

Clock System

INSTRUMENTATION/DRIVER INFO

3. Clock System

A: WIRING DIAGRAM

Refer to "Clock System" in WI section. <Ref. to WI-143, WIRING DIAGRAM, Clock System.>

B: INSPECTION

1. SYMPTOM CHART

Symptom	Repair order	Index
No display is shown.	1. Power supply 2. Ground circuit 3. Communication circuit harness 4. Clock body	<Ref. to IDI-12, CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
Ambient air temperature/fuel economy displays do not appear.	1. Power supply 2. Ground circuit 3. Communication circuit harness 4. Clock body	<Ref. to IDI-13, CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
Only ambient air temperature display is not displayed.	1. Power supply 2. Harness 3. Ambient sensor 4. Communication circuit 5. Clock body	<Ref. to IDI-13, CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Clock System.>
Only fuel economy display is not displayed.	1. Setting 2. Communication circuit 3. Clock body	<Ref. to IDI-14, CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM, INSPECTION, Clock System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the clock connector. 2) Measure the voltage between clock connector and chassis ground. Connector & terminal (i59) No. 10 (+) — Chassis ground (-):	Is the voltage 10 V or more?	Go to step 2.	Check the harness for a open or short between the fuse and clock.
2 CHECK GROUND CIRCUIT. Measure the resistance between the clock connector and chassis ground. Connector & terminal (i59) No. 6 — Chassis ground:	Is the resistance less than 10 Ω?	Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS BETWEEN CLOCK AND COMBINATION METER. 1) Disconnect the combination meter connector. 2) Measure the resistance between the clock connector and combination meter connector. Connector & terminal (i59) No. 5 — (i10) No. 29:	Is the resistance less than 10 Ω?	Go to step 4.	Repair or replace the harness.
4 CHECK CLOCK. 1) Remove the clock. 2) Attach the clock to another vehicle on which the clock operates normally to check its operation.	Is clock normal?	Replace the meter case assembly.	Replace the clock body.

3. CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the clock connector. 2) Measure the voltage between clock connector and chassis ground. Connector & terminal (i59) No. 8 (+) — Chassis ground (-):	Is the voltage 10 V or more?	Go to step 2.	Repair or replace the harness.
2 CHECK GROUND CIRCUIT. Measure the resistance between the clock connector and chassis ground. Connector & terminal (i59) No. 6 — Chassis ground:	Is the resistance less than 10 Ω ?	Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS BETWEEN CLOCK AND COMBINATION METER. 1) Disconnect the combination meter connector. 2) Measure the resistance between the clock connector and combination meter connector. Connector & terminal (i59) No. 5 — (i10) No. 29:	Is the resistance less than 10 Ω ?	Go to step 4.	Repair or replace the harness.
4 CHECK CLOCK. 1) Remove the clock. 2) Attach the clock to another vehicle on which the clock operates normally to check its operation.	Is clock normal?	Replace the meter case assembly.	Replace the clock body.

4. CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT

Step	Check	Yes	No
1 CHECK AMBIENT SENSOR POWER SUPPLY. 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 (F78) No. 2 (+) — Chassis ground (-):	Is the voltage 4 V or more?	Go to step 2.	Check the harness for a open or short between the fuse and clock.
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 combination meter connector. Connector & terminal (F78) No. 1(+) — (i10) No. 23: (F78) No. 2(+) — (i10) No. 24:	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-41, REMOVAL, Ambient Sensor (Auto A/C Model).> 2) Check the ambient sensor. <Ref. to AC(diag)-28, AMBIENT SENSOR, Diagnostic Procedure for Sensors.>	Is the ambient sensor operating properly?	Go to step 4.	Replace the ambient sensor.

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Step	Check	Yes	No
4 CHECK AMBIENT TEMPERATURE DISPLAY. 1) Connect the combination meter connector. 2) Install the 3 Ω resistance to ambient sensor connector. 3) Turn the ignition switch to ON. Connector & terminal (F78) No. 1 — (F78) No. 2:	Is the ambient temperature display 25°C (77°F)?	Repair the poor contact between the ambient sensor and harness connector.	Go to step 5.
5 CHECK AMBIENT 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 {Ambient Temperature}.	Is the ambient temperature display 25°C (77°F)?	Go to step 6.	Replace the meter case assembly. <Ref. to IDI-15, Combination Meter.>
6 CHECK CLOCK. 1) Remove the clock. 2) Attach the ambient temperature display to another vehicle on which the ambient temperature display operates normally to check its operation.	Is the ambient temperature display 25°C (77°F)?	Replace the clock body.	Replace the meter case assembly. <Ref. to IDI-15, Combination Meter.>

5. CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM

Step	Check	Yes	No
1 CHECK FUEL ECONOMY DISPLAY OFF MODE. Hold down the button "+" on the clock for 5 seconds or more.	Does the fuel economy display part blink?	Go to step 2.	Go to step 3.
2 CHECK FUEL ECONOMY DISPLAY OFF MODE. Turn the ignition switch to ON.	Is fuel economy displayed?	Clock is normal.	Go to step 3.
3 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 4.	Replace the meter case assembly. <Ref. to IDI-15, Combination Meter.>
4 CHECK CLOCK. 1) Remove the clock. 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 clock body.	Replace the meter case assembly. <Ref. to IDI-15, Combination Meter.>

C: NOTE

For procedure of each component in the clock system, refer to the respective section.

- CLOCK<Ref. to IDI-20, Clock.>