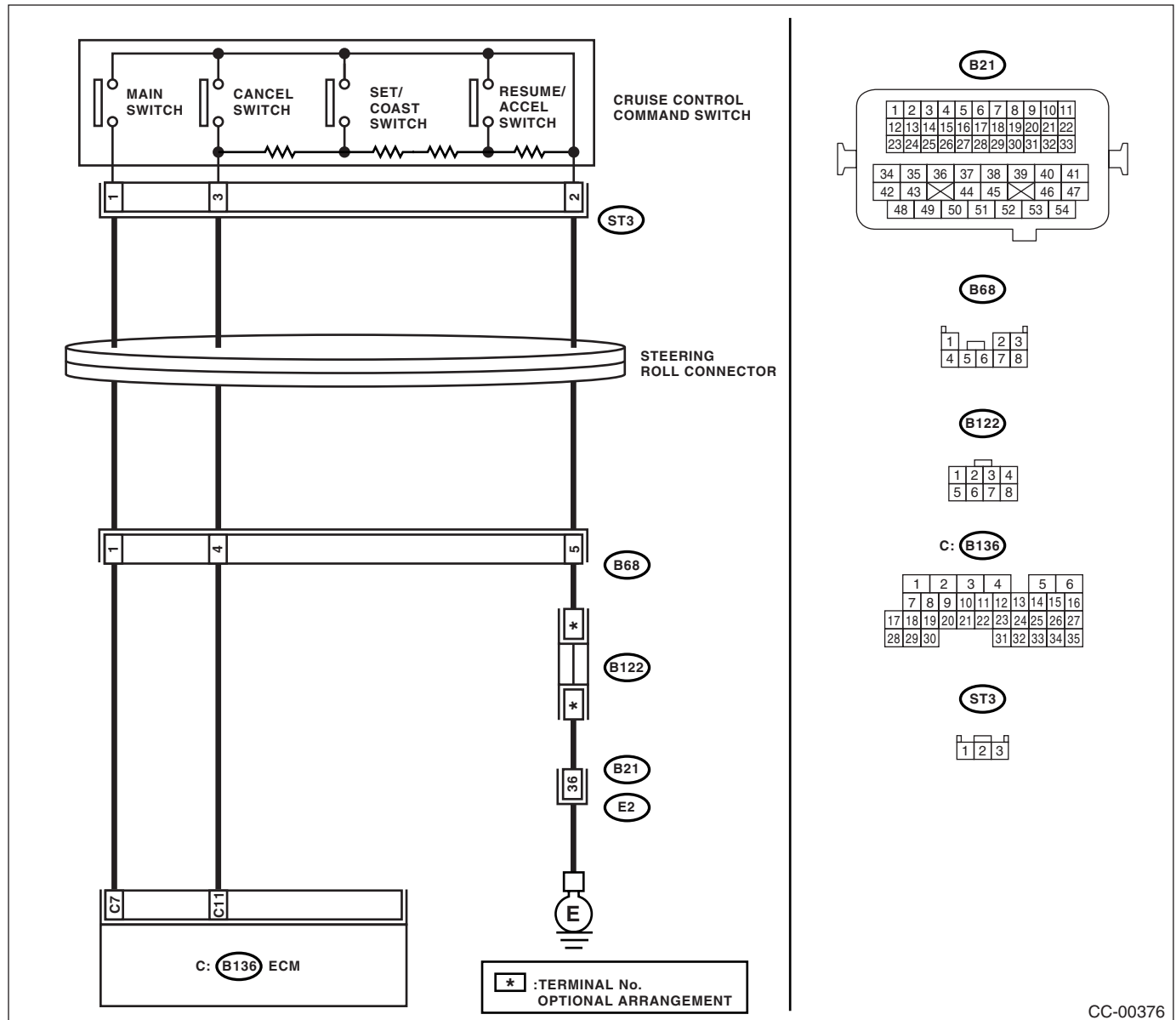


## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### WIRING DIAGRAM:



# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1 CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.</b> 1) Remove the driver's airbag module. <Ref. to AB-13, REMOVAL, Driver's Airbag Module.> 2) Disconnect the harness connector of cruise control command switch. 3) Turn the ignition switch ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(ST3) No. 1 (+) — Chassis ground (-):</b> <b>(ST3) No. 3 (+) — Chassis ground (-):</b>	Is the voltage more than 5 V?	Go to step 2.	Check the harness between cruise control command switch and ECM for open or shorted circuit.
<b>2 CHECK CANCEL SWITCH.</b> 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch. <Ref. to CC-4, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between switch terminals when the CANCEL switch is pressed and not pressed. <b>Terminals</b> <b>No. 2 — No. 3:</b>	Is the resistance approx. less than 1 $\Omega$ when the CANCEL switch is pressed? Is the resistance approx. 4 k $\Omega$ when the CANCEL switch is not pressed?	Go to step 3.	Replace the cruise control command switch. <Ref. to CC-4, Cruise Control Command Switch.>
<b>3 CHECK SET/COAST SWITCH.</b> Measure the resistance between switch terminals when SET/COAST switch is pressed and not pressed. <b>Terminals</b> <b>No. 2 — No. 3:</b>	Is the resistance approx. 250 $\Omega$ when SET/COAST switch is pressed? Is the resistance approx. 4 k $\Omega$ when SET/COAST switch is not pressed?	Go to step 4.	Replace the cruise control command switch. <Ref. to CC-4, Cruise Control Command Switch.>
<b>4 CHECK RESUME/ACCEL SWITCH CIRCUIT.</b> Measure the resistance between switch terminals when RESUME/ACCEL switch is pressed and not pressed. <b>Terminals</b> <b>No. 2 — No. 3:</b>	Is the resistance approx. 1,500 $\Omega$ when RESUME/ACCEL switch is pressed? Is the resistance approx. 4 k $\Omega$ when RESUME/ACCEL switch is not pressed?	Replace the ECM. <Ref. to FU(H4SO)-40, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-45, Engine Control Module (ECM).>	Replace the cruise control command switch. <Ref. to CC-4, Cruise Control Command Switch.>

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

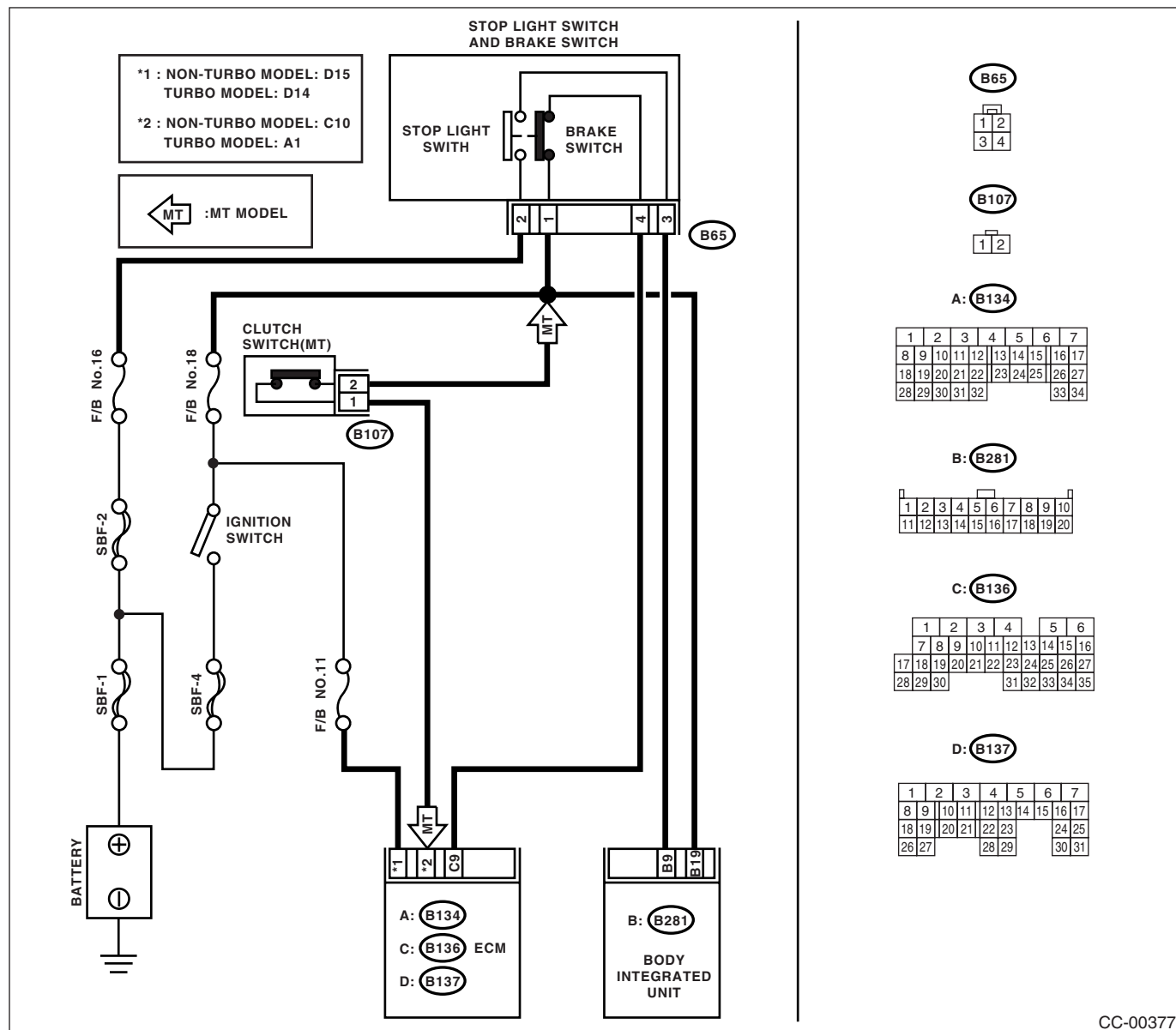
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### B: DTC 12 AND 25 STOP LIGHT SWITCH AND BRAKE SWITCH

