BODY SECTION

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.
This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.
Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

INSTRUMENTATION/DRIVER INFO

IDI

1. General Description

A: SPECIFICATIONS

Combination meter	Speedometer	Electric pulse type
	Temperature gauge	Thermistor cross coil type
	Fuel gauge	Resistance cross coil type
	Tachometer	Electric impulse type
	Turn signal indicator light	14 V — 1.4 W
	Charge indicator light	LED
	Oil pressure indicator light	LED
	ABS warning light	LED
	CHECK ENGINE warning light (Malfunction indicator light)	LED
	HI-beam indicator light	14 V — 1.4 W
	Door open warning light	LED
	Seat belt warning light	LED
	Brake fluid and parking brake warning light	LED
	FWD indicator light	LED
	AIRBAG warning light	LED
	Meter illumination light	14 V — 3 W, 14 V — 2 W
	AT OIL TEMP. warning light	LED
	LO indicator light	LED
	HOLD indicator light	LED
	Immobilizer indicator light	LED
	POWER indicator light	14 V — 2 W
	Low fuel warning light	LED
	AT select lever position indicator light	14 V — 100 mA
	LCD back light	14 V — 1.4 W

B: CAUTION

- Be careful not to damage meters and instrument panel.
- Be careful not to damage meter glasses.
- Make sure that electrical connector is connected securely.
- After installation, make sure that each meter operates normally.
- Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.
- Do not apply excessive force to circuit plate.
- Do not drop or otherwise apply impact.

C: PREPARATION TOOL

1. GENERAL TOOLS

TOOL NAME	REMARKS
Circuit Tester	Used for measuring resistance and voltage.

