

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### 6. Diagnostics Chart with Symptom

#### A: SYMPTOM CHART

Symptom		Repair area	Reference
1	Cruise control main switch is not turned ON.	(1) Check power supply.	<Ref. to CC-14, CHECK POWER SUPPLY, Diagnostics Chart with Symptom.>
		(2) Check cruise control main switch.	<Ref. to CC-16, CHECK CRUISE CONTROL MAIN SWITCH, Diagnostics Chart with Symptom.>
2	Cruise control cannot be set.	(1) Check SET/COAST switch.	<Ref. to CC-18, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics Chart with Symptom.>
		(2) Check stop light switch and brake switch.	<Ref. to CC-22, CHECK STOP LIGHT SWITCH AND BRAKE SWITCH, Diagnostics Chart with Symptom.>
		(3) Check clutch switch (MT).	<Ref. to CC-24, CHECK CLUTCH SWITCH (MT), Diagnostics Chart with Symptom.>
		(4) Check inhibitor switch (AT).	<Ref. to CC-26, CHECK INHIBITOR SWITCH (AT), Diagnostics Chart with Symptom.>
		(5) Check vehicle speed sensor.	<Ref. to CC-32, DTC 22 VEHICLE SPEED SENSOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(6) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(7) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>
3	Vehicle speed is not held within set speed $\pm 3$ km/h ( $\pm 2$ MPH).	(1) Check vehicle speed sensor.	<Ref. to CC-32, DTC 22 VEHICLE SPEED SENSOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>
4	Vehicle speed does not increase or does not return to set speed after RESUME/ACCEL switch has been pressed.	(1) Check RESUME/ACCEL switch.	<Ref. to CC-18, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics Chart with Symptom.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>
5	Vehicle speed does not decrease after SET/COAST switch has been pressed.	(1) Check SET/COAST switch.	<Ref. to CC-18, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics Chart with Symptom.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>
6	Cruise control is not released after CANCEL switch has been pressed.	(1) Check CANCEL switch.	<Ref. to CC-18, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics Chart with Symptom.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>
7	Cruise control is not released after brake pedal has been depressed.	(1) Check stop light switch and brake switch.	<Ref. to CC-22, CHECK STOP LIGHT SWITCH AND BRAKE SWITCH, Diagnostics Chart with Symptom.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>

## DIAGNOSTICS CHART WITH SYMPTOM

### CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Symptom		Repair area	Reference
8	Cruise control is not released after clutch pedal has been depressed (MT).	(1) Check clutch switch.	<Ref. to CC-24, CHECK CLUTCH SWITCH (MT), Diagnostics Chart with Symptom.>
		(2) Check motor drive system.	<Ref. to CC-36, DTC 35 AND 36 ACTUATOR MOTOR, Diagnostics Chart with Diagnostic Trouble Code.>
		(3) Check motor clutch drive system.	<Ref. to CC-38, DTC 37 ACTUATOR MOTOR CLUTCH, Diagnostics Chart with Diagnostic Trouble Code.>

