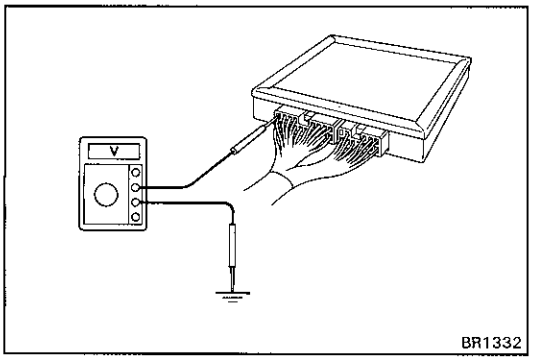


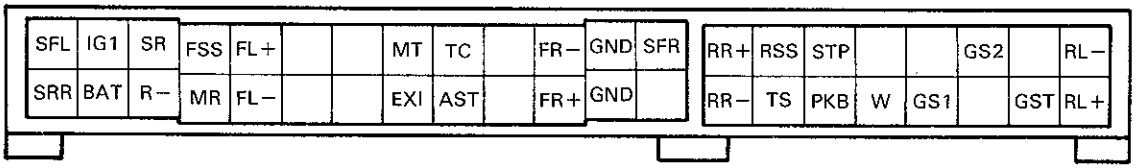
ANTI-LOCK BRAKE SYSTEM CIRCUIT

SYSTEM CIRCUIT INSPECTION

1. **INSPECT SYSTEM CIRCUIT WITH CONNECTOR CONNECTED**

(a) Remove the ABS ECU.

(b) Using a voltmeter with high impedance (10 kΩ/V minimum), measure the voltage at each terminal and body ground.

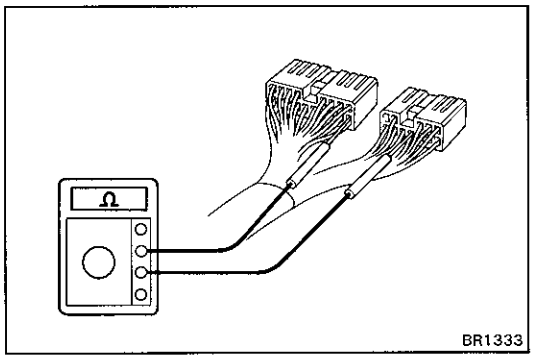


R01275

Tester Connection	Check Item	Condition	Specified Value	Trouble Part
RL−	Continuity	IG switch off	Continuity	ABS ECU
GS2	Voltage	IG switch on	4 ~ 6 V	Deceleration Sensor
STP	Voltage	IG switch off and brake pedal depressed	Battery voltage	Stop light switch Stop Light
	Continuity	IG switch off and brake pedal returned	Continuity	
RSS	Continuity	IG switch off	Continuity	ABS ECU
GS1	Voltage	IG switch on	4 ~ 6 V or 7 ~ 12 V	Deceleration Sensor
W	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	ABS ECU "ABS" warning light
		IG switch on and "ABS" warning light goes off	Battery voltage	
PKB	Voltage	IG switch on and PKB lever pulled	About 0 V	Parking brake switch Level warning switch
		IG switch on and PKB lever returned	Battery voltage	
TS	Voltage	IG switch on and check connector Tc−E_1 connected	About 0 V	ABS ECU
RR−	Continuity	IG switch off	Continuity	
SFR	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	Actuator
		IG switch on and "ABS" warning light goes off	Battery voltage	
GND	Continuity	IG switch off	Continuity	Wiring harness
FR−	Continuity	IG switch off	Continuity	ABS ECU
TC	Voltage	IG switch on and check connector Tc−E_1 not connected	Battery voltage	
		IG switch on and check connector Tc−E_1 connected	About 0 V	
FSS	Continuity	IG switch off	Continuity	
SR	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	
		IG switch on and "ABS" warning light goes off	Battery voltage	
IG1	Voltage	IG switch on	Battery voltage	ECU-IG Fuse

Tester Connection	Check Item	Condition	Specified Value	Trouble Part
SFL	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	Actuator
		IG switch on and "ABS" warning light goes off	Battery voltage	
AST	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	
		IG switch on and "ABS" warning light goes off	Battery voltage	
EXI	Voltage	IG switch on and center differential lock indicator light goes off	Battery voltage	GAUGE Fuse
FL−	Continuity	IG switch off	Continuity	ABS ECU
R−	Continuity	IG switch off	Continuity	
BAT	Voltage	IG switch off	Battery voltage	DOME Fuse
SRR	Voltage	IG switch on and "ABS" warning light goes on	About 0 V	Actuator
		IG switch on and "ABS" warning light goes off	Battery voltage	

If the circuit is not as specified, check and repair or replace the trouble part shown in the table above.



2. INSPECT SYSTEM CIRCUIT WITH CONNECTOR DISCONNECTED

(a) Disconnect the connectors from the ECU, inspect at the wire harness side connector.

Tester Connection	Check Item	Specified Value	Trouble Part	Tester Connection	Check Item	Specified Value	Trouble Part
RR+↔RR−	Resistance	*0.7 ~1.1 kΩ	Rear RH speed sensor	SFL↔AST	Resistance	*About 6 Ω	Actuator
RL+↔RL−	Resistance	*0.7 ~1.1 kΩ	Rear LH speed sensor	FR+↔FR−	Resistance	*0.87 ~1.27 kΩ	Front RH speed sensor
SFR↔AST	Resistance	*About 6 Ω	Actuator	AST↔Body ground	Resistance	*About 5 Ω	Actuator
MT↔Body ground	Continuity	Continuity	Actuator	MR↔R−	Resistance	*55.8 ~68.2 Ω	Control relay
FL+↔FL−	Resistance	*0.87 ~1.27 kΩ	Front LH speed sensor	SRR↔AST	Resistance	*About 6 Ω	Actuator
SR↔R−	Resistance	*60~100 Ω	Control relay				

*: 20°C (68°F)

If the circuit is not as specified, check and repair or replace the trouble part shown in the table above.

(b) Connect the connectors, and install the ECU in place.