#### TROUBLE SYMPTOM:

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

#### WIRING DIAGRAM:



Step	Check	Yes	No
<b>1</b> <b>CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the stop light switch and brake switch harness connector. 3) Turn the ignition switch ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B65) No. 2 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Go to step 2.	• Check fuse No. 16 (in fuse & relay box). • Check for open or short in the harness between stop light/brake switch and fuse & relay box.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2</b> <b>CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B65) No. 1 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Go to step 3.	<ul style="list-style-type: none"> <li>• Check fuse No. 18 (in fuse &amp; relay box).</li> <li>• Check for open or short in the harness between stop light/brake switch and fuse &amp; relay box.</li> <li>• Check the clutch switch and circuit.</li> </ul>
<b>3</b> <b>CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of ECM. 3) Disconnect the harness connector of body integrated unit. 4) Measure the resistance between harness connector terminals of ECM and of body integrated unit, and between harness connector terminals of stop light switch and of brake switch. <b>Connector &amp; terminal</b> <b>(B281) No. 9 — (B65) No. 3:</b> <b>(B136) No. 9 — (B65) No. 4:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the harness.
<b>4</b> <b>CHECK STOP LIGHT SWITCH AND BRAKE SWITCH</b> Remove and check the stop light switch and brake switch. <Ref. to CC-5, Stop Light and Brake Switch.>	Are the stop light switch and brake switch OK?	Stop light switch and brake switch circuit are OK.	Replace the stop light switch and brake switch.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

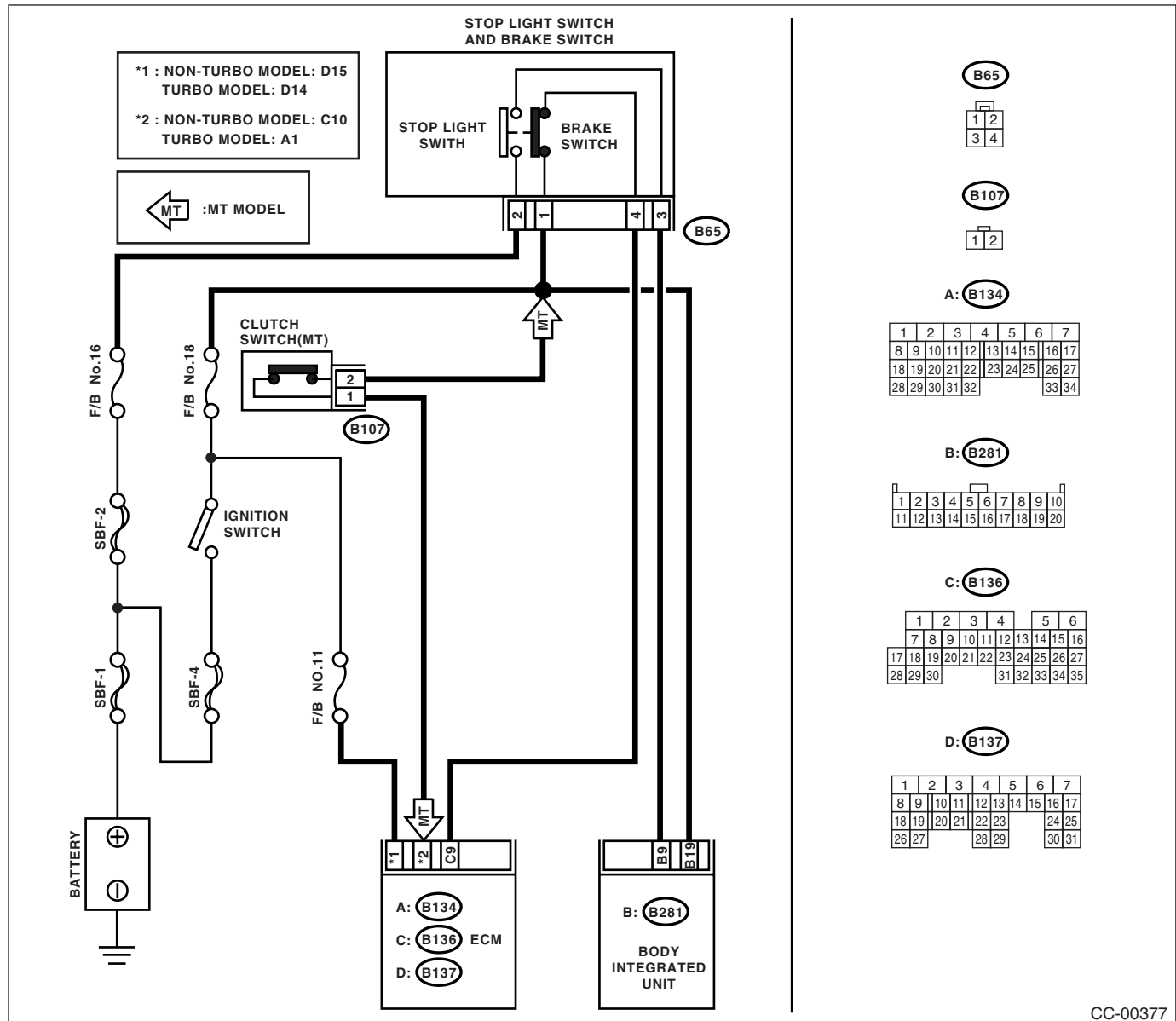
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### C: DTC 13 CLUTCH SWITCH

