13.Diagnostic Chart with Subaru Select Monitor

A: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

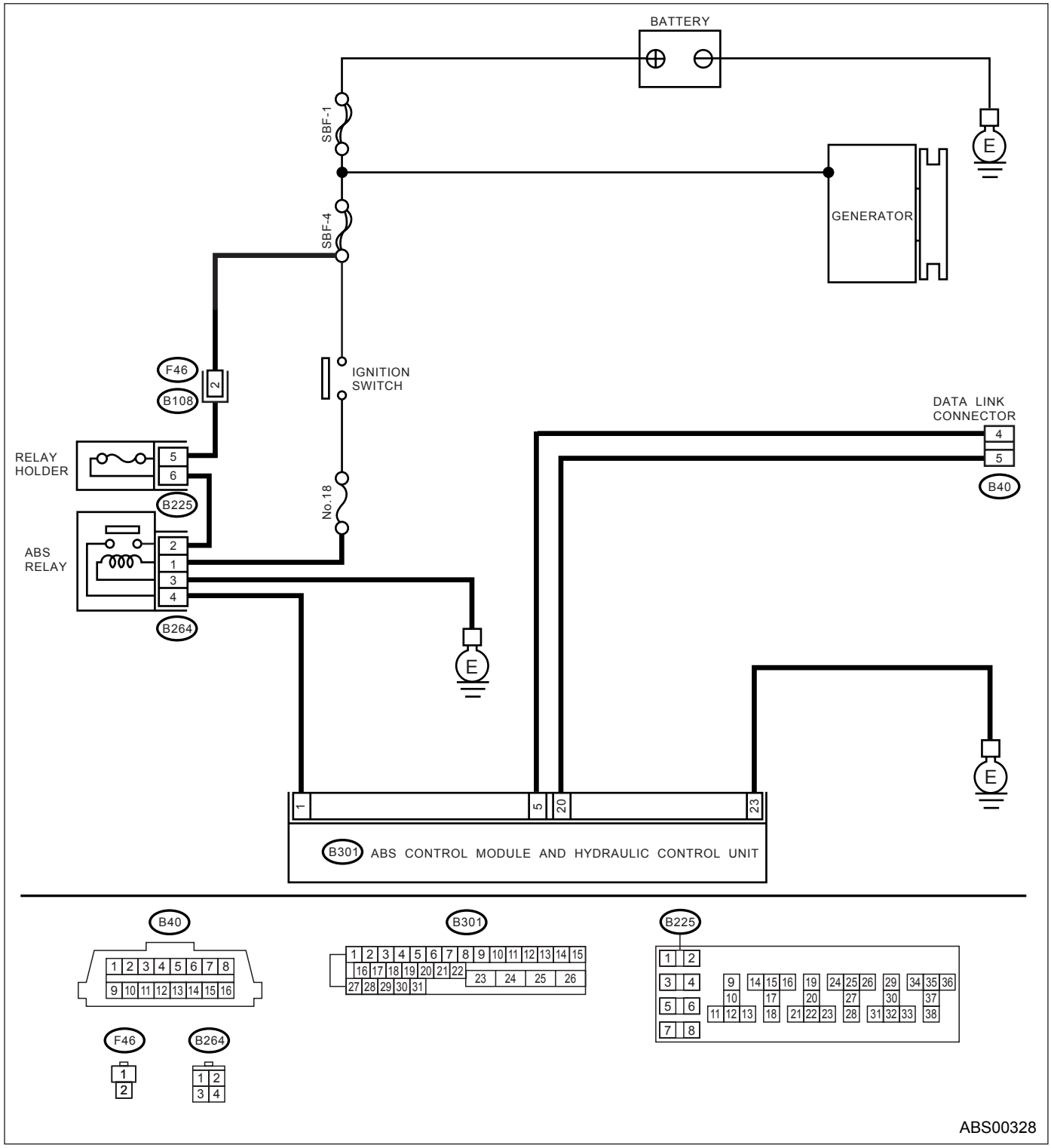
DIAGNOSIS:

- Faulty harness connector

TROUBLE SYMPTOM:

- ABS warning light remains on.

WIRING DIAGRAM:



ABS00328

	Step	Check	Yes	No
1	**CHECK IGNITION SWITCH.** Is the ignition switch turned to ON?	Ignition switch is turned to ON.	Go to step **2.**	Turn the ignition switch to ON, and select ABS mode using Subaru Select Monitor.
2	**CHECK BATTERY.** 1)Turn ignition switch to OFF. 2)Measure the battery voltage. Is the measured value more than the specified value?	11 V	Go to step **3.**	Charge or replace the battery.
3	**CHECK BATTERY TERMINALS.** Is there poor contact at battery terminals?	There is no poor contact.	Go to step **4.**	Repair or tighten battery terminals.
4	**CHECK COMMUNICATION OF SUBARU SELECT MONITOR.** 1)Turn ignition switch to ON. 2)Using the Subaru Select Monitor, check whether communication with other system is established normally. Are the name and year of system displayed on Subaru Select Monitor?	System name and model year are displayed.	Go to step **7.**	Go to step **5.**
5	**CHECK COMMUNICATION OF SUBARU SELECT MONITOR.** 1)Turn ignition switch to OFF. 2)Disconnect the ABSCM & H/U connector. 3)Turn ignition switch to ON. 4)Check whether communication with other systems is established normally. Are the name and year of system displayed on Subaru Select Monitor?	System name and model year are displayed.	Go to step **7.**	Go to step **6.**
6	**CHECK HARNESS CONNECTOR BETWEEN EACH CONTROL MODULE AND DATA LINK CONNECTOR.** 1)Turn ignition switch to OFF. 2)Disconnect the ABSCM & H/U, cruise control module and immobilizer control module connectors. 3)Measure the resistance between data link connector and chassis ground. ***Connector & terminal*** ***(B40) No. 5 — Chassis ground:*** ***(B40) No. 4 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **7.**	Repair the harness and connector between each control module and data link connector.
7	**CHECK OUTPUT SIGNAL FOR ABSCM & H/U.** 1)Turn ignition switch to ON. 2)Measure the voltage between ABSCM & H/U and chassis ground. ***Connector & terminal*** ***(B40) No. 5 (+) — Chassis ground (−):*** ***(B40) No. 4 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	1 V	Repair the harness and connector between each control module and data link connector.	Go to step **8.**

	Step	Check	Yes	No
8	**CHECK HARNESS/CONNECTOR BETWEEN ABSCM & H/U AND DATA LINK CONNECTOR.** Measure the resistance between ABSCM & H/U connector and data link connector. ***Connector & terminal*** ***(B301) No. 20 — (B40) No. 5:*** ***(B301) No. 5 — (B40) No. 4:*** Is the measured value less than the specified value?	0.5 Ω	Repair the harness and connector between ABSCM & H/U and data link connector.	Go to step **9.**
9	**CHECK INSTALLATION OF ABSCM & H/U CONNECTOR.** Turn ignition switch to OFF. Is the ABSCM & H/U connector inserted into ABSCM & H/U until the clamp locks onto it?	ABSCM & H/U connector is correctly inserted.	Go to step **10.**	Insert the ABSCM & H/U connector into ABSCM & H/U.
10	**CHECK INPUT VOLTAGE OF RELAY HOLDER.** 1)Turn ignition switch to OFF. 2)Remove fuse. 3)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B225) No. 5 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **11.**	Repair the open circuit in harness between battery and relay holder connector.
11	**CHECK RELAY HOLDER.** Is the fuse blown out?	The fuse is not blown out.	Go to step **12.**	Replace the fuse.
12	**CHECK INPUT VOLTAGE OF ABS RELAY.** 1)Install fuse. 2)Remove ABS relay. 3)Turn ignition switch to ON. 4)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 2 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **13.**	Repair the open circuit in harness between battery and relay holder connector.
13	**CHECK INPUT VOLTAGE OF ABS RELAY.** Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **14.**	Repair the harness connector between battery, ignition switch and ABS relay.
14	**CHECK GROUND CIRCUIT OF ABS RELAY.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 3 (+) — Chassis ground:*** Is the measured value less than the specified value?	5 Ω	Go to step **15.**	Repair open circuit between ABS relay and chassis ground.
15	**CHECK ABS RELAY.** 1)Connect the battery to ABS relay terminals No. 1 and No. 3. 2)Measure the resistance between ABS relay terminals. Is the measured value less than the specified value?	10 Ω	Go to step **16.**	Replace the ABS relay.

	Step	Check	Yes	No
16	**CHECK POWER SUPPLY CIRCUIT.** 1)Turn ignition switch to ON (engine OFF). 2)Measure the ignition power supply voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **17.**	Repair the open circuit in harness between ABSCM & H/U and battery.
17	**CHECK HARNESS / CONNECTOR BETWEEN ABSCM & H/U AND CHASSIS GROUND.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U and transmission. 3)Measure the resistance of harness between ABSCM & H/U and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	1 Ω	Go to step **18.**	Repair the open circuit in harness between ABSCM & H/U and inhibitor side connector, and poor contact in coupling connector.
18	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in control module power supply, ground line and data link connector?	There is no poor contact.	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>	Repair the connector.

B: NO TROUBLE CODE

DIAGNOSIS:

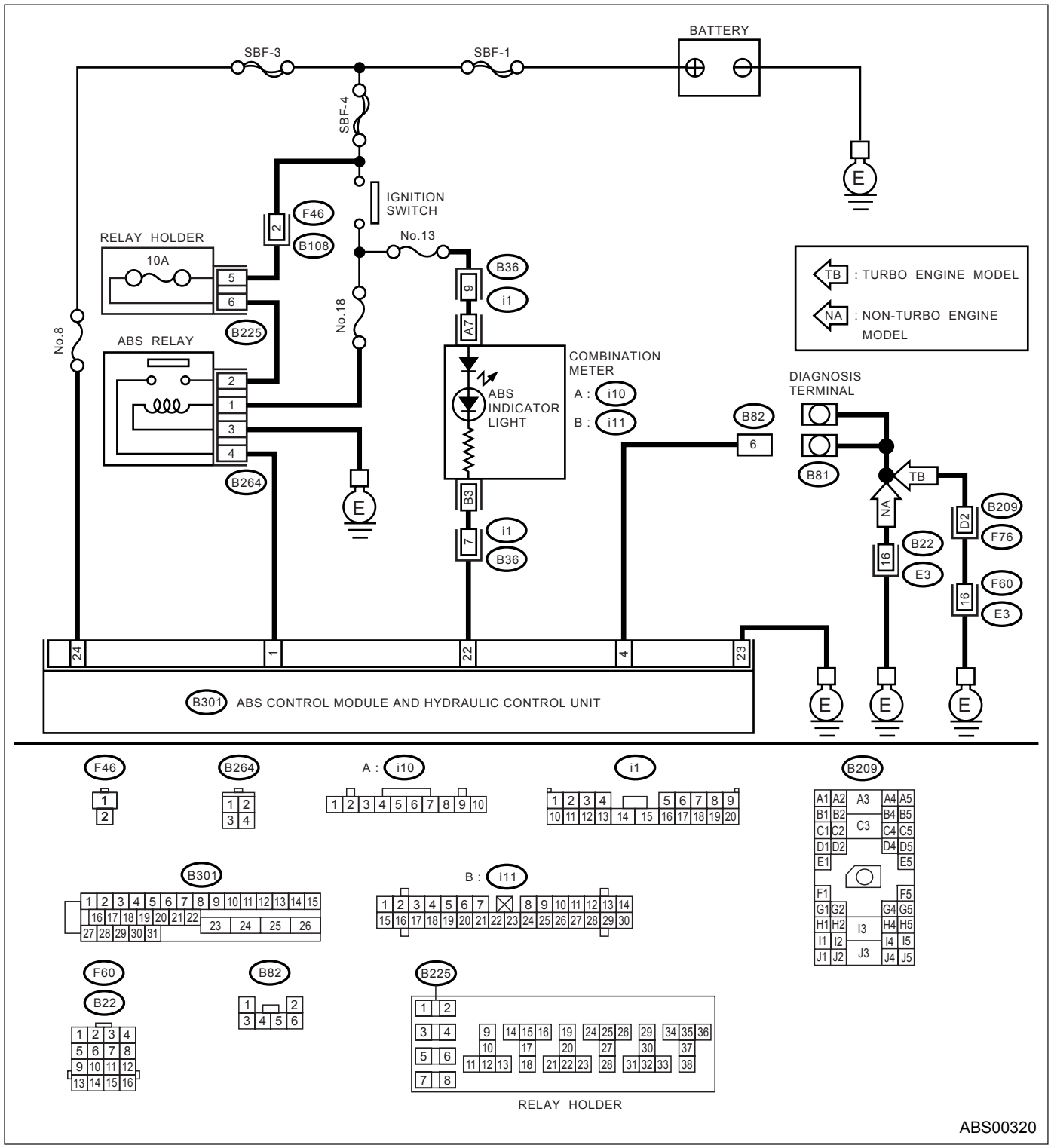
- ABS warning light circuit is shorted.

TROUBLE SYMPTOM:

- ABS warning light remains on.
- NO TROUBLE CODE displayed on the Subaru Select Monitor.

NOTE:
When the ABS warning light is OFF and “NO TROUBLE CODE” is displayed on Subaru Select Monitor, the system is in normal condition.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK WIRING HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector (i1) from connector (B36). 3)Turn ignition switch to ON. Does the ABS warning light turn on?	ABS warning light does not turn on.	Go to step **2.**	Repair the front wiring harness.
2	**CHECK TERMINAL AT ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Check for damage at the ABSCM & H/U terminal projection.	Terminal is not damaged.	Go to step **3.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
3	**CHECK ABSCM & H/U.** Measure the resistance between ABSCM & H/U terminals. ***Terminal*** ***No. 22 — No. 23:*** Is the measured value more than the specified value?	1 MΩ	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK WIRING HARNESS.** Measure the resistance between connector and chassis ground. ***Connector & terminal*** ***(B301) No. 22 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **5.**	Repair the harness.
5	**CHECK WIRING HARNESS.** 1)Connect the connector to ABSCM & H/U. 2)Measure the resistance between connector and chassis ground. ***Connector & terminal*** ***(B301) No. 22 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **6.**	Repair the harness.
6	**CHECK FOR POOR CONTACT IN ABSCM & H/U CONNECTOR.** Is there poor contact in ABSCM & H/U connector?	There is no poor contact.	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>	Repair the connector.

C: DTC 21 — OPEN OR SHORT CIRCUIT IN FRONT ABS SENSOR RH CIRCUIT —

NOTE:
For the diagnostic procedure, refer to DTC 27 . <Ref. to ABS-96, DTC 27 — OPEN OR SHORT CIRCUIT IN REAR ABS SENSOR LH CIRCUIT —, Diagnostic Chart with Subaru Select Monitor.>

D: DTC 23 — OPEN OR SHORT CIRCUIT IN FRONT ABS SENSOR LH CIRCUIT —

NOTE:
For the diagnostic procedure, refer to DTC 27 . <Ref. to ABS-96, DTC 27 — OPEN OR SHORT CIRCUIT IN REAR ABS SENSOR LH CIRCUIT —, Diagnostic Chart with Subaru Select Monitor.>

E: DTC 25 — OPEN OR SHORT CIRCUIT IN REAR ABS SENSOR RH CIRCUIT —

NOTE:
For the diagnostic procedure, refer to DTC 27 . <Ref. to ABS-96, DTC 27 — OPEN OR SHORT CIRCUIT IN REAR ABS SENSOR LH CIRCUIT —, Diagnostic Chart with Subaru Select Monitor.>

F: DTC 27 — OPEN OR SHORT CIRCUIT IN REAR ABS SENSOR LH CIRCUIT —

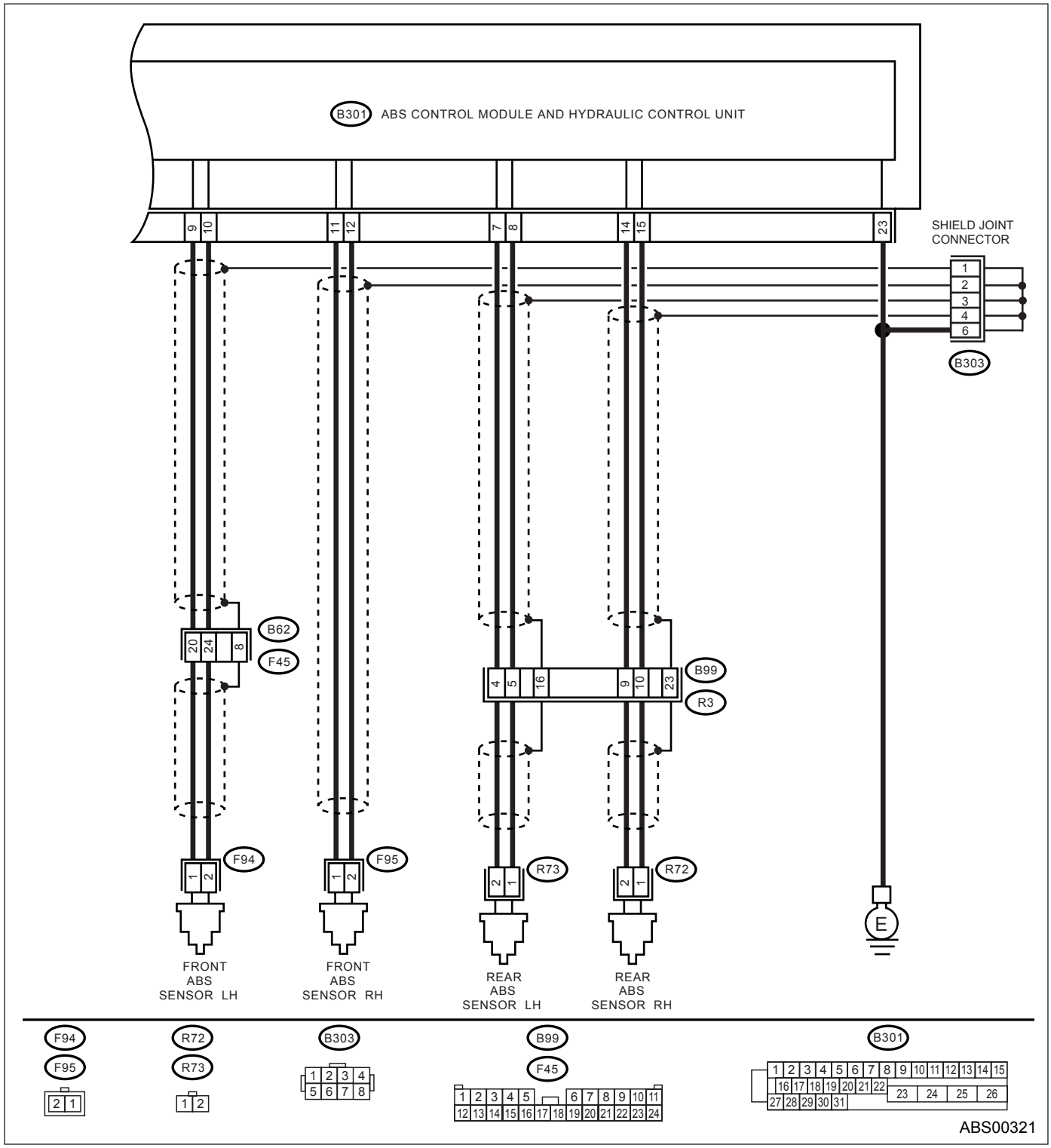
DIAGNOSIS:

