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.

BODY SECTION

INSTRUMENTATION/DRIVER INFO

IDI

1. General Description

A: SPECIFICATION

Combination meter	Speedometer	Stepping motor type
	Tachometer	
	Water temperature gauge	
	Fuel gauge	
	Malfunction indicator light	LED
	Oil pressure warning light	
	ABS warning light	
	Airbag warning light	
	Seat belt warning light	
	Door open warning light	
	Brake fluid and parking brake warning light	
	Low fuel warning light	
	Charge warning light	
	ATF temperature warning light	
	AWD warning light	
	Vehicle dynamics control (VDC) warning light	
	Vehicle dynamics control (VDC) indicator light	
	Turn signal indicator light	
	HI-beam indicator light	
	Immobilizer indicator light	
	Cruise indicator light	
	Cruise set indicator light	
	Front fog light indicator light	
	Rear fog light indicator light	
	AWD LO indicator light	
	SPORT indicator light	
	AT select lever position indicator light	
	Light illumination indicator light	
	Meter illumination light	
	LCD back light	
	Odo/Trip indicator	LCD
	SPORT shift indicator	

B: CAUTION

- Be careful not to damage the meters and instrument panel.
- Be careful not to damage the meter glass.
- Make sure the 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 an excessive force on the printed circuit.
- Do not drop or otherwise apply impact.
- When the combination meter of model with immobilizer has been replaced, be sure to perform the registration procedure of immobilizer.

C: PREPARATION TOOL

1. GENERAL TOOL

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

2. Combination Meter System

A: WIRING DIAGRAM

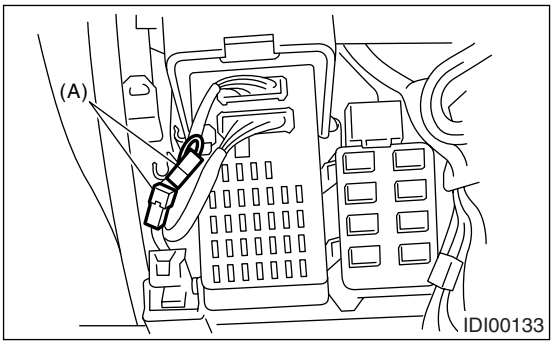
1. COMBINATION METER

<Ref. to WI-130, WIRING DIAGRAM, Combination Meter.>

B: INSPECTION

1. SELF-DIAGNOSIS

The self-diagnosis (checking of each meter, warning light, indicator, illumination, LCD, buzzer sound) of combination meter can be performed in the following procedure.
1) Connect the diagnostic connector (A) near the fuse & relay box.



2) Turn the ignition switch to ON.
3) While meter indicator needle deflecting, press the odo/trip meter knob twice.

NOTE:
When odo/trip meter knob is pressed only once, display mode is shifted to DTC display mode. <Ref. to IDI-12, DTC DISPLAY MODE, INSPECTION, Combination Meter System.>

When the self-diagnosis function is operated, the checking of warning light, indicator, and LCD display is performed, hereafter, every pressing the odo/trip meter knob, the operation check is performed in the order of meter, illumination and buzzer. <Ref. to IDI-4, LIST OF SELF-DIAGNOSIS MODE OPERATION, INSPECTION, Combination Meter System.> To cancel the self-diagnosis mode, set the ignition switch to OFF or disconnect the diagnosis connector.

NOTE:
When the engine starts during diagnosis, the self-diagnosis mode is not cancelled, however, once the vehicle starts driving, the self-diagnosis mode is cancelled automatically for safety.

