

3. Combination Meter System

A: WIRING DIAGRAM

Refer to “Combination Meter System” in the wiring diagram.

- Gasoline engine model
Models with normal meters: <Ref. to WI(w/o HEV)-73, MODEL WITH NORMAL METER, WIRING DIAGRAM, Combination Meter System.>
Model with color TFT meter: <Ref. to WI(w/o HEV)-78, MODEL WITH COLOR TFT METER, WIRING DIAGRAM, Combination Meter System.>
- HEV model: <Ref. to WI(HEV)-75, WIRING DIAGRAM, Combination Meter System.>

B: ELECTRICAL SPECIFICATION

1. COMBINATION METER ASSEMBLY

Refer to “Control Module I/O Signal” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section. <Ref. to IDI(diag)-7, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: OPERATION

1. SELF-DIAGNOSIS DISPLAY MODE

The self-diagnosis (checking of each meter, warning light, indicator light, illumination, LCD/TFT) of combination meter can be performed in the following procedure.

1) Procedure

CAUTION:

Perform the steps described in (1) through (4) within 10 seconds.

- Unfasten → fasten the driver’s seat belt within 3 seconds after the ignition switch is turned to ON.
- With the driver’s seat belt fastened, press the trip meter knob three times.
- Unfasten the driver’s seat belt, and then press the trip meter knob three times.
- Fasten the driver’s seat belt again, and then press the trip meter knob three times.

NOTE:

- When the self-diagnosis function operates, the warning light, indicator light, and LCD/TFT display checks are performed. After this, the buzzer will sound for 0.5 seconds every time the trip meter knob is pressed, and operation checks are performed in the order of meter indicator needle operation, meter indicator needle indication, and LCD/TFT. Turn the ignition switch to OFF to cancel the self-diagnosis function.
- When the engine starts during diagnosis, the self-diagnosis function is not cancelled, however, once the vehicle starts driving, the self-diagnosis function is deactivated automatically.

2) Go to “Check meter indicator operation”.

Check meter operation, warning light, indicator light, illumination and LCD/TFT.

NOTE:

- After “_S_1” is displayed on the LCD/TFT, the meter indicator operation check mode is initiated.
- Each of the meter indicator operation display and LCD/TFT display switches every 6 seconds.

Meter indicator	LCD/TFT display, illumination	Warning light/ indicator light
MIN indication ↓ MAX indication	ILL1 (Min. brightness) ↓*4 ILL6 (Max. brightness)	*1, *2, *3
MAX indication ↓ MIN indication	ILL6 (Max. brightness) ↓*4 ILL1 (Min. brightness)	

*1: Warning lights and indicator lights controlled by the meter drive circuit are illuminated. <Ref. to IDI-2, SPECIFICATION, General Description.>

*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>

*3: Engine coolant temperature warning light illuminates in red.

*4: Display for one second for each level.

3) Press the trip meter knob once.

4) Go to “Meter Indicator Needle Indication Check”.

Check meter operation, warning light, indicator light, and LCD/TFT.

NOTE:

- Meter indicator switches every 1.5 seconds for each indication.
- ILL indication illuminates at the same brightness as when entering “Meter Indicator Needle Indication Check”.
- During operation, “_S_2” is displayed on the LCD/TFT trip display.

Speedometer (km/h)	Tachometer (rpm)	ECO gauge	Warning light/ indicator light
0	0	Lowest point	*1, *2, *3
0	0	–Max	
40	1000	0	
100	4000	+Max	
40	1000	0	
0	0	–Max	

*1: Warning lights and indicator lights controlled by the meter drive circuit go off. <Ref. to IDI-2, SPECIFICATION, General Description.>

*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>

*3: Engine coolant temperature indicator light illuminates in blue.

5) Press the trip meter knob once.

6) Go to “Check LCD/TFT display”.

Check the LCD/TFT display.

