10.Diagnostic Procedure with Cancel Code

A: 11

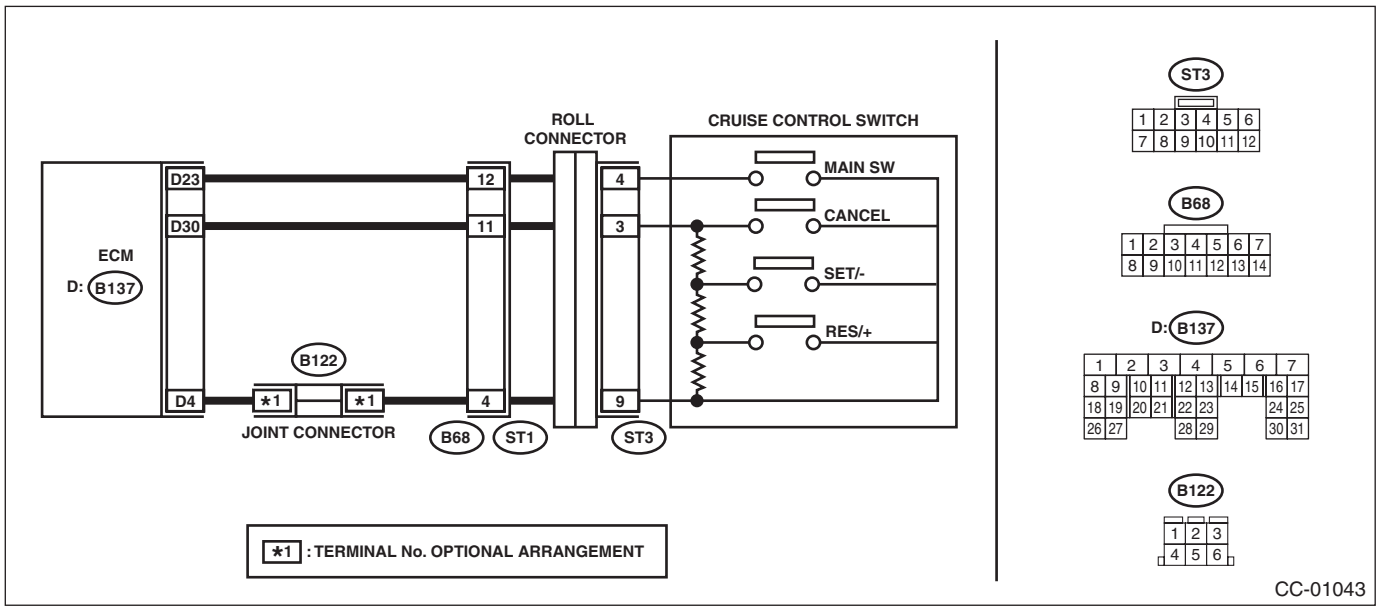
When CRUISE switch is pressed, or a malfunction related to CRUISE switch occurs, this is detected.

TROUBLE SYMPTOM:

- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

WIRING DIAGRAM:

Cruise control system <Ref. to WI(HEV)-82, WIRING DIAGRAM, Cruise Control System.>



	Step	Check	Yes	No
1	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Remove the driver's airbag module. <Ref. to AB-32, REMOVAL, Driver's Airbag Module.> 2) Disconnect the cruise control command switch connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between cruise control command switch connector and chassis ground. ***Connector & terminal*** ***(ST3) No. 4 (+) — Chassis ground (–):*** ***(ST3) No. 3 (+) — Chassis ground (–):***	Is the voltage 5 V or more?	Go to step **2**.	Check the harness between cruise control command switch and ECM, and the steering roll connector for open or short circuit, or for poor contact.
2	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch. <Ref. to CC-6, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between cruise control command switch connector and chassis ground. ***Connector & terminal*** ***(ST3) No. 9 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check for open circuit between cruise control command switch, ECM, and chassis ground and check the ECM.