- Faulty ABS sensor (broken wire, input voltage too high)
- Faulty harness connector

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK OUTPUT OF ABS SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read the ABS sensor output corresponding to the faulty system in the Subaru Select Monitor data display mode. Does the speed indicated on display change in response to speedometer reading during acceleration/deceleration when the steering wheel is in straight-ahead position?	Reading changes similarly.	Go to step **2.**	Go to step **8.**
2	**CHECK INSTALLATION OF ABS SENSOR.** Are the ABS sensor installation bolts tightened to the specified torque?	33 N·m (3.4 kgf-m, 24.6 ft-lb)	Go to step **3.**	Tighten the ABS sensor installation bolts securely.
3	**CHECK ABS SENSOR GAP.** Measure the gap between ABS sensor projection and tone wheel. Is the measured value within the specified range?	Front wheel: 0.3 — 0.8 mm (0.012 — 0.031 in) Rear wheel: 0.7 — 1.2 mm (0.028 — 0.047 in)	Go to step **4.**	Adjust the gap. NOTE: Adjust the gap using spacer (Part No. 26755AA000). If the gap cannot be corrected with spacers, replace damaged sensor or tone wheel.
4	**CHECK TONE WHEEL RUNOUT.** Measure the tone wheel runout. Is the measured value less than the specified value?	0.05 mm (0.0020 in)	Go to step **5.**	Replace the tone wheel. Front: <Ref. to ABS-21, Front Tone Wheel.> Rear: <Ref. to ABS-22, Rear Tone Wheel.>
5	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connectors between ABSCM & H/U and ABS sensor?	There is no poor contact.	Go to step **6.**	Repair the connector.
6	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **7.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
7	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact. NOTE: Check the harness and connectors between ABSCM & H/U and ABS sensor.	Proceed with the diagnosis corresponding to DTC.

	Step	Check	Yes	No
8	**CHECK ABS SENSOR.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABS sensor. 3)Measure the resistance of ABS sensor connector terminals while shaking the harness lightly. ***Terminal*** ***Front RH No. 1 — No. 2:*** ***Front LH No. 1 — No. 2:*** ***Rear RH No. 1 — No. 2:*** ***Rear LH No. 1 — No. 2:*** Is the measured value within the specified range?	Front: 1 — 1.5 kΩ Rear: 1.025 — 1.265 kΩ	Go to step **9.**	Replace the ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.>
9	**CHECK SHORT CIRCUIT TO BATTERY IN ABS SENSOR.** 1)Disconnect the connector from ABSCM & H/U. 2)Measure the voltage between ABS sensor and chassis ground. ***Terminal*** ***Front RH No. 1 (+) — Chassis ground (−):*** ***Front LH No. 1 (+) — Chassis ground (−):*** ***Rear RH No. 1 (+) — Chassis ground (−):*** ***Rear LH No. 1 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **10.**	Replace the ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.>
10	**CHECK SHORT CIRCUIT TO BATTERY IN ABS SENSOR.** 1)Turn ignition switch to ON. 2)Measure the voltage between ABS sensor and chassis ground. ***Terminal*** ***Front RH No. 1 (+) — Chassis ground (−):*** ***Front LH No. 1 (+) — Chassis ground (−):*** ***Rear RH No. 1 (+) — Chassis ground (−):*** ***Rear LH No. 1 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **11.**	Replace the ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.>
11	**CHECK HARNESS/CONNECTOR BETWEEN ABSCM & H/U AND ABS SENSOR.** 1)Turn ignition switch to OFF. 2)Connect the connector to ABS sensor. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal*** ***DTC 21 / (B301) No. 11 — No. 12:*** ***DTC 23 / (B301) No. 9 — No. 10:*** ***DTC 25 / (B301) No. 14 — No. 15:*** ***DTC 27 / (B301) No. 7 — No. 8:*** Is the measured value within the specified range?	Front: 1 — 1.5 kΩ Rear: 1.025 — 1.265 kΩ	Go to step **12.**	Repair the harness/connector between ABSCM & H/U and ABS sensor.

	Step	Check	Yes	No
12	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***DTC 21 /*** ***(B301) No. 11 (+) — Chassis ground (−):*** ***DTC 23 /*** ***(B301) No. 9 (+) — Chassis ground (−):*** ***DTC 25 /*** ***(B301) No. 14 (+) — Chassis ground (−):*** ***DTC 27 /*** ***(B301) No. 7 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **13.**	Repair the harness between ABSCM & H/U and ABS sensor.
13	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** 1)Turn ignition switch to ON. 2)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***DTC 21 /*** ***(B301) No. 11 (+) — Chassis ground (−):*** ***DTC 23 /*** ***(B301) No. 9 (+) — Chassis ground (−):*** ***DTC 25 /*** ***(B301) No. 14 (+) — Chassis ground (−):*** ***DTC 27 /*** ***(B301) No. 7 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **14.**	Repair the harness between ABSCM & H/U and ABS sensor.
14	**CHECK INSTALLATION OF ABS SENSOR.** Are the ABS sensor installation bolts tightened to the specified torque?	33 N·m (3.4 kgf-m, 24.6 ft-lb)	Go to step **15.**	Tighten the ABS sensor installation bolts securely.
15	**CHECK ABS SENSOR GAP.** Measure the gap between ABS sensor projection and tone wheel. Is the measured value within the specified range?	Front wheel: 0.3 — 0.8 mm (0.012 — 0.031 in) Rear wheel: 0.7 — 1.2 mm (0.028 — 0.047 in)	Go to step **16.**	Adjust the gap. NOTE: Adjust the gap using spacer (Part No. 26755AA000). If the gap cannot be corrected with spacers, replace damaged sensor or tone wheel.
16	**CHECK TONE WHEEL RUNOUT.** Measure the tone wheel runout. Is the measured value within the specified range?	0.05 mm (0.0020 in)	Go to step **17.**	Replace the tone wheel. Front: <Ref. to ABS-21, Front Tone Wheel.>Rear: <Ref. to ABS-22, Rear Tone Wheel.>

	Step	Check	Yes	No
17	**CHECK FOR SHORT CIRCUIT TO GROUND IN ABS SENSOR.** 1)Turn ignition switch to ON. 2)Measure the resistance between ABS sensor and chassis ground. ***Terminal*** ***Front RH No. 1 — Chassis ground:*** ***Front LH No. 1 — Chassis ground:*** ***Rear RH No. 1 — Chassis ground:*** ***Rear LH No. 1 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **18.**	Replace the ABSCM & H/U and ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.>Rear: <Ref. to ABS-18, Rear ABS Sensor.> and <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
18	**CHECK FOR SHORT CIRCUIT TO GROUND IN HARNESS.** 1)Turn ignition switch to OFF. 2)Connect the connector to ABS sensor. 3)Measure the resistance between ABSCM & H/U connector terminal and chassis ground. ***Connector & terminal*** ***DTC 21 /*** ***(B301) No. 11 — Chassis ground:*** ***DTC 23 /*** ***(B301) No. 9 — Chassis ground:*** ***DTC 25 /*** ***(B301) No. 14 — Chassis ground:*** ***DTC 27 /*** ***(B301) No. 7 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **19.**	Repair the harness between ABSCM & H/U and ABS sensor. Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
19	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between ABSCM & H/U and ABS sensor?	There is no poor contact.	Go to step **20.**	Repair the connector.
20	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **21.**	Replace the ABSCM & H/U.
21	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact. NOTE: Check the harness and connectors between ABSCM & H/U and ABS sensor.	Proceed with the diagnosis corresponding to DTC.

G: DTC 22 — FRONT ABS SENSOR RH SIGNAL ABNORMAL —

NOTE:
For the diagnostic procedure, refer to DTC 28 . <Ref. to ABS-102, DTC 28 — REAR ABS SENSOR LH SIGNAL ABNORMAL —, Diagnostic Chart with Subaru Select Monitor.>

H: DTC 24 — FRONT ABS SENSOR LH SIGNAL ABNORMAL —

NOTE:
For the diagnostic procedure, refer to DTC 28 . <Ref. to ABS-102, DTC 28 — REAR ABS SENSOR LH SIGNAL ABNORMAL —, Diagnostic Chart with Subaru Select Monitor.>

I: DTC 26 — REAR ABS SENSOR RH SIGNAL ABNORMAL —

NOTE:
For the diagnostic procedure, refer to DTC 28 . <Ref. to ABS-102, DTC 28 — REAR ABS SENSOR LH SIGNAL ABNORMAL —, Diagnostic Chart with Subaru Select Monitor.>

J: DTC 28 — REAR ABS SENSOR LH SIGNAL ABNORMAL —

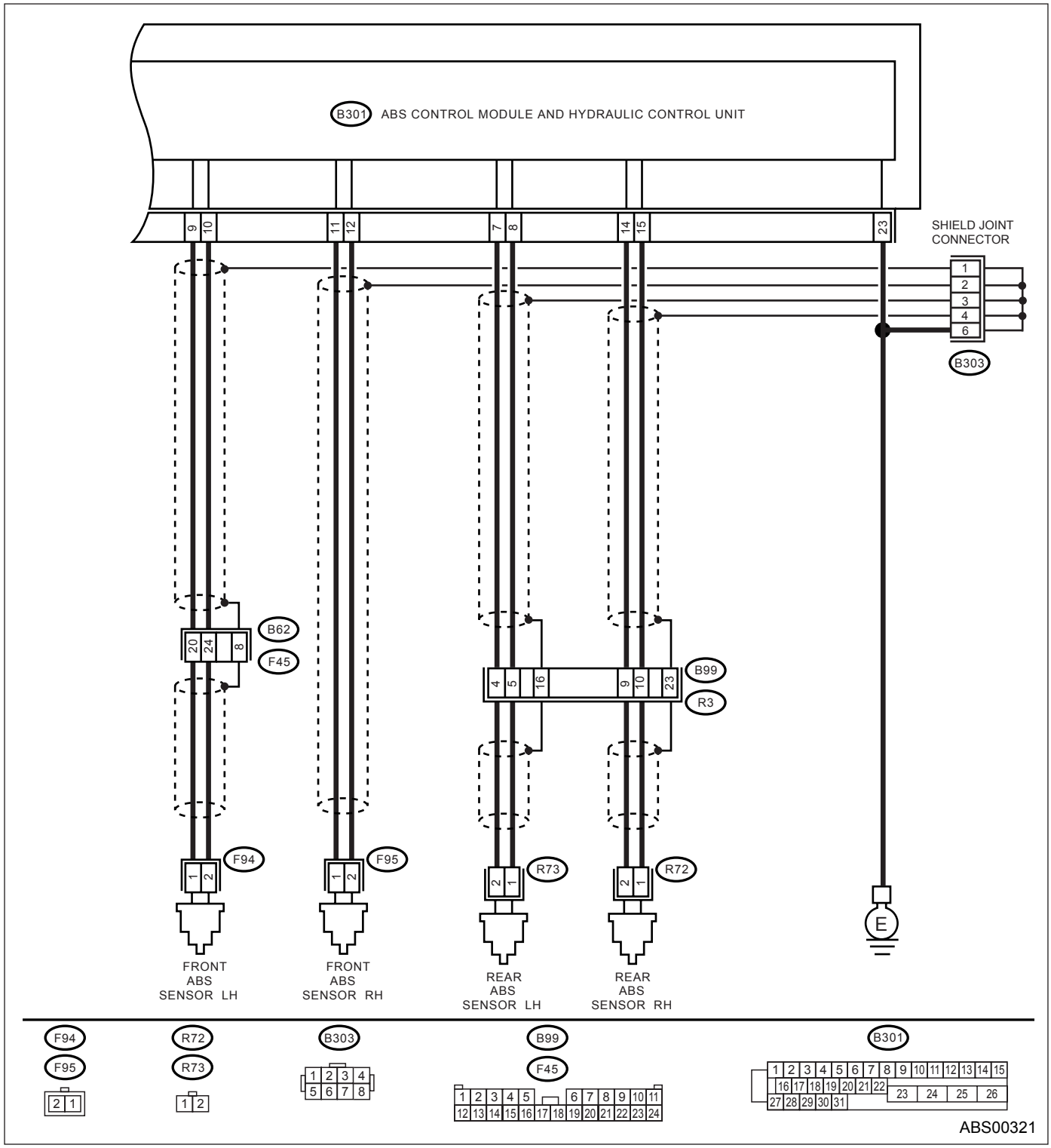
DIAGNOSIS:

- Faulty ABS sensor signal (noise, irregular signal, etc.)
- Faulty harness/connector

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK OUTPUT OF ABS SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read the ABS sensor output corresponding to the faulty system in the Subaru Select Monitor data display mode. Does the speed indicated on display change in response to speedometer reading during acceleration/deceleration when the steering wheel is in straight-ahead position?	Reading changes similarly.	Go to step **2.**	Go to step **8.**
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connectors between ABSCM & H/U and ABS sensor?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK FOR SOURCES OF SIGNAL NOISE.** Is the car telephone or wireless transmitter properly installed?	Car telephone or wireless transmitter is correctly installed.	Go to step **4.**	Properly install the car telephone or wireless transmitter.
4	**CHECK FOR SOURCES OF SIGNAL NOISE.** Are noise sources (such as an antenna) installed near the sensor harness?	Noise source is installed.	Go to step **5.**	Install the noise sources apart from sensor harness.
5	**CHECK SHIELD CIRCUIT.** 1)Turn ignition switch to OFF. 2)Connect all connectors. 3)Measure the resistance between shield connector and chassis ground. ***Connector & terminal*** ***DTC 22 / (B303) No. 2 — Chassis ground:*** ***DTC 24 / (B303) No. 1 — Chassis ground:*** ***DTC 26 / (B303) No. 4 — Chassis ground:*** ***DTC 28 / (B303) No. 3 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **6.**	Repair the shield harness.
6	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **7.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
7	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	A temporary noise interference.	Proceed with the diagnosis corresponding to DTC.
8	**CHECK INSTALLATION OF ABS SENSOR.** Are the ABS sensor installation bolts tightened to the specified torque?	33 N·m (3.4 kgf-m, 24.6 ft-lb)	Go to step **9.**	Tighten the ABS sensor installation bolts securely.
9	**CHECK ABS SENSOR GAP.** Measure the gap between ABS sensor projection and tone wheel. Is the measured value within the specified range?	Front wheel: 0.3 — 0.8 mm (0.012 — 0.031 in) Rear wheel: 0.7 — 1.2 mm (0.028 — 0.047 in)	Go to step **10.**	Adjust the gap. NOTE: Adjust the gap using spacer (Part No. 26755AA000). If the gap cannot be corrected with spacers, replace damaged sensor or tone wheel.

