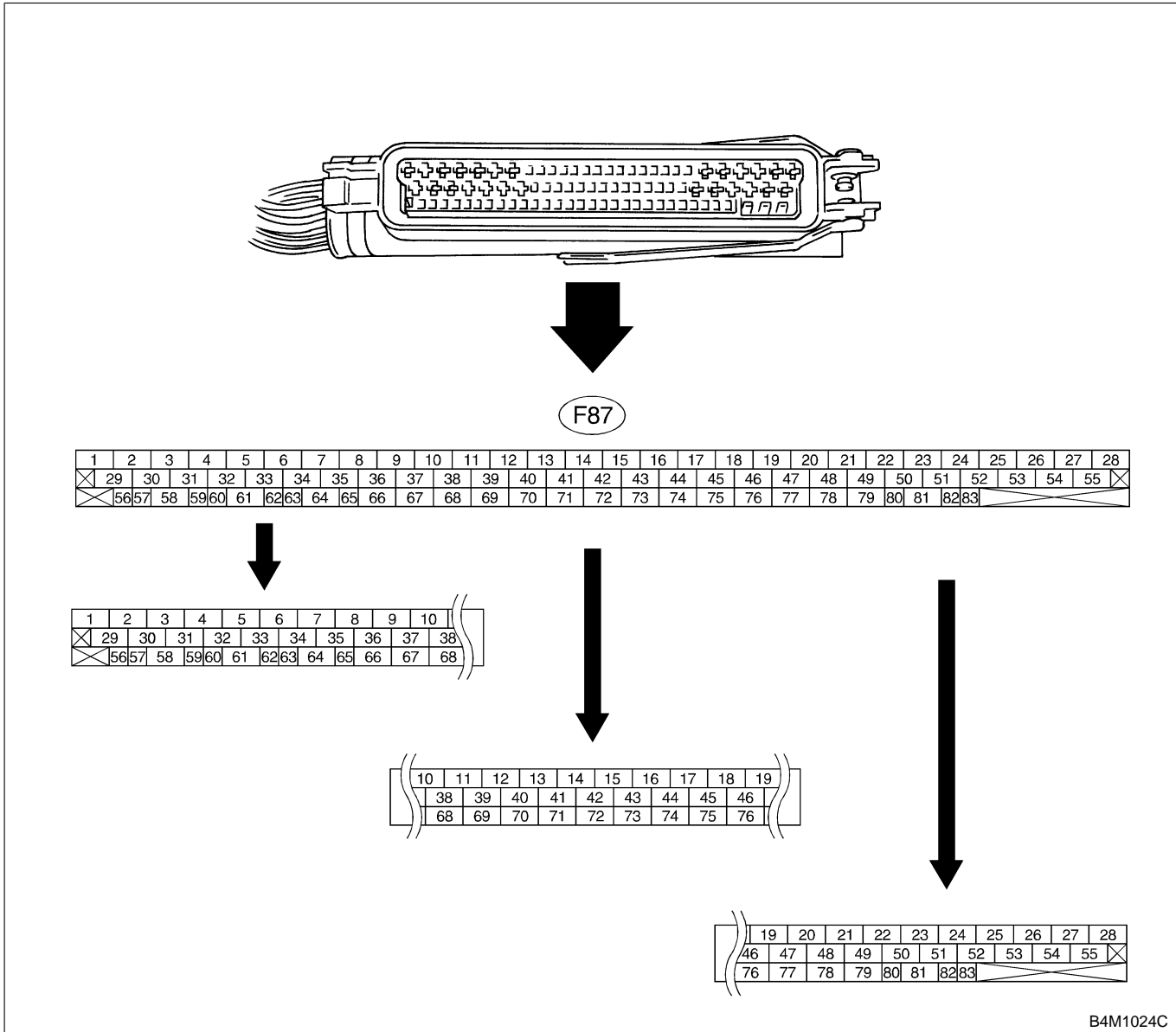


CONTROL MODULE I/O SIGNAL

VDC (DIAGNOSTICS)

5. Control Module I/O Signal S005524

A: ELECTRICAL SPECIFICATION S005524A08



NOTE:

- The terminal numbers in the VDC control module connector are as shown in the figure.
- When the connector is removed from the VDCCM, the connector switch closes the circuit between terminal No. 53, No. 54 and No. 55. The ABS and VDC warning light illuminate.

