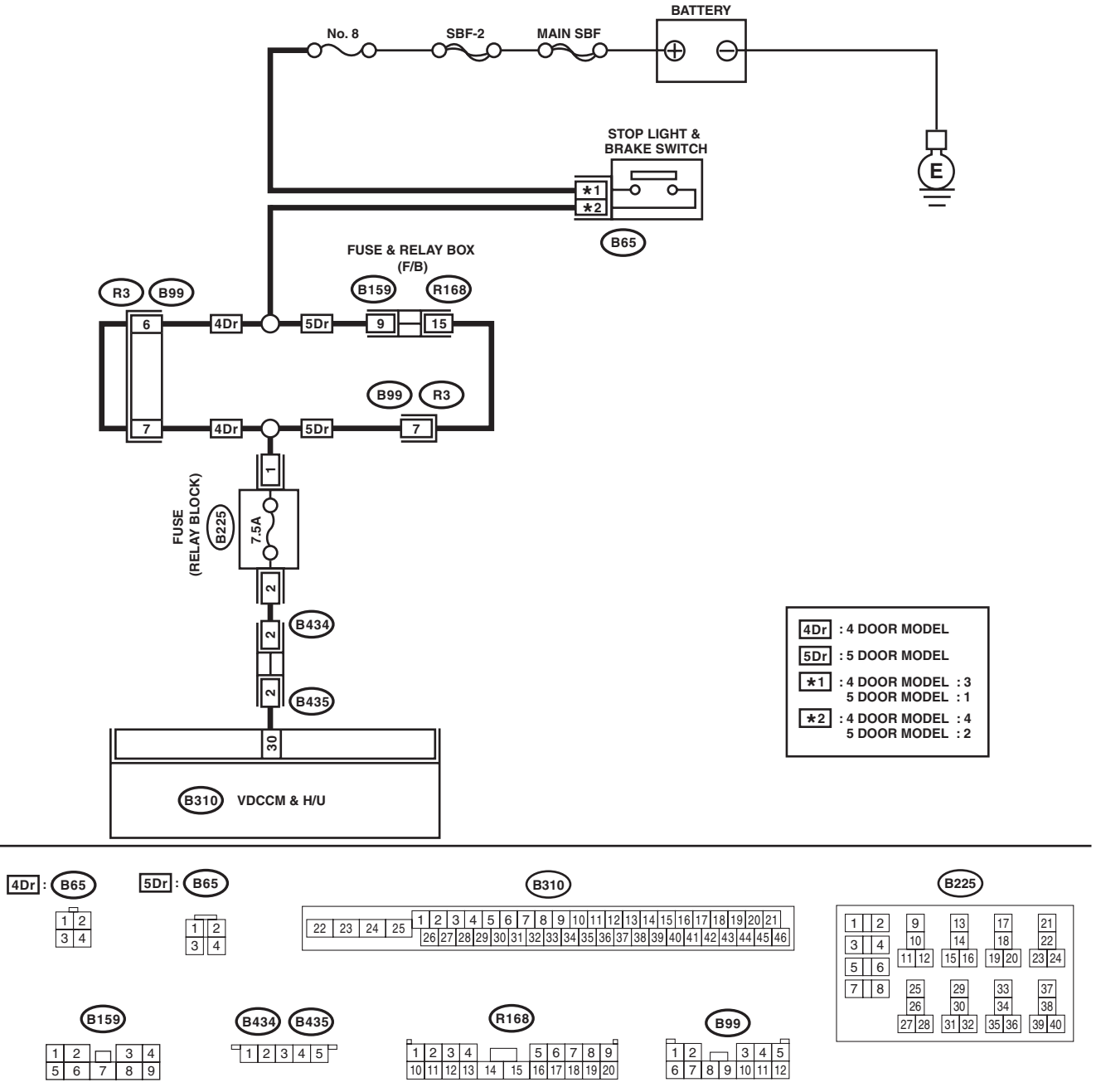
- ABS does not operate.
- VDC does not operate.
- EBD may not operate.

NOTE:
For the diagnostic procedure, refer to DTC C0052 “MOTOR/MOTOR RELAY OFF FAILURE”. <Ref. to VDC(diag)-64, DTC C0052 MOTOR AND MOTOR RELAY OFF FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AH:DTC C0054 BLS CIRCUIT OPEN

DTC DETECTING CONDITION:
Defective stop light switch
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



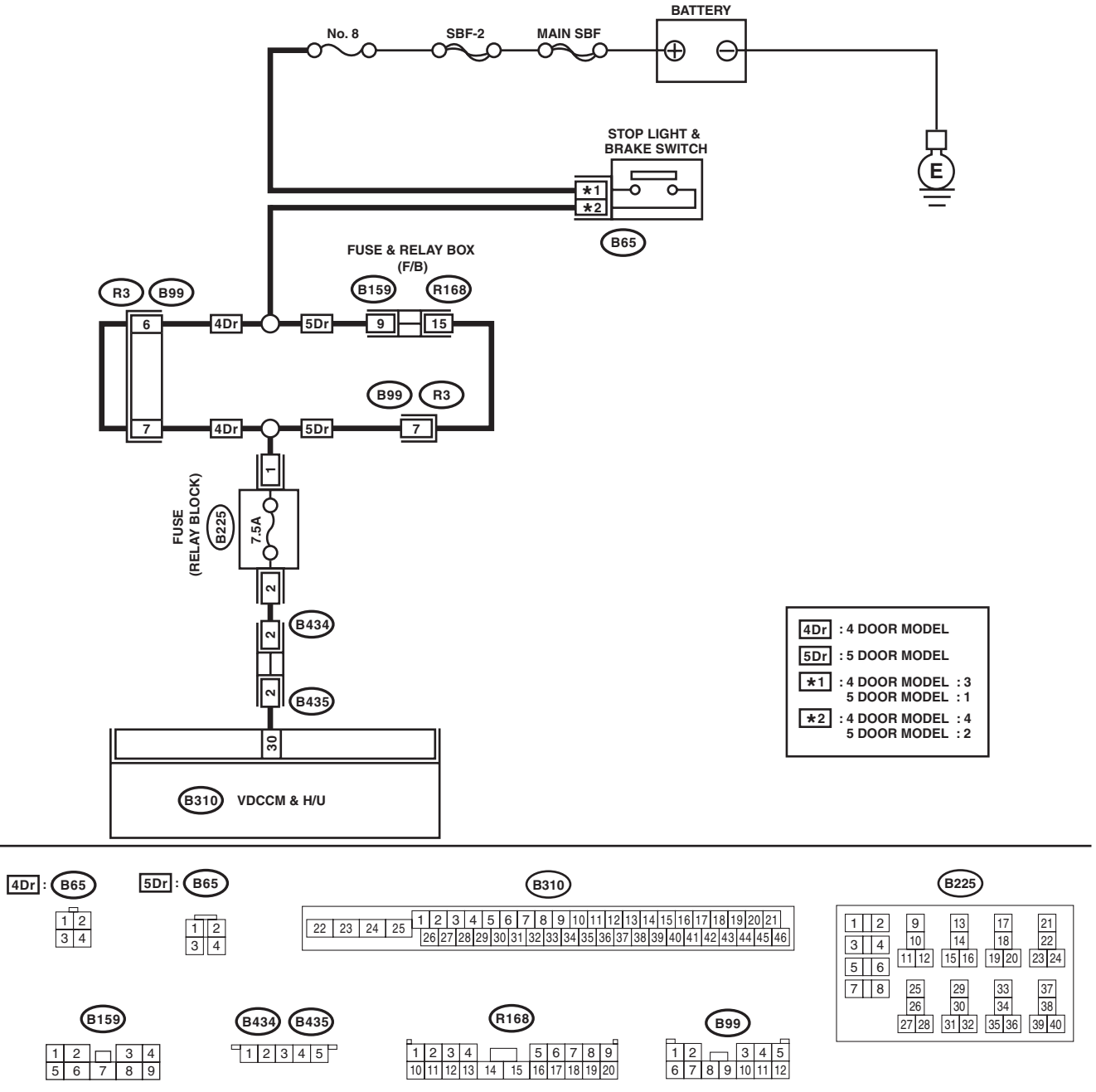
VDC00819

	Step	Check	Yes	No
1	**CHECK OUTPUT OF STOP LIGHT SWITCH WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Release the brake pedal. 3) Read the stop light switch output in Subaru Select Monitor.	Is OFF displayed on the display screen?	Go to step **2**.	Go to step **3**.
2	**CHECK OUTPUT OF STOP LIGHT SWITCH WITH SUBARU SELECT MONITOR.** 1) Depress the brake pedal. 2) Read the stop light switch output in Subaru Select Monitor.	Is ON displayed on the display screen?	Go to step **6**.	Go to step **3**.
3	**CHECK IF STOP LIGHTS ILLUMINATE.** Depress the brake pedal.	Does the stop light illuminate?	Go to step **4**.	Repair the stop light circuit.
4	**CHECK FUSE.** Check the fuse (B225) in the relay block.	Is the fuse OK?	Go to step **5**.	Replace the fuse.
5	**CHECK OPEN CIRCUIT OF HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Depress the brake pedal. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 30 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **6**.	Repair the harness between stop light switch and VDCCM&H/U connector.
6	**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 **7**.
7	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AI: DTC C0054 BLS ON MALFUNCTION

DTC DETECTING CONDITION:
Defective stop light switch
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