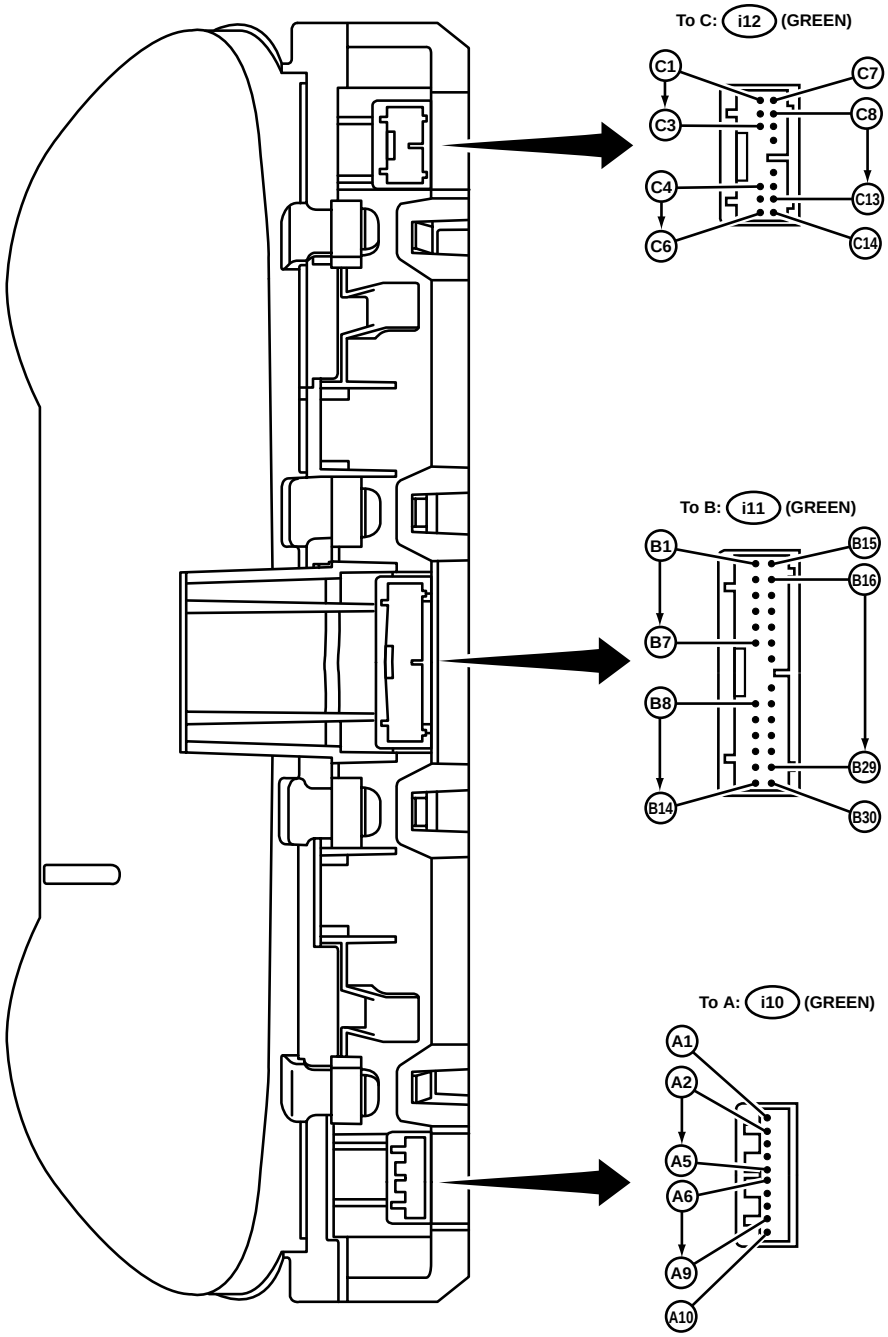
2. Combination Meter System

A: SCHEMATIC

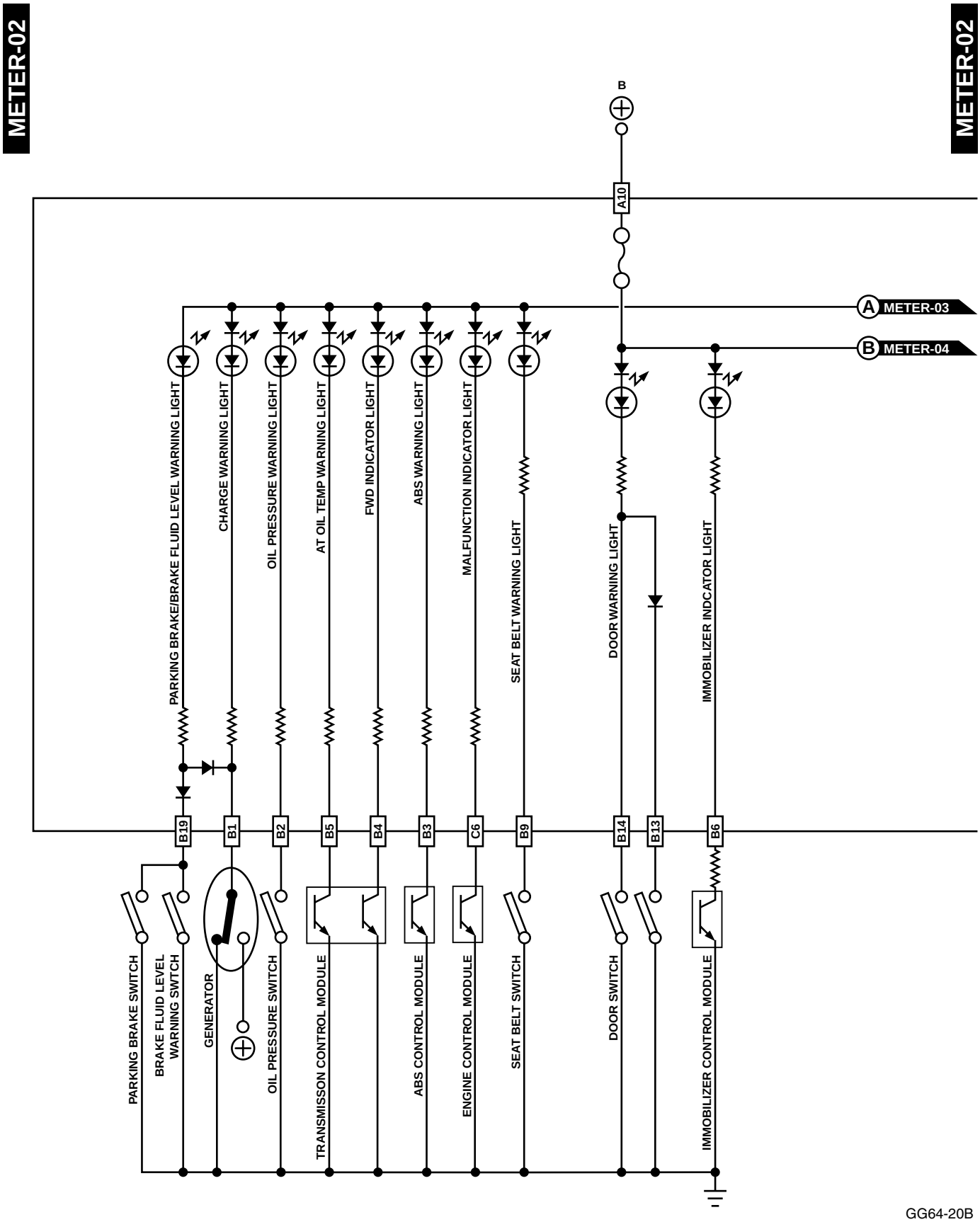
1. COMBINATION METER

METER-01

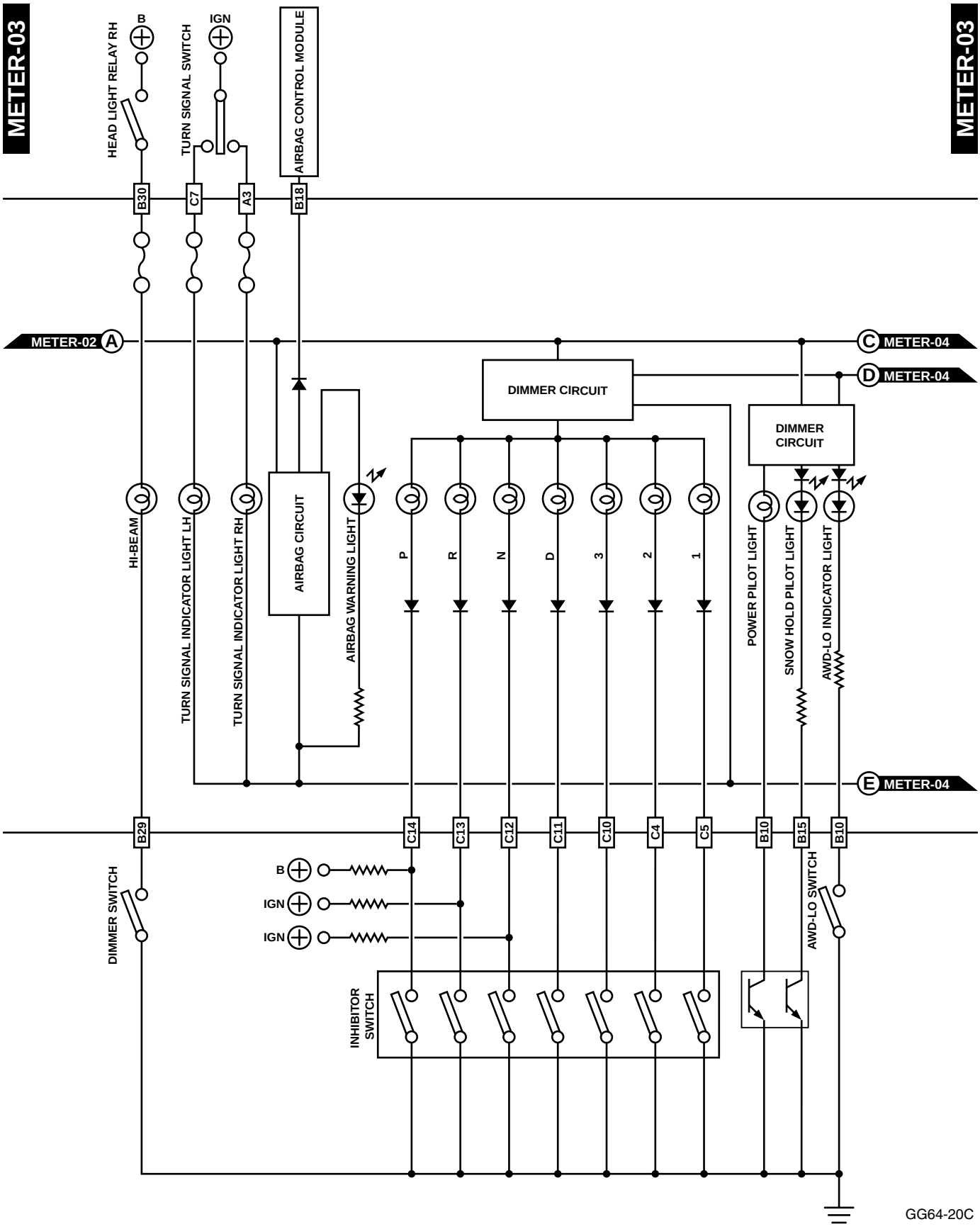
METER-01

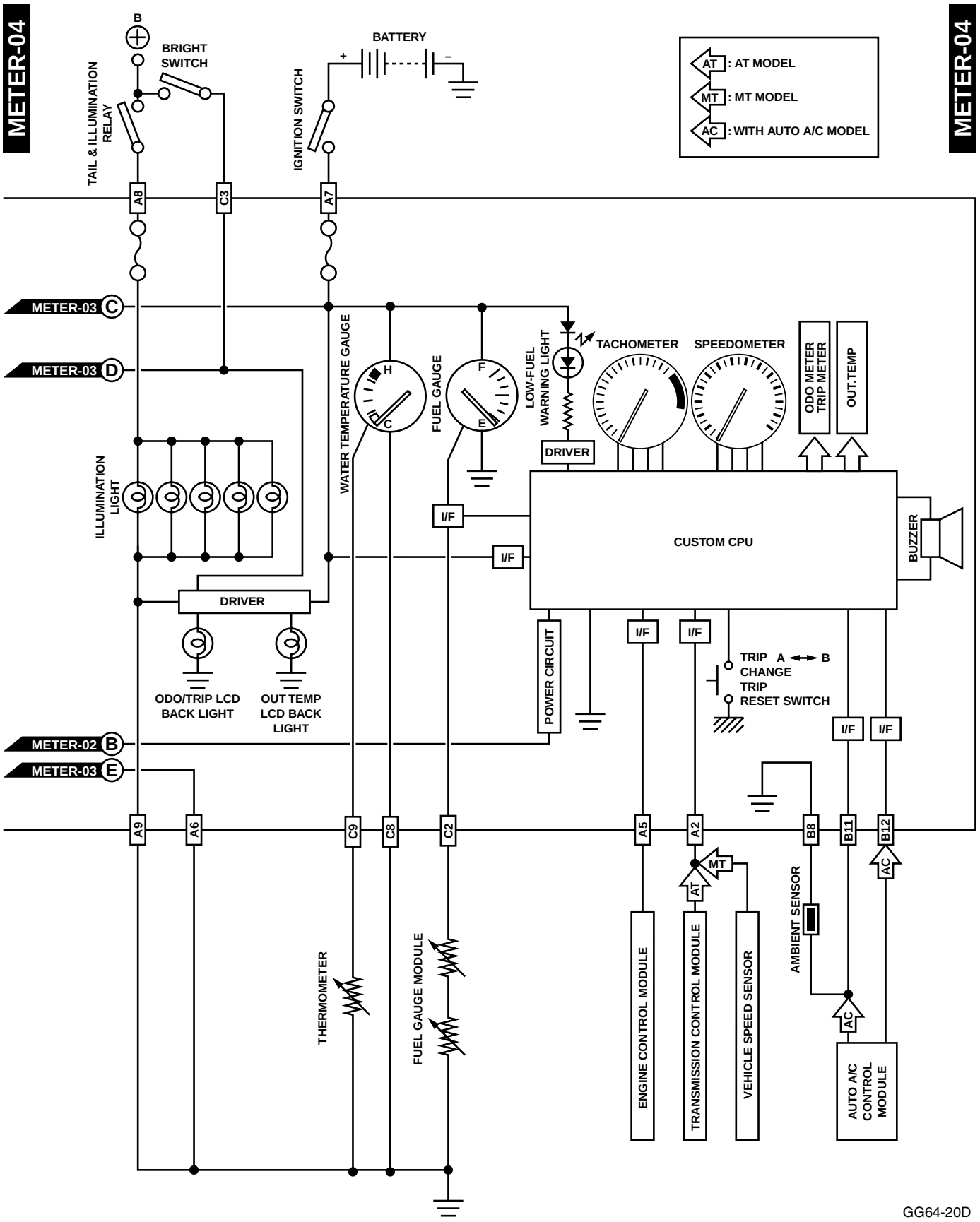


GG64-20A


METER-02
METER-02
B
A10
A METER-03
B METER-04
PARKING BRAKE/BRAKE FLUID LEVEL WARNING LIGHT
CHARGE WARNING LIGHT
OIL PRESSURE WARNING LIGHT
AT OIL TEMP WARNING LIGHT
FWD INDICATOR LIGHT
ABS WARNING LIGHT
MALFUNCTION INDICATOR LIGHT
SEAT BELT WARNING LIGHT
DOOR WARNING LIGHT
IMMOBILIZER INDCATOR LIGHT
B19
B1
B2
B5
B4
B3
C6
B9
B14
B13
B6
PARKING BRAKE SWITCH
BRAKE FLUID LEVEL WARNING SWTCH
GENERATOR
OIL PRESSURE SWITCH
TRANSMISSON CONTROL MODULE
ABS CONTROL MODULE
ENGINE CONTROL MODULE
SEAT BELT SWITCH
DOOR SWITCH
IMMOBILIZER CONTROL MODULE