	Step	Check	Yes	No
10	**PREPARE OSCILLOSCOPE.** Is an oscilloscope available?	Oscilloscope is available.	Go to step **11.**	Go to step **12.**
11	**CHECK ABS SENSOR SIGNAL.** 1)Lift up the vehicle. 2)Turn ignition switch to OFF. 3)Connect the oscilloscope to the connector. 4)Turn ignition switch to ON. 5)Rotate the wheels and measure voltage at specified frequency. <Ref. to ABS-17, WAVEFORM, Control Module I/O Signals.> NOTE: When this inspection is completed, the ABSCM & H/U may store DTC 29 or DTC 56. ***Connector & terminal*** ***DTC 22 / (F95) No. 1 (+) — No. 2 (–):*** ***DTC 24 / (F45) No. 20 (+) — No. 24 (–):*** ***DTC 26 / (B99) No. 9 (+) — No. 10 (–):*** ***DTC 28 / (B99) No. 4 (+) — No. 5 (–):*** Is the measured value same as the specified value?	Oscilloscope pattern is as shown in the figure.	Go to step **15.**	Go to step **12.**
12	**CHECK CONTAMINATION OF ABS SENSOR OR TONE WHEEL.** Remove the disc rotor or drum from hub in accordance with DTC. Is the ABS sensor projection or tone wheel contaminated by dirt or other foreign matter?	ABS sensor projection or tone wheel is not contaminated.	Go to step **13.**	Thoroughly remove dirt or other foreign matter.
13	**CHECK FOR DAMAGE OF ABS SENSOR OR TONE WHEEL.** Are there any breakage or damage in the ABS sensor projection or tone wheel?	There is no breakage or damage.	Go to step **14.**	Replace the ABS sensor or tone wheel. Front: <Ref. to ABS-14, Front ABS Sensor.>Rear: <Ref. to ABS-18, Rear ABS Sensor.> and Front: <Ref. to ABS-21, Front Tone Wheel.> Rear: <Ref. to ABS-22, Rear Tone Wheel.>
14	**CHECK TONE WHEEL RUNOUT.** Measure the tone wheel runout. Is the measured value less than the specified value?	0.05 mm (0.0020 in)	Go to step **15.**	Replace the tone wheel. Front: <Ref. to ABS-21, Front Tone Wheel.> Rear: <Ref. to ABS-22, Rear Tone Wheel.>

	Step	Check	Yes	No
15	**CHECK RESISTANCE OF ABS SENSOR.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABS sensor. 3)Measure the resistance between ABS sensor connector terminals while shaking the harness lightly. ***Terminal*** ***Front RH No. 1 — No. 2:*** ***Front LH No. 1 — No. 2:*** ***Rear RH No. 1 — No. 2:*** ***Rear LH No. 1 — No. 2:*** Is the measured value within the specified range?	Front: 1 — 1.5 kΩ Rear: 1.025 — 1.265 kΩ	Go to step **16.**	Replace the ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.>
16	**CHECK FOR SHORT CIRCUIT TO GROUND IN ABS SENSOR.** Measure the resistance between ABS sensor and chassis ground. ***Terminal*** ***Front RH No. 1 — Chassis ground:*** ***Front LH No. 1 — Chassis ground:*** ***Rear RH No. 1 — Chassis ground:*** ***Rear LH No. 1 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **17.**	Replace the ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.>
17	**CHECK HARNESS/CONNECTOR BETWEEN ABSCM & H/U AND ABS SENSOR.** 1)Connect the connector to ABS sensor. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance at ABSCM & H/U connector terminals. ***Connector & terminal*** ***DTC 22 / (B301) No. 11 — No. 12:*** ***DTC 24 / (B301) No. 9 — No. 10:*** ***DTC 26 / (B301) No. 14 — No. 15:*** ***DTC 28 / (B301) No. 7 — No. 8:*** Is the measured value within the specified range?	Front: 1 — 1.5 kΩ Rear: 1.025 — 1.265 kΩ	Go to step **18.**	Repair the harness/connector between ABSCM & H/U and ABS sensor.
18	**CHECK FOR SHORT CIRCUIT TO GROUND IN HARNESS.** Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***DTC 22 / (B301) No. 11 — Chassis ground:*** ***DTC 24 / (B301) No. 9 — Chassis ground:*** ***DTC 26 / (B301) No. 14 — Chassis ground:*** ***DTC 28 / (B301) No. 7 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **19.**	Repair the harness/connector between ABSCM & H/U and ABS sensor.
19	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** Measure the resistance between ABSCM & H/U and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **20.**	Repair the ABSCM & H/U ground harness.

	Step	Check	Yes	No
20	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between ABSCM & H/U and ABS sensor?	There is no poor contact.	Go to step **21.**	Repair the connector.
21	**CHECK FOR SOURCES OF SIGNAL NOISE.** Is the car telephone or wireless transmitter properly installed?	Car telephone or wireless transmitter is correctly installed.	Go to step **22.**	Properly install the car telephone or wireless transmitter.
22	**CHECK FOR SOURCES OF SIGNAL NOISE.** Are noise sources (such as an antenna) installed near the sensor harness?	Noise sources are not installed.	Go to step **23.**	Install the noise sources apart from sensor harness.
23	**CHECK SHIELD CIRCUIT.** 1)Connect all connectors. 2)Measure the resistance between shield connector and chassis ground. ***Connector & terminal*** ***DTC 22 / (B303) No. 2 — Chassis ground:*** ***DTC 24 / (B303) No. 1 — Chassis ground:*** ***DTC 26 / (B303) No. 4 — Chassis ground:*** ***DTC 28 / (B303) No. 3 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **24.**	Repair the shield harness.
24	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **25.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
25	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	A temporary noise interference. NOTE: Although the ABS warning light remains illuminating at this point, this is a normal condition. Vehicle must be driven at approx. 12 km/h (7.46 MPH) or faster to turn off ABS warning light. Make sure that the ABS warning light goes off after driving the vehicle.	Proceed with the diagnosis corresponding to DTC.

K: DTC 29 — ABS SENSOR FAILURE (ABNORMAL ABS SENSOR SIGNAL) (ANY ONE OF FOUR) —

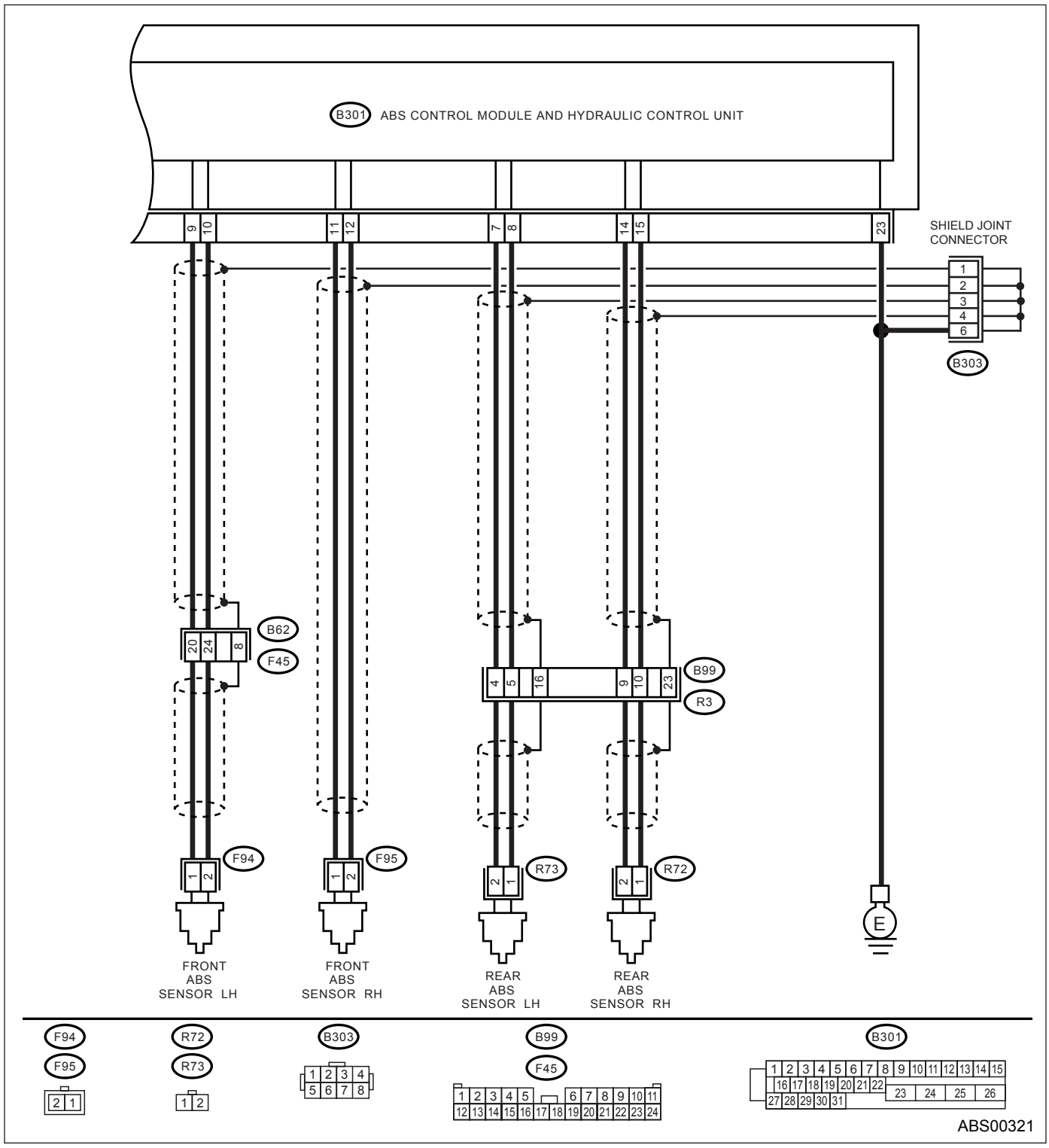
DIAGNOSIS:

- Faulty ABS sensor signal (noise, irregular signal, etc.)
- Faulty tone wheel
- Wheels turned freely for a long time

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK IF THE WHEELS HAVE TURNED FREELY FOR A LONG TIME.** Check if the wheels have been turned freely for more than one minute, such as when vehicle is jacked-up, under full-lock cornering or when tire is not in contact with road surface.	Wheels have not been turned freely.	Go to step **2.**	The ABS is normal. Clear the memory. NOTE: If the wheels has been turned freely for a long time, such as when vehicle is towed or jacked-up, or when steering wheel is continuously turned all way, this diagnostic trouble code may be stored.
2	**CHECK TIRE SPECIFICATIONS.** Turn ignition switch to OFF. Are the tire specifications correct?	Tire specifications are correct.	Go to step **3.**	Replace the tire.
3	**CHECK TIRES FOR WEAR.** Is the tire worn excessively?	Tire is not worn excessively.	Go to step **4.**	Replace the tire.
4	**CHECK TIRE PRESSURE.** Is the tire pressure correct?	Tire pressure is correct.	Go to step **5.**	Adjust the tire pressure.
5	**CHECK INSTALLATION OF ABS SENSOR.** Are the ABS sensor installation bolts tightened to the specified torque?	33 N·m (3.4 kgf-m, 24.6 ft-lb)	Go to step **6.**	Tighten the ABS sensor installation bolts securely.
6	**CHECK ABS SENSOR GAP.** Measure the gap between ABS sensor projection and tone wheel. Is the measured value within the specified range?	Front wheel: 0.3 — 0.8 mm (0.012 — 0.031 in) Rear wheel: 0.7 — 1.2 mm (0.028 — 0.047 in)	Go to step **7.**	Adjust the gap. NOTE: Adjust the gap using spacer (Part No. 26755AA000). If the gap cannot be corrected with spacers, replace damaged sensor or tone wheel.
7	**PREPARE OSCILLOSCOPE.** Is an oscilloscope available?	Oscilloscope is available.	Go to step **8.**	Go to step **9.**
8	**CHECK ABS SENSOR SIGNAL.** 1)Lift up the vehicle. 2)Turn ignition switch to OFF. 3)Connect the oscilloscope to connector (B6), (B99) or (F94) in accordance with DTC. 4)Turn ignition switch to ON. 5)Rotate the wheels and measure voltage at specified frequency. <Ref. to ABS-17, WAVEFORM, Control Module I/O Signals.> NOTE: When this inspection is completed, the ABSCM & H/U may store DTC 29. ***Connector & terminal*** ***Front RH (F95) No. 1 (+) — No. 2 (−):*** ***Front LH (F45) No. 20 (+) — No. 24 (−):*** ***Rear RH (B99) No. 9 (+) — No. 10 (−):*** ***Rear LH (B99) No. 4 (+) — No. 5 (−):*** Is the measured value same as the specified value?	Oscilloscope pattern is as shown in the figure.	Go to step **12.**	Go to step **9.**

	Step	Check	Yes	No
9	**CHECK CONTAMINATION OF ABS SENSOR OR TONE WHEEL.** Remove the disc rotor or drum from hub. Is the ABS sensor projection or tone wheel contaminated by dirt or other foreign matter?	ABS sensor projection or tone wheel is not contaminated.	Go to step **10.**	Thoroughly remove dirt or other foreign matter.
10	**CHECK FOR DAMAGE OF ABS SENSOR OR TONE WHEEL.** Are there any breakage or damaged teeth in the ABS sensor projection or tone wheel?	There is no breakage or damage.	Go to step **11.**	Replace the ABS sensor or tone wheel. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-18, Rear ABS Sensor.> and Front: <Ref. to ABS-21, Front Tone Wheel.> Rear: <Ref. to ABS-22, Rear Tone Wheel.>
11	**CHECK TONE WHEEL RUNOUT.** Measure the tone wheel runout. Is the measured value less than the specified value?	0.05 mm (0.0020 in)	Go to step **12.**	Replace the tone wheel. Front: <Ref. to ABS-21, Front Tone Wheel.> Rear: <Ref. to ABS-22, Rear Tone Wheel.>
12	**CHECK ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Connect all connectors. 3)Clear the memory. 4)Perform the inspection mode. 5)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **13.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
13	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

L: DTC 31 — FRONT INLET VALVE RH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 37 . <Ref. to ABS-112, DTC 37 — REAR INLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

M: DTC 33 — FRONT INLET VALVE LH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 37 . <Ref. to ABS-112, DTC 37 — REAR INLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

N: DTC 35 — REAR INLET VALVE RH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 37 . <Ref. to ABS-112, DTC 37 — REAR INLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

O: DTC 37 — REAR INLET VALVE LH MALFUNCTION —

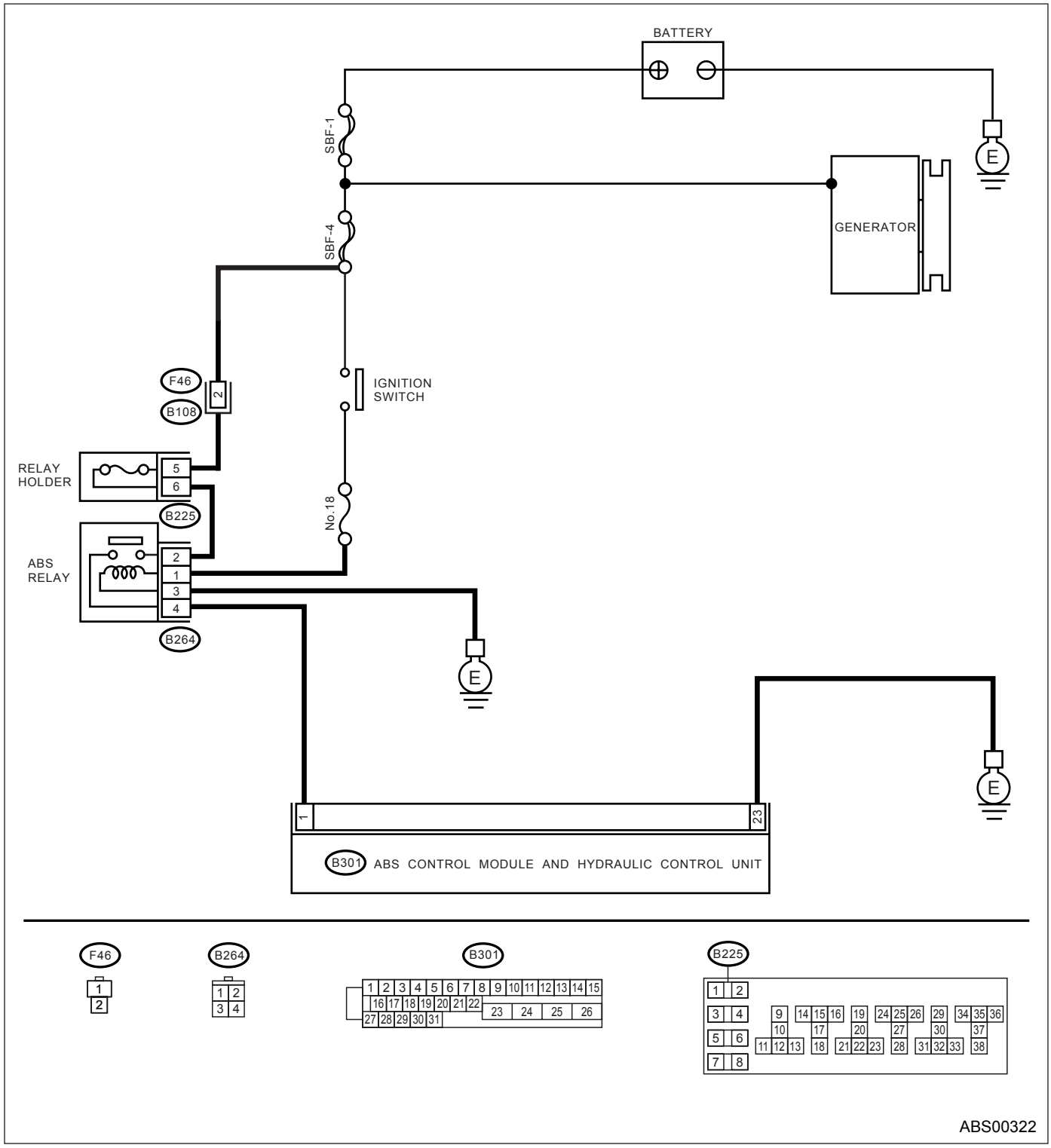
DIAGNOSIS:

- Faulty harness/connector
- Faulty inlet solenoid valve

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE OF RELAY HOLDER.** 1)Turn ignition switch to OFF. 2)Remove fuse. 3)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B225) No. 5 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **2.**	Repair the open circuit in harness between battery and relay holder connector.
2	**CHECK RELAY HOLDER.** Is the fuse blown out?	The fuse is not blown out.	Go to step **3.**	Replace the fuse.
3	**CHECK INPUT VOLTAGE OF ABS RELAY.** 1)Install fuse. 2)Remove ABS relay. 3)Turn ignition switch to ON. 4)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 2 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **4.**	Repair the open circuit in harness between battery and relay holder connector.
4	**CHECK INPUT VOLTAGE OF ABS RELAY.** Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **5.**	Repair the harness connector between battery, ignition switch and ABS relay.
5	**CHECK GROUND CIRCUIT OF ABS RELAY.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 3 (+) — Chassis ground:*** Is the measured value less than the specified value?	5 Ω	Go to step **6.**	Repair open circuit between ABS relay and chassis ground.
6	**CHECK ABS RELAY.** 1)Connect the battery to ABS relay terminals No. 1 and No. 3. 2)Measure the resistance between ABS relay terminals. Is the measured value less than the specified value?	10 Ω	Go to step **7.**	Replace the ABS relay.
7	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Idle the engine. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **8.**	Repair the harness connector between battery, ignition switch and ABSCM & H/U.