#### TROUBLE SYMPTOM:

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

#### WIRING DIAGRAM:



Step	Check	Yes	No
<b>1</b> <b>CHECK CLUTCH SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the clutch switch harness connector. 3) Turn the ignition switch ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B107) No. 2 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Go to step 2.	• Check fuse No. 18 (in fuse & relay box). • Check open or shorted circuit of harness between clutch switch and fuse & relay box.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2</b> <b>CHECK CLUTCH SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of ECM. 3) Measure the resistance between clutch switch harness connector terminal and ECM harness connector terminal. <b>Connector &amp; terminal</b> <b>Turbo model</b> <b>(B107) No. 1 — (B134) No. 1:</b> <b>Non-turbo model</b> <b>(B107) No. 1 — (B136) No. 10:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 3.	Repair the harness.
<b>3</b> <b>CHECK CLUTCH SWITCH.</b> Remove and check the clutch switch. <Ref. to CC-6, Clutch Switch.>	Is clutch switch OK?	Clutch switch circuit is OK.	Replace the clutch switch.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

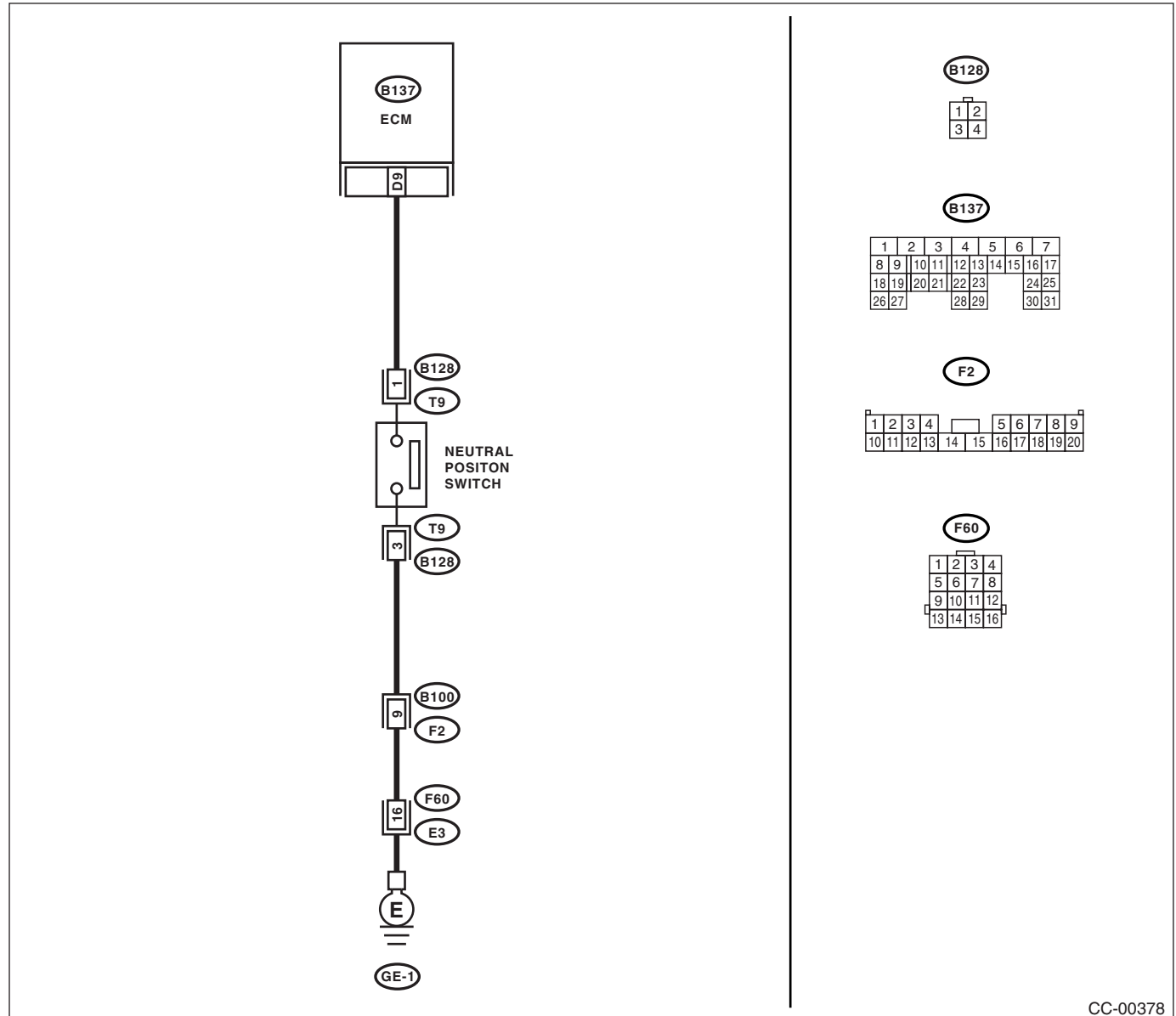
### D: DTC 14 NEUTRAL POSITION SWITCH

#### TROUBLE SYMPTOM:

Cruise control cannot be set.