	Step	Check	Yes	No
3	**CHECK CRUISE CONTROL COMMAND SWITCH.** Measure the resistance between switch terminals when the cruise control command switch is not depressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 4 kΩ?	Go to step **4**.	Replace the cruise control command switch. <Ref. to CC-6, Cruise Control Command Switch.>
4	**CHECK CANCEL SWITCH.** 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch. <Ref. to CC-6, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between switch terminals with the CANCEL switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. less than 1 Ω when the CANCEL switch is pressed?	Go to step **5**.	Replace the cruise control command switch. <Ref. to CC-6, Cruise Control Command Switch.>
5	**CHECK SET/– SWITCH.** Measure the resistance between the switch terminals with the SET/– switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 250 Ω when the SET/– switch is pressed?	Go to step **6**.	Replace the cruise control command switch. <Ref. to CC-6, Cruise Control Command Switch.>
6	**CHECK RES/+ SWITCH.** Measure the resistance between the switch terminals with the RES/+ switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 1,500 Ω when the RES/+ switch is pressed?	Replace the ECM. <Ref. to FU(H4DO(HEV))-85, Engine Control Module (ECM).>	Replace the cruise control command switch. <Ref. to CC-6, Cruise Control Command Switch.>

B: 12

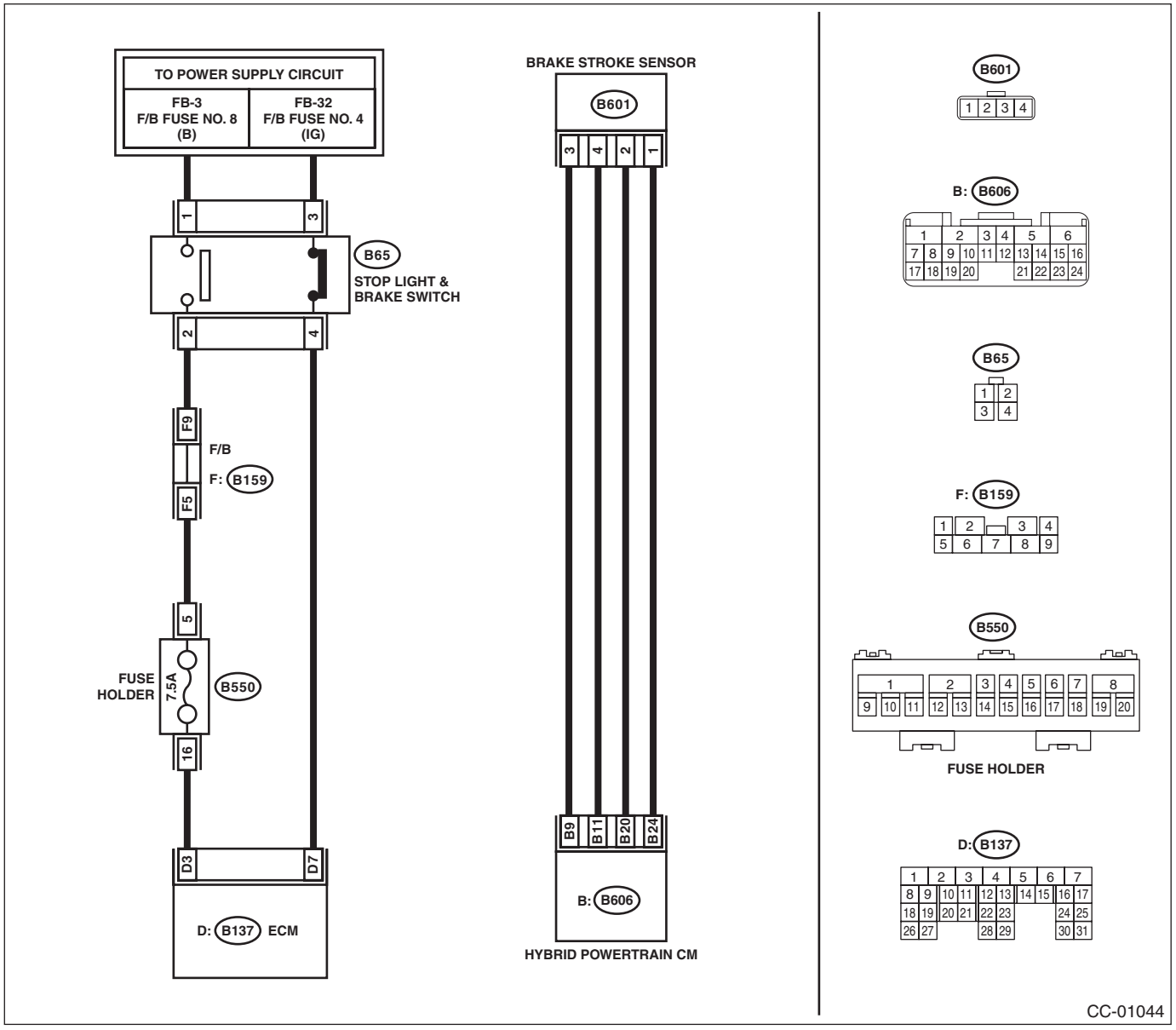
Detected when brake pedal is depressed or malfunction related to stop light & brake switch and brake stroke sensor occurs.