	Step	Check	Yes	No
8	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **9.**	Repair the ABSCM & H/U ground harness.
9	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **10.**	Repair the connector.
10	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **11.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
11	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

P: DTC 32 — FRONT OUTLET VALVE RH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 38 . <Ref. to ABS-116, DTC 38 — REAR OUTLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

Q: DTC 34 — FRONT OUTLET VALVE LH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 38 . <Ref. to ABS-116, DTC 38 — REAR OUTLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

R: DTC 36 — REAR OUTLET VALVE RH MALFUNCTION —

NOTE:
For the diagnostic procedure, refer to DTC 38 . <Ref. to ABS-116, DTC 38 — REAR OUTLET VALVE LH MALFUNCTION —, Diagnostic Chart with Subaru Select Monitor.>

S: DTC 38 — REAR OUTLET VALVE LH MALFUNCTION —

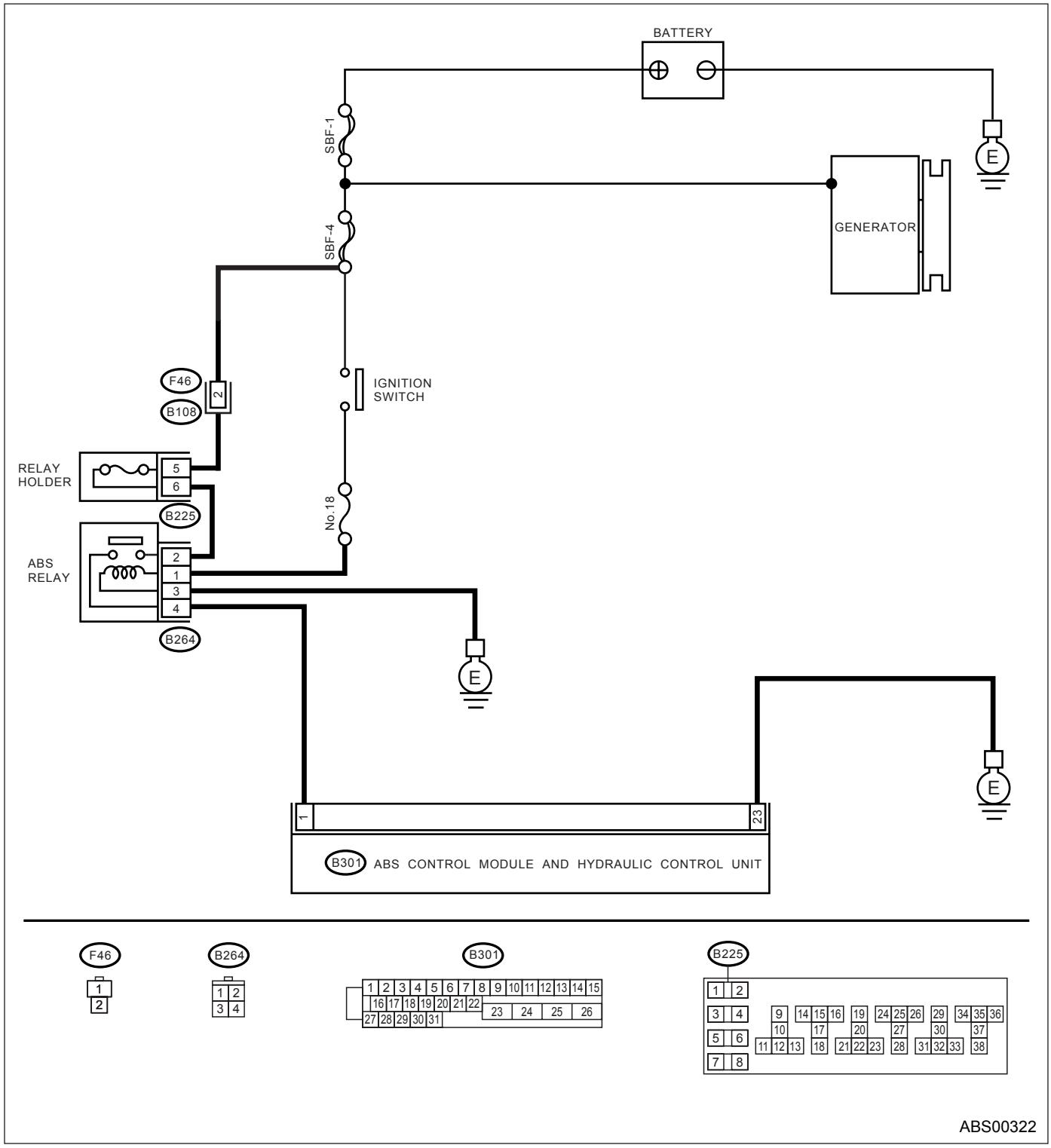
DIAGNOSIS:

- Faulty harness/connector
- Faulty outlet solenoid valve

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE OF RELAY HOLDER.** 1)Turn ignition switch to OFF. 2)Remove fuse. 3)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B225) No. 5 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **2.**	Repair the open circuit in harness between battery and relay holder connector.
2	**CHECK RELAY HOLDER.** Is the fuse blown out?	The fuse is not blown out.	Go to step **3.**	Replace the fuse.
3	**CHECK INPUT VOLTAGE OF ABS RELAY.** 1)Install fuse. 2)Remove ABS relay. 3)Turn ignition switch to ON. 4)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 2 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **4.**	Repair the open circuit in harness between battery and relay holder connector.
4	**CHECK INPUT VOLTAGE OF ABS RELAY.** Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **5.**	Repair the harness connector between battery, ignition switch and ABS relay.
5	**CHECK GROUND CIRCUIT OF ABS RELAY.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 3 (+) — Chassis ground:*** Is the measured value less than the specified value?	5 Ω	Go to step **6.**	Repair open circuit between ABS relay and chassis ground.
6	**CHECK ABS RELAY.** 1)Connect the battery to ABS relay terminals No. 1 and No. 3. 2)Measure the resistance between ABS relay terminals. Is the measured value less than the specified value?	10 Ω	Go to step **7.**	Replace the ABS relay.
7	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Idle the engine. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **8.**	Repair the harness connector between battery, ignition switch and ABSCM & H/U.

	Step	Check	Yes	No
8	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **9.**	Repair the ABSCM & H/U ground harness.
9	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **10.**	Repair the connector.
10	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **11.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
11	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

T: DTC 41 — ABS CONTROL MODULE MALFUNCTION —

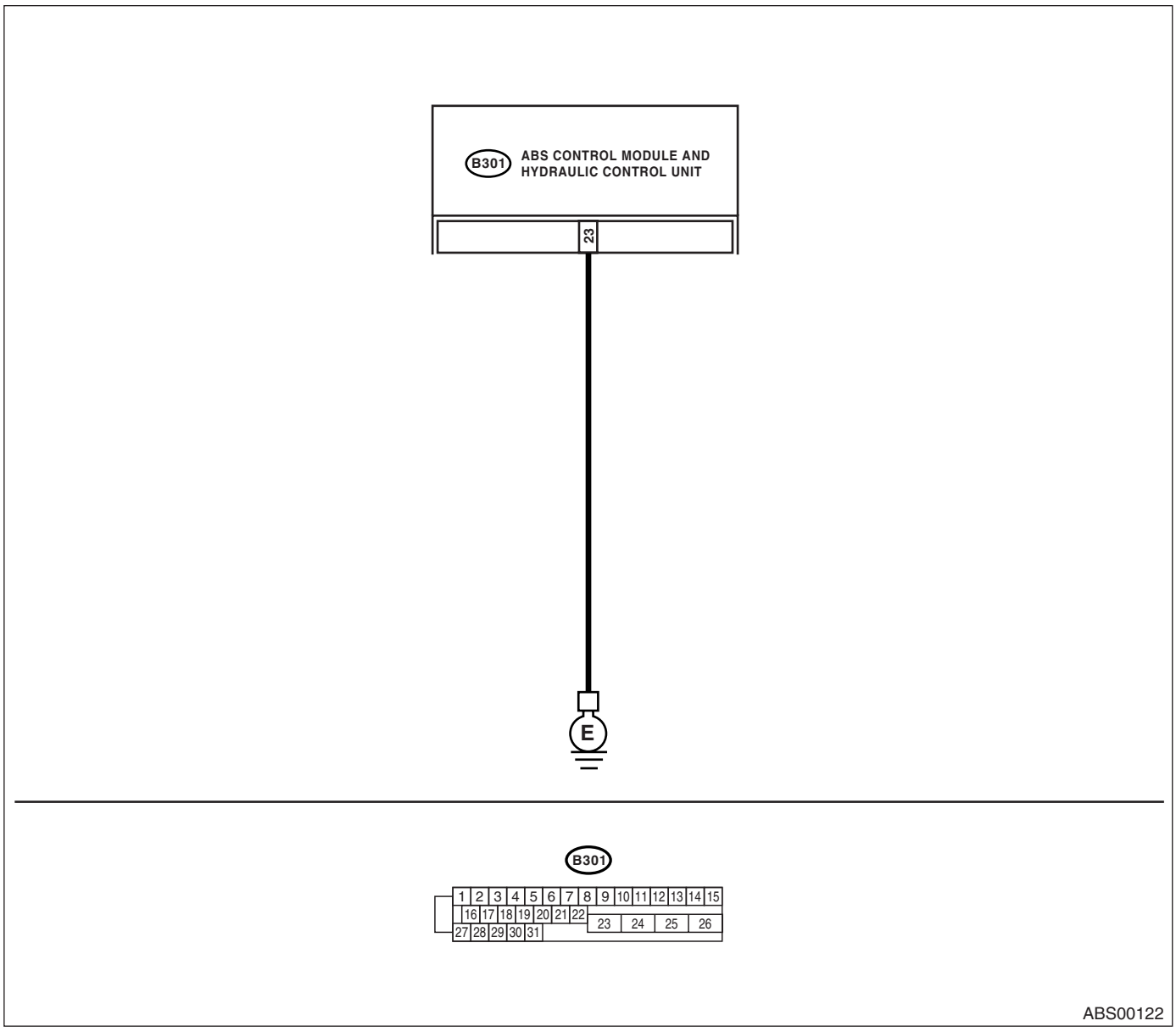
DIAGNOSIS:

- Faulty ABSCM & H/U

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **2.**	Repair the ABSCM & H/U ground harness.
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between battery, ignition switch and ABSCM & H/U?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK FOR SOURCES OF SIGNAL NOISE.** Is the car telephone or wireless transmitter properly installed?	Car telephone or wireless transmitter is correctly installed.	Go to step **4.**	Properly install the car telephone or wireless transmitter.
4	**CHECK FOR SOURCES OF SIGNAL NOISE.** Are noise sources (such as an antenna) installed near the sensor harness?	Noise sources are not installed.	Go to step **5.**	Install the noise sources apart from sensor harness.
5	**CHECK ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Connect all connectors. 3)Clear the memory. 4)Perform the inspection mode. 5)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **6.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
6	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

U: DTC 42 — POWER SUPPLY VOLTAGE TOO LOW —

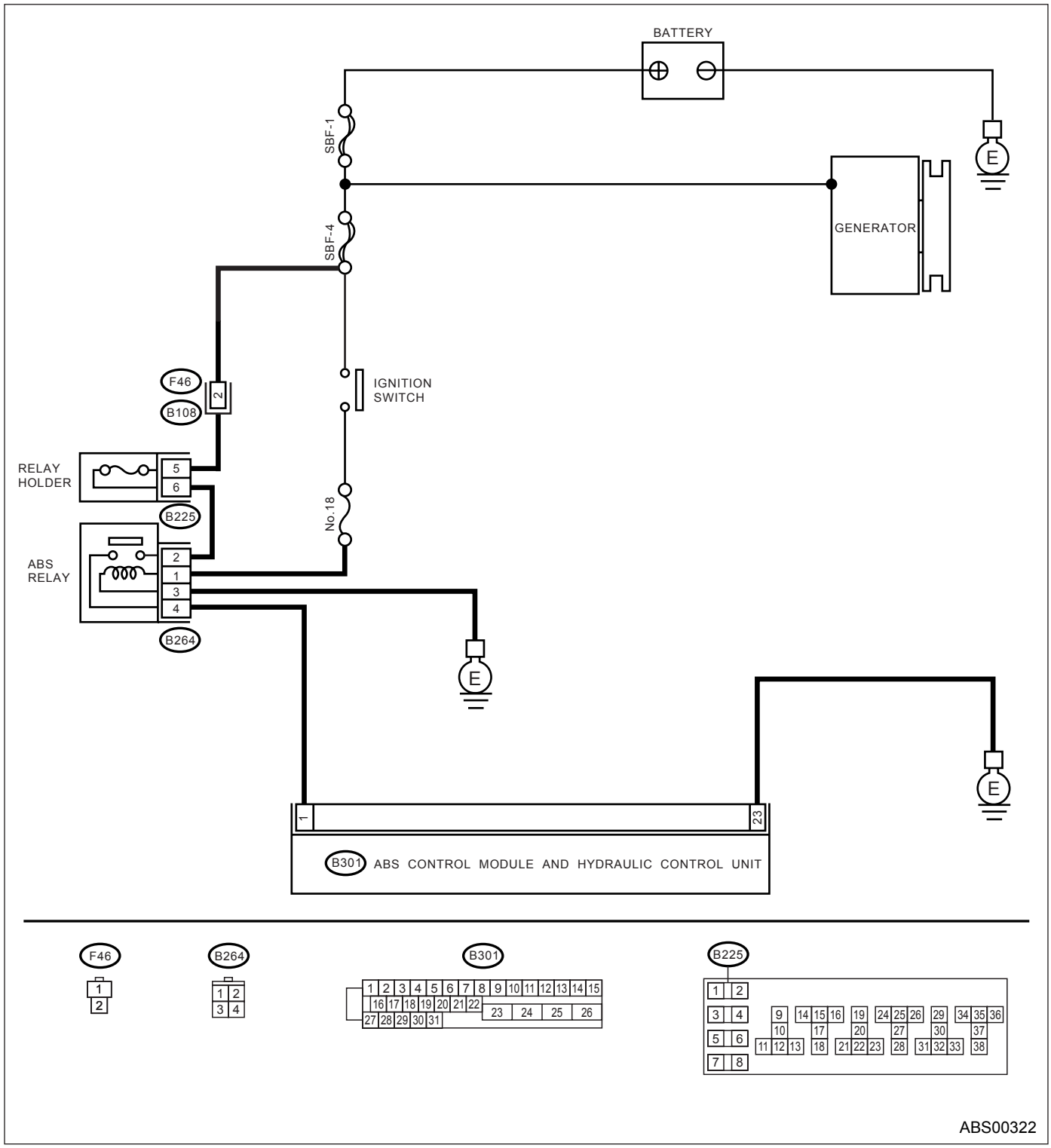
DIAGNOSIS:

- Power supply voltage of the ABSCM & H/U is low.

