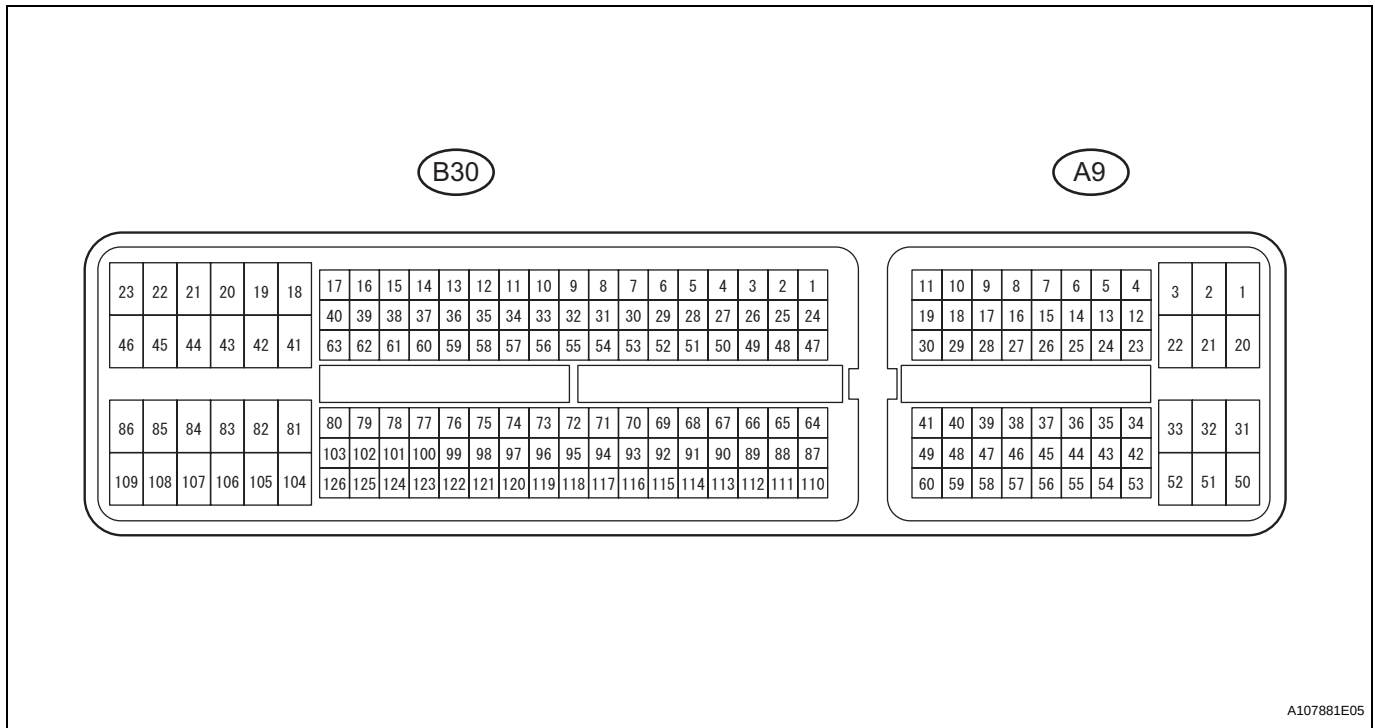


TERMINALS OF ECM

1. CHECK ECM



- Disconnect the A9 and B30 connectors.
- Measure the voltage and resistance of the wire harness side connectors.

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
STP (A9-36) - E1 (B30-104)	L - BR	Stop light switch input signal	Depress brake pedal	10 to 14 V
			Release brake pedal	Below 1 V
CCS (A9-40) - E1 (B30-104)	L - BR	Cruise control main switch signal	CANCEL switch hold ON	1.386 to 1,694 Ω
			-/SET switch hold ON	567 to 693 Ω
			+/RES switch hold ON	216 to 264 Ω
			Main switch OFF	10 kΩ or higher
			Main switch ON	Below 1 Ω
ST1- (A9-35) - E1 (B30-104)	GR - BR	Stop light switch input signal	Release brake pedal	10 to 14 V
			Depress brake pedal	Below 1 V

If the result is not as specified, there may be a malfunction on the wire harness side.

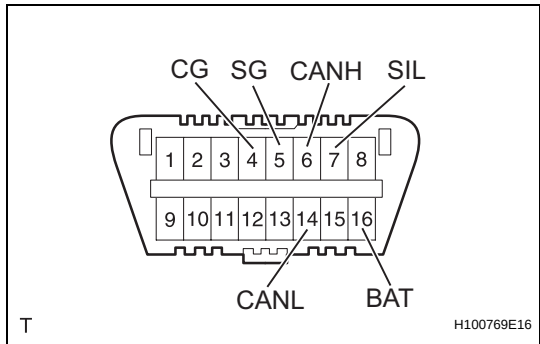
DIAGNOSIS SYSTEM

1. DESCRIPTION

The ECM controls the function of cruise control on this vehicle. Data of the cruise control or DTC can be read from the DLC3 of the vehicle. When trouble occurs with cruise control, check that the CRUISE main indicator does not come on but DTC inspection is performed. Therefore, when there seems to be a problem with the cruise control, use the intelligent tester (with CAN VIM) or SST to check and troubleshoot it.

2. CHECK DLC3

- (a) The ECM uses ISO 15765-4 for communication. The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 15765-4 format.

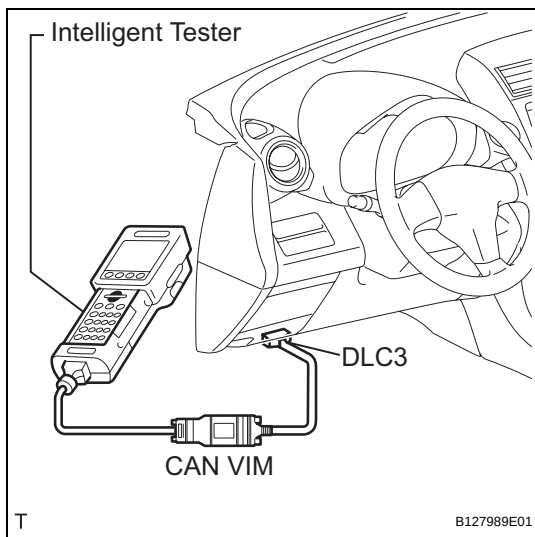


Symbols (Terminal No.)	Terminal Description	Condition	Specified Condition
SIL (7) - SG (5)	Bus '+' line	During transmission	Pulse generation
CG (4) - Body ground	Chassis ground	Always	Below 1 Ω
SG (5) - Body ground	Signal ground	Always	Below 1 Ω
BAT (16) - Body ground	Battery positive	Always	11 to 14 V
CANH (6) - CANL (14)	HIGH-level CAN bus line	Ignition switch OFF*	54 to 69 Ω
CANH (6) - Body ground	HIGH-level CAN bus line	Ignition switch OFF*	1 MΩ or higher
CANH (6) - CG (4)	HIGH-level CAN bus line	Ignition switch OFF*	200 Ω or higher
CANL (14) - Body ground	LOW-level CAN bus line	Ignition switch OFF*	1 MΩ or higher
CANL (6) - CG (4)	LOW-level CAN bus line	Ignition switch OFF*	200 Ω or higher

NOTICE:

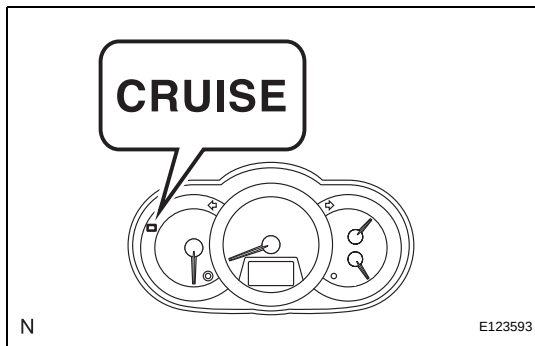
***: Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the ignition switch, other switches or doors.**

If the result is not as specified, the DLC3 may have a malfunction. Repair or replace the harness and connector.

**HINT:**

Connect the cable of the intelligent tester (with CAN VIM) to the DLC3, turn the ignition switch ON and attempt to use the tester. If the display indicates that a communication error has occurred, there is a problem either with the vehicle or with the tester.

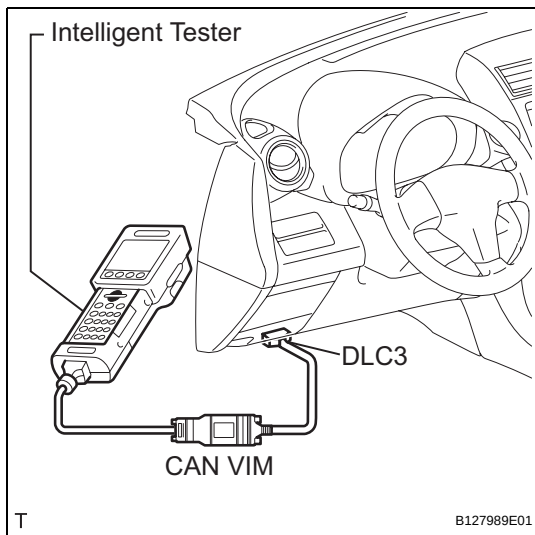
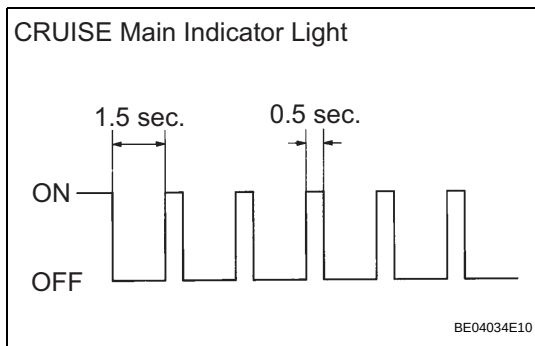
- If communication is normal when the tester is connected to another vehicle, inspect the DLC3 of the original vehicle.
- If communication is still not possible when the tester is connected to another vehicle, the problem may be in the tester itself. Consult the Service Department listed in the tester's instruction manual.

**3. CHECK INDICATOR**

- Turn the ignition switch ON.
- Check that the CRUISE main indicator light illuminates when the cruise control main switch is turned ON, and that the indicator light goes off when the main switch is turned OFF.

HINT:

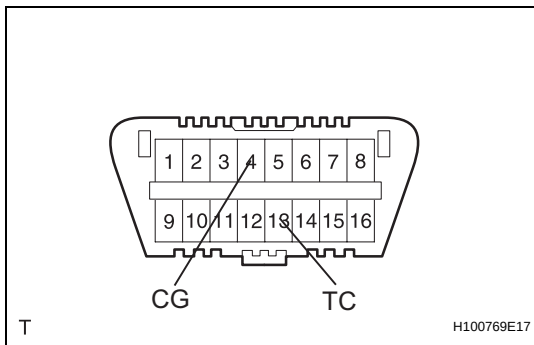
- If the indicator check result is not normal, proceed to troubleshooting for the combination meter section (see page [ME-15](#)).
- If a malfunction occurs in the speed sensor or stop light switch, etc. during cruise control driving, the ECM activates the AUTO CANCEL of the cruise control and the CRUISE main indicator light blinks to inform the driver of a malfunction. At the same time, the malfunction is stored in memory as a diagnostic trouble code.

**DTC CHECK / CLEAR****1. CHECK DTC (USING INTELLIGENT TESTER)**

- Connect the intelligent tester (with CAN VIM) to the DLC3.
- Turn the ignition switch ON.
- Read the DTCs by following the directions on the tester screen.