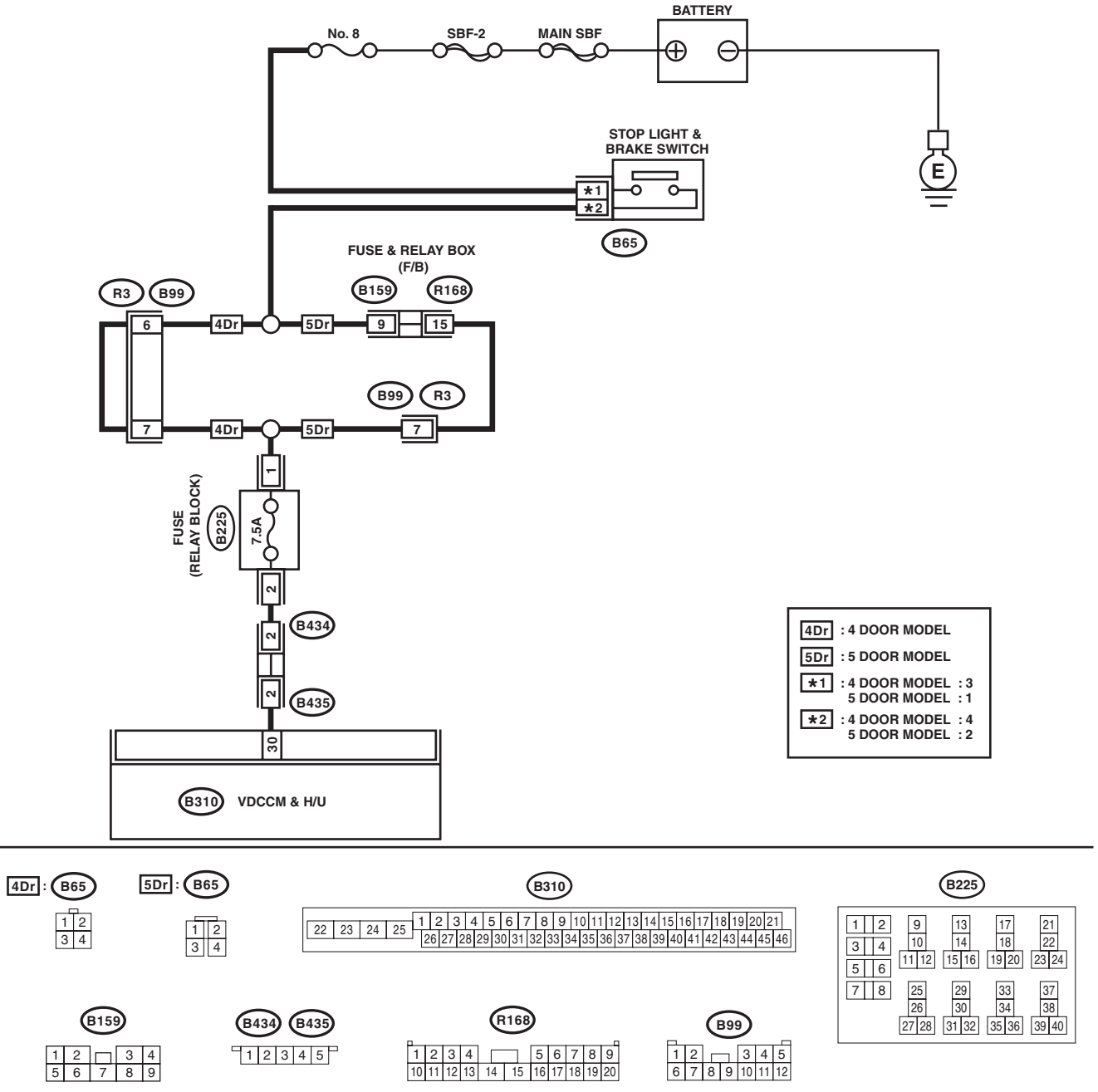
VDC00819

	Step	Check	Yes	No
1	**CHECK STOP LIGHT SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light switch connector. 3) Measure the resistance of stop light switch terminals.	Is the resistance 1 MΩ or more when switch is OFF (when pedal is not depressed)?	Go to step **2**.	Replace the stop light switch.
2	**INTERVIEW CUSTOMERS.** 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 **3**.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AJ:DTC C0054 BLS OFF MALFUNCTION

DTC DETECTING CONDITION:
Defective stop light switch
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:

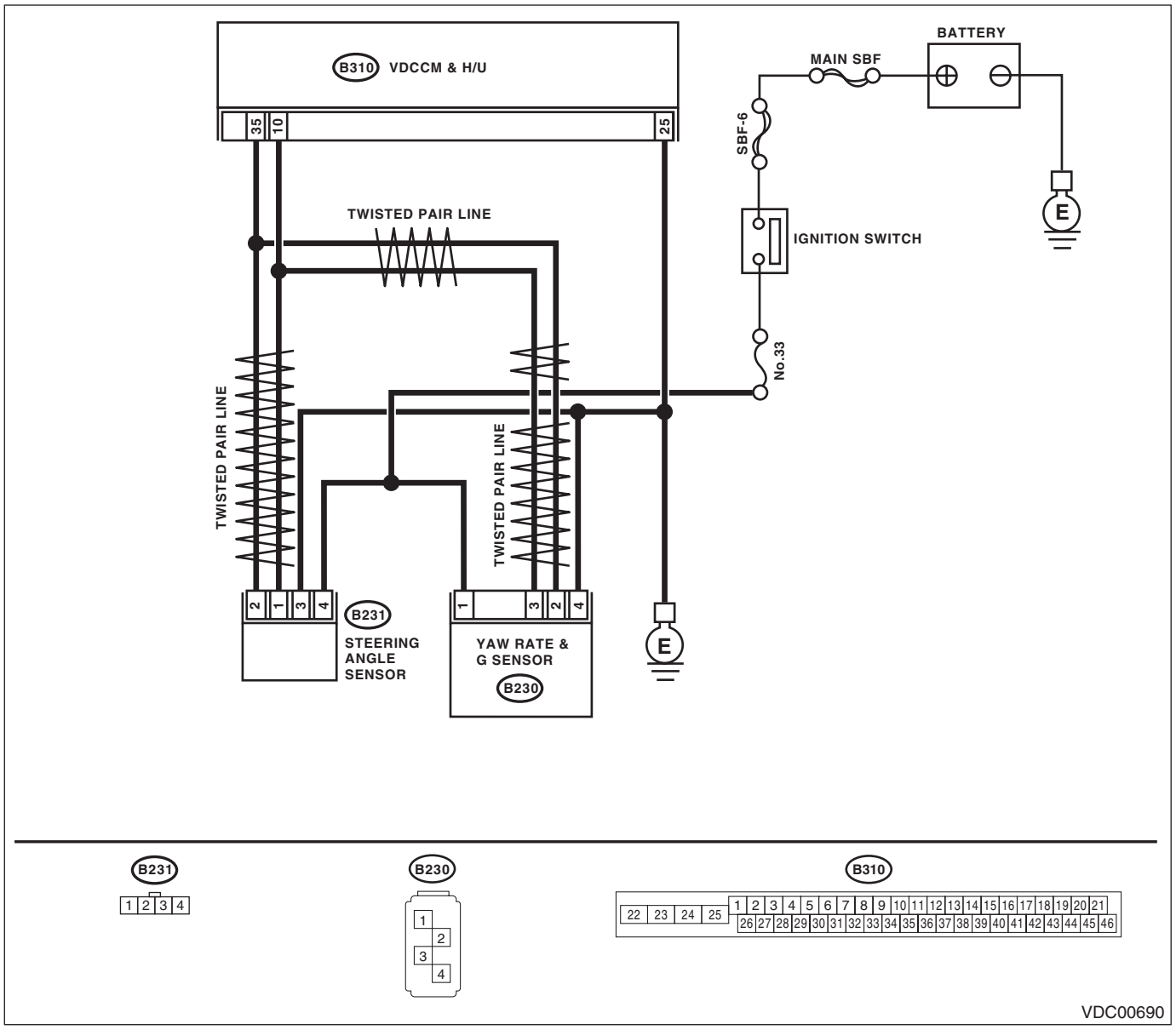


VDC00819

	Step	Check	Yes	No
1	**CHECK STOP LIGHT SWITCH.** Check the stop light switch. <Ref. to BR-44, 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-44, INSTALLATION, Stop Light Switch.>
2	**CHECK STOP LIGHT SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light switch connector. 3) Measure the resistance of stop light switch terminals.	Is the resistance 1 Ω or less when the switch is ON (when pedal is depressed)?	Go to step **3**.	Replace the stop light switch.
3	**CHECK STOP LIGHT POWER SUPPLY.** Measure the voltage between stop light switch terminal and chassis ground. ***Connector & terminal*** ***4 DOOR MODEL*** ***(B65) No. 3 (+) — Chassis ground (–):*** ***5 DOOR MODEL*** ***(B65) No. 1 (+) — 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.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U and stop light switch. ***Connector & terminal*** ***4 DOOR MODEL*** ***(B65) No. 4 — (B310) No. 30:*** ***5 DOOR MODEL*** ***(B65) No. 2 — (B310) No. 30:***	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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AK:DTC C0056 G SENSOR SIGNAL

DTC DETECTING CONDITION:
Defective longitudinal G sensor output signal
TROUBLE SYMPTOM:
Hill start assist does not operate.
WIRING DIAGRAM:



	Step	Check	Yes	No
1	**WHETHER A WHEEL TURNED FREELY OR NOT.** 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.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Park the vehicle on a level surface. 2) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 3) Read the indication of longitudinal G sensor output.	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-19, Yaw Rate and G Sensor.>
3	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** 1) Turn the ignition switch to OFF. 2) Remove the yaw rate & G sensors from vehicle. <Ref. to VDC-19, Yaw Rate and G Sensor.> 3) Turn the ignition switch to ON, and select the {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the indication of longitudinal G sensor output.	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-19, Yaw Rate and G Sensor.>
4	**CHECK OUTPUT OF LONGITUDINAL G SENSOR USING SUBARU SELECT MONITOR.** Read the indication of longitudinal G sensor output.	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-19, Yaw Rate and G Sensor.>
5	**CHECK POOR CONTACT OF CONNECTOR.** 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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AL:DTC C0057 ECM COMMUNICATION CIRCUIT

DTC DETECTING CONDITION:
No CAN signal from ECM.
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-30, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of ECM connector?	Repair the connector.	Go to step **3**.
3	**CHECK ECM.**	Is ECM normal?	Go to step **4**.	Replace the ECM.
4	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

AM:DTC C0057 ECM CONTROL SYSTEM

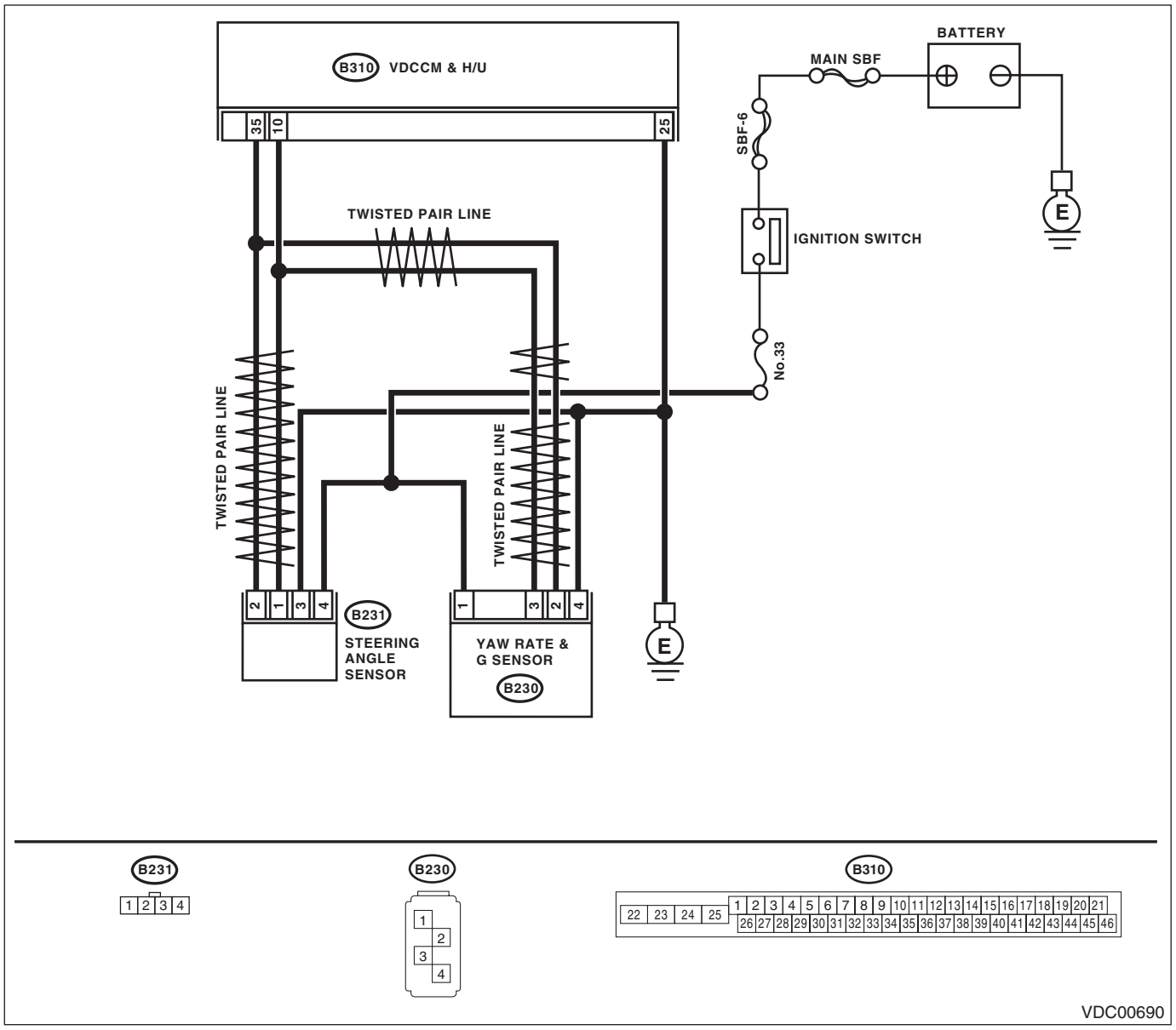
DTC DETECTING CONDITION:
Cooperation control prohibition of ECM
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

NOTE:
Warning lights go off if the cooperation control of ECM returns.

	Step	Check	Yes	No
1	**CHECK WARNING LIGHT.** Check whether the VDC warning light illuminates after driving for 1 minute or more at a speed of 10 km/h or more.	Does the VDC warning light illuminate?	Go to step **2**.	VDC is normal. Perform the Clear Memory Mode. NOTE: DTC may be recorded if cranking is performed during driving.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact of ECM connector?	Repair the connector.	Go to step **3**.
3	**CHECK ECM.**	Is ECM normal?	Go to step **4**.	Replace the ECM.
4	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

AN:DTC C0071 STEERING ANGLE SENSOR OFFSET IS TOO BIG

DTC DETECTING CONDITION:
Defective steering angle sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:

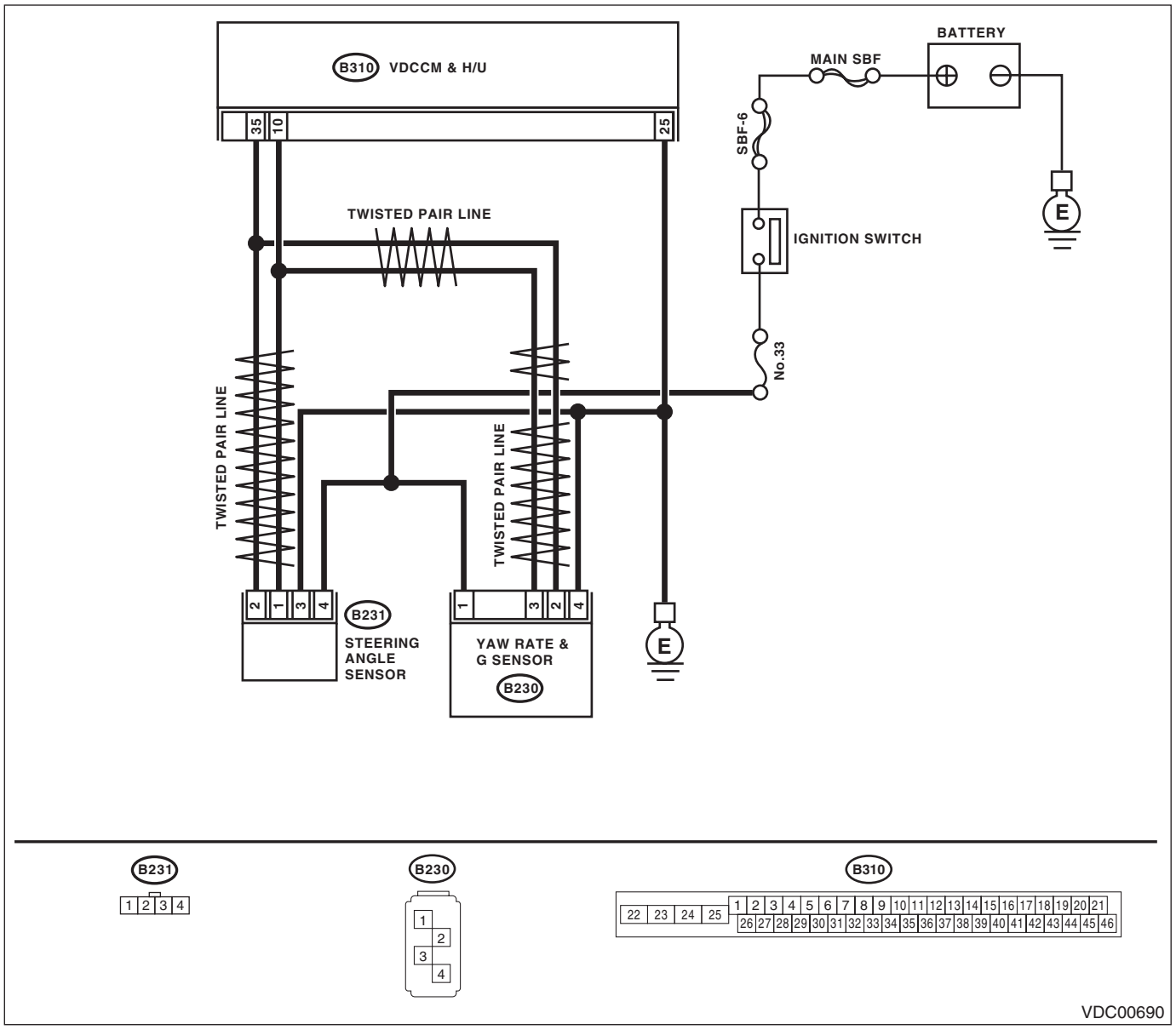


Step		Check	Yes	No
1	**CHECK STEERING WHEEL.** 1) Drive the vehicle on a flat road. 2) Park the vehicle straight. 3) Check the steering wheel for deviation from center.	Is the deviation from the center of steering wheel less than 5°?	Go to step **2**.	Perform the centering adjustment of steering wheel.