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK GENERATOR.** 1)Start the engine. 2)Idle after warm-up. 3)Measure the voltage between generator B terminal and chassis ground. ***Terminal*** ***Generator B terminal (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **2.**	Repair the generator. <Ref. to SC(H4SO)-13, Generator.>
2	**CHECK BATTERY TERMINALS.** Turn ignition switch to OFF. Are the positive and negative battery terminals tightly clamped?	Terminals are tightly clamped.	Go to step **3.**	Tighten terminals.
3	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Disconnect the connector from ABSCM & H/U. 2)Idle the engine. 3)Operate electric load applying devices, such as the headlight, A/C, and defogger. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **4.**	Repair the harness connector between battery, ignition switch and ABSCM & H/U.
4	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **5.**	Repair the ABSCM & H/U ground harness.
5	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **6.**	Repair the connector.
6	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **7.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
7	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

V: DTC 42 — POWER SUPPLY VOLTAGE TOO HIGH —

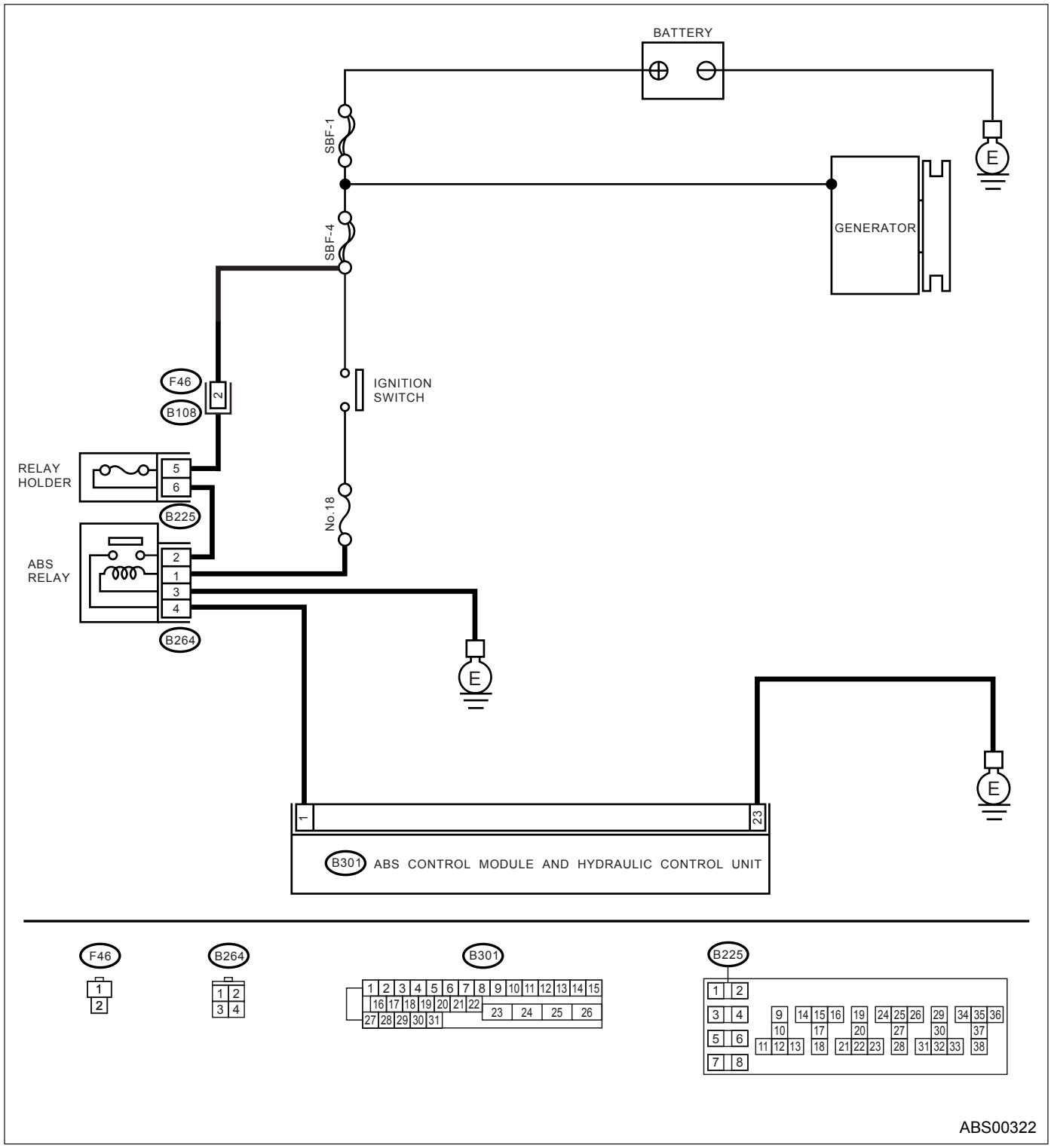
DIAGNOSIS:

- Power source voltage of the ABSCM & H/U is high.

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK GENERATOR.** 1)Start the engine. 2)Idle after warm-up. 3)Measure the voltage between generator B terminal and chassis ground. ***Terminal*** ***Generator B terminal (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 17 V	Go to step **2.**	Repair the generator. <Ref. to SC(H4SO)-13, Generator.>
2	**CHECK BATTERY TERMINALS.** Turn ignition switch to OFF. Are the positive and negative battery terminals tightly clamped?	Terminals are tightly clamped.	Go to step **3.**	Tighten terminals.
3	**CHECK INPUT VOLTAGE OF RELAY HOLDER.** 1)Turn ignition switch to OFF. 2)Remove fuse. 3)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B225) No. 5 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **4.**	Repair the open circuit in harness between battery and relay holder connector.
4	**CHECK RELAY HOLDER.** Is the fuse blown out?	The fuse is not blown out.	Go to step **5.**	Replace the fuse.
5	**CHECK INPUT VOLTAGE OF ABS RELAY.** 1)Install fuse. 2)Remove ABS relay. 3)Turn ignition switch to ON. 4)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 2 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **6.**	Repair the open circuit in harness between battery and relay holder connector.
6	**CHECK INPUT VOLTAGE OF ABS RELAY.** Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **7.**	Repair the harness connector between battery, ignition switch and ABS relay.
7	**CHECK GROUND CIRCUIT OF ABS RELAY.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 3 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	5 Ω	Go to step **8.**	Repair open circuit between ABS relay and chassis ground.
8	**CHECK ABS RELAY.** 1)Connect the battery to ABS relay terminals No. 1 and No. 3. 2)Measure the resistance between ABS relay terminals. Is the measured value less than the specified value?	10 Ω	Go to step **9.**	Replace the ABS relay.

	Step	Check	Yes	No
9	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Disconnect the connector from ABSCM & H/U. 2)Idle the engine. 3)Operate electric load applying devices, such as the headlight, A/C, and defogger. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 17 V	Go to step **10.**	Repair the harness connector between battery, ignition switch and ABSCM & H/U.
10	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **11.**	Repair the ABSCM & H/U ground harness.
11	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **12.**	Repair the connector.
12	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **13.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
13	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

W: DTC 44 — ABS-AT CONTROL (NON CONTROLLED) —

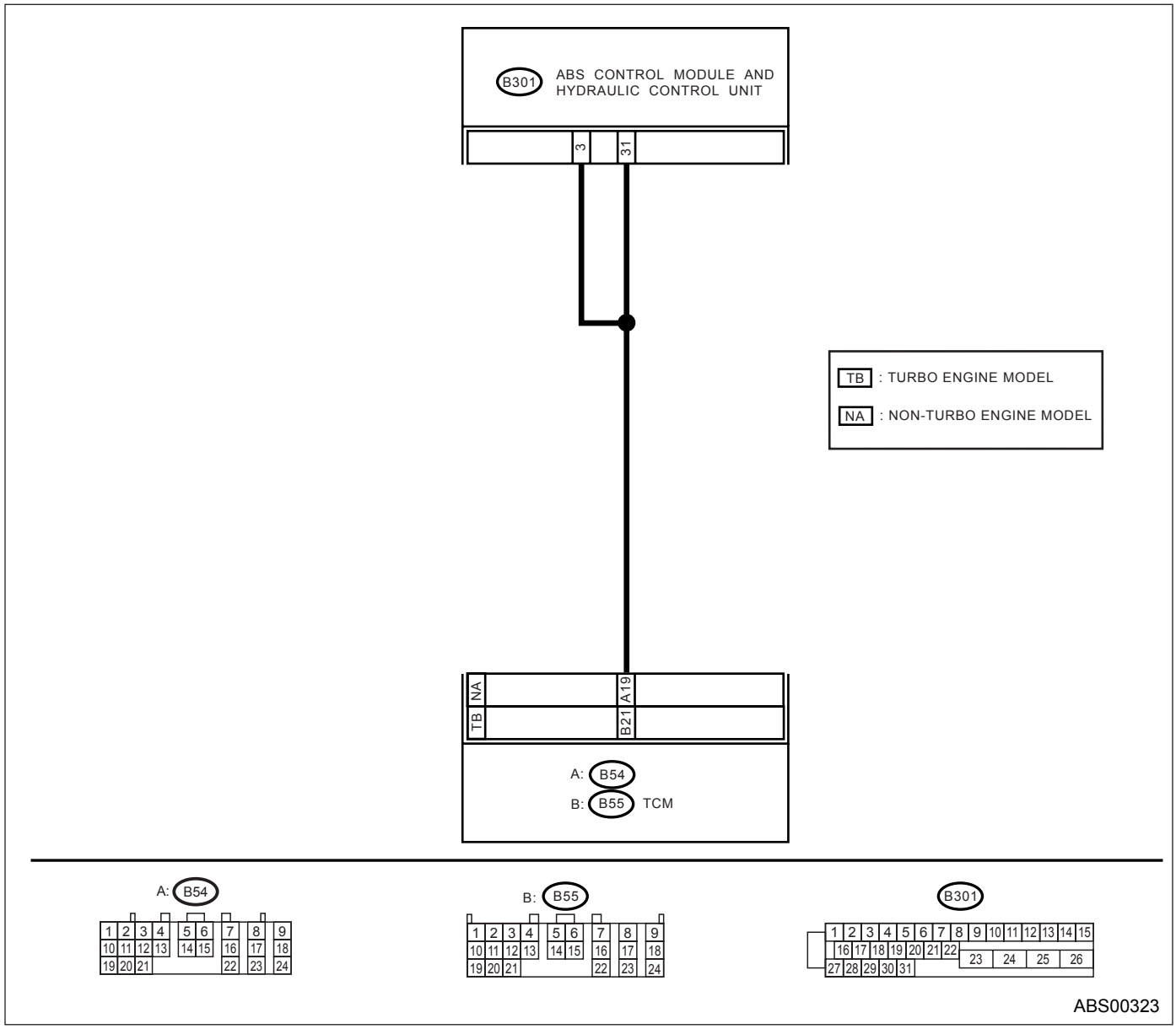
DIAGNOSIS:

- AT control combination is abnormal

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK SPECIFICATIONS OF THE ABSCM & H/U.** Check the specification mark on the ABSCM & H/U. ***CC: AT*** ***CD: MT*** Does the vehicle specification and ABSCM & H/U specification match?	Specifications are matched.	Go to step **2.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
2	**CHECK FOR SHORT CIRCUIT TO GROUND IN HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the two connectors from TCM. 3)Disconnect the connector from ABSCM & H/U. 4)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 3 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **3.**	Repair the harness between ABSCM & H/U and TCM.
3	**CHECK TCM.** 1)Connect all connectors to TCM. 2)Turn ignition switch to ON. 3)Measure the voltage between TCM connector terminal and chassis ground. ***Connector & terminal*** ***NON-TURBO MODELS:*** ***(B54) No. 19 (+) — Chassis ground (−):*** ***TURBO MODELS:*** ***(B55) No. 21 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **5.**	Go to step **4.**
4	**CHECK AT.** Is the AT functioning normally?	AT is functioning normally.	Replace the TCM.	Repair the AT.
5	**CHECK FOR OPEN CIRCUIT IN HARNESS.** Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 3 (+) — Chassis ground (−):*** ***(B301) No. 31 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **6.**	Repair the harness/connector between ABSCM & H/U and TCM.
6	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between TCM and ABSCM & H/U?	There is no poor contact.	Go to step **7.**	Repair the connector.
7	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **8.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
8	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

X: DTC 44 — ABS-AT CONTROL (CONTROLLED) —

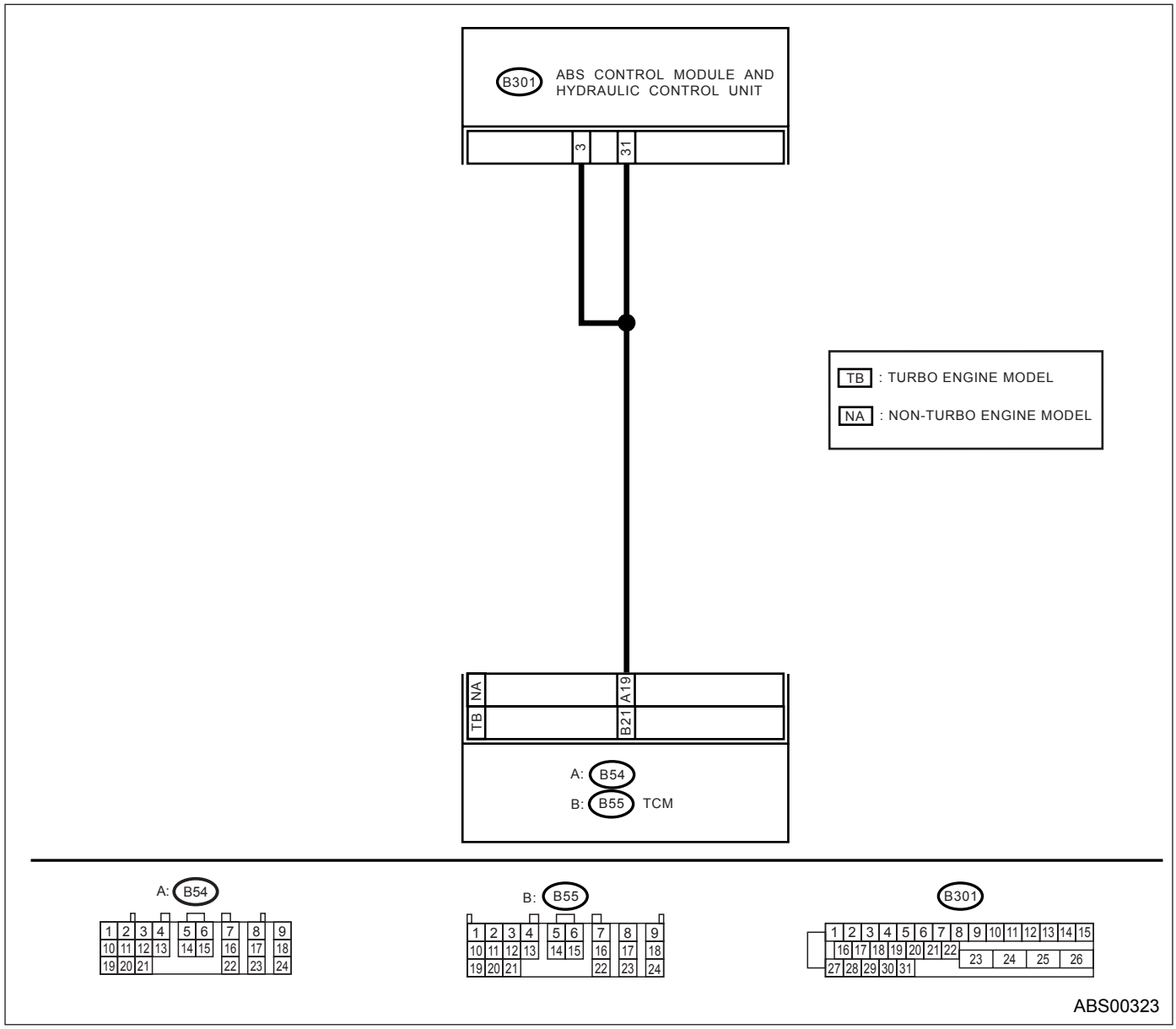
DIAGNOSIS:

- AT control combination is abnormal

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect all connectors from TCM. 3)Disconnect the connector from ABSCM & H/U. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 3 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **2.**	Repair the harness between ABSCM & H/U and TCM.
2	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** 1)Turn ignition switch to ON. 2)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 3 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **3.**	Repair the harness between ABSCM & H/U and TCM.
3	**CHECK FOR OPEN CIRCUIT IN HARNESS.** 1)Turn ignition switch to OFF. 2)Connect all connectors to TCM. 3)Turn ignition switch to ON. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 3 (+) — Chassis ground (−):*** ***(B301) No. 31 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 13 V	Go to step **4.**	Repair the harness/connector between ABSCM & H/U and TCM.
4	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connectors between TCM and ABSCM & H/U?	There is no poor contact.	Go to step **5.**	Repair the connector.
5	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **6.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
6	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

Y: DTC 51 — VALVE RELAY MALFUNCTION —

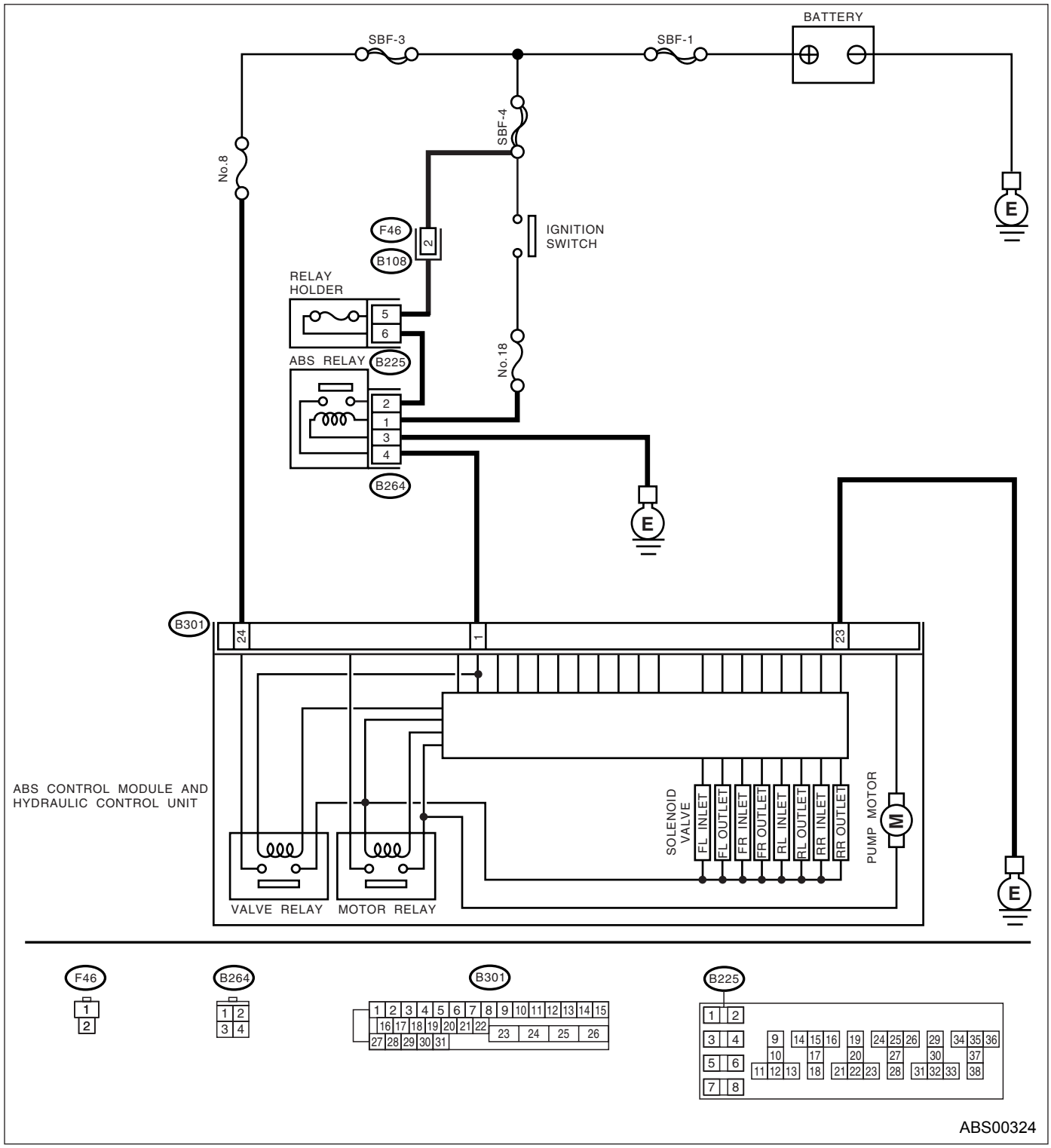
DIAGNOSIS:

- Valve relay malfunction

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE OF RELAY HOLDER.** 1)Turn ignition switch to OFF. 2)Remove fuse. 3)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B225) No. 5 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **2.**	Repair the open circuit in harness between battery and relay holder connector.
2	**CHECK RELAY HOLDER.** Is the fuse blown out?	The fuse is not blown out.	Go to step **3.**	Replace the fuse.
3	**CHECK INPUT VOLTAGE OF ABS RELAY.** 1)Install fuse. 2)Remove ABS relay. 3)Turn ignition switch to ON. 4)Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 2 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **4.**	Repair the open circuit in harness between battery and relay holder connector.
4	**CHECK INPUT VOLTAGE OF ABS RELAY.** Measure the voltage between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 1 (+) — Chassis ground (−):*** Is the measured value more than the specified value?	10 V	Go to step **5.**	Repair the harness connector between battery, ignition switch and ABS relay.
5	**CHECK GROUND CIRCUIT OF ABS RELAY.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABS relay connector and chassis ground. ***Connector & terminal*** ***(B264) No. 3 (+) — Chassis ground:*** Is the measured value less than the specified value?	5 Ω	Go to step **6.**	Repair open circuit between ABS relay and chassis ground.
6	**CHECK ABS RELAY.** 1)Connect the battery to ABS relay terminals No. 1 and No. 3. 2)Measure the resistance between ABS relay terminals. Is the measured value less than the specified value?	10 Ω	Go to step **7.**	Replace the ABS relay.
7	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Idle the engine. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** ***(B301) No. 24 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **8.**	Repair the harness connector between battery and ABSCM & H/U.

