DI0A4–08

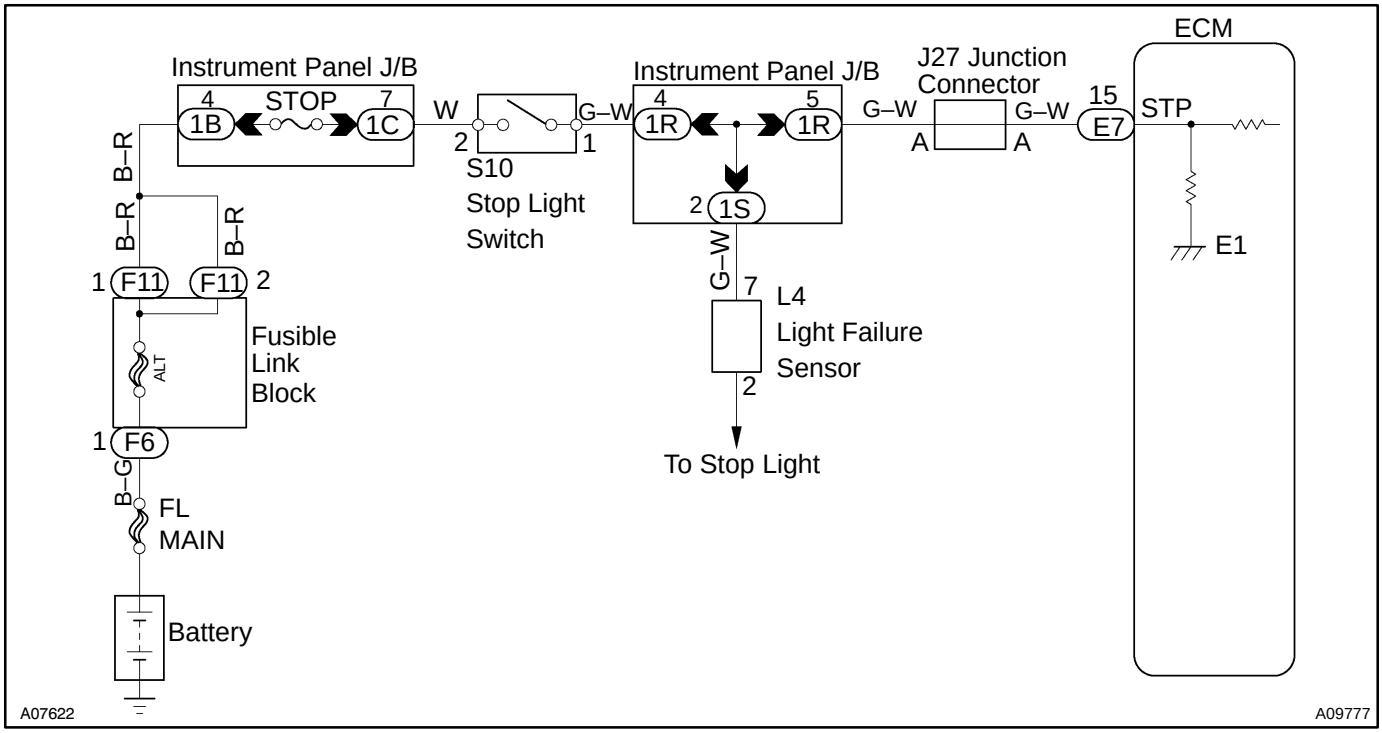
DTC	P1520	Stop Light Switch Signal Malfunction

CIRCUIT DESCRIPTION

This signal is used to detect that the brakes have been applied. The STP signal voltage is the same as the one supplied to the stop lights.
The STP signal is used mainly to control the fuel cut–off engine speed (The fuel cut–off engine speed is reduced slightly when the vehicle is braking.).

DTC No.	DTC Detecting Condition	Trouble Area
P1520	Stop light switch does not turn off when repeating driving at 30 km or more and 10 time or more after depressing brake (2 trip detection logic)	●Short in stop light switch signal circuit ●Stop light switch ●ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Read freeze frame data using LEXUS hand–held tester or OBD II scan tool, as freeze frame data records the engine conditions when the malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, the air–fuel ratio was lean or rich, etc. at the time of the malfunction.

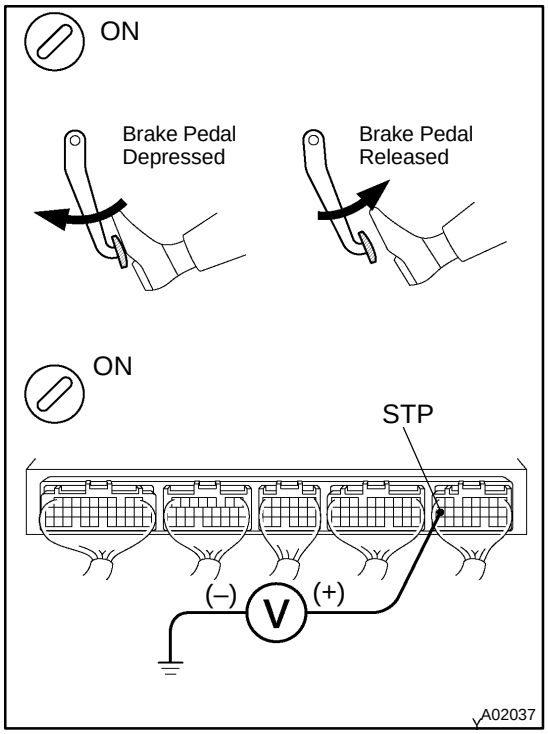
1	**Check operation of stop light.**

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

NG	**Check and repair stop light circuit.**

OK

2	**Check STP signal.**



When using LEXUS hand–held tester:

PREPARATION:

(a) Connect the LEXUS hand–held tester to the DLC3.

(b) Turn the ignition switch ON and push the LEXUS hand–held tester main switch ON.

CHECK:

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

OK:

Brake Pedal	STP Signal
Depressed	ON
Released	OFF

When not using LEXUS hand–held tester:

PREPARATION:

Turn the ignition switch ON.

CHECK:

Check the voltage between terminal STP of the ECM connector and the 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).**

NG

3	**Check harness and connector between ECM and stop light switch (See page IN–31).**

NG → **Repair or replace harness or connector.**

OK

Check and replace ECM (See page IN–31).