	Step	Check	Yes	No
2	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AO:DTC C0071 CHANGE RANGE OF STEERING ANGLE SENSOR IS TOO BIG

DTC DETECTING CONDITION:
Defective steering angle sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:

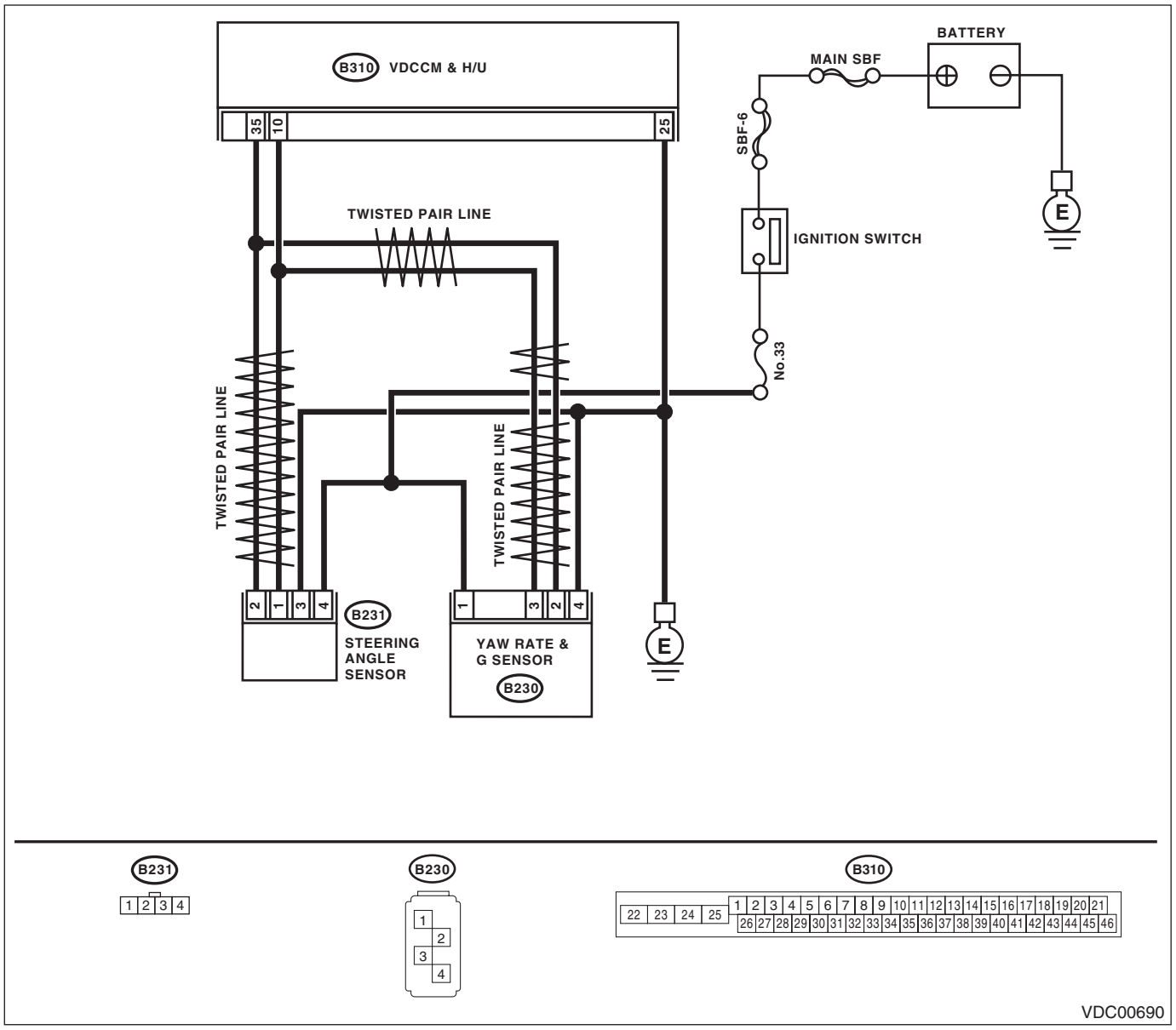


Step		Check	Yes	No
1	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **2**.

Step		Check	Yes	No
2	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AP:DTC C0071 STEER ANGLE SENSOR OP

DTC DETECTING CONDITION:
Signal does not come from steering angle sensor.
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK POWER SUPPLY FOR STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from steering angle sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 4 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the steering angle sensor power supply circuit.

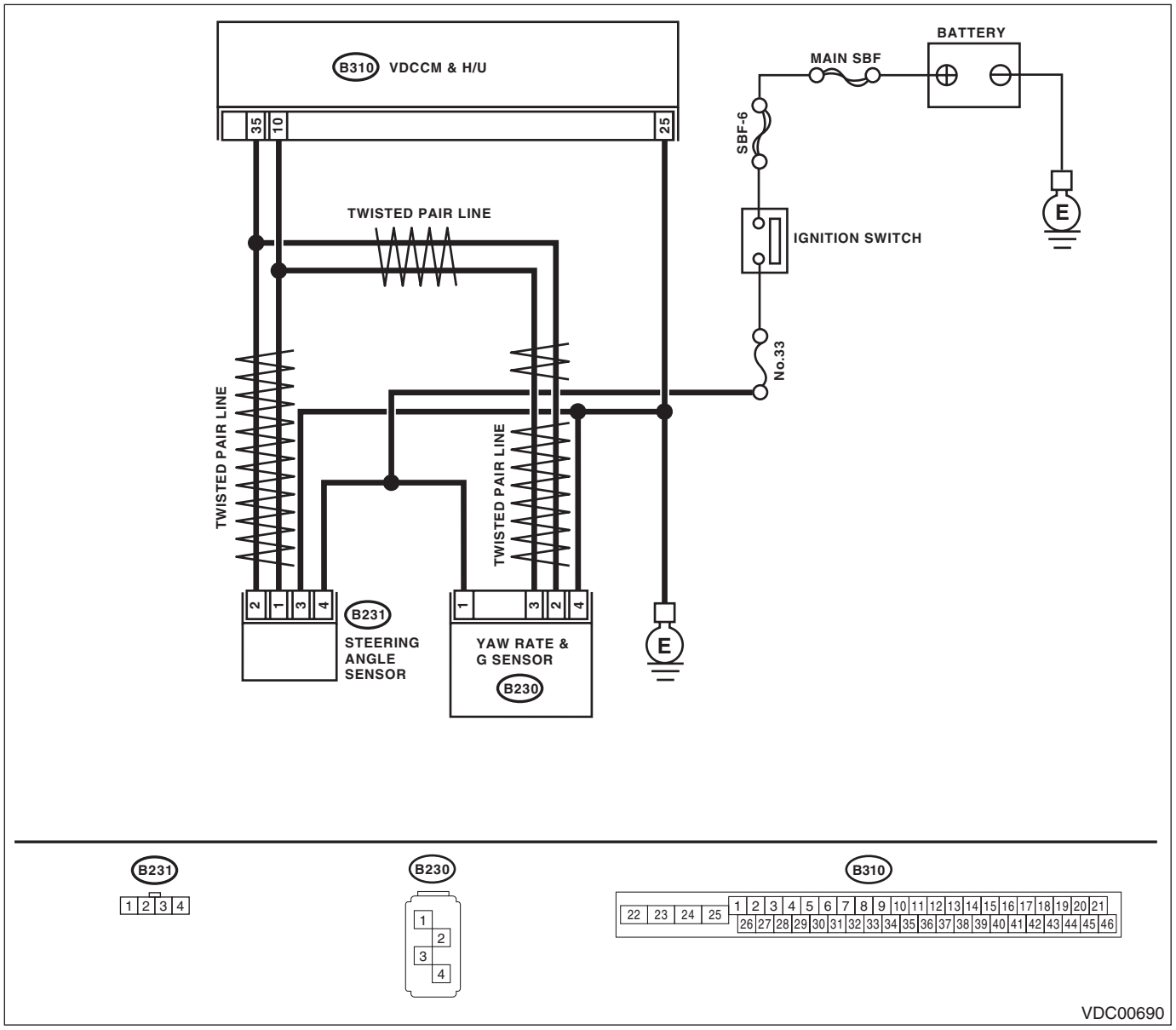
	Step	Check	Yes	No
2	**CHECK GROUND CIRCUIT OF STEERING ANGLE SENSOR.** Measure the resistance between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 3 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair ground circuit in the steering angle sensor.
3	**CHECK STEERING ANGLE SENSOR HARNESS.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U and steering angel sensor. ***Connector & terminal*** ***(B231) No. 1 — (B310) No. 10:*** ***(B231) No. 2 — (B310) No. 35:***	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.** Measure the resistance between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 1 — Chassis ground:*** ***(B231) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair the harness between the steering angle sensor and VDCCM&H/U.
5	**CHECK STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **6**.	Go to step **7**.
6	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the steering angle sensor. <Ref. to VDC-21, Steering Angle Sensor.> 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **8**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Original steering angle sensor malfunction

AQ:DTC C0071 STEERING ANGLE SENSOR MALFUNCTION

DTC DETECTING CONDITION:
Defective steering angle sensor
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

NOTE:
- Warning light does not illuminate though problem is detected.
- The ABS and VDC operate normally if voltage returns.