#### WIRING DIAGRAM:

- Turbo model

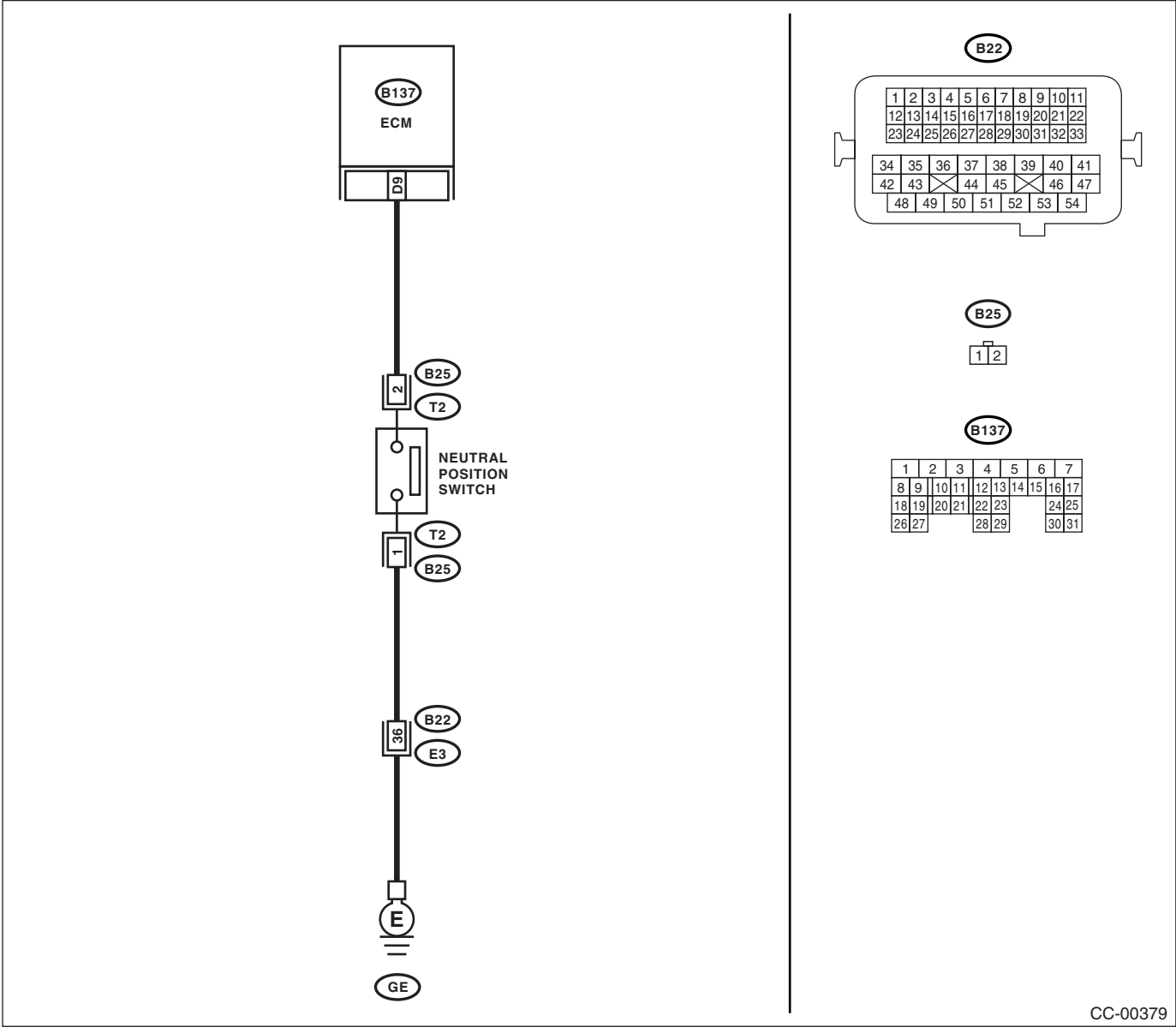


CC-00378

Diagnostic Procedure with Diagnostic Trouble Code (DTC)

CRUISE CONTROL SYSTEM (DIAGNOSTICS)

- Non-turbo model



Step	Check	Yes	No
1 <b>CHECK NEUTRAL POSITION SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the neutral position switch harness connector. 3) Turn the ignition switch ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>Turbo model</b> (B128) No. 1 (+) — Chassis ground (-): <b>Non-turbo model</b> (B25) No. 2 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 2.	Check for open or short in the harness between neutral position switch and ECM.