2. LIST OF SELF-DIAGNOSIS MODE OPERATION

Speedometer, tachometer, fuel gauge, water temperature gauge	Microcomputer running type warning light, indicator light	AT select lever position indicator light	Odo/Trip indicator	SPORT shift indicator	Illumination (indicator needle, plate, ring, LCD)	Buzzer (SPORT shift buzzer, speed warning buzzer)
Step 0. Processing to self-diagnosis mode						
Operating initial operation	Initial illuminating	Normal	Normal	Initial illuminating	Initial illuminating	Not beep.
Step 1-1. Check each indication after initial operation						
Repeat the sweep operation (After holding on lowest position for one second, reaches to highest position within 5 seconds, and after holding on highest position for one second, reaches to lowest position within 5 seconds).	Light ON	With the highest brightness, illuminate the position sequentially at a cycle of 1.5 seconds.	Perform the segment check. For the illumination order, refer to the illumination order table.	Perform the segment check. For the illumination order, refer to the illumination order table.	Light at the highest brightness.	Not beep.
Step 1-2. Press the trip knob (trip knob input is not accepted till the meter indicator needle reaches the highest position): sweep complete, AT select lever position indicator display is set						
After completing sweep in step 1-1, back to lowest position.	Light ON	Keep the position indicated when the trip knob is pressed.	Underbar " _ " is displayed.	"1" is displayed.	Light at the highest brightness.	Not beep.
Step 2-1. Press the trip knob, and hold it: Check each meter						
All meters are moved simultaneously in every 0.5 sec. from the lowest position to highest position. Speedometer/ Tachometer: Approx. 5 degrees at every movement. Water temperature gauge/Fuel gauge: Approx. 2 degrees at every movement.	Light OFF	Keep the position indicated that set in step 1-2.	Display the current meter directing angle on odometer. Ex.) Display "135054" when Speedometer/ Tachometer: 135 degree, Water temperature gauge/Fuel gauge: 54 degree.	"▼2" is displayed.	Light at the highest brightness.	Not beep.
Step 2-2. Release the trip knob: Specifying the meter directing position						
Stop at directing position when the trip knob is released.	Light OFF	Keep the position indicated that specified at step 1-2.	Display the current meter directing angle on odometer.	"2" is displayed.	Light at the highest brightness.	Not beep.
Step 3-1. Press the trip knob, and hold it: Check illumination						

Speedometer, tachometer, fuel gauge, water temperature gauge	Microcomputer running type warning light, indicator light	AT select lever position indicator light	Odo/Trip indicator	SPORT shift indicator	Illumination (indicator needle, plate, ring, LCD)	Buzzer (SPORT shift buzzer, speed warning buzzer)
Keep the position that specified at step 2-2.	Light OFF	Varying from the highest brightness (ILL6) to the lowest luminescence (ILL1) every second. After reaching at ILL1, repeat it from ILL6.	Illumination brightness is displayed. (From ILL6 to ILL1)	"▼3" is displayed.	Varying from the highest brightness (ILL6) to the lowest luminescence (ILL1) every second. After reaching at ILL1, repeat it from ILL6.	Not beep.
Step 3-2. Release the trip knob: Specifying the illumination brightness						
Keep the position that specified at step 2-2.	Light OFF	Keep the brightness at the time when the trip knob is released.	Display the brightness at the time when the trip knob is released.	"3" is displayed.	Keep the brightness at the time when the trip knob is released.	Not beep.
Step 4-1. Press the trip knob: Check the beeping of SPORT shift buzzer (AT model)						
All meter indicator needle returns to lowest position.	Light OFF	Light at the highest brightness. Keep the position indicated that set in step 1-2.	Illumination brightness is displayed.	"▲▼8" is displayed. Blinks with buzzer.	Light at the highest brightness.	SPORT shift buzzer beeps.
Step 4-2. Press the trip knob: Check the VDC indicator light (Model with VDC)						
All meter indicator needle returns to lowest position.	VDC warning light and VDC operation indicator light blink.	Light at the highest brightness. Keep the position indicated that set in step 1-2.	Illumination brightness is displayed.	"4" is displayed.	Light at the highest brightness.	Not beep.
Step 4-3. Press the trip knob: Check the speed warning buzzer (KS model)						
Speedometer indicates the vehicle speed, which was detected when the speed warning started.	Light OFF	Light at the highest brightness. Keep the position indicated that set in step 1-2.	Illumination brightness is displayed.	"4" is displayed.	Light at the highest brightness.	Speed warning buzzer beeps.
Step 5. Press the trip knob: Complete the self-diagnosis 1 cycle						
All meter indicator needle returns to lowest position, and go back to step 1 after completion.						

