

Clock System

INSTRUMENTATION/DRIVER INFO

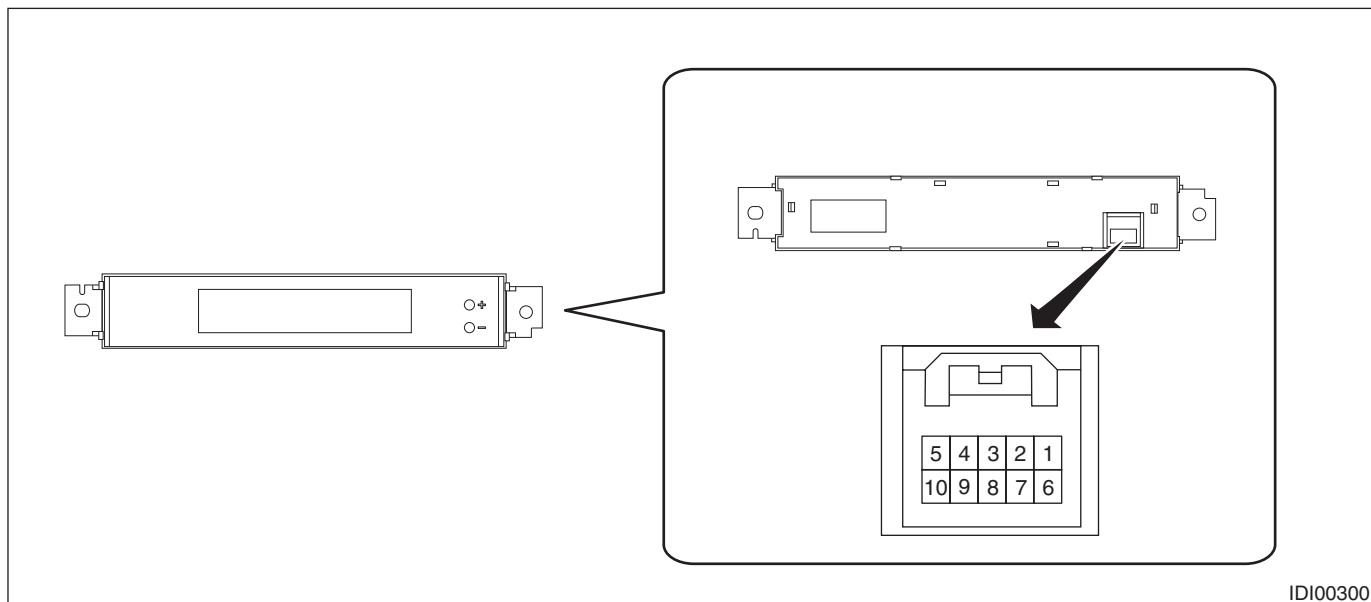
4. Clock System

A: WIRING DIAGRAM

Refer to "Clock System" in the wiring diagram. <Ref. to WI-80, WIRING DIAGRAM, Clock System.>

B: ELECTRICAL SPECIFICATION

1. MULTI DISPLAY TERMINAL ARRANGEMENT



Connector

Terminal No.	Item	Measuring condition	Specification
5 (U-ART com.)	—	Cannot be measured	—
6 (GND) \leftrightarrow Chassis ground	Resistance	Always	Less than 1 Ω
8 (IG) \leftrightarrow Chassis ground	Voltage	IG OFF \rightarrow ON	0 V \rightarrow 10 — 14 V
10 (+B) \leftrightarrow Chassis ground	Voltage	Always	10 — 14 V

C: INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	NOTE
No display is shown.	1. Power supply 2. Ground circuit 3. Communication circuit harness 4. Multi display	<Ref. to IDI-17, CHECK POWER SUPPLY AND GROUND CIRCUIT., INSPECTION, Clock System.>
Ambient air temperature/fuel economy displays do not appear.	1. Power supply 2. Ground circuit 3. Communication circuit harness 4. Multi display	<Ref. to IDI-17, CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
Ambient air temperature display do not appear.	1. Power supply 2. Harness 3. Ambient sensor 4. Communication circuit 5. Multi display	<Ref. to IDI-18, CHECK AMBIENT TEMPERATURE SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
Fuel economy display do not appear.	1. Settings 2. Communication circuit 3. Multi display	<Ref. to IDI-19, CHECK FUEL ECONOMY SYSTEM COMMUNICATION CIRCUIT., INSPECTION, Clock System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT.

