


PERIODIC MAINTENANCE SERVICES > Schedule

MAINTENANCE SCHEDULE 1

For periodic maintenance of below 120,000 km (75,000 miles) or 96 months, carry out inspection by referring to the following table. For a maintenance period gone beyond these tables, apply them repeatedly as a set of 120,000 km (75,000 miles) or 96 months.

		Maintenance interval [Number of months or km (miles), whichever occurs first]								Remarks
		12	24	36	48	60	72	84	96	
Months		12	24	36	48	60	72	84	96	
× 1,000 km		15	30	45	60	75	90	105	120	
× 1,000 miles		9	19	28	38	47	56	66	75	
Engine oil		R	R	R	R	R	R	R	R	Note (1)
Engine oil filter		R	R	R	R	R	R	R	R	Note (1)
Spark plug								R		Replace every 105,000 km (66,000 miles).
V-belt		I	I	I	I	I	I	I	I	
Fuel line			I		I		I		I	Note (2)
Fuel filter	Europe area								R	
	Except for Europe area						R			
Air cleaner element		Check every 12 months or 15,000 km (9,000 miles), and replace every 36 months or 45,000 km (28,000 miles).								Note (3)
Cooling system			I		I		I		I	
Engine coolant		Replace after the first 11 years or 220,000 km (137,500 miles), and every six years or 120,000 km (75,000 miles) thereafter.								
CVTF			I		I		I		I	
Front & rear differential gear oil			I		R		I		R	Note (4)
Check the operation of the parking brake and service brake system, and brake line			P		P		P		P	Note (2)
Brake fluid			R		R		R		R	Note (5)
Disc brake pad and disc		I	I	I	I	I	I	I	I	Note (2)
Suspension			I		I		I		I	Note (2)
Wheel bearing									(I)	
Axle boots and joints		I	I	I	I	I	I	I	I	Note (2)

1. CHECK CONNECTOR.

1. Check the connecting conditions of combination meter connector and ambient sensor connector.
2. Turn the ignition switch to ON.
3. Read the DTC of [Air Conditioner] using the Subaru Select Monitor.  [Ref. to AIR CONDITIONER\(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\).](#)

Is DTC B1433 displayed? (Current malfunction)

 Yes

 [Go to 2.](#)



 No

Even if DTC is displayed, the circuit has returned to a normal condition at this time. Reproduce the failure, and then perform the diagnosis again.

Note:

In this case, temporary poor contact of connector, temporary open or short circuit of harness may be the cause.

2. CHECK AMBIENT SENSOR.

1. Turn the ignition switch to OFF.
2. Disconnect the ambient sensor.  [Ref. to AIR CONDITIONER>Ambient Sensor>REMOVAL.](#)
3. Turn the ignition switch to ON.
4. Read the DTC of [Air Conditioner] using the Subaru Select Monitor.  [Ref. to AIR CONDITIONER\(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\).](#)

Is DTC B1432 displayed? (Current malfunction)




 Yes

Replace the ambient sensor.  [Ref. to AIR CONDITIONER>Ambient Sensor>REMOVAL.](#)

 No

 [Go to 3.](#)

4. CHECK AIRBAG CONTROL MODULE.

1. Disconnect the test harness BD from the connectors (AB6, AB17, AB18).
2. Connect all connectors.
3. Using the Subaru Select Monitor, perform the clear memory of [Airbag].  [Ref. to COMMON\(diag\)>Clear memory.](#)
4. Execute the inspection mode.  [Ref. to AIRBAG\(DIAGNOSTICS\)>Inspection Mode.](#)
5. Read the DTC of [Airbag] using the Subaru Select Monitor.  [Ref. to AIRBAG\(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\).](#)

Is DTC B1915 displayed? (Current malfunction)


Yes

Replace the airbag control module.  [Ref. to AIRBAG SYSTEM>Airbag Control Module.](#)

No


 [Go to 5.](#)

5. CHECK FOR ANY OTHER DTC ON DISPLAY.

Read the DTC of [Airbag] using the Subaru Select Monitor.  [Ref. to AIRBAG\(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\).](#)










Is any other DTC displayed?

Yes

Perform the diagnosis for other displayed DTCs.  [Ref. to AIRBAG\(DIAGNOSTICS\)>Diagnostic Trouble Code \(DTC\)>LIST.](#)

No

Finish the diagnosis.