# DIAGNOSTICS CHART WITH SYMPTOM

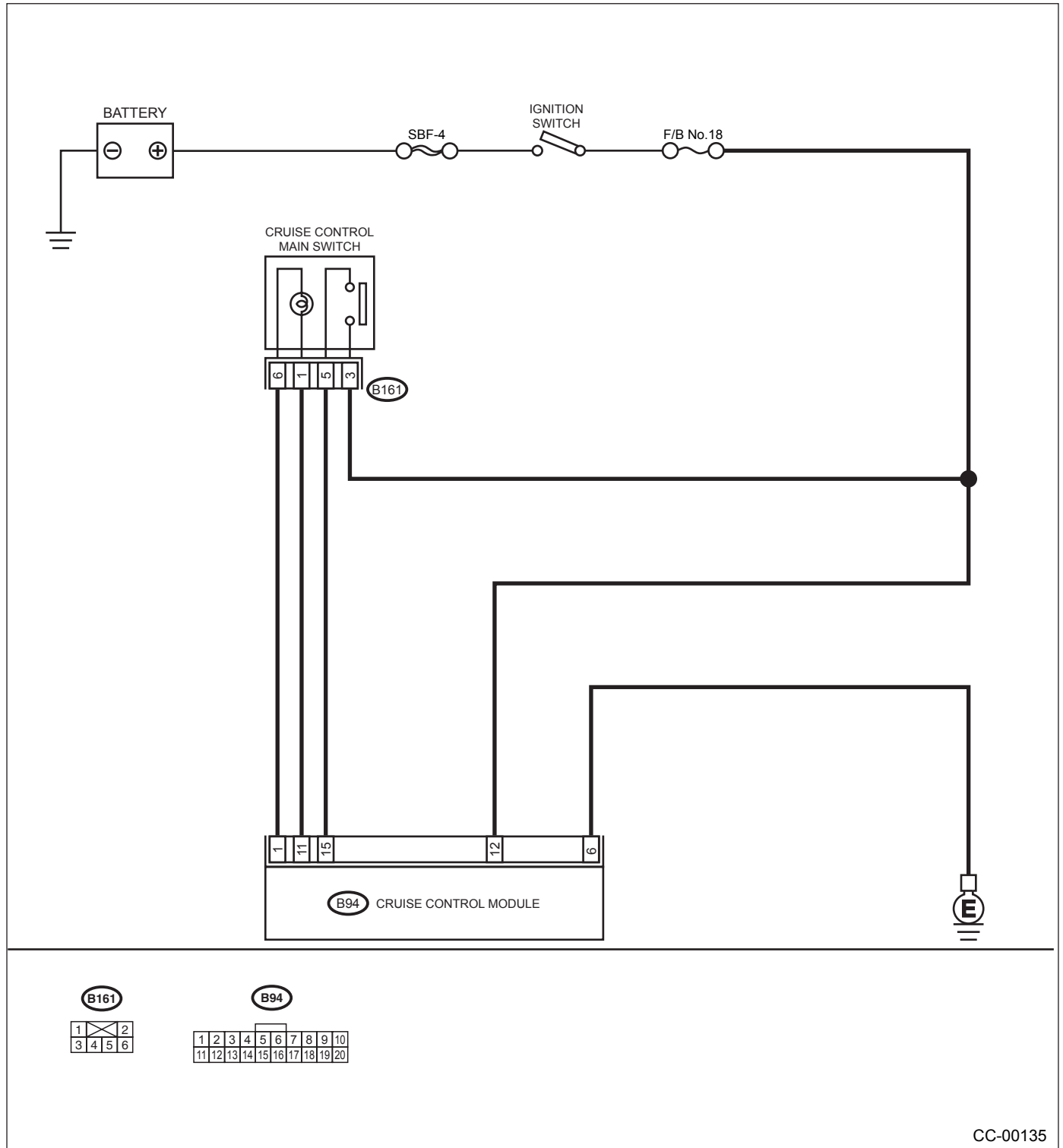
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### B: CHECK POWER SUPPLY

#### TROUBLE SYMPTOM:

Cruise control can be set normally, but indicator does not come on. (When main switch is pressed.)

#### WIRING DIAGRAM:



# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1</b> <b>CHECK POWER SUPPLY.</b> 1)Turn ignition switch OFF. 2)Disconnect cruise control module harness connector. 3)Turn ignition switch ON. 4)Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B94) No. 12 (+) — Chassis ground (–):</b> Is the measured value more than the specified value?	10 V	Go to step 2.	<ul style="list-style-type: none"> <li>• Check fuse No. 18 (in fuse &amp; relay box).</li> <li>• Check harness for open or short between cruise control module and fuse &amp; relay box.</li> </ul>
<b>2</b> <b>CHECK GROUND CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Measure resistance between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B94) No. 6 — Chassis ground:</b> Is the measured value less than the specified value?	10 Ω	Power supply and ground circuit are OK.	Repair harness.

