| DTC | P0571 | STOP LIGHT SWITCH CIRCUIT MALFUNCTION |
|---|---|---|

## CIRCUIT DESCRIPTION

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

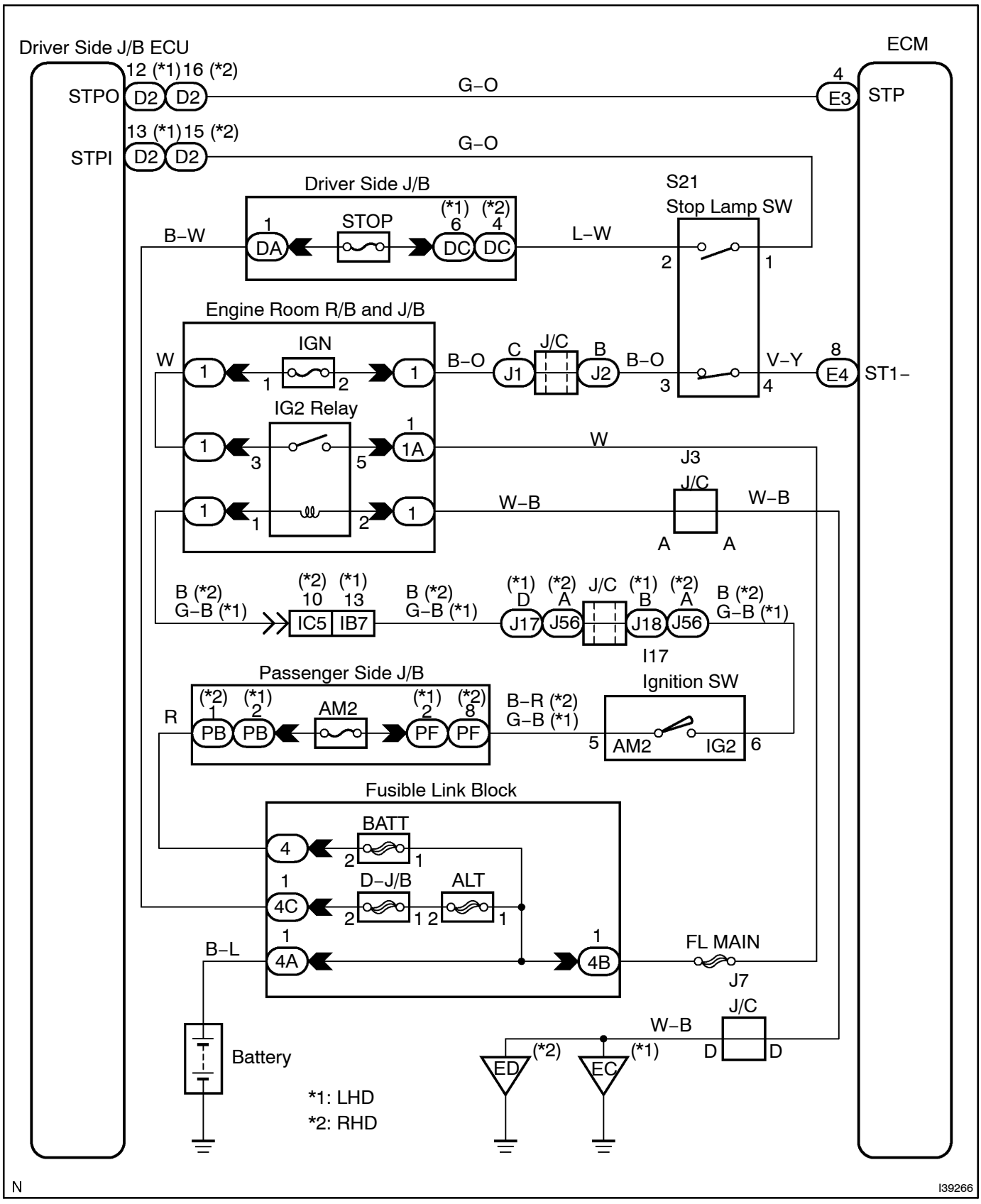
Fail–safe function operates to enable normal driving even if there is a malfunction in the stop lamp signal circuit.

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| P0571 | The malfunction code is output when the voltage of the STP terminal and that of the ST1– terminal on the ECM are less than 1 V for 0.5 sec. or more. | • Stop lamp switch assy<br>• Stop lamp switch assy circuit<br>• Driver side J/B ECU<br>• ECM |

# 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, and turn the intelligent tester II main switch on.
(c) Select the item "Stp Light SW M–CPU", "Stp Light SW S1–CPU" or "Stp Light SW S2–CPU" in the DATA LIST, and read its value displayed on the intelligent tester II.
(d) Check that the stop lamp comes on when the brake pedal is depressed, and goes off when the brake pedal is released.

