# CRUISE CONTROL SWITCH CIRCUIT

## CIRCUIT DESCRIPTION

The cruise control main switch operates seven functions: SET, COAST, TAP–DOWN, RESUME, ACCEL, TAP–UP, and CANCEL. The SET, TAP–DOWN and COAST functions, and the RESUME, TAP–UP and AC-CEL functions are operated with the same switch respectively. The cruise control main switch is an automatic return type switch which turns on only while operating it in each arrow direction 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 resistance value that has been changed by the switch operation to control SET, COAST, RESUME, ACCEL and CANCEL.
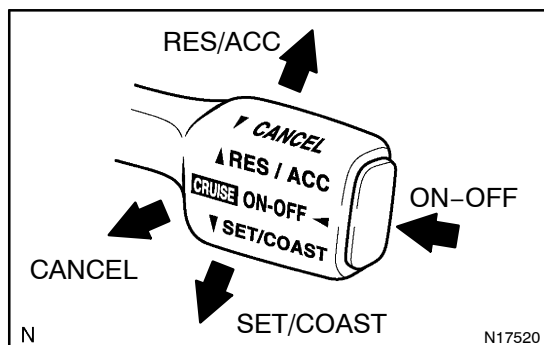
## WIRING DIAGRAM

# INSPECTION PROCEDURE

| 1 | READ VALUE ON INTELLIGENT TESTER II |
|---|---|



(a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) According to the display on the tester, read the "DATA LIST".

**ECM:**

| Item | Measurement Item / Display (Range) | Normal Condition | Diagnostic Note |
|---|---|---|---|
| Main SW M−CPU | Main SW signal (Main CPU) / ON or OFF | ON : Main SW ON (Pushed on) OFF Main SW OFF (Pushed off) | − |
| Main SW S−CPU | Main SW signal (Sub CPU) / ON or OFF | ON : Main SW ON (Pushed on) OFF Main SW OFF (Pushed off) | − |
| CANCEL Switch | CANCEL SW signal / ON or OFF | ON : CANCEL SW ON OFF : CANCEL SW OFF | − |
| SET/COAST Switch | SET/COAST SW signal / ON or OFF | ON : SET/COAST SW ON OFF : SET/COAST SW OFF | − |
| RES/ACC Switch | RES/ACC SW signal / ON or OFF | ON : RES/ACC SW ON OFF : RES/ACC OFF | − |

**OK: When cruise control main switch operation is performed the standard values will be above.**
**Result:**

| OK | A |
|---|---|
| NG (All items are defective.) | B |
| NG (One to Four item are defective.) | C |

| B | Go to step 2 |
|---|---|

| C | REPLACE CRUISE CONTROL MAIN SWITCH ASSY (SEE PAGE 82−11) |
|---|---|

| A |
|---|

**PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05−3591)**

| 2 | INSPECT CRUISE CONTROL MAIN SWITCH ASSY |
|---|---|

(a) Disconnect the cruise control main switch connector.
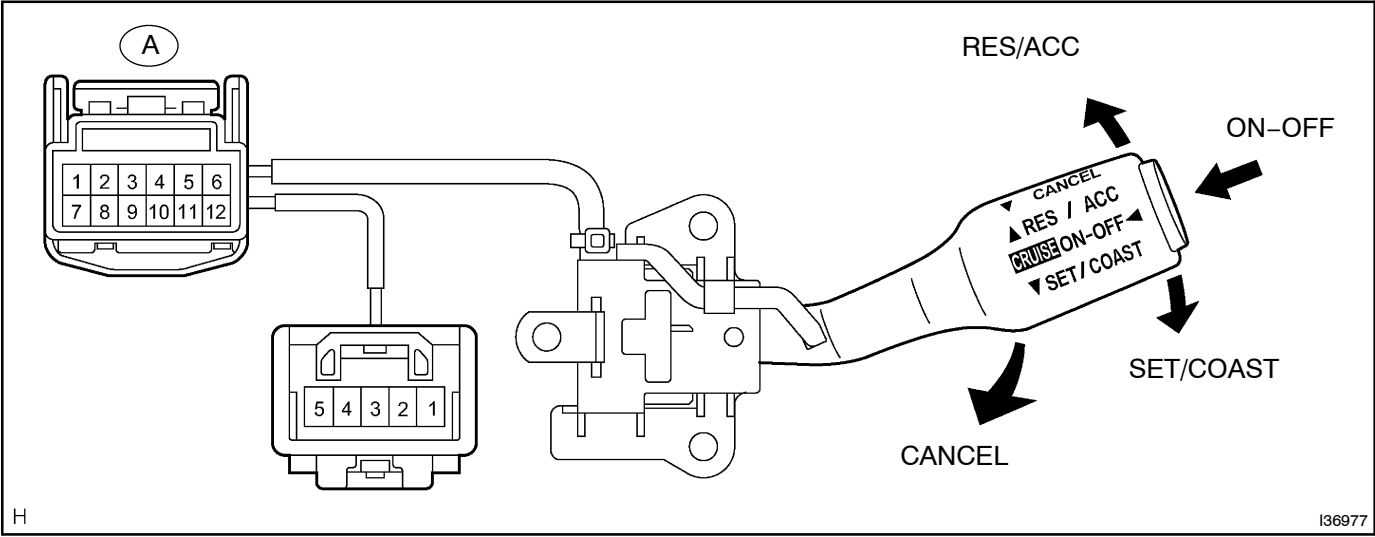