- Illuminating order table

Illuminating order	1	2	3	4	5	6	7	8	9	10	11	
Trip meter A/B	AB	A	B	A	B	A	B	A	B	A	B	
Odo/trip meter	8888.8 888888	00000 000000	1111.1 111111	22222 222222	3333.3 333333	44444 444444	5555.5 555555	66666 666666	7777.7 777777	88888 888888	9999.9 999999	
SPORT shift indicator	8	1	2	3	4	5	1	2	3	4	5	Go back to 1 and repeat
▲ ▼	▲ ▼	▲	▼	▲	▼	▲	▼	▲	▼	▲	▼	
AT select lever position indicator	P	P	R	R	R	N	N	N	D	D	D	
Display time (sec.)	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

3. SYMPTOM CHART

Symptom	Repair order	Reference
Combination meter assembly does not operate.	(1) Power supply (2) Ground circuit (3) Combination meter	<Ref. to IDI-8, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Combination Meter System.>
Speedometer does not operate.	(1) ABSCM or VDCCM (2) Harness (3) Combination meter	<Ref. to IDI-8, CHECK ABSCM OR VDCCM, INSPECTION, Combination Meter System.>
Tachometer does not operate.	(1) ECM (2) Harness (3) Combination meter	<Ref. to IDI-9, CHECK ENGINE CONTROL MODULE, INSPECTION, Combination Meter System.>
Fuel gauge does not operate.	(1) Communication circuit (2) Fuel level sensor (3) Harness (4) Combination meter	<Ref. to IDI-9, CHECK FUEL LEVEL SENSOR., INSPECTION, Combination Meter System.>
Water temperature gauge does not operate.	(1) Communication circuit (2) Engine coolant temperature sensor (3) Harness (4) Combination meter	<Ref. to IDI-11, CHECK ENGINE COOLANT TEMPERATURE SENSOR., INSPECTION, Combination Meter System.>
Error display is shown on the odo/trip meter.	Communication circuit	<Ref. to IDI-11, COMMUNICATION ERROR DISPLAY, INSPECTION, Combination Meter System.>

CAUTION:
When measuring the voltage and resistance of each control module or 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 of more than 2 mm (0.08 in) in diameter.

4. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY FOR COMBINATION METER.** 1) Remove the combination meter. <Ref. to IDI-16, REMOVAL, Combination Meter Assembly.> 2) Disconnect the combination meter harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 3, No. 4 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Go to step **2.**	Check the harness for open or short between the ignition switch and combination meter.
2	**CHECK POWER SUPPLY FOR COMBINATION METER.** Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 1, No. 2 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Go to step **3.**	Check the harness for open or short between the fuse and combination meter.
3	**CHECK GROUND CIRCUIT OF COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Measure the resistance of harness between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 11, No. 12 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the meter case assembly.	Repair the wiring harness.