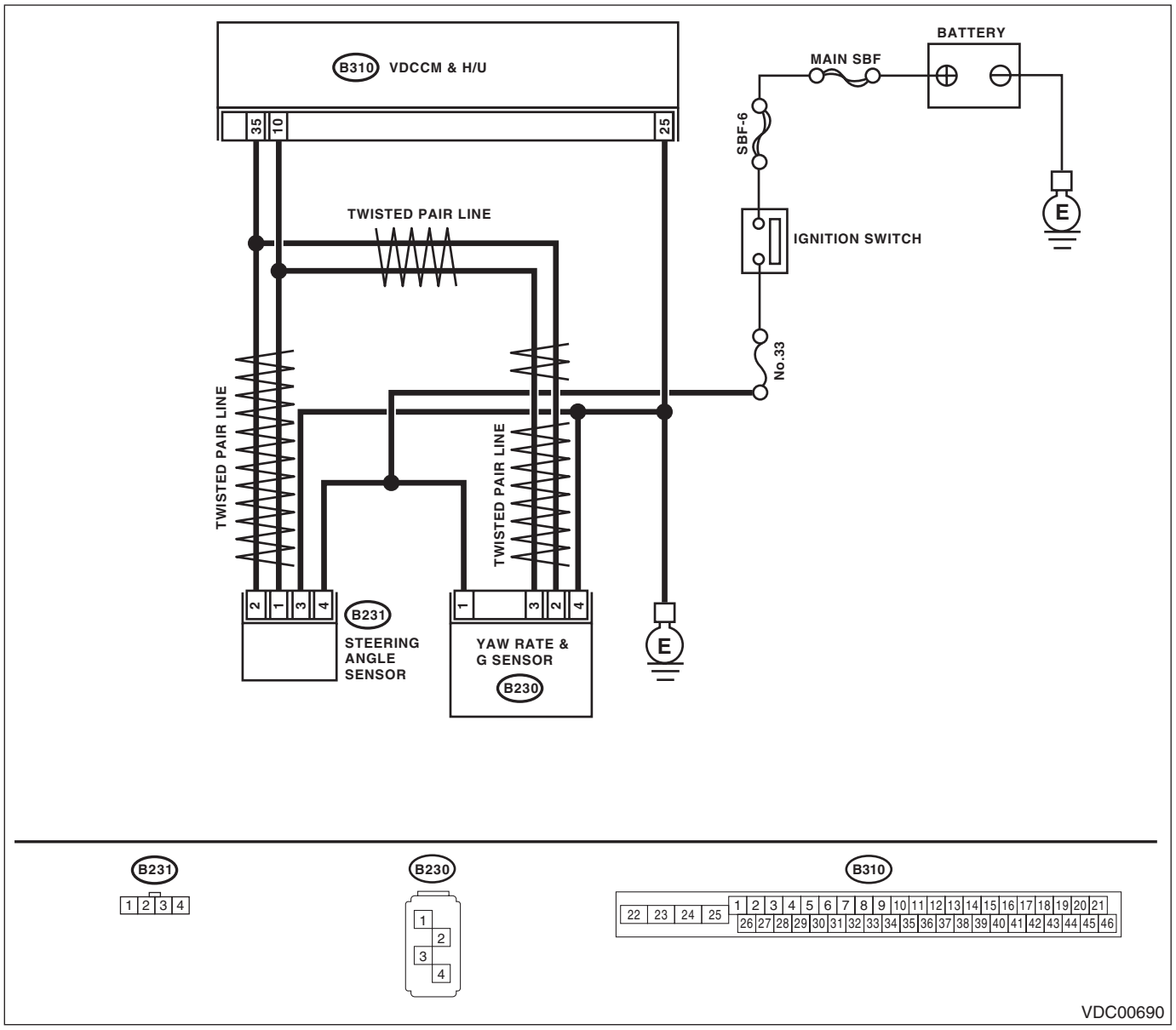
WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK POWER SUPPLY FOR STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from steering angle sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between steering angle sensor and chassis ground. ***Connector & terminal*** ***(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.** Measure the resistance between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 3 — 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.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **4**.	Go to step **5**.
4	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the steering angle sensor. <Ref. to VDC-21, Steering Angle Sensor.> 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **6**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Original steering angle sensor malfunction

AR:DTC C0072 ABNORMAL YAW RATE SENSOR OUTPUT

DTC DETECTING CONDITION:
Defective yaw rate sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:

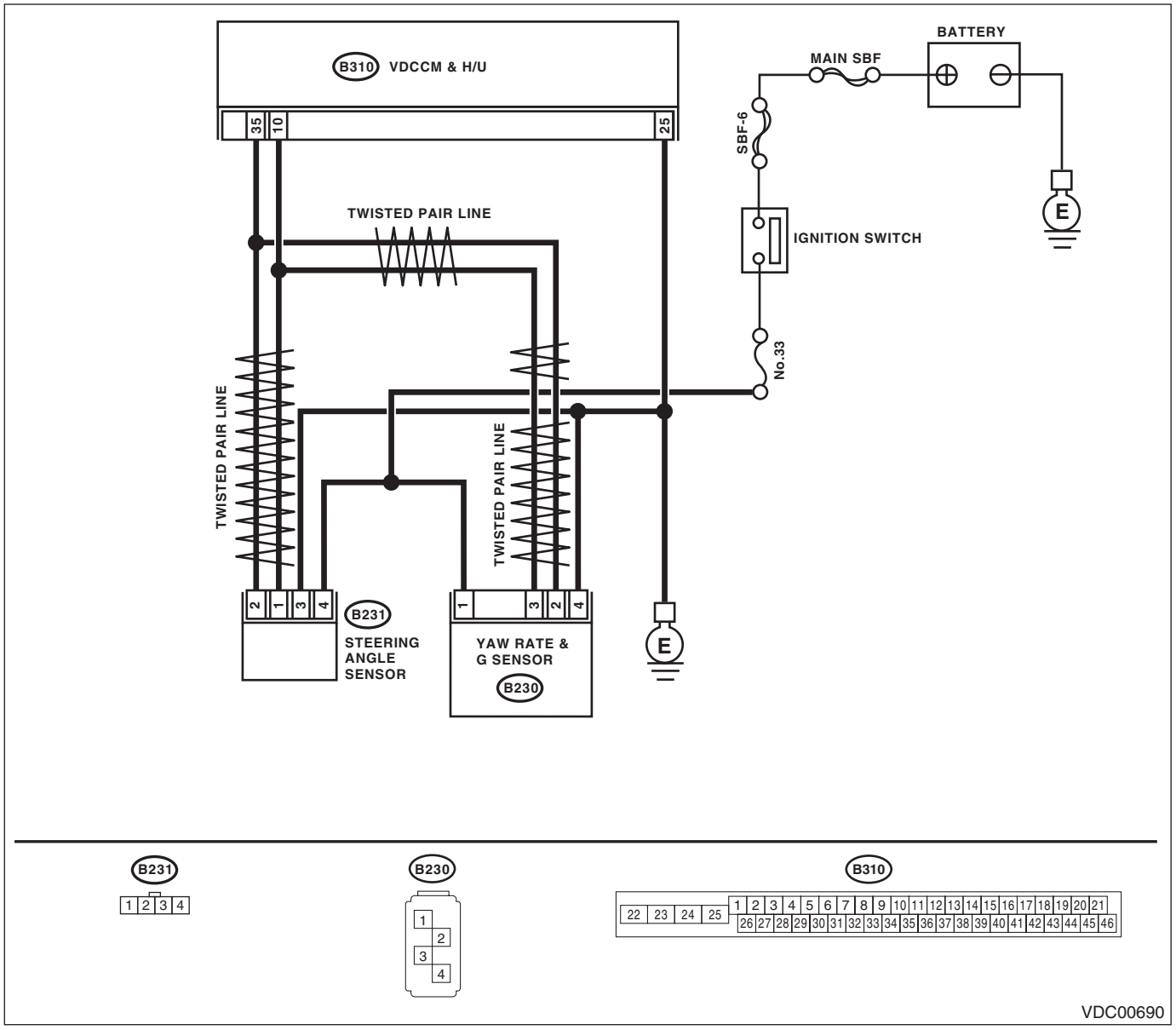


	Step	Check	Yes	No
1	**INTERVIEW CUSTOMERS.** Check if the vehicle ran the road with banks or sandy surface (which does not mean a dirt road).	Did the vehicle run the road with banks or sandy surface (which does not mean a dirt road)?	VDCCM&H/U may record DTC when the vehicle ran the road with banks or 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 OUTPUT OF YAW RATE & G SENSOR WITH SUBARU SELECT MONITOR.** 1) Drive the vehicle on a flat road. 2) Park the vehicle straight. 3) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the yaw rate output displayed on display.	Is the reading indicated on monitor display –4 — 4 deg/s?	Go to step **4**.	Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.>
4	**CHECK OUTPUT OF STEERING ANGLE SENSOR WITH SUBARU SELECT MONITOR.** 1) Drive the vehicle on a flat road. 2) Park the vehicle straight. 3) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the steering angle sensor output displayed on display.	Is the reading indicated on monitor display –5 — 5°?	Go to step **5**.	Perform the centering adjustment of steering wheel.
5	**CHECK YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **6**.	Go to step **7**.
6	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.> 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **8**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Malfunction is found in original yaw rate & G sensor.

