12.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC C0021 FRONT RIGHT ABS SENSOR OPEN CIRCUIT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “REAR LEFT ABS SENSOR OPEN CIRCUIT”. <Ref. to VDC(diag)-53, DTC C0027 REAR LEFT ABS SENSOR OPEN CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

B: DTC C0023 FRONT LEFT ABS SENSOR OPEN CIRCUIT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “REAR LEFT ABS SENSOR OPEN CIRCUIT”. <Ref. to VDC(diag)-53, DTC C0027 REAR LEFT ABS SENSOR OPEN CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

C: DTC C0025 REAR RIGHT ABS SENSOR OPEN CIRCUIT

NOTE:
For the diagnostic procedure, refer to DTC C0027 “REAR LEFT ABS SENSOR OPEN CIRCUIT”. <Ref. to VDC(diag)-53, DTC C0027 REAR LEFT ABS SENSOR OPEN CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

D: DTC C0027 REAR LEFT ABS SENSOR OPEN CIRCUIT

DTC DETECTING CONDITION:

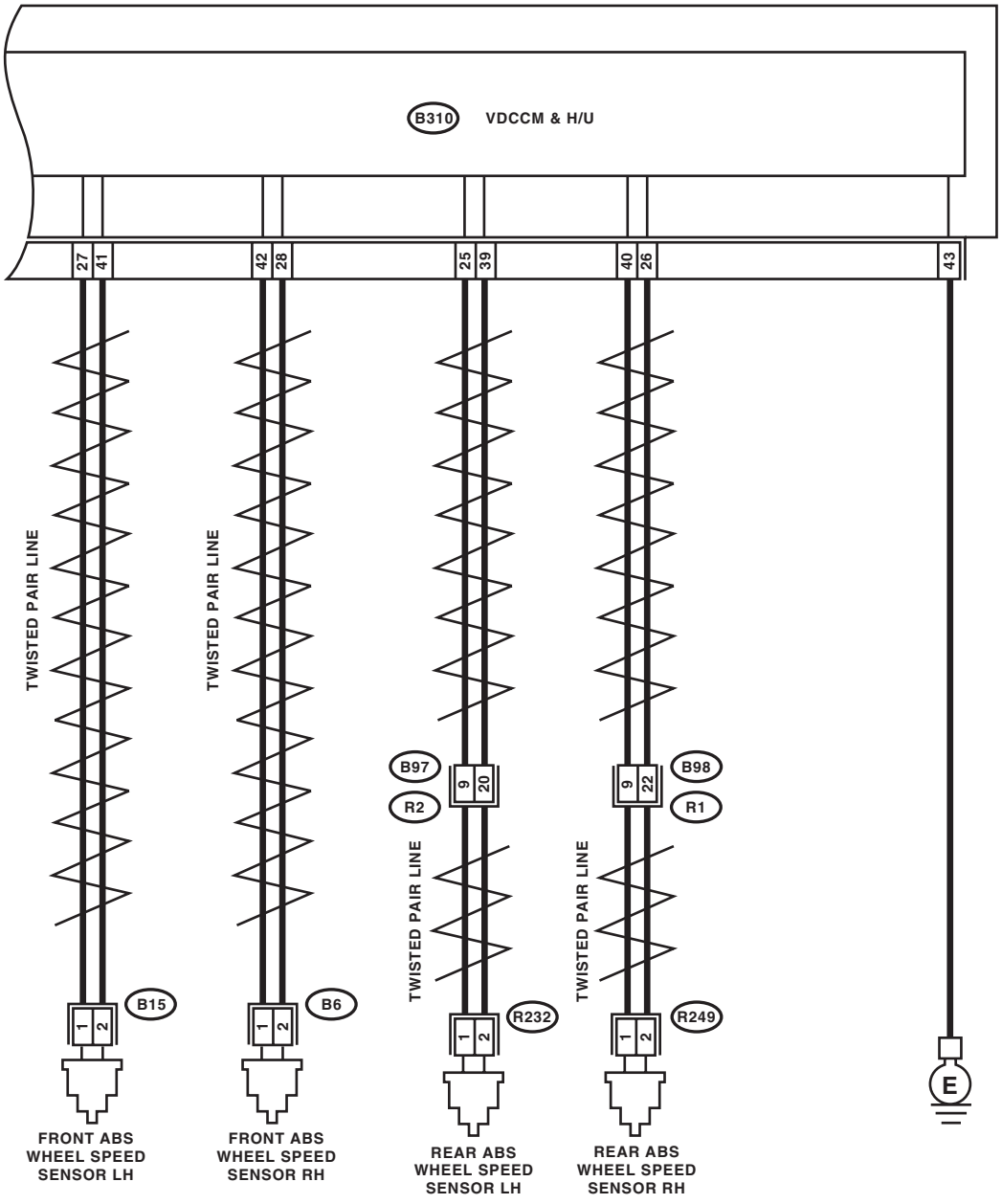
- Faulty ABS wheel speed sensor (harness open line)
- Defective harness connector

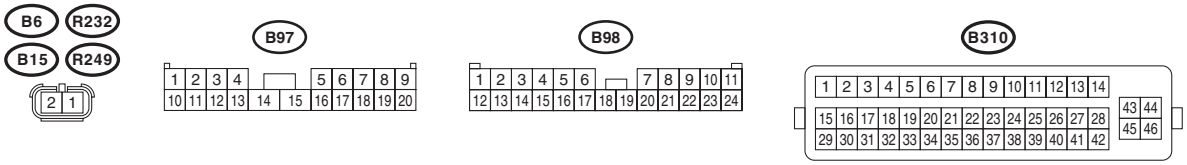
TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:





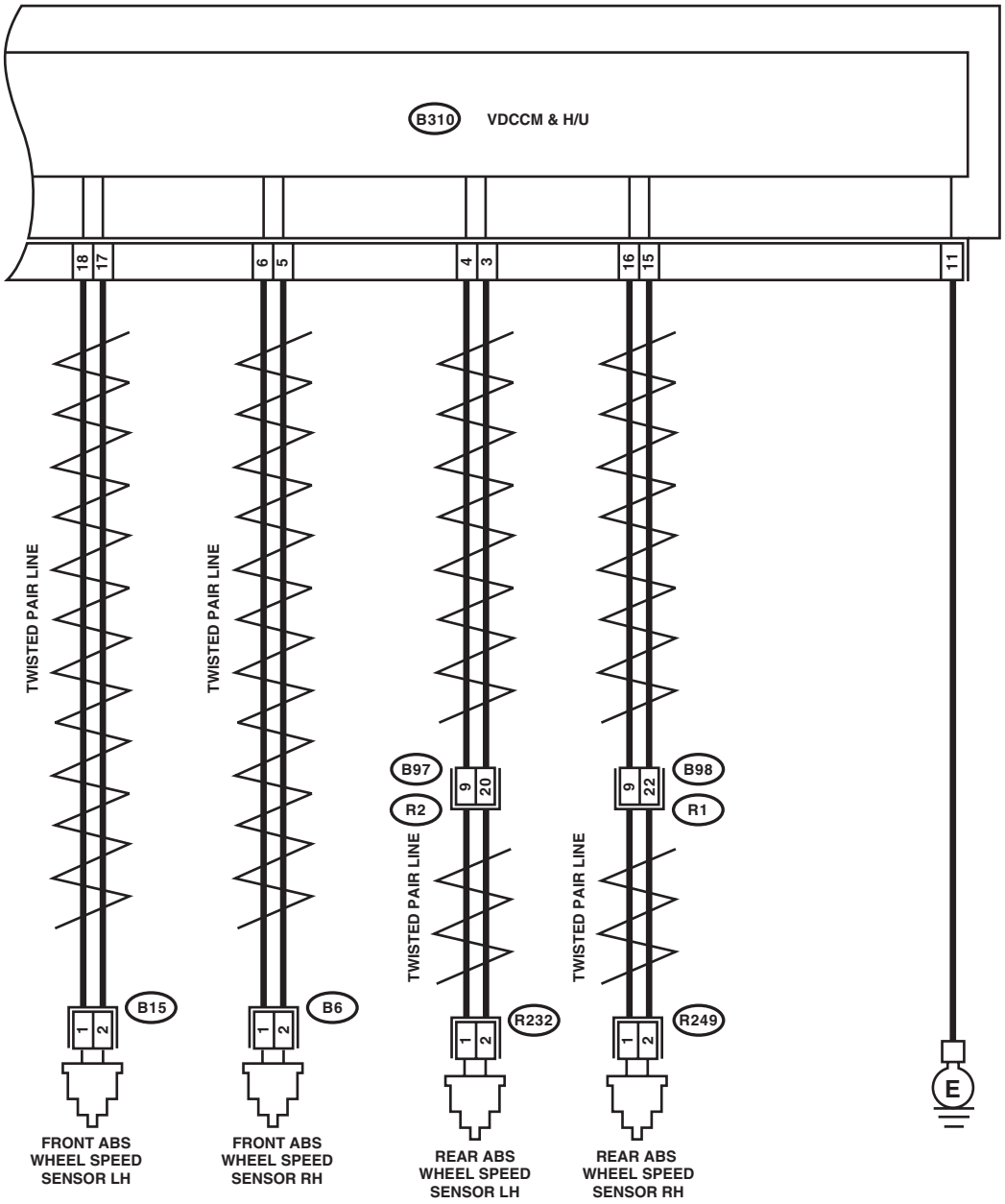
VDC00485

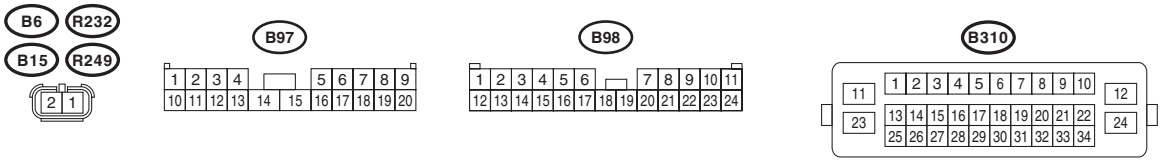
	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTOR.** Check if there is poor contact between VDCCM&H/U and ABS wheel speed sensor.	Is there poor contact?	Repair the connector.	Go to step **2**.
2	**CHECK HARNESS CONNECTOR BETWEEN VDCCM&H/U AND ABS WHEEL SPEED SENSOR.** 1) Disconnect the connector (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. 42 — (B6) No. 1:*** ***(B310) No. 28 — (B6) No. 2:*** ***DTC C0023*** ***(B310) No. 27 — (B15) No. 1:*** ***(B310) No. 41 — (B15) No. 2:*** ***DTC C0025*** ***(B310) No. 40 — (R249) No. 1:*** ***(B310) No. 26 — (R249) No. 2:*** ***DTC C0027*** ***(B310) No. 25 — (R232) No. 1:*** ***(B310) No. 39 — (R232) No. 2:***	Is the resistance less than 0.5 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. 28 — Chassis ground:*** ***DTC C0023*** ***(B310) No. 41 — Chassis ground:*** ***DTC C0025*** ***(B310) No. 26 — Chassis ground:*** ***DTC C0027*** ***(B310) No. 39 — 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. 1 (+) — Chassis ground (–):*** ***DTC C0023*** ***(B15) No. 1 (+) — Chassis ground (–):*** ***DTC C0025*** ***(R249) No. 1 (+) — Chassis ground (–):*** ***DTC C0027*** ***(R232) No. 1 (+) — Chassis ground (–):***	Is the voltage 8 — 15 V?	Go to step **6**.	Go to step **5**.

	Step	Check	Yes	No
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. 1 (+) — (B310) No. 43 (–):***	Is the voltage 10 — 15 V?	Go to step **7**.	Check the generator, battery and VDCCM&H/U power supply circuit.
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-28, 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. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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**.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00618

	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**.
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. 18 — (B15) No. 1:*** ***(B310) No. 17 — (B15) No. 2:*** ***DTC C0025*** ***(B310) No. 16 — (R249) No. 1:*** ***(B310) No. 15 — (R249) No. 2:*** ***DTC C0027*** ***(B310) No. 4 — (R232) No. 1:*** ***(B310) No. 3 — (R232) No. 2:***	Is the resistance less than 0.5 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. 5 — Chassis ground:*** ***DTC C0023*** ***(B310) No. 17 — Chassis ground:*** ***DTC C0025*** ***(B310) No. 15 — Chassis ground:*** ***DTC C0027*** ***(B310) No. 3 — 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. 1 (+) — Chassis ground (–):*** ***DTC C0023*** ***(B15) No. 1 (+) — Chassis ground (–):*** ***DTC C0025*** ***(R249) No. 1 (+) — Chassis ground (–):*** ***DTC C0027*** ***(R232) No. 1 (+) — Chassis ground (–):***	Is the voltage 8 — 15 V?	Go to step **6**.	Go to step **5**.

	Step	Check	Yes	No
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. 34 (+) — (B310) No. 11 (–):***	Is the voltage 10 — 15 V?	Go to step **7**.	Check the generator, battery and VDCCM&H/U power supply circuit.
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-28, 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. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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**.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.

E: DTC C0022 FRONT RIGHT ABS SENSOR NOISE

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

F: DTC C0024 FRONT LEFT ABS SENSOR NOISE

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

G: DTC C0026 REAR RIGHT ABS SENSOR NOISE

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

H: DTC C0028 REAR LEFT ABS SENSOR NOISE

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

I: DTC C0022 FRONT ABS WHEEL SPEED SENSOR RH SIGNAL MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

J: DTC C0024 FRONT ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

K: DTC C0026 REAR ABS WHEEL SPEED SENSOR RH SIGNAL MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0028 “REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-60, DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

L: DTC C0028 REAR ABS WHEEL SPEED SENSOR LH SIGNAL MALFUNCTION

DTC DETECTING CONDITION:

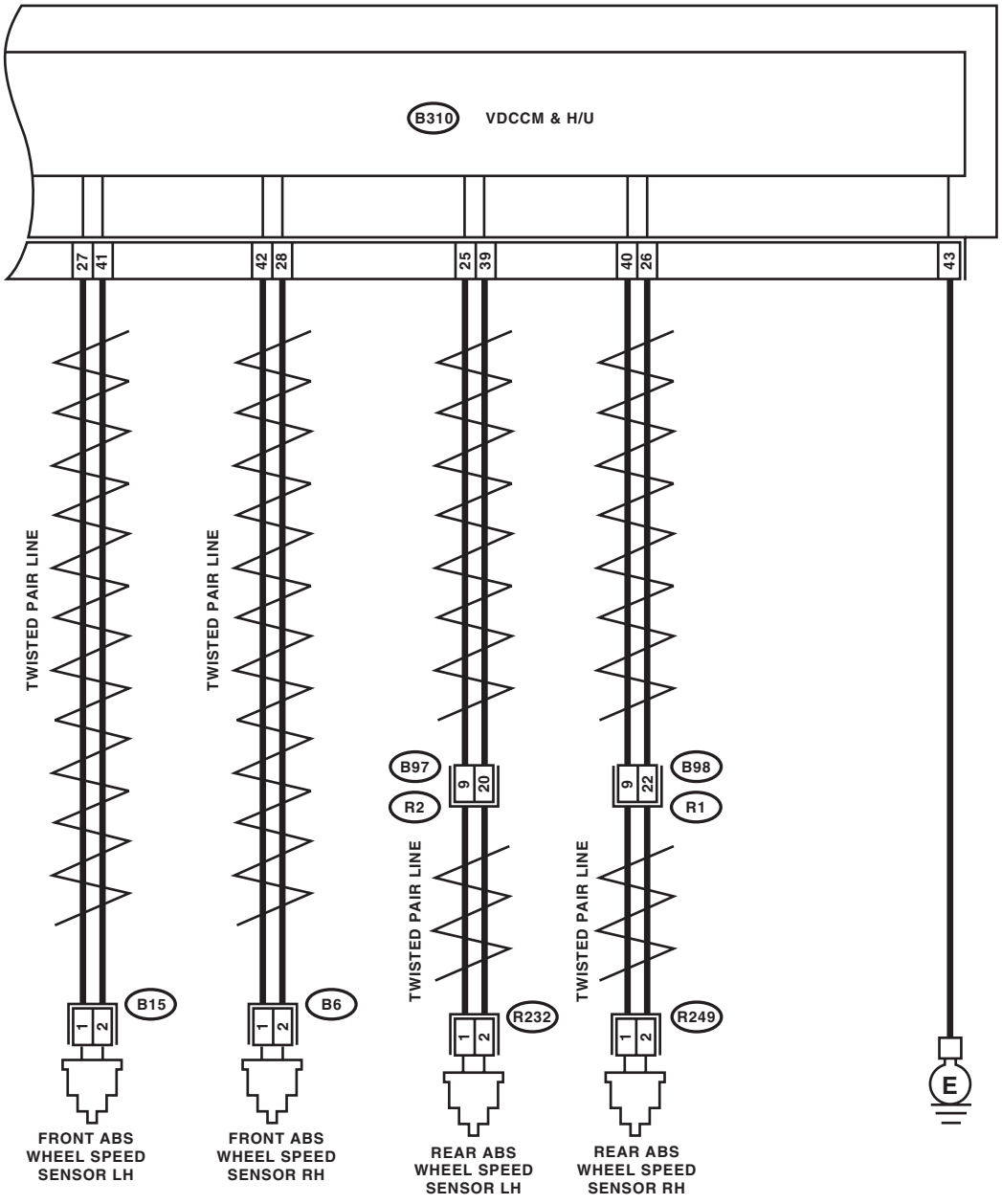
- Defective ABS wheel speed sensor signal (noise, irregular signal, etc.)
- Defective harness connector

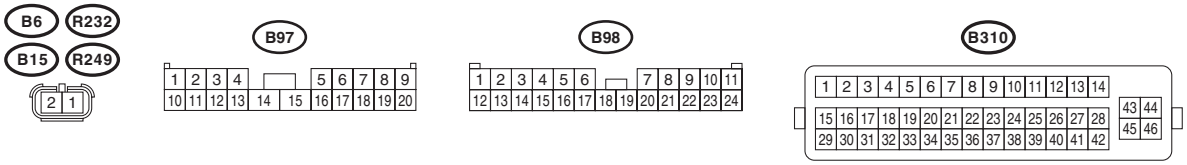
TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:





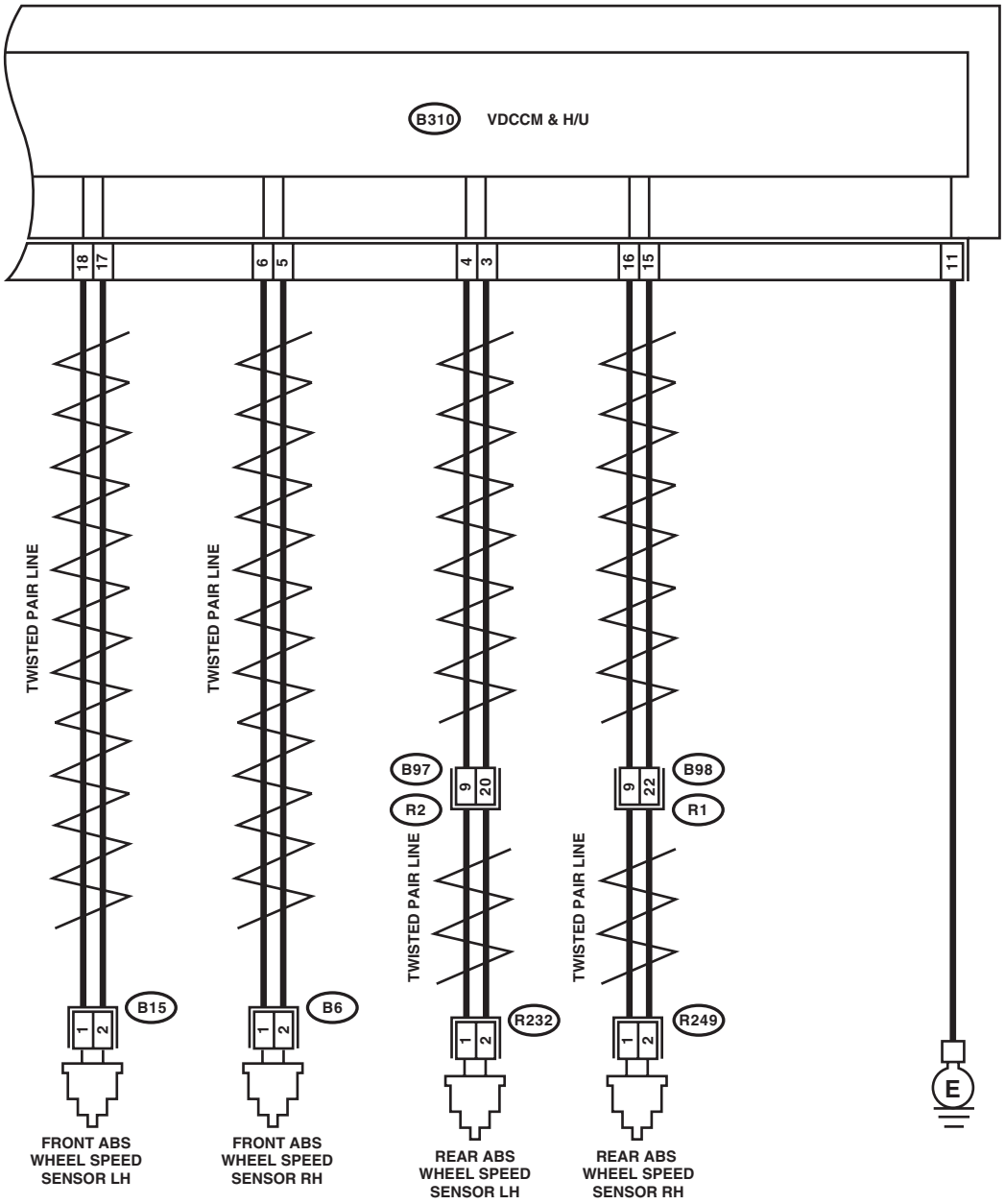
VDC00485

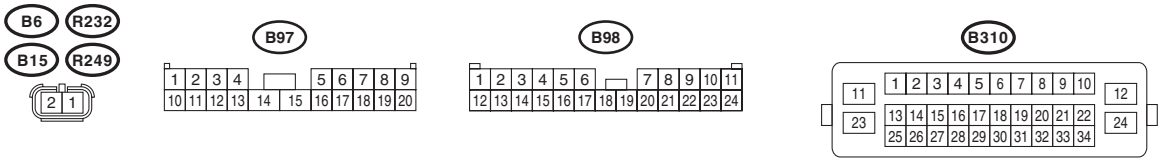
	Step	Check	Yes	No
1	**CHECK VDCCM&H/U POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the VDCCM&H/U connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between VDCCM&H/U connector terminals. ***Connector & terminal (B310) No. 1 (+) — (B310) No. 43 (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Check the generator, battery and VDCCM&H/U power supply circuit.
2	**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 **3**.	Go to step **8**.
3	**CHECK POOR CONTACT OF CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact in connectors between VDCCM&H/U and ABS wheel speed sensor?	Repair the connector.	Go to step **4**.
4	**CHECK CAUSE OF SIGNAL NOISE.** Make sure the radio wave devices and electric components are installed correctly.	Are the radio wave devices and electric components installed correctly?	Go to step **5**.	Install the radio wave devices and electric components properly.
5	**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 **6**.
6	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.
8	**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 **9**.	Tighten the ABS wheel speed sensor installation bolts.
9	**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-28, 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 more one rotation?	Go to step **11**.	Go to step **10**.
10	**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 **11**.