## Diagnostic Procedure with Diagnostic Trouble Code (DTC)

### CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2</b> <b>CHECK NEUTRAL POSITION SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Measure resistance between harness connector terminal of neutral position switch and chassis ground. <b>Connector &amp; terminal</b> <b>Turbo model</b> <b>(B128) No. 3 — Chassis ground:</b> <b>Non-turbo model</b> <b>(B25) No. 3 — Chassis ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 3.	Repair the harness.
<b>3</b> <b>CHECK NEUTRAL POSITION SWITCH.</b> Remove and check the neutral position switch.	Is the neutral position switch OK?	The neutral position switch circuit is working properly.	Replace the neutral position switch.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

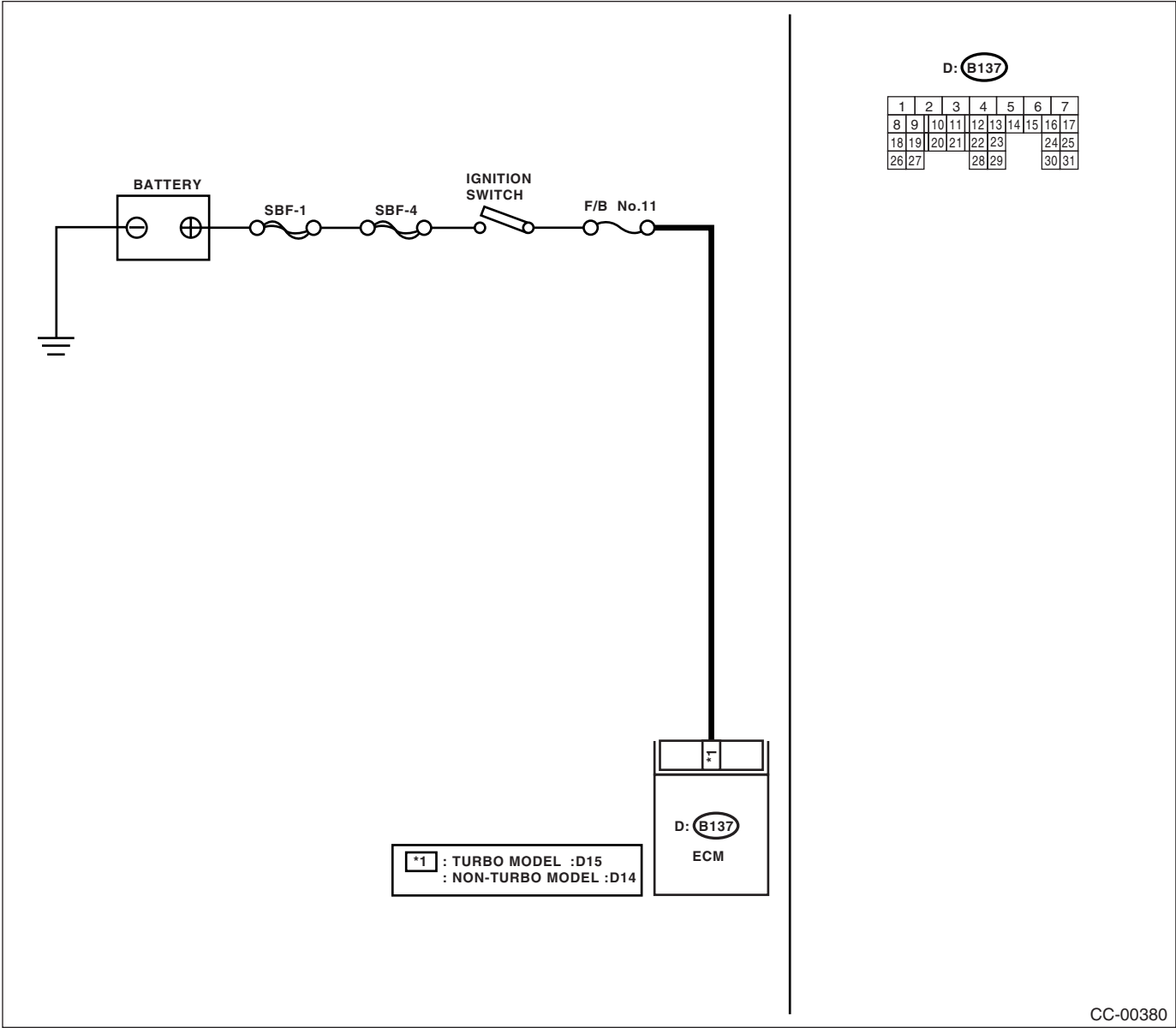
CRUISE CONTROL SYSTEM (DIAGNOSTICS)

