DTC	P0571	STOP LIGHT SWITCH CIRCUIT MALFUNCTION

CIRCUIT DESCRIPTION

When the brake pedal is depressed, the stop lamp switch sends a signal to the ECM. When the ECM receives this signal, it cancels the cruise control.

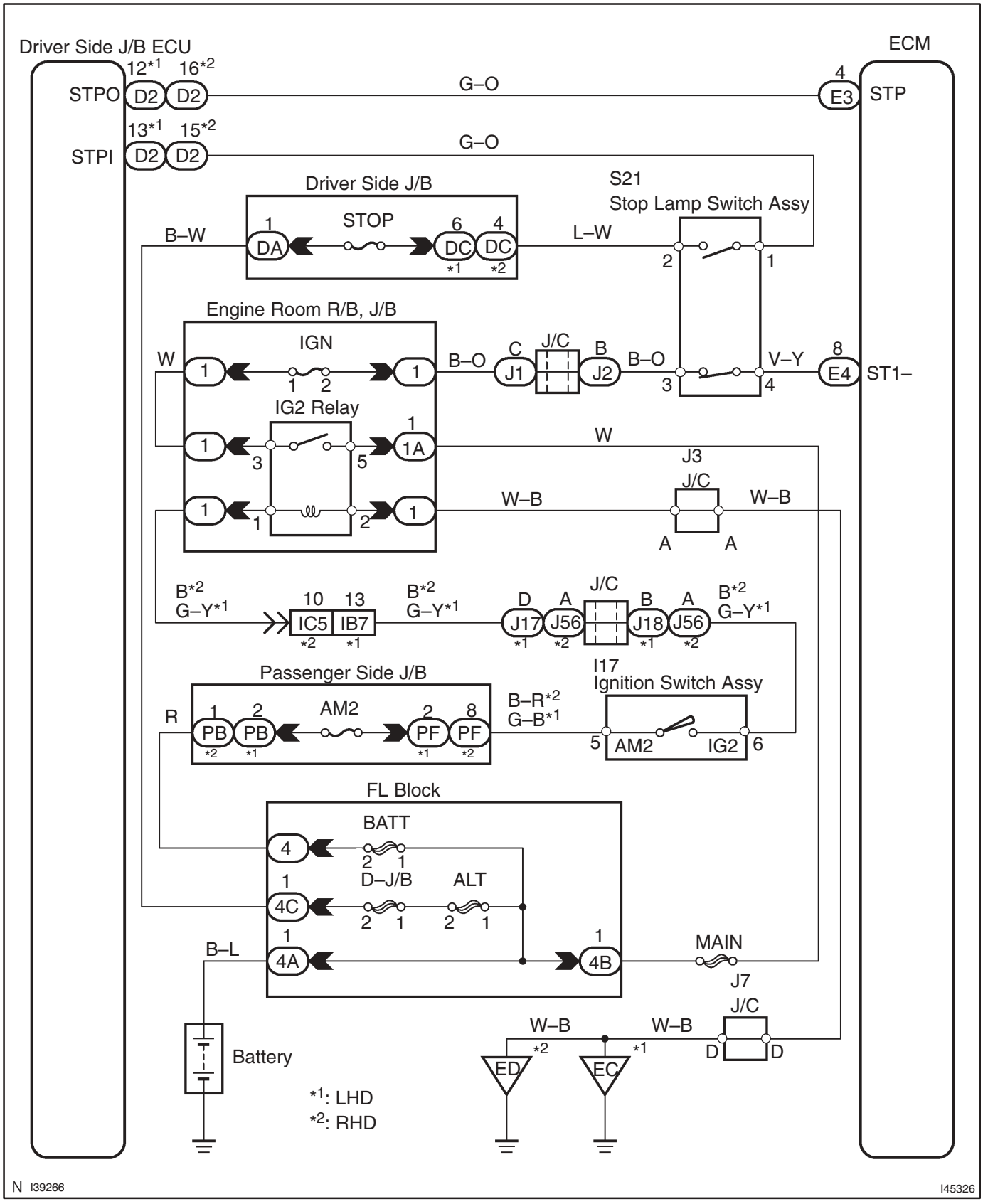
The fail–safe function operates to enable normal driving even if there is a malfunction in the stop lamp signal circuit.