DTC	Item	Note
P2007	TGV CONTROL STUCK CLOSED BANK 2	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2007 TGV CONTROL STUCK CLOSED BANK 2.
P2008	TGV CONTROL CIRCUIT/OPEN BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2008 TGV CONTROL CIRCUIT/OPEN BANK 1.
P2009	TGV CONTROL CIRCUIT LOW BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2009 TGV CONTROL CIRCUIT LOW BANK 1.
P2011	TGV CONTROL CIRCUIT/OPEN BANK 2	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2011 TGV CONTROL CIRCUIT/OPEN BANK 2.
P2012	TGV CONTROL CIRCUIT LOW BANK 2	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2012 TGV CONTROL CIRCUIT LOW BANK 2.
P2016	TGV POSITION SENSOR/SWITCH CIRCUIT LOW BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2016 TGV POSITION SENSOR/SWITCH CIRCUIT LOW BANK 1.
P2017	TGV POSITION SENSOR/SWITCH CIRCUIT HIGH BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2017 TGV POSITION SENSOR/SWITCH CIRCUIT HIGH BANK 1.
P2021	TGV POSITION SENSOR/SWITCH CIRCUIT LOW BANK 2	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2021 TGV POSITION SENSOR/SWITCH CIRCUIT LOW BANK 2.
P2022	TGV POSITION SENSOR/SWITCH CIRCUIT HIGH BANK 2	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2022 TGV POSITION SENSOR/SWITCH CIRCUIT HIGH BANK 2.
P2096	POST CATALYST FUEL TRIM SYSTEM TOO LEAN BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2096 POST CATALYST FUEL TRIM SYSTEM TOO LEAN BANK 1.
P2097	POST CATALYST FUEL TRIM SYSTEM TOO RICH BANK 1	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2097 POST CATALYST FUEL TRIM SYSTEM TOO RICH BANK 1.
P2101	THROTTLE ACTUATOR "A" CONTROL MOTOR CIRCUIT RANGE/PERFORMANCE	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2101 THROTTLE ACTUATOR "A" CONTROL MOTOR CIRCUIT RANGE/PERFORMANCE.
P2102	THROTTLE ACTUATOR "A" CONTROL MOTOR CIRCUIT LOW	 Ref. to ENGINE (DIAGNOSTICS)(H4DO 2.0(ES))>Diagnostic Procedure with Diagnostic Trouble Code (DTC)>DTC P2102 THROTTLE ACTUATOR "A" CONTROL MOTOR CIRCUIT LOW.

ENGINE (DIAGNOSTICS)(H4DO 2.0(EXCEPT FOR ES)) > Check List for Interview

CHECK

1. CHECK LIST NO. 1

Check the following item when problem has occurred.

Note:

Use copies of this page for interviewing customers.

Customer's name		Engine No.	
Date of purchase		Fuel type	
Date of repair		Odometer reading	km
V.I.N.			miles
Weather	<input type="checkbox"/> Fine <input type="checkbox"/> Cloudy <input type="checkbox"/> Rainy <input type="checkbox"/> Snowy <input type="checkbox"/> Various/Others:		
Ambient air temperature	°C (°F)		
	<input type="checkbox"/> Hot <input type="checkbox"/> Warm <input type="checkbox"/> Cool <input type="checkbox"/> Cold		
Place	<input type="checkbox"/> Highway <input type="checkbox"/> Suburbs <input type="checkbox"/> Inner city <input type="checkbox"/> Uphill <input type="checkbox"/> Downhill <input type="checkbox"/> Rough road <input type="checkbox"/> Other:		
Engine temperature	<input type="checkbox"/> Cold <input type="checkbox"/> Warming-up <input type="checkbox"/> After warming-up <input type="checkbox"/> Any temperature <input type="checkbox"/> Other:		
Engine speed	rpm		
Vehicle speed	km/h (MPH)		
Driving conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> At starting <input type="checkbox"/> While idling <input type="checkbox"/> At racing <input type="checkbox"/> While accelerating <input type="checkbox"/> While cruising <input type="checkbox"/> While decelerating <input type="checkbox"/> While turning (RH/LH)		
Headlight	<input type="checkbox"/> ON / <input type="checkbox"/> OFF	Rear defogger	<input type="checkbox"/> ON / <input type="checkbox"/> OFF
Blower	<input type="checkbox"/> ON / <input type="checkbox"/> OFF	Audio	<input type="checkbox"/> ON / <input type="checkbox"/> OFF
A/C compressor	<input type="checkbox"/> ON / <input type="checkbox"/> OFF	Rear entertainment system	<input type="checkbox"/> ON / <input type="checkbox"/> OFF

2. CHECK SHORT CIRCUIT INSIDE ECM (SHORT TO GROUND).


1. Connect the connector to ECM.
2. Measure the resistance between accelerator pedal position sensor connector and chassis ground.