	Step	Check	Yes	No
8	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **9.**	Repair the ABSCM & H/U ground harness.
9	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **10.**	Repair the connector.
10	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **11.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
11	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

Z: DTC 51 — VALVE RELAY MALFUNCTION —

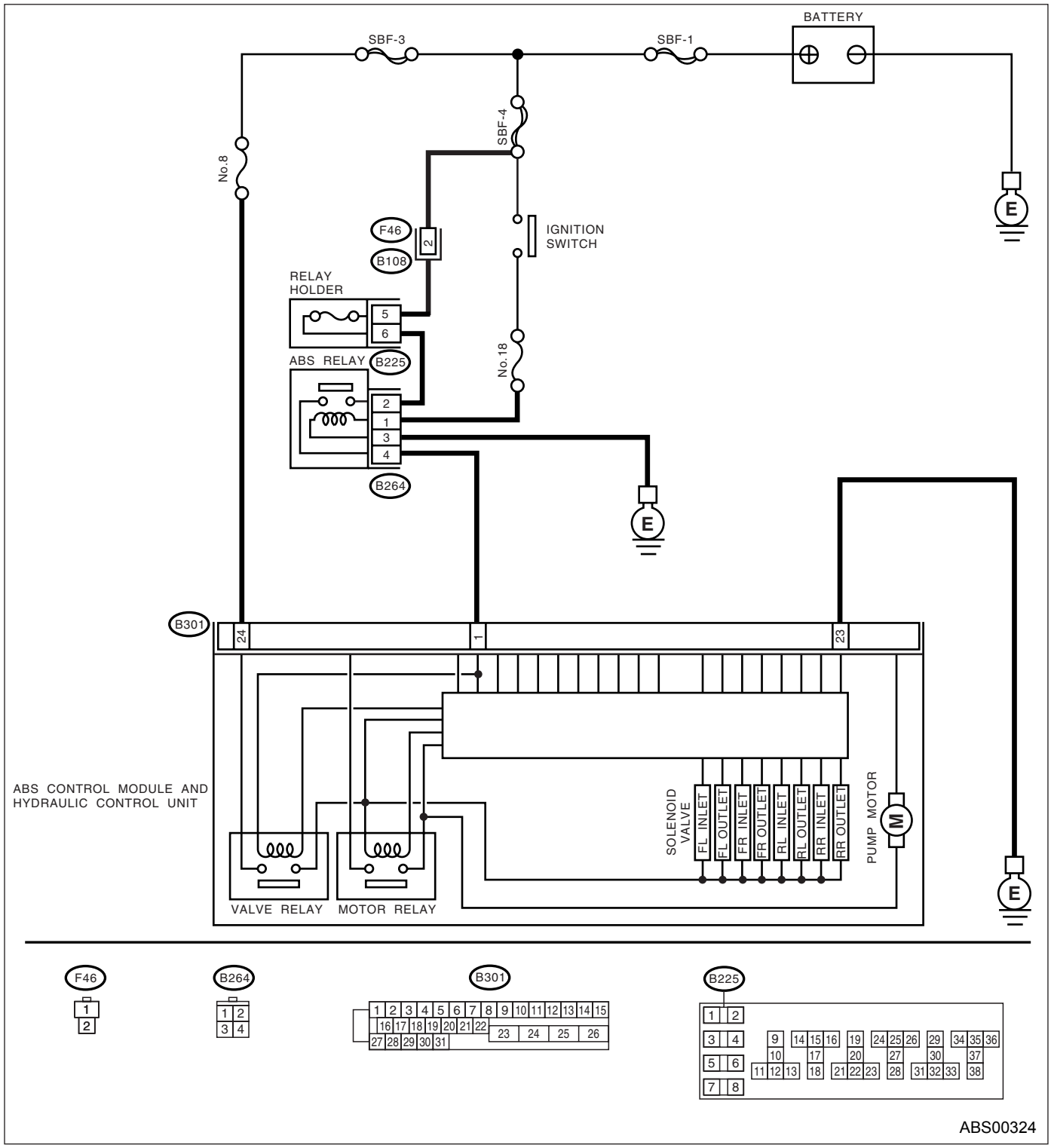
DIAGNOSIS:

- Valve relay malfunction

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK VALVE RELAY IN ABSCM & H/U.** 1)Disconnect the connector from ABSCM & H/U. 2)Measure the resistance between ABSCM & H/U terminals. ***Terminal*** ***No. 23 — No. 24:*** Is the measured value more than the specified value?	1 MΩ	Go to step **2.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AA:DTC 52 — OPEN CIRCUIT IN MOTOR RELAY CIRCUIT —

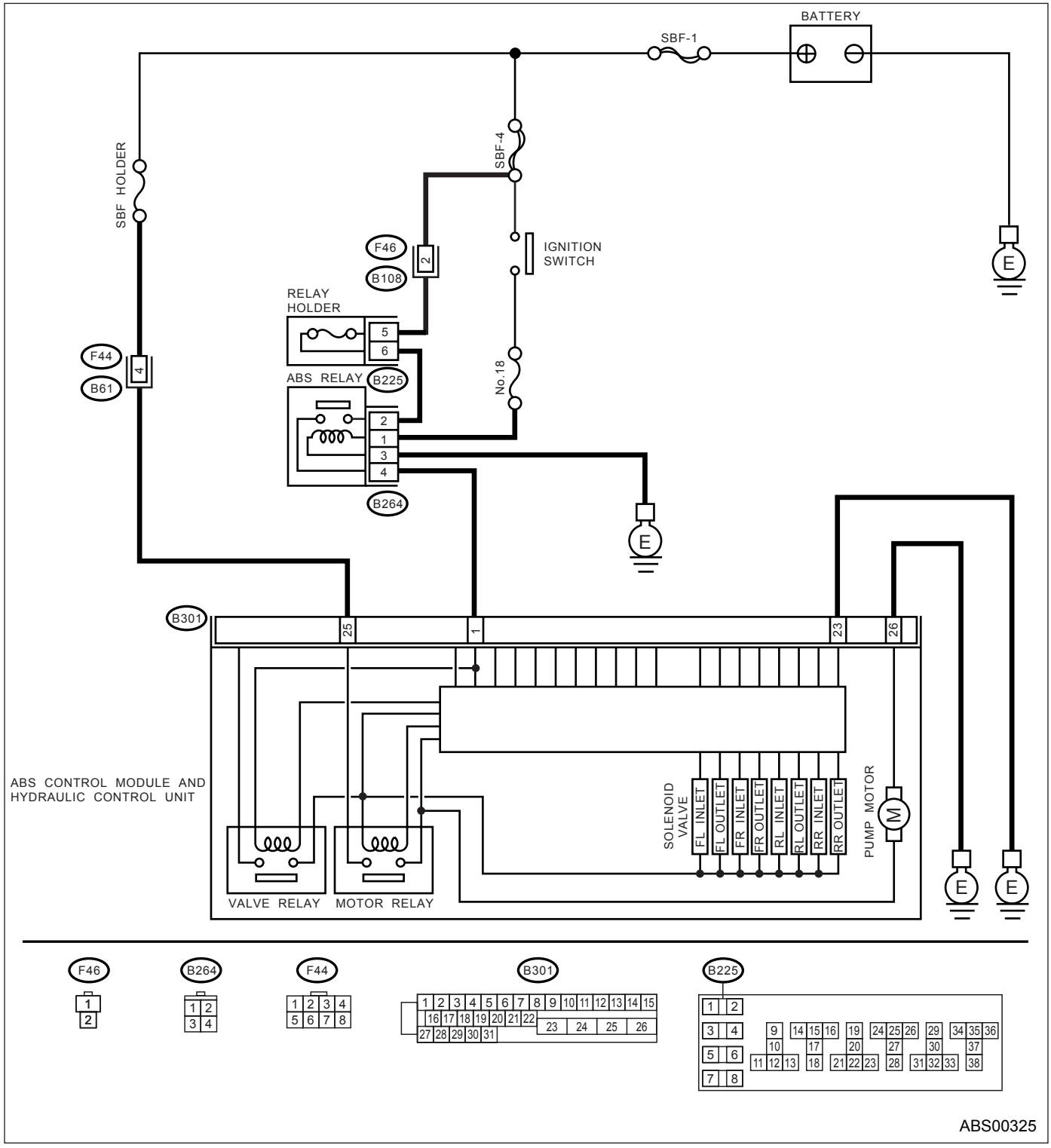
DIAGNOSIS:

- Motor malfunction
- Motor relay malfunction
- Faulty harness connector

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Turn ignition switch to ON. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 25 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 13 V	Go to step **2.**	Repair the harness/connector between battery and ABSCM & H/U, and check fuse SBF8.
2	**CHECK GROUND CIRCUIT OF MOTOR.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 26 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **3.**	Repair the ABSCM & H/U ground harness.
3	**CHECK MOTOR OPERATION.** Operate the sequence control. <Ref. to ABS-11, ABS Sequence Control.> NOTE: Use the diagnosis connector to operate sequence control. Can motor operating noise (buzz) be heard during the sequence control?	Motor operating noise (buzz) can be heard.	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **5.**	Repair the connector.
5	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **6.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
6	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AB:DTC 52 — MOTOR RELAY ABNORMAL —

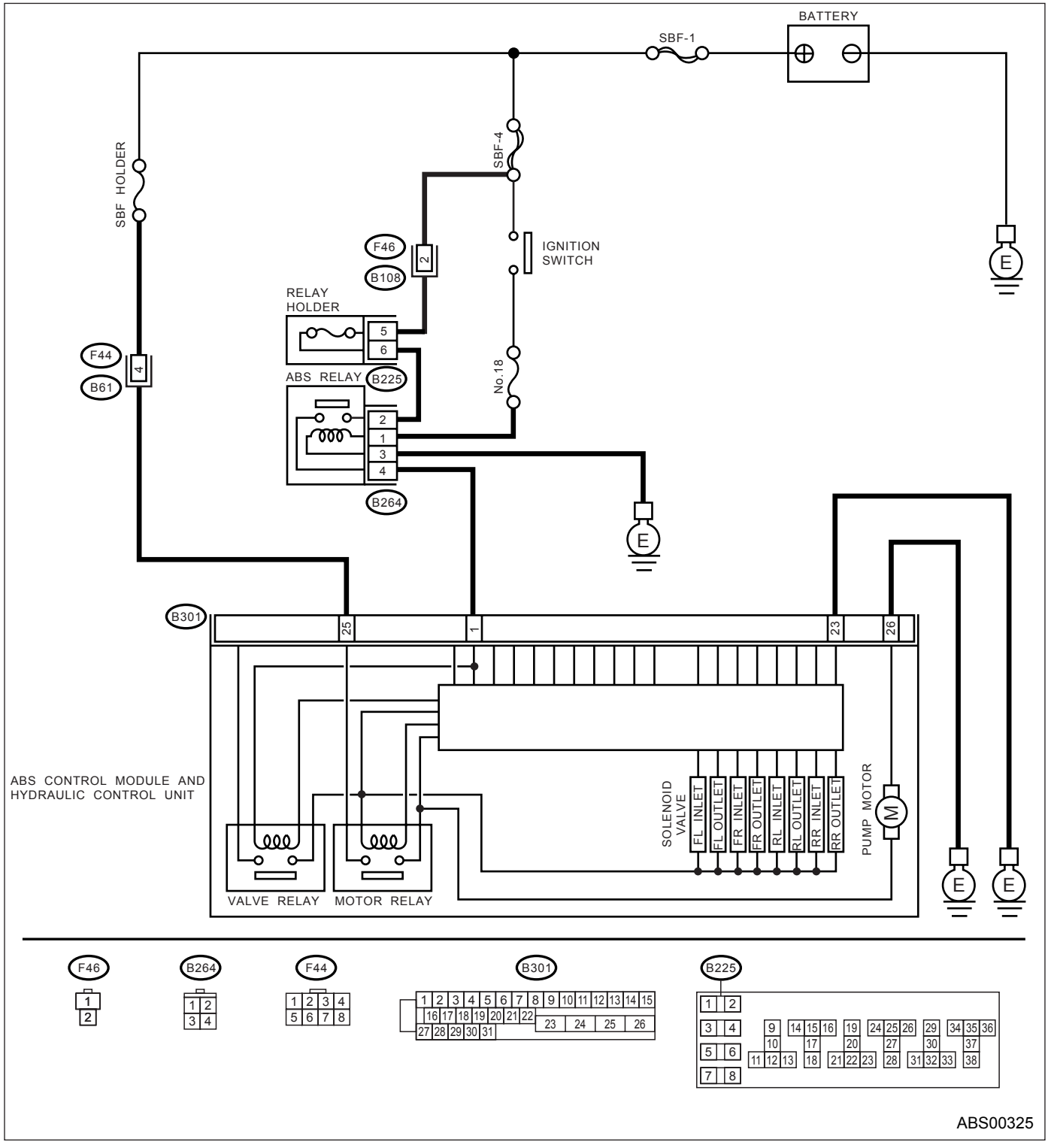
DIAGNOSIS:

- Motor malfunction
- Motor relay malfunction
- Faulty harness connector

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK MOTOR RELAY IN ABSCM & H/U.** 1)Disconnect the connector from ABSCM & H/U. 2)Measure the resistance between ABSCM & H/U terminals. ***Terminal*** ***No. 25 — No. 26:*** Is the measured value more than the specified value?	1 MΩ	Go to step **2.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
2	**CHECK MOTOR OPERATION.** Operate the sequence control. <Ref. to ABS-11, ABS Sequence Control.> NOTE: Use the diagnosis connector to operate sequence control. Can motor operating noise (buzz) be heard during the sequence control?	Motor operating noise (buzz) can be heard.	Go to step **3.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
3	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **4.**	Repair the connector.
4	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **5.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
5	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact. NOTE: Although the ABS warning light remains illuminating at this point, this is a normal condition. Vehicle must be driven at approx. 12 km/h (7.46 MPH) or faster to turn off ABS warning light. Make sure that the ABS warning light goes off after driving the vehicle.	Proceed with the diagnosis corresponding to DTC.