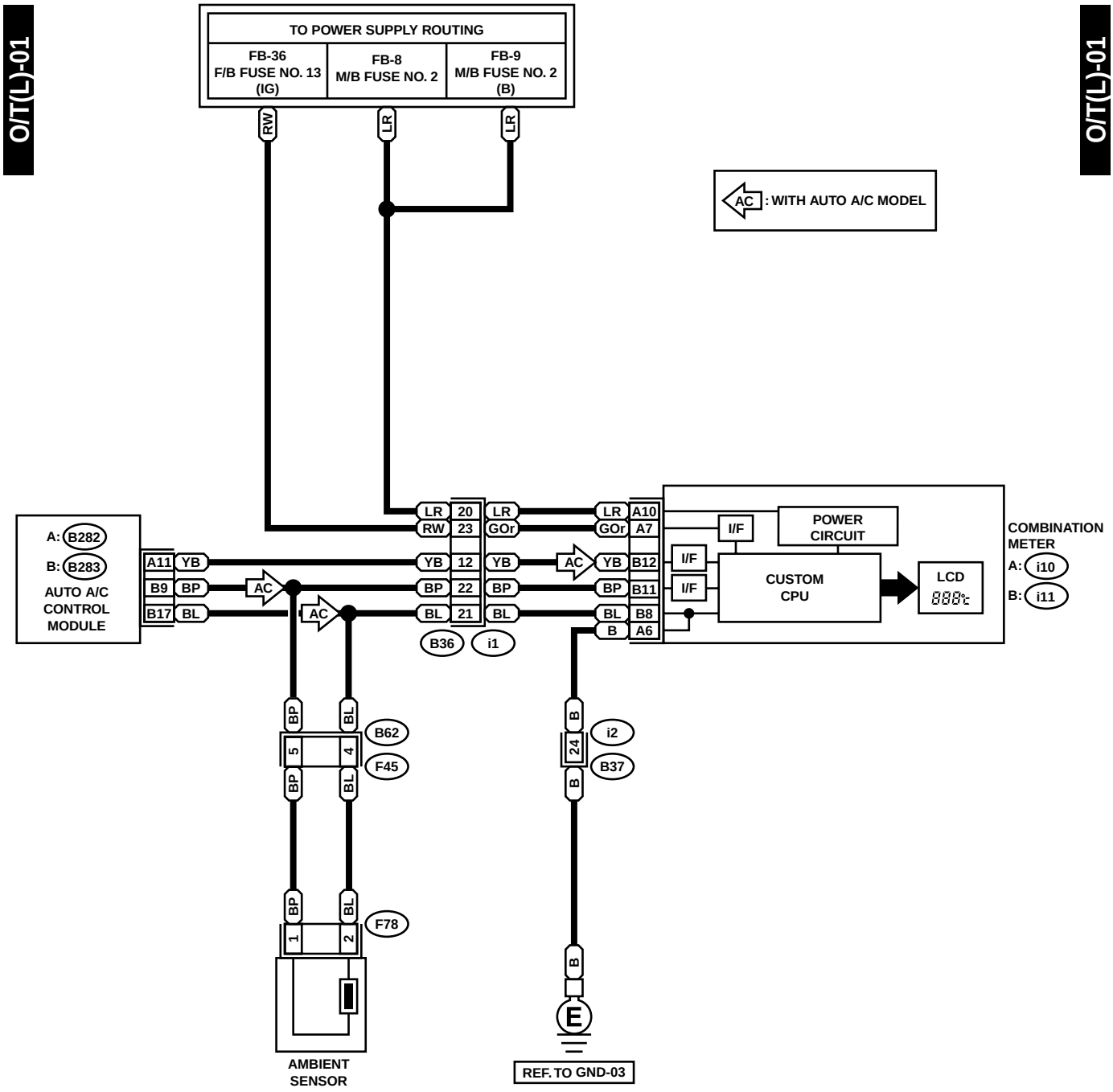
GG64-20B

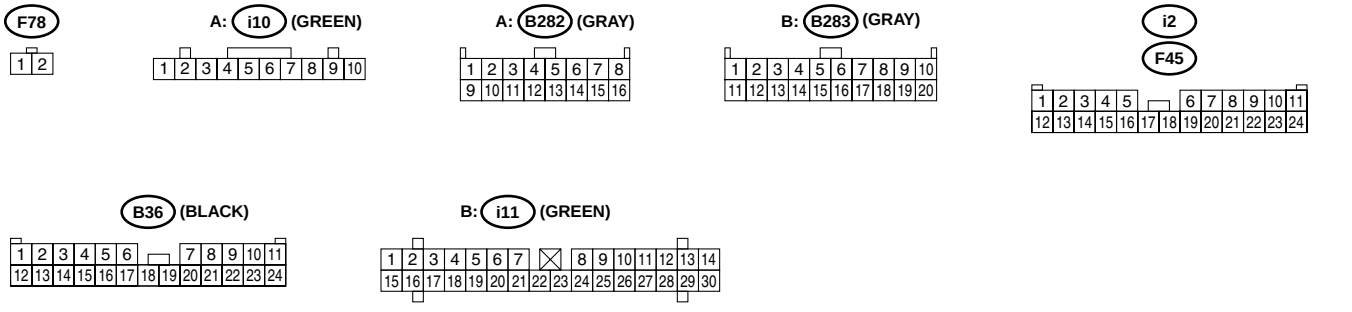

METER-03
METER-03
HEAD LIGHT RELAY RH
B
IGN
TURN SIGNAL SWITCH
AIRBAG CONTROL MODULE
B30
C7
A3
B18
METER-02 A
C METER-04
D METER-04
E METER-04
DIMMER CIRCUIT
DIMMER CIRCUIT
HI-BEAM
TURN SIGNAL INDICATOR LIGHT LH
TURN SIGNAL INDICATOR LIGHT RH
AIRBAG CIRCUIT
AIRBAG WARNING LIGHT
P
R
N
D
3
2
1
POWER PILOT LIGHT
SNOW HOLD PILOT LIGHT
AWD-LO INDICATOR LIGHT
B29
C14
C13
C12
C11
C10
C4
C5
B10
B15
B10
DIMMER SWITCH
B
IGN
IGN
AWD-LO SWITCH
INHIBITOR SWITCH
GG64-20C


METER-04
METER-04
B
BRIGHT SWITCH
TAIL & ILLUMINATION RELAY
BATTERY
IGNITION SWITCH
AT : AT MODEL
MT : MT MODEL
AC : WITH AUTO A/C MODEL
A8
C3
A7
METER-03 C
METER-03 D
WATER TEMPERATURE GAUGE
FUEL GAUGE
LOW-FUEL WARNING LIGHT
TACHOMETER
SPEEDOMETER
ODO METER TRIP METER
OUT.TEMP
DRIVER
ILLUMINATION LIGHT
I/F
CUSTOM CPU
BUZZER
DRIVER
POWER CIRCUIT
TRIP A ↔ B CHANGE
TRIP RESET SWITCH
ODO/TRIP LCD BACK LIGHT
OUT TEMP LCD BACK LIGHT
METER-02 B
METER-03 E
A9
A6
C9
C8
C2
A5
A2
B8
B11
B12
MT
AT
AC
THERMOMETER
FUEL GAUGE MODULE
ENGINE CONTROL MODULE
TRANSMISSION CONTROL MODULE
VEHICLE SPEED SENSOR
AMBIENT SENSOR
AUTO A/C CONTROL MODULE

GG64-20D

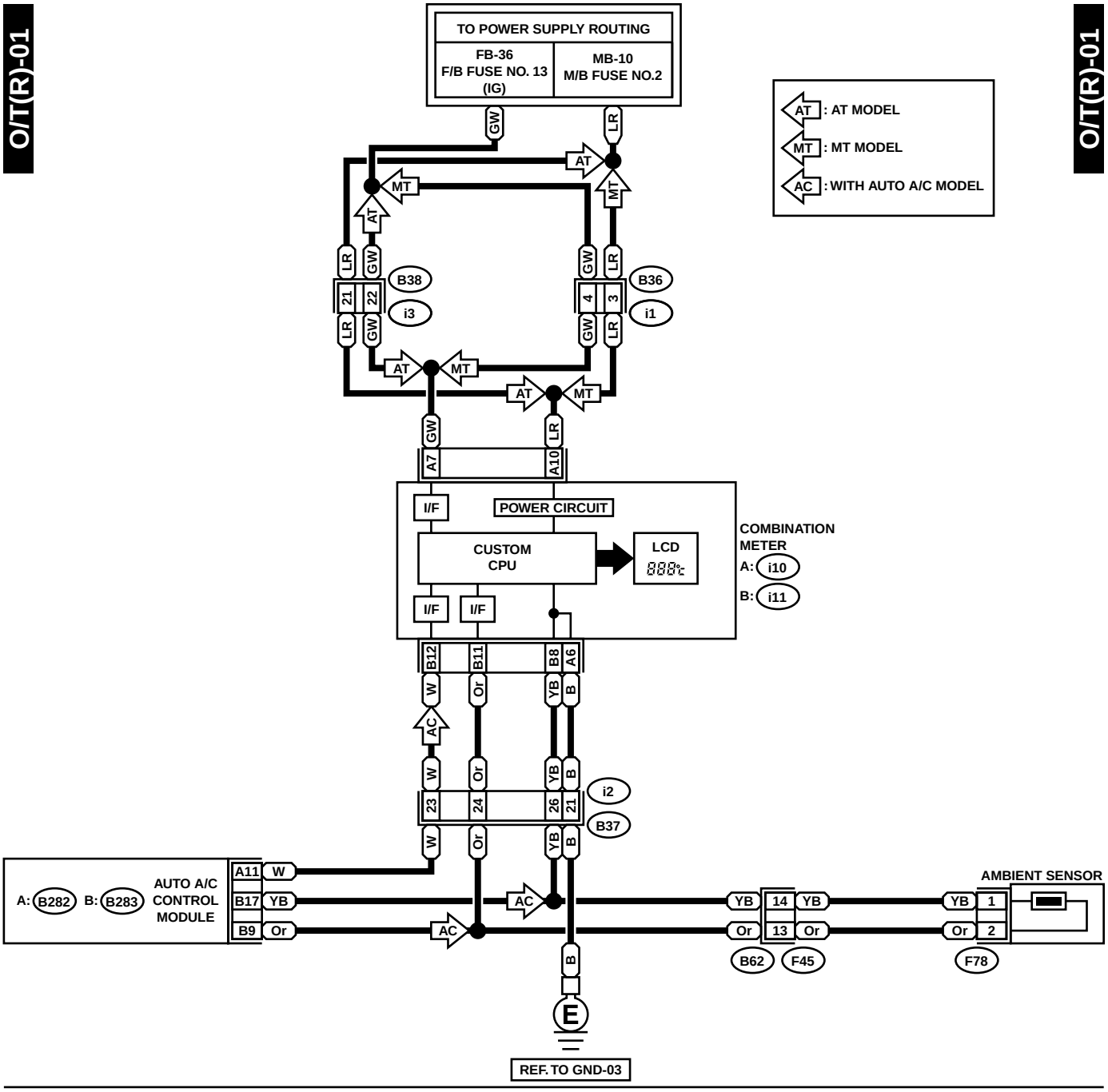
2. OUTSIDE TEMPERATURE INDICATOR LHD MODEL

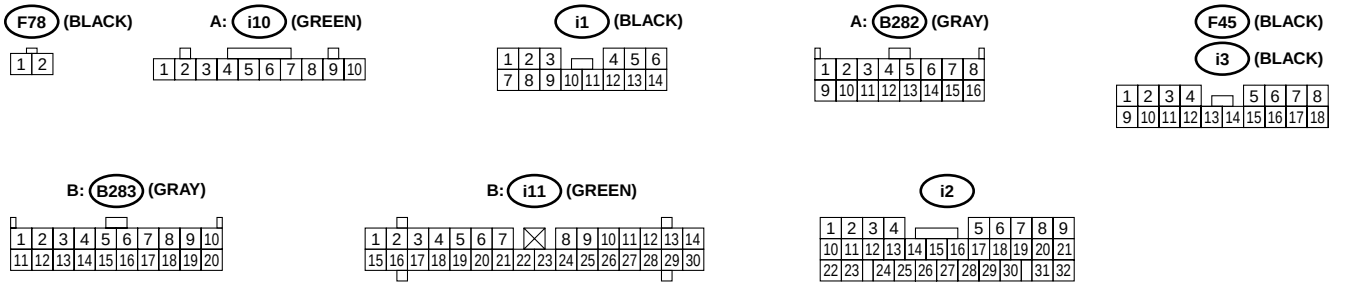




GL96-20

3. OUTSIDE TEMPERATURE INDICATOR RHD MODEL





GR96-20

B: INSPECTION

CAUTION:
When measuring voltage and resistance of the ECM, TCM, or each sensor, use a tapered pin with a diameter of less than 0.64 mm (0.025 in) in order to avoid poor contact. Do not insert the pin more than 2 mm (0.08 in).