NOTE:

- After “_S_3” is displayed on the LCD/TFT, the LCD/TFT display check mode is initiated.
- LCD/TFT display switches every 1 second.
- Warning lights and indicator lights controlled by the meter drive circuit go off. <Ref. to IDI-2, SPECIFICATION, General Description.>
- Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>
- The meter indication remains at the same level as “Meter Indicator Needle Indication Check”.
- ILL indication illuminates at ILL6 level (max. brightness).
- After No. 14 is displayed in the illumination order, display is repeated from No. 1 again. (Except for color TFT type)
- After No. 8 is displayed in the illumination order, display is repeated from No. 1 again. (Color TFT type)
- The version display contents of the illumination order No. 1 varies depending on the vehicle. (Color TFT type)

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Except for color TFT type

ORDER	AT/SS	SHIFT UP	CRUISE/SET	MODE X/S/I/S#	TRIP/ODO	FUEL METER	LFW
1					 8 8 8 8 8 km		OFF
2			OFF	OFF	1 1 1 . 1 1 1 1 1 1 1		ON
3			OFF	OFF	 2 2 2 2 2 2 km		ON
4			OFF		3 3 3 . 3 3 3 3 3 3 3		OFF
5			OFF	OFF	 4 4 4 4 4 4 km		OFF
6			OFF	OFF	5 5 5 . 5 5 5 5 5 5 5		OFF
7					 6 6 6 6 6 6 km		OFF
8			OFF	OFF	7 7 7 . 7 7 7 7 7 7 7		OFF
9				OFF	 8 8 8 8 8 8 km		OFF
10			OFF		9 9 9 . 9 9 9 9 9 9 9		OFF
11			OFF	OFF	 0 0 0 0 0 0 km		OFF
12			OFF	OFF	8 8 8 . 8 8 8 8 8 8 8		OFF
13					 8 8 8 8 8 8 km		ON
14			OFF	OFF	8 8 8 . 8 8 8 8 8 8 8		OFF

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Color TFT type

Order	TFT display
1	Version display & color gradation
2	Black
3	Red
4	Green
5	Blue
6	White
7	Color gradation
8	Cross talking

2. DEMONSTRATION MODE (EXCEPT FOR COLOR TFT TYPE)

The demonstration mode screen of the combination meter can be displayed according to the following procedure.

CAUTION:

- Perform the steps while the ignition is OFF (ACC OFF) and the odometer/trip meter is not displayed.
- To avoid battery discharge, perform the operation under the following condition.
 - Perform the operation while the battery is being charged.
 - While performing the operation and displaying the demonstration mode, close all doors and do not operate any electrical parts.
- If the battery voltage is low, the demonstration mode is not initiated.
- To display the demonstration mode, set the “Demonstration mode permission / fault permission” of the user customize mode to “permission”. For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- When the demonstration mode display is completed, make sure to set “Demonstration mode permission / fault permission” of the user customize mode to “fault permission”. Do not deliver the vehicle to the customer with “Demonstration mode permission / fault permission” set to “permission”.
- Even if the backup fuse is removed, the demonstration mode can be initiated.

1) Procedure

CAUTION:

Perform the steps described in (1) through (4) within 10 seconds.

- (1) Press the trip meter knob twice.

NOTE:

When the trip meter knob is pressed once, the odometer/trip meter is displayed.

- (2) Press the i/SET switch three times within three seconds after the operation 1) above is performed.
- (3) Press the trip meter knob once, and press the i/SET switch three times.
- (4) Press the trip meter knob once, and press the i/SET switch three times.

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2) The “demonstration mode” is initiated.

CAUTION:

If the procedure is not performed properly, stop the operation and wait until the odometer/trip meter display disappears (for approx. 10 seconds), and then perform the procedure from 1) to 4) again after confirming that the display disappeared.

NOTE:

The demonstration mode will be cancelled in the following condition.

When resuming the operation after cancellation, the demonstration mode is displayed, however, for the model with keyless access with push button start, the resuming can only be accepted after approx. 1 minute.

- At the completion of the “goodbye screen” display that is shown 60 minutes after the demonstration mode is initiated
- When the ignition is turned to ON
- When the i/SET switch is turned to ON for two seconds
- When the battery voltage is low
- When the push button ignition switch is pressed with the access key out of the passenger room (model with keyless access with push button start)
- When any request switch is pressed with the access key in the passenger room (model with keyless access with push button start).

D: INSPECTION

Refer to “Basic Diagnostic Procedure” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section.
<Ref. to IDI(diag)-2, Basic Diagnostic Procedure.>

E: NOTE

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

- Combination meter assembly: <Ref. to IDI-20, Combination Meter.>
- Speedometer: <Ref. to IDI-23, Speedometer.>
- Tachometer: <Ref. to IDI-24, Tachometer.>
- FUEL meter: <Ref. to IDI-25, Fuel Gauge.>
- ECO gauge: <Ref. to IDI-26, ECO Gauge.>