

DTC	P1520	Stop Light Switch Signal Malfunction (Only for A/T)
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CIRCUIT DESCRIPTION

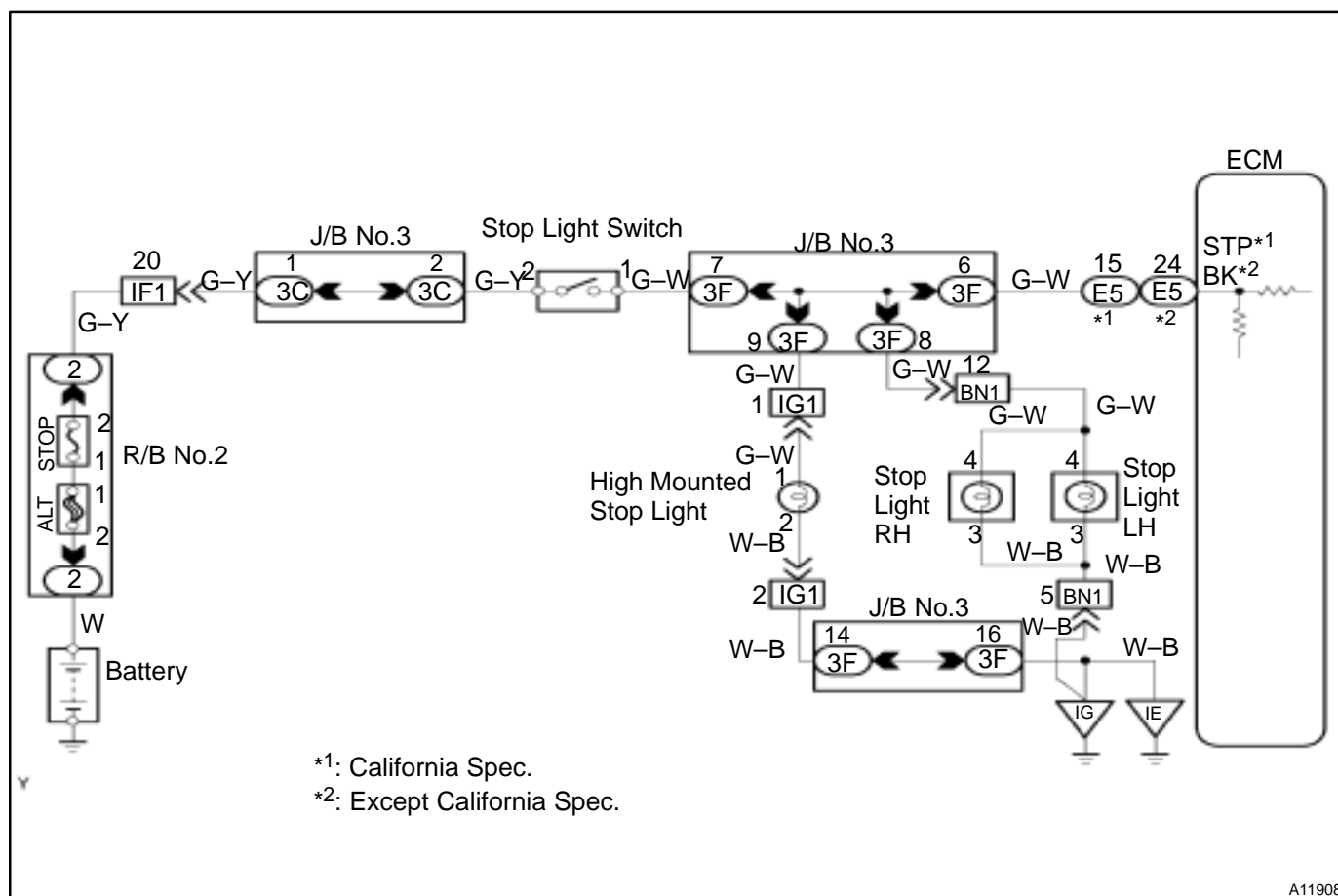
This signal is used to detect when the brakes have been applied. The STP (BK) signal voltage is the same as the voltage supplied to the stop lights. The STP (BK) signal is used mainly to control the fuel cut-off engine speed. (The fuel cut-off engine speed is reduced slightly when the vehicle is braking.)

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

HINT:

In this circuit, diagnosis can only be made in the check mode.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA hand-held tester or OBD II scan tool. Because freeze frame 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:

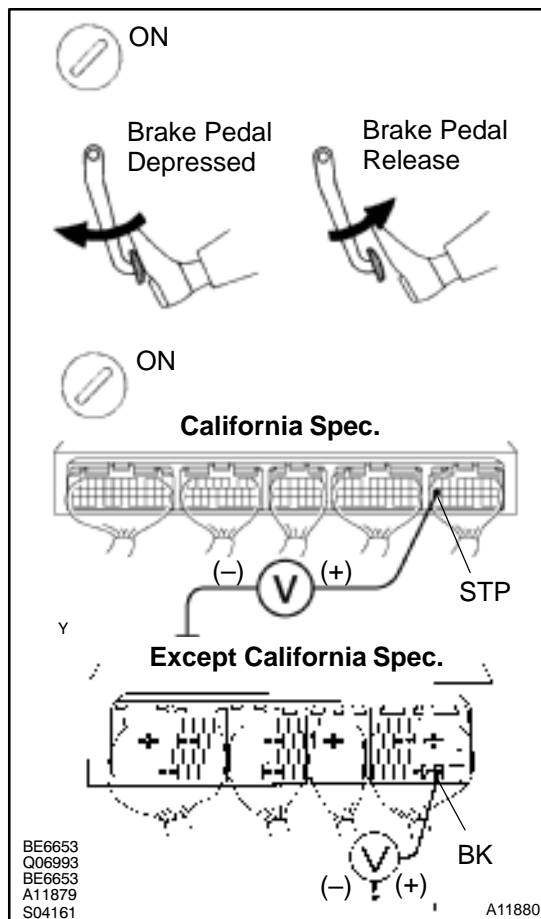
Check if stop lights go on and off normally when the brake pedal is operated and released.

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Check and repair the stop light circuit (See page [BE-29](#)).

OK

2 Check STP (BK).



When using TOYOTA hand-held tester:

PREPARATION:

- Connect the TOYOTA hand-held tester to the DLC3.
- Turn the ignition switch ON and push the TOYOTA hand-held tester main switch ON.

CHECK:

Read the BK signal on the TOYOTA hand-held tester.

OK:

Brake Pedal	STP Signal
Depressed	ON
Release	OFF

When not using TOYOTA hand-held tester:

PREPARATION:

- Remove the glove compartment (See page SF-56).
- Turn the ignition switch ON.

CHECK:

Check the voltage between terminal STP (California Spec.), BK (Except California Spec.) of the ECM connector and body ground.

OK:

Brake pedal	Voltage
Depressed	7.5 – 14 V
Release	Below 1.5 V

OK

Check for intermittent problems (See page [DI-182](#)).

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3	Check harness and connector between stop light switch and ECM (See page IN-28).
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Repair or replace harness or connector.

OK

Check and replace ECM (See page SF-56).