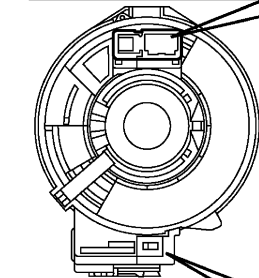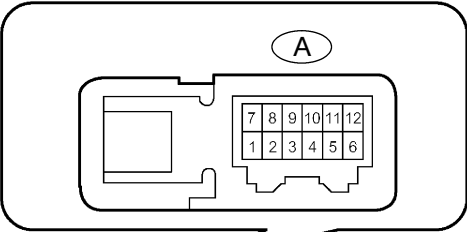(b) Measure the resistance according to the value(s) in the table below.
**Standard:**

| Switch condition | Tester connection | Resistance(Ω) |
|---|---|---|
| Neutral | A–2 – A–3 | 10 kΩ or higher |
| RES/ACC | A–2 – A–3 | 210 to 270 |
| SET/COAST | A–2 – A–3 | 560 to 700 |
| CANCEL | A–2 – A–3 | 1,380 to 1,700 |
| Main Switch OFF | A–2 – A–3 | 10 kΩ or higher |
| Main Switch ON | A–2 – A–3 | Below 1 Ω |

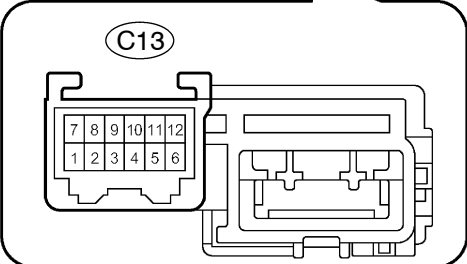NG ⟩ **REPLACE CRUISE CONTROL MAIN SWITCH ASSY (SEE PAGE 82–11)**

OK

| 3 | INSPECT SPIRAL CABLE SUB−ASSY |

**Cruise Control Main Switch Side:**



**Vehicle Side:**

I36976

(a) Disconnect the spiral cable sub−assy connector.

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

**Standard:**

| Terminal No. | Specified value |
|---|---|
| A−2 − C13−2 | Below 1 Ω |
| A−3 − C13−3 | Below 1 Ω |

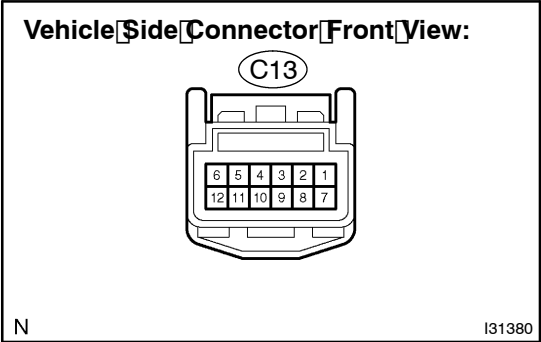NG ▷ **REPLACE SPIRAL CABLE SUB−ASSY (SEE PAGE 60−31)**

OK

| 4 | CHECK HARNESS AND CONNECTOR (SPIRAL CABLE SUB–ASSY – ECM, BODY GROUND) |
|---|---|

**Vehicle Side Connector Front View:**



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

**Standard:**

| Tester connection | Condition | Specification |
|---|---|---|
| Spiral cable (C13–2) – CCS (E3–31) | Always | Below 1 Ω |
| CCS (E3–31) – Body ground | Always | 10 kΩ or higher |
| Spiral cable (C13–3) – Body ground | Always | Below 1 Ω |

**Wire Harness View:**
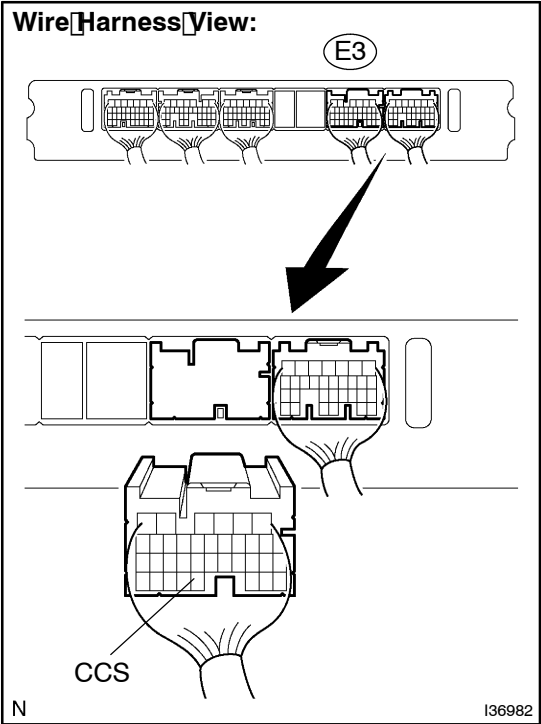


| NG ▷ | REPAIR OR REPLACE HARNESS OR CONNECTOR |
|---|---|

| OK |
|---|

| REPLACE ECM (SEE PAGE 10–21) |
|---|