Connector & terminal


(B315) No. 6 — Chassis ground:

Is the resistance 1 MΩ or more?

Yes

Replace the accelerator pedal assembly.  [Ref. to SPEED CONTROL SYSTEMS\(H4DO\(EXCEPT FOR HEV\)\)>Accelerator Pedal.](#)

No

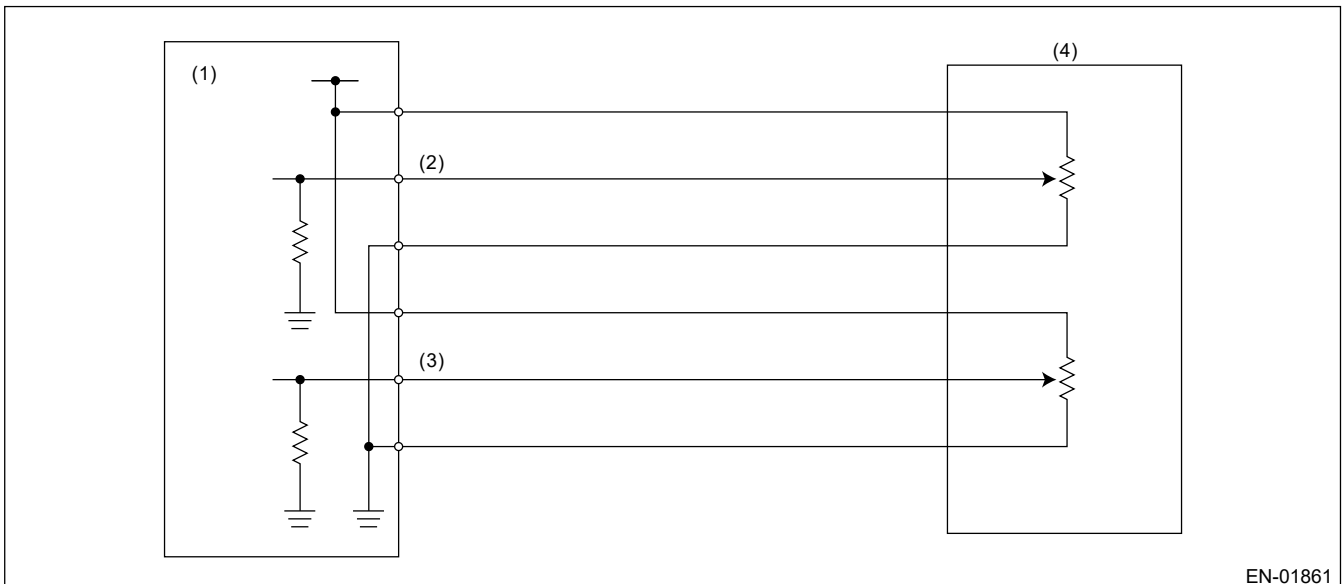
Repair the short circuit to ground in harness between ECM connector and accelerator pedal position sensor connector. Replace the ECM if defective.  [Ref. to FUEL INJECTION \(FUEL SYSTEMS\)\(H4DO\(EXCEPT FOR HEV\)\)>Engine Control Module \(ECM\).](#)

GENERAL DESCRIPTION

OUTLINE OF DIAGNOSIS

Detect the open or short circuit of accelerator pedal position sensor 1.
Judge as NG if out of specification.

