

DTC	P1520	Stop Light Switch Signal Malfunction
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CIRCUIT DESCRIPTION

The purpose of this circuit is to prevent the engine from stalling, while driving in lock-up condition, when brakes are suddenly applied.

When the brake pedal is operated, this switch sends a signal to ECM. Then the ECM cancels operation of the lock-up clutch while braking is in progress.

DTC No.	DTC Detecting Condition	Trouble Area
P1520	The stop light switch does not turn off even once the vehicle is driven (2-trip detection logic)	<ul style="list-style-type: none">• Short in stop light switch signal circuit• Stop light switch• ECM

Wiring Diagram: Stop Light System

Components and Connections:

- Battery:** Connected to the system via a main power line (B).
- Cowl Side J/B LH:** Contains terminals 1 (2G), STOP, 10 (2B). Connected to the Stop Light Switch.
- Stop Light Switch:** Controls the flow of current from the battery to the stop lights.
- J7 Junction Connector:** Connects the switch to the ECM and other components.
- ECM (Engine Control Module):** Contains the STP (Stop) signal, terminal 6 (E9).
- J37 Junction Connector:** Distributes power to the Stop Light LH and RH.
- J35 Junction Connector:** Distributes power to the Stop Light LH and RH.
- J39 Junction Connector:** Connects to the High Mounted Stop Light.
- J32 Junction Connector:** Connects to the High Mounted Stop Light.
- Fusible Link Block:** Protects the circuit from overcurrent. Contains J/B No.2 and ALT.
- Stop Light LH (Left Hand):** Terminal 4 (G-W), 2 (W-B).
- Stop Light RH (Right Hand):** Terminal 4 (G-W), 2 (W-B).
- High Mounted Stop Light:** Terminal 2 (W-B), 1 (W-B), 4 (W-B).

Wire Colors and Terminal Numbers:

- B:** Main power line from the battery.
- G-O:** Ground-Orange.
- G-W:** Ground-White.
- W-B:** White-Black.

INSPECTION PROCEDURE

1 Check operation of stop light.

CHECK:

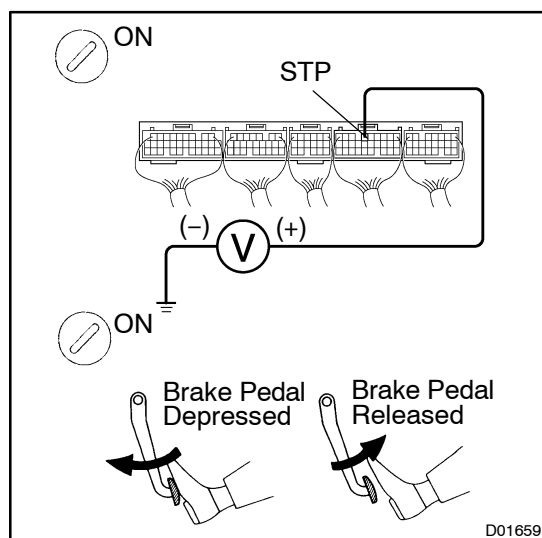
Check if the stop lights go on and off normally when the brake pedal is depressed and released.

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Check and repair stop light circuit.

OK

2 Check STP signal.



When using LEXUS hand-held tester:

PREPARATION:

- Remove the fuse cover on the instrument panel.
- Connect the LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON and LEXUS hand-held tester main switch ON.

CHECK:

Read the STP signal on the LEXUS hand-held tester.

OK:

Brake pedal is depressed: STP ON

Brake pedal is released: STP OFF

When not using LEXUS hand-held tester:

PREPARATION:

Turn the ignition switch ON.

CHECK:

Check voltage between terminal STP of ECM and body ground.

OK:

Brake pedal	Voltage
Depressed	7.5 ~ 14 V
Released	Below 1.5 V

OK

**Check for intermittent problems
(See page [DI-3](#)).**

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3	Check harness and connector between ECM and stop light switch (See page IN-33).
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NGRepair or replace harness or connector.OKCheck and replace ECM (See page [IN-33](#)).