DTC	P0607	Input Signal Circuit Malfunction

DESCRIPTION

This DTC indicates internal abnormalities of the ECM.

DTC No.	Detection Item	Trouble Area
P0607	The ECM has a supervisory CPU and control ECU inside. When each input STP signal is different for 0.15 sec. or more, this trouble code is output. This trouble code is output after 0.4 sec. has passed from the time the cruise cancel input signal (STP input) is input into the ECM. HINT: When a trouble code is detected, the fail safe must be kept on until the ignition switch is turned off.	ECM

INSPECTION PROCEDURE

CC

1	REPLACE ECM

(a) Replace the ECM (See page ES-498).

NEXT

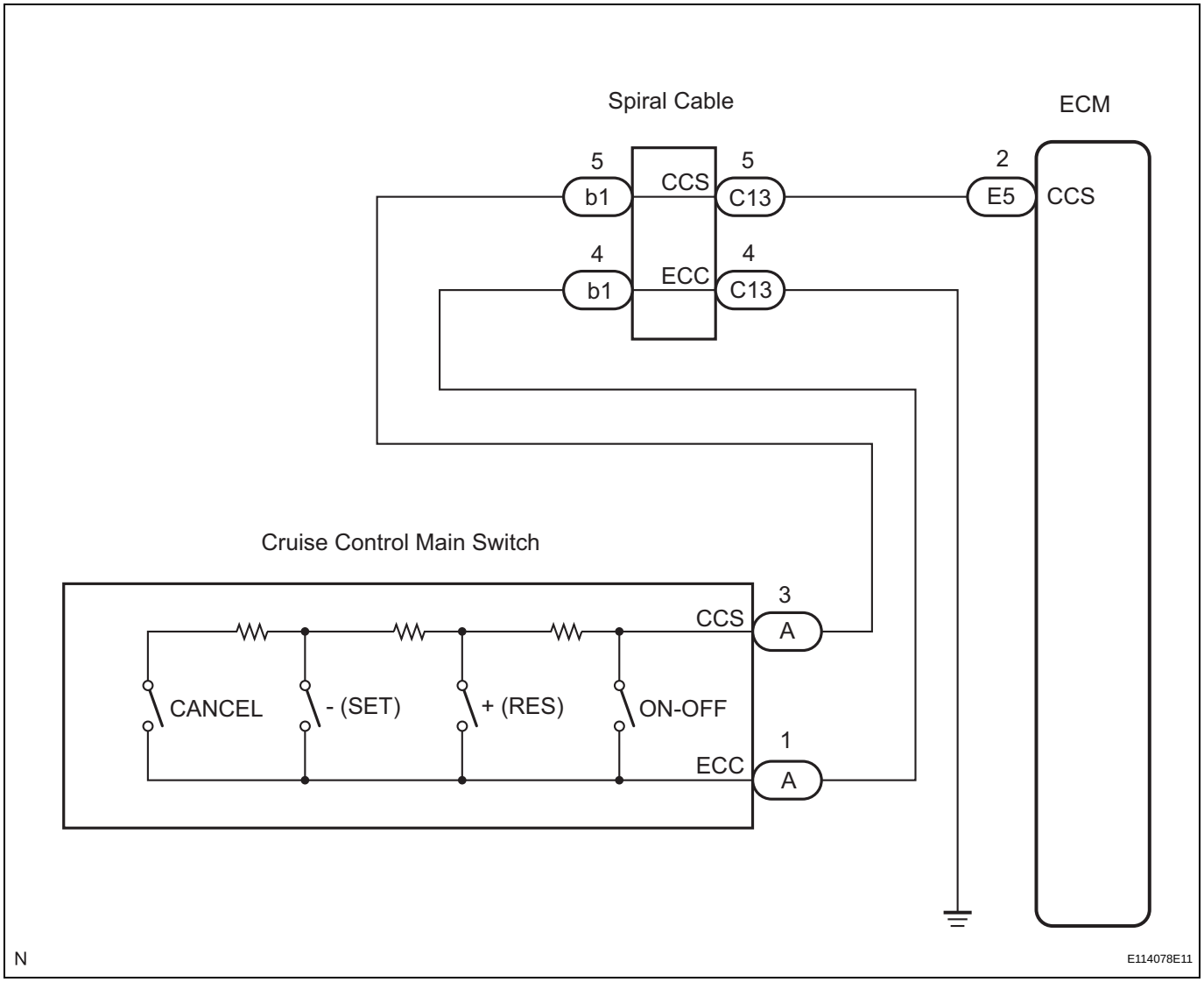
END

Cruise Control Switch Circuit

DESCRIPTION

The cruise control main switch operates 7 functions: SET, - (COAST), TAP-DOWN, RES (RESUME), + (ACCEL), TAP-UP, and CANCEL. The SET, TAP-DOWN, and - (COAST) functions, and the RES (RESUME), TAP-UP, and + (ACCEL) functions are operated with the same switch. The cruise control main switch is an automatic return type switch which turns on only while operating it in the direction of each arrow and turns off after releasing it. The internal contact point of the cruise control