The cancel condition occurs when positive (+) battery voltage is applied to terminal STP.

When the brake is applied, positive (+) battery voltage is applied to terminal STP of the ECM through the STOP fuse and the stop lamp switch, and the ECM turns off the cruise control.

DTC No.	DTC Detection Condition	Trouble Area
P0500	Voltage of STP terminal and that of ST1– terminal on ECM are less than 1 V for 0.5 sec. or more	• Stop lamp switch assy • Stop lamp switch circuit • Drive side J/B ECU • ECM

WIRING DIAGRAM



N I39266

I45326

INSPECTION PROCEDURE

1 READ DATA LIST (STOP LAMP SWITCH)

(a) Check Data List for proper functioning of the stop lamp switch.
ECM (cruise control ECU):

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
Stp Light SW M–CPU	Stop lamp switch signal (Main CPU)/ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–
Stp Light SW S1–CPU	Stop lamp switch signal (Sub CPU)/ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–
Stp Light SW S2–CPU	Stop lamp switch signal (Sub CPU)/ON or OFF	ON: Brake pedal depressed OFF: Brake pedal released	–

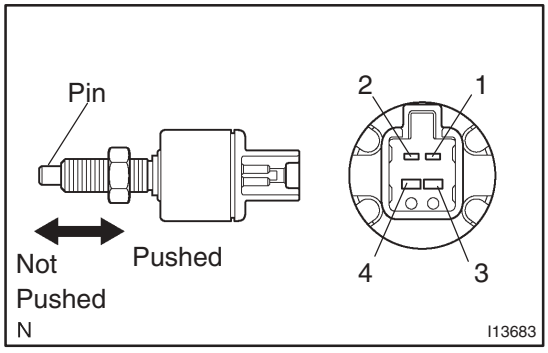
OK: Actual operation is same condition as shown above.

NG → **Go to step 2**

OK

REPLACE ECM (See Pub. No. RM1049E, page 10–21)

2 INSPECT STOP LAMP SWITCH ASSY



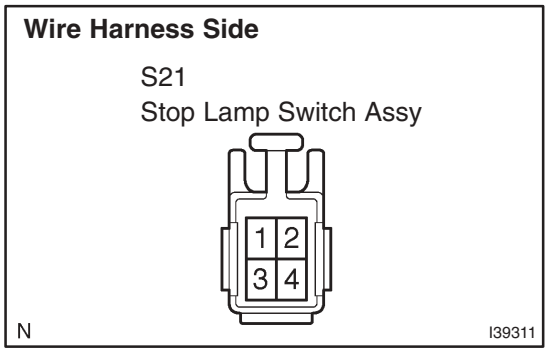
(a) Remove the switch.
(b) Measure the resistance of the switch.
Standard:

Tester Connection	Switch Condition	Specified Condition
1 – 2	Pin not pushed	Below Ω
3 – 4	Pin not pushed	10 kΩ or higher
1 – 2	Pin pushed	10 kΩ or higher
3 – 4	Pin pushed	Below Ω