	Step	Check	Yes	No
11	**CHECK CAUSE OF SIGNAL NOISE.** Make sure the radio wave devices and electric components are installed correctly.	Are the radio wave devices and electric components installed correctly?	Go to step **12**.	Install the radio wave devices and electric components properly.
12	**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 **13**.	Install the noise sources apart from sensor harness.
13	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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 **14**.
14	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference. NOTE: Though the ABS warning light remains on at this time, it 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 the warning light goes off.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00618

	Step	Check	Yes	No
1	**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. 34 (+) — (B310) No. 11 (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Check the generator, battery and VDCCM&H/U power supply circuit.
2	**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 **3**.	Go to step **8**.
3	**CHECK POOR CONTACT OF CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact in connectors between VDCCM&H/U and ABS wheel speed sensor?	Repair the connector.	Go to step **4**.
4	**CHECK CAUSE OF SIGNAL NOISE.** Make sure the radio wave devices and electric components are installed correctly.	Are the radio wave devices and electric components installed correctly?	Go to step **5**.	Install the radio wave devices and electric components properly.
5	**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 **6**.
6	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference.
8	**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 **9**.	Tighten the ABS wheel speed sensor installation bolts.
9	**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-28, 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 more one rotation?	Go to step **11**.	Go to step **10**.
10	**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 **11**.

	Step	Check	Yes	No
11	**CHECK CAUSE OF SIGNAL NOISE.** Make sure the radio wave devices and electric components are installed correctly.	Are the radio wave devices and electric components installed correctly?	Go to step **12**.	Install the radio wave devices and electric components properly.
12	**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 **13**.	Install the noise sources apart from sensor harness.
13	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. <Ref. to VDC(diag)-30, PROCEDURE, Inspection Mode.> 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 **14**.
14	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	It results from a temporary noise interference. NOTE: Though the ABS warning light remains on at this time, it 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 the warning light goes off.

M: DTC C0031 FRONT INLET SOLENOID VALVE RH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 VDC SWITCHOVER VALVE. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

N: DTC C0032 FRONT OUTLET SOLENOID VALVE RH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 VDC SWITCHOVER VALVE. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

O: DTC C0033 FRONT INLET SOLENOID VALVE LH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

P: DTC C0034 FRONT OUTLET SOLENOID VALVE LH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Q: DTC C0035 REAR INLET SOLENOID VALVE RH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

R: DTC C0036 REAR OUTLET SOLENOID VALVE RH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

S: DTC C0037 REAR INLET SOLENOID VALVE LH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

T: DTC C0038 REAR OUTLET SOLENOID VALVE LH MALFUNCTION IN VDCCM&H/U

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

U: DTC C0061 VDC SWITCHOVER VALVE (P)

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

V: DTC C0062 VDC SWITCHOVER VALVE (S)

NOTE:
For the diagnostic procedure, refer to DTC C0063 “LINEAR VALVE MALFUNCTION IN VDCCM&H/U”. <Ref. to VDC(diag)-67, DTC C0063 VDC SWITCHOVER VALVE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

W: DTC C0063 VDC SWITCHOVER VALVE

DTC DETECTING CONDITION:

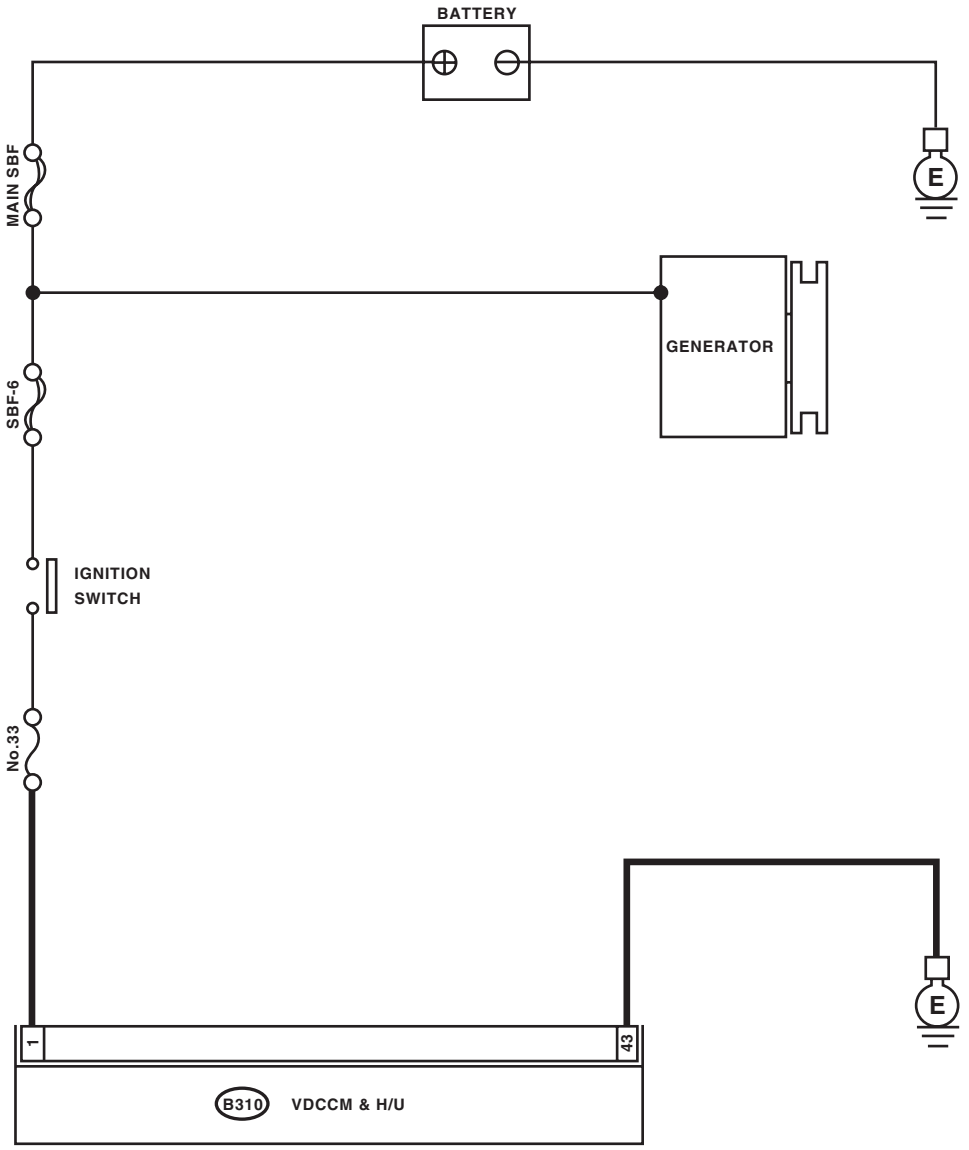
- Defective harness connector
- Defective VDCH/U solenoid valve

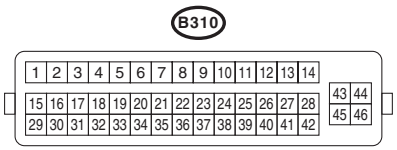
TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



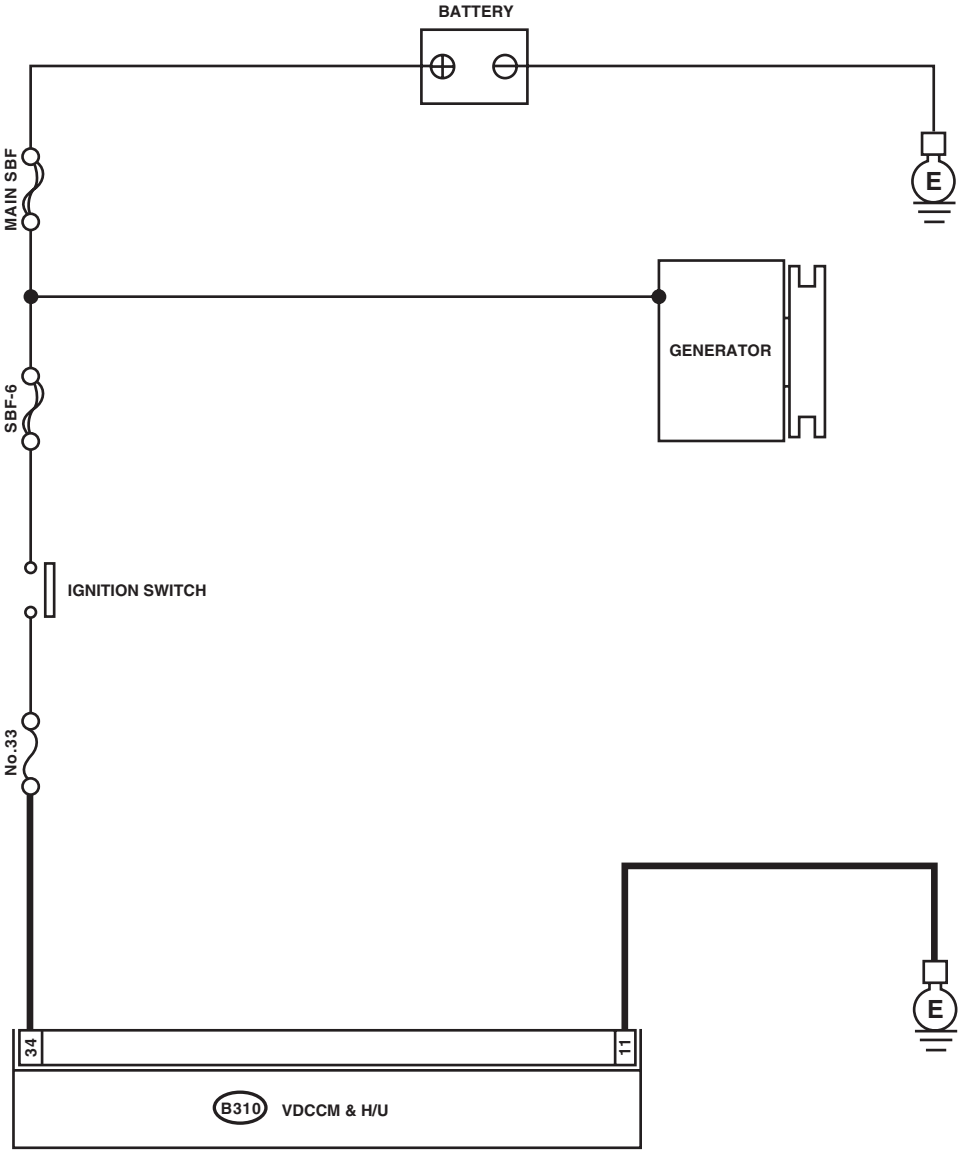


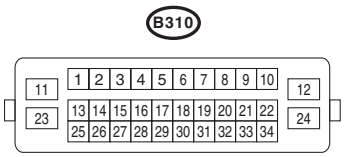
VDC00371

	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. 1 (+) — 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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00624

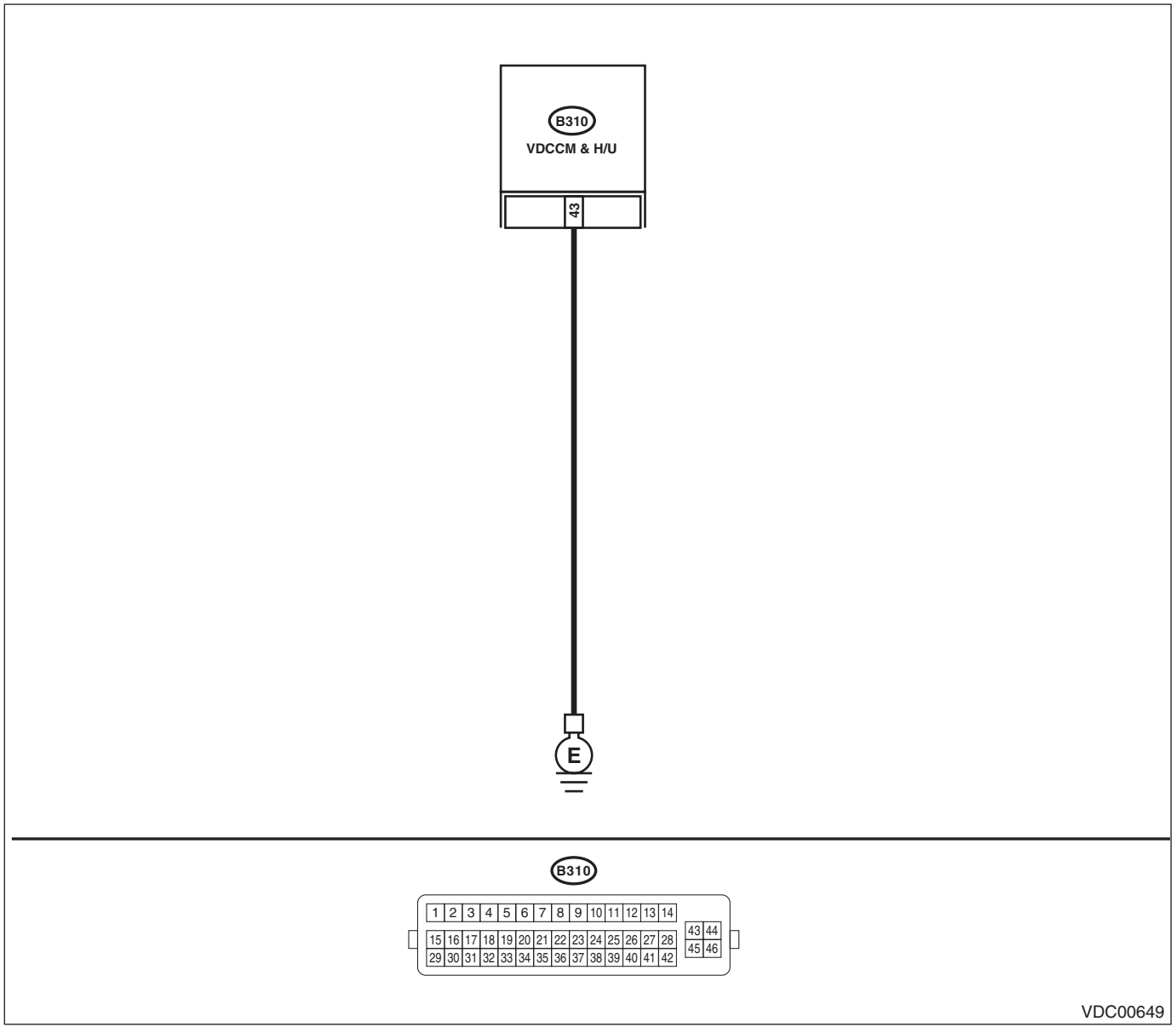
	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Run the engine at idle. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 34 (+) — Chassis ground (–):***	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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

X: DTC C0041 ECM INTERNAL PROBLEM

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

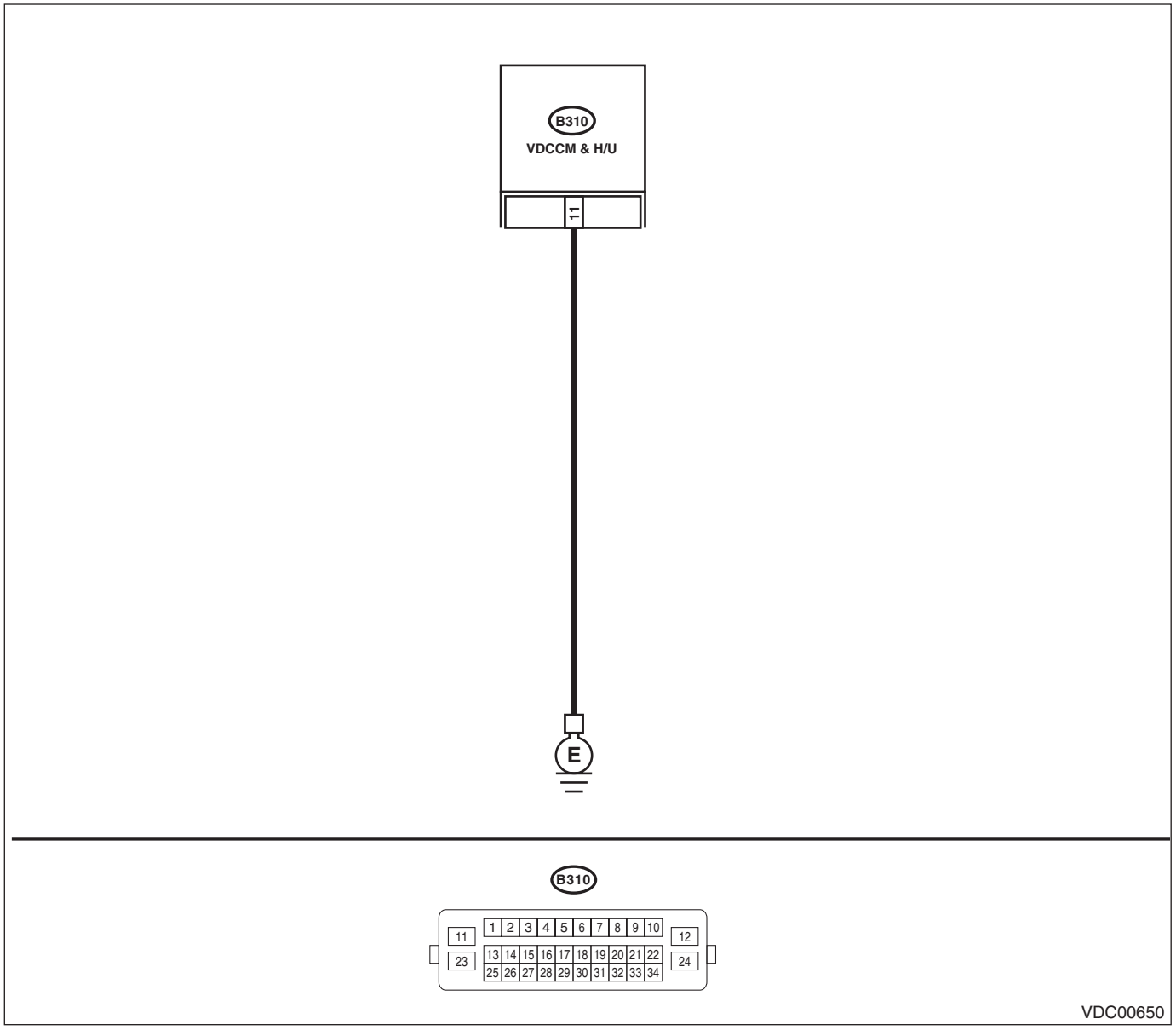
WIRING DIAGRAM:



	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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **2**.	Repair the VDCCM&H/U ground harness.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between 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 electric components installed correctly?	Go to step **4**.	Install the radio wave devices and electric components properly.
4	**CHECK CAUSE OF SIGNAL NOISE.**	Are any noise sources (such as an antenna) installed near the sensor harness?	Install noise sources away from the sensor harness.	Go to step **5**.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **2**.	Repair the VDCCM&H/U ground harness.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between 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 electric components installed correctly?	Go to step **4**.	Install the radio wave devices and electric components properly.
4	**CHECK CAUSE OF SIGNAL NOISE.**	Are any noise sources (such as an antenna) installed near the sensor harness?	Install noise sources away from the sensor harness.	Go to step **5**.
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

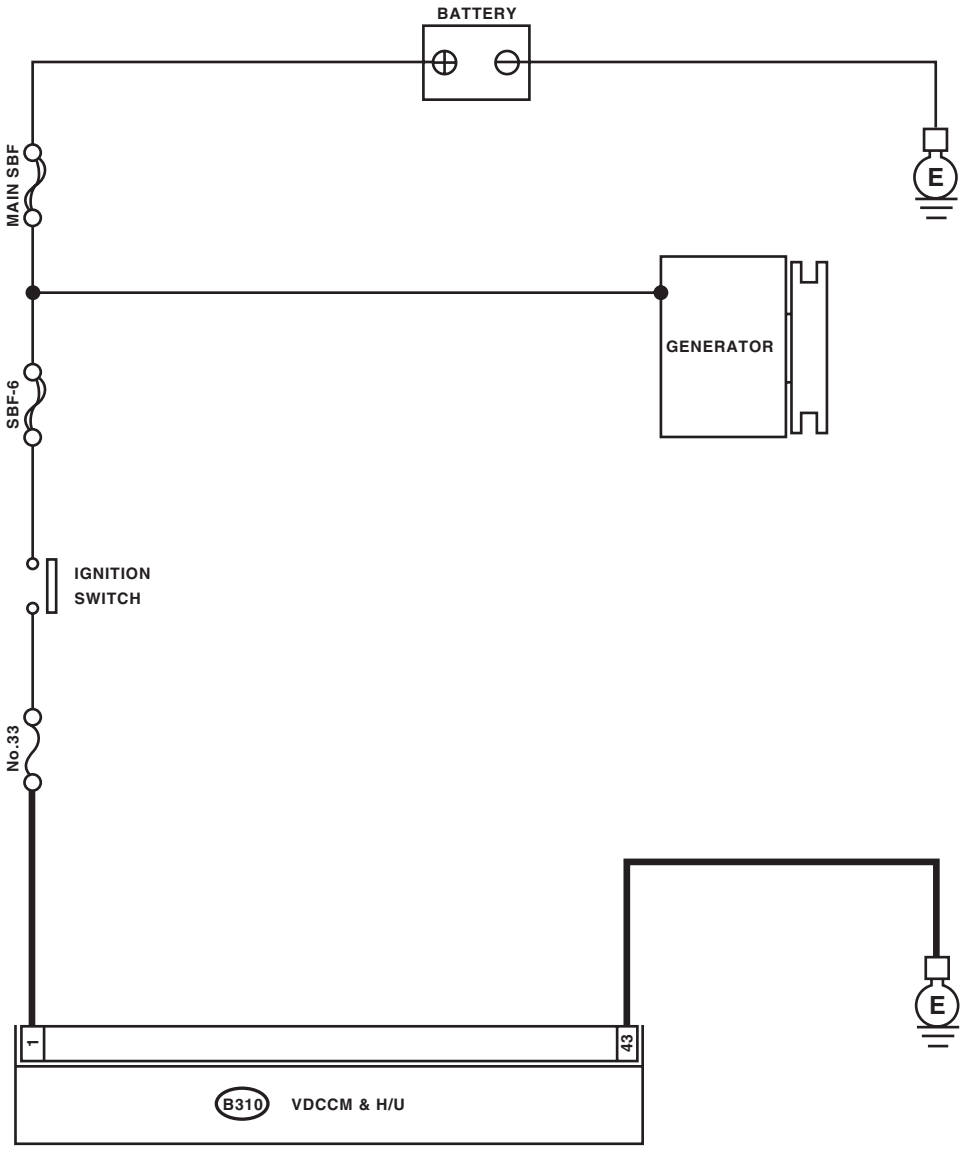
Y: DTC C0042 POWER VOLTAGE MALFUNCTION

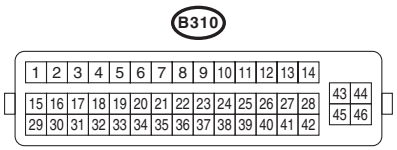
DTC DETECTING CONDITION:
Check the VDCCM&H/U power supply voltage.
TROUBLE SYMPTOM:
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

NOTE:
Warning lights go off if voltage returns.

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



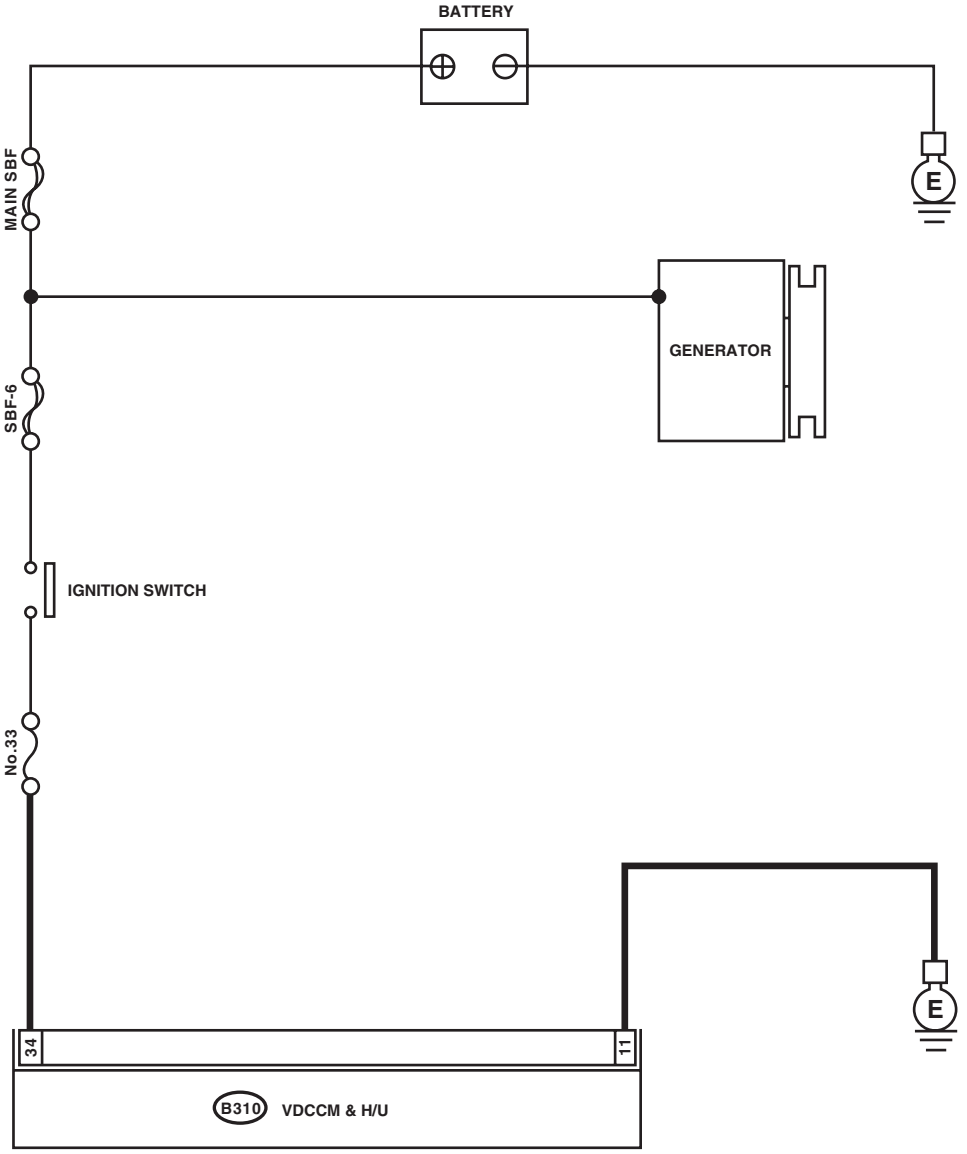


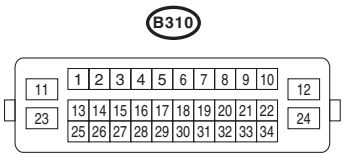
VDC00371

	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 B terminal (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the generator. <Ref. to SC(H6DO)-17, 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 the devices such as headlights, air conditioner, defogger, etc. which produce much electrical loading. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 1 (+) — 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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **5**.	Repair the VDCCM&H/U ground harness.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00624

	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 B terminal (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the generator. <Ref. to SC(H6DO)-17, 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 the devices such as headlights, air conditioner, defogger, etc. which produce much electrical loading. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 34 (+) — 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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **5**.	Repair the VDCCM&H/U ground harness.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

Z: DTC C0047 IMPROPER CAN COMMUNICATION

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

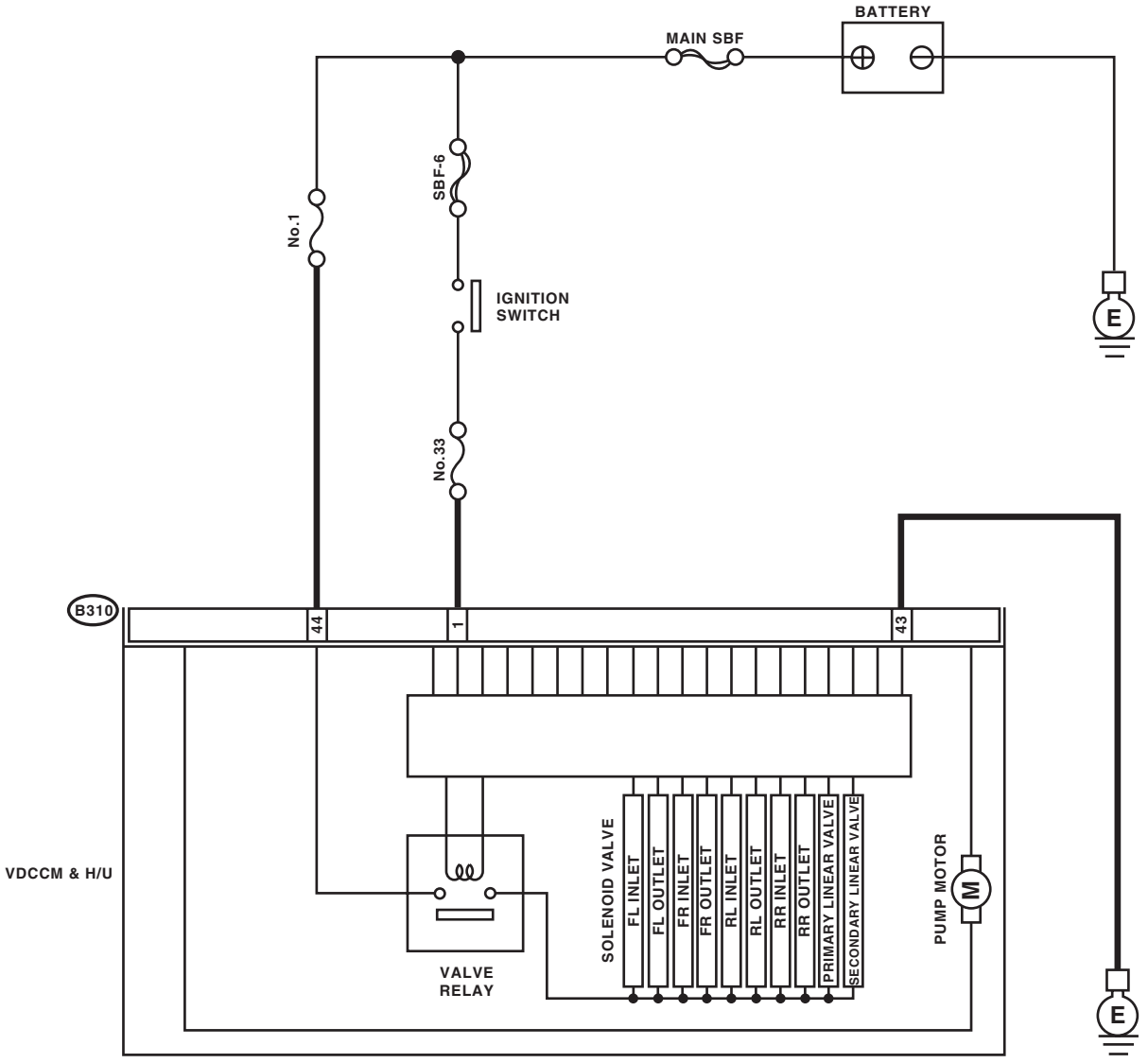
	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is there any fault in LAN system?	Perform the diagnosis according to DTC for LAN system.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in VDCCM&H/U connector?	Repair the connector.	Go to step **3**.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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).>	Temporary poor contact occurs.

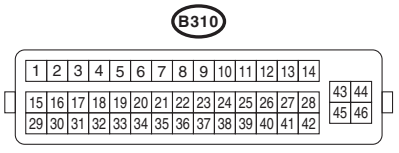
AA:DTC C0051 VALVE RELAY OPEN CIRCUIT

DTC DETECTING CONDITION:
Defective valve relay
TROUBLE SYMPTOM:
- ABS does not operate.
- EBD does not operate.
- VDC does not operate.

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



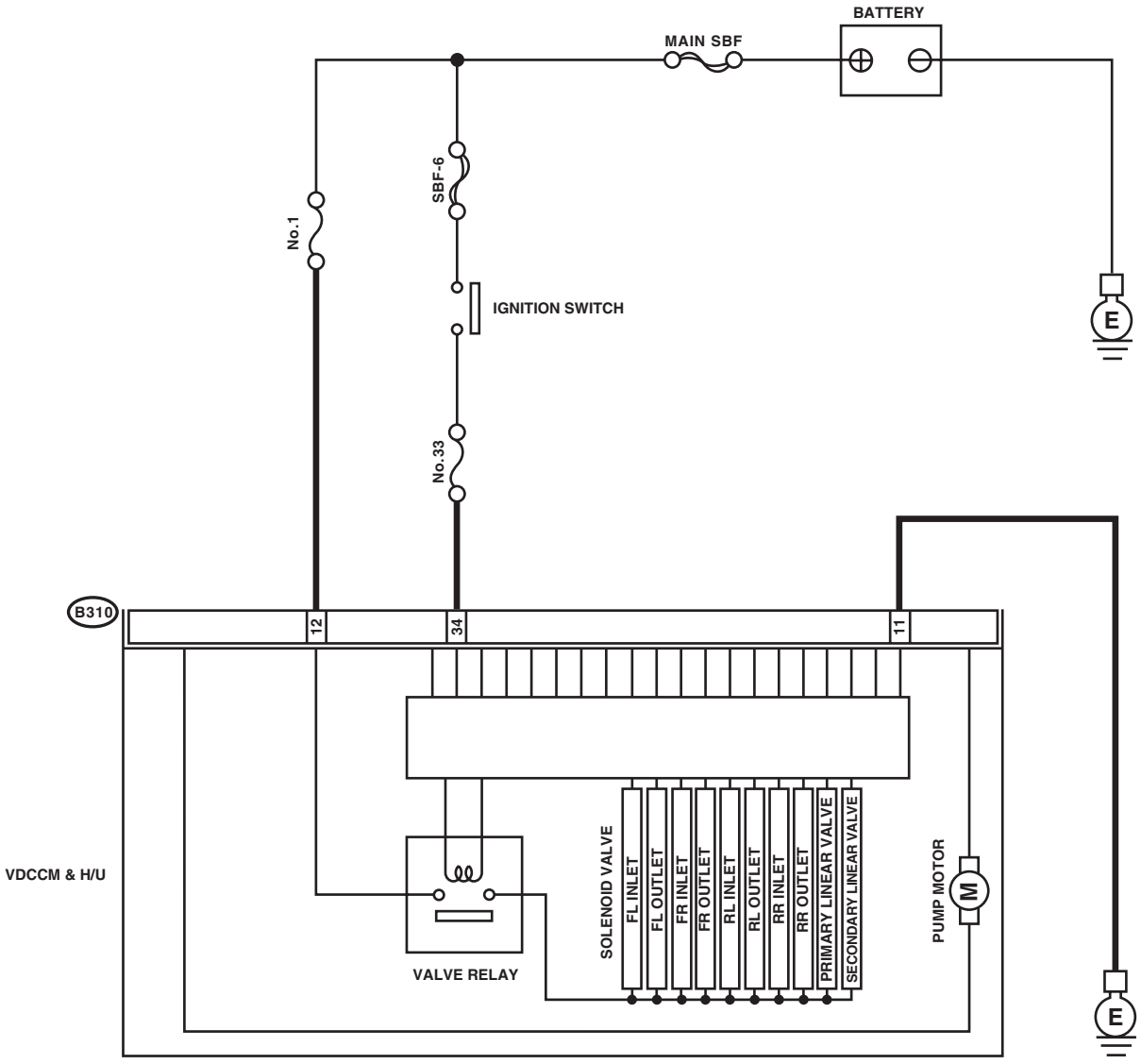


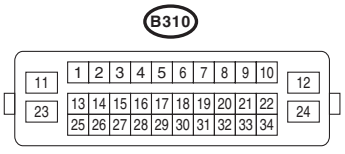
VDC00372

	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. 44 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the harness connector between battery and VDCCM&H/U.
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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00620

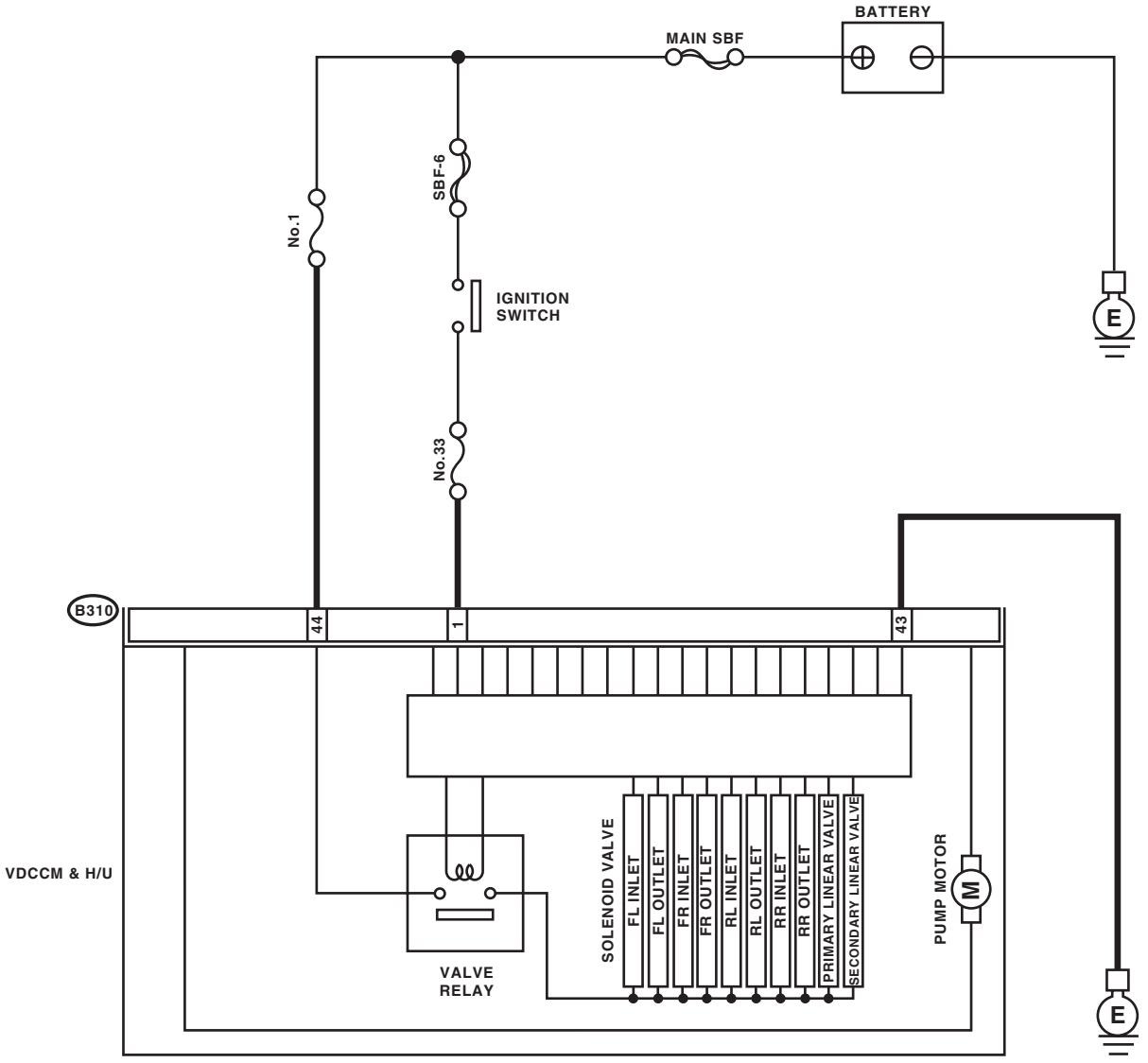
	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Run the engine at idle. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 12 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair the harness connector between battery and VDCCM&H/U.
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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in 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. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

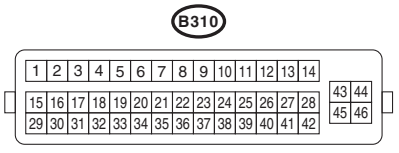
AB:DTC C0051 VALVE RELAY SHORT CIRCUIT

DTC DETECTING CONDITION:
Defective valve relay
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.
- EBD does not operate.