5. CHECK ABSCM OR VDCCM

	Step	Check	Yes	No
1	**CHECK VEHICLE SPEED SIGNAL.** 1) Lift up the vehicle and support it with rigid racks. 2) Drive the vehicle faster than 10 km/h (6 MPH). **Warning:** **Be careful not to get caught in the running wheels.** 3) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 19 (+) — Chassis ground (−):***	Is the voltage less than 1 V ⟷ 5 V or more?	Replace the meter case assembly.	Go to step **2.**
2	**CHECK HARNESS BETWEEN ABSCM OR VDCCM AND COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ABSCM or VDCCM and combination meter. 3) Measure the resistance between ABSCM or VDCCM harness connector and combination meter harness connector. ***Connector & terminal*** ***Model without VDC*** ***(B301) No. 23 — (i10) No. 19:*** ***Model with VDC*** ***(B310) No. 36 — (i10) No. 19:***	Is the resistance less than 10 Ω?	Model without VDC: Check the ABSCM. <Ref. to ABS(diag)-2, Basic Diagnostic Procedure.> Model with VDC: Check the VDCCM. <Ref. to VDC(diag)-2, Basic Diagnostic Procedure.>	Repair the wiring harness.

6. CHECK ENGINE CONTROL MODULE

Step		Check	Yes	No
1	**CHECK ECM SIGNAL.** 1) Start the engine. 2) Measure the voltage between ECM connector and engine ground. ***Connector & terminal*** ***2.0 L non-turbo model and 2.5 L KS, KA model*** ***(B135) No. 27 (+) — Chassis ground (−):*** ***2.0 L turbo model, 3.0 L model and 2.5 L EC, K4, EK model*** ***(B134) No. 23 (+) — Chassis ground (−):***	Is the voltage more than 0 ←→ 14 V?	Go to step **2.**	Check the ECM. <Ref. to EN(H4SO 2.0)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H4SO 2.5)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H6DO)(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK HARNESS BETWEEN COMBINATION METER AND ECM.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from ECM and combination meter. 3) Measure the resistance between ECM harness connector and combination meter harness connector. ***Connector & terminal*** ***2.0 L non-turbo model and 2.5 L KS, KA model*** ***(B135) No. 27 — (i10) No. 20:*** ***2.0 L turbo model, 3.0 L model and 2.5 L EC, K4, EK model*** ***(B134) No. 23 — (i10) No. 20:***	Is the resistance less than 10 Ω?	Replace the meter case assembly.	Repair the wiring harness.

7. CHECK FUEL LEVEL SENSOR.

Step		Check	Yes	No
1	**CHECK COMMUNICATION ERROR DISPLAY.** 1) Set the ignition switch to ON. 2) Check that the error code is displayed in odo/trip meter.	Is the error code “Er xx” displayed in odo/trip meter?	Check the communication circuit. <Ref. to IDI-11, COMMUNICATION ERROR DISPLAY, INSPECTION, Combination Meter System.>	Go to step **2.**
2	**CHECK FUEL LEVEL SENSOR.** 1) Remove the fuel level sensor. <Ref. to FU(H4SO 2.0)-49, REMOVAL, Fuel Level Sensor.> <Ref. to FU(H4SO 2.5)-51, REMOVAL, Fuel Level Sensor.> <Ref. to FU(H4DOTC)-51, REMOVAL, Fuel Level Sensor.> <Ref. to FU(H6DO)-50, REMOVAL, Fuel Level Sensor.> 2) Measure the resistance between fuel level sensor terminals when the float is in FULL or EMPTY position. ***Terminals*** ***No. 1 — No. 4:***	Is the resistance 1.0 — 3.0 Ω (FULL) or 31 — 33 Ω (EMPTY)?	Go to step **3.**	Replace the fuel level sensor.