NG → **REPLACE STOP LAMP SWITCH ASSY**

OK

3 CHECK WIRE HARNESS (STOP LAMP SWITCH ASSY – BATTERY)



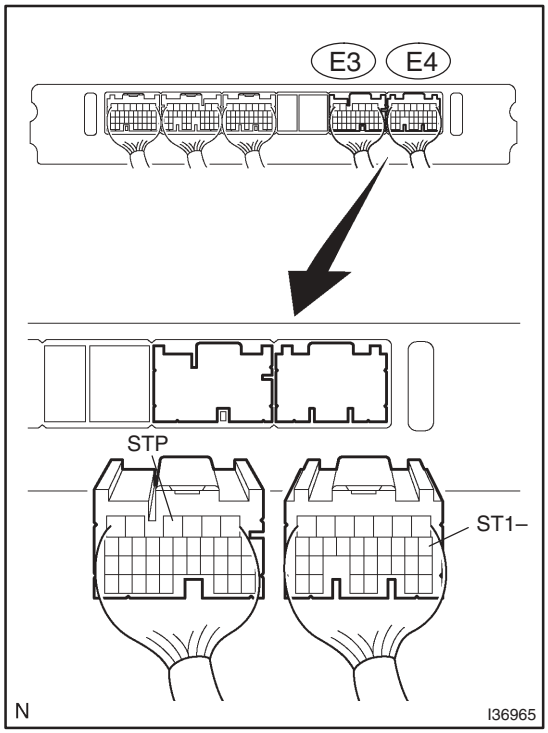
(a) Disconnect the S21 switch connector.
(b) Measure the voltage of the wire harness side connector.
Standard:

Tester Connection	Switch Condition	Specified Condition
S21–2 – Body ground	Always	10 to 14 V
S21–3 – Body ground	Ignition switch ON	10 to 14 V

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

OK

4 CHECK ECM



(a) Disconnect the E3 and E4 ECM connectors.
(b) Measure the voltage of the wire harness side connectors.

Standard:

Tester Connection	Pedal Condition	Specified Condition
E3–4 (STP) – Body ground	Depressed	10 to 14 V
E3–4 (STP) – Body ground	Released	Below 1 V
E4–8 (ST1–) – Body ground	Depressed	Below 1 V
E4–8 (ST1–) – Body ground	Released	10 to 14 V

Result:

Result	Proceed to
OK	A
STP terminal is NG	B
ST1– terminals is NG	C

B → **Go to step 5**

C → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

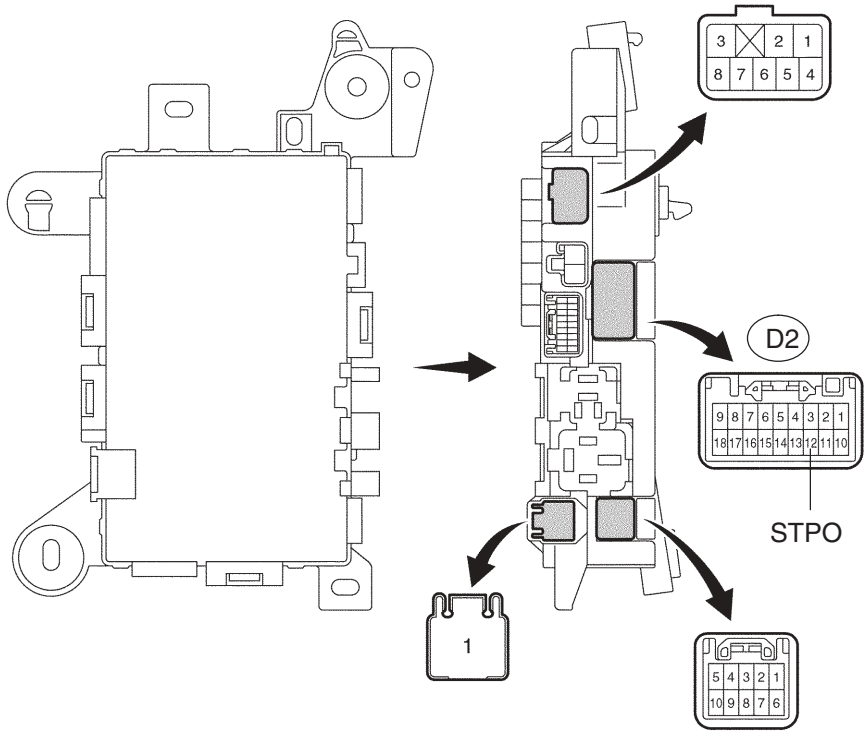
A

REPLACE ECM (See Pub. No. RM1049E, page 10–21)

5	CHECK DRIVER SIDE J/B (DRIVER SIDE J/B ECU – BODY GROUND)

(a) Remove the driver side J/B ECU, but do not disconnect the connector.
(b) Measure the voltage of the connector.