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



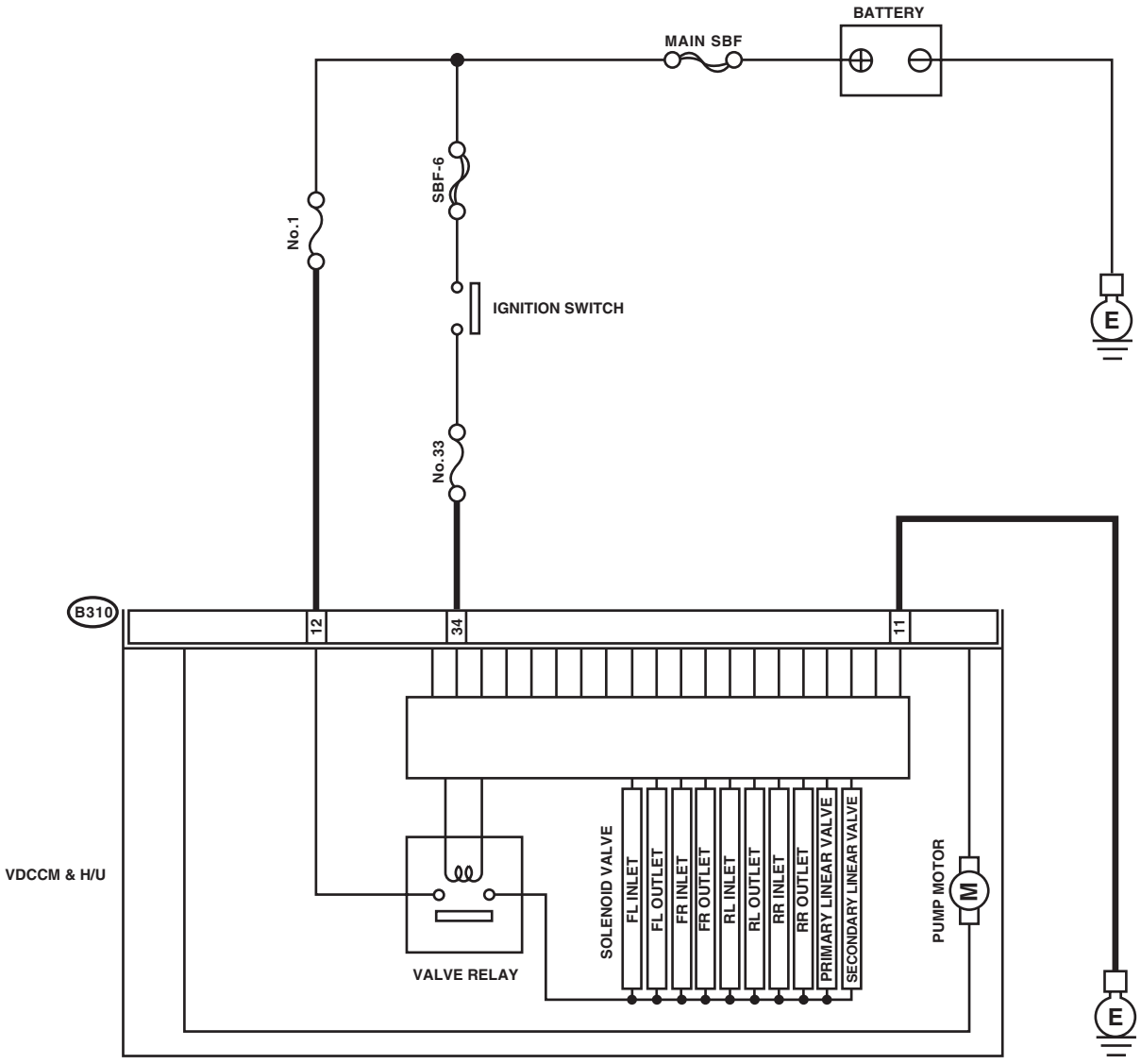


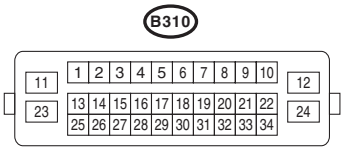
VDC00372

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U VALVE RELAY.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U connector terminals. ***Terminals*** ***No. 44 — No. 43:***	Is the resistance 1 MΩ or more?	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 POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between generator, battery and VDCCM&H/U?	Repair the connector.	Go to step **3**.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00620

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U VALVE RELAY.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U connector terminals. ***Terminals*** ***No. 12 — No. 11:***	Is the resistance 1 MΩ or more?	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 POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between generator, battery and VDCCM&H/U?	Repair the connector.	Go to step **3**.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **4**.
4	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC. <Ref. to VDC(diag)-48, List of Diagnostic Trouble Code (DTC).>	Temporary poor contact occurs.

AC:DTC C0052 MOTOR AND MOTOR RELAY OPEN CIRCUIT

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

NOTE:
For the diagnostic procedure, refer to “DTC C0052 MOTOR MALFUNCTION”. <Ref. to VDC(diag)-90, DTC C0052 MOTOR MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

NOTE:
For the diagnostic procedure, refer to “DTC C0052 MOTOR DO NOT WORK”. <Ref. to VDC(diag)-96, DTC C0052 MOTOR DO NOT WORK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AD:DTC C0052 MOTOR MALFUNCTION

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

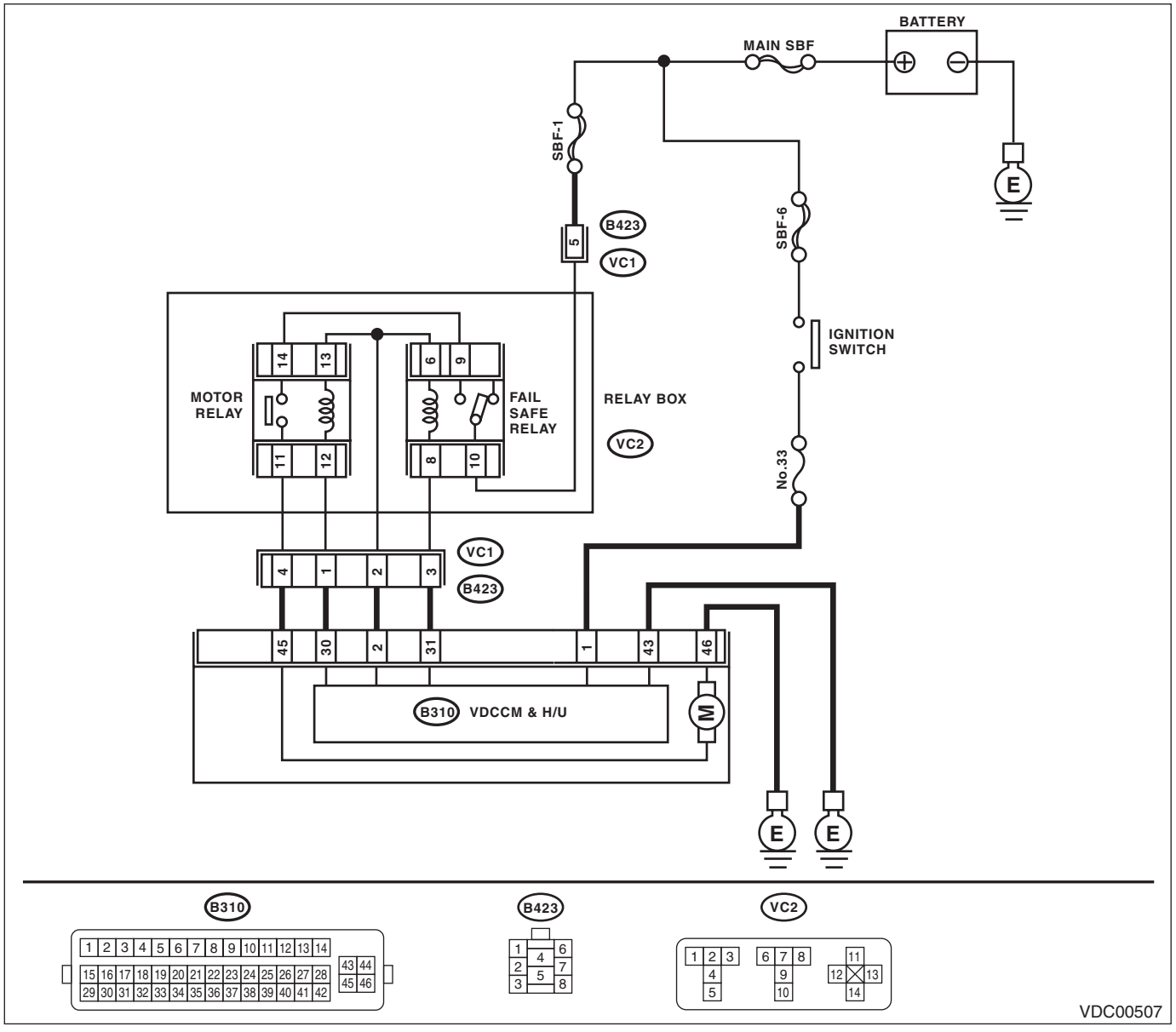
DTC DETECTING CONDITION:

- Defective motor and motor relay
- Defective harness connector

TROUBLE SYMPTOM:

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

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK MOTOR RELAY RESISTANCE.** 1) Turn the ignition switch to OFF. 2) Remove the motor relay from the relay box. 3) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 12 — No. 13:***	Is the resistance between 70 — 100 Ω?	Go to step **2**.	Replace the motor relay.
2	**CHECK MOTOR RELAY CONTACT POINT.** 1) Connect the battery to motor relay terminals No. 13 (+) and No. 12(–). 2) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 11 — No. 14:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Replace the motor relay.
3	**CHECK MOTOR RELAY SHORT.** Measure the resistance between motor relay terminals. ***Terminals*** ***No. 12 — No. 11:*** ***No. 12 — No. 14:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the motor relay.
4	**CHECK FAIL SAFE RELAY RESISTANCE.** 1) Turn the ignition switch to OFF. 2) Remove the fail safe relay from the relay box. 3) Measure the resistance between fail safe relay terminals. ***Terminals*** ***No. 6 — No. 8:***	Is the resistance between 80 — 130 Ω?	Go to step **5**.	Replace the fail safe relay.
5	**CHECK FAIL SAFE RELAY CONTACT POINT.** 1) Connect the battery to motor relay terminals No. 6 (+) and No. 8(–). 2) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 9 — No. 10:***	Is the resistance less than 0.5 Ω?	Go to step **6**.	Replace the fail safe relay.
6	**CHECK FAIL SAFE RELAY SHORT.** Measure the resistance between motor relay terminals. ***Terminals*** ***No. 6 — No. 9:*** ***No. 6 — No. 10:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the fail safe relay.
7	**CHECK MOTOR RELAY POWER SUPPLY VOLTAGE.** 1) Disconnect the connectors (B423) and (VC1). 2) Turn the ignition switch to ON. 3) Measure the voltage between connector (B423) and chassis ground. ***Connector & terminal*** ***(B423) No. 5 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **8**.	Repair the power supply circuit.

	Step	Check	Yes	No
8	**CHECK RELAY BOX.** Measure the resistance between each terminal. ***Terminals*** ***(VC1) No. 5 — (VC2) No. 10:*** ***(VC1) No. 2 — (VC2) No. 6:*** ***(VC1) No. 2 — (VC2) No. 13:*** ***(VC1) No. 3 — (VC2) No. 8:*** ***(VC1) No. 1 — (VC2) No. 12:*** ***(VC1) No. 4 — (VC2) No. 11:*** ***(VC2) No. 9 — (VC2) No. 14:***	Is the resistance less than 0.5 Ω?	Go to step **9**.	Replace the relay box.
9	**CHECK HARNESS.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the resistance between VDCCM&H/U and relay box. ***Connector & terminal*** ***(B423) No. 3 — (B310) No. 31:*** ***(B423) No. 2 — (B310) No. 2:*** ***(B423) No. 1 — (B310) No. 30:*** ***(B423) No. 4 — (B310) No. 45:***	Is the resistance less than 0.5 Ω?	Go to step **10**.	Repair the harness.
10	**CHECK GROUND SHORT CIRCUIT OF HARNESS.** Measure the resistance between harness and chassis ground. ***Connector & terminal*** ***(B423) No. 3 — Chassis ground:*** ***(B423) No. 2 — Chassis ground:*** ***(B423) No. 1 — Chassis ground:*** ***(B423) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Repair the harness.
11	**CHECK GROUND CIRCUIT FOR MOTOR.** Measure the resistance between VDCCM&H/U and chassis ground. ***Connector & terminal*** ***(B310) No. 46 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **12**.	Repair the harness.
12	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector?	Repair the connector.	Go to step **13**.
13	**CHECK VDCCM&H/U.** 1) Connect all the connectors and relays. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **14**.
14	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

NOTE:
For the diagnostic procedure, refer to “DTC C0052 MOTOR DO NOT WORK”. <Ref. to VDC(diag)-96, DTC C0052 MOTOR DO NOT WORK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AE:DTC C0052 MOTOR AND MOTOR RELAY SHORT CIRCUIT

NOTE:
For the diagnostic procedure, refer to DTC C0052 “MOTOR FAIL SAFE RELAY SHORT CIRCUIT”. <Ref. to VDC(diag)-93, DTC C0052 MOTOR FAIL SAFE RELAY SHORT CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AF:DTC C0052 MOTOR FAIL SAFE RELAY SHORT CIRCUIT

DTC DETECTING CONDITION:

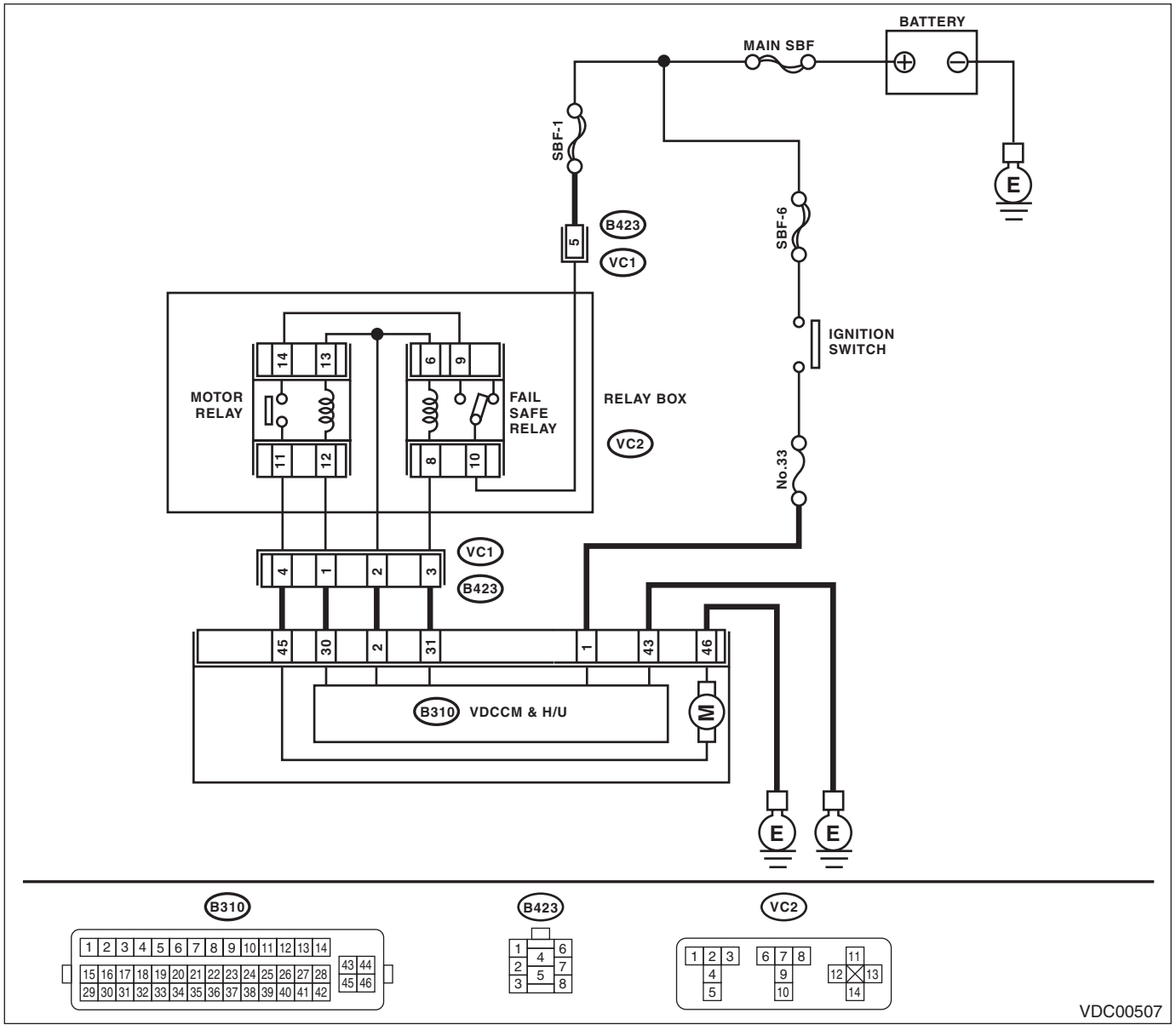
- Defective motor relay
- Fail safe relay malfunction
- Defective harness connector

TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK MOTOR RELAY RESISTANCE.** 1) Turn the ignition switch to OFF. 2) Remove the motor relay from the relay box. 3) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 12 — No. 13:***	Is the resistance between 70 — 100 Ω?	Go to step **2**.	Replace the motor relay.
2	**CHECK MOTOR RELAY CONTACT POINT.** 1) Connect the battery to motor relay terminals No. 13 (+) and No. 12(–). 2) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 11 — No. 14:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Replace the motor relay.
3	**CHECK MOTOR RELAY SHORT.** Measure the resistance between motor relay terminals. ***Terminals*** ***No. 12 — No. 11:*** ***No. 12 — No. 14:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the motor relay.
4	**CHECK FAIL SAFE RELAY RESISTANCE.** 1) Turn the ignition switch to OFF. 2) Remove the fail safe relay from the relay box. 3) Measure the resistance between fail safe relay terminals. ***Terminals*** ***No. 6 — No. 8:***	Is the resistance between 80 — 130 Ω?	Go to step **5**.	Replace the fail safe relay.
5	**CHECK FAIL SAFE RELAY CONTACT POINT.** 1) Connect the battery to motor relay terminals No. 6 (+) and No. 8(–). 2) Measure the resistance between motor relay terminals. ***Terminals*** ***No. 9 — No. 10:***	Is the resistance less than 0.5 Ω?	Go to step **6**.	Replace the fail safe relay.
6	**CHECK FAIL SAFE RELAY SHORT.** Measure the resistance between motor relay terminals. ***Terminals*** ***No. 6 — No. 9:*** ***No. 6 — No. 10:*** ***No. 9 — No. 10:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the fail safe relay.
7	**CHECK RELAY BOX.** 1) Disconnect the connectors (B423) and (VC1). 2) Turn the ignition switch to ON. 3) Measure the voltage between connector (VC2) and chassis ground. ***Connector & terminal*** ***(VC2) No. 11 (+) — Chassis ground (–):*** ***(VC2) No. 12 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Replace the relay box.	Go to step **8**.