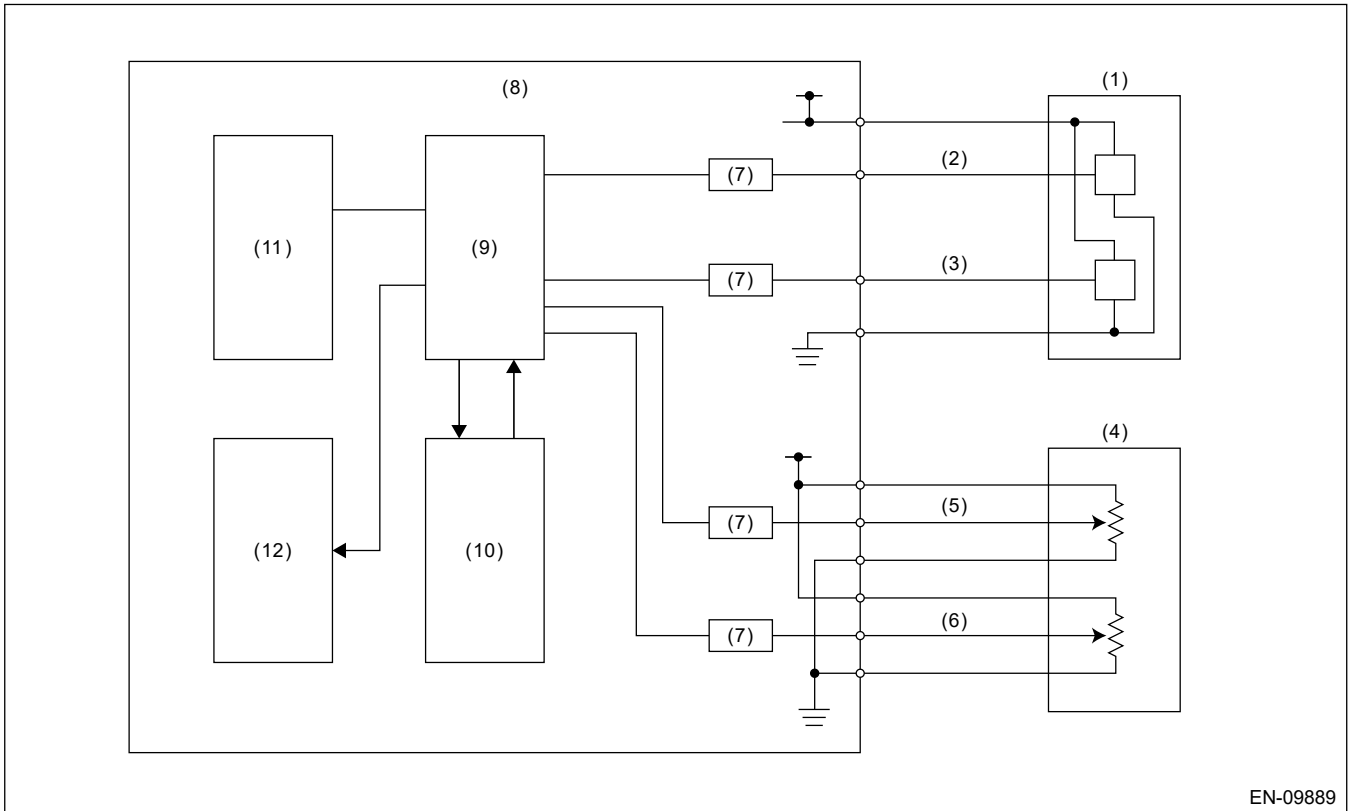
COMPONENT DESCRIPTION



- (1) Engine control module (ECM) (2) Accelerator pedal position sensor 1 signal
- (3) Accelerator pedal position sensor 2 signal (4) Accelerator pedal position sensor

EXECUTION CONDITION

Secondary parameters	Execution condition
Battery voltage	6V or more



EN-09889

- (1) Throttle position sensor
- (2) Throttle position sensor 1
- (3) Throttle position sensor 2
- (4) Accelerator pedal position sensor
- (5) Accelerator pedal position sensor 1
- (6) Accelerator pedal position sensor 2
- (7) I/F circuit
- (8) Engine control module (ECM)
- (9) CPU
- (10) Monitoring IC sensor 1
- (11) EEPROM
- (12) Output IC

3. EXECUTION CONDITION

Diagnosis 1

Secondary parameters	Execution condition
Battery voltage	6V or more
Target A/D voltage	0 V