main switch is turned on with the switch operation. Then the ECM reads the voltage value that has been changed by the switch operation to control SET, - (COAST), RES (RESUME), + (ACCEL), and CANCEL.

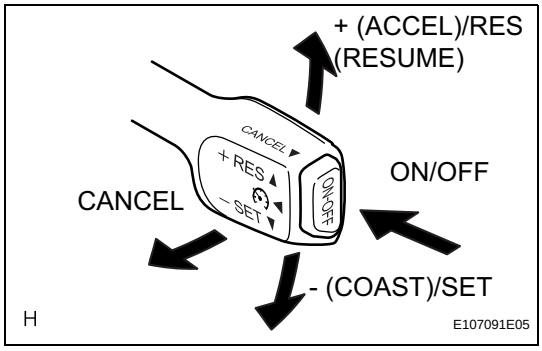
WIRING DIAGRAM



CC

INSPECTION PROCEDURE

1	READ VALUE OF INTELLIGENT TESTER



(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position and turn the intelligent tester main switch on.
(c) Check the DATA LIST for proper functioning of the cruise control main switch.

ECM (Cruise control):

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
MAIN SW (MAIN)	Main switch signal (Main CPU)/ ON or OFF	ON: Main switch on OFF: Main switch off	-
CANCEL SW	CANCEL switch signal/ON or OFF	ON: CANCEL switch on OFF: CANCEL switch off	-
SET/COAST SW	SET/COAST switch signal/ON or OFF	ON: - (COAST)/SET switch on OFF: - (COAST)/SET switch off	-
RES/ACC SW	RES/ACC switch signal/ON or OFF	ON: + (ACCEL)/RES (RESUME) switch on OFF: + (ACCEL)/RES (RESUME) switch off	-

OK:
When the cruise control main switch is operated, the display changes as shown above.

Result

Result	Proceed to
OK	A
NG (All items are defective)	B
NG (1 to 3 items are defective)	C

A → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See page CC-10)**

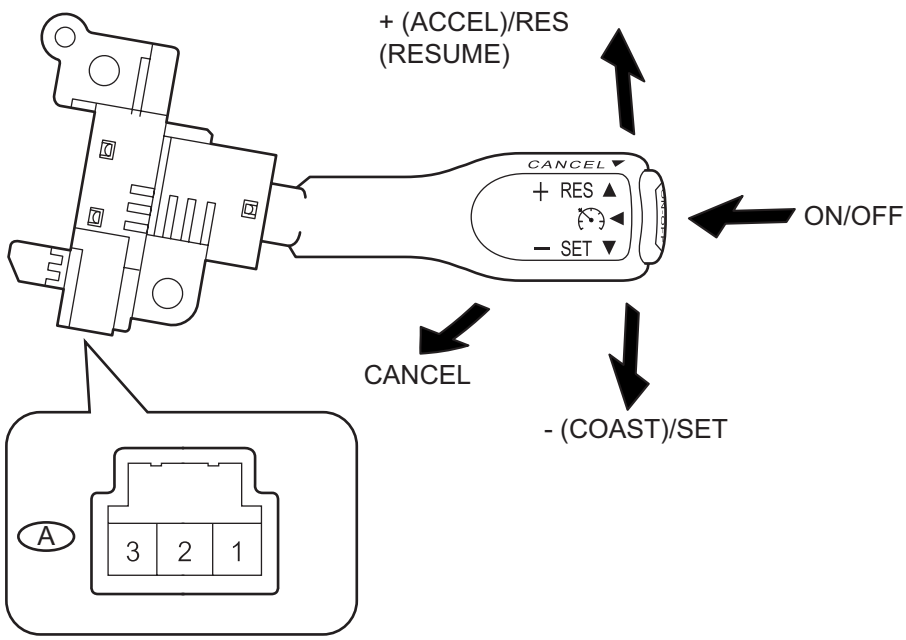
C → **REPLACE CRUISE CONTROL MAIN SWITCH (See page CC-120)**

B

2	INSPECT CRUISE CONTROL MAIN SWITCH

(a) Remove the cruise control main switch (See page CC-120).
(b) Measure the resistance according to the value(s) in the table below.

Cruise Control Main Switch:



H

E106137E06

Standard resistance

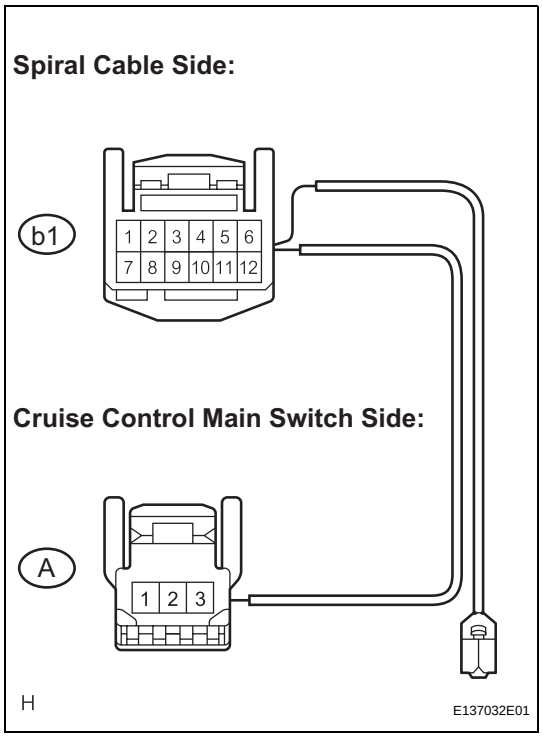
Tester Connection	Switch Condition	Specified Condition
A-3 (CCS) - A-1 (ECC)	Neutral	10 kΩ or higher
A-3 (CCS) - A-1 (ECC)	+ (ACCEL)/RES (RESUME)	216 to 264 Ω
A-3 (CCS) - A-1 (ECC)	- (COAST)/SET	567 to 693 Ω
A-3 (CCS) - A-1 (ECC)	CANCEL	1386 to 1694 Ω
A-3 (CCS) - A-1 (ECC)	Main switch on	Below 1 Ω

NG → **REPLACE CRUISE CONTROL MAIN SWITCH (See page CC-120)**

OK →

CC

3	CHECK HARNESS AND CONNECTOR (CRUISE CONTROL MAIN SWITCH - SPIRAL CABLE)



(a) Disconnect the b1 connector from the spiral cable.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