	Step	Check	Yes	No
8	**CHECK HARNESS.** 1) Disconnect the connector from the VDCCM&H/U. 2) Measure the voltage between connector (B423) and chassis ground. ***Connector & terminal*** ***(B423) No. 4 (+) — Chassis ground (–):*** ***(B423) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Repair the harness.	Go to step **9**.
9	**CHECK MOTOR.** 1) Connect all the connectors and relays. 2) Turn the ignition switch to ON.	Is the motor continuing to rotate?	Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **10**.
10	**CHECK VDCCM&H/U.** 1) Connect all the connectors and relays. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **11**.
11	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

NOTE:
Motor relay and fail safe relay are built-in to the VDCCM&H/U.
Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

AG:DTC C0052 MOTOR DO NOT WORK

DTC DETECTING CONDITION:

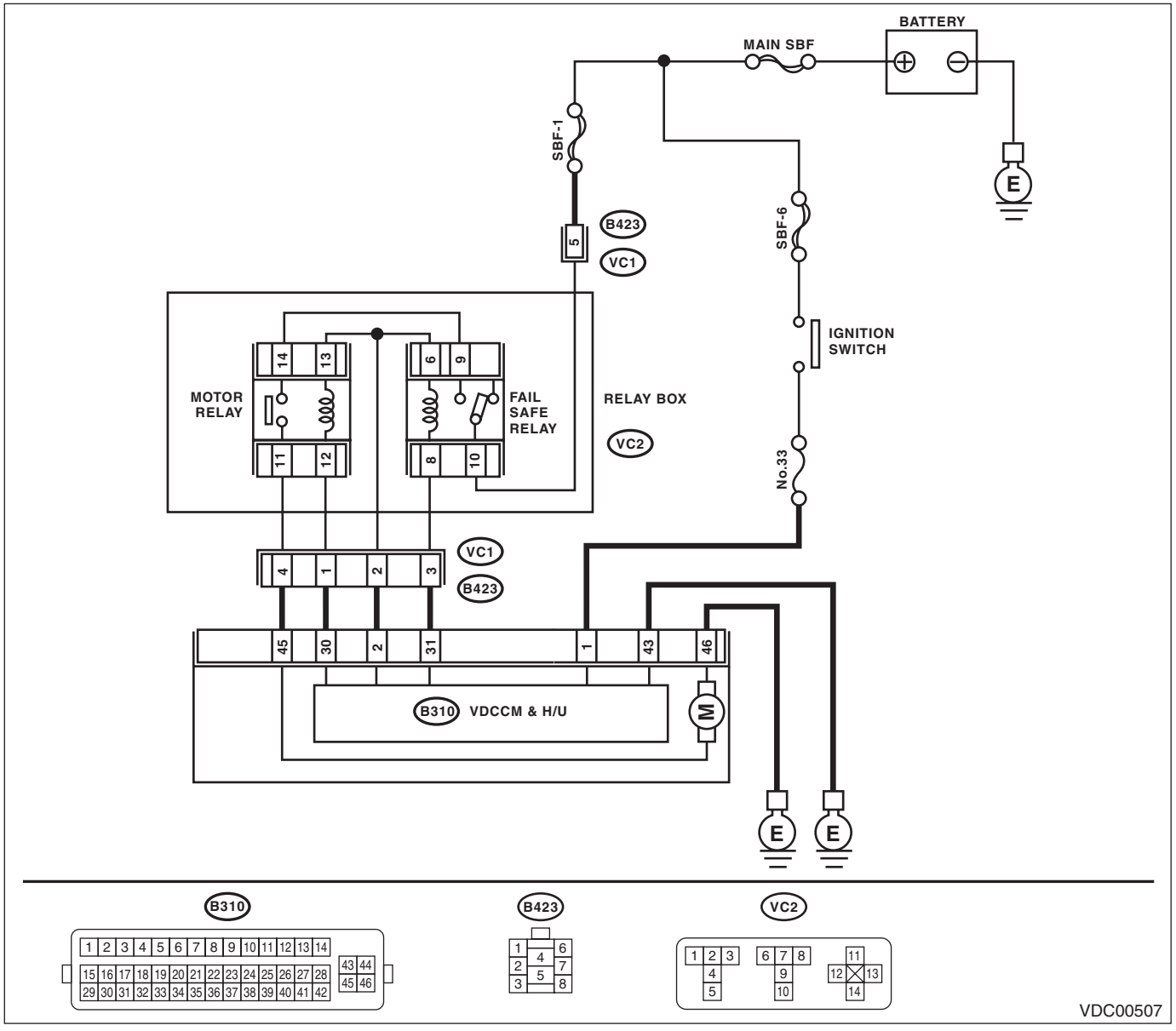
- Defective motor
- Defective harness connector

TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

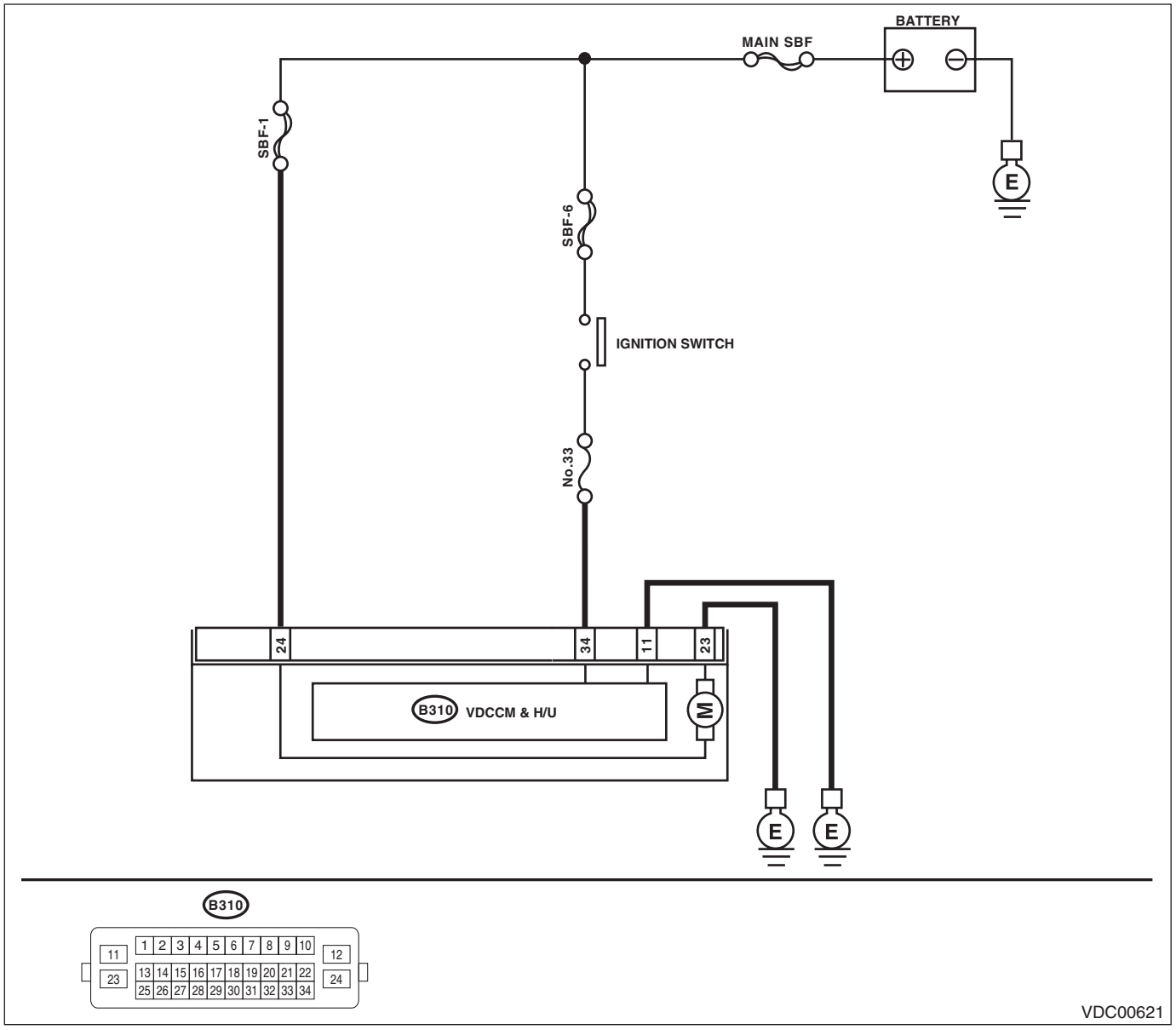
WIRING DIAGRAM:



	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. 1 (+) — 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 (3.3 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. 46 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **4**.	Repair the VDCCM&H/U ground harness.
4	**CHECK VDCCM&H/U.** 1) Connect all the connectors and relays. 2) Clear the memory. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:



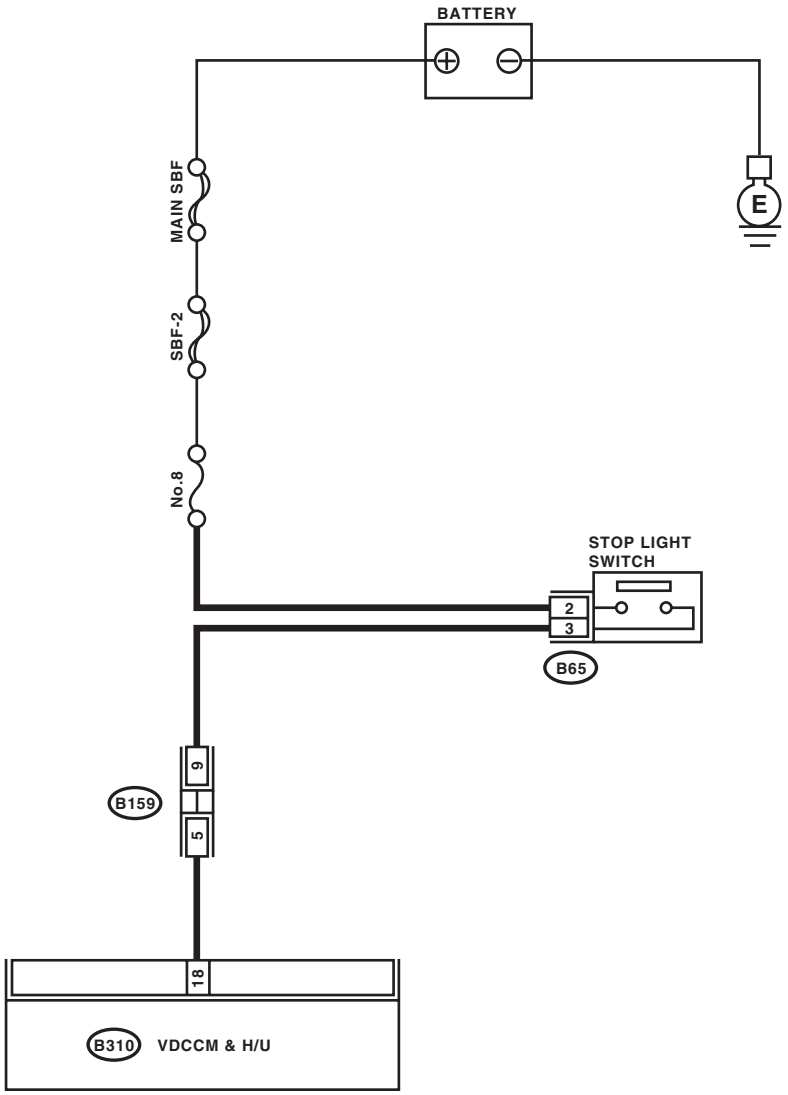
	Step	Check	Yes	No
1	**CHECK VDCCM&H/U INPUT VOLTAGE.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the VDCCM&H/U. 3) Turn the ignition switch to ON. 4) Measure the voltage between VDCCM&H/U connector and chassis ground. ***Connector & terminal*** ***(B310) No. 24 (+) — Chassis ground (–):*** ***(B310) No. 34 (+) — 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 (3.3 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. 11 (+) — Chassis ground (–):*** ***(B310) No. 23 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **4**.	Repair the VDCCM&H/U ground harness.
4	**CHECK VDCCM&H/U.** 1) Connect all the connectors and relays. 2) Clear the memory. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

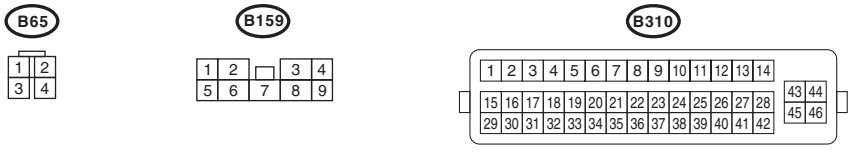
AH:DTC C0054 BRAKE LAMP SWITCH OPEN CIRCUIT

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



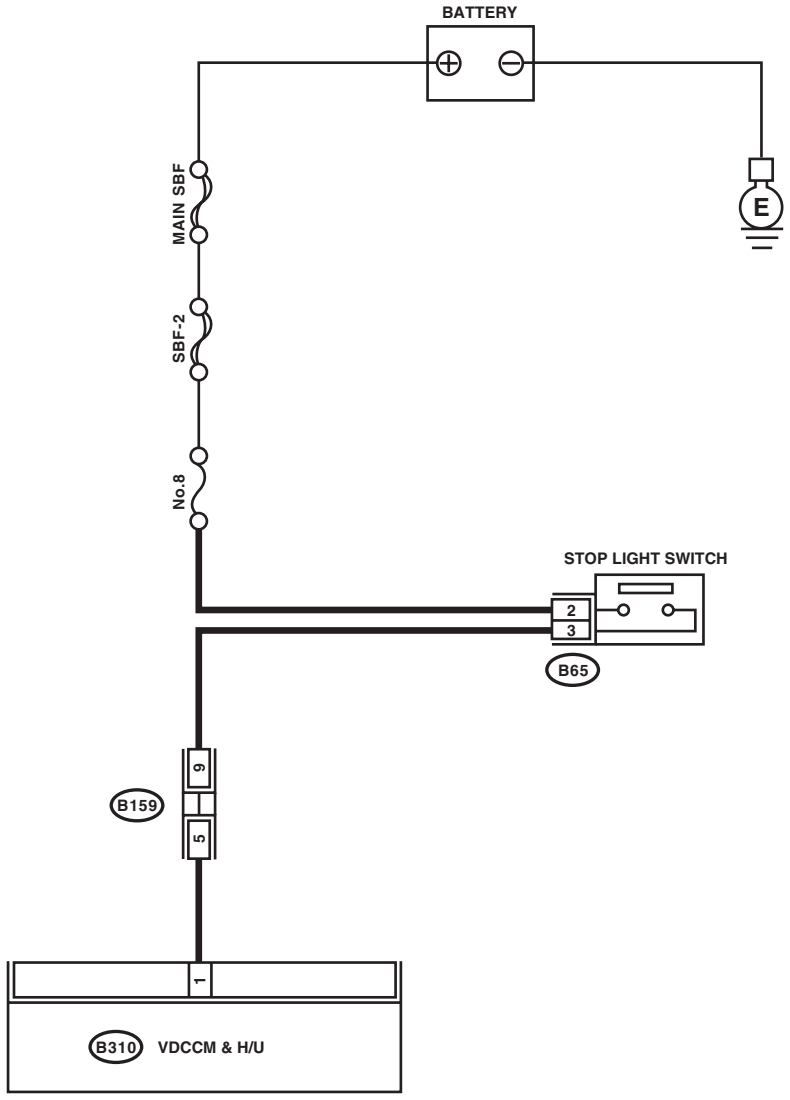


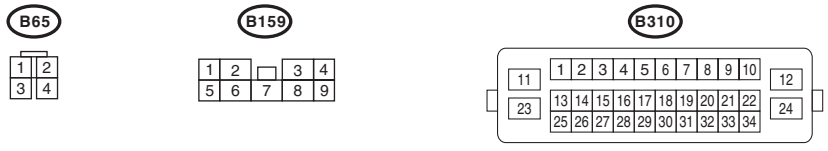
VDC00374

	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. 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 **5**.	Go to step **3**.
3	**CHECK IF STOP LIGHTS COME ON.** Depress the brake pedal.	Does the stop light illuminate?	Go to step **4**.	Repair the stop light circuit.
4	**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. 18 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **5**.	Repair the harness between stop light switch and VDCCM&H/U connector.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between stop light switch and VDCCM&H/U?	Go to step **6**.	Repair the connector.
6	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00622

	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. 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 **5**.	Go to step **3**.
3	**CHECK IF STOP LIGHTS COME ON.** Depress the brake pedal.	Does the stop light illuminate?	Go to step **4**.	Repair the stop light circuit.
4	**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. 1 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **5**.	Repair the harness between stop light switch and VDCCM&H/U connector.
5	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector between stop light switch and VDCCM&H/U?	Go to step **6**.	Repair the connector.
6	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **7**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AI: DTC C0056 G SENSOR OUTPUT FREEZE

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

	Step	Check	Yes	No
1	**CHECK G SENSOR OUTPUT.** 1) Connect the Subaru Select Monitor to the vehicle. 2) Select {Current Data Display & Save} in Subaru Select Monitor. 3) Read the G sensor output when braking.	Do the values on the monitor display change?	Go to step **2**.	Replace the yaw rate & lateral G sensor.
2	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U.	Go to step **3**.
3	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AJ:DTC C0056 G SENSOR SIGNAL MALFUNCTION

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

	Step	Check	Yes	No
1	**CHECK YAW RATE & LATERAL G SENSOR INSTALLATION.** Check the yaw rate & lateral G sensor installation.	Are the yaw rate & lateral G sensor and bracket tightened to a torque of 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)?	Go to step **2**.	Tighten the yaw rate & lateral G sensor.
2	**CHECK G SENSOR OUTPUT.** 1) Connect the Subaru Select Monitor to the vehicle. 2) Select {Current Data Display & Save} in Subaru Select Monitor. 3) Read the G sensor output displayed on screen.	Is the value on the monitor display –1.5 — 1.5 m/s^2?	Go to step **3**.	Replace the yaw rate & lateral G sensor.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	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.	Temporary poor contact occurs.

