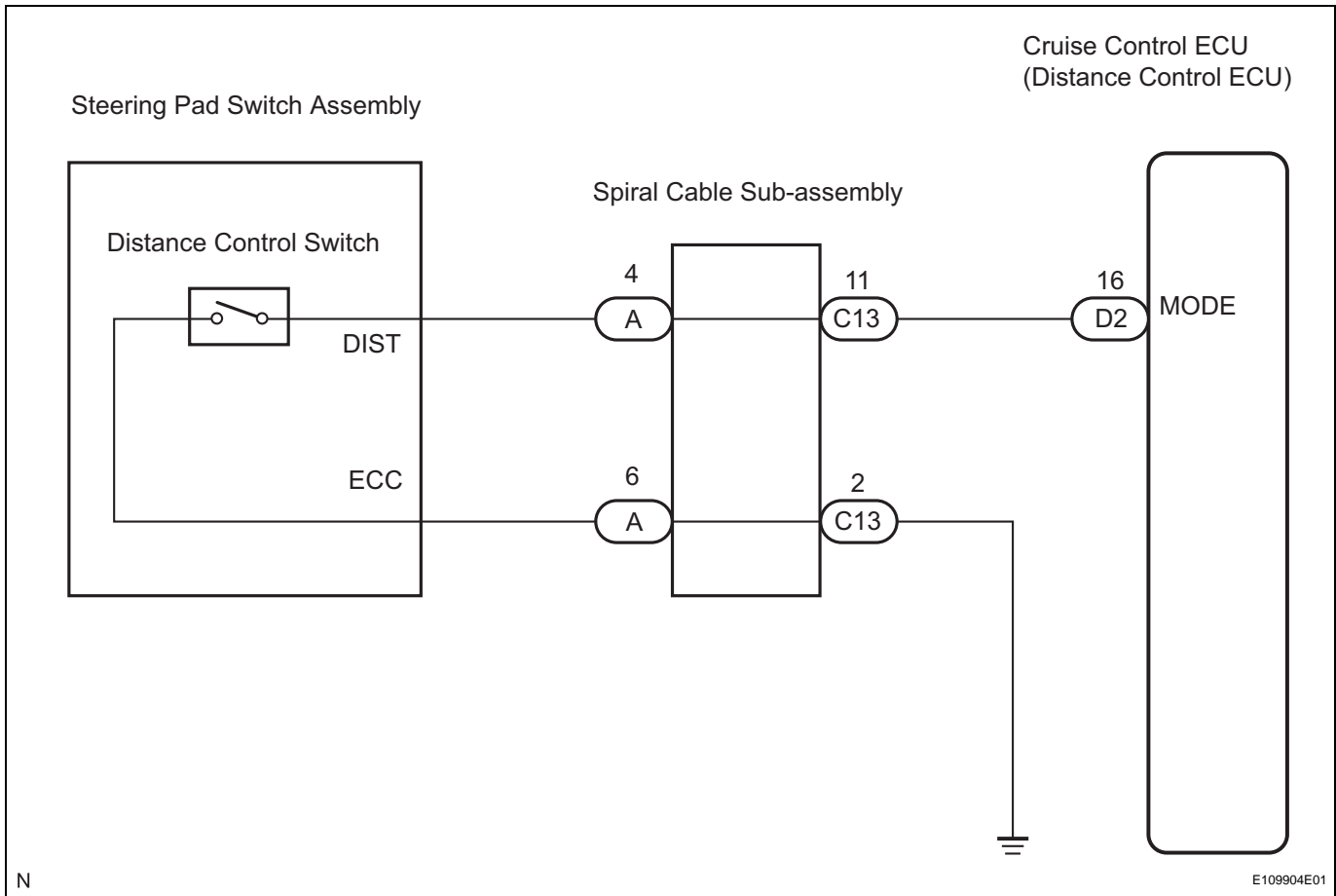


Distance Control Switch Circuit

DESCRIPTION

The distance control switch sets the vehicle-to-vehicle distance mode. The distance control switch is installed in the steering pad switch. The vehicle-to-vehicle distance set value can be changed by operating the steering pad switch (distance control switch) while the dynamic radar cruise control system is in operation. The steering pad switch uses the BEAN to communicate with each ECU. Therefore it does not have a direct connection with the ECM. If there are any malfunction in the communication line of the steering pad switch, one or more DTCs in the multiplex communication system are output.

