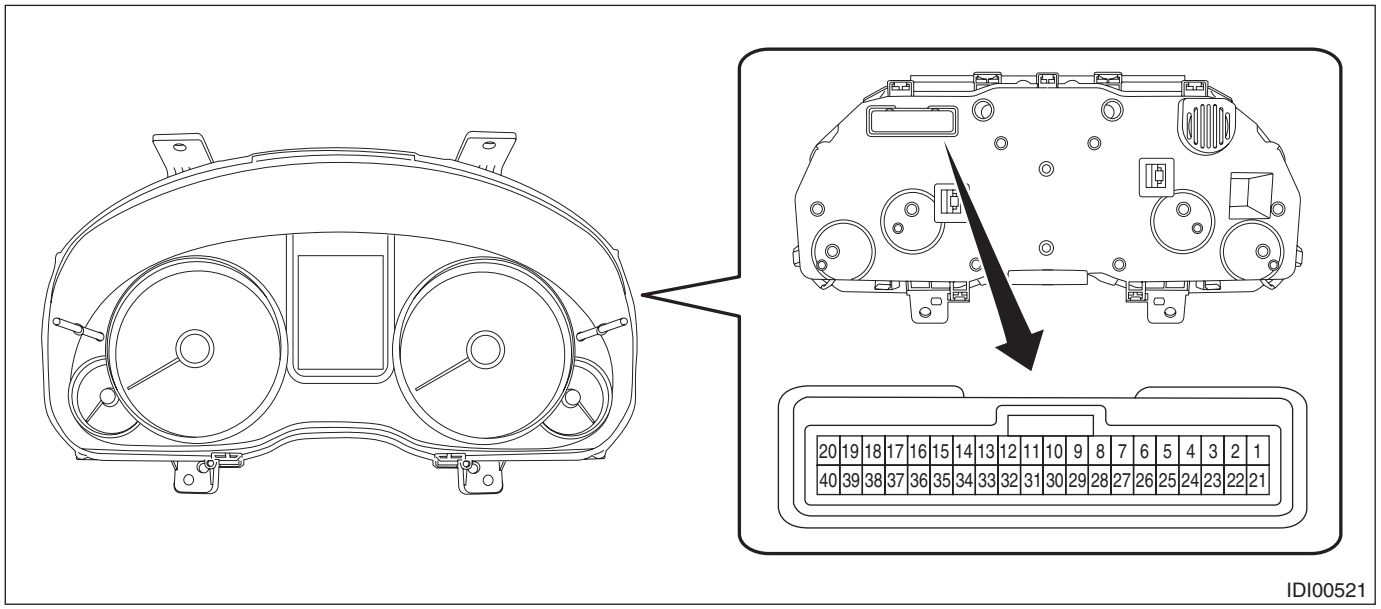
3. Combination Meter System

A: WIRING DIAGRAM

Refer to “Combination Meter System” in the wiring diagram. <Ref. to WI-96, WIRING DIAGRAM, Combination Meter System.>