Diagnosis 2

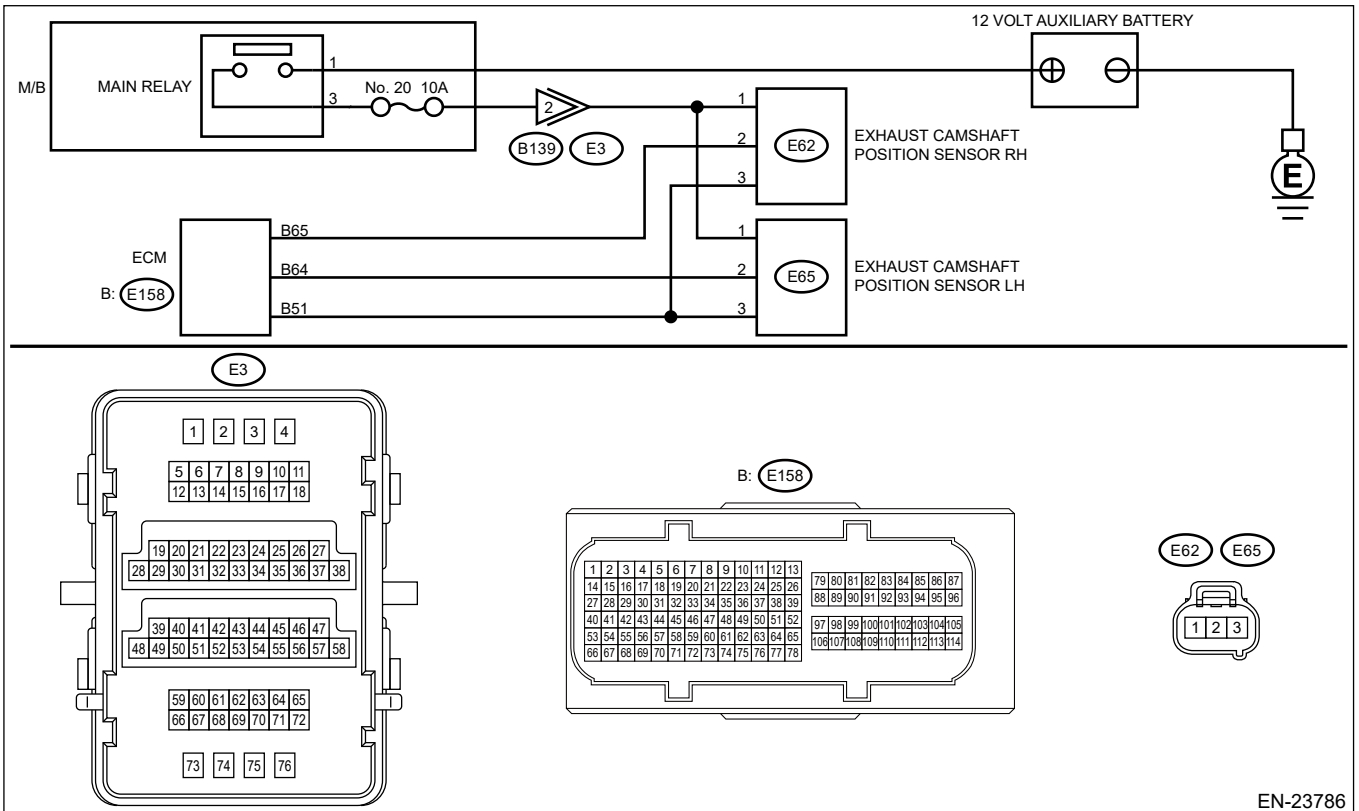
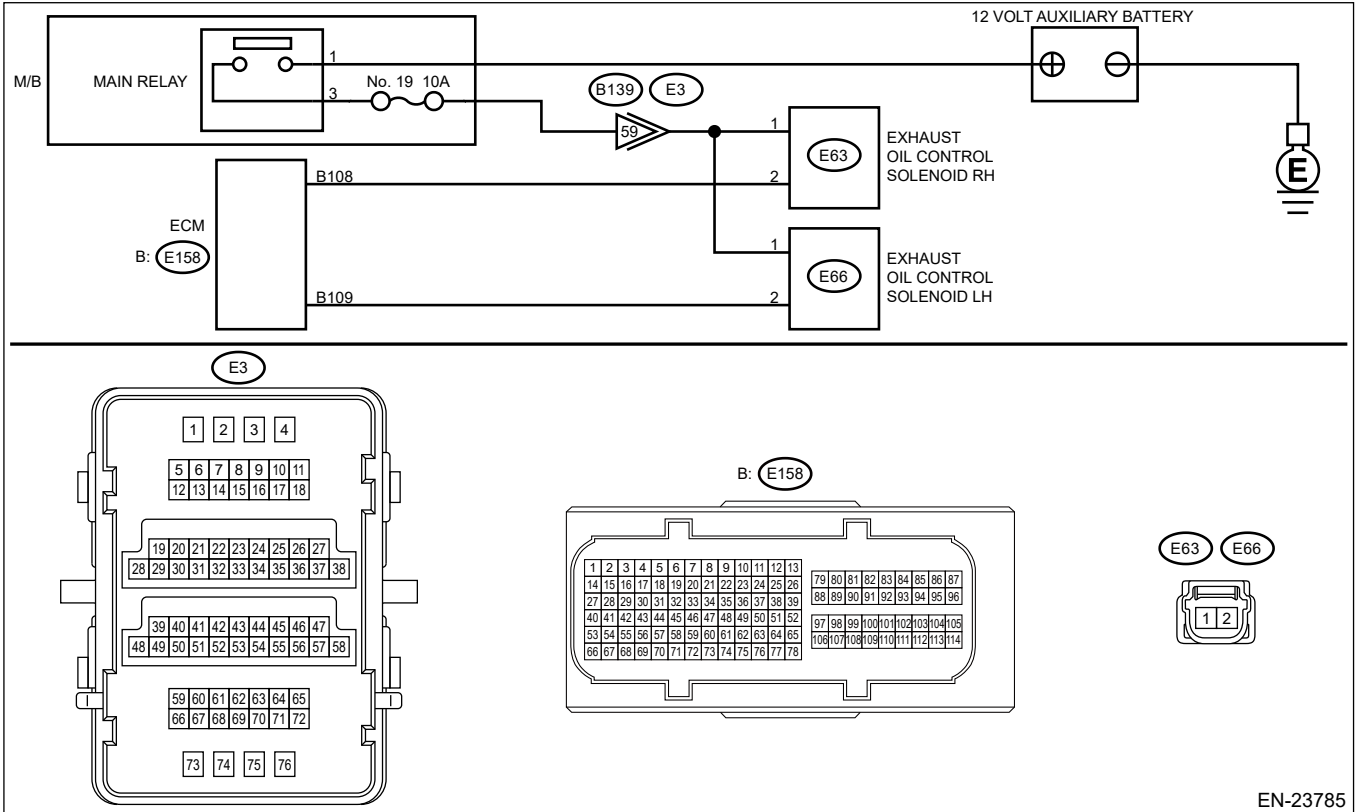
Secondary parameters	Execution condition
Battery voltage	6V or more
Target A/D voltage	5 V