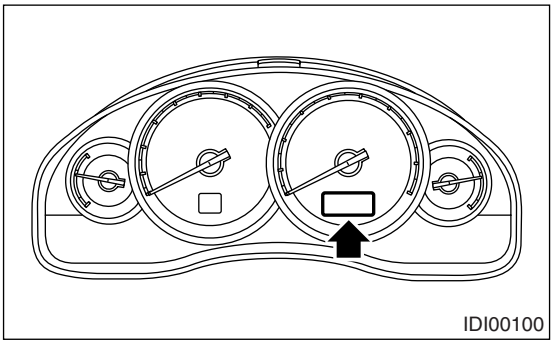
	Step	Check	Yes	No
3	**CHECK FUEL SUB LEVEL SENSOR.** 1) Remove the fuel sub level sensor. <Ref. to FU(H4SO 2.0)-50, REMOVAL, Fuel Sub Level Sensor.> <Ref. to FU(H4SO 2.5)-52, REMOVAL, Fuel Sub Level Sensor.> <Ref. to FU(H4DOTC)-52, REMOVAL, Fuel Sub Level Sensor.> <Ref. to FU(H6DO)-51, REMOVAL, Fuel Sub Level Sensor.> 2) Measure the resistance between fuel sub level sensor terminals when the float is in FULL or EMPTY position. ***Terminals*** ***No. 1 — No. 2:***	Is the resistance 1.0 — 3.0 Ω (FULL) or 61 — 63 Ω (EMPTY)?	Go to step **4.**	Replace the fuel sub level sensor.
4	**CHECK HARNESS BETWEEN FUEL SUB-LEVEL SENSOR AND BODY INTEGRATED UNIT.** 1) Disconnect the connector from body integrated unit. 2) Measure the resistance between fuel sub level sensor harness connector terminal and body integrated unit harness connector terminal. ***Connector & terminal*** ***(R59) No. 1 — (B281) No. 19:***	Is the resistance less than 10 Ω?	Go to step **5.**	Repair the wiring harness.
5	**CHECK HARNESS BETWEEN FUEL LEVEL SENSOR AND FUEL SUB LEVEL SENSOR.** Measure the resistance between fuel level sensor harness connector terminal and fuel sub level sensor harness connector terminal. ***Connector & terminal*** ***(R58) No. 1 — (R59) No. 2:***	Is the resistance less than 10 Ω?	Go to step **6.**	Repair the wiring harness.
6	**CHECK FUEL LEVEL SENSOR GROUND CIRCUIT.** Measure the resistance between fuel level sensor harness connector terminal and chassis ground. ***Connector & terminal*** ***(R58) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the meter case assembly.	Repair the wiring harness.

8. CHECK ENGINE COOLANT TEMPERATURE SENSOR.

	Step	Check	Yes	No
1	**CHECK COMMUNICATION ERROR DISPLAY.** 1) Set the ignition switch to ON. 2) Check that the error code is displayed in odo/trip meter.	Is the error code “Er xx” displayed in odo/trip meter?	Check the communication circuit. <Ref. to IDI-11, COMMUNICATION ERROR DISPLAY, INSPECTION, Combination Meter System.>	Go to step **2.**
2	**CHECK ENGINE COOLANT TEMPERATURE SENSOR.** Check the engine coolant temperature sensor. <Ref. to EN(H4SO 2.0)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.> <Ref. to EN(H6DO)(diag)-2, Basic Diagnostic Procedure.>	Is the engine coolant temperature sensor OK?	Replace the meter case assembly.	Replace the engine coolant temperature sensor.

9. COMMUNICATION ERROR DISPLAY

When the following error code is displayed in the odo/trip meter, inspect the communication circuit since the communication malfunction is generated between each control module. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>



Error code	Remarks
Er IU	Malfunction in integrated unit
Er ––	Simultaneous malfunction of high/low speed CAN communication
Er HC	Malfunction of high-speed CAN communication
Er LC	Malfunction of low-speed CAN communication
Er EG	EGI Communication malfunction
Er TC	TCM Communication malfunction
Er Ab	ABSCM/VDCCM Communication malfunction
Er SP	ABSCM/VDCCM DTC information, vehicle speed pulse malfunction
Er SS	Wheel speed data malfunction

10.DTC DISPLAY MODE

When DTC display mode is operated, {ECM}, {TCM}, {ABSCM/VDCCM} is displayed repeatedly in this order by pressing the odo/trip meter button. DTC is displayed in the following table according to type of control module, receiving DTC, DTC detected, No DTC. If CAN communication is broken down, "-----" is displayed.