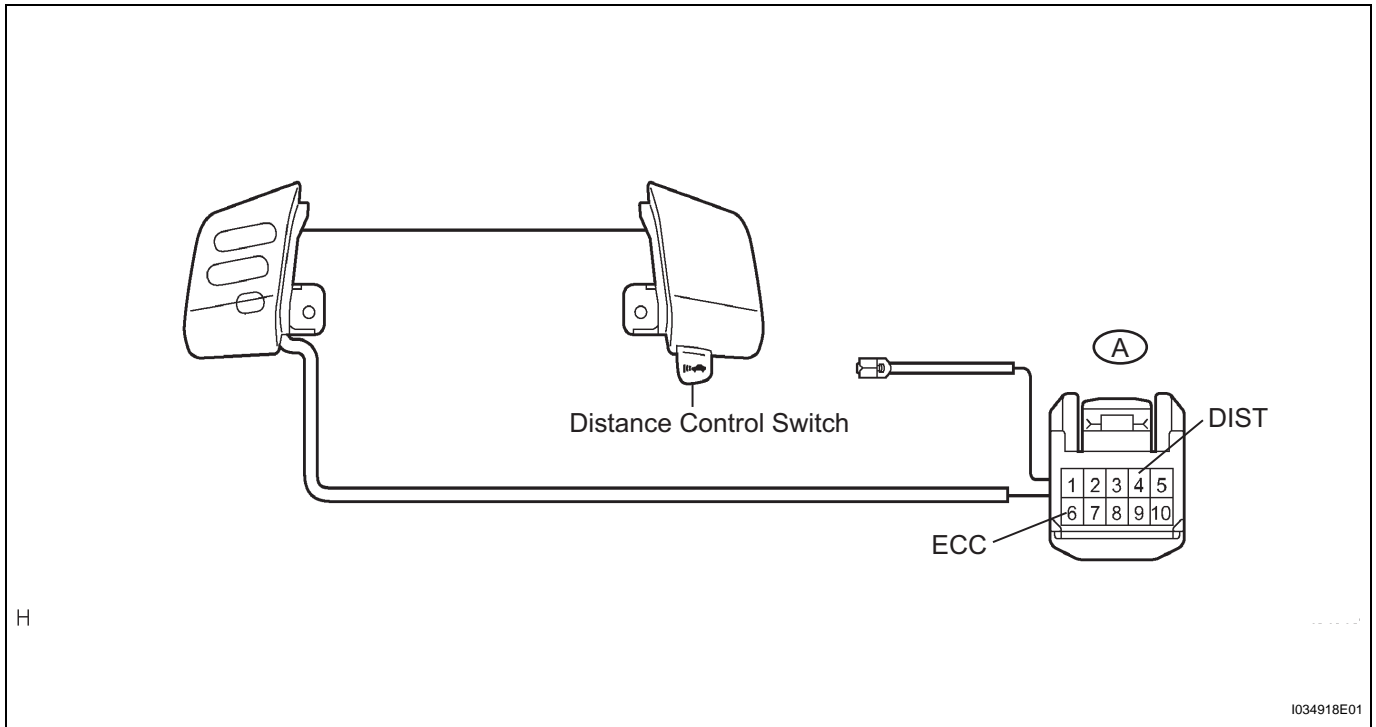
WIRING DIAGRAM



1

INSPECT STEERING PAD SWITCH ASSEMBLY

(a) Remove the steering pad switch assembly.



- (b) Measure the resistance between terminal 4 (DIST) and (ECC) of steering pad switch assembly connector when distance control switch is operated.

Standard resistance

Switch position	Specified value
Distance control switch is ON	Below 1 Ω
Distance control switch is OFF	10 k Ω or higher

HINT:

When a malfunction is detected in the distance control switch, replace the steering pad switch assembly.