CONTROL MODULE I/O SIGNAL

VDC (DIAGNOSTICS)

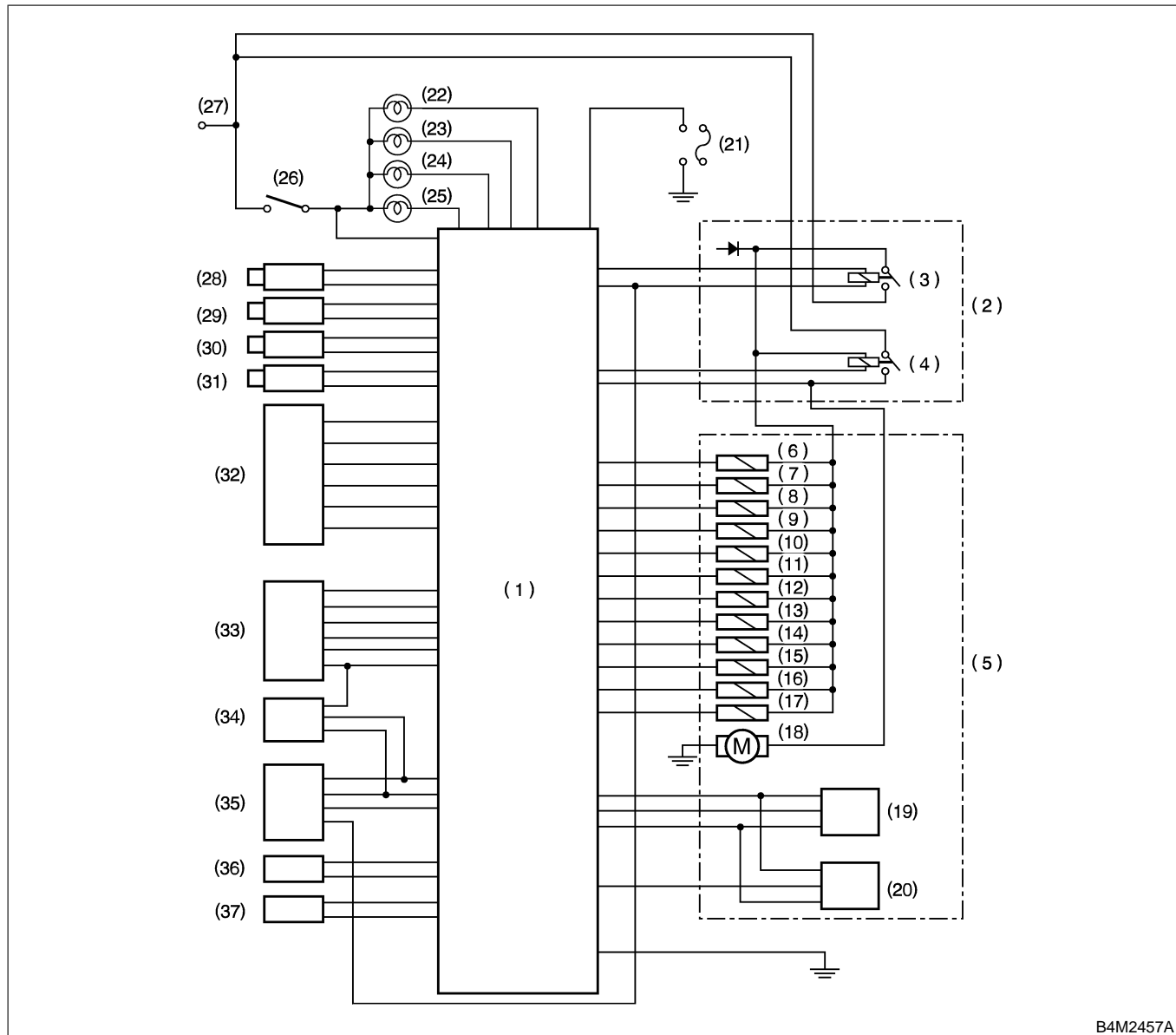
Contents		Terminal No. (+)-(–)	Input/Output signal
			Measured value and measuring condition
Ignition switch		28—1	10 — 15 V when ignition switch is ON.
ABS sensor (Wheel speed sensor)	Front left wheel	49—19	0.12 — 1 V (When it is 20 Hz.)
	Front right wheel	14—15	
	Rear left wheel	18—46	
	Rear right wheel	16—17	
Yaw rate and lateral G sensor	Output (Lateral G sensor)	70—64	2.2 — 2.8 V when vehicle is in horizontal position.
	Power supply	63—64	10 — 15 V when ignition switch is ON.
	Output (Yaw rate sensor)	65—64	Wave form <Ref. to VDC-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>
	Reference (Yaw rate sensor)	66—64	2.1 — 2.9 V
	Test	67—64	40 ms pulse signal with a cycle of 5 — 1 V <Ref. to VDC-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>
	Ground	64	—
CAN communication line (+)		81—1	2.5 — 1.5 V pulse signal <Ref. to VDC-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>
CAN communication line (–)		83—1	3.5 — 2.5 V pulse signal <Ref. to VDC-15 WAVE FORM, MEASUREMENT, Control Module I/O Signal.>
Engine module	AET	21—1	1.5 V or less (ABS/TCS/VDC operating); 10 V or more (ABS/TCS/VDC not operating)
	AEB	43—1	10 — 15 V (Ignition switch ON and vehicle at standstill)
	AEC	8—1	10 — 15 V (Ignition switch ON and vehicle at standstill)
	EAS	75—1	3.5 — 1.5 V pulse signal
	EAC	45—1	3.5 — 1.5 V pulse signal
	Revolution	9—1	10 — 1.5 V pulse signal
Relay box	Valve relay power supply	27—1	10 — 15 V when ignition switch is ON.
	Valve relay coil	47—1	Less than 1.5 V when ignition switch is ON.
	Motor relay coil	22—1	1.5 V or less (ABS/TCS/VDC operating); 10 V or more (ABS/TCS/VDC not operating)
