DTC	P0724	Brake Switch "B" Circuit High

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 depressed, this switch sends a signals to the ECM. Then the ECM cancels the operation of the lock-up clutch while braking is in progress.

DTC No.	DTC Detection Condition	Trouble Area
P0724	The stop light switch remains ON even when the vehicle is driven in a STOP (less than 3 km/h (2 mph) and GO (30 km/h (19 mph) or more) fashion 5 times. (2-trip detection logic).	• Short in stop light switch circuit • Stop light switch • ECM

MONITOR DESCRIPTION

This DTC indicates that the stop light switch remains on. When the stop light switch remains ON during "stop and go" driving, the ECM interprets this as a fault in the stop light switch and the MIL comes on and the ECM stores the DTC. The vehicle must stop (less than 3 km/h (2 mph)) and go (30 km/h (19 mph) or more) 5 times for two driving cycles in order to detect a malfunction.

MONITOR STRATEGY

Related DTCs	P0724: Stop light switch/Rationality
Required sensors/Components	Stop light switch, Vehicle speed sensor
Frequency of operation	Continuous
Duration	GO and STOP 5 times
MIL operation	2 driving cycles
Sequence of operation	None

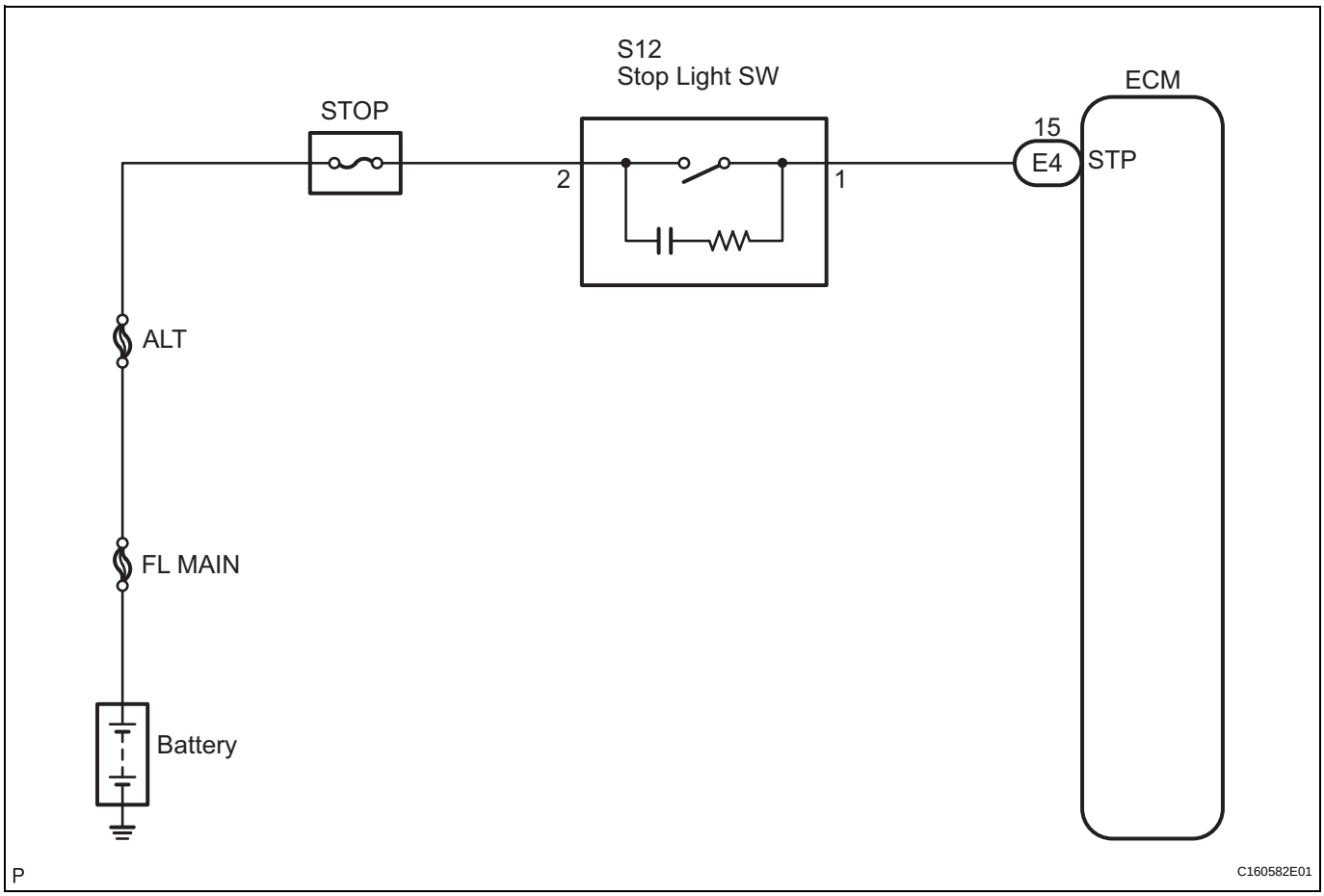
TYPICAL ENABLING CONDITIONS

The monitor will run whenever this DTC is not present.	None
Ignition switch	ON
Starter	OFF
Battery voltage	8 V or more
GO (Vehicle speed is 30 km/h (18.63 mph) or more)	Once
STOP (Vehicle speed is less than 3 km/h (1.86 mph))	Once

TYPICAL MALFUNCTION THRESHOLDS

Brake switch	Remain ON during GO and STOP 5 times

WIRING DIAGRAM



INSPECTION PROCEDURE

AX

1	READ VALUE OF DATA LIST

HINT:
Using the intelligent tester to read the DATA LIST allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the DATA LIST information early in troubleshooting is one way to save diagnostic time.