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the multi display connector. 2) Measure the voltage between multi display connector and chassis ground. <i>Connector & terminal (i59) No. 10 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 2.	Check the harness for open or short between the fuse and multi display.
2 CHECK GROUND CIRCUIT. Measure the resistance between multi display connector and chassis ground. <i>Connector & terminal (i59) No. 6 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS BETWEEN MULTI DISPLAY AND COMBINATION METER. 1) Disconnect the combination meter connector. 2) Measure the resistance between multi display connector and combination meter connector. <i>Connector & terminal (i59) No. 5 — (i10) No. 3:</i>	Is the resistance less than 10 Ω ?	Go to step 4.	Repair or replace the harness.
4 CHECK MULTI DISPLAY. 1) Remove the multi display. 2) Attach the clock to another vehicle on which the clock display operates normally, and check its operation.	Is the multi display normal?	Replace the meter case assembly.	Replace the multi display.

3. CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the multi display connector. 2) Measure the voltage between multi display connector and chassis ground. <i>Connector & terminal (i59) No. 8 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 2.	Repair or replace the harness.
2 CHECK GROUND CIRCUIT. Measure the resistance between multi display connector and chassis ground. <i>Connector & terminal (i59) No. 6 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS BETWEEN MULTI DISPLAY AND COMBINATION METER. 1) Disconnect the combination meter connector. 2) Measure the resistance between multi display connector and combination meter connector. <i>Connector & terminal (i59) No. 5 — (i10) No. 3:</i>	Is the resistance less than 10 Ω ?	Go to step 4.	Repair or replace the harness.
4 CHECK MULTI DISPLAY. 1) Remove the multi display. 2) Attach the clock to another vehicle on which the clock display operates normally, and check its operation.	Is the multi display normal?	Replace the meter case assembly.	Replace the multi display.

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4. CHECK AMBIENT TEMPERATURE SYSTEM COMMUNICATION CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY FOR AMBIENT SENSOR. 1) Disconnect the ambient sensor connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the ambient sensor connector and chassis ground. Connector & terminal <i>(F138) No. 2 (+) — Chassis ground (-):</i>	Is the voltage 4 V or more?	Go to step 2.	Check the harness for open or short between the fuse and multi display.
2 CHECK HARNESS BETWEEN AMBIENT SENSOR AND COMBINATION METER. 1) Disconnect the combination meter connector. 2) Measure the resistance between the ambient sensor connector and the combination meter connector. Connector & terminal <i>(F138) No. 1 — (i10) No. 37: (F138) No. 2 — (i10) No. 36:</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Repair or replace the harness.
3 CHECK AMBIENT SENSOR. 1) Remove the ambient sensor. <Ref. to AC-68, REMOVAL, Ambient Sensor (Auto A/C Model).> 2) Check the ambient sensor. <Ref. to AC(diag)-23, AMBIENT SENSOR, Diagnostic Procedure for Sensors.>	Is the ambient sensor operating properly?	Go to step 4.	Replace the ambient sensor.
4 CHECK AMBIENT TEMPERATURE DISPLAY. 1) Connect the combination meter connector. 2) Install the 3 Ω resistance to ambient sensor connector terminal. 3) Turn the ignition switch to ON. Connector & terminal <i>(F138) No. 1 — (F78) No. 2:</i>	Does the ambient temperature display 25°C (77°F)?	Repair the poor contact between the ambient air temperature sensor and harness connector.	Go to step 5.
5 CHECK AMBIENT AIR TEMPERATURE OUTPUT DATA. 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select the {Ambient Temperature}.	Does the ambient temperature display 25°C (77°F)?	Go to step 6.	Replace the meter case assembly. <Ref. to IDI-20, Combination Meter.>
6 CHECK MULTI DISPLAY. 1) Remove the multi display. 2) Attach the ambient temperature display to another vehicle on which the ambient temperature display operates normally to check its operation.	Does the ambient temperature display 25°C (77°F)?	Replace the multi display.	Replace the meter case assembly. <Ref. to IDI-20, Combination Meter.>

5. CHECK FUEL ECONOMY SYSTEM COMMUNICATION CIRCUIT.

Step	Check	Yes	No
1 CHECK FUEL ECONOMY DISPLAY OFF MODE. Check that the mode display changes when the MFD changeover knob is operated. (Display changes in the following order: Cruising Distance → Average Fuel Economy → Instantaneous Fuel Economy → blank display)	Is fuel economy displayed?	Multi display is normal. Go to step 2 .	
2 CHECK DIAGNOSTIC TROUBLE CODE (DTC). 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select the {Diagnostic Code(s) Display}.	Is DTC detected?	Go to step 3 . Replace the meter case assembly. <Ref. to IDI-20, Combination Meter.>	
3 CHECK MULTI DISPLAY. 1) Remove the multi display. 2) Attach the fuel economy display to another vehicle on which the fuel economy display operates normally to check its operation.	Is the fuel economy display correct?	Replace the multi display. Replace the meter case assembly. <Ref. to IDI-20, Combination Meter.>	

D: NOTE

For operation procedures of each component of the clock system, refer to the following section:

- Multi display:<Ref. to IDI-30, Multi Display.>