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### C: CHECK CRUISE CONTROL MAIN SWITCH

#### TROUBLE SYMPTOM:

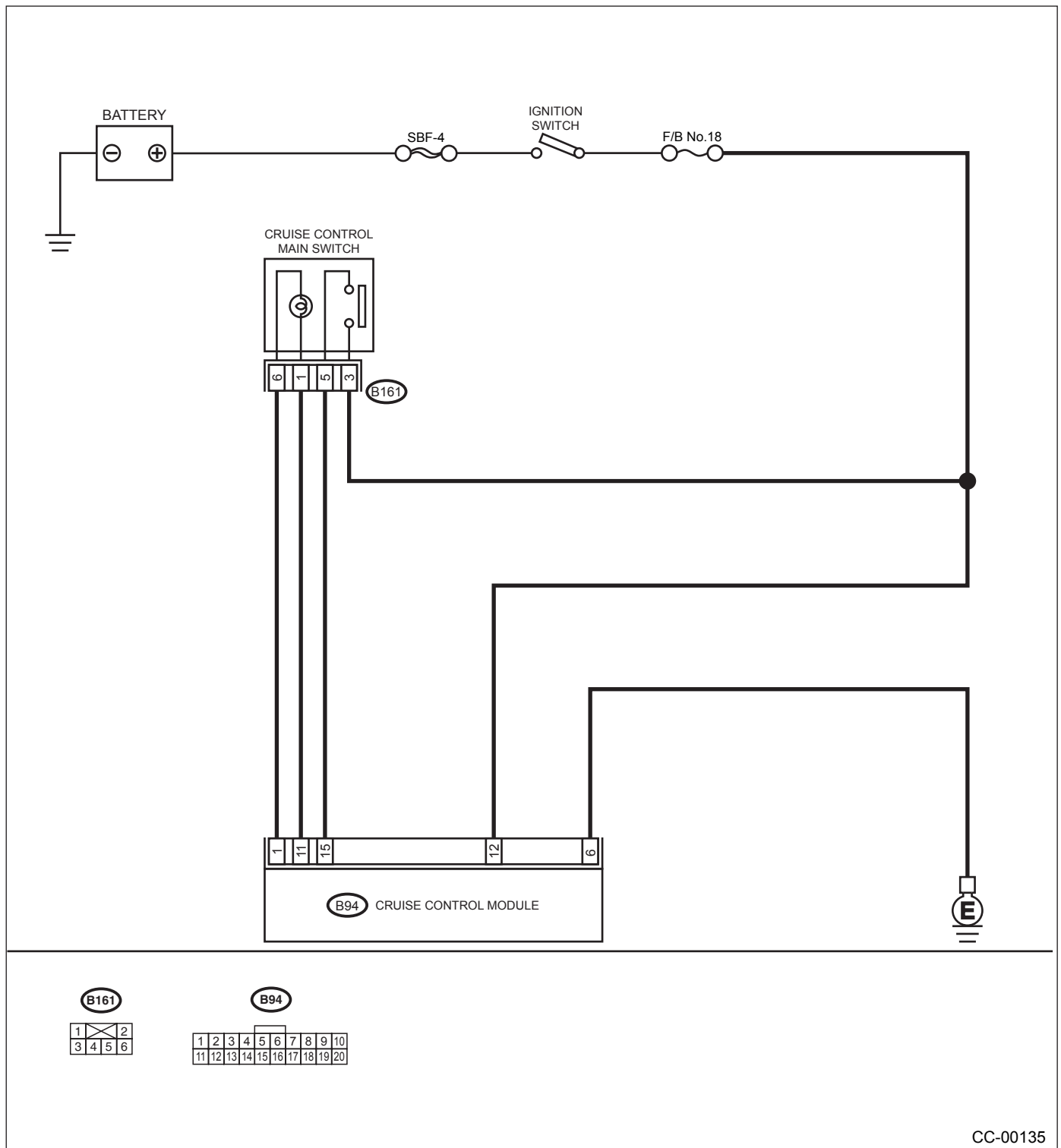
Cruise control main switch is not turned ON and cruise control cannot be set.

#### NOTE:

When the main relay (built-in cruise control module) operates, the main switch circuit is in normal condition. The main relay operation can be checked by hearing the operation sounds.

This operation sounds will be heard when ignition switch and cruise control main switch is turned to ON.