Control module	Condition	Display
ECM	Receiving DTC	Trip "A" + "P (blinking)"
	DTC detected	Trip "A" + "Pxxxx"
	No DTC	Trip "A" + "P----"
TCM	Receiving DTC	Trip "B" + "P (blinking)"
	DTC detected	Trip "B" + "Pxxxx"
	No DTC	Trip "B" + "P----"
ABSCM/VDCCM	Receiving DTC	Trip "A" + "C (blinking)"
	DTC detected	Trip "A" + "Cxxxx"
	No DTC	Trip "A" + "C----"
When CAN communication is broken down.	—	"-----"

3. Clock System

A: WIRING DIAGRAM

1. CLOCK

<Ref. to WI-129, WIRING DIAGRAM, Clock System.>

B: INSPECTION

1. SYMPTOM CHART

Symptom	Repair order	Reference
No display is shown.	(1) Power supply (2) Clock body	<Ref. to IDI-14, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Clock System.>
Illumination does not illuminate.	(1) Illumination power supply (2) Clock body	<Ref. to IDI-14, CHECK ILLUMINATION CIRCUIT, INSPECTION, Clock System.>
Brightness does not change even when bright switch is pressed.	(1) Bright switch (2) Clock body	<Ref. to IDI-14, CHECK BRIGHT CIRCUIT, INSPECTION, Clock System.>
“Acc” or “ign” is displayed.	ACC or ignition power supply	<Ref. to IDI-15, CHECK ACC OR IGNITION POWER SUPPLY, INSPECTION, Clock System.>
“Err” is displayed in all items.	(1) Communication circuit between combination meter and clock (2) Clock body	<Ref. to IDI-15, CHECK COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
“Err” is displayed when a specified item is selected.	Communication circuit between combination meter and each control module	<Ref. to IDI-11, COMMUNICATION ERROR DISPLAY, INSPECTION, Combination Meter System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK CLOCK POWER SUPPLY.** 1) Disconnect the clock harness connector. 2) Measure the voltage between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 10 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Go to step **2.**	Check the harness for open or short between fuse and clock.
2	**CHECK CLOCK GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 6 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the clock body.	Repair the wiring harness.

3. CHECK ILLUMINATION CIRCUIT

	Step	Check	Yes	No
1	**CHECK ILLUMINATION CIRCUIT POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the clock harness connector. 3) Turn the ignition switch and lighting switch to ON. 4) Measure the voltage between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 1 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Replace the clock body.	Check the harness for open or short between fuse and clock.

4. CHECK BRIGHT CIRCUIT

	Step	Check	Yes	No
1	**CHECK BRIGHT CIRCUIT POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the clock harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 2 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Replace the clock body.	Go to step **2.**
2	**CHECK HARNESS BETWEEN CLOCK AND BODY INTEGRATED UNIT.** 1) Turn the ignition switch to OFF. 2) Disconnect harness connector of body integrated unit. 3) Measure the resistance between clock harness connector and body integrated unit harness connector. ***Connector & terminal*** ***(i59) No. 2 — (i84) No. 30:***	Is the resistance less than 10 Ω?	Replace the body integrated unit.	Repair the wiring harness.

5. CHECK ACC OR IGNITION POWER SUPPLY

	Step	Check	Yes	No
1	**CHECK ACC POWER SUPPLY.** 1) Turn the ignition switch to OFF. 2) Disconnect the clock harness connector. 3) Turn the ignition switch to ACC. 4) Measure the voltage between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 9 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Go to step **2.**	Check the open circuit in harness between fuse and clock.
2	**CHECK THE IGNITION POWER SUPPLY.** 1) Turn the ignition switch to ON. 2) Measure the voltage between clock harness connector and chassis ground. ***Connector & terminal*** ***(i59) No. 8 (+) — Chassis ground (−):***	Is the voltage more than 10 V?	Replace the clock body.	Check the open circuit in harness between fuse and clock.

