DI17G-04

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

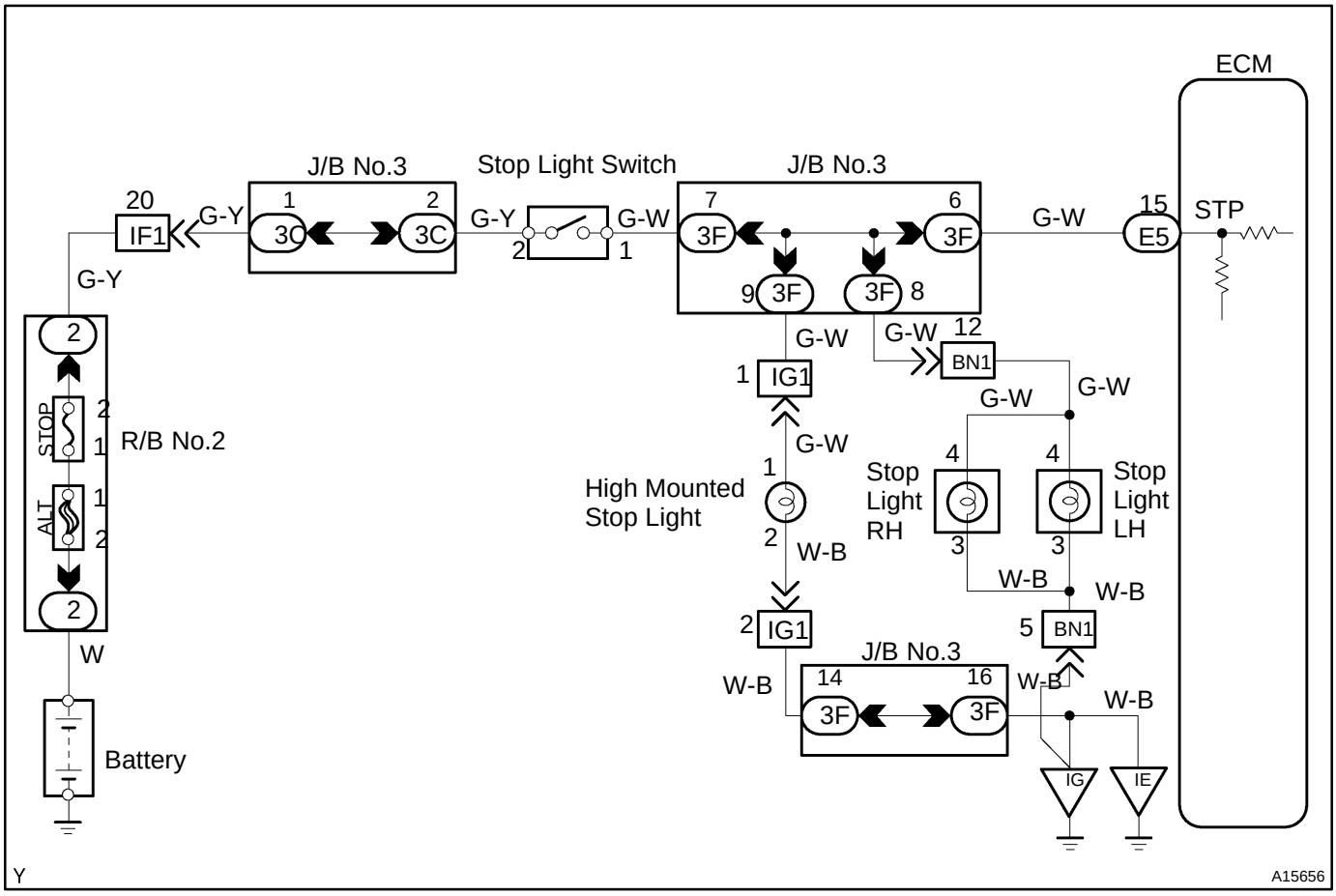
CIRCUIT DESCRIPTION

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

DTC No.	DTC Detection Condition	Trouble Area
P1520	Stop light switch does not turn off even once vehicle is driven (2 trip detection logic)	• 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, as freeze frame data records the engine conditions when a 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.**

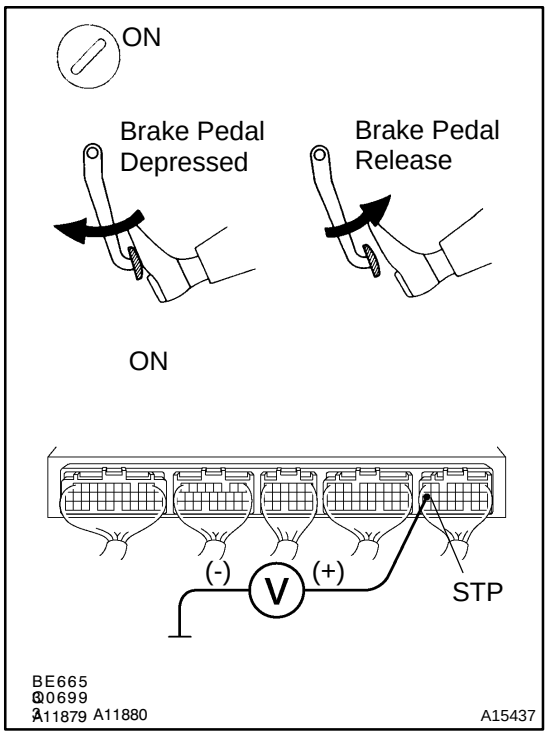
CHECK:

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

NG → **Check and repair the stop light circuit (See page BE-29).**

OK ↓

2	**Check STP signal.**



When using TOYOTA hand-held tester:

PREPARATION:

(a) Connect the TOYOTA hand-held tester to the DLC3.

(b) Turn the ignition switch ON and push the TOYOTA hand-held tester main switch ON.

CHECK:

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

OK:

Brake Pedal	STP Signal
Depressed	ON
Released	OFF

When not using TOYOTA hand-held tester:

PREPARATION:

(a) Remove the glove compartment (See page SF-54).

(b) 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-146).**

NG ↓

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

NG → Repair or replace harness or connector.

OK

Check and replace ECM (See page SF-54).