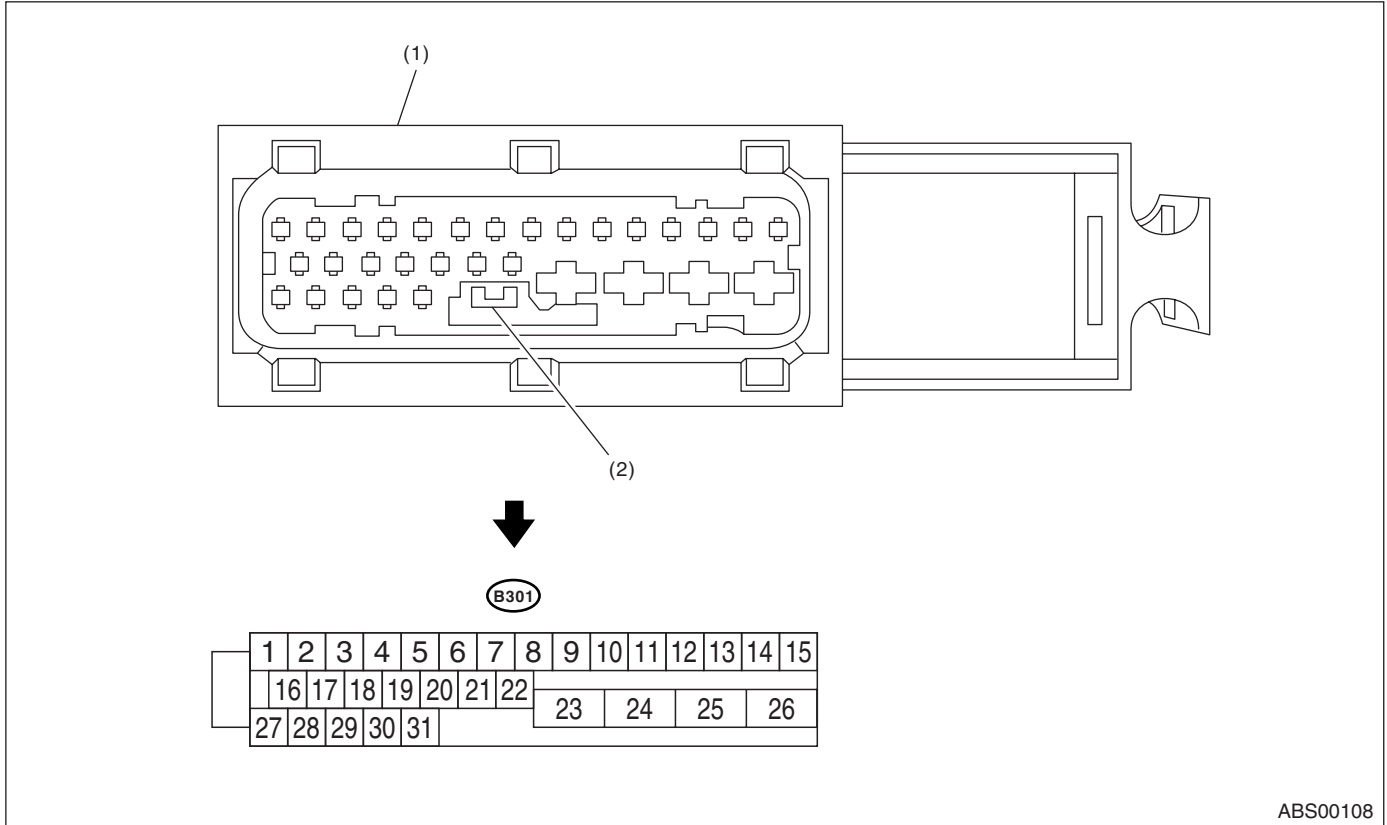


5. Control Module I/O Signals

A: ELECTRICAL SPECIFICATIONS



ABS00108

1) ABS control module and hydraulic control unit connector

2) Connector switch

NOTE:

- The terminal numbers in ABS control module and hydraulic control unit connector are as shown in the figure.
- When the connector is removed from ABSCM & H/U, the connector switch closes the circuit between terminal No. 22 and No. 23. When this occurs, the ABS warning light comes on.

CONTROL MODULE I/O SIGNALS

ABS (DIAGNOSTICS)

Contents		Terminal No. (+) — (—)	Input/Output signal
			Measured value and measuring conditions
ABS sensor*2 (wheel speed sensor)	Front left wheel	9 — 10	0.12 — 1V (at 20 Hz)
	Front right wheel	11 — 12	
	Rear left wheel	7 — 8	
	Rear right wheel	14 — 15	
Valve relay power supply*1		24 — 23	10 — 15V
Motor relay power supply*1		25 — 23	10 — 15V
G sensor*2	Power supply	30 — 28	4.75 — 5.25V
	Ground	28	—
	Output	6 — 28	2.1 — 2.5 V when vehicle is in a horizontal position.
Stop light switch*1		2 — 23	Less than 1.5 V when the stop light is OFF and, 10 — 15 V when the stop light is ON.
ABS warning light*2		22 — 23	Less than 1.5 V for 1.5 seconds ignition switch is turned to ON, and 10 — 15 V after 1.5 seconds has elapsed.
AT ABS signal (AT vehicles only)		31 — 23	Less than 1.5 V when ABS control is operating, and more than 5.5 V when ABS control is not operating.
ABS operation signal monitor		3 — 23	Less than 1.5 V when ABS control is operating, and more than 5.5 V when ABS control is not operating.
Subaru Select Monitor*2	Receiving data	20 — 23	Less than 1.5 V when no data is received.
	Sending data	5 — 23	4.75 — 5.25 V when no data is sent.
ABS diagnosis connector	Terminal No. 3	29 — 23	10 — 15 V when ignition switch is ON.
	Terminal No. 6	4 — 23	10 — 15 V when ignition switch is ON.
Power supply*1		1 — 23	10 — 15 V when ignition switch is ON.
Grounding line		23	—
Grounding line		26	—

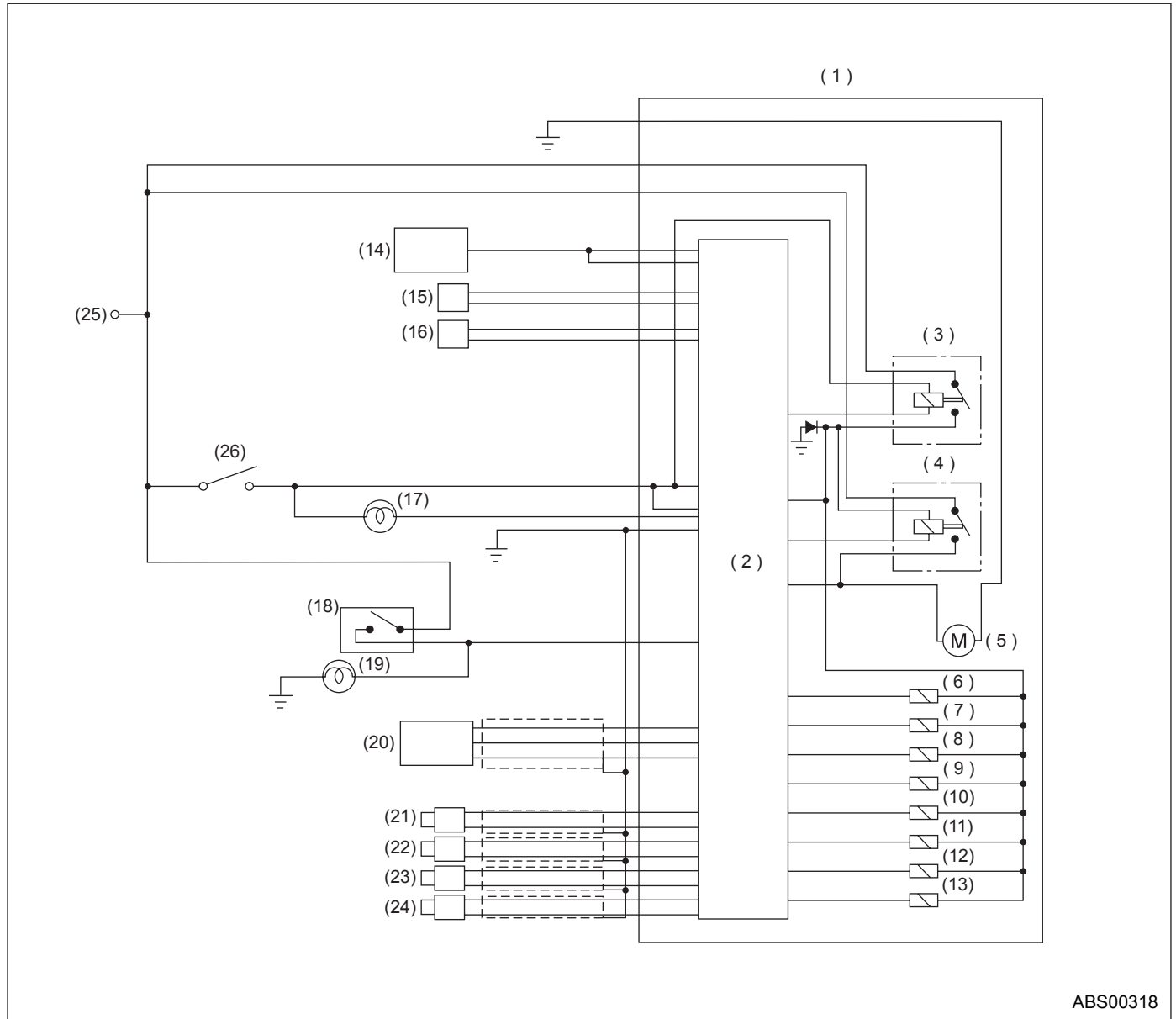
*1: Measure the I/O signal voltage after removing the connector from the ABSCM & H/U terminal.

*2: Measure the I/O signal voltage at connector (B99) or (F45).

CONTROL MODULE I/O SIGNALS

ABS (DIAGNOSTICS)

B: SCHEMATIC



- | | | |
|---|---|--------------------------|
| (1) ABS control module and hydraulic control unit (ABSCM & H/U) | (10) Rear inlet solenoid valve LH | (19) Stop light |
| (2) ABS control module area | (11) Rear outlet solenoid valve LH | (20) G sensor |
| (3) Valve relay | (12) Rear inlet solenoid valve RH | (21) Front ABS sensor LH |
| (4) Motor relay | (13) Rear outlet solenoid valve RH | (22) Front ABS sensor RH |
| (5) Motor | (14) Transmission control module (AT vehicles only) | (23) Rear ABS sensor LH |
| (6) Front inlet solenoid valve LH | (15) Diagnosis connector | (24) Rear ABS sensor RH |
| (7) Front outlet solenoid valve LH | (16) Data link connector | (25) Battery |
| (8) Front inlet solenoid valve RH | (17) ABS warning light | (26) IGN |
| (9) Front outlet solenoid valve RH | (18) Stop light switch | |

C: WAVEFORM