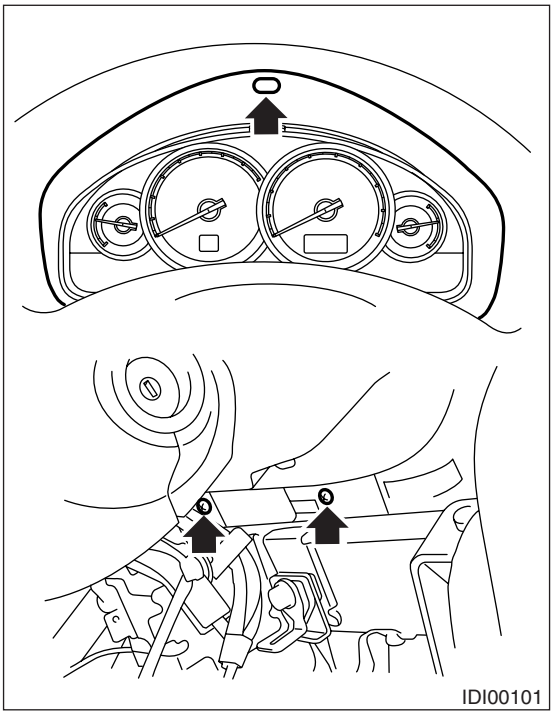
6. CHECK COMMUNICATION CIRCUIT

	Step	Check	Yes	No
1	**CHECK THE HARNESS BETWEEN CLOCK AND COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Disconnect the harness of clock and combination meter. 3) Measure the resistance between harness connectors of clock and combination meter. ***Connector & terminal*** ***(i59) No. 5 — (i10) No. 18:***	Is the resistance less than 10 Ω?	Go to step **2.**	Repair the wiring harness.
2	**CHECK COMMUNICATION ERROR DISPLAY.** 1) Connect all the disconnected connectors. 2) Turn the ignition switch to ON. 3) Check that the error code is displayed in odo/trip meter.	Is the error code “Er xx” displayed in odo/trip meter?	Check the communication circuit. <Ref. to IDI-11, COMMUNICATION ERROR DISPLAY, INSPECTION, Combination Meter System.>	Replace the clock body.

4. Combination Meter Assembly

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Set the tilt steering at the lowest position.
3) Remove the instrument panel under cover and lower cover of driver's seat side. <Ref. to EI-56, REMOVAL, Instrument Panel Assembly.>
4) Remove the screws of combination meter (one for upper side, two for lower side) and pull tilting the meter toward you.



5) Disconnect the connector in the rear side of combination meter to remove meter.