#### WIRING DIAGRAM:



CC-00135

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1</b> <b>CHECK CRUISE CONTROL MAIN SWITCH CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Disconnect cruise control main switch harness connector. 3)Turn ignition switch ON. 4)Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B161) No. 3 (+) — Chassis ground (-):</b> Is the measured value more than the specified value?	10 V	Go to step 2.	<ul style="list-style-type: none"> <li>• Check fuse No. 18 (in fuse &amp; relay box).</li> <li>• Check harness for open or short between cruise control main switch and fuse &amp; relay box.</li> </ul>
<b>2</b> <b>CHECK CRUISE CONTROL MAIN SWITCH CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Disconnect cruise control module harness connector. 3)Measure resistance between cruise control module harness connector terminal and cruise control main switch harness connector terminal. <b>Connector &amp; terminal</b> <b>(B94) No. 15 — (B161) No. 5:</b> <b>(B94) No. 1 — (B161) No. 6:</b> <b>(B94) No. 11 — (B161) No. 1:</b> Is the measured value less than the specified value?	10 Ω	Go to step 3.	Repair harness.
<b>3</b> <b>CHECK CRUISE CONTROL MAIN SWITCH.</b> Remove and check cruise control main switch. <Ref. to CC-6, Cruise Control Main Switch.> Is cruise control main switch OK?	The cruise control main switch is OK.	Replace cruise control module.	Replace cruise control main switch.

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### WIRING DIAGRAM:



# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1 CHECK SET/COAST SWITCH CIRCUIT.</b> 1) Turn ignition switch OFF. 2) Disconnect cruise control module harness connector. 3) Measure voltage between harness connector terminal and chassis ground when SET/COAST switch is pressed and not pressed. <b>Connector &amp; terminal</b> <b>(B94) No. 10 (+) — Chassis ground (-):</b> Is the measured value is less than the specified value when the SET/COAST switch is not pressed? Is the measured value is more than the specified value when the SET/COAST switch is pressed?	When SET/COAST switch is not pressed: 0 V When SET/COAST switch is pressed: 10 V	Go to step 2.	Go to step 4.
<b>2 CHECK RESUME/ACCEL SWITCH CIRCUIT.</b> Measure voltage between harness connector terminal and chassis ground when RESUME/ACCEL switch is pressed and not pressed. <b>Connector &amp; terminal</b> <b>(B94) No. 9 (+) — Chassis ground (-):</b> Is the measured value is less than the specified value when the RESUME/ACCEL switch is not pressed? Is the measured value is more than the specified value when the RESUME/ACCEL switch is pressed?	When RESUME/ACCEL switch is not pressed: 0 V When RESUME/ACCEL switch is pressed: 10 V	Go to step 3.	Go to step 4.
<b>3 CHECK CANCEL SWITCH CIRCUIT.</b> Measure voltage between harness connector terminal and chassis ground when CANCEL switch is pressed and not pressed. <b>Connector &amp; terminal</b> <b>(B94) No. 9 (+) — Chassis ground (-):</b> <b>(B94) No. 10 (+) — Chassis ground (-):</b> Is the measured value is less than the specified value when the CANCEL switch is not pressed? Is the measured value is more than the specified value when the CANCEL switch is pressed?	When CANCEL switch is not pressed: 0 V When CANCEL switch is pressed: 10 V	Cruise control command switch circuit is OK.	Go to step 4.
<b>4 CHECK POWER SUPPLY FOR COMMAND SWITCH.</b> Check horn operation. Does horn sound?	The horn sounds.	Go to step 5.	<ul style="list-style-type: none"> <li>• Check fuse No. 6 (in fuse &amp; relay box).</li> <li>• Check horn relay. &lt;Ref. to COM-3, HORN RELAY, INSPECTION, Horn System.&gt;</li> <li>• Check harness for open or short between cruise control command switch and fuse &amp; relay box.</li> </ul>



## DIAGNOSTICS CHART WITH SYMPTOM

### CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step		Check	Yes	No
5	<b>CHECK CRUISE CONTROL COMMAND SWITCH.</b> Remove and check cruise control command switch. <Ref. to CC-7, Cruise Control Command Switch.> Is cruise control command switch OK?	The cruise control command switch is OK.	Check harness between cruise control command switch and cruise control module.	Replace cruise control command switch.

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CRUISE CONTROL SYSTEM (DIAGNOSTICS)

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# DIAGNOSTICS CHART WITH SYMPTOM

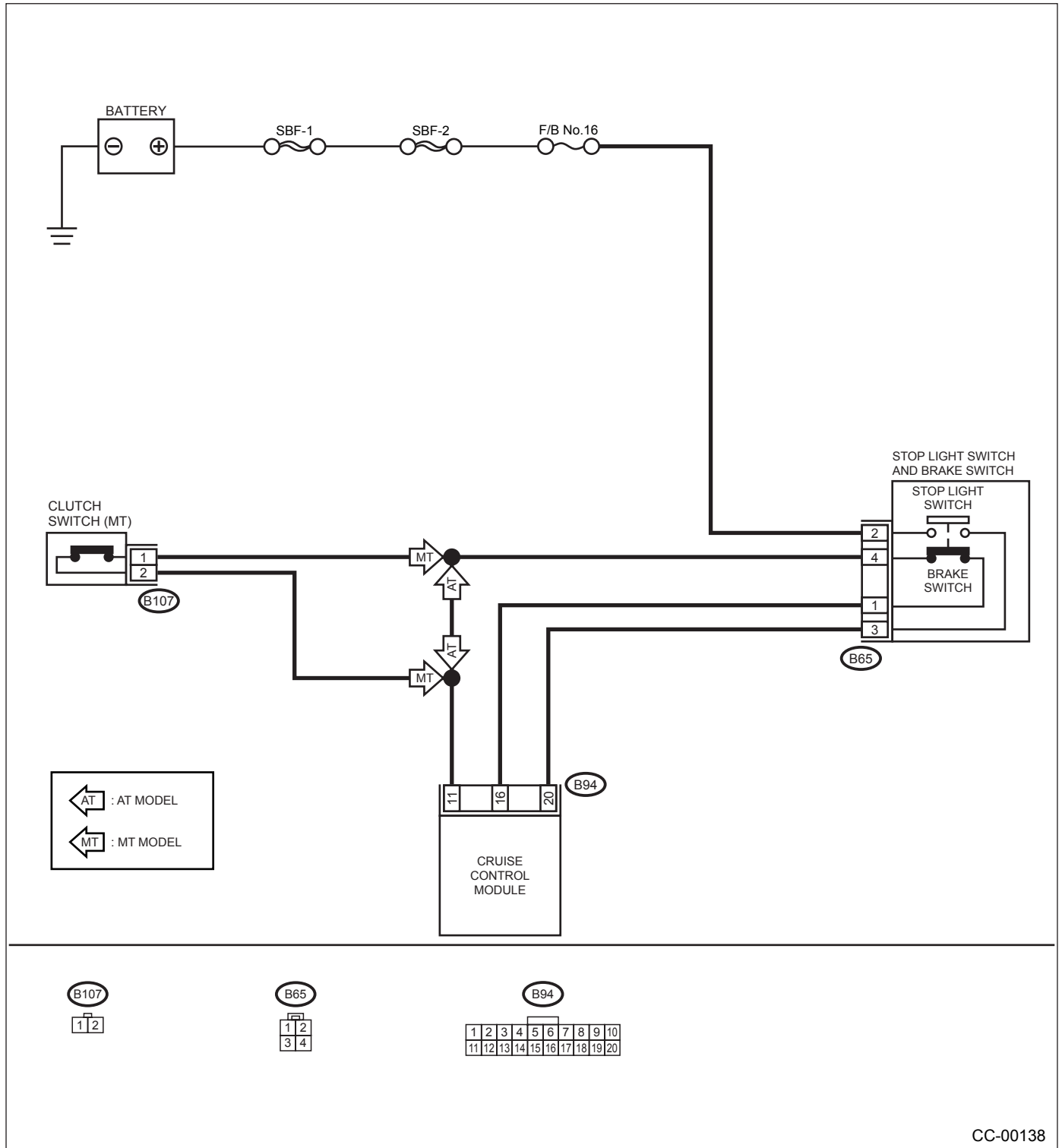
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### E: CHECK STOP LIGHT SWITCH AND BRAKE SWITCH

#### TROUBLE SYMPTOM:

Cruise control cannot be set.