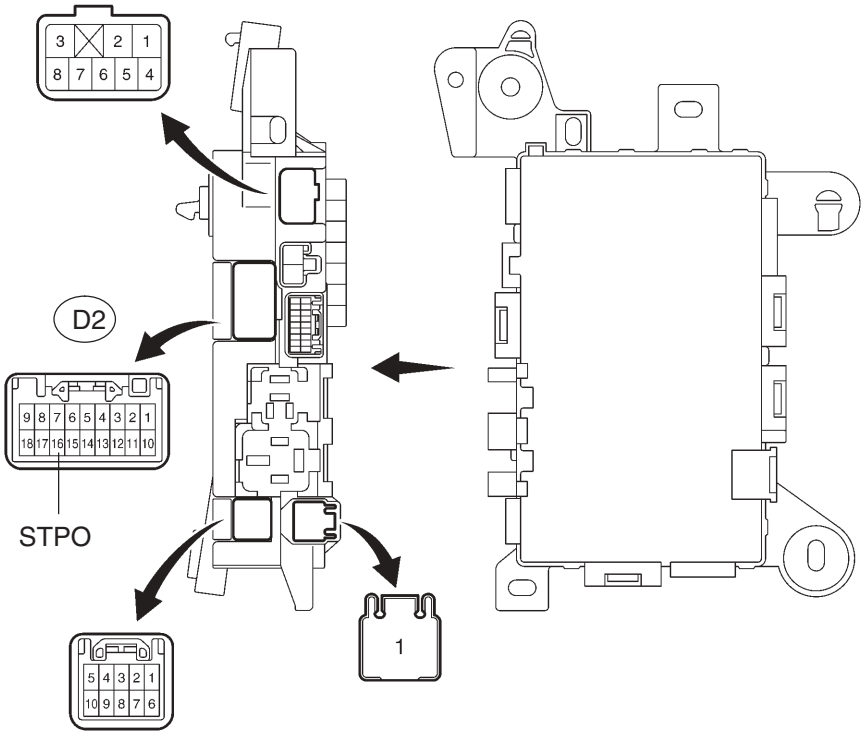
LHD



Standard:
LHD models

Tester Connection	Brake Pedal Condition	Specified Condition
D2–12 (STPO) – Body ground	Depressed	10 to 14 V
D2–12 (STPO) – Body ground	Released	Below 1 V

RHD



Standard:
RHD models

Tester Connection	Brake Pedal Condition	Specified Condition
D2–16 (STPO) – Body ground	Depressed	10 to 14 V
D2–16 (STPO) – Body ground	Released	Below 1 V