HINT:

Refer to the intelligent tester operator's manual for further details.



2. CHECK DTC (USING SST CHECK WIRE)

- (a) Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3.

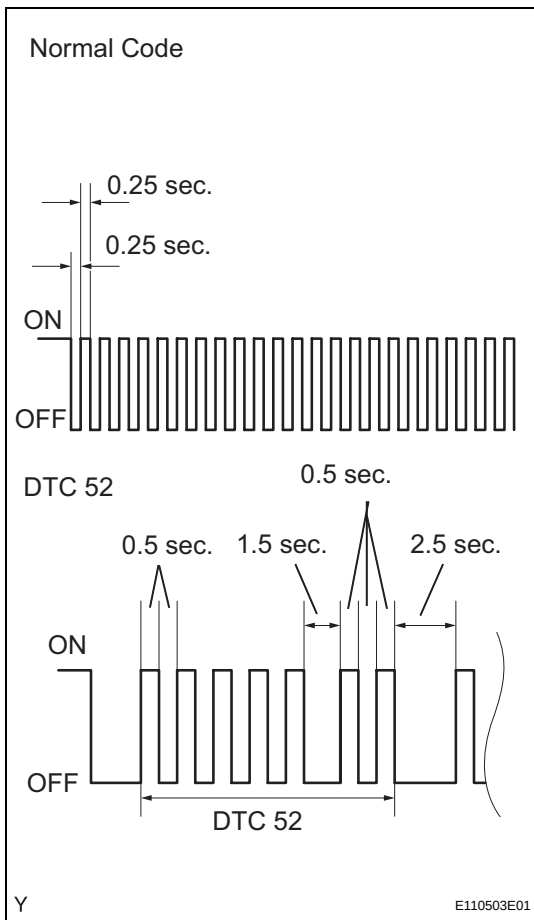
SST 09843-18040

- (b) Turn the ignition switch ON.

- (c) Read the DTC on the CRUISE main indicator light.

HINT:

- If the DTC is not output, inspect the diagnosis circuit.
- As an example, the blinking patterns of a normal code and code 52 are shown in the illustration.



3. CLEAR DTC (USING INTELLIGENT TESTER)

- (a) Connect the intelligent tester (with CAN VIM) to the DLC3.

- (b) Turn the ignition switch ON.

- (c) Read the DTCs by following the directions on the tester screen.

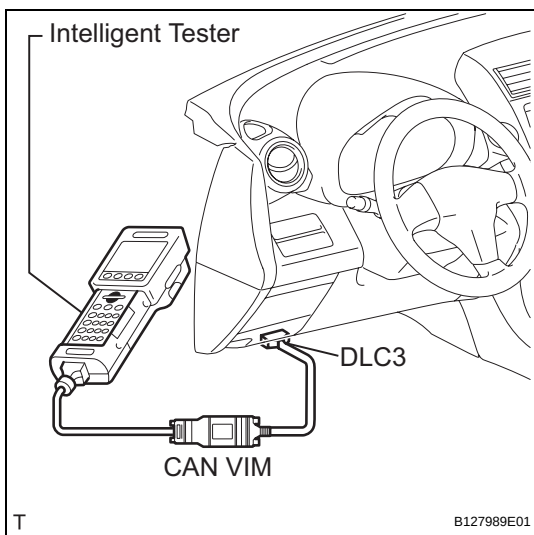
HINT:

Refer to the intelligent tester operator's manual for further details.

4. CLEAR DTC (USING SST CHECK WIRE)

- (a) Read and record DTCs from the CRUISE main indicator light. Turn the ignition switch OFF.

- (b) If DTCs are indicated, repair the relevant circuits using the DTC Chart (see page [CC-18](#)).



- (c) Clear the DTCs according to one of the following procedures.
 - Disconnect the negative (-) battery cable for more than 1 minute.
 - Remove the EFI NO. 1 and ETCS fuses from the engine room relay block (located inside the engine compartment) for more than 1 minute.
- (d) Recheck for DTCs.