#### WIRING DIAGRAM:



CC-00138

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1 CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Disconnect stop light switch and brake switch harness connector. 3)Turn ignition switch ON. 4)Turn cruise control main switch ON. 5)Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B65) No. 2 (+) — Chassis ground (-):</b> Is the measured value more than the specified value?	10 V	Go to step 2.	<ul style="list-style-type: none"> <li>• Check fuse No. 16 (in fuse &amp; relay box).</li> <li>• Check harness for open or short between stop light/brake switch and fuse &amp; relay box.</li> </ul>
<b>2 CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B65) No. 4 (+) — Chassis ground (-):</b> Is the measured value more than the specified value?	10 V	Go to step 3.	<ul style="list-style-type: none"> <li>• Check harness for open or short between stop light/brake switch and cruise control module (AT).</li> <li>• Check clutch switch and the circuit (MT).</li> </ul>
<b>3 CHECK STOP LIGHT SWITCH AND BRAKE SWITCH CIRCUIT.</b> 1)Turn cruise control main switch and ignition switch OFF. 2)Disconnect cruise control module harness connector. 3)Measure resistance between cruise control module harness connector terminal and stop light switch and brake switch harness connector terminal. <b>Connector &amp; terminal</b> <b>(B94) No. 20 — (B65) No. 3:</b> <b>(B94) No. 16 — (B65) No. 1:</b> Is the measured value less than the specified value?	10 Ω	Go to step 4.	Repair harness.
<b>4 CHECK STOP LIGHT SWITCH AND BRAKE SWITCH.</b> Remove and check stop light switch and brake switch. <Ref. to CC-8, Stop and Brake Switch.> Are stop light switch and brake switch OK?	The stop light switch and brake switch are OK.	Stop light switch and brake switch circuit are OK.	Replace stop light switch and brake switch.

# DIAGNOSTICS CHART WITH SYMPTOM

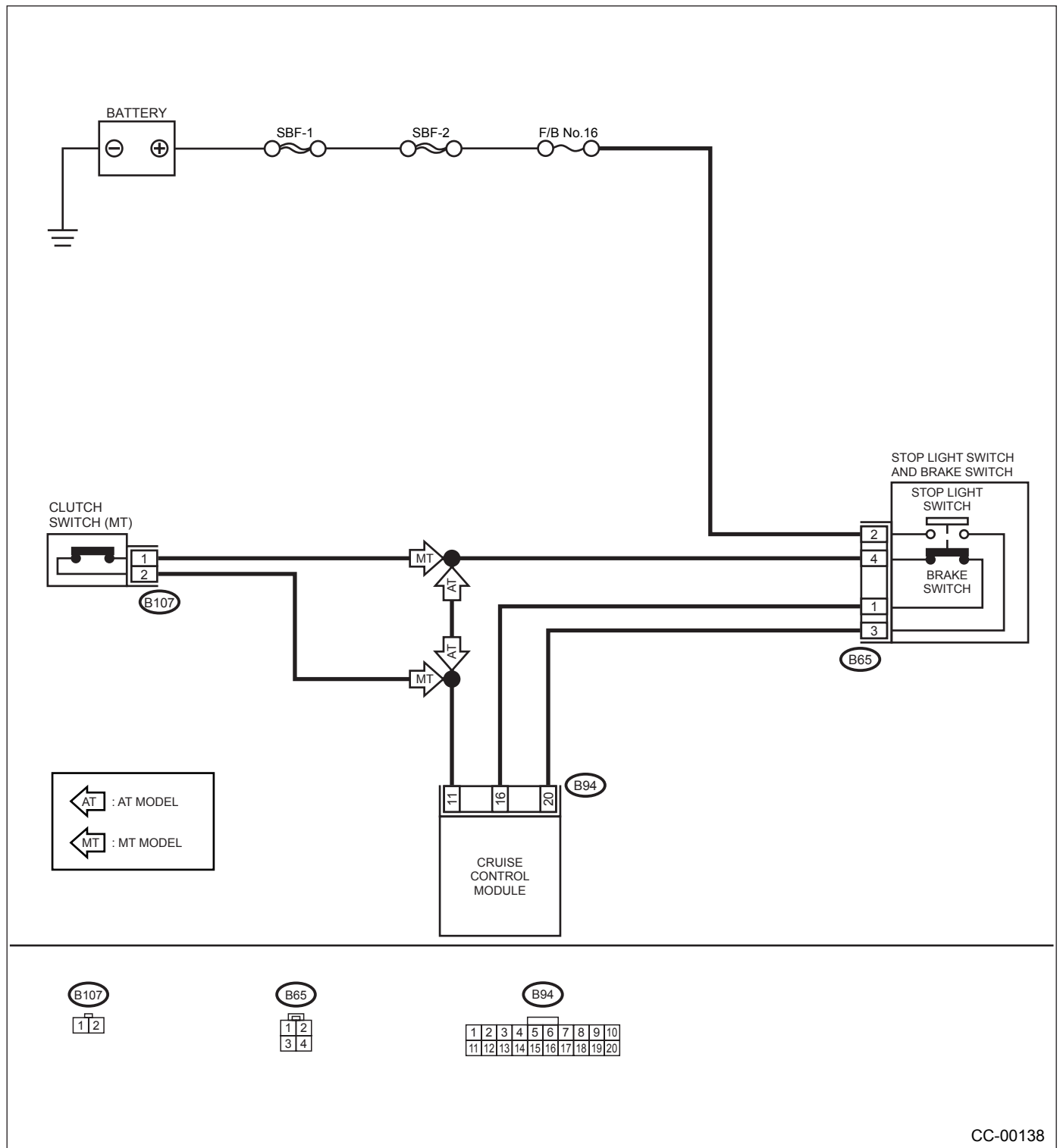
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### F: CHECK CLUTCH SWITCH (MT)