Diagnosis 3

Secondary parameters	Execution condition
Battery voltage	6V or more
Target A/D voltage	1.2 V

Diagnosis 4

Secondary parameters	Execution condition
Battery voltage	6V or more



EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV) > Diagnostics with Phenomenon

LIST

Symptoms		Reference
Check adaptive cruise control indicator light/conventional cruise control indicator light (white or green)		 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > CHECK ADAPTIVE CRUISE CONTROL INDICATOR LIGHT/CONVENTIONAL CRUISE CONTROL INDICATOR LIGHT (WHITE OR GREEN).
Check EyeSight steering switch		 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > CHECK EyeSight STEERING SWITCH.
EyeSight temporary stop	Temporary stop occurs frequently. EyeSight temporary stop indicator illuminates frequently.	 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > TEMPORARY STOP OF EyeSight.
Adaptive cruise control Constant speed cruise control Manual speed limiter	Cruise control was cancelled without operating the cruise switch.	 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > CRUISE CONTROL WAS CANCELLED WITHOUT OPERATING THE CRUISE SWITCH.
	Cruise control switch is not turned to ON. (CRUISE indicator light does not illuminate)	 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > CRUISE CONTROL SWITCH IS NOT TURNED TO ON. (CRUISE INDICATOR LIGHT DOES NOT ILLUMINATE).
	Cruise control is cancelled without releasing operation.	 Ref. to EyeSight (DIAGNOSTICS)(EXCEPT FOR HEV)>Diagnostics with Phenomenon>INSPECTION > CRUISE CONTROL IS CANCELLED WITHOUT RELEASING OPERATION.

INFOTAINMENT(DIAGNOSTICS) > Active Test

OPERATION

1. On [Start] screen, select [Diagnosis].
2. On [Vehicle selection] screen, enter vehicle information and select [OK].
3. On [Main Menu] screen, select [Each System].
4. On [Select System] screen, select [Infotainment], and then select [Enter].
5. On [Select Function] screen, select [Active Test] and select [Next].

Note:


For detailed operation procedures, refer to "Help" of application.

INFOTAINMENT(DIAGNOSTICS) > Active Test

LIST

Item	Contents
FM Seek Up/Down	Check the FM SEEK operation.
AM Seek Up/Down	Check the AM SEEK operation.
Speaker Output Volume Adjustment	Check the speaker output (sound volume) operation.
Speaker Output Check	Check speaker output.
Diag Recorder Data Delete	Initialize the log for manufacturer's analysis.

7. CHECK HARNESS.

1. Shake the harness, and check for poor contact.
2. Using the Subaru Select Monitor, read all DTCs.  [Ref. to LAN SYSTEM \(DIAGNOSTICS\) \(HEV\)>Diagnostic Trouble Code \(DTC\).](#)

Is DTC U1422 displayed? (Current malfunction)

Yes

Repair the poor contact of harness, or replace the harness.

No

 [Go to 8.](#)

8. CHECK CONNECTOR.

Check the connector used for high speed CAN for poor contact.

Is there poor contact of connector?


Yes

Repair the connector that has poor contact, or replace harness.

No

It is possible that temporary poor communication occurs. Delete the DTC.