AK:DTC C0056 YAW RATE G SENSOR POWER SUPPLY VOLTAGE MALFUNCTION

DTC DETECTING CONDITION:

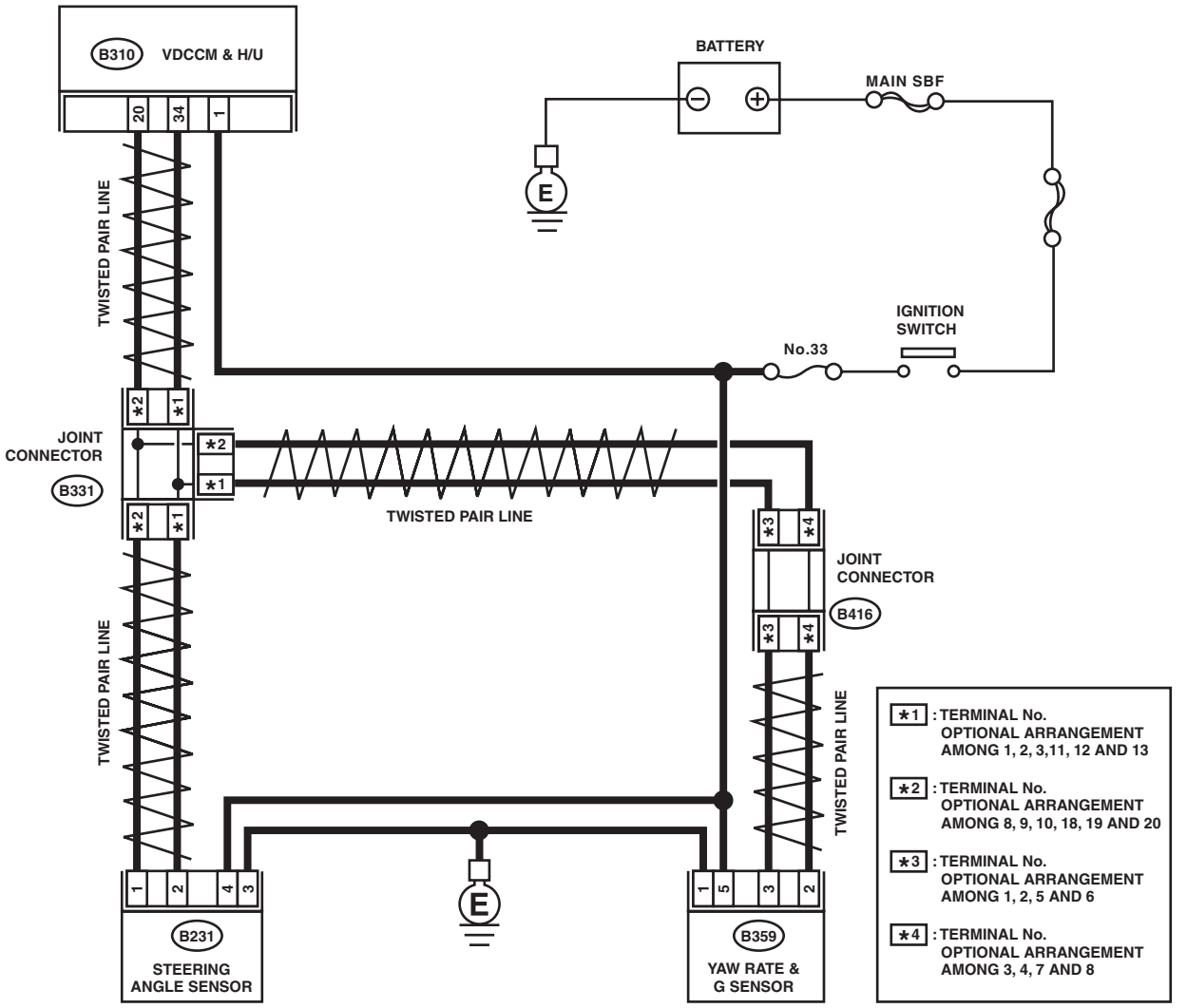
Defective G sensor

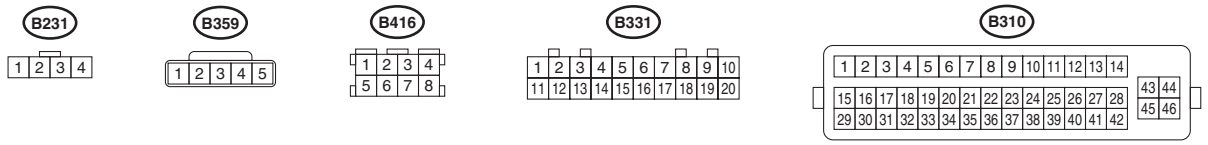
TROUBLE SYMPTOM:

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



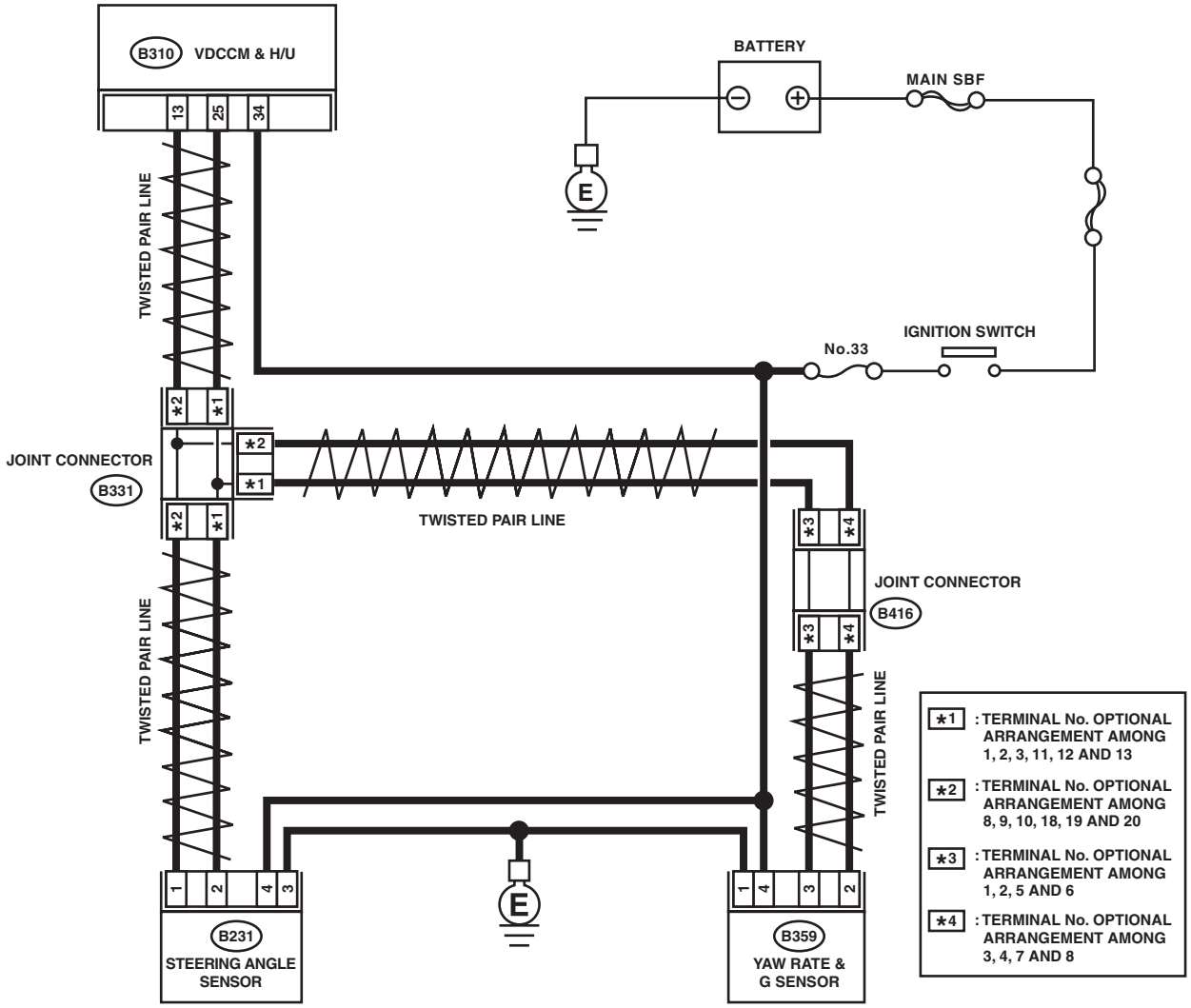


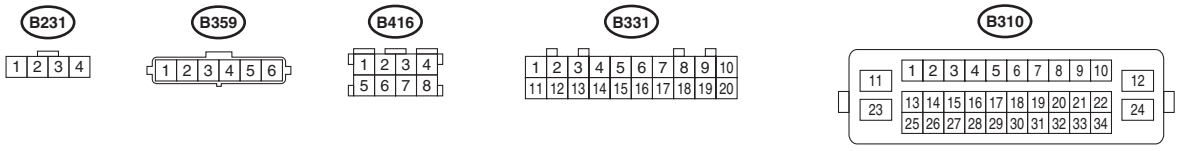
VDC00577

	Step	Check	Yes	No
1	**CHECK YAW RATE & LATERAL G SENSOR POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the yaw rate & lateral G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 5 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Replace the yaw rate & lateral G sensor power supply circuit.
2	**CHECK GROUND CIRCUIT OF YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the yaw rate & lateral G sensor connector and chassis ground. ***Connector & terminal*** ***(B359) No. 1 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the yaw rate & lateral G sensor ground circuit.
3	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	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.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00623

	Step	Check	Yes	No
1	**CHECK YAW RATE & LATERAL G SENSOR POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the yaw rate & lateral G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 4 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Replace the yaw rate & lateral G sensor power supply circuit.
2	**CHECK GROUND CIRCUIT OF YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the yaw rate & lateral G sensor connector and chassis ground. ***Connector & terminal*** ***(B359) No. 1 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the yaw rate & lateral G sensor ground circuit.
3	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	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.	Temporary poor contact occurs.

AL:DTC C0056 G SENSOR OUTPUT MALFUNCTION

DTC DETECTING CONDITION:

Defective G sensor

TROUBLE SYMPTOM:

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

	Step	Check	Yes	No
1	**CHECK YAW RATE & LATERAL G SENSOR INSTALLATION.** Check the yaw rate & lateral G sensor installation.	Are the yaw rate & lateral G sensor and bracket tightened to a torque of 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)?	Go to step **2**.	Tighten the yaw rate & lateral G sensor.
2	**CHECK G SENSOR OUTPUT.** 1) Connect the Subaru Select Monitor to the vehicle. 2) Select {Current Data Display & Save} in Subaru Select Monitor. 3) Drive at a constant speed of approximately 40 km/h (25 MPH) and read the G sensor output at that time.	Is the indicated reading on the monitor display –1.5 — 1.5 m/s^2?	Go to step **3**.	Replace the yaw rate & lateral G sensor.
3	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	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.	Temporary poor contact occurs.

AM:DTC C0057 ECM COMMUNICATION

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

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, 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 in 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. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

AN:DTC C0057 AT COMMUNICATION

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)-24, 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 in 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 5AT-60, Transmission Control Module (TCM).>
4	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U.	Go to step **5**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AO:DTC C0057 TRANSMISSION SYSTEM FAILURE

DTC DETECTING CONDITION:
Transmission System Defect
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. 3) Perform the Inspection Mode. 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U.	Go to step **3**.
3	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AP:DTC C0057 ENGINE SYSTEM FAILURE

DTC DETECTING CONDITION:
Defective engine system
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

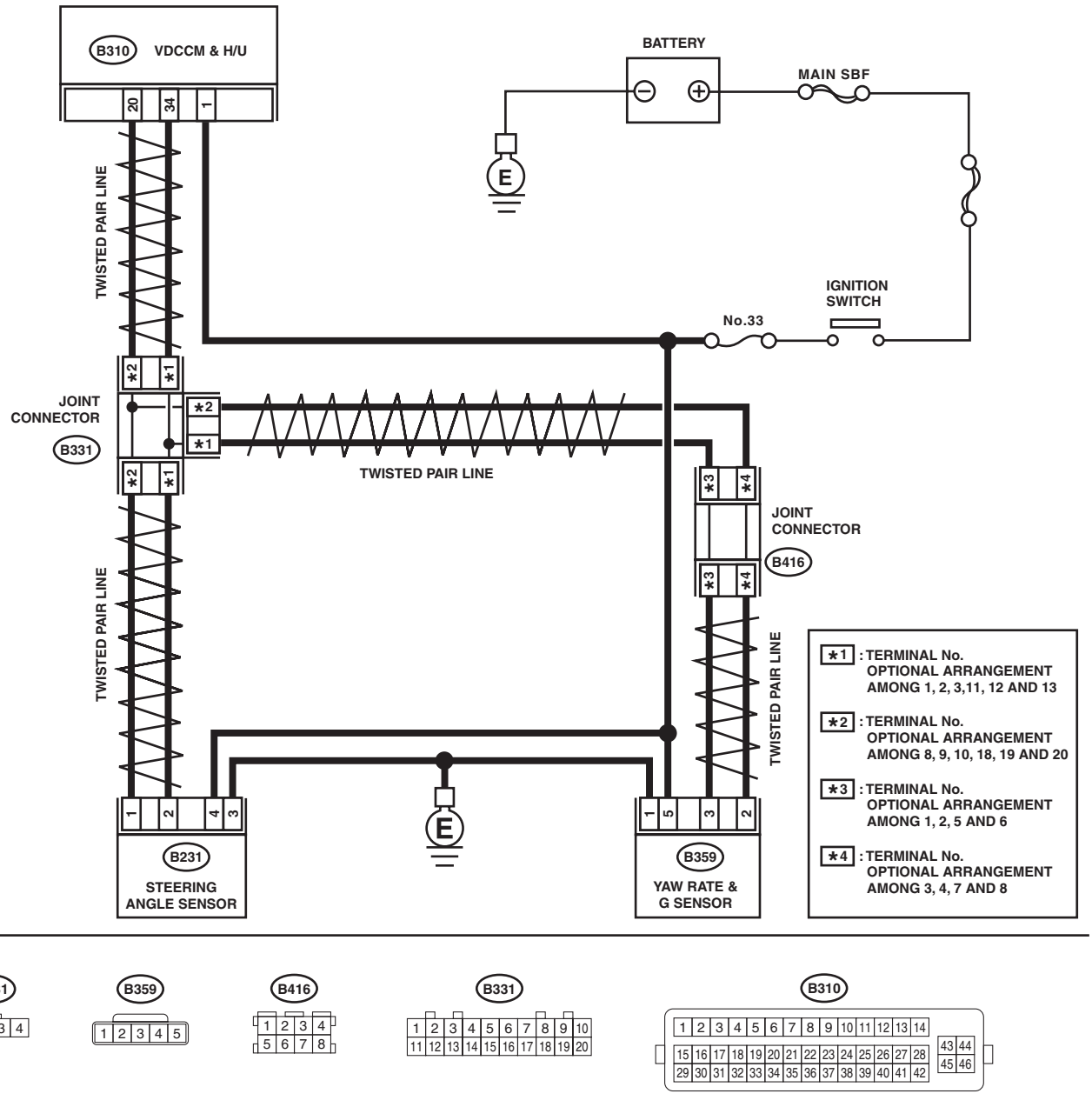
	Step	Check	Yes	No
1	**CHECK ECM.** Read DTC of ECM. <Ref. to EN(H6DO)(diag)-43, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC.	Is the same DTC displayed?	Replace the VDCCM&H/U.	Go to step **3**.
3	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AQ:DTC C0071 STEERING ANGLE SENSOR INTERNAL PROBLEM MALFUNCTION

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:

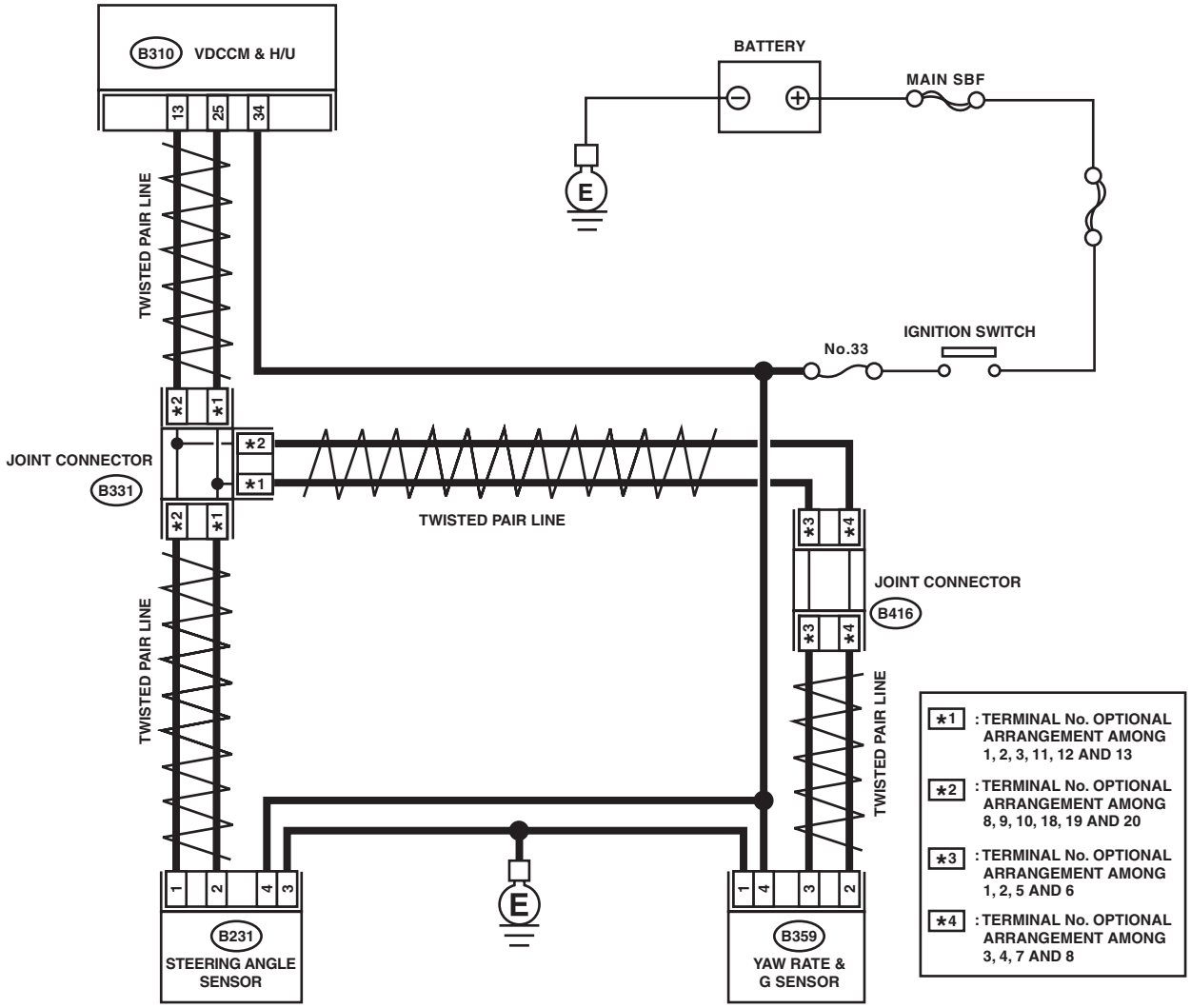


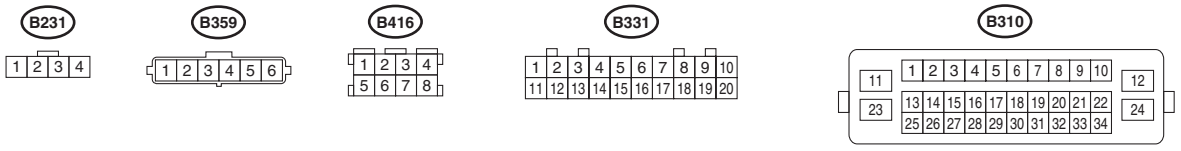
VDC00577

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY OF THE 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 power supply circuit in the steering angle sensor.
2	**CHECK GROUND CIRCUIT OF STEERING ANGLE SENSOR.** Measure the voltage between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 3 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair ground circuit in the steering angle sensor.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector?	Correct or replace the connector.	Go to step **4**.
4	**CHECK STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Replace the steering angle sensor.	Go to step **5**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00623