TROUBLE SYMPTOM:

- Cruise control cannot be set.
- Cruise control cannot be released.

WIRING DIAGRAM:

Cruise control system <Ref. to WI(HEV)-82, WIRING DIAGRAM, Cruise Control System.>
Hybrid system <Ref. to WI(HEV)-140, WIRING DIAGRAM, Hybrid Electric Vehicle System.>



Step		Check	Yes	No
1	**CHECK BRAKE STROKE SENSOR.** Check the brake stroke sensor. (Check the hybrid system.) <Ref. to HEV(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Perform the inspection according to the diagnosis for hybrid system.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK STOP LIGHT & BRAKE SWITCH.** Check the stop light & brake switch. <Ref. to CC-9, Stop Light & Brake Switch.>	Is the stop light & brake switch and installation position OK?	Go to step **3**.	Replace the stop light & brake switch. Or adjust the installation position.
3	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light & brake switch connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the stop light & brake switch connector and chassis ground. ***Connector & terminal*** ***(B65) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	• Check fuse No. 8 (in fuse & relay box). • Check for open or short in the harness between stop light & brake switch and fuse & relay box.
4	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** Measure the voltage between the stop light & brake switch connector and chassis ground. ***Connector & terminal*** ***(B65) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	• Check fuse No. 4 (in fuse & relay box). • Check for open or short in the harness between stop light & brake switch and fuse & relay box.
5	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the ECM connector. 3) Measure the resistance between the ECM connector and stop light & brake switch connector. ***Connector & terminal*** ***(B137) No. 7 — (B65) No. 4:*** ***(B137) No. 3 — (B65) No. 2:***	Is the resistance less than 10 Ω?	Replace the ECM. <Ref. to FU(H4DO(HEV))-85, Engine Control Module (ECM).>	Repair the harness.

C: 14

Detected when select lever is set in the neutral position, or when malfunction related to neutral position switch occurs.

TROUBLE SYMPTOM:

Cruise control cannot be set.

For diagnostic procedures, check the hybrid system. <Ref. to HEV(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: 15

Detected when CANCEL switch is pressed or malfunction related to CRUISE switch occurs.