AS:DTC C0072 VOLTAGE INPUTTED TO YAW RATE SENSOR EXCEEDS SPECIFICATION

DTC DETECTING CONDITION:
Defective yaw rate sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:

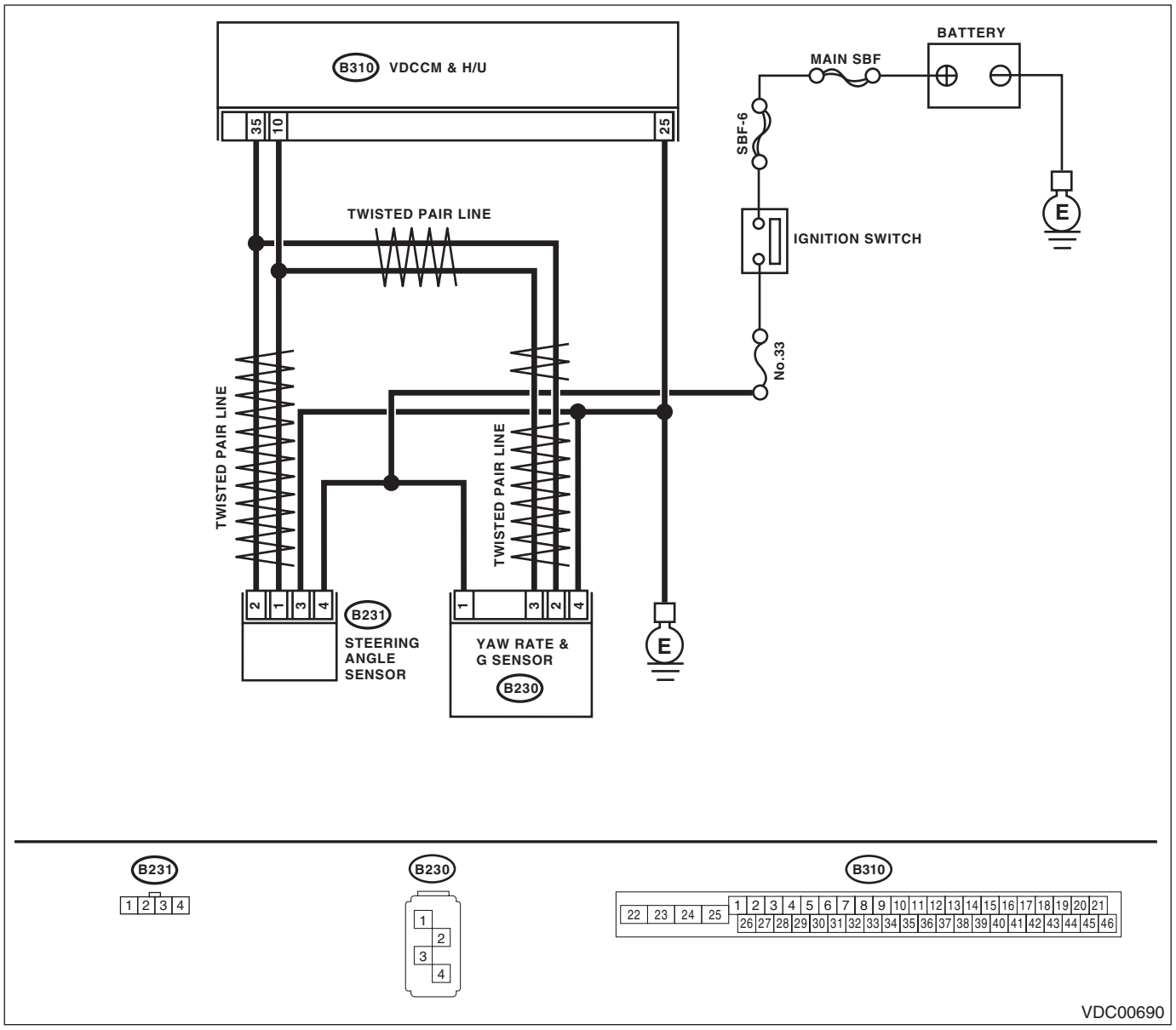


Step		Check	Yes	No
1	**CHECK POWER SUPPLY OF YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from yaw rate & G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(B230) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the yaw rate & G sensor power supply circuit.

	Step	Check	Yes	No
2	**CHECK YAW RATE & G SENSOR GROUND CIRCUIT.** Measure the resistance between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(B230) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the yaw rate & G sensor ground circuit.
3	**CHECK YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.>	Go to step **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AT:DTC C0072 CHANGE RANGE OF YAW RATE SENSOR SIGNAL IS TOO BIG

DTC DETECTING CONDITION:
Defective yaw rate sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:



Step		Check	Yes	No
1	**INTERVIEW CUSTOMERS.** 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.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from yaw rate & G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(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.** Measure the resistance between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(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.** 1) Drive the vehicle on a flat road. 2) Park the vehicle straight. 3) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the yaw rate output 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-19, Yaw Rate and G Sensor.>
6	**CHECK YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **7**.	Go to step **8**.
7	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.> 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, 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)-34, List of Diagnostic Trouble Code (DTC).>	Malfunction is found in original yaw rate & G sensor.

AU:DTC C0072 YAW RATE SENSOR COMMUNICATION

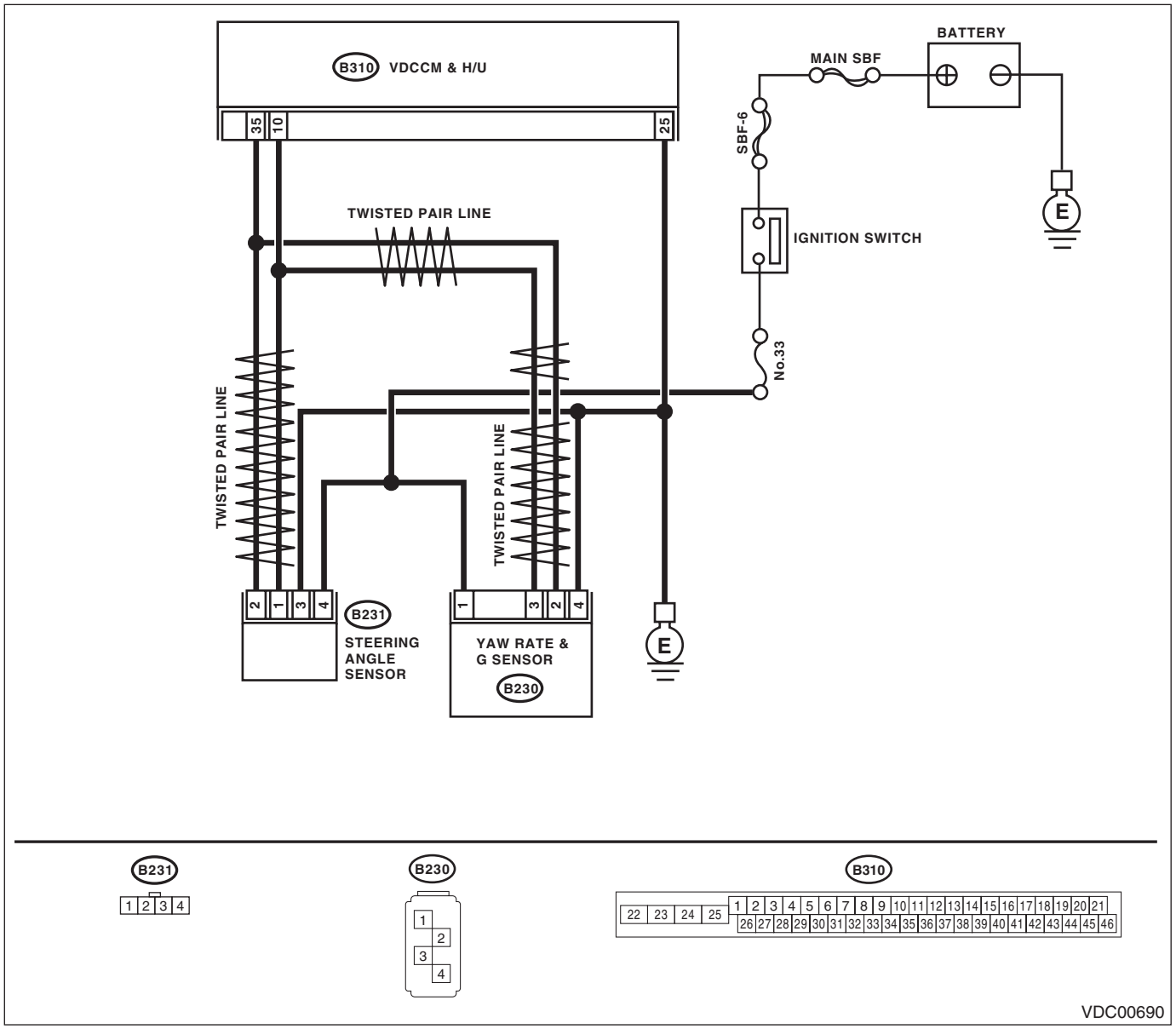
DTC DETECTING CONDITION:

Communication failure between yaw rate sensor and VDCCM

TROUBLE SYMPTOM:

- ABS does not operate.
- VDC does not operate.

WIRING DIAGRAM:



Step		Check	Yes	No
1	**CHECK POWER SUPPLY FOR YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from yaw rate & G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(B230) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the yaw rate & G sensor power supply circuit.

	Step	Check	Yes	No
2	**CHECK YAW RATE & G SENSOR GROUND CIRCUIT.** Measure the resistance between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(B230) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the yaw rate & G sensor ground circuit.
3	**CHECK YAW RATE & G SENSOR HARNESS.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U and yaw rate & G sensor. ***Connector & terminal*** ***(B230) No. 3 — (B310) No. 10:*** ***(B230) No. 2 — (B310) No. 35:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair the harness between yaw rate & G sensor and VDCCM&H/U.
4	**CHECK GROUND SHORT CIRCUIT IN YAW RATE & G SENSOR HARNESS.** Measure the resistance between yaw rate & G sensor and chassis ground. ***Connector & terminal*** ***(B230) No. 2 — Chassis ground:*** ***(B230) No. 3 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair the harness between yaw rate & G sensor and VDCCM&H/U.
5	**CHECK YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Go to step **6**.	Go to step **7**.
6	**CHECK YAW RATE & G SENSOR.** 1) Turn the ignition switch to OFF. 2) Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.> 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **8**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-34, List of Diagnostic Trouble Code (DTC).>	Malfunction is found in original yaw rate & G sensor.