**ECM:**

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

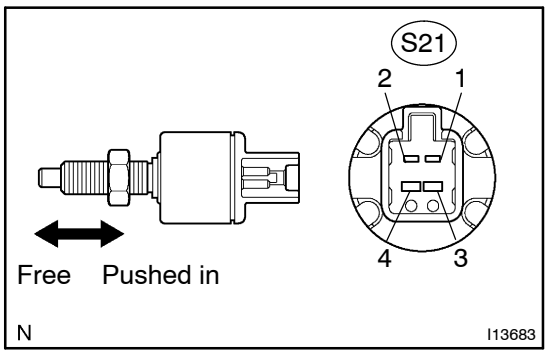
**OK: When brake pedal operation is performed the standard values will be above.**

**NG** → **Go to step 2**

**OK**

**REPLACE ECM (SEE PAGE 10–21)**

## 2 INSPECT STOP LAMP SWITCH ASSY




(a) Disconnect the stop lamp switch assy connector.
(b) Measure the resistance according to the value(s) in the table below.

**Standard:**

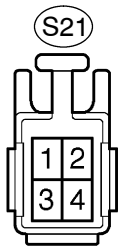
| Switch condition | Tester connection | Specified value |
|---|---|---|
| Switch pin free | 1 – 2 | Below 1 Ω |
| Switch pin free | 3 – 4 | 10 kΩ or higher |
| Switch pin pushed in | 1 – 2 | 10 kΩ or higher |
| Switch pin pushed in | 3 – 4 | Below 1 Ω |

**NG** → **REPLACE STOP LAMP SWITCH ASSY**

**OK**

## 3 CHECK HARNESS AND CONNECTOR (STOP LAMP SWITCH – BATTERY)

**Stop Lamp Switch Wire Harness Side Connector Front View:**




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

**Standard:**

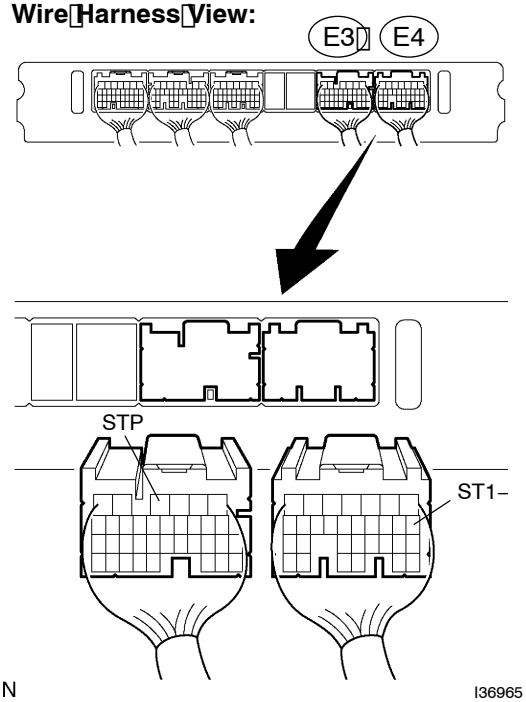
| Tester connection | Condition | Specified condition |
|---|---|---|
| S21–2 – Body ground | Always | 10 to 14 V |
| S21–3 – Body ground | Ignition SW ON | 10 to 14 V |

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

**OK**

## 4 INSPECT ECM

**Wire Harness View:**




(a) Reconnect the stop lamp switch connector.
(b) Disconnect the E3 and E4 connectors from the ECM.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage according to the value(s) in the table below.

**Standard:**

| Pedal condition | Tester connection | Specification |
|---|---|---|
| Depressed | E3–4 (STP) – Body ground | 10 to 14 V |
| Released | E3–4 (STP) – Body ground | Below 1 V |
| Depressed | E4–8 (ST1–) – Body ground | Below 1 V |
| Released | E4–8 (ST1–) – Body ground | 10 to 14 V |

**Result:**

| OK | A |
|---|---|
| NG (STP terminal is NG) | B |
| NG (ST1– terminals is NG) | C |

**B** → **Go to step 5**

**C** → **REPAIR OR REPLACE HARNESS OR CONNECTOR (STOP LAMP SWITCH – ECM)**

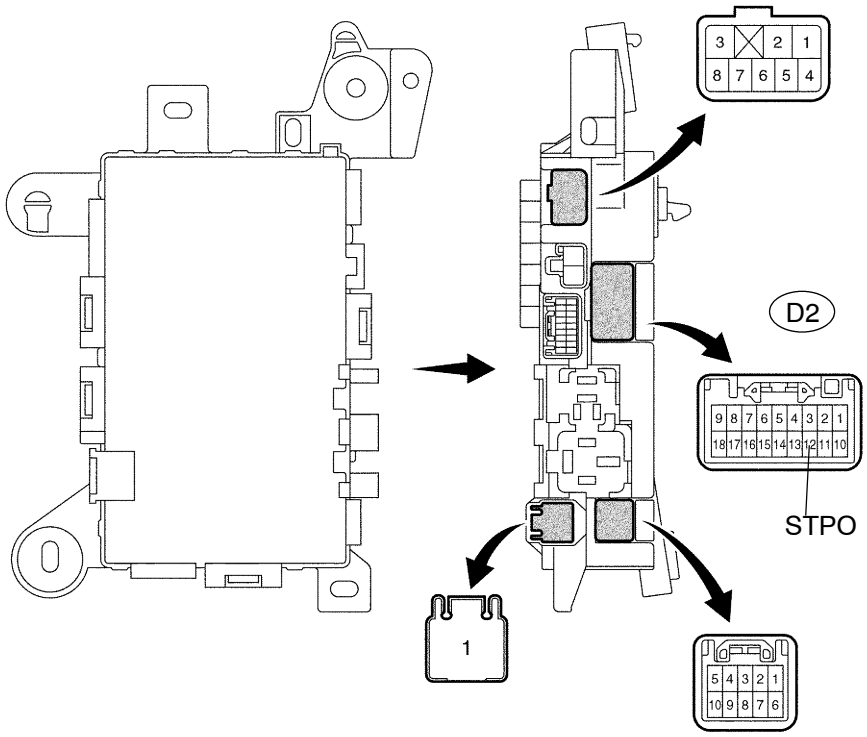
**A**

**REPLACE ECM (SEE PAGE 10–21)**

| 5 | INSPECT DRIVER SIDE J/B |
|---|---|

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

**LHD**
**Driver Side Junction Block (Driver Side J/B ECU) Connector Front View:**



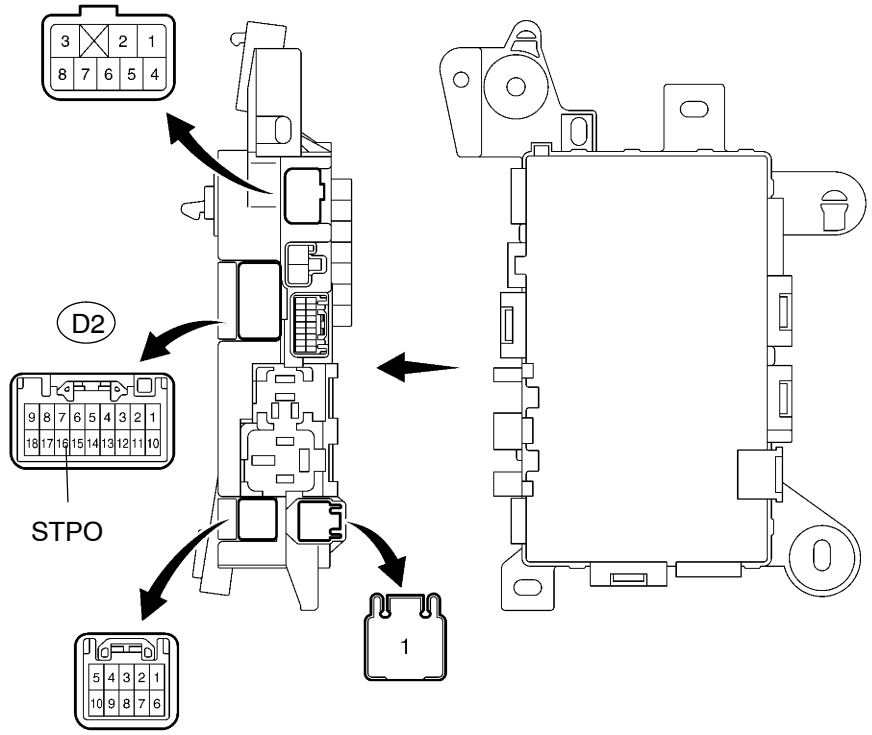

**Standard:**

| Pedal condition | Tester connection | Specification |
|---|---|---|
| Depressed | D2–12 (STPO) – Body ground | 10 to 14 V |
| Released | D2–12 (STPO) – Body ground | Below 1 V |

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

**RHD**

**Driver Side Junction Block (Driver Side J/B ECU) Connector Front View:**




**Standard:**

| Pedal condition | Tester connection | Specification |
|---|---|---|
| Depressed | D2–16 (STPO) – Body ground | 10 to 14 V |
| Released | D2–16 (STPO) – Body ground | Below 1 V |