1. SYMPTOM CHART

Symptom	Repair order	Reference
Combination meter assembly does not operate.	(1) Power supply (2) Ground circuit	<Ref. to IDI-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Combination Meter System.>
Speedometer does not operate.	(1) (MT) Vehicle speed sensor (AT) Transmission control module (2) Harness (3) Speedometer	MT: <Ref. to IDI-12, CHECK VEHICLE SPEED SENSOR, INSPECTION, Combination Meter System.>
		AT: <Re. to IDI-<Ref. to IDI-13, CHECK TRANSMISSION CONTROL MODULE, INSPECTION, Combination Meter System.>
Tachometer does not operate.	(1) Engine control module (2) Harness (3) Tachometer	<Ref. to IDI-14, CHECK ENGINE CONTROL MODULE, INSPECTION, Combination Meter System.>
Fuel gauge does not operate.	(1) Fuel level sensor (2) Harness (3) Fuel gauge	<Ref. to IDI-15, CHECK FUEL LEVEL SENSOR, INSPECTION, Combination Meter System.>
Water temperature gauge does not operate.	(1) Engine coolant temperature sensor (2) Harness (3) Water temperature gauge	<Ref. to IDI-16, CHECK ENGINE COOLANT TEMPERATURE SENSOR, INSPECTION, Combination Meter System.>
Outside temperature indicator does not operate.	(1) Ambient sensor (2) Harness (3) Combination meter (4) Auto A/C control module	<Ref. to IDI-17, CHECK OUTSIDE TEMPERATURE INDICATOR, INSPECTION, Combination Meter System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY FOR COMBINATION METER.** 5)Remove combination meter. <Ref. to IDI-19, REMOVAL, Combination Meter Assembly.> 6)Disconnect combination meter harness connector. 7)Turn ignition switch to ON. 8)Measure voltage between combination meter connector (i10) and chassis ground. ***Connector & terminal*** ***(i10) No. 7 (+) — Chassis ground (–):***	Is the voltage more than 10 V?	Go to step **2.**	Check harness for open or short between ignition switch and combination meter.
2	**CHECK POWER SUPPLY FOR COMBINATION METER.** Measure voltage between combination meter connector (i10) and chassis ground. ***Connector & terminal*** ***(i10) No. 10 (+) — Chassis ground (–):***	Is the voltage more than 10 V?	Go to step **3.**	Check harness for open or short between fuse and combination meter.
3	**CHECK GROUND CIRCUIT OF COMBINATION METER.** 1)Turn ignition switch to OFF. 2)Measure resistance of harness between combination meter connector (i10) and chassis ground. ***Connector & terminal*** ***(i10) No. 6 (+) — Chassis ground (–):***	Is the resistance less than 10 Ω?	Replace combination meter printed circuit.	Repair wiring harness.

3. CHECK VEHICLE SPEED SENSOR

	Step	Check	Yes	No
1	**CHECK VEHICLE SPEED SENSOR.** 1)Set the vehicle on a free roller, or lift-up the vehicle and support it with safety stands. 2)Remove the combination meter with harness connector. **Warning:** **Be careful not to get caught in the running wheels.** 3)Drive the vehicle at a speed greater than 20 km/h (12 MPH). 4)Measure voltage between combination meter connector (i10) and chassis ground. ***Connector & terminal*** ***(i10) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1V ←→ more than 4 V?	Check speedometer. <Ref. to IDI-21, REMOVAL, Speedometer.>	Go to step **2.**
2	**CHECK VEHICLE SPEED SENSOR POWER SUPPLY.** 1)Turn ignition switch to OFF. 2)Disconnect vehicle speed sensor harness connector. 3)Turn ignition switch to ON. 4)Measure voltage between vehicle speed sensor connector (B17) and engine ground. ***Connector & terminal*** ***(B17) No. 3 (+) — Engine ground (–):***	Is the voltage more than 10 V?	Go to step **3.**	Check harness for open or short between ignition switch and vehicle speed sensor.
3	**CHECK HARNESS BETWEEN VEHICLE SPEED SENSOR AND ENGINE GROUND.** 1)Turn ignition switch to OFF. 2)Measure resistance between vehicle speed sensor connector (B17) and engine ground. ***Connector & terminal*** ***(B17) No. 2 (+) — Engine ground (–):***	Is the resistance less than 10 Ω?	Go to step **4.**	Repair wiring harness.
4	**CHECK HARNESS BETWEEN VEHICLE SPEED SENSOR AND COMBINATION METER.** 1)Disconnect connector from combination meter. 2)Measure resistance between vehicle speed sensor harness connector and combination meter harness connector. ***Connector & terminal*** ***(B17) No. 1 — (i10) No. 2:***	Is the resistance less than 10 Ω?	Replace vehicle speed sensor.	Repair wiring harness.

4. CHECK TRANSMISSION CONTROL MODULE

	Step	Check	Yes	No
1	**CHECK TRANSMISSION CONTROL MODULE SIGNAL.** 1)Set the vehicle on a free roller, or lift-up the vehicle and support it with safety stands. **Warning:** **Be careful not to get caught in the running wheels.** 2)Drive the vehicle faster than 10 km/h (6 MPH). 3)Measure voltage between transmission control module connector (B56) and chassis ground. ***Connector & terminal*** ***(B56) No. 17 (+) — Chassis ground (–):***	Is the voltage less than 1 V ←→ more than 4 V?	Go to step **2.**	Check transmission control module. <Ref. to AT-2, Basic Diagnostic Procedure.>
2	**CHECK HARNESS BETWEEN TRANSMISSION CONTROL MODULE AND COMBINATION METER.** 1)Turn ignition switch to OFF. 2)Disconnect connector from transmission control module and combination meter. 3)Measure resistance between transmission control module harness connector (B56) and combination meter harness connector (i10). ***Connector & terminal*** ***(B56) No. 17 — (i10) No. 2:***	Is the resistance less than 10 Ω?	Check speed meter. <Ref. to IDI-21, REMOVAL, Speedometer.>	Repair wiring harness.