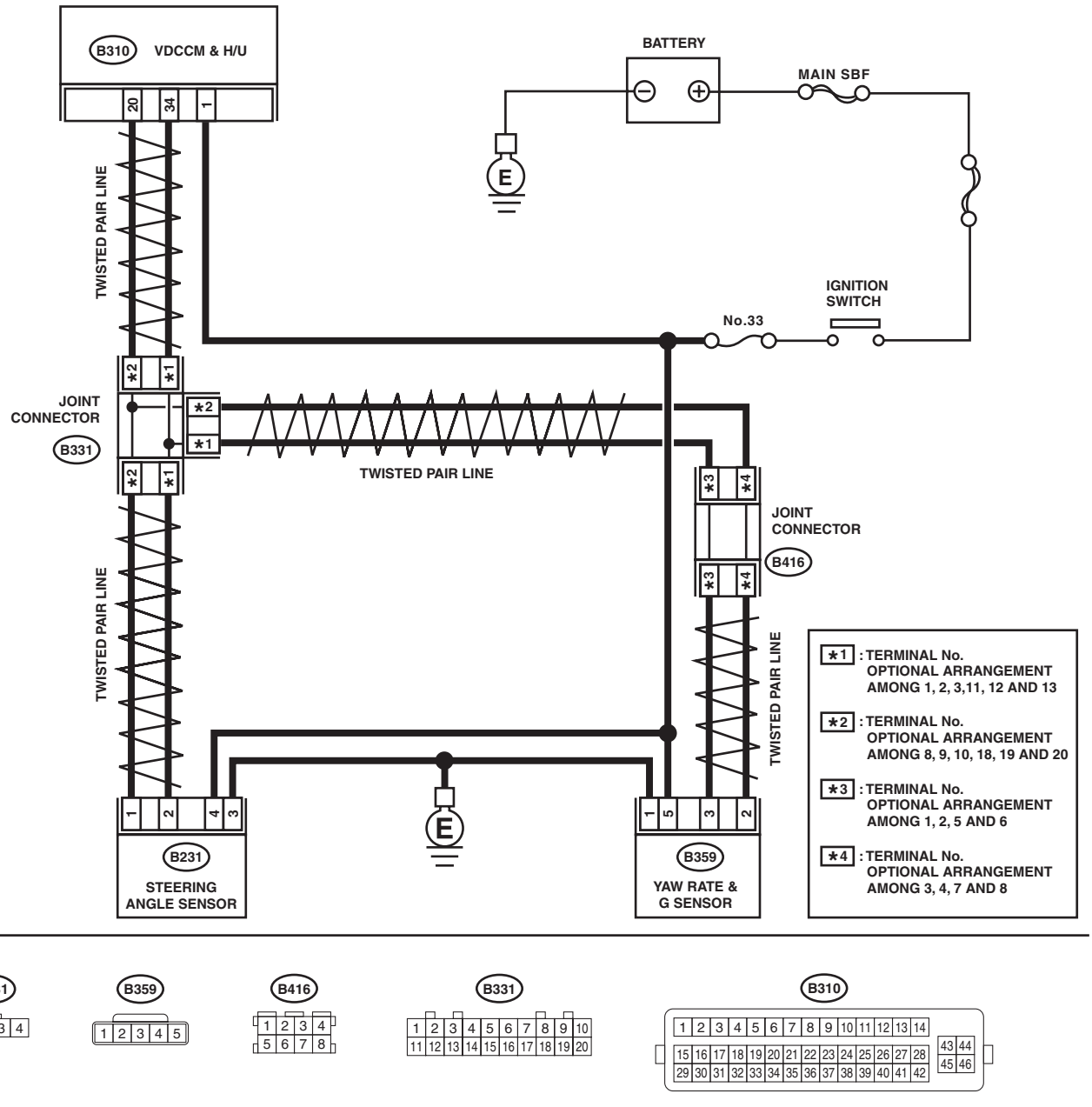
	Step	Check	Yes	No
1	**CHECK POWER SUPPLY OF THE STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from steering angle sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 4 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **2**.	Repair power supply circuit in the steering angle sensor.
2	**CHECK GROUND CIRCUIT OF STEERING ANGLE SENSOR.** Measure the voltage between steering angle sensor and chassis ground. ***Connector & terminal*** ***(B231) No. 3 (+) — Chassis ground (–):***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair ground circuit in the steering angle sensor.
3	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector?	Correct or replace the connector.	Go to step **4**.
4	**CHECK STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Replace the steering angle sensor.	Go to step **5**.
5	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AR:DTC C0071 STEERING ANGLE SENSOR COMMUNICATION MALFUNCTION

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:

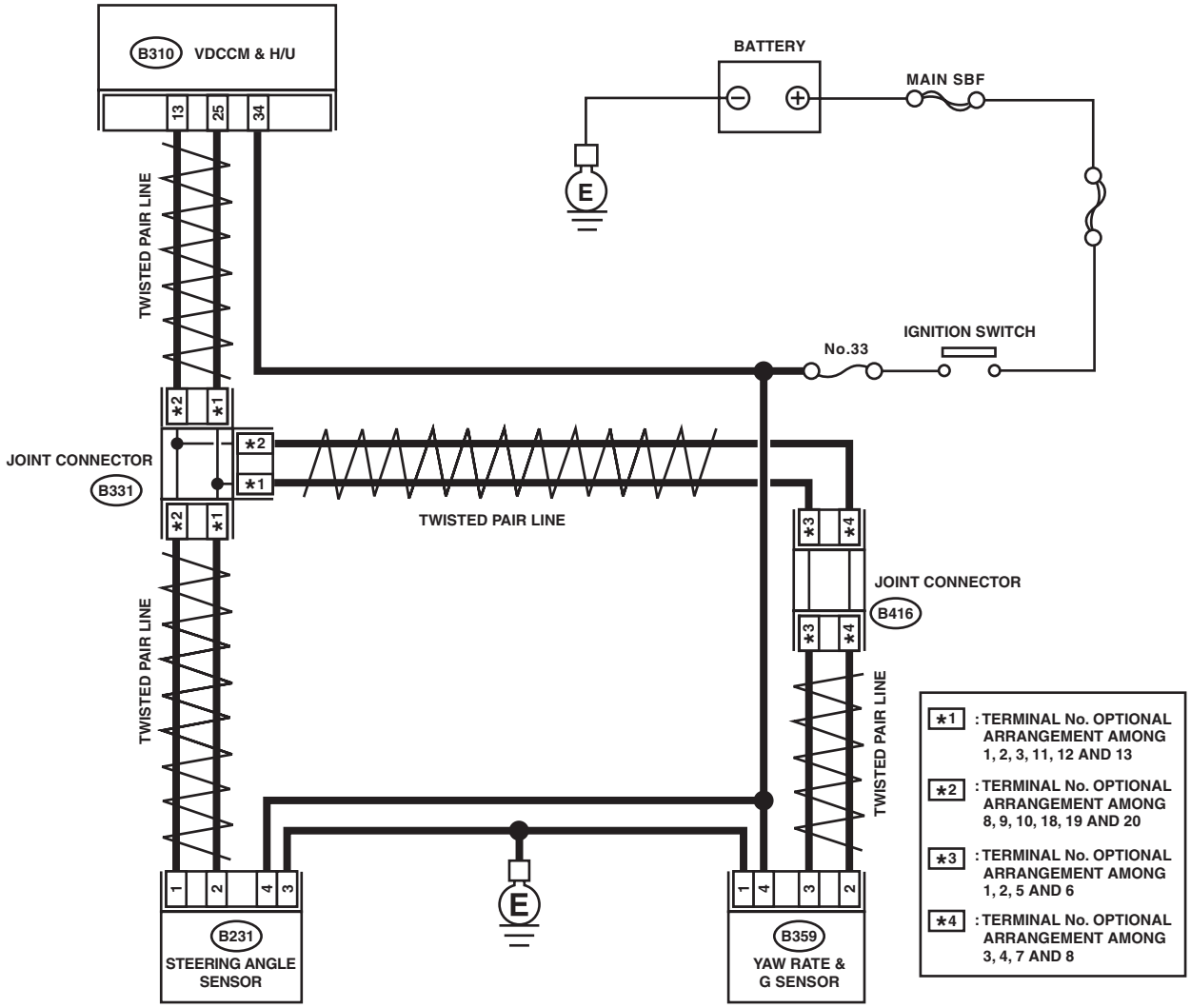


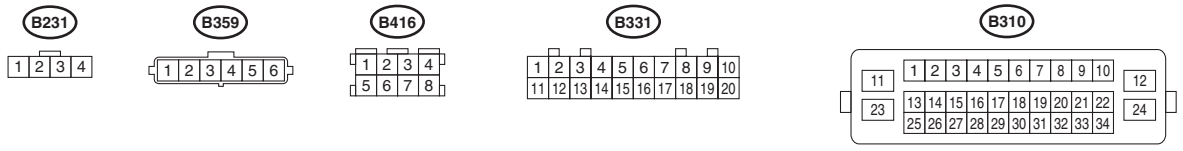
VDC00577

	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.
2	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, 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 **3**.
3	**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 **4**.	Repair the power supply circuit.
4	**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 0.5 Ω?	Go to step **5**.	Repair ground circuit in the steering angle sensor.
5	**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. 20:*** ***(B231) No. 2 — (B310) No. 34:***	Is the resistance less than 0.5 Ω?	Go to step **6**.	Repair the harness between the steering angle sensor and VDCCM&H/U.
6	**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 **7**.	Repair the harness between the steering angle sensor and VDCCM&H/U.
7	**CHECK STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Go to step **8**.	Go to step **9**.
8	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the steering angle sensor. 3) Clear the memory. 4) Perform the Inspection Mode. 5) 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 **10**.
9	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.
10	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Original steering angle sensor malfunction

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00623

	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.
2	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, 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 **3**.
3	**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 **4**.	Repair the power supply circuit.
4	**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 0.5 Ω?	Go to step **5**.	Repair ground circuit in the steering angle sensor.
5	**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. 13:*** ***(B231) No. 2 — (B310) No. 25:***	Is the resistance less than 0.5 Ω?	Go to step **6**.	Repair the harness between the steering angle sensor and VDCCM&H/U.
6	**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 **7**.	Repair the harness between the steering angle sensor and VDCCM&H/U.
7	**CHECK STEERING ANGLE SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Go to step **8**.	Go to step **9**.
8	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Replace the steering angle sensor. 3) Clear the memory. 4) Perform the Inspection Mode. 5) 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 **10**.
9	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.
10	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Original steering angle sensor malfunction

AS:DTC C0071 STEERING ANGLE SENSOR SIGNAL FREEZE

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

	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.
2	**CHECK DRIVING PLACE.** 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 **3**.
3	**CHECK OUTPUT OF STEERING ANGLE SENSOR WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. 2) Read the steering angle sensor output displayed on display.	Does the steering angle sensor output value on the display vary in accordance with steering operation when turning the steering wheel to the right or left?	Go to step **4**.	Replace the steering angle sensor.
4	**CHECK VDCCM&H/U.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) 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.	Temporary poor contact occurs.

AT:DTC C0071 STEERING ANGLE SENSOR CALIBRATION NON COMPLETION

DTC DETECTING CONDITION:
Steering angle sensor calibration is incomplete.
TROUBLE SYMPTOM:
VDC does not operate.
Calibrate the steering angle sensor. <Ref. to VDC-16, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

AU:DTC C0072 YAW RATE SENSOR OSCILLATION MALFUNCTION

NOTE:
For the diagnostic procedure, refer to DTC C0072 “YAW RATE SENSOR SIGNAL MALFUNCTION”. <Ref. to VDC(diag)-120, DTC C0072 YAW RATE SENSOR SIGNAL MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AV:DTC C0072 YAW RATE SENSOR SIGNAL MALFUNCTION

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

	Step	Check	Yes	No
1	**CHECK DRIVING PLACE.** 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 & LATERAL G SENSOR INSTALLATION.**	Is the yaw rate & lateral 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 & lateral G sensor installation bolt.
3	**CHECK OUTPUT OF YAW RATE & LATERAL 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. 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 & lateral 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. 4) Read the steering angle sensor output displayed on display.	Is the reading indicated on monitor display –5 — 5°?	Go to step **5**.	Calibrate the steering angle sensor.
5	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the 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 & lateral G sensor. 3) Clear the memory. 4) Perform the Inspection Mode. 5) 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**.
7	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.
8	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Malfunction is found in original yaw rate & lateral G sensor.

AW:DTC C0056 G SENSOR INTERNAL PROBLEM MALFUNCTION

NOTE:
For the diagnostic procedure, refer to “DTC C0072 YAW RATE SENSOR INTERNAL PROBLEM MALFUNCTION”. <Ref. to VDC(diag)-121, DTC C0072 YAW RATE SENSOR INTERNAL PROBLEM MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AX:DTC C0072 YAW RATE SENSOR INTERNAL PROBLEM MALFUNCTION

DTC DETECTING CONDITION:
Yaw rate & lateral G sensor malfunction
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

	Step	Check	Yes	No
1	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Clear the memory. 2) Perform the Inspection Mode. 3) Read the DTC.	Is the same DTC displayed?	Replace the yaw rate & lateral G sensor.	Go to step **2**.
2	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

AY:DTC C0056 G SENSOR COMMUNICATION MALFUNCTION

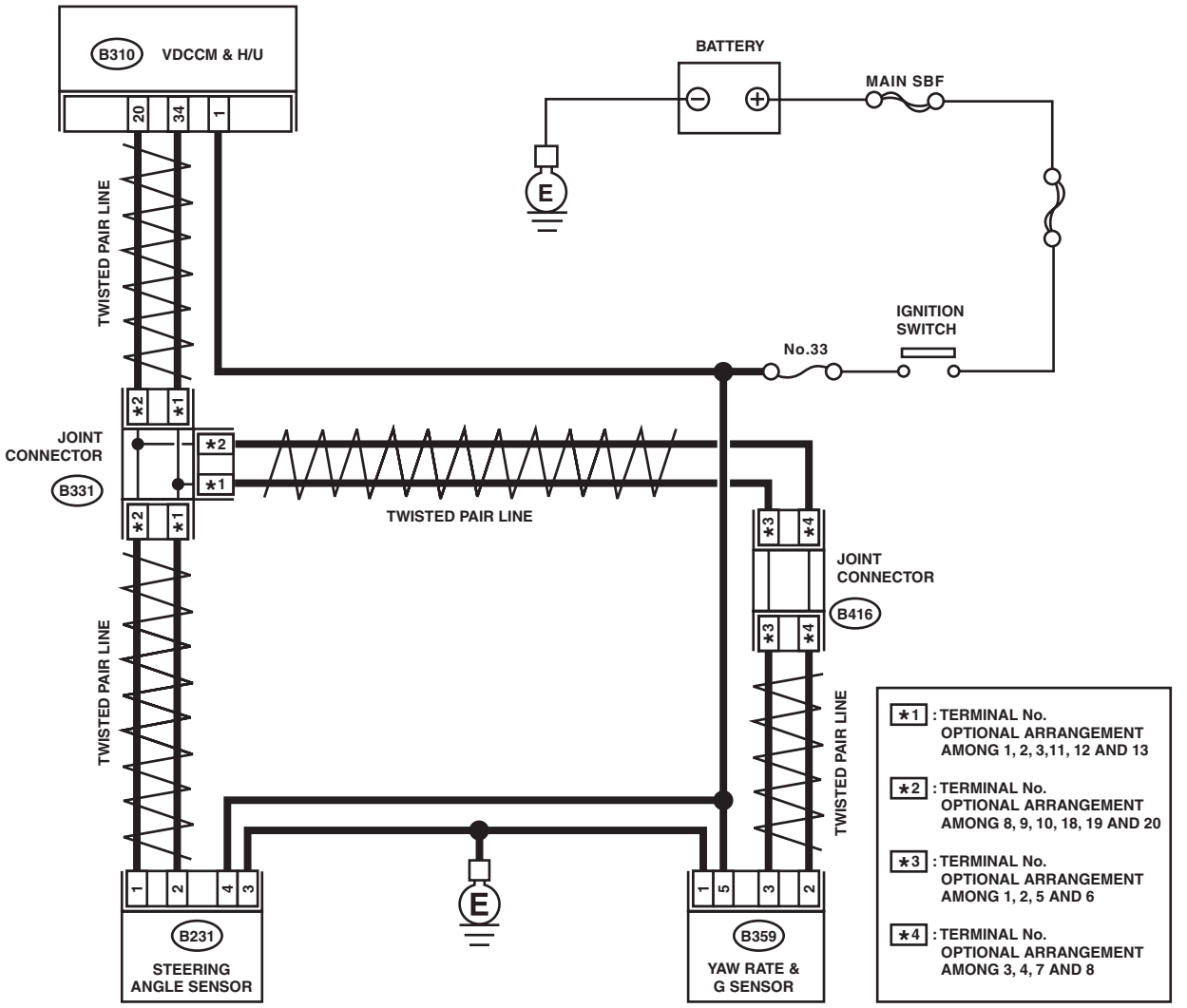
NOTE:
For the diagnostic procedure, refer to “DTC C0072 YAW RATE SENSOR COMMUNICATION MALFUNCTION”. <Ref. to VDC(diag)-122, DTC C0072 YAW RATE SENSOR COMMUNICATION MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

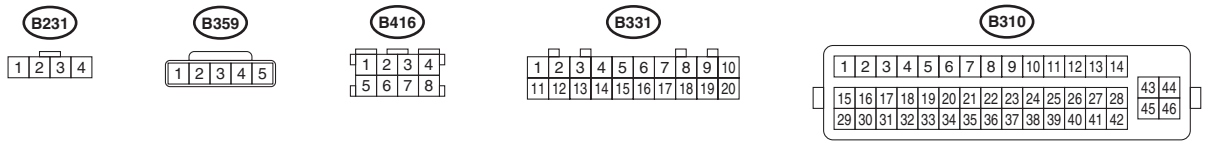
AZ:DTC C0072 YAW RATE SENSOR COMMUNICATION MALFUNCTION

DTC DETECTING CONDITION:
Yaw rate & lateral G sensor malfunction
TROUBLE SYMPTOM:
- ABS does not operate.
- VDC does not operate.

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



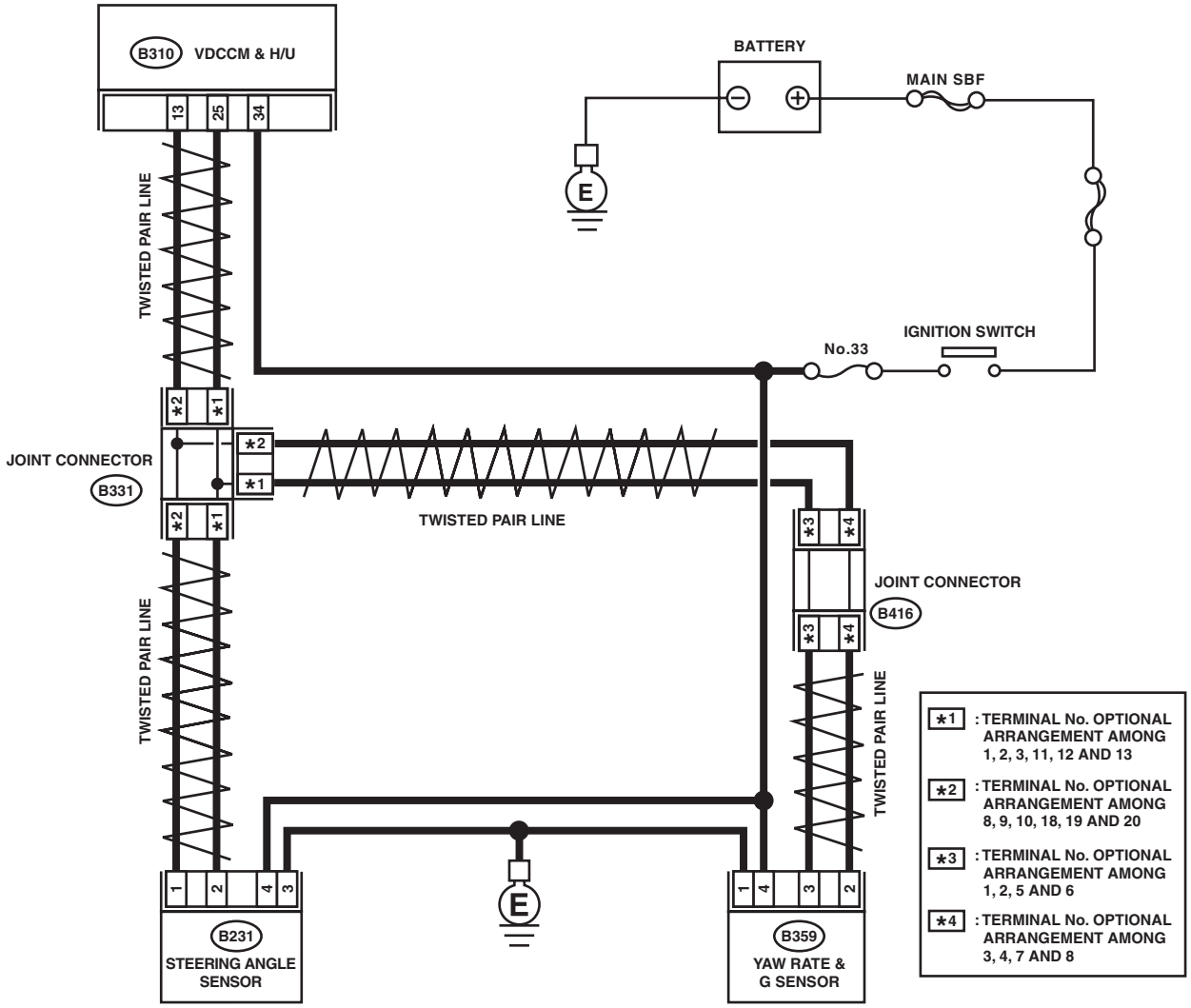


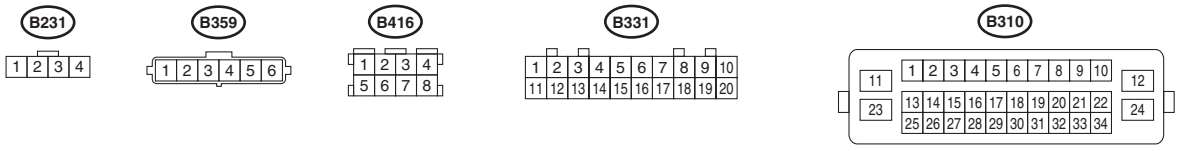
VDC00577

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** 1) Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, 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 YAW RATE & LATERAL G SENSOR POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the yaw rate & lateral G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 5 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **3**.	Replace the yaw rate & lateral G sensor power supply circuit.
3	**CHECK GROUND CIRCUIT OF YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 1 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **4**.	Repair the yaw rate & lateral G sensor ground circuit.
4	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector?	Correct or replace the connector.	Go to step **5**.
5	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Replace the yaw rate & lateral G sensor.	Go to step **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00623