## E: DTC 16 IGNITION SWITCH

### TROUBLE SYMPTOM:

Cruise control cannot be set.

### WIRING DIAGRAM:



Step	Check	Yes	No
1 <b>CHECK IGNITION SWITCH CIRCUIT</b> 1) Turn the ignition switch to OFF. 2) Disconnect the ECM harness connector. 3) Turn the ignition switch ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>Turbo model</b> <b>(B137) No. 15 (+) — Chassis ground (-):</b> <b>Non-turbo model</b> <b>(B137) No. 14 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Check poor contact of ECM connector.	<ul style="list-style-type: none"><li>• Check fuse No. 11 (in fuse &amp; relay box).</li><li>• Check the harness for open or short circuit between ignition switch and ECM.</li></ul>

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### F: DTC 22 AND 32 VEHICLE SPEED SENSOR

#### DTC DETECTING CONDITION:

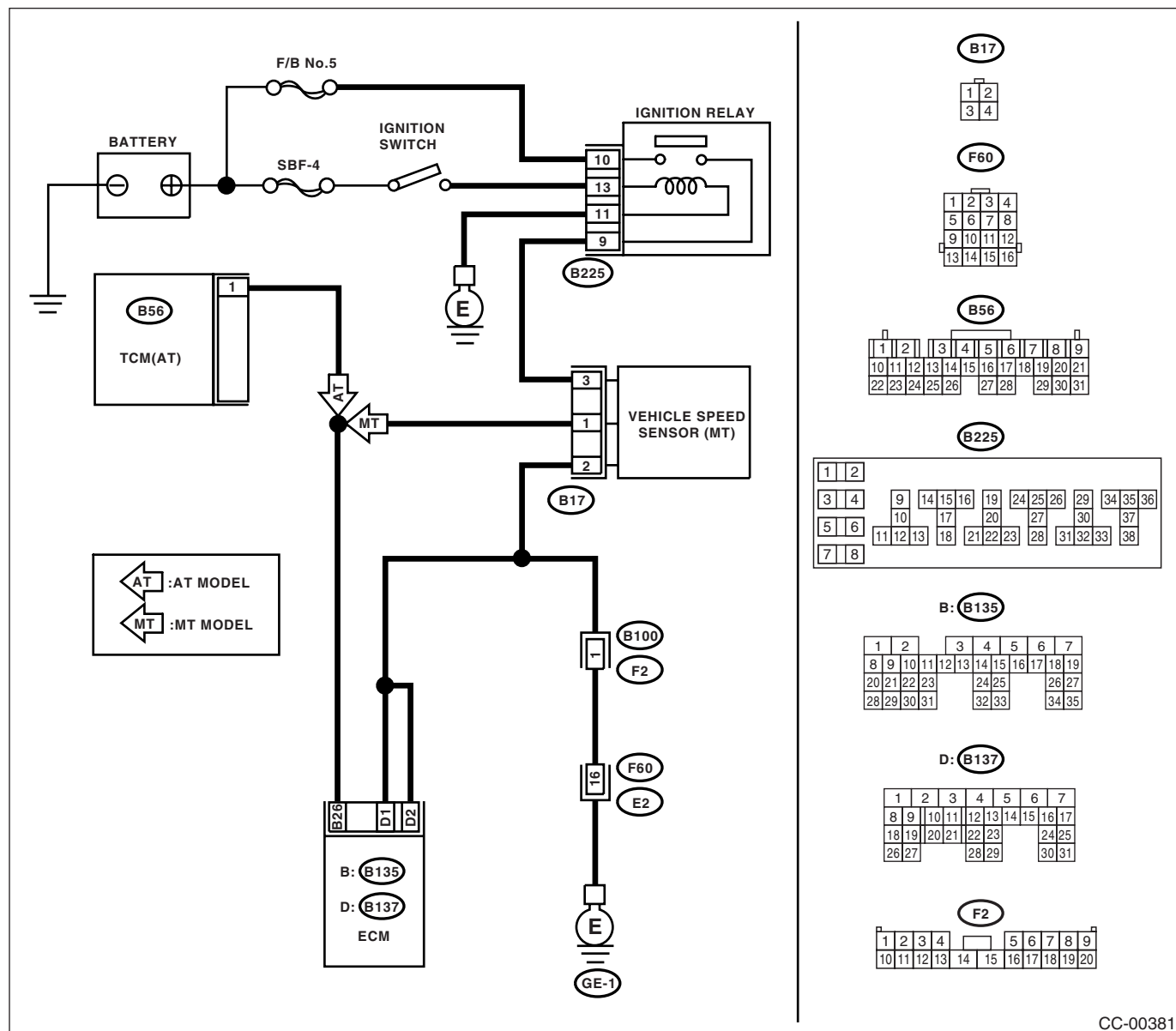
Open or shorted circuit in vehicle speed sensor system.