	Motor monitoring	10—1	10 V or less (ABS/TCS/VDC operating); 1.5 V or more (ABS/TCS/VDC not operating)
Hydraulic control unit	Front left inlet solenoid valve	24—1	10 — 15 V when the valve is OFF and less than 1.5 V when the valve is ON.
	Front right inlet solenoid valve	30—1	
	Rear left inlet solenoid valve	31—1	
	Rear right inlet solenoid valve	23—1	
	Front left outlet solenoid valve	51—1	
	Front right outlet solenoid valve	3—1	
	Rear left outlet solenoid valve	4—1	
	Rear right outlet solenoid valve	50—1	
	Primary cut solenoid valve	25—1	
	Secondary cut solenoid valve	26—1	
	Primary suction solenoid valve	29—1	
	Secondary suction solenoid valve	2—1	
Pressure sensor	Power supply	78—76	4.75 — 5.25 V when ignition switch is ON.
	Primary output	77—76	0.6 V (Brake pedal released)
	Ground	76	—
	Secondary output	36—76	0.6 V (Brake pedal released)
VDC operation indicator light		32—1	Less than 1.5 V during 1.5 seconds when ignition switch is ON, and 10 — 15 V after 1.5 seconds.
VDC OFF indicator light		52—1	1.5 V or less (Ignition switch ON and VDC OFF indicator light ON); 10 — 15 V (Ignition switch ON and VDC OFF indicator light OFF)
VDC warning light		53—1	Less than 1.5 V during 1.5 seconds when ignition switch is ON, and 10 — 15 V after 1.5 seconds.
ABS warning light		54—1	Less than 1.5 V during 1.5 seconds when ignition switch is ON, and 10 — 15 V after 1.5 seconds.
Diagnosis connector	Terminal No. 8	13	—
	Terminal No. 5	74	—
Select monitor	Data is received.	11—1	Less than 1.5 V when no data is received.
	Data is sent.	38—1	4.75 — 5.25 V when no data is sent.
VDC OFF switch		40—1	10 — 15 V when ignition switch is ON. 0 V (Fuse installed)
Ground		1	—
Ground		55	—