TROUBLE SYMPTOM:

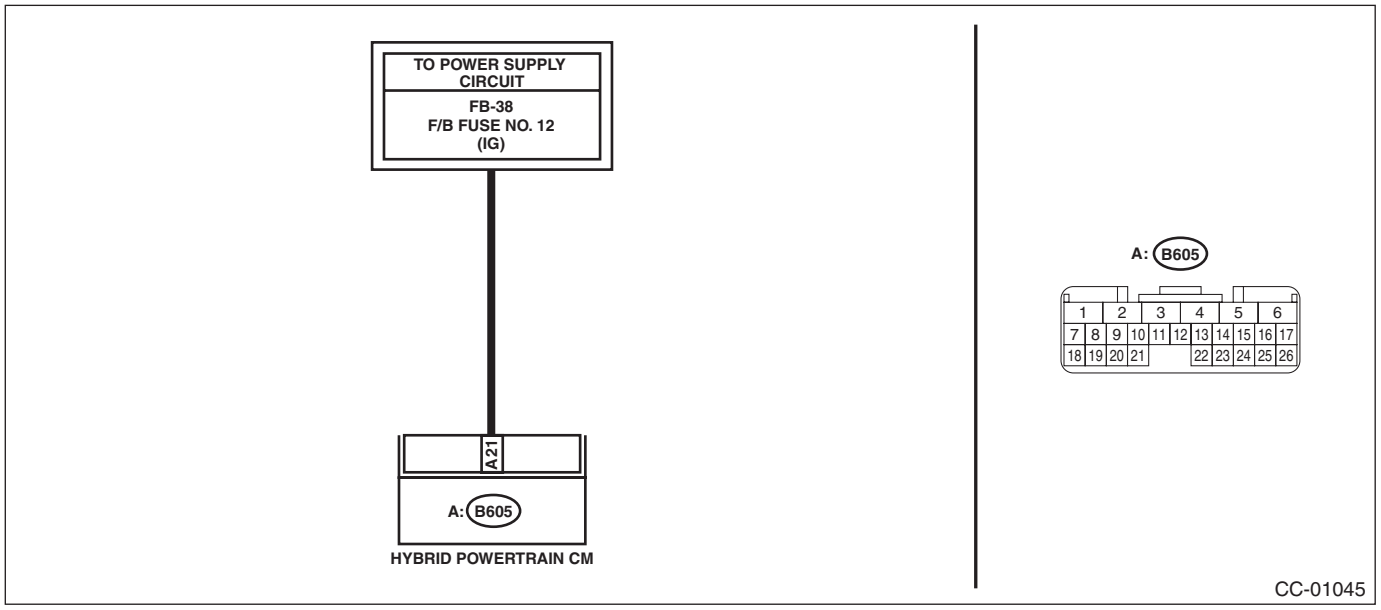
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.

<Ref. to CC(HEV)(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

E: 16

Detected when ignition switch is turned to OFF or malfunction related to the ignition switch occurs.
TROUBLE SYMPTOM:
Cruise control cannot be set.
WIRING DIAGRAM:
Hybrid system <Ref. to WI(HEV)-140, WIRING DIAGRAM, Hybrid Electric Vehicle System.>



Step		Check	Yes	No
1	**CHECK IGNITION SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the hybrid powertrain CM connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the hybrid powertrain CM connector and chassis ground. ***Connector & terminal*** ***(B605) No. 21 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check the hybrid powertrain CM connector for poor contact.	• Check fuse No. 12 (in fuse & relay box). • Check the harness for open or short circuit between ignition switch and hybrid powertrain CM.

F: 22

Malfunction related to vehicle speed sensor is detected.
DIAGNOSIS:
Open or shorted circuit in vehicle speed sensor system.
TROUBLE SYMPTOM:
Cruise control cannot be set. (Cancelled immediately.)

	Step	Check	Yes	No
1	**CHECK ABS OR VDC WARNING LIGHT.** 1) Turn the ignition switch to ON. 2) After the initial operation of combination meter is completed, check if ABS or VDC warning light continues to illuminate.	Does the warning light continue to illuminate?	Check the VDCCM. <Ref. to VDC(diag)-2, Basic Diagnostic Procedure.>	Go to step **2**.
2	**CHECK DTC OF LAN COMMUNICATION CIRCUIT.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC displayed?	Perform inspection according to DTC.	Replace the hybrid powertrain CM. <Ref. to HEV-37, Hybrid Powertrain Control Module.>

G: 24

Malfunction in cruise control-related switch is detected.
TROUBLE SYMPTOM:
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(HEV)(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

H: 31

Engine speed signal malfunction is detected.
Abnormal increase of engine speed is detected.
Gear is placed in 1st or Reverse position.
After driving at the 2nd gear position or higher, perform the cruise setting again. If a cancel code is not detected, it is normal.