AV:DTC C0072 SENSOR TYPE ABNORMAL

DTC DETECTING CONDITION:
Different yaw rate sensor specification
TROUBLE SYMPTOM:
- VDC does not operate.
- Hill start assist does not operate.

	Step	Check	Yes	No
1	**CHECK YAW RATE & G SENSOR IDENTIFICATION MARK.** Check the identification mark on the sticker applied on the top of the yaw rate & G sensor. MT: R AT: S	Is the identification symbol correct?	Go to step **2**.	Replace the yaw rate & G sensor with a genuine part. <Ref. to VDC-19, Yaw Rate and G Sensor.>
2	**CHECK VDCCM&H/U IDENTIFICATION SYMBOL.** Check the identification mark stamped on the upper side of the H/U. AT: S1 MT: S5 (WRX-SS) S2 (except for WRX-SS)	Is the identification symbol correct?	Replace the VDCCM only. <Ref. to VDC-11, REPLACEMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

AW:DTC C0073 LATERAL G SENSOR OFFSET IS TOO BIG

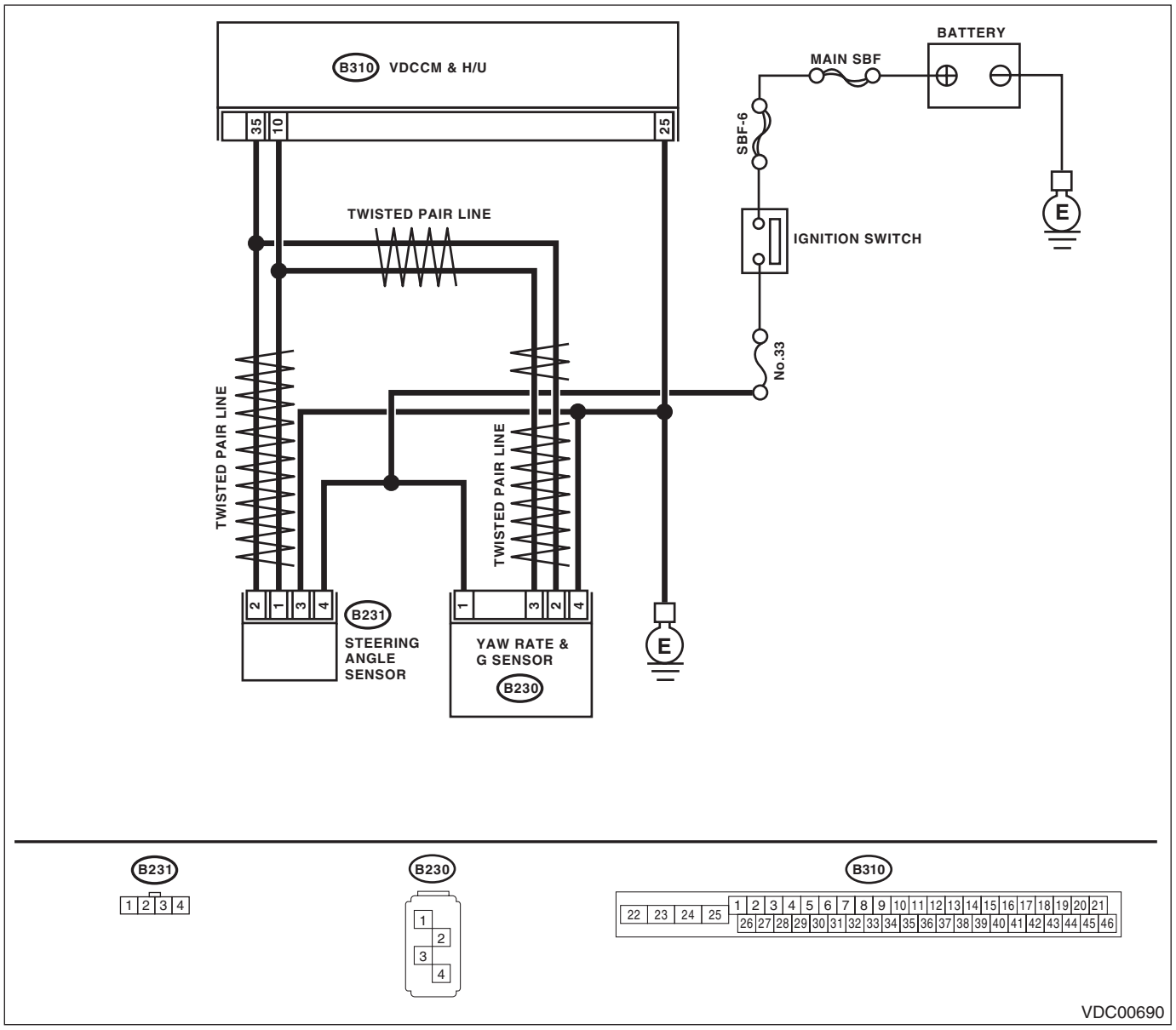
NOTE:
For the diagnostic procedure, refer to DTC C0073 “EXCESSIVE LATERAL G SENSOR SIGNAL”. <Ref. to VDC(diag)-95, DTC C0073 EXCESSIVE LATERAL G SENSOR SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AX:DTC C0073 ABNORMAL LATERAL G SENSOR OUTPUT

NOTE:
For the diagnostic procedure, refer to DTC C0073 “EXCESSIVE LATERAL G SENSOR SIGNAL”. <Ref. to VDC(diag)-95, DTC C0073 EXCESSIVE LATERAL G SENSOR SIGNAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AY:DTC C0073 EXCESSIVE LATERAL G SENSOR SIGNAL

DTC DETECTING CONDITION:
Defective lateral G sensor
TROUBLE SYMPTOM:
VDC does not operate.
WIRING DIAGRAM:



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 installation bolt.

	Step	Check	Yes	No
2	**CHECK OUTPUT OF LATERAL G SENSOR WITH SUBARU SELECT MONITOR.** 1) Park the vehicle on a level surface. 2) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 3) Read the lateral G sensor output displayed on screen.	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-19, Yaw Rate and G Sensor.>
3	**CHECK OUTPUT OF LATERAL G SENSOR WITH SUBARU SELECT MONITOR.** 1) Turn the ignition switch to OFF. 2) Remove the yaw rate & G sensors from vehicle. 3) Turn the ignition switch to ON, and select the {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 4) Read the lateral G sensor output displayed on screen.	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-19, Yaw Rate and G Sensor.>
4	**CHECK LATERAL G SENSOR WITH SUBARU SELECT MONITOR.** Read the lateral G sensor output displayed on screen.	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-19, Yaw Rate and G Sensor.>
5	**CHECK POOR CONTACT OF CONNECTORS.** 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.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