#### TROUBLE SYMPTOM:

Cruise control cannot be set.

#### WIRING DIAGRAM:



CC-00138

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1 CHECK CLUTCH SWITCH CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Disconnect clutch switch harness connector. 3)Turn ignition switch ON. 4)Turn cruise control main switch ON. 5)Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B107) No. 2 (+) — Chassis ground (-):</b> Is the measured value more than the specified value?	10 V	Go to step 2.	Check harness for open or short between clutch switch and cruise control module.
<b>2 CHECK CLUTCH SWITCH CIRCUIT.</b> 1)Turn cruise control main switch and ignition switch OFF. 2)Disconnect stop light switch and brake switch harness connector. 3)Measure resistance between clutch switch harness connector terminal and stop light switch and brake switch harness connector terminal. <b>Connector &amp; terminal</b> <b>(B107) No. 1 — (B65) No. 4:</b> Is the measured value less than the specified value?	10 $\Omega$	Go to step 3.	Repair harness.
<b>3 CHECK CLUTCH SWITCH.</b> Remove and check clutch switch. <Ref. to CC-9, Clutch Switch.> Is clutch switch OK?	The clutch switch is OK.	Clutch switch circuit is OK.	Replace clutch switch.

# DIAGNOSTICS CHART WITH SYMPTOM

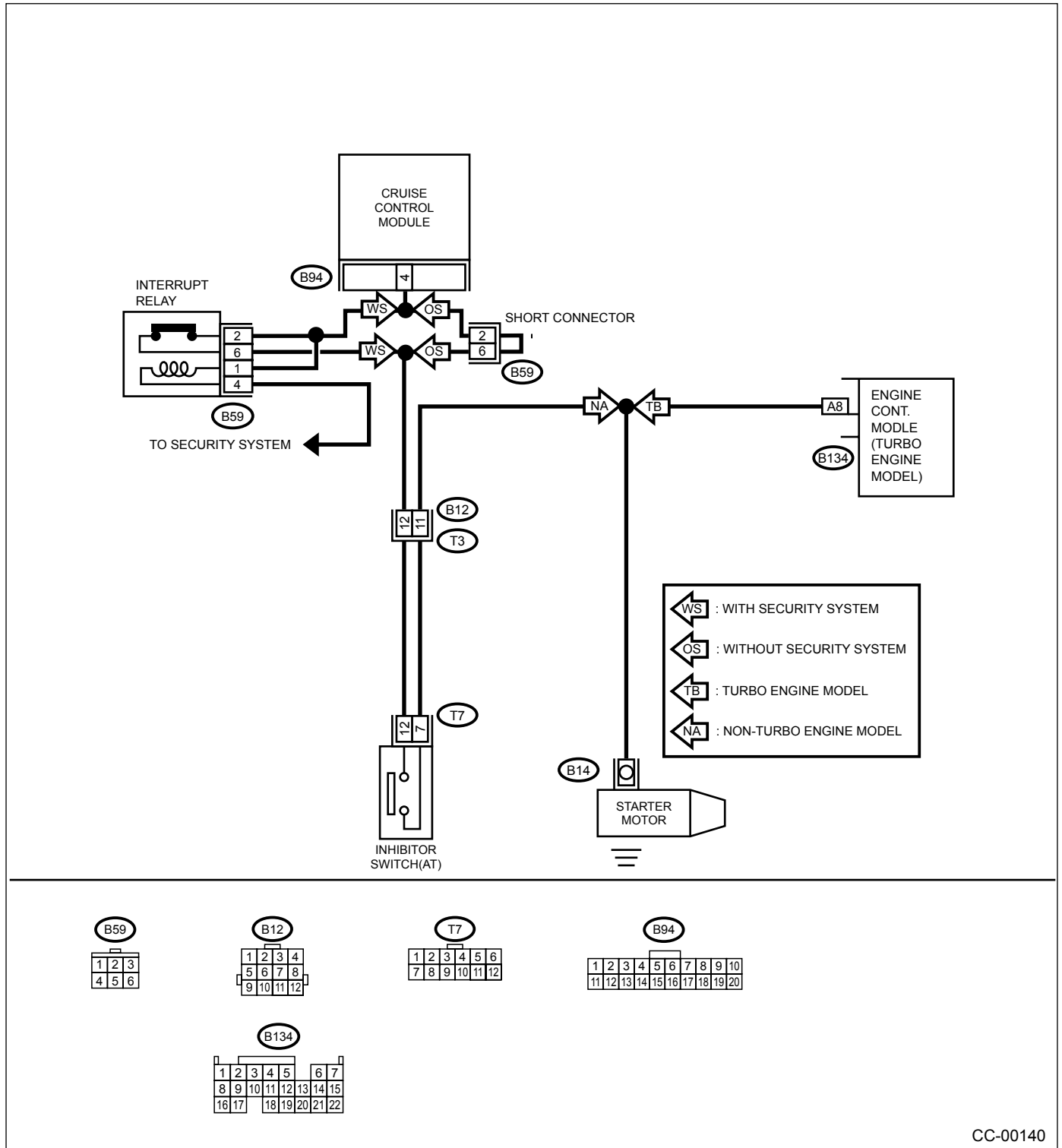
## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