I: 32

Detected when the vehicle speed is out of the system controllable range.
Increase vehicle speed high enough to allow the cruise control to function, and then perform setting operation again.
If cancel code is still detected after setting cruise again, perform the diagnosis for DTC 22.
Refer to DTC 22 for diagnostic procedure.
<Ref. to CC(HEV)(diag)-20, 22, Diagnostic Procedure with Cancel Code.>

J: 34

The vehicle has been driven at a speed higher than set speed for a long time (approximately 10 minutes) during cruise driving.
Perform the cruise control setting operation again. If the cancel code is not detected, it is normal.

K: 35

Detected when it is impossible to perform the vehicle speed feedback.
Set vehicle speed cannot be kept for some reasons (steep uphill, unreleased parking brake, etc.) during cruise driving.
Cancel code is detected when driving condition is not suitable for cruise control.
Perform cruise set operation again after clearing the possible cause.

L: 41

VDC/TCS has operated.
Vehicle dynamics control (VDC) or TCS is operated during cruise driving or cruise setting.
<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

M: 43

- The situation that some or all functions for ABS/VDC can not work is detected.

During cruise driving or cruise setting, the situation that some or all functions for ABS/VDC can not work is detected. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

- CRUISE indicator does not illuminate even though you pressed the CRUISE switch before starting the engine.

Detected when the CRUISE switch is pressed during the initial diagnosis of ABS/VDC.
It is normal if the CRUISE indicator illuminates when you press the CRUISE switch again after starting the engine and confirming that the initial illumination of the ABS/VDC warning light has been ended.

N: 44

Body integrated unit malfunction is detected.
Body integrated unit system malfunction is detected during cruise driving or cruise setting.
<Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

O: 45

Combination meter malfunction is detected.
Combination meter malfunction is detected during cruise driving or cruise setting.
<Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

P: 49

Automatic transmission malfunction is detected.
Automatic transmission malfunction is detected during cruise driving or cruise control setting.
<Ref. to CVT(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Q: 50

Hybrid system malfunction is detected.
Hybrid system malfunction is detected during cruise driving or cruise setting.
<Ref. to HEV(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

R: 61

Malfunction in the stop light & brake switch is detected.
TROUBLE SYMPTOM:

- Cruise control cannot be set.
- Cruise control cannot be released.

Refer to DTC 12 for diagnostic procedure.
<Ref. to CC(HEV)(diag)-17, 12, Diagnostic Procedure with Cancel Code.>

S: 63

Malfunction of vehicle speed signal variation is detected.
TROUBLE SYMPTOM:
Cruise control cannot be set. (Cancelled immediately.)
Refer to DTC 22 for diagnostic procedure.
<Ref. to CC(HEV)(diag)-20, 22, Diagnostic Procedure with Cancel Code.>

NOTE:
When the vehicle was suddenly accelerated on low μ road surface while VDC is OFF, this cancel code may be stored. In this case, restart the engine and perform the cruise control setting operation again. If the cancel code is not detected, it is normal.

T: 64

Malfunction related to engine is detected.
Refer to the Engine Diagnostic Procedure for diagnostic procedure.
<Ref. to EN(H4DO HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

U: 65

Cruise control command switch malfunction is detected.
While the command switch is pressed ON for a long time (approximately two minutes), stuck ON condition is detected.
TROUBLE SYMPTOM:
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(HEV)(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

IMMOBILIZER (DIAGNOSTICS)

IM(diag)