B: ELECTRICAL SPECIFICATION

1. COMBINATION METER TERMINAL ARRANGEMENT



Connector

Terminal No.	Item	Measuring condition	Standard
1 ←→ Chassis ground	Voltage	Tire pressure warning light off → on	0 V → 10 — 14 V
3 (U-ART com.)	—	Cannot be measured	—
6 ←→ Chassis ground	Voltage	Malfunction indicator light off → on	0 V → 10 — 14 V
7 ←→ Chassis ground	Voltage	Charge warning light off → on	0 V → 10 — 14 V
8 ←→ Chassis ground	Voltage	Oil pressure warning light off → on	0 V → 10 — 14 V
10 ←→ Chassis ground	Voltage	LH turn indicator off → on	0 V → 10 — 14 V
11 ←→ Chassis ground	Voltage	RH turn indicator off → on	0 V → 10 — 14 V
15 ←→ Chassis ground	Voltage	Security/immobilizer indicator light off → on	0 V → 10 — 14 V
19 (IG) ←→ Chassis ground	Voltage	IG OFF → ON	0 V → 10 — 14 V
20 (+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
24 ←→ Chassis ground	Voltage	Brake fluid/parking brake warning light off → on	0 V → 10 — 14 V
27 ←→ Chassis ground	Voltage	Low washer fluid warning light on → off	0 V → 10 — 14 V
29 ←→ Chassis ground	Waveform	Speedometer	Pulse generation
30 ←→ Chassis ground	Waveform	Tachometer	Pulse generation
32 (CAN–) ←→ Chassis ground	—	Cannot be measured	—
33 (CAN+) ←→ Chassis ground	—	Cannot be measured	—
34 ←→ Chassis ground*	Voltage	While operating the steering command switch	0 V → 0.1 — 5 V
36 ←→ Chassis ground	Voltage	Ambient sensor	0 V → 0.1 — 5 V
37 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
39 ←→ Chassis ground	Resistance	Always	Less than 1 Ω

*: Model with luminescent meter

C: OPERATION

1. SELF-DIAGNOSIS DISPLAY MODE

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

CAUTION:
Perform the steps described in 1) through 4) within 10 seconds.
1) Within 3 seconds after turning the ignition switch to ON, set the lighting switch to tail light or headlight position.
2) Press the trip meter knob three times.
3) Turn the lighting switch to OFF, and press the trip meter knob three times.
4) Set the lighting switch to tail light or headlight position again, and press the trip meter knob three times.

NOTE:
• When pressing the trip meter knob four times, the display changes to DTC display mode. <Ref. to IDI-11, DTC DISPLAY MODE, OPERATION, Combination Meter System.>
• When pressing the trip meter knob five times, the display changes to dealer customize mode. <Ref. to IDI-12, DEALER CUSTOMIZE MODE, OPERATION, Combination Meter System.>
• When the self-diagnosis function operates, the warning light, indicator light, and LCD or 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 or 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.
5) Go to “Check meter indicator operation”.
Check meter operation, warning light, indicator light, illumination and LCD or TFT.

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

Meter indicator	LCD or 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. (models with normal meters)
*4: Display for one second for each level
6) Press the trip meter knob once.
7) Go to “Meter Indicator Needle Indication Check”.
Check meter operation, warning light, indicator light and LCD or 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 or TFT.

Model with normal meter

Speedometer (km/h)	Tachometer (rpm)	Fuel gauge	ECO gauge	Fuel level warning light	Warning light, indicator light
0	0	Lowest point	Lowest point	Light ON	*1, *2, *3
0	0	E	–Max	Light ON	
40	1000	1/2	0	Light OFF	
100	4000	F	+Max	Light OFF	
40	1000	1/2	0	Light OFF	
0	0	E	–Max	Light ON	

Model with luminescent meter

Speedometer (km/h)	Tachometer (rpm)	Fuel gauge	Engine coolant temperature gauge	Fuel level warning light	Warning light, indicator light
0	0	Lowest point	Lowest point	Light ON	*1, *2
0	0	E	C	Light ON	
40	1000	1/2	Starting point of the red line	Light OFF	
100	4000	F	H	Light OFF	
40	1000	1/2	Starting point of the red line	Light OFF	
0	0	E	C	Light ON	

*1: Warning lights and indicator lights controlled by the meter drive circuit turn 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. (models with normal meters)

8) Press the trip meter knob once.
9) Go to “Check LCD or TFT display”.

Check the LCD or TFT display.

Model with normal meter

NOTE:
- After “_S_3” is displayed on the LCD, the LCD display check mode is initiated.
- LCD display switches every 1 second.
- Warning lights and indicator lights controlled by the meter drive circuit turn 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.