CONTROL MODULE I/O SIGNAL

VDC (DIAGNOSTICS)

B: SCHEMATIC

S005524A21



B4M2457A

- | | | |
|---------------------------------------|---------------------------------------|------------------------------------|
| (1) VDC control module | (14) Primary suction solenoid valve | (26) Ignition relay |
| (2) Relay box | (15) Primary cut solenoid valve | (27) BATTERY |
| (3) Valve relay | (16) Secondary suction solenoid valve | (28) Front left ABS sensor |
| (4) Motor relay | (17) Secondary cut solenoid valve | (29) Front right ABS sensor |
| (5) Hydraulic control unit | (18) Motor | (30) Rear left ABS sensor |
| (6) Front left inlet solenoid valve | (19) Primary pressure sensor | (31) Rear right ABS sensor |
| (7) Front left outlet solenoid valve | (20) Secondary pressure sensor | (32) Yaw rate and lateral G sensor |
| (8) Front right inlet solenoid valve | (21) VDC OFF switch | (33) Engine control module |
| (9) Front right outlet solenoid valve | (22) ABS warning light | (34) Transmission control module |
| (10) Rear left inlet solenoid valve | (23) VDC warning light | (35) Steering angle sensor |
| (11) Rear left outlet solenoid valve | (24) VDC operating indicator light | (36) Diagnosis connector |
| (12) Rear right inlet solenoid valve | (25) VDC OFF indicator light | (37) Data link connector |
| (13) Rear right outlet solenoid valve | | |

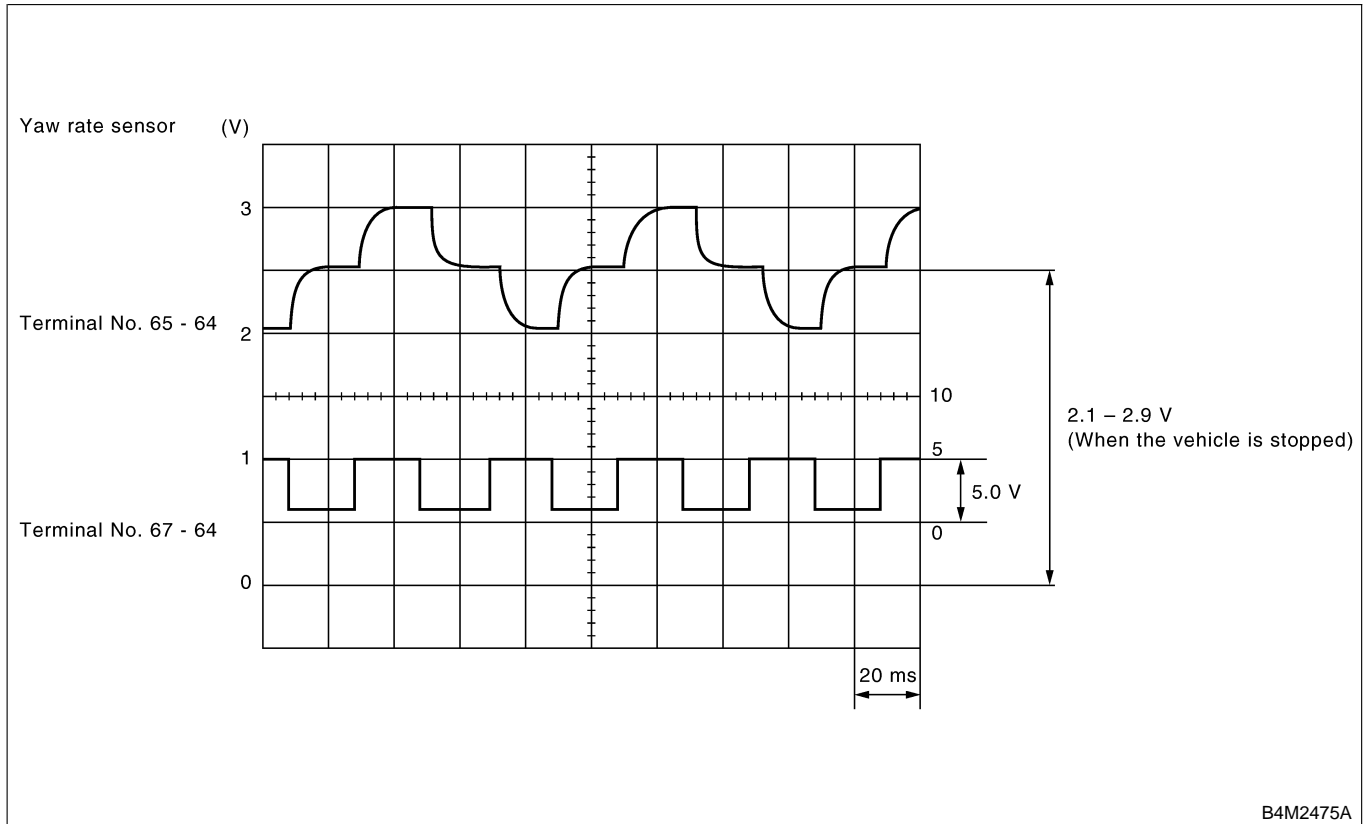
C: MEASUREMENT S005524A14

Measure input/output signal voltage.