5. CHECK ENGINE CONTROL MODULE

	Step	Check	Yes	No
1	**CHECK ENGINE CONTROL MODULE SIGNAL.** 1)Start the engine. 2)Measure voltage between engine control module connector (B136: turbo engine model) or (B134: non-turbo engine model) and engine ground. ***Connector & terminal*** ***Turbo engine model:*** ***(B136) No. 9 (+) — Engine ground (–):*** ***Non-turbo engine model:*** ***(B134) No. 30 (+) — Engine ground (–):***	Is the voltage 0 ←→ 13 V or more?	Go to step **2.**	Check engine control module. <Ref. to EN(SOHC)-2, Basic Diagnostic Procedure.> or <Ref. to EN(SOHCw/oOBD)-2, Basic Diagnostic Procedure.> or <Ref. to EN(DOHC TURBO)-2, Basic Diagnostic Procedure.>
2	**CHECK HARNESS BETWEEN COMBINATION METER AND ENGINE CONTROL MODULE.** 1)Turn ignition switch to OFF. 2)Disconnect connector from engine control module and combination meter. 3)Measure resistance between engine control module harness connector (B136: turbo engine model) or (B134: non-turbo engine model) and combination meter harness connector (i10). ***Connector & terminal*** ***Turbo engine model:*** ***(B136) No. 9 — (i10) No. 5:*** ***Non-turbo engine model:*** ***(B134) No. 30 — (i10) No. 5:***	Is the resistance less than 10 Ω?	Check tachometer. <Ref. to IDI-22, REMOVAL, Tachometer.>	Repair wiring harness.

6. CHECK FUEL LEVEL SENSOR

	Step	Check	Yes	No
1	**CHECK ENGINE TYPE.**	Is the engine type SOHC without OBD?	Go to step **3.**	Go to step **2.**
2	**CHECK FUEL LEVEL SENSOR.** 1)Check fuel level sensor. <Ref. to EN(SOHC)-186, DTC P0462 — FUEL LEVEL SENSOR CIRCUIT LOW INPUT —, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> or <Ref. to EN(DOHC TURBO)-190, DTC P0462 — FUEL LEVEL SENSOR CIRCUIT LOW INPUT —, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is the fuel level sensor OK?	Check fuel gauge. <Ref. to IDI-23, REMOVAL, Fuel Gauge.>	Replace the fuel level sensor.
3	**CHECK FUEL LEVEL SENSOR.** 1)Remove fuel level sensor. <Ref. to FU(SOHCw/oOBD)-56, REMOVAL, Fuel Level Sensor.> 2)Measure resistance between fuel level sensor terminals when setting the float to FULL and EMPTY position. ***Terminals*** ***No. 3 — No. 5:***	Is the resistance 2 to 5 Ω (FULL) and 92 to 95 Ω (EMPTY)?	Go to step **4.**	Replace the fuel level sensor.
4	**CHECK HARNESS BETWEEN FUEL LEVEL SENSOR AND COMBINATION METER.** 1)Disconnect connector from combination meter. 2)Measure resistance between fuel level sensor harness connector terminal and combination meter harness connector terminal. ***Connector & terminal*** ***(R58) No. 3 — (i12) No. 2:***	Is the resistance less than 10 Ω?	Go to step **5.**	Repair wiring harness.
5	**CHECK FUEL LEVEL SENSOR GROUND CIRCUIT.** Measure resistance between fuel level sensor harness connector terminal and chassis ground. ***Connector & terminal*** ***(R58) No. 5 — Chassis ground:***	Is the resistance less than 10 Ω?	Fuel level sensor is OK.	Repair wiring harness.

7. CHECK ENGINE COOLANT TEMPERATURE SENSOR

	Step	Check	Yes	No
1	**CHECK ENGINE COOLANT TEMPERATURE SENSOR.** Check engine coolant temperature sensor. <Ref. to EN(SOHC)-122, DTC P0117 — ENGINE COOLANT TEMPERATURE SENSOR CIRCUIT LOW INPUT —, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> or <Ref. to EN(SOHCw/oOBD)-76, DTC 21 ENGINE COOLANT TEMPERATURE SENSOR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> or <Ref. to EN(DOHC TURBO)-114, DTC P0117 — ENGINE COOLANT TEMPERATURE SENSOR CIRCUIT LOW INPUT —, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is engine coolant temperature sensor OK?	Go to step **2.**	Replace engine coolant temperature sensor.
2	**CHECK HARNESS BETWEEN ENGINE COOLANT TEMPERATURE SENSOR AND COMBINATION METER.** 1)Turn ignition switch to OFF. 2)Disconnect connector from engine coolant temperature sensor and combination meter. 3)Measure resistance between engine coolant temperature sensor harness connector (E8) and combination meter harness connector (i12). ***Connector & terminal*** ***(E8) No. 3 — (i12) No. 9:***	Is the resistance less than 10 Ω?	Check water temperature gauge. <Ref. to IDI-24, REMOVAL, Water Temperature Gauge.>	Repair wiring harness.

8. CHECK OUTSIDE TEMPERATURE INDICATOR

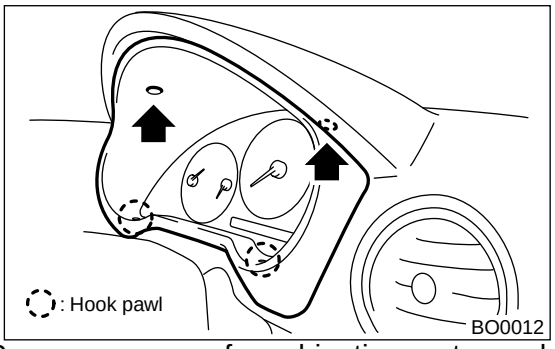
	Step	Check	Yes	No
1	**CHECK AIR CONDITIONER TYPE.**	Is the vehicle equipped with auto A/C?	Go to step **6.**	Go to step **2.**
2	**CHECK POWER SUPPLY FOR AMBIENT SENSOR.** 1)Turn ignition switch OFF. 2)Disconnect connector from combination meter. 3)Turn ignition switch ON. 4)Measure voltage between combination meter terminal and chassis ground. ***Connector & terminal*** ***(i11) No. 11 (+) — Chassis ground (–):***	Is the voltage more than 4V?	Go to step **3.**	Replace combination meter printed circuit.
3	**CHECK HARNESS BETWEEN AMBIENT SENSOR AND COMBINATION METER.** 1)Turn ignition switch OFF. 2)Disconnect connector from ambient sensor. 3)Measure resistance between ambient sensor harness connector terminal and combination meter harness connector terminal. ***Connector & terminal*** ***LHD model:*** ***(F78) No. 1 — (i11) No. 11:*** ***(F78) No. 2 — (i11) No. 8:*** ***RHD model:*** ***(F78) No. 2 — (i11) No. 11:*** ***(F78) No. 1 — (i11) No. 8:***	Is the resistance less than 10 Ω?	Go to step **4.**	Repair wiring harness.
4	**CHECK AMBIENT SENSOR.** 1)Remove ambient sensor. 2)Check ambient sensor. <Ref. to IDI-25, INSPECTION, Ambient Sensor.>	Is the ambient sensor OK?	Go to step **5.**	Replace the ambient sensor.
5	**CHECK OUTSIDE TEMPERATURE INDICATOR.** 1)Connect combination meter harness connector. 2)Connect a resistor (2.2 kΩ) between terminals of ambient sensor harness connector. 3)Turn ignition switch ON and check the outside temperature indicator display.	Is the outside temperature indicator indicating 25°C (77°F)?	Repair poor contact of ambient sensor harness connector.	Replace combination meter printed circuit.
6	**CHECK POWER SUPPLY FOR COMBINATION METER.** 1)Turn ignition switch OFF. 2)Disconnect connector from auto A/C control module. 3)Turn ignition switch ON. 4)Measure voltage between auto A/C control module terminal and chassis ground. ***Connector & terminal*** ***(B282) No. 11 (+) — chassis ground (–):***	Is the voltage more than 4V?	Go to step **7.**	Replace auto A/C control module.