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

B: INSTALLATION

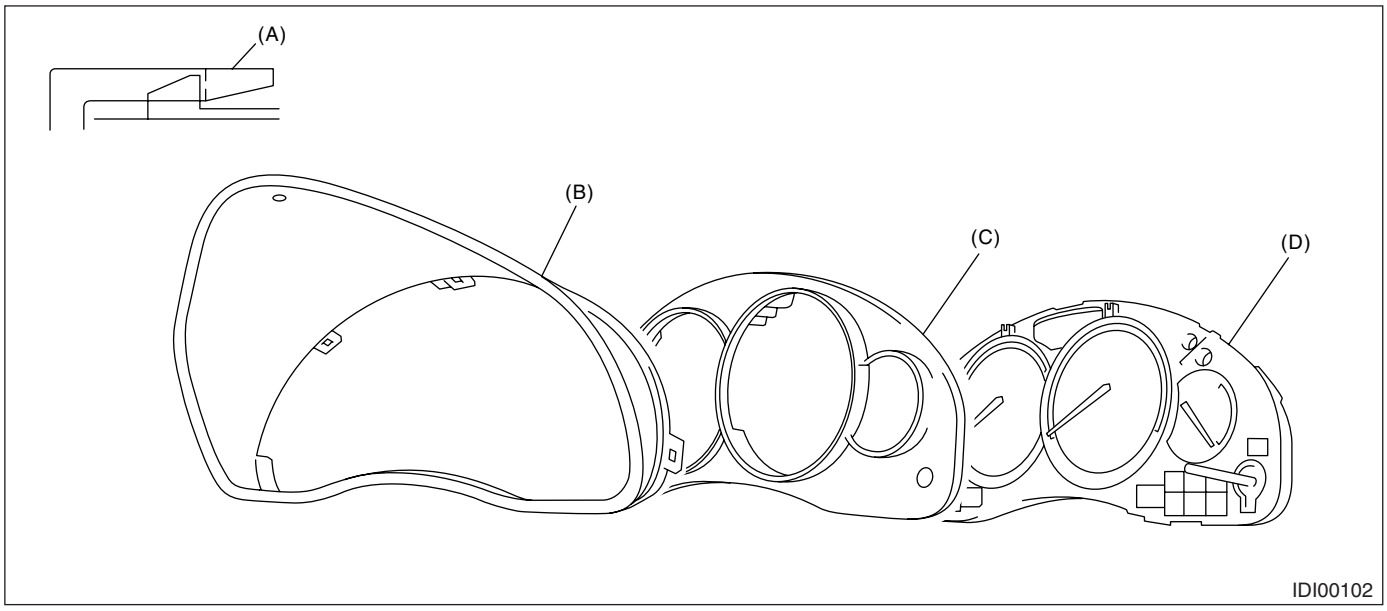
Install in the reverse order of removal.

CAUTION:
• Make sure the electrical connector is connected securely.
• Make sure that each meter operates normally.
• When the combination meter of model with immobilizer has been replaced, be sure to perform the registration procedure of immobilizer.

C: DISASSEMBLY

CAUTION:
- **Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.**
- **Be careful not to apply excessive force to the trip knob.**
- **Be sure not to touch the meter indicator needle.**

Remove the pawl (A), and then detach the meter glass assembly (B) and meter panel assembly (C) from meter case assembly (D).



1. BULB REPLACEMENT

LEDs are used for all of warning lights and indicator lights of combination meters, replace the meter case assembly if faulty.

D: ASSEMBLY

Assemble in the reverse order of disassembly.

5. Speedometer

A: SPECIFICATION

Since the meter case assembly cannot be disassembled, do not remove or inspect the speedometer alone. (Do not remove the cover on the back side.)

6. Tachometer

A: SPECIFICATION

Since the meter case assembly cannot be disassembled, do not remove or inspect the tachometer alone. (Do not remove the cover on the back side.)

7. Fuel Gauge

A: SPECIFICATION

Since the meter case assembly cannot be disassembled, do not remove or inspect the fuel gauge alone. (Do not remove the cover on the back side.)

8. Water Temperature Gauge

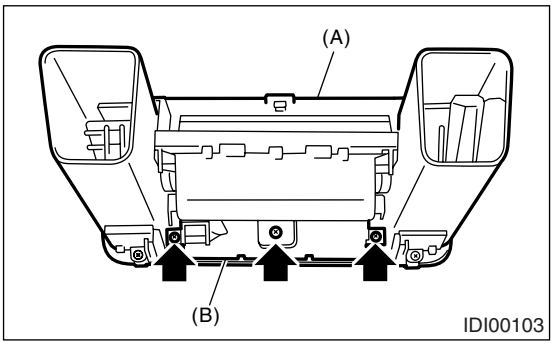
A: SPECIFICATION

Since the meter case assembly cannot be disassembled, do not remove or inspect the water temperature gauge alone. (Do not remove the cover on the back side.)

9. Clock

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the center air vent grille. <Ref. to AC-44, REMOVAL, Air Vent Grille.>
3) Loosen the screws, and then remove the clock (B) from center air vent grille (A).



B: INSTALLATION

Install in the reverse order of removal.