ORDER	AT/SS	CRUISE/SET	TRIP/UNIT/ODO/ S/I/S#	DOOR/REAR GATE/ TRUNK OPEN
1	▲ ▼	SET	A 8 8 8 . 8 B 8 8 8 8 8 8 miles km [S] [I] S#	
2		OFF	1 1 1 . 1 1 1 1 1 1 1	OFF
3	▲		A 2 2 2 . 2 2 2 2 2 2 2 miles [S]	
4		OFF	3 3 3 . 3 3 3 3 3 3 3	OFF
5	▼	SET	B 4 4 4 . 4 4 4 4 4 4 4 km [I]	
6		OFF	5 5 5 . 5 5 5 5 5 5 5	OFF
7	▲		A 6 6 6 . 6 6 6 6 6 6 6 miles S#	
8		OFF	7 7 7 . 7 7 7 7 7 7 7	OFF
9	▼	SET	B 8 8 8 . 8 8 8 8 8 8 8 km [S]	
10		OFF	9 9 9 . 9 9 9 9 9 9 9	OFF
11	▲		A 0 0 0 . 0 0 0 0 0 0 0 miles [I]	
12		OFF	8 8 8 . 8 8 8 8 8 8 8	OFF
13	▼	SET	B 8 8 8 . 8 8 8 8 8 8 8 km S#	
14		OFF	8 8 8 . 8 8 8 8 8 8 8	OFF

IDI00534

Model with luminescent meter

NOTE:
- TFT display switches every 10 seconds.
- Warning lights and indicator lights controlled by the meter drive circuit turn 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. 7 is displayed in the illumination order, display is repeated from No. 1 again.
- The version display contents of the illumination order No. 1 varies depending on the vehicle.

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

2. DTC DISPLAY MODE

The combination meter DTC can be displayed according to the following procedure.

CAUTION:
Perform the steps described in 1) through 4) within 10 seconds.
1) Within 3 seconds after turning the ignition switch to ON, set the lighting switch to tail light or headlight position.
2) Press the trip meter knob four times.
3) Turn the lighting switch to OFF, and press the trip meter knob four times.
4) Set the lighting switch to tail light or headlight position again, and press the trip meter knob four times.
5) Go to “DTC display mode”.