NOTE:

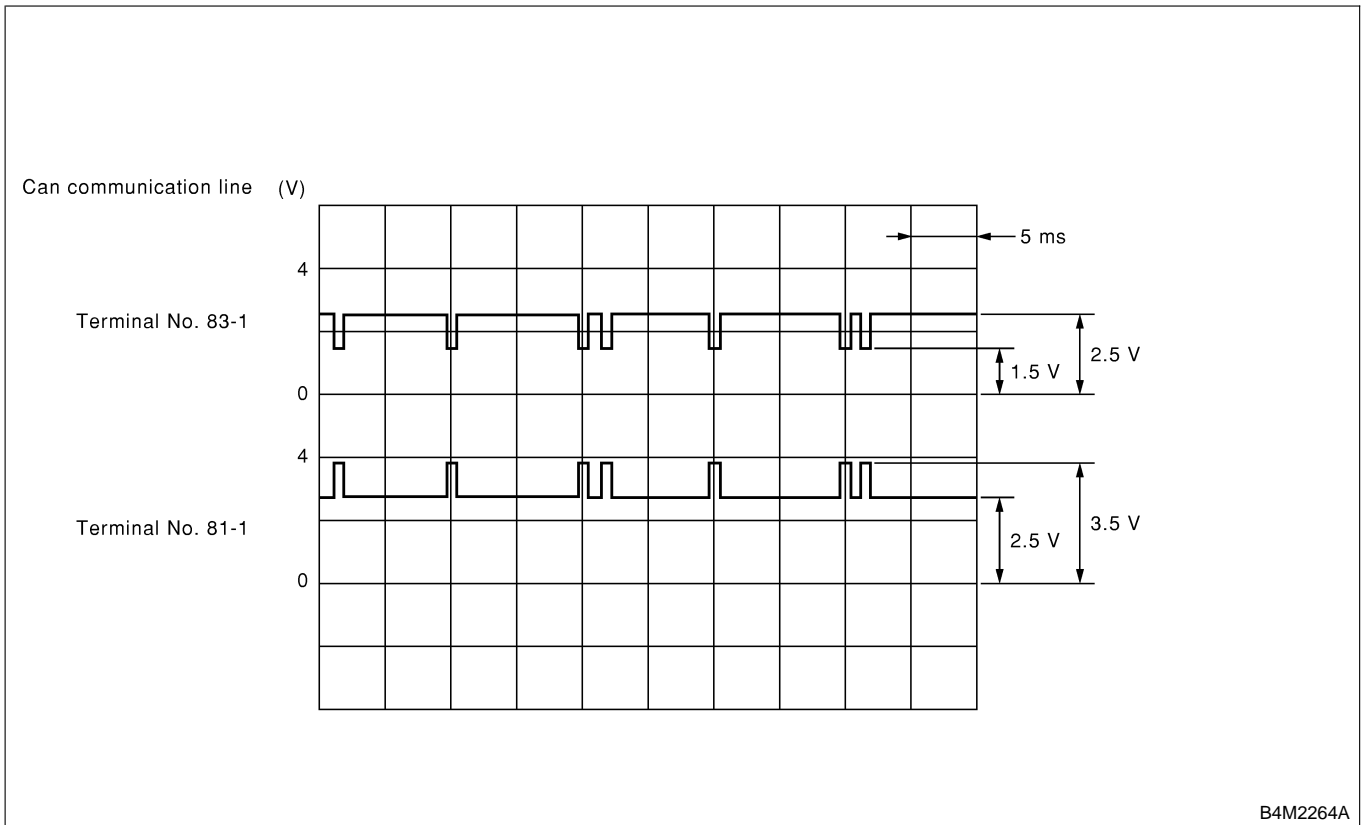
Measure with the VDCCM connector cover removed. <Ref. to VDC-17 VDCCM Connector Cover.>

1. WAVE FORM S005524A1401



CONTROL MODULE I/O SIGNAL

VDC (DIAGNOSTICS)



VDC-16