	Step	Check	Yes	No
7	**CHECK HARNESS BETWEEN AUTO A/C CONTROL MODULE AND COMBINATION METER.** 1)Turn ignition switch OFF. 2)Disconnect connector from combination meter. 3)Measure resistance between auto A/C control module harness connector terminal and combination meter harness connector terminal. ***Connector & terminal*** ***(B282) No. 11 — (i11) No. 12:***	Is the resistance less than 10 Ω?	Go to step **8.**	Repair wiring harness.
8	**CHECK POWER SUPPLY FOR AMBIENT SENSOR.** 1)Turn ignition switch ON. 2)Measure voltage between auto A/C control module terminal and chassis ground. ***Connector & terminal*** ***(B283) No. 9 (+) — chassis ground (–):***	Is the voltage more than 4V?	Go to step **9.**	Replace auto A/C control module.
9	**CHECK HARNESS BETWEEN AMBIENT SENSOR AND COMBINATION METER.** 1)Turn ignition switch OFF. 2)Disconnect connector from ambient sensor. 3)Measure resistance between ambient sensor harness connector terminal, combination meter harness connector terminal and auto A/C control module harness connector terminal. ***Connector & terminal*** ***LHD model:*** ***(F78) No. 1 — (i11) No. 11:*** ***(F78) No. 1 — (B283) No. 9:*** ***(F78) No. 2 — (i11) No. 8:*** ***RHD model:*** ***(F78) No. 2 — (i11) No. 11:*** ***(F78) No. 2 — (B283) No. 9:*** ***(F78) No. 1 — (i11) No. 8:***	Is the resistance less than 10 Ω?	Go to step **10.**	Repair wiring harness.
10	**CHECK AMBIENT SENSOR.** 1)Remove ambient sensor. 2)Check ambient sensor. <Ref. to IDI-25, INSPECTION, Ambient Sensor.>	Is the ambient sensor OK?	Go to step **11.**	Replace the ambient sensor.
11	**CHECK OUTSIDE TEMPERATURE INDICATOR.** 1)Connect combination meter and auto A/C control module harness connector. 2)Connect a resistor (2.2 kΩ) between terminals of ambient sensor harness connector. 3)Turn ignition switch ON and check the outside temperature indicator display.	Is the outside temperature indicator indicating 25°C (77°F)?	Repair poor contact of ambient sensor harness connector.	Replace combination meter printed circuit.

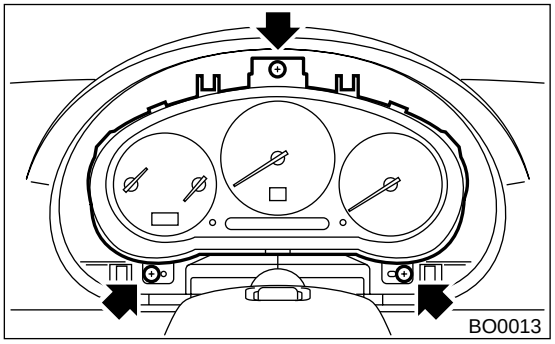
3. Combination Meter Assembly

A: REMOVAL

1) Disconnect ground cable from battery.
2) Set tilt steering at the lowest position.
3) Remove screws and detach meter visor.



4) Remove screws of combination meter and pull out the meter toward you.



5) Disconnect connector in the upper area of combination meter to remove meter.

CAUTION:
• Be careful not to damage meter or instrument panel.
• Pay particular attention to avoid damaging the meter glass.

B: INSTALLATION

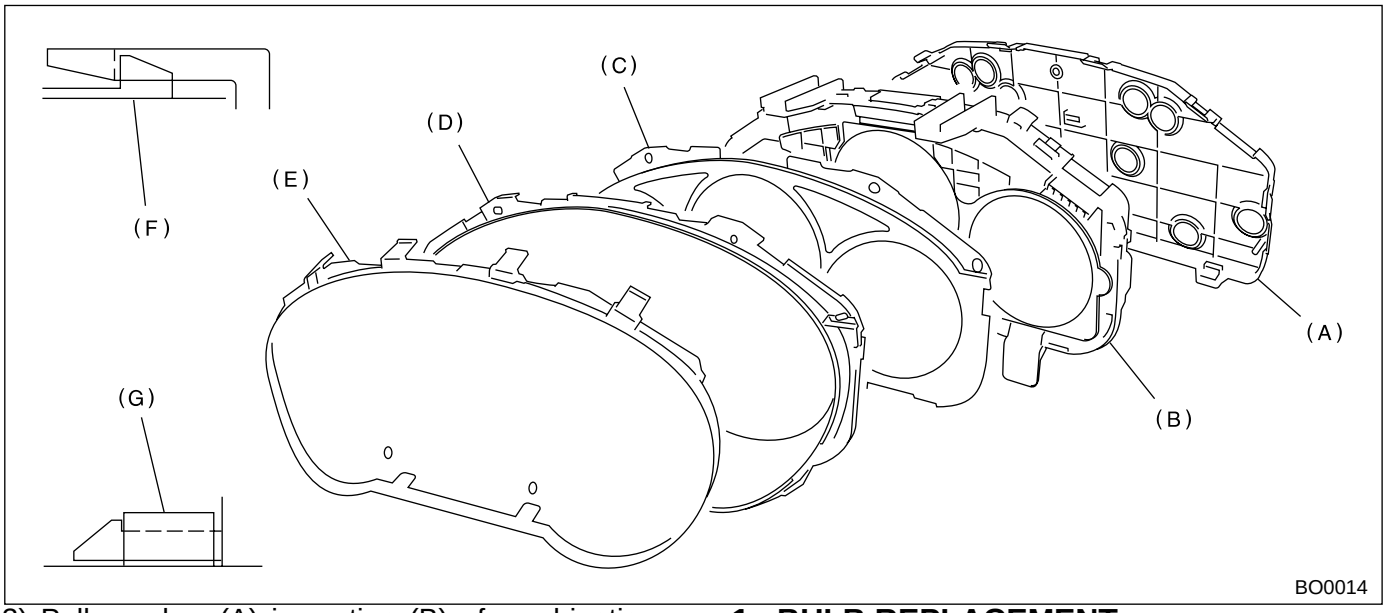
Install in the reverse order of removal.

CAUTION:
• Make sure that electrical connector is connected securely.
• Make sure that each meter operates normally.

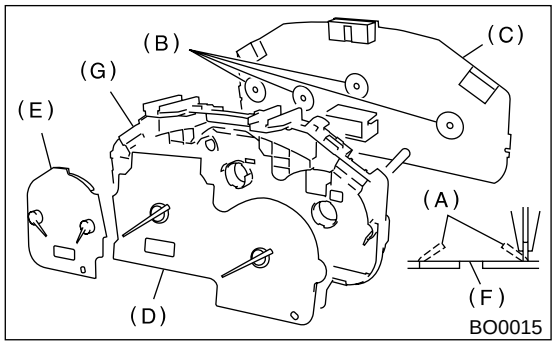
C: DISASSEMBLY

CAUTION:
Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.