#### TROUBLE SYMPTOM:

Cruise control cannot be set. (Cancelled immediately.)

#### WIRING DIAGRAM:

- Turbo model



CC-00381

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

**Wiring Diagram:**

- BATTERY** (Grounded) connects to **F/B No.5** and **SBF-4**.
- IGNITION SWITCH** connects to **F/B No.5** and **SBF-4**.
- IGNITION RELAY** (Coil) connects to **10** and **13** of the **B225** connector.
- IGNITION RELAY** (Contact) connects to **11** and **9** of the **B225** connector.
- VEHICLE SPEED SENSOR (MT)** connects to **3** and **2** of the **B17** connector.
- TCM(AT)** connects to **1** of the **B56** connector.
- ECM** (Engine Control Module) connects to **B135** (AT) and **B137** (MT) connectors.
- GE** (Ground) connects to **E** of the **B22** connector.

**Legend:**

- AT**: AT MODEL
- MT**: MT MODEL

**Pinout Tables:**

- B17**: 1, 2, 3
- B22**: 1, 2, 3
- B225**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54
- B135**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
- B137**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
- B56**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

CC-00382

Step	Check	Yes	No
<b>1 CHECK HARNESS BETWEEN BATTERY AND VEHICLE SPEED SENSOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect harness connector from vehicle speed sensor. 3) Turn the ignition switch ON. 4) Measure voltage between vehicle speed sensor harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B17) No. 3 (+) — Chassis ground (-):</b>	Is the voltage more than 10 V?	Go to step 2.	Check for open or shorted circuit in the harness between fuse and vehicle speed sensor.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>2</b> <b>CHECK HARNESS BETWEEN ECM AND VEHICLE SPEED SENSOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect harness connector from ECM. 3) Measure the resistance between harness connector terminals of vehicle speed sensor and of ECM. <b>Connector &amp; terminal</b> <b>Turbo model</b> <b>(B17) No. 1 — (B135) No. 26:</b> <b>Non-turbo model</b> <b>(B17) No. 1 — (B135) No. 27:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 3.	Repair the harness.
<b>3</b> <b>CHECK HARNESS BETWEEN VEHICLE SPEED SENSOR AND ENGINE GROUND.</b> 1) Turn the ignition switch to OFF. 2) Measure resistance between vehicle speed sensor harness connector terminal and engine ground. <b>Connector &amp; terminal</b> <b>(B17) No. 2 — Engine ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the harness.
<b>4</b> <b>CHECK VEHICLE SPEED SENSOR.</b> 1) Connect the harness connector to the vehicle speed sensor. 2) Lift-up the vehicle and support it with rigid racks. 3) Drive the vehicle at speed greater than 20 km/h (12 MPH). <b>WARNING:</b> <b>Be careful not to be dragged in by the rotating wheel.</b> 4) Measure the voltage between ECM harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>Turbo model</b> <b>(B135) No. 26 (+) — Chassis ground (-):</b> <b>Non-turbo model</b> <b>(B135) No. 27 (+) — Chassis ground (-):</b>	Is the voltage 1 $\leftarrow$ $\rightarrow$ 5 V?	Check poor contact of ECM connector.	Replace the vehicle speed sensor.

# IMMOBILIZER (DIAGNOSTICS)

## *IM(diag)*

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