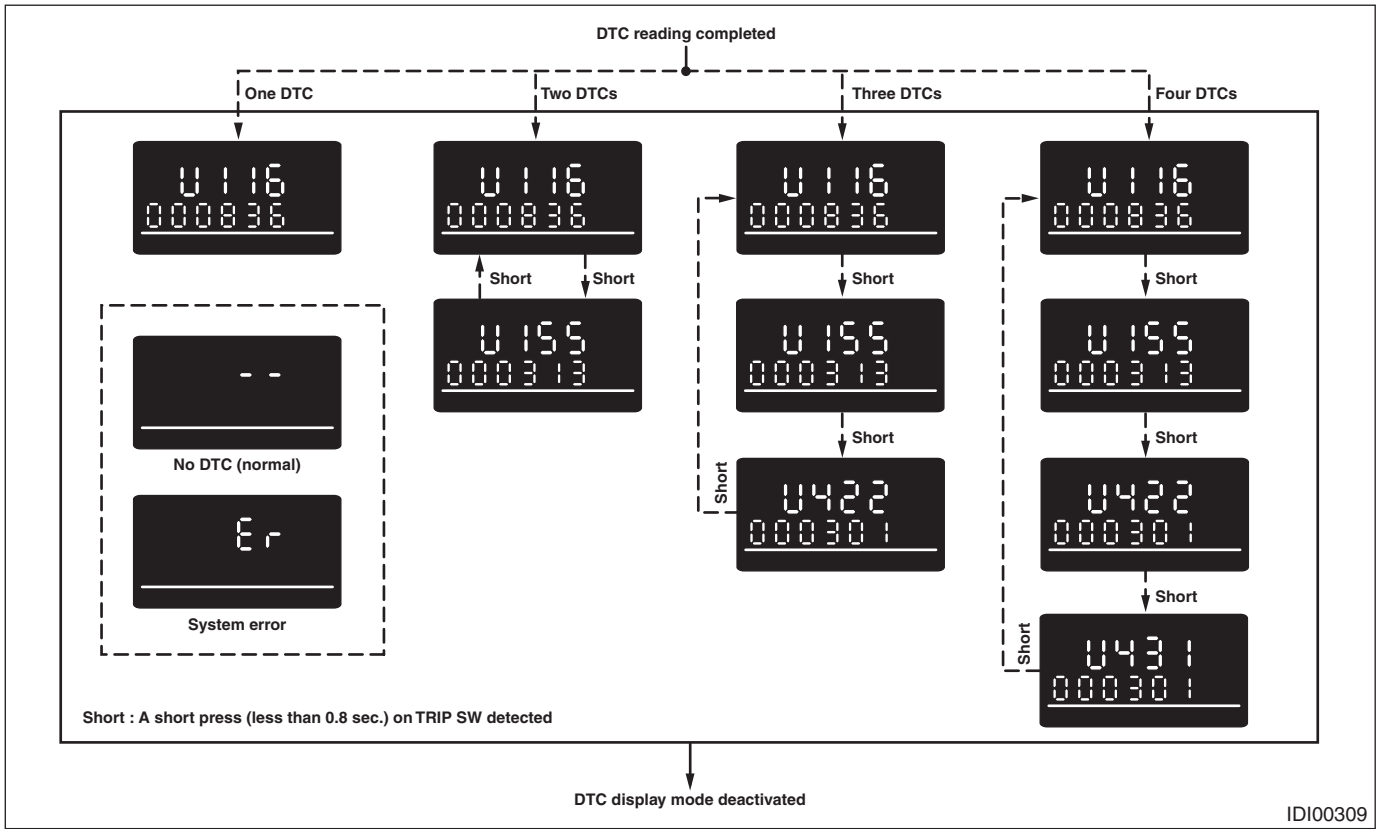
NOTE:
- If a diagnostic trouble code (DTC) is detected, an input error to meters exists. Check the harness on the body side and related parts.
- Detected diagnostic trouble code (DTC) cannot be cleared.
- When the engine starts during diagnosis, the self-diagnosis function is not cancelled, however, once ignition switch is turned OFF or the vehicle is driven, the DTC display mode is cancelled automatically.

(1) When the DTC display mode operates, the LCD or TFT displays whether diagnostic trouble code (DTC) exists.

DTC display	Item	Condition
“--”	-	Normal
“Er”	-	System error (meter error)
B900	Power supply system	When IG OFF is detected while driving
B901	Speedometer	Abnormal speed pulse value and CAN data value with engine ON
B902	Speedometer	Inconsistency between speed pulse value and CAN data value with engine ON
U116	Tachometer	Abnormal input data with engine ON
U140	Fuel meter	Abnormal input data with engine ON
U155	CAN communication	CAN communication error
U167	Immobilizer collation	Collation with body integrated unit failed
U422	Fuel meter	Abnormal input data with IG ON
U431	Fuel meter	When input data out of range is detected with engine ON

(2) If the diagnostic trouble code (DTC) is stored, ODO value at occurrence of trouble is displayed.

NOTE:
• Diagnostic trouble code (DTC) is stored for up to four cases. If diagnostic trouble code (DTC) is input exceeding four cases, the code is deleted in order starting with the oldest one.
• When there are more than one diagnostic trouble code (DTC), the code is displayed according to the following conditions and switches every time when the trip meter knob is pressed.
1. Displayed in the descending order of ODO value.
2. If the ODO value is the same, displayed in the ascending order of diagnostic trouble code (DTC) value.



3. DEALER CUSTOMIZE MODE

The combination meter can be customized with dealer customize according to the following procedure.

CAUTION:
Perform the steps described in 1) through 4) within 10 seconds.
1) Within 3 seconds after turning the ignition switch to ON, set the lighting switch to tail light or headlight position.
2) Press the trip meter knob five times.
3) Turn the lighting switch to OFF, and press the trip meter knob five times.
4) Set the lighting switch to tail light or headlight position again, and press the trip meter knob five times.