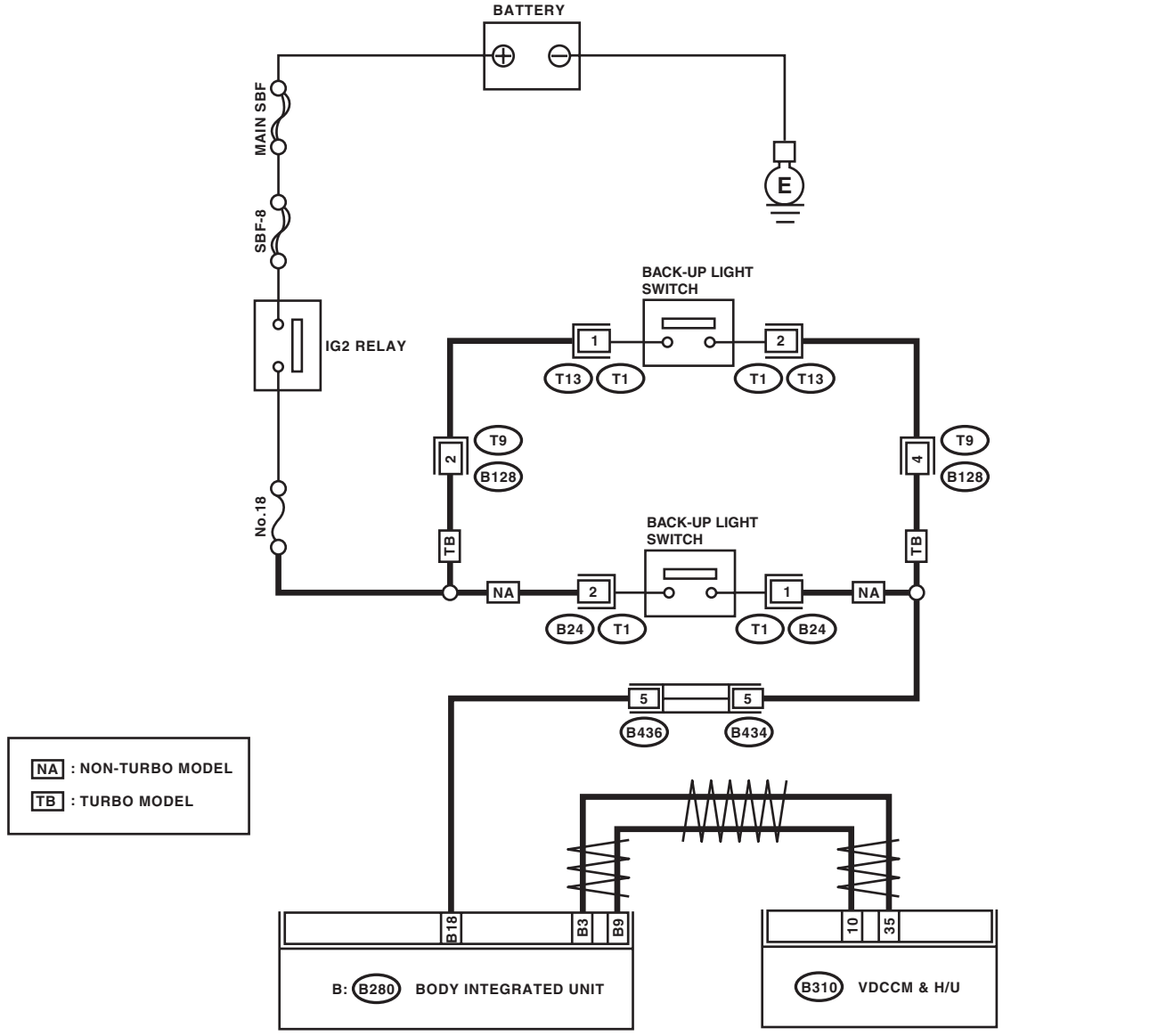
AZ:DTC C0074 PRESSURE SENSOR

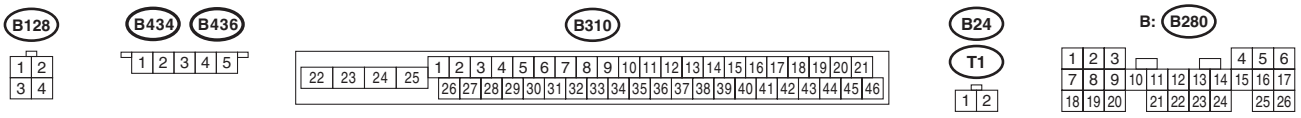
DTC DETECTING CONDITION:
Defective pressure sensor
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK STOP LIGHT SWITCH CIRCUIT.** Check stop light switch open circuit.	Is the stop light switch circuit OK?	Go to step **2**.	Repair the stop light switch circuit. NOTE: 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.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Read the pressure sensor output displayed on display.	When the brake pedal is released, is the displayed value –40 — 40 bar?	Go to step **3**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
3	**CHECK OUTPUT OF PRESSURE SENSOR WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Read the pressure sensor output displayed on display.	When the brake pedal is operated, does the pressure sensor output value displayed on the screen change in accordance with the brake pedal?	Go to step **4**.	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
4	**CHECK PRESSURE SENSOR.** 1) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 2) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 3) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U. <Ref. to VDC-7, 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)-34, List of Diagnostic Trouble Code (DTC).>	It results from a temporary noise interference.

BA:DTC C0075 REVERSE SIGNAL

DTC DETECTING CONDITION:
Abnormal reverse signal
TROUBLE SYMPTOM:
Hill start assist does not operate.
WIRING DIAGRAM:





VDC00691

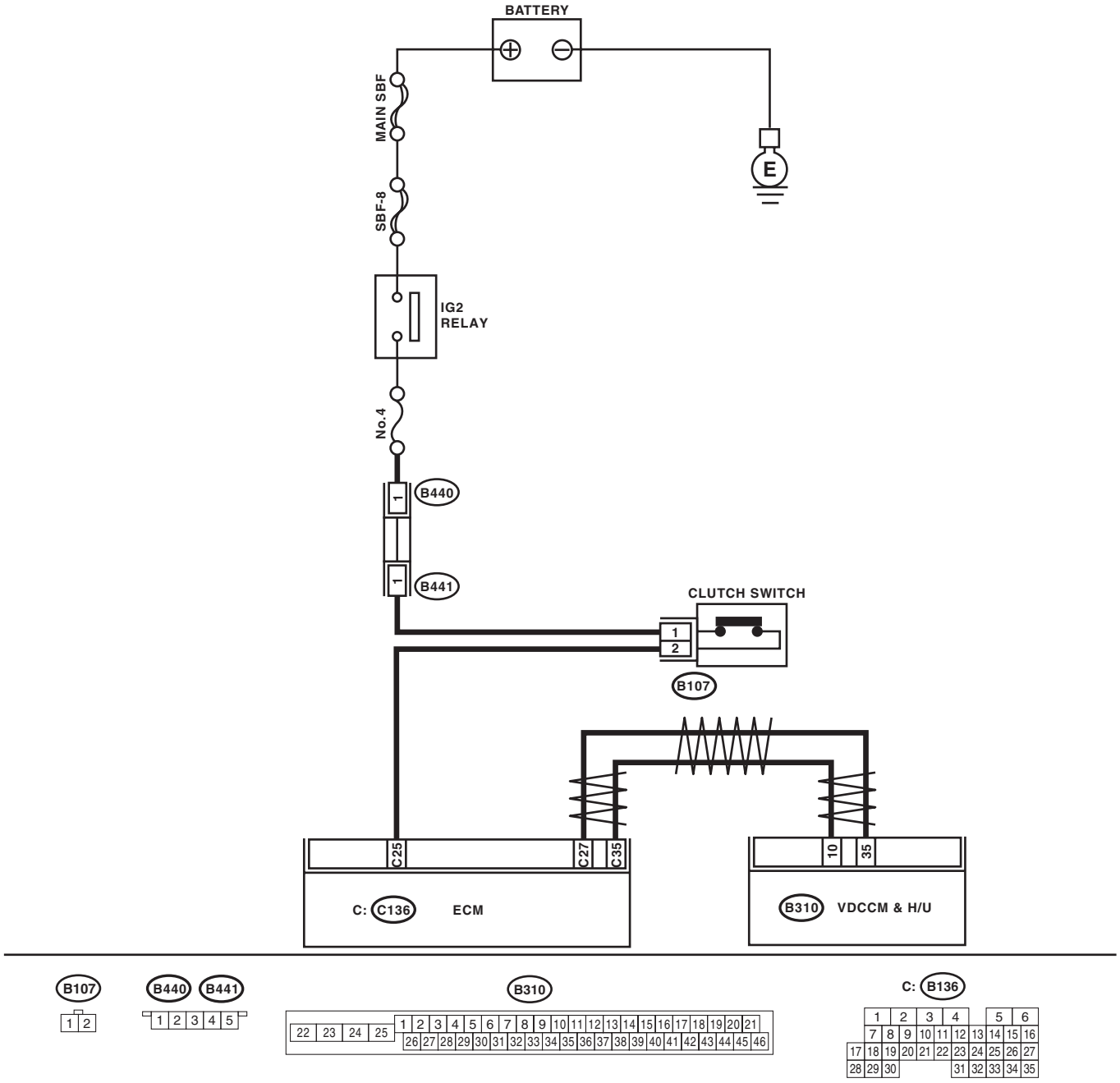
	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-30, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.
2	**CHECK REVERSE SIGNAL USING SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Read the indication of reverse signal.	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.** 1) Turn the ignition switch to ON. 2) Place the shift lever in reverse position.	Does the back-up light illuminate?	Go to step **4**.	Repair the back-up light circuit.
4	**CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND BACK-UP LIGHT SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from body integrated unit and back-up light switch. 3) Measure the resistance of harness between body integrated unit and back-up light switch connector. ***Connector & terminal*** ***Non-turbo model*** ***(B280) No. 18 — (B24) No. 1:*** ***Turbo model*** ***(B280) No. 18 — (T13) No. 2:***	Is the resistance less than 1 Ω?	Replace the back-up light switch. <Ref. to 5MT-32, Switches and Harness.>	Repair the harness between body integrated unit and back-up light switch connector.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

BB:DTC C0076 CLUTCH SIGNAL

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 above 10 km/h, and the clutch switch signal ON (depressed) condition continues five minutes or more, if the vehicle speed lowers below 10 km/h, 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 one second, the module turns off the warning light.
The hill start assist function does not operate, while the warning light illuminates.

WIRING DIAGRAM:



VDC00561

Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-30, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK CLUTCH SIGNAL USING SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. <Ref. to VDC(diag)-17, READ CURRENT DATA, OPERATION, Subaru Select Monitor.> 2) Read the indication of clutch switch signal.	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.** 1) Select {Current Data Display & Save} on Subaru Select Monitor. <Ref. to EN(H4SO)(diag)-35, READ CURRENT DATA FOR ENGINE (NORMAL MODE), OPERATION, Subaru Select Monitor.> <Ref. to EN(H4DOTC)(diag)-37, READ CURRENT DATA FOR ENGINE (NORMAL MODE), OPERATION, Subaru Select Monitor.> 2) Read the indication of clutch switch signal.	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.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors from ECM and clutch switch. 3) Measure the resistance of harness between ECM and clutch switch connector. ***Connector & terminal*** ***(B136) No. 25 — (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-27, Clutch Switch.>	Repair the harness between ECM and clutch switch connector.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 3) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM only. <Ref. to VDC-11, 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)-34, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

BC:DTC C0081 SYSTEM FAILURE

DTC DETECTING CONDITION:
VDC long time sequential control
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTOR.**	Is there poor contact of the VDCCM& H/U and yaw rate & G sensor connector?	Repair the connector.	Go to step **2**.
2	**CHECK VDCCM&H/U.** 1) Replace the yaw rate & G sensor. <Ref. to VDC-19, Yaw Rate and G Sensor.> 2) Connect all connectors. 3) Clear the memory. <Ref. to VDC(diag)-25, Clear Memory Mode.> 4) Perform the Inspection Mode. <Ref. to VDC(diag)-24, Inspection Mode.> 5) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U. <Ref. to VDC-7, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Malfunction is found in original yaw rate & G sensor.