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** 1) Perform the diagnosis for LAN system. <Ref. to LAN(diag)-24, 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 YAW RATE & LATERAL G SENSOR POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from the yaw rate & lateral G sensor. 3) Turn the ignition switch to ON. 4) Measure the voltage between yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 4 (+) — Chassis ground (–):***	Is the voltage 10 — 15 V?	Go to step **3**.	Replace the yaw rate & lateral G sensor power supply circuit.
3	**CHECK GROUND CIRCUIT OF YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the yaw rate & lateral G sensor and chassis ground. ***Connector & terminal*** ***(B359) No. 1 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **4**.	Repair the yaw rate & lateral G sensor ground circuit.
4	**CHECK POOR CONTACT OF CONNECTORS.**	Is there poor contact in connector?	Correct or replace the connector.	Go to step **5**.
5	**CHECK YAW RATE & LATERAL G SENSOR.** 1) Turn the ignition switch to OFF. 2) Connect all connectors. 3) Clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC.	Is the same DTC displayed?	Replace the yaw rate & lateral G sensor.	Go to step **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

BA:DTC C0074 PRESSURE SENSOR SIGNAL FREEZE

NOTE:
For the diagnostic procedure, refer to “DTC C0074 PRESSURE SENSOR OPEN CIRCUIT”. <Ref. to VDC(diag)-126, DTC C0074 PRESSURE SENSOR OPEN CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BB:DTC C0074 PRESSURE SENSOR OUTPUT RISE

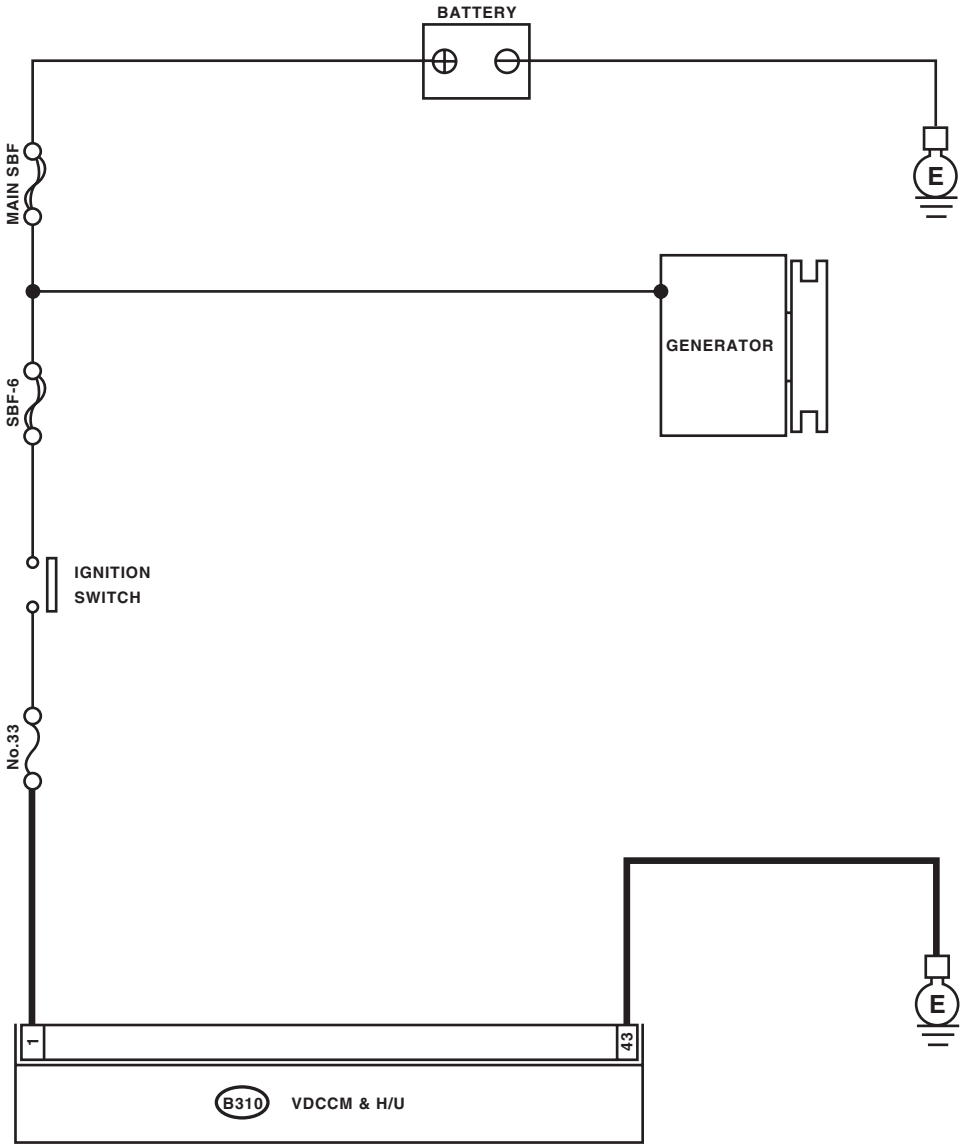
NOTE:
For the diagnostic procedure, refer to “DTC C0074 PRESSURE SENSOR OPEN CIRCUIT”. <Ref. to VDC(diag)-126, DTC C0074 PRESSURE SENSOR OPEN CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

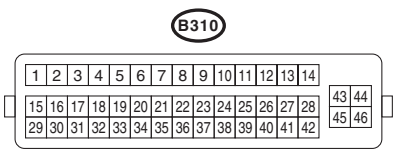
BC:DTC C0074 PRESSURE SENSOR OPEN CIRCUIT

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



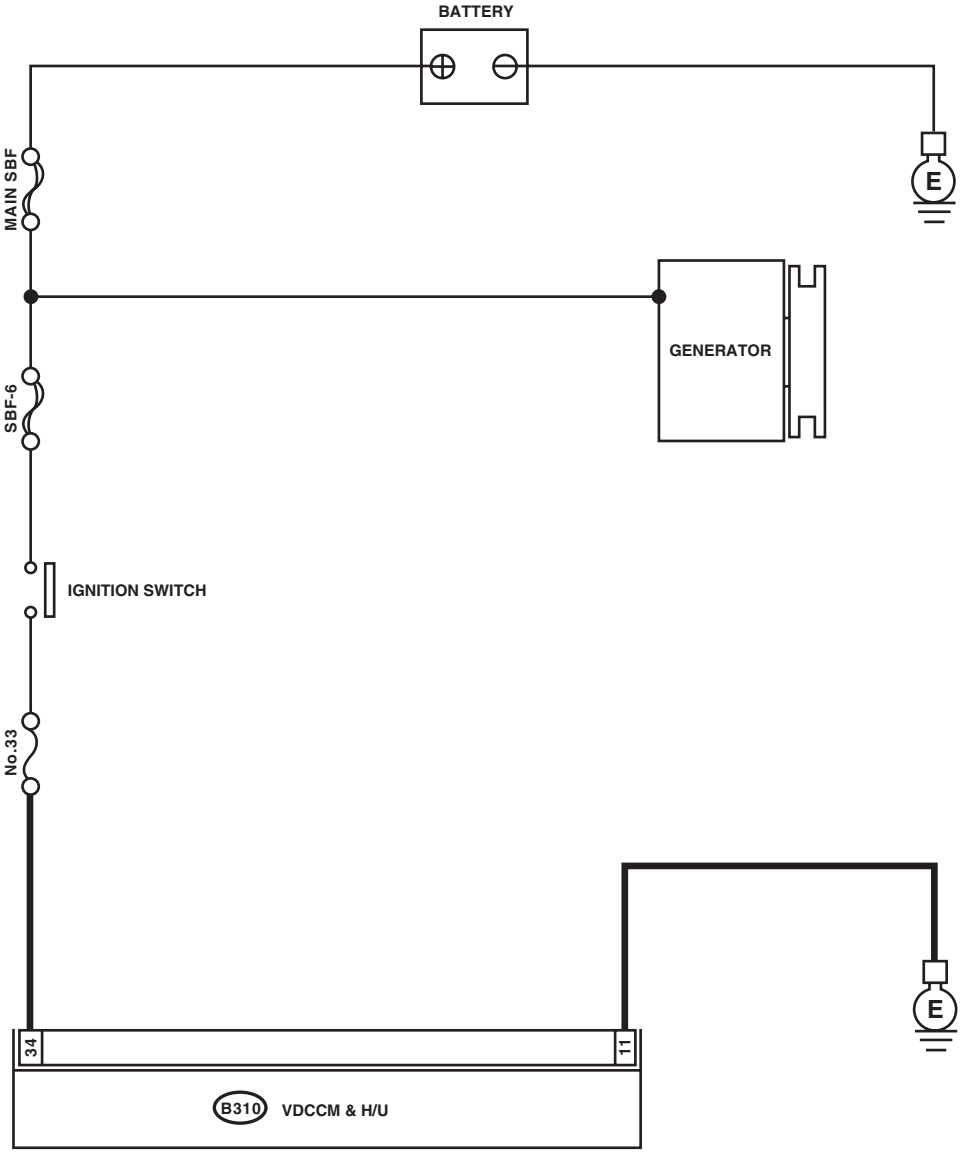


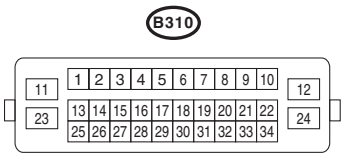
VDC00371

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U POWER 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. 1 (+) — 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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK PRESSURE SENSOR.** 1) Connect the Subaru Select Monitor to the vehicle. 2) Select {Current Data Display & Save} in Subaru Select Monitor. 3) Depress the brake pedal. 4) Read the pressure switch output in Subaru Select Monitor.	Do the values on the monitor display change when the pedal is depressed?	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 VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00624

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U POWER 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. 34 (+) — 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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK PRESSURE SENSOR.** 1) Connect the Subaru Select Monitor to the vehicle. 2) Select {Current Data Display & Save} in Subaru Select Monitor. 3) Depress the brake pedal. 4) Read the pressure switch output in Subaru Select Monitor.	Do the values on the monitor display change when the pedal is depressed?	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 VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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.	Temporary poor contact occurs.

BD:DTC C0074 PRESSURE SENSOR 0 POINT

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

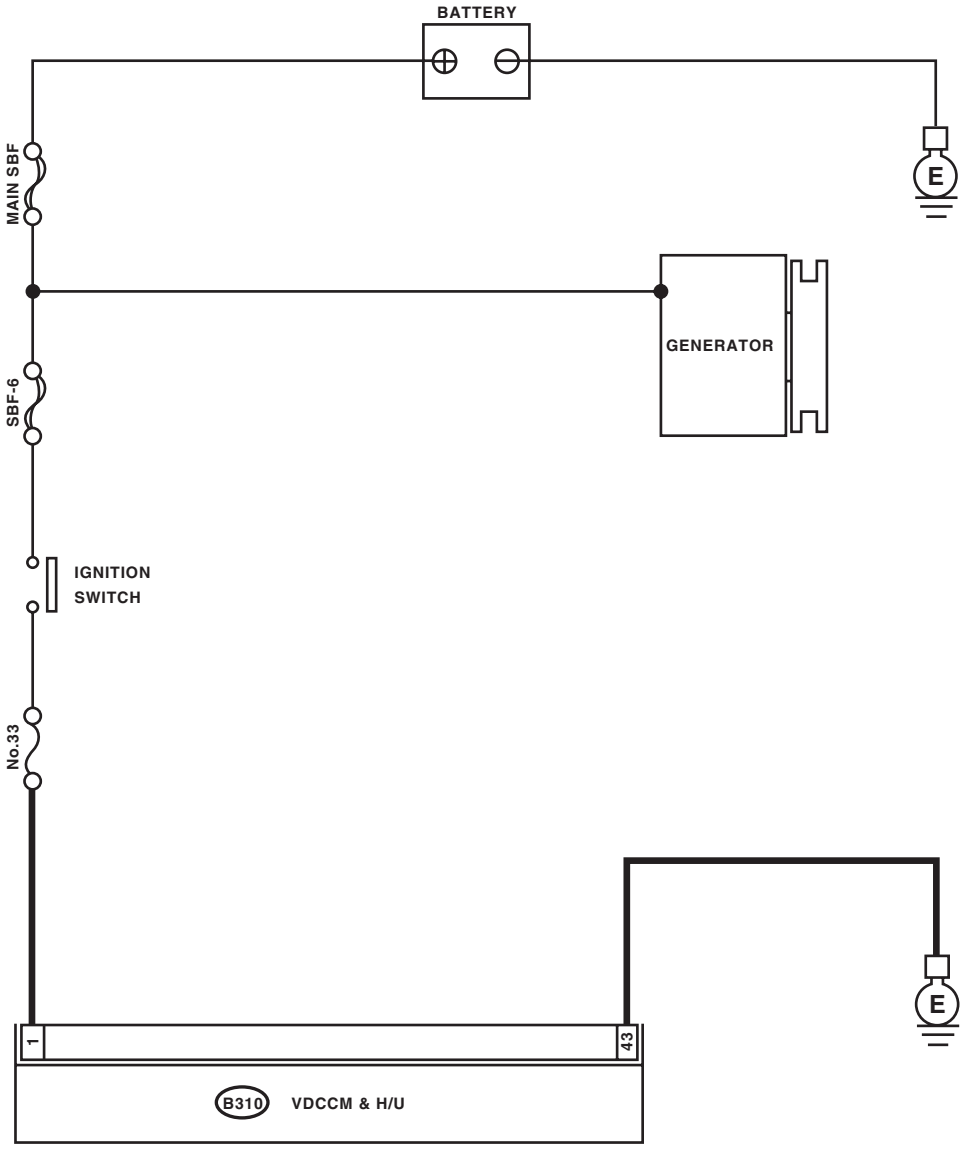
	Step	Check	Yes	No
1	**CHECK OUTPUT OF STOP LIGHT SWITCH WITH SUBARU SELECT MONITOR.** 1) Select {Current Data Display & Save} in Subaru Select Monitor. 2) Release the brake pedal. 3) Read the stop light switch output in Subaru Select Monitor.	Is OFF displayed on the display screen?	Go to step **2**.	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 **4**.	Go to step **3**.
3	**CHECK IF STOP LIGHTS COME ON.** 1) Depress the brake pedal.	Does the stop light illuminate?	Go to step **4**.	Repair the stop light circuit.
4	**CHECK PRESSURE SENSOR.** 1) Depress the brake pedal. 2) Read the pressure sensor output using the Subaru Select Monitor.	Do the output values on the monitor display change when the pedal is depressed?	Go to step **5**.	Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

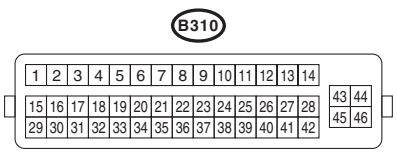
BE:DTC C0074 PRESSURE SENSOR NOISE

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

1. VDC CONTROL MODULE IDENTIFICATION MARK W2

WIRING DIAGRAM:



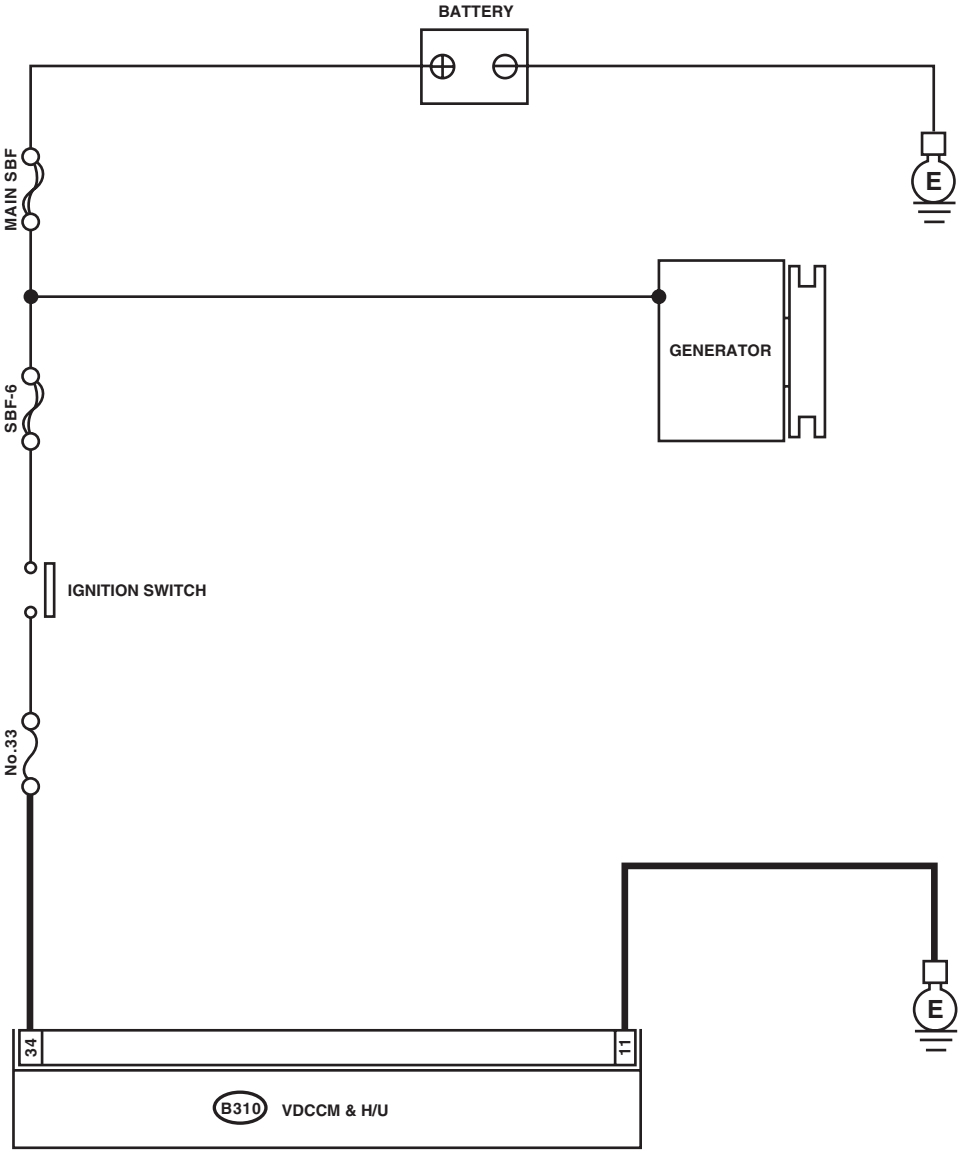


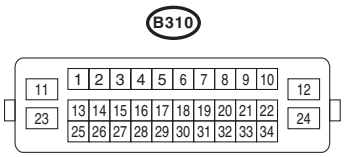
VDC00371

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U POWER 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. 1 (+) — 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. 43 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK CAUSE OF SIGNAL NOISE.** Check if the noise sources (such as an antenna) are installed near the VDCCM&H/U.	Are noise sources installed?	Install the noise sources apart from the VDCCM&H/U.	Go to step **4**.
4	**CHECK PRESSURE SENSOR.** 1) Depress the brake pedal. 2) Read the pressure switch output in Subaru Select Monitor.	Do the output values on the monitor display change when the pedal is depressed?	Go to step **5**.	Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.

2. VDC CONTROL MODULE IDENTIFICATION MARK W3

WIRING DIAGRAM:





VDC00624

	Step	Check	Yes	No
1	**CHECK VDCCM&H/U POWER 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. 34 (+) — 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. 11 — Chassis ground:***	Is the resistance less than 0.5 Ω?	Go to step **3**.	Repair the VDCCM&H/U ground harness.
3	**CHECK CAUSE OF SIGNAL NOISE.** Check if the noise sources (such as an antenna) are installed near the VDCCM&H/U.	Are noise sources installed?	Install the noise sources apart from the VDCCM&H/U.	Go to step **4**.
4	**CHECK PRESSURE SENSOR.** 1) Depress the brake pedal. 2) Read the pressure switch output in Subaru Select Monitor.	Do the output values on the monitor display change when the pedal is depressed?	Go to step **5**.	Replace the VDCCM&H/U. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
5	**CHECK VDCCM&H/U.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 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 **6**.
6	**CHECK OTHER DTC DETECTION.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Temporary poor contact occurs.