### G: CHECK INHIBITOR SWITCH (AT)

#### TROUBLE SYMPTOM:

Cruise control cannot be set.

#### WIRING DIAGRAM:



CC-00140

# DIAGNOSTICS CHART WITH SYMPTOM

## CRUISE CONTROL SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>1</b> <b>CHECK INHIBITOR SWITCH CIRCUIT.</b> 1)Turn ignition switch OFF. 2)Disconnect inhibitor switch harness connector. 3)Turn ignition switch ON. 4)Turn cruise control main switch ON. 5)Measure voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(T7) No. 12 (+) — Chassis ground (-):</b> Is the measured value more than the specified value?	10 V	Go to step 2.	Check the following. <ul style="list-style-type: none"> <li>Interrupt relay (with security system) &lt;Ref. to SL-52, Interrupt Relay.&gt;</li> <li>Harness for open or short between inhibitor switch and cruise control module.</li> </ul>
<b>2</b> <b>CHECK INHIBITOR SWITCH CIRCUIT.</b> 1)Turn cruise control main switch and ignition switch OFF. 2)Disconnect starter motor harness connector. 3)Measure resistance between inhibitor switch harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(T7) No. 7 — (B14) No. 1:</b> Is the measured value less than the specified value?	10 $\Omega$	Go to step 3.	Repair harness.
<b>3</b> <b>CHECK INHIBITOR SWITCH.</b> Remove and check inhibitor switch. <Ref. to CC-10, Inhibitor Switch.> Is inhibitor switch OK?	The inhibitor switch is OK.	Inhibitor switch circuit is OK.	Replace inhibitor switch.