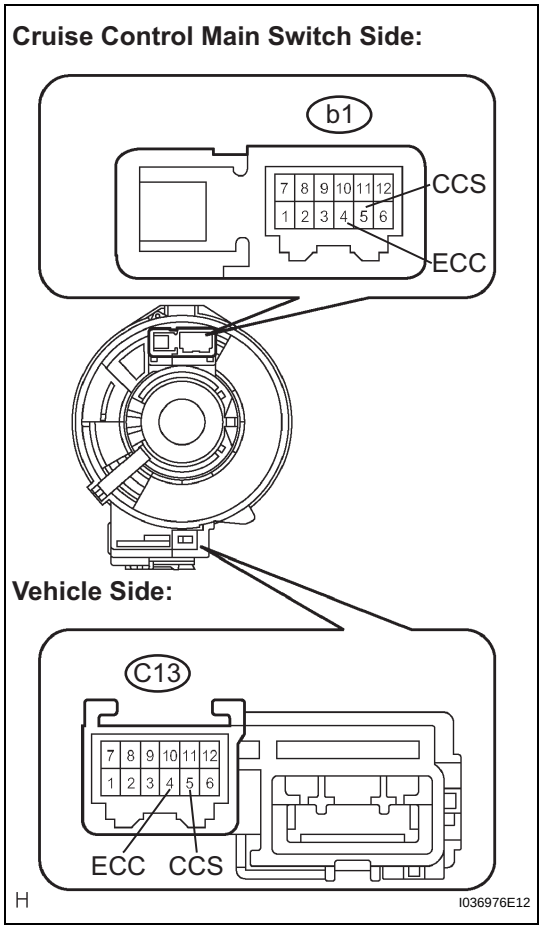
Tester Connection	Condition	Specified Condition
A-3 - b1-5	Always	Below 1 Ω
A-1 - b1-4	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CC

4 CHECK SPIRAL CABLE



NOTICE:
The spiral cable is an important part of the SRS airbag system. Incorrect removal or installation of the spiral cable may prevent the airbag from deploying. Be sure to read the page shown in the brackets.
HINT:
- Removal (See page RS-434)
- Installation (See page RS-434)

(a) Remove the spiral cable.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Spiral Cable Position	Specified Condition
b1-5 (CCS) - C13-5 (CCS)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
b1-4 (ECC) - C13-4 (ECC)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

HINT:
The spiral cable makes a maximum of approximately 5 rotations.

NG → **REPLACE SPIRAL CABLE (See page RS-434)**

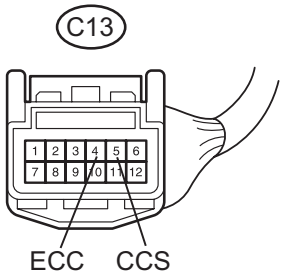
OK

5 CHECK HARNESS AND CONNECTOR (SPIRAL CABLE - ECM AND BODY GROUND)

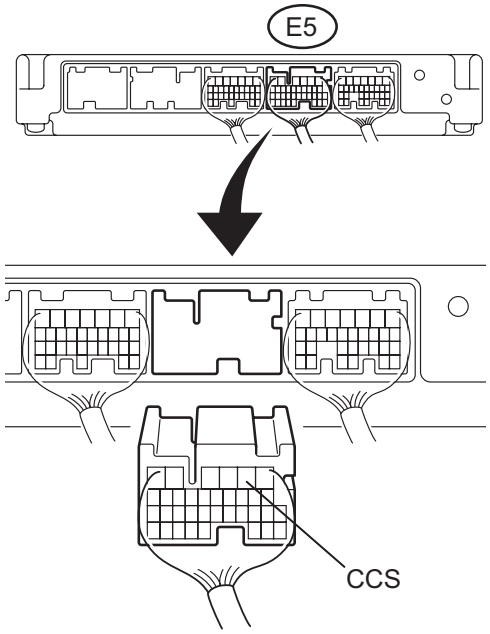
(a) Disconnect the E5 connector from the ECM.

CC

Vehicle Side Connector Front View:



ECM Wire Harness View:



N

E144499E01

(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
C13-5 (CCS) - E5-2 (CCS)	Always	Below 1 Ω
E5-2 (CCS) - Body ground	Always	10 kΩ or higher
C13-4 (ECC) - Body ground	Always	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE ECM (See page ES-498)