**NG** → **Go to step 6**

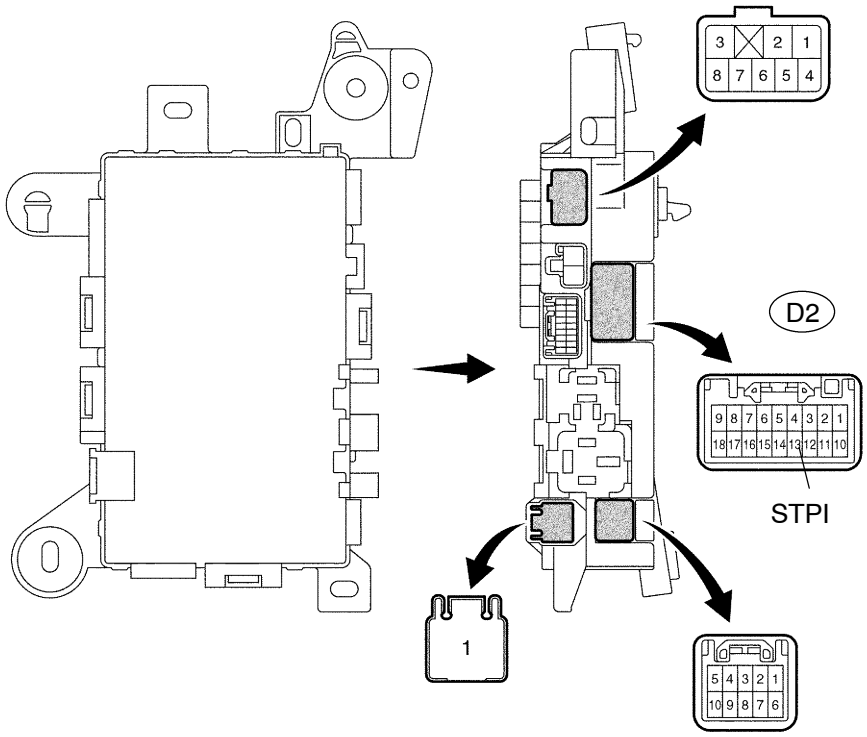
**OK**

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

| 6 | **INSPECT DRIVER SIDE J/B** |
|---|---|

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

**LHD**
**Driver Side Junction Block (Driver Side J/B ECU) Connector Front View:**



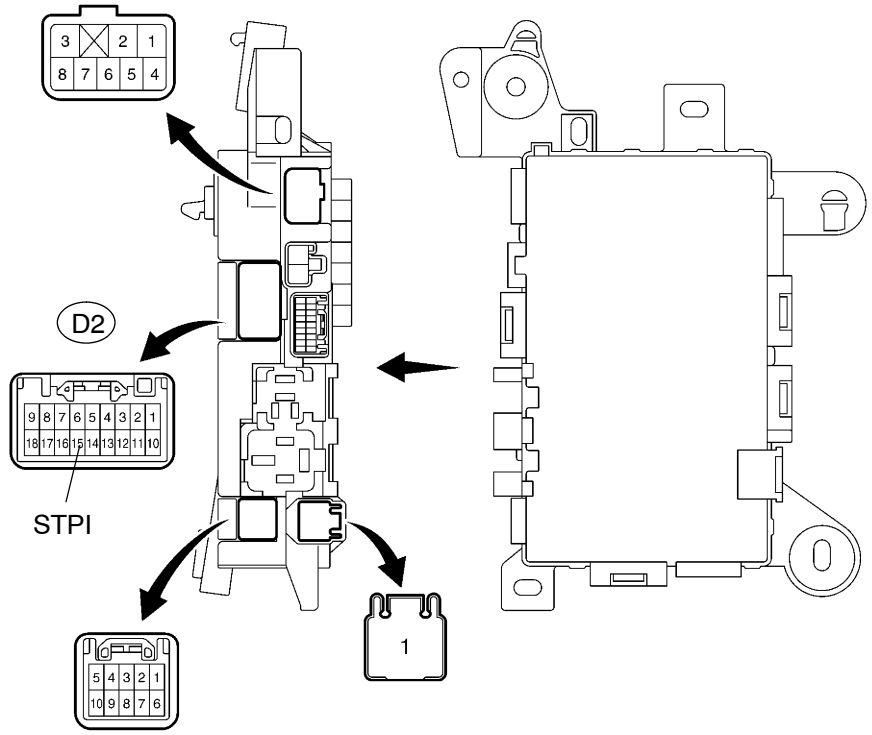

**Standard:**

| Pedal condition | Tester connection | Specification |
|---|---|---|
| Depressed | D2–13 (STPI) – Body ground | 10 to 14 V |
| Released | D2–13 (STPI) – Body ground | Below 1 V |

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

**RHD**

**Driver Side Junction Block (Driver Side J/B ECU) Connector Front View:**




**Standard:**

| Pedal condition | Tester connection | Specification |
|---|---|---|
| Depressed | D2–15 (STPI) – Body ground | 10 to 14 V |
| Released | D2–15 (STPI) – Body ground | Below 1 V |

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

**OK**

**REPLACE DRIVER SIDE J/B**