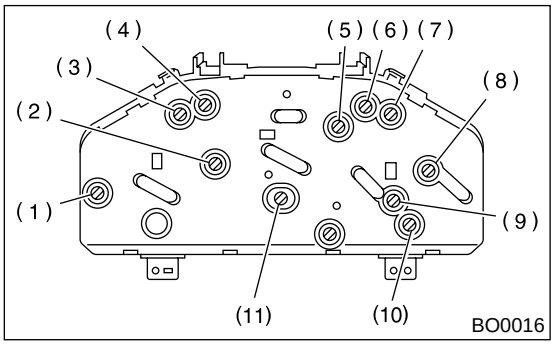
1) Disengage claw (F) to remove case (B) from back cover (A).
2) Disengage claw (G) to remove meter glass (E), reflector (D), and window plate (C) from inner case.



3) Pull up claw (A) in portion (B) of combination meter printed circuit (C) with combination pliers. Push out speedometer and tachometer assembly (D) and fuel gauge and water temperature gauge assembly (E) using hole (F).
4) Pull up claw in the center of combination meter printed circuit (C), and remove circuit plate from case (G).



1. BULB REPLACEMENT



(1) Tachometer
(2) Speedometer and tachometer
(3) Turn RH
(4) HI-beam
(5) Speedometer
(6) POWER
(7) Turn LH
(8) Fuel gauge
(9) Temperature gauge
(10) LCD (Outside temperature indicator)
(11) LCD (Odometer and tripmeter)

D: ASSEMBLY

Assemble in the reverse order of disassembly.

4. Speedometer

A: REMOVAL

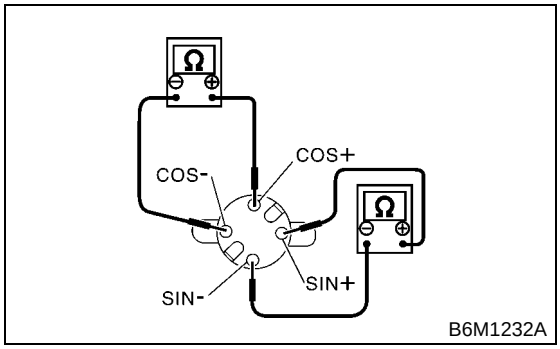
Disassemble combination meter, and then remove speedometer and tachometer assembly. <Ref. to IDI-20, DISASSEMBLY, Combination Meter Assembly.>

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Measure resistance between speedometer terminals.



Tester connection	Resistance
Terminals SIN+ —SIN—	200±8 Ω
Terminals COS+ —COS—	200±8 Ω

If NG, replace speedometer and tachometer assembly.
If OK, replace combination meter printed circuit.

5. Tachometer

A: REMOVAL

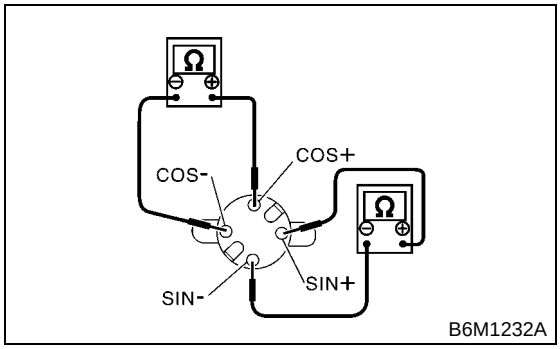
Disassemble combination meter, and then remove speedometer and tachometer assembly. <Ref. to IDI-20, DISASSEMBLY, Combination Meter Assembly.>

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Measure resistance between tachometer terminals.



Tester connection	Resistance
Terminals SIN+ —SIN—	200±8 Ω
Terminals COS+ —COS—	200±8 Ω

If NG, replace speedometer and tachometer assembly.
If OK, replace combination meter printed circuit.

6. Fuel Gauge

A: REMOVAL

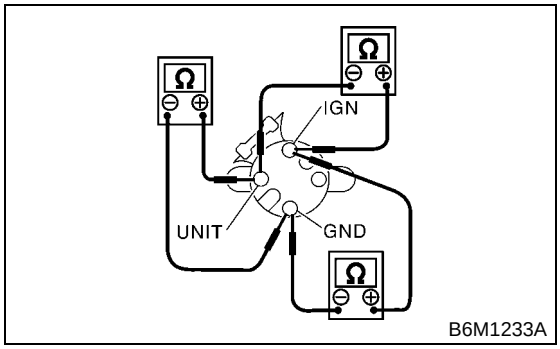
Disassemble combination meter, and then remove water temperature gauge and fuel gauge assembly. <Ref. to IDI-20, DISASSEMBLY, Combination Meter Assembly.>

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Measure resistance between fuel gauge terminals.



Tester connection	Resistance
Terminals IGN — GND	170±10 Ω
Terminals IGN — UNIT	35±10 Ω
Terminals UNIT — GND	136±10 Ω

If NG, replace water temperature gauge and fuel gauge assembly.
If OK, replace combination meter printed circuit.

7. Water Temperature Gauge

A: REMOVAL

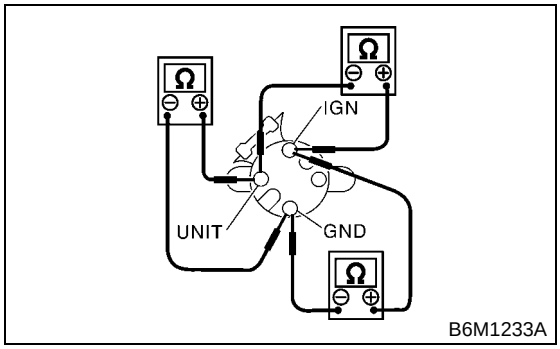
Disassemble combination meter, and then remove tachometer and water temperature gauge and fuel gauge assembly. <Ref. to IDI-20, DISASSEMBLY, Combination Meter Assembly.>

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Measure resistance between fuel gauge terminals.



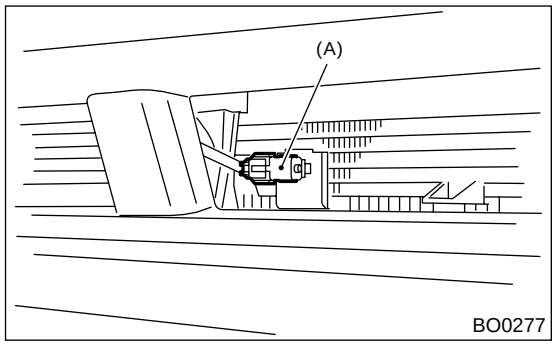
Tester connection	Resistance
Terminals IGN — GND	208±10 Ω
Terminals IGN — UNIT	56±10 Ω
Terminals UNIT — GND	264±10 Ω

If NG, replace water temperature gauge and fuel gauge assembly.
If OK, replace combination meter printed circuit.

8. Ambient Sensor

A: REMOVAL

1) Disconnect ground cable from battery.
2) Disconnect ambient sensor connector.
3) Remove ambient sensor (A) from radiator lower panel.

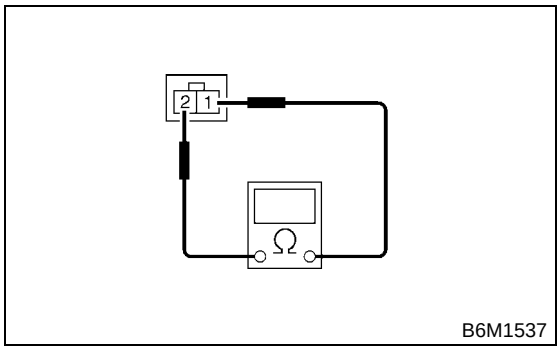


B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Measure resistance between ambient sensor terminals.



Tester connection	Resistance
1 — 2	2.2 kΩ/25°C (77°F)

If NG, replace the ambient sensor.