(a) Warm up the engine.
(b) Turn the ignition switch off.
(c) Connect the OBD II scan tool or intelligent tester together with the CAN VIM (controller area network vehicle interface module) to the DLC3.
(d) Turn the ignition switch to the ON position.
(e) Turn on the tester.
(f) Select the item "DIAGNOSIS / ENHANCED OBD II / DATA LIST".

(g) According to the display on the tester, read the "DATA LIST".

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
STOP LIGHT SW	Stop light switch Status/ ON or OFF	• Brake Pedal is depressed: ON • Brake Pedal is released: OFF	-

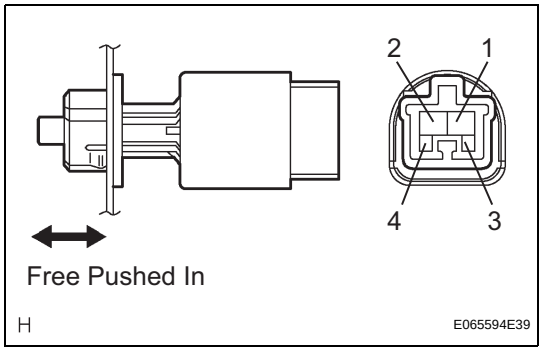
NOTICE:
In the table below, the value listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether apart is faulty or not.
Result

Result	Proceed to
NG	A
OK	B

B → **Go to step 3**

A

2 INSPECT STOP LIGHT SWITCH ASSEMBLY



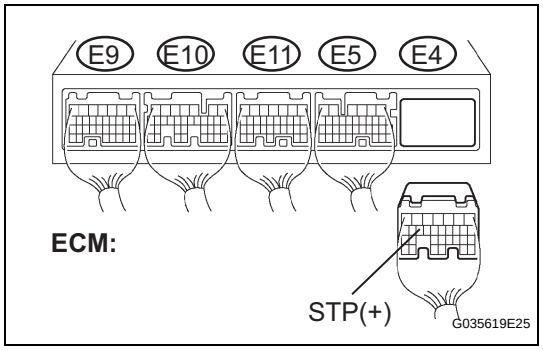
(a) Remove the stop light switch assembly.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

Switch position	Tester Connection	Specified Condition
Switch pin free	1 - 2	Below 1 Ω
Switch pin pushed in	↑	10 kΩ or higher
Switch pin free	3 - 4	10 kΩ or higher
Switch pin pushed in	↑	Below 1 Ω

NG → **REPLACE STOP LIGHT SWITCH ASSEMBLY**

OK

3 CHECK HARNESS AND CONNECTOR (STOP LIGHT SWITCH ASSEMBLY - ECM)



(a) Install the stop light switch assembly.
(b) Measure the voltage according to the value(s) in the table below when the brake pedal is depressed and released.
Standard voltage

Condition	Tester Connection	Specified Condition
Brake pedal is depressed	E4-15 (STP) - Body ground	11 to 14 V
Brake pedal is released		Below 1 V

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

AX

OK

REPLACE ECM