5) Move on to the “DEALER CUSTOMIZE MODE”.
- When the dealer customize mode operates, the LCD or TFT displays each adjustment screen.
- The dealer customize mode consists of four setting screens. {Avg.F/E Correction Screen}, {Ambient Temp. Correction Screen}, {Clock Adjust. Screen}, {Rear Seat belt Adjust. Screen} and {Demo. Mode Setting Screen} is displayed cyclically in this order every time the trip meter knob is tapped.
- Holding down the trip meter knob while each setting screen is displayed can change the setting value.

NOTE:
When ignition switch is turned OFF or the vehicle is driven, the customize mode is cancelled automatically.
Model with normal meter

No.	Customize mode	Initial value	Correction range
1	Avg.F/E Correction Screen	±0%	±10%
2	Ambient Temp. Correction Screen	±0°C	±3°C*
3	Clock Adjust. Screen	on	on or off

Model with luminescent meter

No.	Customize mode	Initial value	Correction range
1	Avg.F/E Correction Screen	±0%	±10%
2	Ambient Temp. Correction Screen	±0°C	±3°C*
3	Clock Adjust. Screen	ON	ON or OFF
5	Demo. Mode Setting Screen	OFF	ON or OFF

*: Temperature compensation can only be performed by 1°C (1°C change = 1.8°F) interval.

4. DEMONSTRATION MODE (LUMINESCENT METER MODEL)

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

CAUTION:
- **While IG and ACC is off and the odo/trip meter is not displayed, perform the steps described in 1) through 6) within 10 seconds.**
- **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.**
- **If the “Demo. Mode Setting Screen” is not turned to on in the dealer customize mode, the demonstration mode is not initiated.**
- **When the demonstration mode display is completed, make sure that the “Demo. Mode Setting Screen” is turned to off in the dealer customize mode. Do not deliver the vehicle to the customer with the “Demo. Mode Setting Screen” is on.**
- **Even if the backup fuse is removed, the demonstration mode can be initiated.**

1) Press the trip meter knob twice.

NOTE:
When the trip meter knob is pressed once, the odo/trip meter is displayed.
2) Press the information switch five times within three seconds after the above operation 1) is performed.
3) Press the trip meter knob once.
4) Press the information switch five times.
5) Press the trip meter knob once.
6) Press the information switch five times.

7) The “demonstration mode” is initiated.
Each demonstration mode screen is displayed in the TFT.

CAUTION:
If the procedure is not performed properly, stop the operation and wait until the odo/trip meter display disappears (for approx. 10 seconds), and then perform the procedure from 1) to 6) again after confirming that the display disappeared.

NOTE:
The demonstration mode will be cancelled in the following condition.
• At the completion of the “goodbye screen” display that is shown 60 minutes after the demonstration mode is initiated
• When the IG switch is turned to ON
• When the information 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)
• When any request switch is pressed with the access key in the passenger room (model with keyless access).
When resuming the operation after cancellation, the demonstration mode is displayed, however, for the model with keyless access, the resuming can only be accepted after approx. 1 minute.

D: INSPECTION

1. SYMPTOM CHART

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 (0.03 in) in order to avoid poor contact. Do not insert the pin more than 2 mm (0.08 in).

Symptoms	Repair order	Note
Combination meter assembly does not operate.	1. Power supply 2. Ground circuit 3. Combination meter	<Ref. to IDI-15, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Combination Meter System.>
Speedometer does not operate.	1. VDC C/M 2. Harness 3. Combination meter	<Ref. to IDI-15, CHECK VDC CONTROL MODULE, INSPECTION, Combination Meter System.>
Tachometer does not operate.	1. ECM 2. Harness 3. Combination meter	<Ref. to IDI-16, CHECK ENGINE CONTROL MODULE (ECM), INSPECTION, Combination Meter System.>
Fuel gauge does not operate.	1. Communication circuit 2. Harness 3. Body integrated unit 4. Fuel level sensor 5. Combination meter	<Ref. to IDI-17, CHECK FUEL LEVEL SENSOR, INSPECTION, Combination Meter System.>
ECO gauge does not operate.	1. Communication circuit 2. Combination meter	<Ref. to IDI-18, CHECK ECO GAUGE, INSPECTION, Combination Meter System.> NOTE: The ECO gauge does not operate unless the vehicle is driven at least 1 km (0.6 mile) after the trip meter is reset.
Engine coolant temperature gauge or engine coolant temperature indicator light/engine coolant temperature warning light does not operate.	1. Communication circuit 2. Engine coolant temperature sensor 3. Harness 4. Combination meter	<Ref. to IDI-19, CHECK ENGINE COOLANT TEMPERATURE SENSOR, INSPECTION, Combination Meter System.>
Warning buzzer for key left in ignition does not sound. (Model without keyless access)	1. Communication circuit 2. Body integrated unit 3. Combination meter	<Ref. to IDI-20, CHECK WARNING BUZZER FOR KEY LEFT IN IGNITION (MODEL WITHOUT KEYLESS ACCESS), INSPECTION, Combination Meter System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY FOR COMBINATION METER.** 1) Remove the combination meter. 2) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 20 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for open or short between the fuse and combination meter.
2	**CHECK POWER SUPPLY FOR COMBINATION METER.** 1) Turn the ignition switch to ON. 2) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 19 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check the harness for open or short between the ignition switch and combination meter.
3	**CHECK GROUND CIRCUIT OF COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 39 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the meter case assembly.	Repair or replace the harness.

3. CHECK VDC CONTROL MODULE

	Step	Check	Yes	No
1	**CHECK VEHICLE SPEED SIGNAL.** 1) Remove the combination meter mounting screws. 2) Lift up the vehicle and support it with rigid racks. 3) Drive the vehicle faster than 10 km/h (6 MPH). **WARNING:** **Be careful not to get caught in the running wheels.** 4) Measure the voltage between combination meter connector and chassis ground. ***Connector & terminal*** ***(i10) No. 29 (+) — 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 VDC CONTROL MODULE AND COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Disconnect the VDC control unit connector and the combination meter connector. 3) Measure the resistance between the VDC control module connector and the combination meter connector. ***Connector & terminal*** ***(B310) No. 11 — (i10) No. 29:***	Is the resistance less than 10 Ω?	Check VDC control module. <Ref. to VDC(diag)-2, Basic Diagnostic Procedure.>	Repair or replace the harness.

4. CHECK ENGINE CONTROL MODULE (ECM)

	Step	Check	Yes	No
1	**CHECK ECM SIGNAL.** 1) Start the engine. 2) Measure the voltage between ECM connector and chassis ground. ***Connector & terminal*** ***(B135) No. 15 (+) — Chassis ground (–):***	Is the voltage 0 ←→ 14 V or more?	Go to step **2**.	Inspect the ECM. • H4 model: <Ref. to EN(H4DO)(diag)-2, Basic Diagnostic Procedure.> • H6 model: <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 ECM connector and combination meter connector. 3) Measure the resistance between the ECM connector and the combination meter connector. ***Connector & terminal*** ***(B135) No. 15 — (i10) No. 30:***	Is the resistance less than 10 Ω?	Replace the meter case assembly.	Repair or replace the harness.

5. CHECK FUEL LEVEL SENSOR

	Step	Check	Yes	No
1	**CHECK COMBINATION METER.** 1) Drain fuel. 2) Check the fuel indication status in the combination meter.	Does the fuel gauge needle indicate EMPTY and is the fuel level warning light blinking?	Go to step **4**.	Go to step **2**.
2	**CHECK COMBINATION METER.** Perform the self-diagnosis of combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Is it operating normally?	Go to step **3**.	Replace the meter case assembly. <Ref. to IDI-25, Combination Meter.>
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 being displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector. 2) Measure the resistance between body integrated unit connector and chassis ground. ***Connector & terminal*** ***(i84) No. 17 — Chassis ground:***	Is the resistance 15.4 — 416 Ω?	Go to step **5**. Go to step **9**. (If the step 1 is “Yes”)	Repair or replace the harness.
5	**CHECK COMMUNICATION BETWEEN BODY INTEGRATED UNIT AND COMBINATION METERS.** 1) Remove the fuel sub level sensor. • H4 model: <Ref. to FU(H4DO)-147, REMOVAL, Fuel Sub Level Sensor.> • H6 model: <Ref. to FU(H6DO)-75, REMOVAL, Fuel Sub Level Sensor.> 2) Short the fuel sub level sensor connector terminal to the chassis ground with 266.9 — 274.9 Ω resistance. 3) Turn the ignition switch to ON. ***Connector & terminal*** ***(R59) No. 1 — Chassis ground:***	Does the meter needle indicate EMPTY?	Go to step **7**.	Go to step **6**.
6	**CHECK BODY INTEGRATED UNIT.** 1) Retain the condition in step 5. 2) On {Integ. unit mode}, select {Fuel level resistance output value} using the Subaru Select Monitor.	Is 266.9 — 274.9 Ω displayed in the data?	Go to step **11**.	Replace the body integrated unit. <Ref. to SL-80, Body Integrated Unit.>
7	**CHECK COMMUNICATION BETWEEN BODY INTEGRATED UNIT AND COMBINATION METERS.** 1) Remove the fuel sub level sensor. • H4 model: <Ref. to FU(H4DO)-147, REMOVAL, Fuel Sub Level Sensor.> • H6 model: <Ref. to FU(H6DO)-75, REMOVAL, Fuel Sub Level Sensor.> 2) Short the fuel sub level sensor connector terminal to the chassis ground with approx. 7.7 — 9.7 Ω resistance. 3) Turn the ignition switch to ON. ***Connector & terminal*** ***(R59) No. 1 — Chassis ground:***	Does the meter needle indicate FULL?	Go to step **9**.	Go to step **8**.

	Step	Check	Yes	No
8	**CHECK BODY INTEGRATED UNIT.** 1) Retain the condition in step 7. 2) On {Integ. unit mode}, select {Fuel level resistance output value} using the Subaru Select Monitor.	Is the resistance 7.7 — 9.7 Ω?	Go to step **11**.	Replace the body integrated unit. <Ref. to SL-80, Body Integrated Unit.>
9	**CHECK FUEL SUB LEVEL SENSOR.** 1) Remove the fuel sub level sensor. • H4 model: <Ref. to FU(H4DO)-147, REMOVAL, Fuel Sub Level Sensor.> • H6 model: <Ref. to FU(H6DO)-75, REMOVAL, Fuel Sub Level Sensor.> 2) Measure the resistance between the fuel sub level sensor connectors when the float is in FULL and EMPTY position. ***Connector & terminal (R59) No. 1 — No. 2:***	Is the resistance 7.7 — 9.7 Ω (FULL) and 266.9 — 274.9 Ω (EMPTY)?	Go to step **10**.	Replace the fuel sub level sensor.
10	**CHECK FUEL LEVEL SENSOR.** 1) Remove the fuel level sensor. • H4 model: <Ref. to FU(H4DO)-144, REMOVAL, Fuel Level Sensor.> • H6 model: <Ref. to FU(H6DO)-73, REMOVAL, Fuel Level Sensor.> 2) Measure the resistance between the fuel level sensor connectors when the float is in FULL and EMPTY position. ***Connector & terminal (R58) No. 1 — No. 4:***	Is the resistance 7.7 — 9.7 Ω (FULL) and 137.1 — 141.1 Ω (EMPTY)?	Check the connection status of the harness and connector that may have a temporary poor contact.	Replace the fuel level sensor.
11	**CHECK COMBINATION METER OPERATION.** 1) Remove the combination meter. 2) Attach the combination meter to another vehicle on which the fuel gauge operates normally to check its operation.	Is the fuel gauge normal?	Replace the body integrated unit. <Ref. to SL-80, Body Integrated Unit.>	Replace the meter case assembly.

6. CHECK ECO GAUGE

	Step	Check	Yes	No
1	**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 a DTC of high-speed CAN detected?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **2**.
2	**CHECK ECO GAUGE (MODEL WITH NORMAL METER).** Perform the self-diagnosis of combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Does ECO gauge operate properly?	Check the connection status of the harness and connector that may have a temporary poor contact.	Replace the meter case assembly. <Ref. to IDI-25, Combination Meter.>

7. CHECK ENGINE COOLANT TEMPERATURE SENSOR

	Step	Check	Yes	No
1	**CHECK COMMUNICATION STATUS.** 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 being displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **2**.
2	**CHECK ENGINE COOLANT TEMPERATURE SENSOR.** Check the engine coolant temperature sensor. • H4 model: <Ref. to EN(H4DO)(diag)-2, Basic Diagnostic Procedure.> • H6 model: <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. • H4 model: <Ref. to FU(H4DO)-49, REMOVAL, Engine Coolant Temperature Sensor.> • H6 model: <Ref. to FU(H6DO)-29, REMOVAL, Engine Coolant Temperature Sensor.>

8. CHECK WARNING BUZZER FOR KEY LEFT IN IGNITION (MODEL WITHOUT KEYLESS ACCESS)

	Step	Check	Yes	No
1	**CHECK KEY WARNING SWITCH ALARM.** 1) Insert the key into ignition key lock. 2) Open the driver's side door.	Does the buzzer sound from the meter?	Normal	Go to step **2**.
2	**CHECK COMMUNICATION STATUS.** 1) Prepare the Subaru Select Monitor. 2) On «System Selection Menu» display, select {Integ. unit mode}. 3) On {Current Data Display & Save}, select {key-lock warning SW}. 4) Insert and remove the key.	Does the display change between ON ←→ OFF?	Go to step **3**.	Check the ignition circuit. <Ref. to SL-68, INSPECTION, Ignition Key Lock.>
3	**CHECK COMMUNICATION STATUS.** 1) On {Current Data Display & Save}, select {Driver's door SW input}. 2) Open and close the door.	Does the display change between ON ←→ OFF?	Go to step **4**.	Check the door switch circuit. <Ref. to SL-12, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
4	**CHECK COMMUNICATION STATUS.** 1) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 2) On «System Selection Menu» display, select {Integ. unit mode}. 3) Select {Diagnostic Code(s) Display}.	Is DTC being displayed?	Perform the diagnosis according to DTC. <Ref. to LAN(diag)-54, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **5**.
5	**CHECK COMBINATION METER.** Perform the self-diagnosis of combination meter. <Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Did the buzzer sound?	Go to step **6**.	Replace the meter case assembly.
6	**CHECK COMBINATION METER.** 1) Remove the combination meter. 2) Attach the buzzer to another vehicle on which the buzzer operates normally to check its operation.	Did the buzzer sound?	Replace the body integrated unit. <Ref. to SL-80, Body Integrated Unit.>	Replace the meter case assembly.

E: NOTE

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

- Combination meter: <Ref. to IDI-25, Combination Meter.>
- Speedometer: <Ref. to IDI-32, Speedometer.>
- Tachometer: <Ref. to IDI-33, Tachometer.>
- Fuel gauge: <Ref. to IDI-34, Fuel Gauge.>
- ECO gauge: <Ref. to IDI-35, ECO Gauge.>
- Engine coolant temperature gauge (model with luminescent meter): <Ref. to IDI-36, Engine Coolant Temperature Gauge.>