AC:DTC 52 — MOTOR MALFUNCTION —

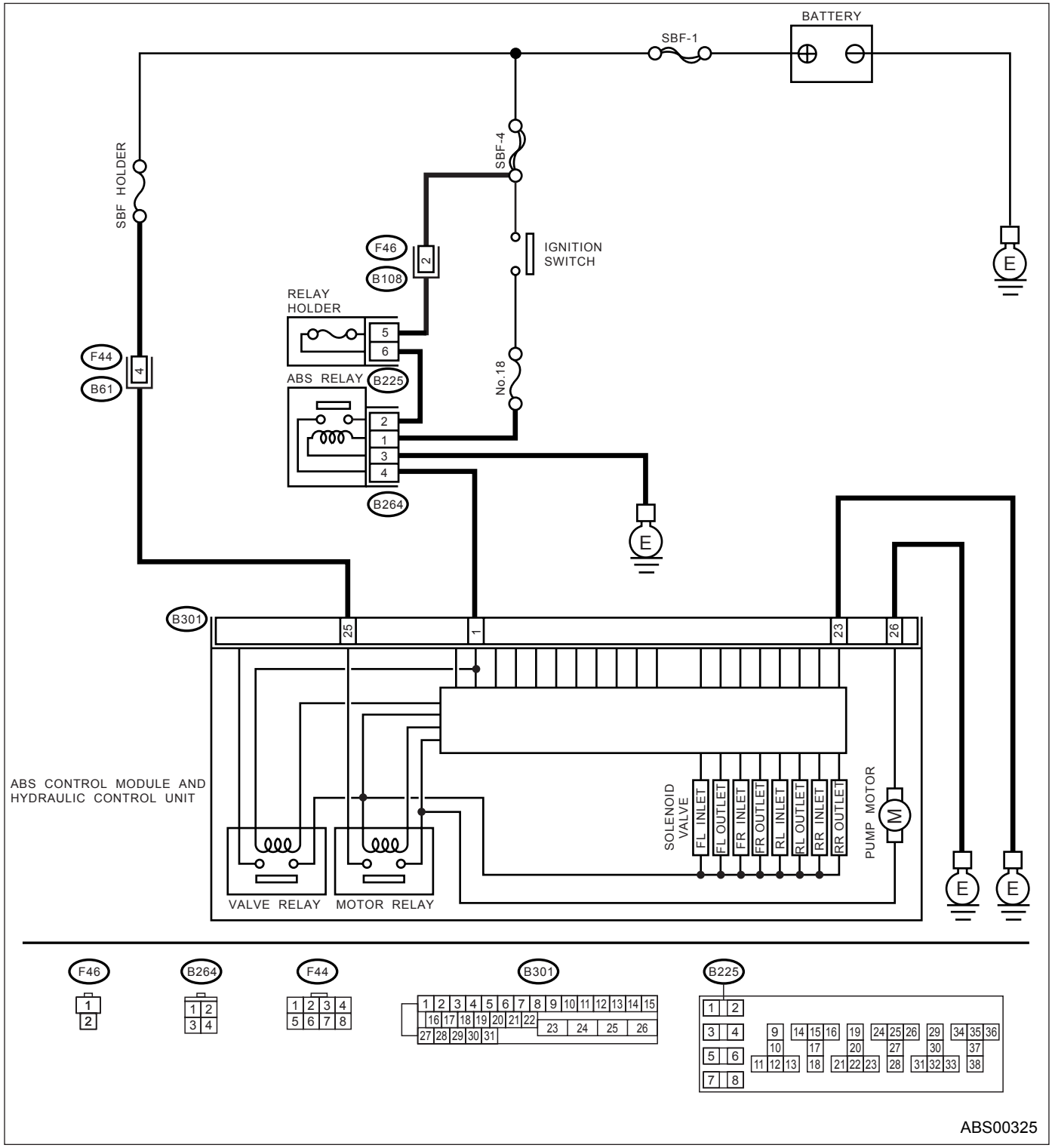
DIAGNOSIS:

- Motor malfunction
- Motor relay malfunction
- Faulty harness connector

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Turn ignition switch to ON. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 25 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 13 V	Go to step **2.**	Repair the harness/connector between battery and ABSCM & H/U, and check fuse SBF8.
2	**CHECK GROUND CIRCUIT OF MOTOR.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 26 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **3.**	Repair the ABSCM & H/U ground harness.
3	**CHECK INPUT VOLTAGE OF ABSCM & H/U.** 1)Idle the engine. 2)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 1 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **4.**	Repair the harness connector between battery, ignition switch and ABSCM & H/U.
4	**CHECK GROUND CIRCUIT OF ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 23 — Chassis ground:*** Is the measured value less than the specified value?	0.5 Ω	Go to step **5.**	Repair the ABSCM & H/U ground harness.
5	**CHECK MOTOR OPERATION.** Operate the sequence control. <Ref. to ABS-11, ABS Sequence Control.> NOTE: Use the diagnosis connector to operate sequence control. Can motor operating noise (buzz) be heard during the sequence control?	Motor operating noise (buzz) can be heard.	Go to step **6.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
6	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connectors between generator, battery and ABSCM & H/U?	There is no poor contact.	Go to step **7.**	Repair the connector.
7	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **8.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
8	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AD:DTC 54 — STOP LIGHT SWITCH SIGNAL CIRCUIT MALFUNCTION —

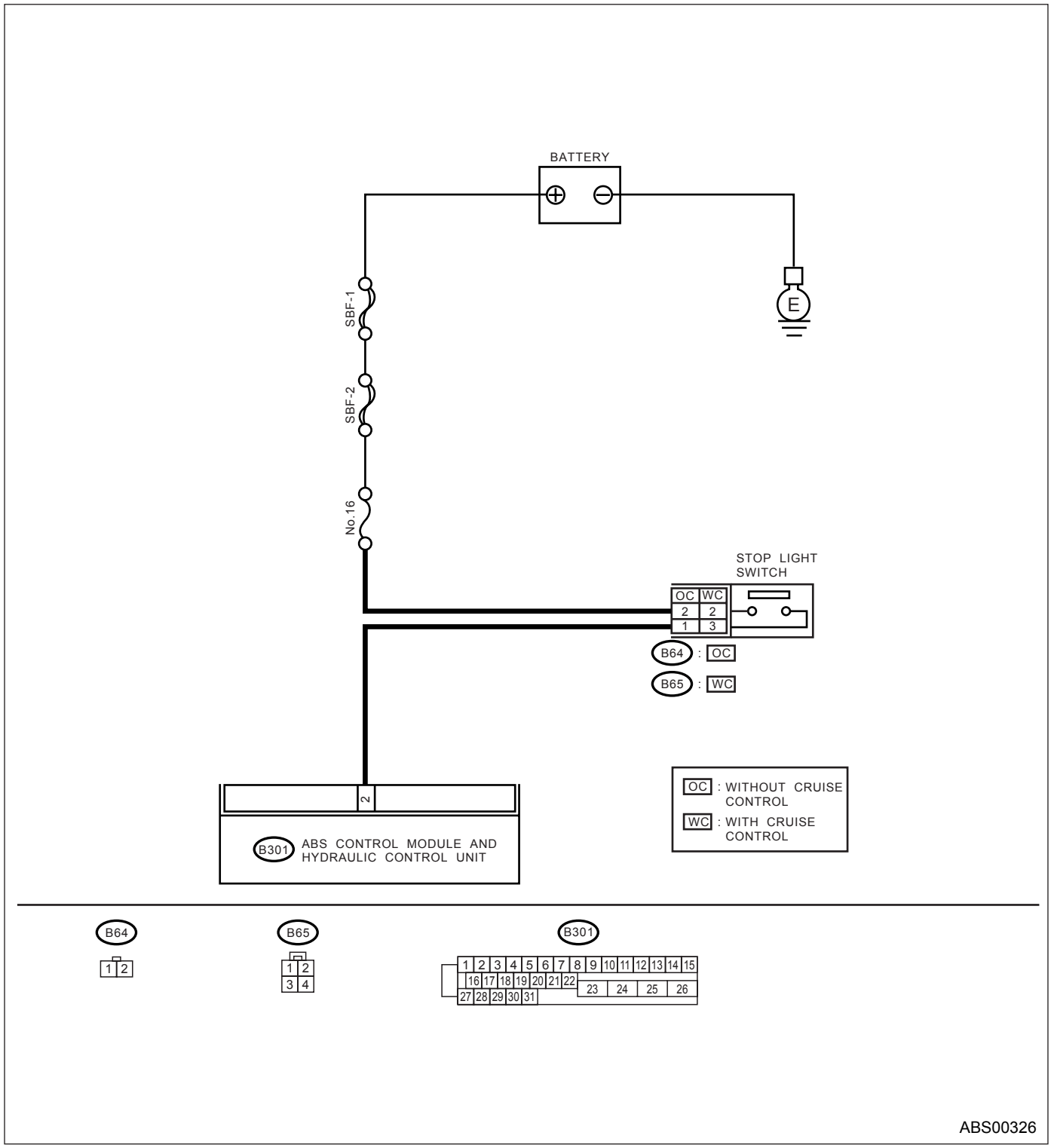
DIAGNOSIS:

- Stop light switch malfunction

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



ABS00326

	Step	Check	Yes	No
1	**CHECK OUTPUT OF STOP LIGHT SWITCH USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Release the brake pedal. 3)Read the stop light switch output from Subaru Select Monitor data display. Is the reading indicated on monitor display less than the specified value?	1.5 V	Go to step **2.**	Go to step **3.**
2	**CHECK OUTPUT OF STOP LIGHT SWITCH USING SUBARU SELECT MONITOR.** 1)Depress the brake pedal. 2)Read the stop light switch output from Subaru Select Monitor data display. Is the reading indicated on monitor display within the specified range?	10 — 15 V	Go to step **5.**	Go to step **3.**
3	**CHECK IF STOP LIGHTS COME ON.** Depress the brake pedal. Do the stop lights turn on?	Lights turn on.	Go to step **4.**	Repair the stop lights circuit.
4	**CHECK FOR OPEN CIRCUIT IN HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Depress the brake pedal. 4)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 2 (+) — Chassis ground (−):*** Is the measured value within the specified range?	10 — 15 V	Go to step **5.**	Repair the harness between stop light switch and ABSCM & H/U connector.
5	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connector between stop light switch and ABSCM & H/U?	There is no poor contact.	Go to step **6.**	Repair the connector.
6	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **7.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
7	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AE:DTC 56 — OPEN OR SHORT CIRCUIT IN G SENSOR CIRCUIT —

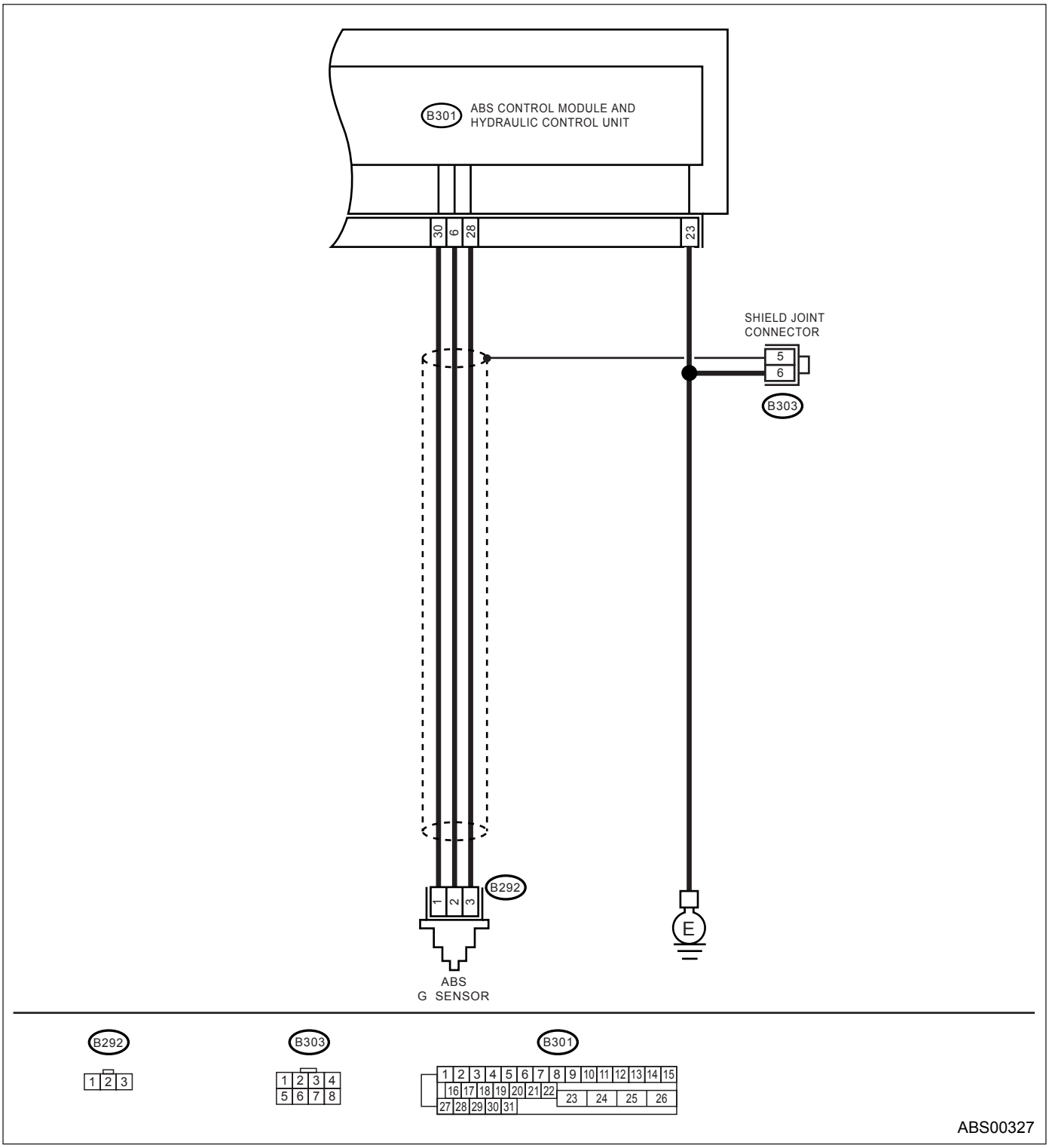
DIAGNOSIS:

- Abnormal G sensor output voltage

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read G sensor output on the Subaru Select Monitor display. Is the G sensor output on monitor display within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **2.**	Go to step **5.**
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.
5	**CHECK INPUT VOLTAGE OF G SENSOR.** 1)Turn ignition switch to OFF. 2)Remove the console box. 3)Remove the G sensor from vehicle. (Do not disconnect connector.) 4)Turn ignition switch to ON. 5)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 1 (+) — No. 3 (–):*** Is the measured value within the specified range?	4.75 — 5.25 V	Go to step **6.**	Repair the harness/connector between G sensor and ABSCM & H/U.
6	**CHECK FOR OPEN CIRCUIT IN G SENSOR OUTPUT HARNESS AND GROUND HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal*** ***(B301) No. 6 — No. 28:*** Is the measured value within the specified range?	5.0 — 5.6 kΩ	Go to step **7.**	Repair the harness/connector between G sensor and ABSCM & H/U.
7	**CHECK SHORT CIRCUIT TO GROUND IN G SENSOR OUTPUT HARNESS.** 1)Disconnect the connector from G sensor. 2)Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 6 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **8.**	Repair the harness between G sensor and ABSCM & H/U.

	Step	Check	Yes	No
8	**CHECK G SENSOR.** 1)Connect the connector to G sensor. 2)Connect the connector to ABSCM & H/U. 3)Turn ignition switch to ON. 4)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **9.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
9	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined forwards to 90°?	3.7 — 4.1 V	Go to step **10.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
10	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined backwards to 90°?	0.5 — 0.9 V	Go to step **11.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
11	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **12.**	Repair the connector.
12	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **13.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
13	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AF:DTC 56 — SHORT CIRCUIT TO BATTERY IN G SENSOR CIRCUIT —

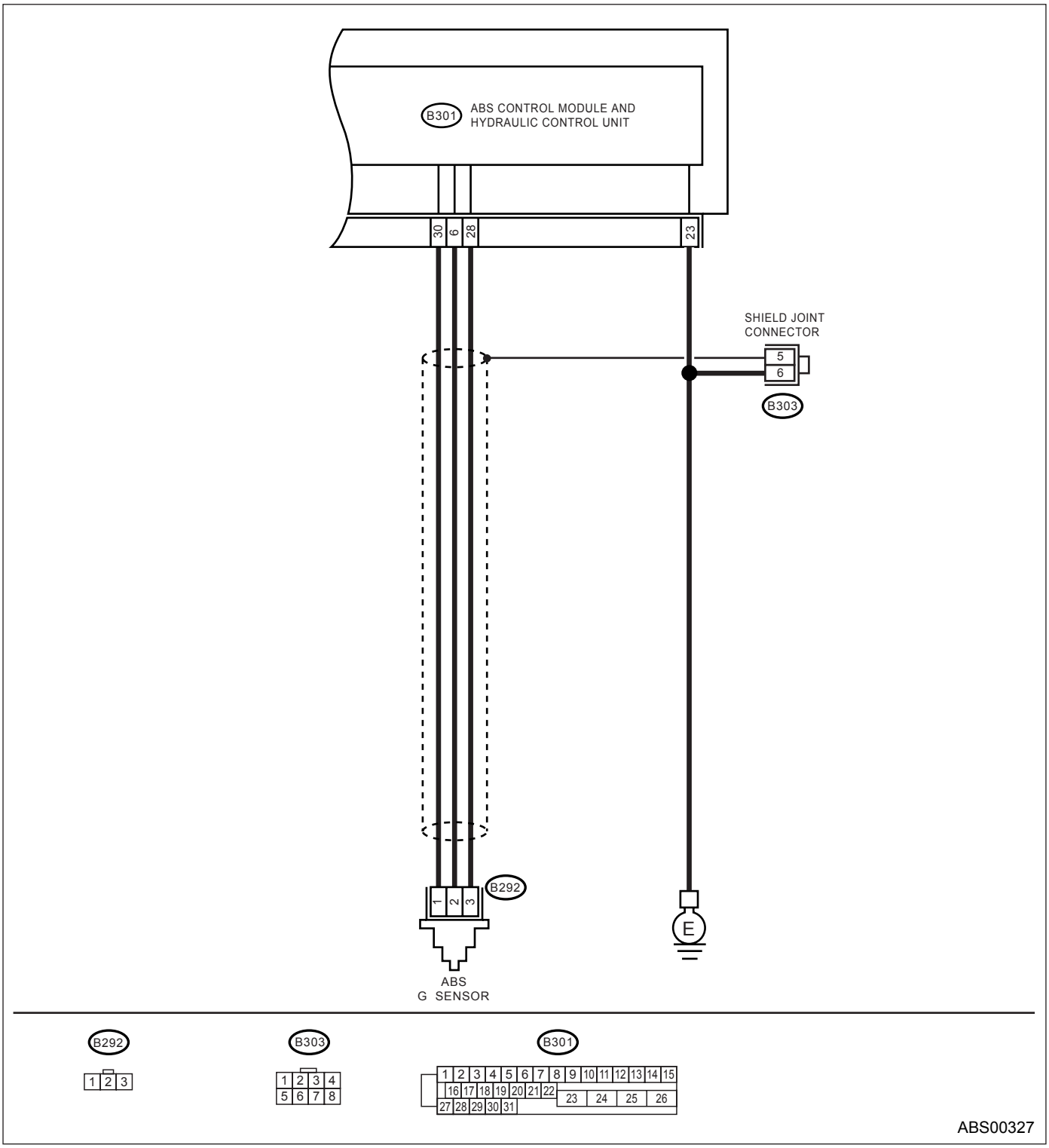
DIAGNOSIS:

- Abnormal G sensor output voltage

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read G sensor output on the Subaru Select Monitor display. Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **2.**	Go to step **5.**
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.
5	**CHECK FREEZE FRAME DATA.** 1)Select “Freeze frame data” on Subaru Select Monitor. 2)Read front right wheel speed on the Subaru Select Monitor display. Is the front right wheel speed on monitor display 0 km/h (0 MPH)?	Monitor displays 0 km/h (0 MPH).	Go to step **6.**	Go to step **16.**
6	**CHECK FREEZE FRAME DATA.** Read front left wheel speed on the Subaru Select Monitor display. Is the front left wheel speed on monitor display 0 km/h (0 MPH)?	Monitor displays 0 km/h (0 MPH).	Go to step **7.**	Go to step **16.**
7	**CHECK FREEZE FRAME DATA.** Read rear right wheel speed on the Subaru Select Monitor display. Is the rear right wheel speed on monitor display 0 km/h (0 MPH)?	Monitor displays 0 km/h (0 MPH).	Go to step **8.**	Go to step **16.**
8	**CHECK FREEZE FRAME DATA.** Read rear left wheel speed on the Subaru Select Monitor display. Is the rear left wheel speed on monitor display 0 km/h (0 MPH)?	Monitor displays 0 km/h (0 MPH).	Go to step **9.**	Go to step **16.**
9	**CHECK FREEZE FRAME DATA.** Read G sensor output on the Subaru Select Monitor display. Is the G sensor output on monitor display more than the specified value?	3.65 V	Go to step **10.**	Go to step **16.**

	Step	Check	Yes	No
10	**CHECK FOR OPEN CIRCUIT IN G SENSOR OUTPUT HARNESS AND GROUND HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal*** ***(B301) No. 6 — No. 28:*** Is the measured value within the specified range?	4.3 — 4.9 kΩ	Go to step **11.**	Repair the harness/connector between G sensor and ABSCM & H/U.
11	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** 1)Turn ignition switch to OFF. 2)Remove the console box. 3)Disconnect the connector from G sensor. 4)Disconnect the connector from ABSCM & H/U. 5)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 6 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **12.**	Repair the harness between G sensor and ABSCM & H/U.
12	**CHECK FOR SHORT CIRCUIT TO BATTERY IN HARNESS.** 1)Turn ignition switch to ON. 2)Measure the voltage between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 6 (+) — Chassis ground (−):*** Is the measured value less than the specified value?	1 V	Go to step **13.**	Repair the harness between G sensor and ABSCM & H/U.
13	**CHECK FOR POOR CONTACT IN CONNECTORS.** Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **14.**	Repair the connector.
14	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **15.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
15	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

	Step	Check	Yes	No
16	**CHECK INPUT VOLTAGE OF G SENSOR.** 1)Turn ignition switch to OFF. 2)Remove the console box. 3)Remove the G sensor from vehicle. (Do not disconnect connector.) 4)Turn ignition switch to ON. 5)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 1 (+) — No. 3 (−):*** Is the measured value within the specified range?	4.75 — 5.25 V	Go to step **17.**	Repair the harness/connector between G sensor and ABSCM & H/U.
17	**CHECK FOR OPEN CIRCUIT IN G SENSOR OUTPUT HARNESS AND GROUND HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal*** ***(B301) No. 6 — No. 28:*** Is the measured value within the specified range?	5.0 — 5.6 kΩ	Go to step **18.**	Repair the harness/connector between G sensor and ABSCM & H/U.
18	**CHECK G SENSOR.** 1)Connect the connector to G sensor. 2)Connect the connector to ABSCM & H/U. 3)Turn ignition switch to ON. 4)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **19.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
19	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined forwards to 90°?	3.7 — 4.1 V	Go to step **20.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
20	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined backwards to 90°?	0.5 — 0.9 V	Go to step **21.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
21	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **22.**	Repair the connector.

	Step	Check	Yes	No
22	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **23.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
23	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AG:DTC 56 — ABNORMAL G SENSOR HIGH μ OUTPUT —

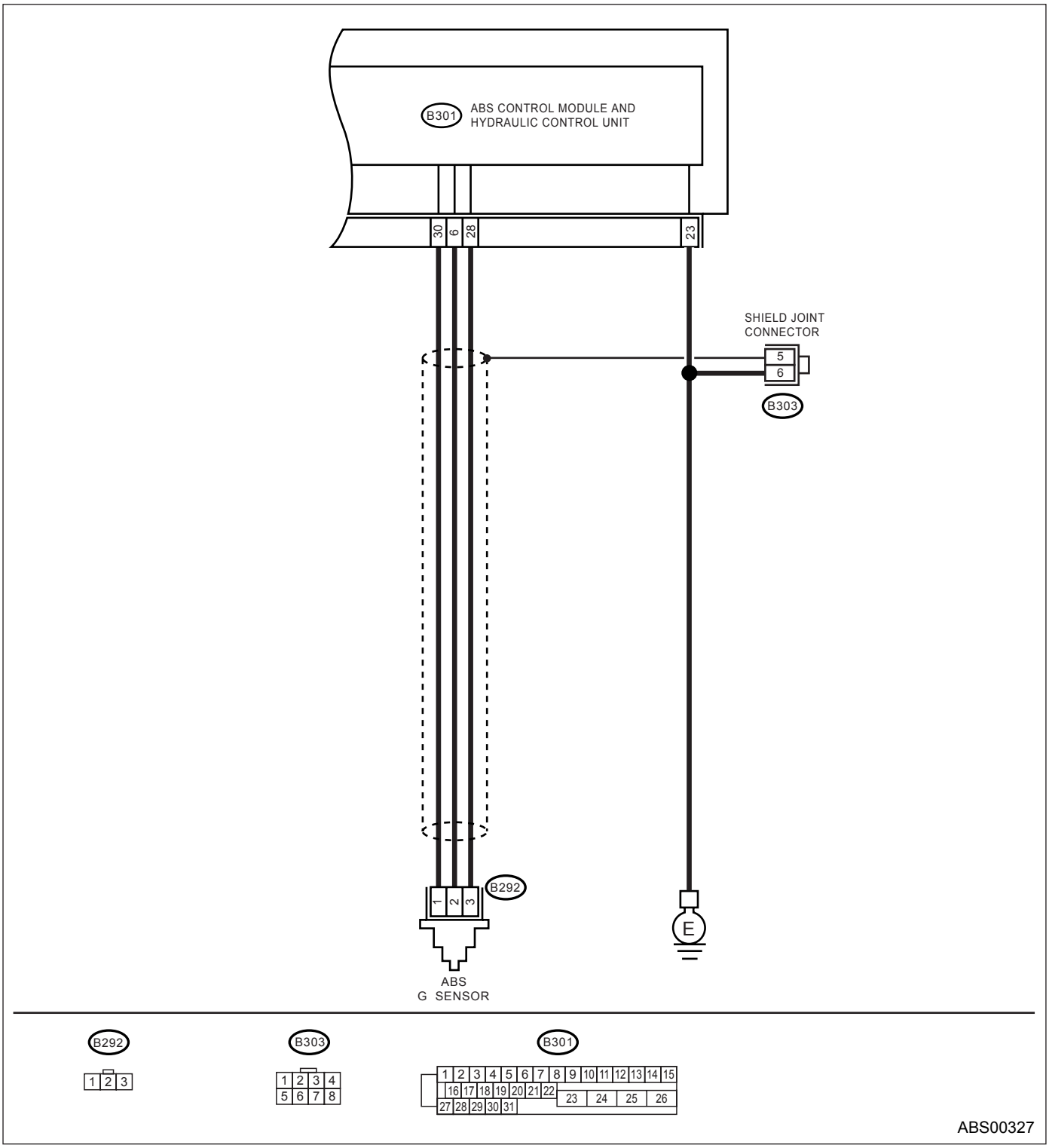
DIAGNOSIS:

- Abnormal G sensor output voltage

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read G sensor output on the Subaru Select Monitor display. Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **2.**	Go to step **6.**
2	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **3.**	Repair the connector.
3	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **4.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
4	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.
5	**CHECK FOR OPEN CIRCUIT IN G SENSOR OUTPUT HARNESS AND GROUND HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal*** ***(B301) No. 6 — No. 28:*** Is the measured value within the specified range?	5.0 — 5.6 kΩ	Go to step **6.**	Repair the harness/connector between G sensor and ABSCM & H/U.
6	**CHECK FOR SHORT CIRCUIT TO GROUND IN HARNESS.** Measure the resistance between ABSCM & H/U connector and chassis ground. ***Connector & terminal*** ***(B301) No. 28 — Chassis ground:*** Is the measured value more than the specified value?	1 MΩ	Go to step **7.**	Repair the harness between G sensor and ABSCM & H/U. Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>

	Step	Check	Yes	No
7	**CHECK G SENSOR.** 1)Remove the console box. 2)Remove the G sensor from vehicle. 3)Connect the connector to G sensor. 4)Connect the connector to ABSCM & H/U. 5)Turn ignition switch to ON. 6)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **8.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
8	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined forwards to 90°?	3.7 — 4.1 V	Go to step **9.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
9	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (−):*** Is the measured value within the specified range when G sensor is inclined backwards to 90°?	0.5 — 0.9 V	Go to step **10.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
10	**CHECK ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Connect all connectors. 3)Clear the memory. 4)Perform the inspection mode. 5)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **11.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
11	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.

AH:DTC 56 — DETECTION OF STICKING G SENSOR —

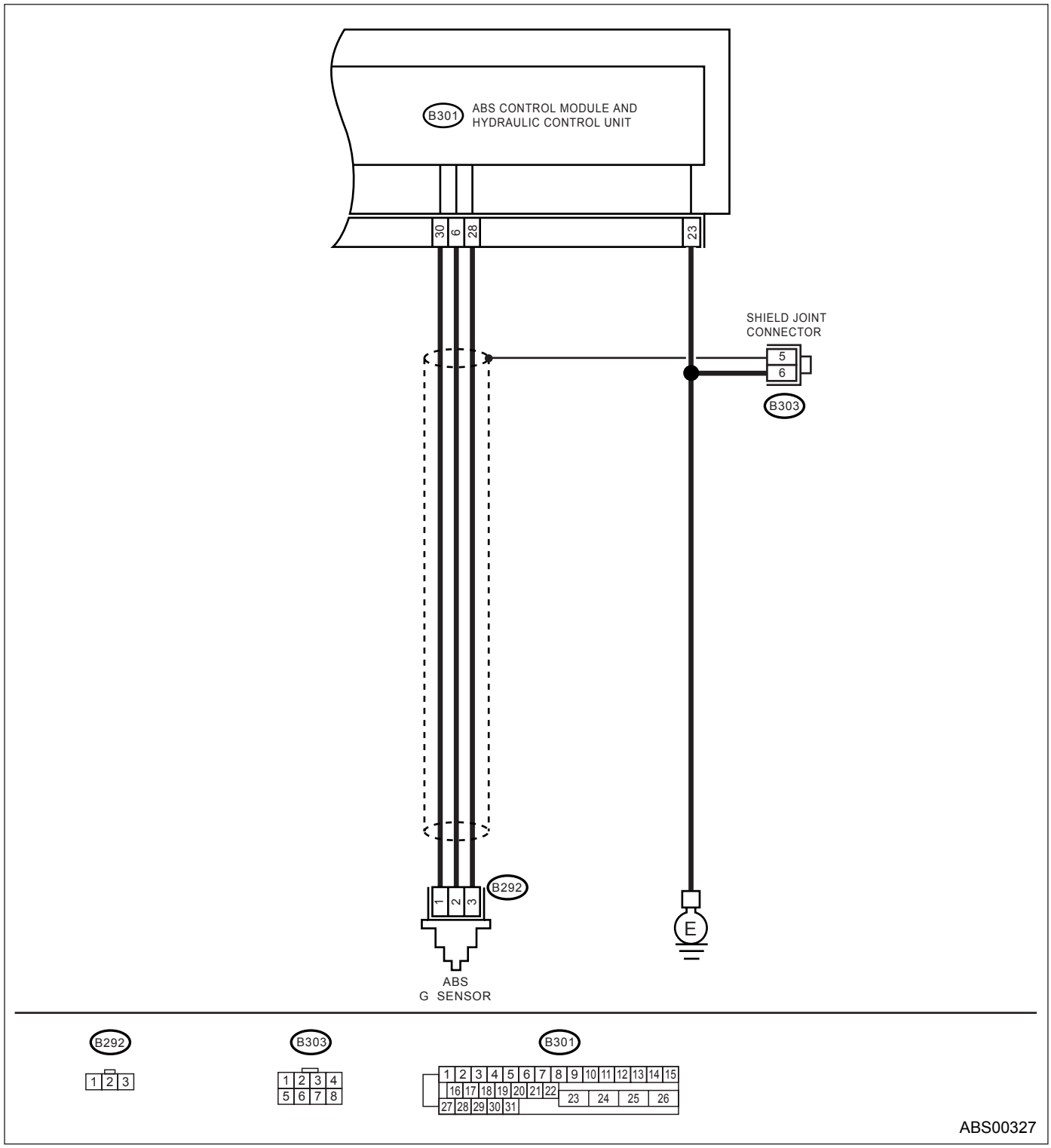
DIAGNOSIS:

- Abnormal G sensor output voltage

TROUBLE SYMPTOM:

- ABS does not operate.

WIRING DIAGRAM:



	Step	Check	Yes	No
1	**CHECK IF THE WHEELS HAVE TURNED FREELY FOR A LONG TIME.** Have the wheels been turned freely such as when vehicle is lifted up, or operated on a rolling road?	Wheels have not been turned freely.	Go to step **2.**	The ABS is normal. Clear the memory.
2	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** 1)Select “Current data display & Save” on the Subaru Select Monitor. 2)Read the Subaru Select Monitor display. Is the G sensor output on monitor display within the specified range when the vehicle is in a horizontal position?	2.1 — 2.5 V	Go to step **3.**	Go to step **8.**
3	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** 1)Turn ignition switch to OFF. 2)Remove the console box. 3)Remove the G sensor from vehicle. (Do not disconnect connector.) 4)Turn ignition switch to ON. 5)Select “Current data display & Save” on the Subaru Select Monitor. 6)Read the Subaru Select Monitor display. Is the value displayed on the monitor within the specified range when G sensor is inclined forwards to 90°?	3.7 — 4.1 V	Go to step **4.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
4	**CHECK OUTPUT OF G SENSOR USING SUBARU SELECT MONITOR.** Read the Subaru Select Monitor display. Is the value displayed on the monitor within the specified range when G sensor is inclined backwards to 90°?	0.5 — 0.9 V	Go to step **5.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
5	**CHECK FOR POOR CONTACT IN CONNECTORS.** Turn ignition switch to OFF. Is there poor contact in connector between ABSCM & H/U and G sensor?	There is no poor contact.	Go to step **6.**	Repair the connector.
6	**CHECK ABSCM & H/U.** 1)Connect all connectors. 2)Clear the memory. 3)Perform the inspection mode. 4)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **7.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
7	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.
8	**CHECK FOR OPEN CIRCUIT IN G SENSOR OUTPUT HARNESS AND GROUND HARNESS.** 1)Turn ignition switch to OFF. 2)Disconnect the connector from ABSCM & H/U. 3)Measure the resistance between ABSCM & H/U connector terminals. ***Connector & terminal (B301) No. 6 — No. 28:*** Is the measured value within the specified range?	5.0 — 5.6 kΩ	Go to step **9.**	Repair the harness/connector between G sensor and ABSCM & H/U.

	Step	Check	Yes	No
9	**CHECK G SENSOR.** 1)Remove the console box. 2)Remove the G sensor from vehicle. 3)Connect the connector to G sensor. 4)Connect the connector to ABSCM & H/U. 5)Turn ignition switch to ON. 6)Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (–):*** Is the measured value within the specified range when G sensor is in a horizontal position?	2.1 — 2.5 V	Go to step **10.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
10	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (–):*** Is the measured value within the specified range when G sensor is inclined forwards to 90°?	3.7 — 4.1 V	Go to step **11.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
11	**CHECK G SENSOR.** Measure the voltage between G sensor connector terminals. ***Connector & terminal*** ***(B292) No. 2 (+) — No. 3 (–):*** Is the measured value within the specified range when G sensor is inclined backwards to 90°?	0.5 — 0.9 V	Go to step **12.**	Replace the G sensor. <Ref. to ABS-23, G Sensor.>
12	**CHECK ABSCM & H/U.** 1)Turn ignition switch to OFF. 2)Connect all connectors. 3)Clear the memory. 4)Perform the inspection mode. 5)Read out DTC. Is the same DTC still being output?	Same DTC is not output.	Go to step **13.**	Replace the ABSCM & H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
13	**CHECK FOR OTHER DIAGNOSTIC TROUBLE CODES (DTCs) .** Are other DTCs being output?	Other DTC is not output.	There was a temporary poor contact.	Proceed with the diagnosis corresponding to DTC.