NG → **Go to step 6**

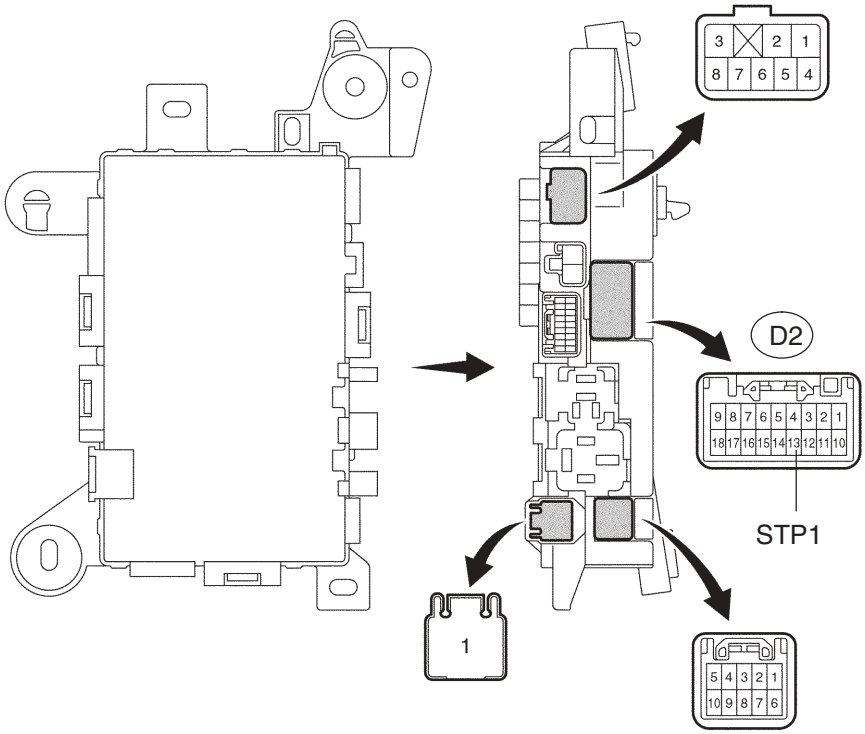
OK

REPAIR OR REPLACE HARNESS AND CONNECTOR (DRIVER SIDE J/B ECU – ECM)

6	CHECK DRIVER SIDE J/B (DRIVER SIDE J/B ECU – BODY GROUND)

(a) Remove the driver side J/B ECU, but do not disconnect the connector.
(b) Measure the voltage of the connector.

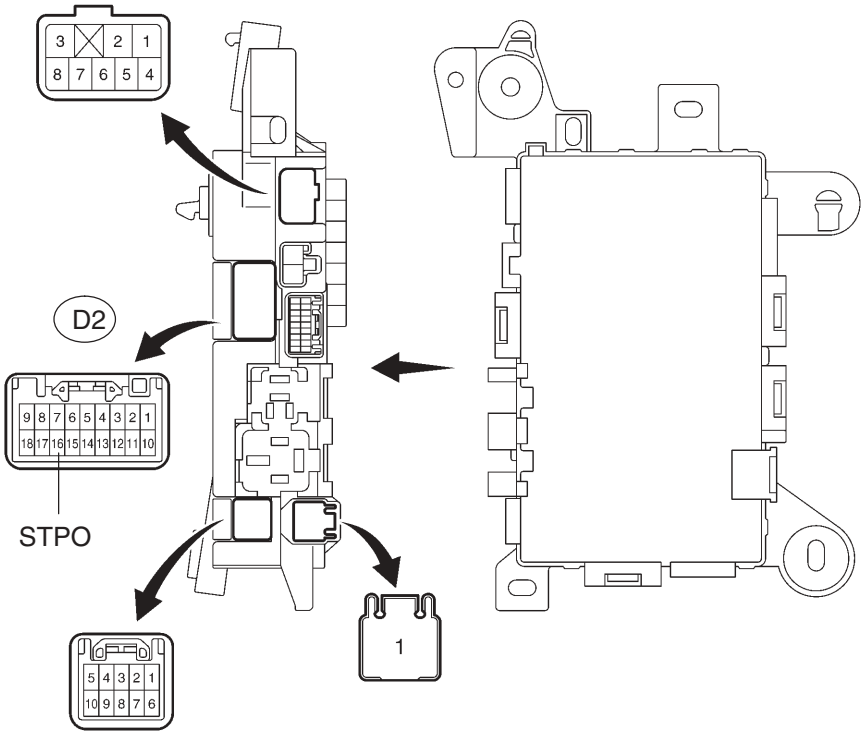
LHD



Standard:
LHD models

Tester Connection	Brake Pedal Condition	Specified Condition
D2–13 (STP1) – Body ground	Depressed	10 to 14 V
D2–13 (STP1) – Body ground	Released	Below 1 V

RHD



Standard:
RHD models

Tester Connection	Brake Pedal Condition	Specified Condition
D2–15 (STP1) – Body ground	Depressed	10 to 14 V
D2–15 (STP1) – Body ground	Released	Below 1 V

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (STOP LAMP SWITCH – DRIVER SIDE J/B ECU)**

OK

REPLACE DRIVER SIDE J/B