6. CHECK POWER WINDOW SUB-SWITCH.


Perform unit inspection of power window sub switch.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.](#)

Is the power window sub-switch OK?

 Yes

 [Go to 7.](#)

 No

Replace the power window sub-switch.  [Ref. to GLASS/WINDOWS/MIRRORS>Power Window Control Switch.](#)

7. CHECK HARNESS (OPEN CIRCUIT).

1. Disconnect the body integrated unit connector.
2. Disconnect the power window sub-switch connector.
3. Disconnect the front regulator & motor assembly (passenger's side) connector.
4. Using a tester, measure the resistance between the body integrated unit connector/power window sub-switch and the front regulator & motor assembly (passenger's side) connector.

Connector & terminal

LHD model


(i81) No. 2 — (D13) No. 7:
 (D17) No. 1 — (D13) No. 4:
 (D17) No. 5 — (D13) No. 6:
 (D17) No. 6 — (D13) No. 8:

RHD model

(i81) No. 2 — (D3) No. 7:
 (D17) No. 1 — (D3) No. 4:
 (D17) No. 5 — (D3) No. 6:
 (D17) No. 6 — (D3) No. 8:

Is the resistance less than 1 Ω ?

 Yes

Replace the front regulator & motor assembly (passenger's side).  [Ref. to GLASS/WINDOWS/MIRRORS>Front Regulator and Motor Assembly.](#)

 No

Repair the open circuit of harness between the body integrated unit connector/power window sub-switch and the front regulator & motor assembly (passenger's side) connector.

3. POWER WINDOW DOES NOT WORK BY THE ACCESS KEY INTERLOCKING OPERATION

Trouble causes:

- Access key malfunction
- Improper body integrated unit setting

- Judge as NG when CAN communication failure occurs with the stereo camera.

2. EXECUTION CONDITION

Secondary parameters	Execution condition
12 V battery system voltage	10 V or more
Measured turbine shaft speed	More than 0 rpm
or	
Transmission range	Drive or Reverse

3. DIAGNOSTIC METHOD

If the duration of time while the following conditions are met is longer than the time indicated, judge as NG.

Judgment value

Malfunction Criteria	Threshold Value
CAN data from stereo camera	Lost

Time needed for diagnosis: 2 seconds

Malfunction indicator light illumination: Does not illuminate.

TRANSMISSION (DIAGNOSTICS) > Diagnostic Procedure with Diagnostic Trouble Code (DTC)

DTC U1433 INVALID DATA RECEIVED FROM EYESIGHT

Note:

Refer to "LAN SYSTEM (DIAGNOSTICS)" for diagnostic procedure.  [Ref. to LAN SYSTEM \(DIAGNOSTICS\)\(EXCEPT FOR HEV\)>Basic Diagnostic Procedure.](#)

Caution:

After servicing or replacing faulty parts, perform the last step of the basic diagnostic procedure.  [Ref. to TRANSMISSION \(DIAGNOSTICS\)>Basic Diagnostic Procedure.](#)

1. OUTLINE OF DIAGNOSIS

- Detect malfunction of CAN communication.
- Judge as NG when data received from the stereo camera is not normal.

2. EXECUTION CONDITION

Secondary parameters	Execution condition
12 V battery system voltage	10 V or more
Measured turbine shaft speed	More than 0 rpm
or	
Transmission range	Drive or Reverse

3. DIAGNOSTIC METHOD

If the duration of time while the following conditions are met is longer than the time indicated, judge as NG.

5. CHECK DATA MONITOR (AUTO WIPER SENSITIVITY VOLUME SIGNAL).

Display the data of [Wiper Volume Status] using Subaru Select Monitor.  [Ref. to AUTOMATIC LIGHT AND WIPER \(DIAGNOSTICS\) >Data Monitor.](#)

Is the auto wiper sensitivity volume signal displayed properly?

 Yes


Replace the rain/light sensor.

 No

Replace the body integrated unit.

7. INT OPERATION INTERMITTENT TIME DOES NOT CHANGE ACCORDING TO THE VEHICLE SPEED

1. CHECK DTC.

Using the Subaru Select Monitor, read the DTC of body integrated unit, combination meter, VDC, and CAN system.  [Ref. to COMMON\(diag\)>Diagnostic Trouble Code \(DTC\).](#)

Is a DTC detected for each system?


 Yes

Perform a check according to the DTC.

 No

 [Go to 2.](#)

2. CHECK DTC.

Read the DTCs for rain/light sensor using the Subaru Select Monitor.  [Ref. to AUTOMATIC LIGHT AND WIPER \(DIAGNOSTICS\) >Diagnostic Trouble Code \(DTC\).](#)

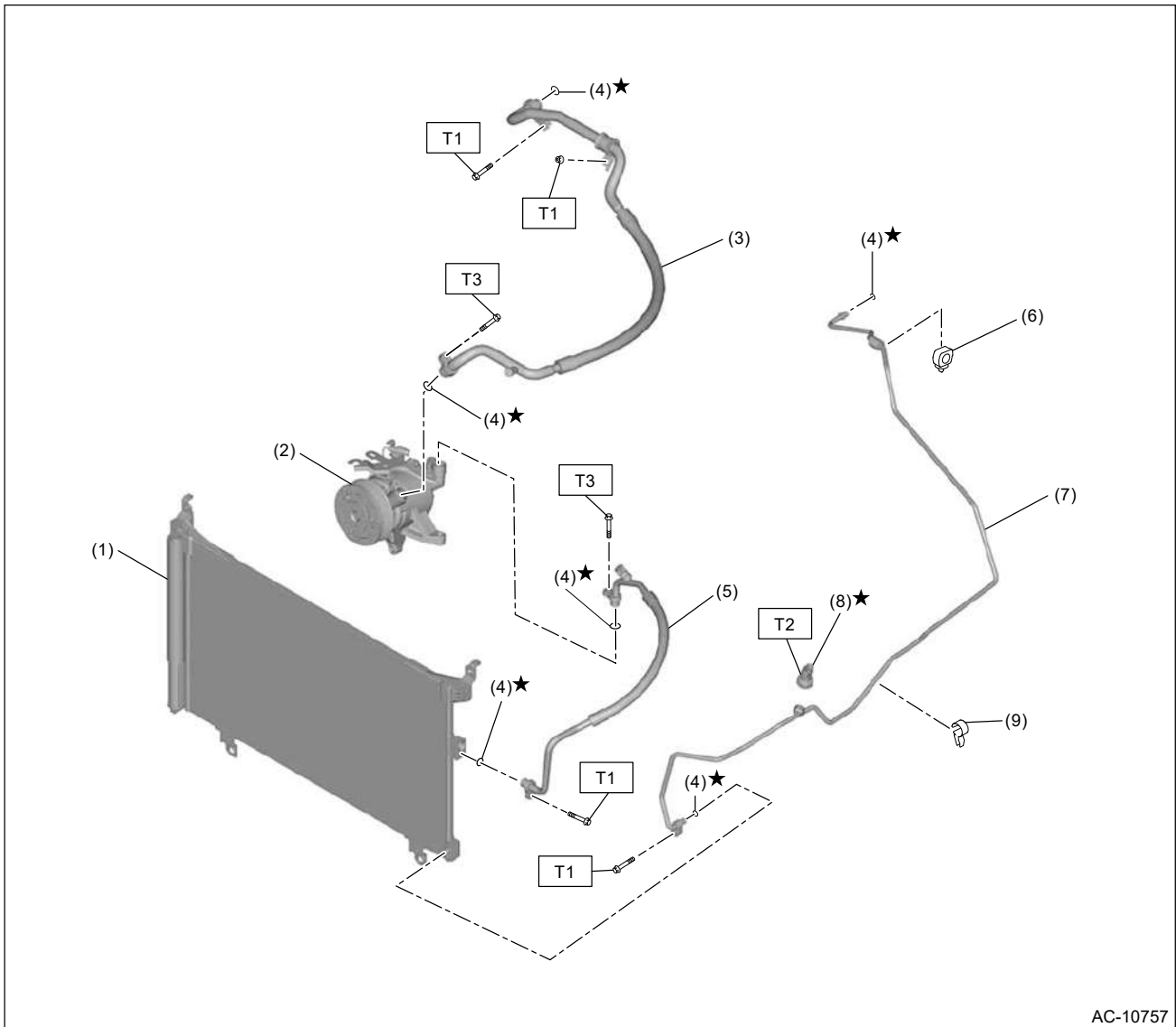
Is DTC detected?

 Yes

Perform a check according to the DTC.

 No

 [Go to 3.](#)



AC-10757

- (1) Condenser ASSY
- (2) Compressor ASSY
- (3) Hose pressure suction
- (4) O-ring
- (5) Hose pressure discharge

- (6) Clip hose
- (7) Pipe evaporator cooling
- (8) Pressure switch
- (9) Clip pipe

Tightening torque: N·m (kgf-m, ft-lb)
T1: 7.5 (0.8, 5.5)
T2: 9.8±1.5 (1.0±0.2, 7.2±1.1)
T3: 10 (1.0, 7.4)

4. HEATER HOSE