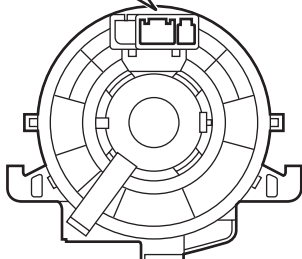
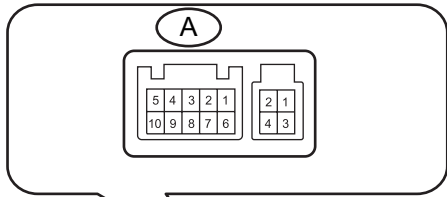
NG

REPLACE STEERING PAD SWITCH ASSEMBLY

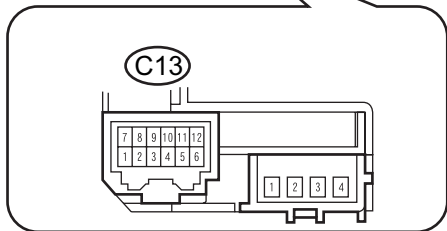
OK

2 INSPECT SPIRAL CABLE

Steering Pad Switch Side:



Vehicle Side:



H

E106780E08

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

Standard resistance

Tester Connection	Condition	Specified Condition
A-4 - C13-11	Always	Below 1 Ω
A-6 - C13-2	Always	Below 1 Ω

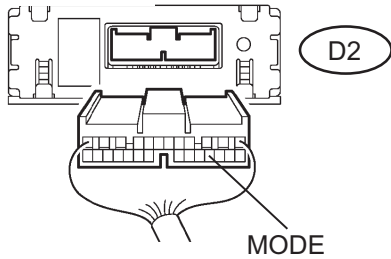
NG → **REPLACE SPIRAL CABLE**

CC

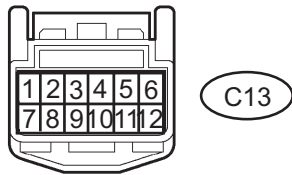
OK

3 CHECK WIRE HARNESS (DISTANCE CONTROL ECU - SPIRAL CABLE)

Distance Control ECU Connector
Wire Harness View:



Spiral Cable Connector
Wire Harness View:



E109734E04

- (a) Disconnect the distance control ECU connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
C13-11 - D2-16 (MODE)	Always	Below 1 Ω
D2-16 (MODE) - Body ground	Always	10 kΩ or higher

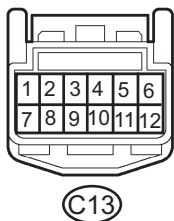
NG REPAIR OR REPLACE HARNESS OR CONNECTOR

CC

OK

4 CHECK WIRE HARNESS (SPIRAL CABLE - BODY GROUND)

Vehicle Side Connector Front View:



N

E107092E06

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

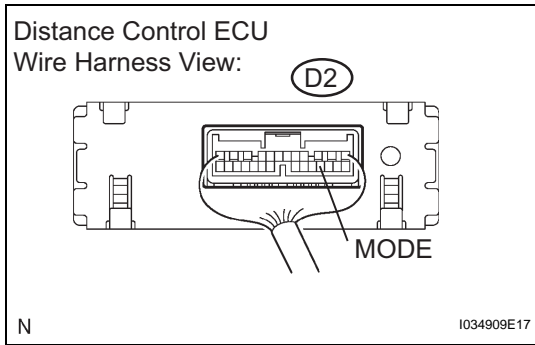
Standard resistance

Tester Connection	Condition	Specified Condition
C13-2 - Body ground	Always	Below 1 Ω

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

5 INSPECT DISTANCE CONTROL ECU



- (a) Remove the distance control ECU (cruise control ECU) with the connector.
- (b) Turn the ignition switch on.
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
D2-16 (MODE) - Body ground	Distance control switch ON	0 to 2 V
D2-16 (MODE) - Body ground	Distance control switch OFF	9 to 16 V

NG → **REPLACE DISTANCE CONTROL ECU**

OK

CC

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE