

<b>DTC</b>	<b>P0724</b>	<b>Brake Switch "B" Circuit High</b>
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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 depressed, this switch sends a signal 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).	<ul style="list-style-type: none"> <li>• Short in stop light switch signal circuit</li> <li>• Stop light switch</li> <li>• ECM</li> </ul>

## 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) ten times for two driving cycles in order to detect a malfunction.

## MONITOR STRATEGY

Related DTCs	P0724	Stop light switch/Range check/Rationality
Required sensors/Components	Main	Stop light switch
	Sub	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

Item	Specification	
	Minimum	Maximum
The monitor will run whenever this DTC is not present.	See page <a href="#">DI-1128</a>	
Battery voltage	8 V or more	–
Ignition switch	ON	
Starter	OFF	
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

Detection criteria	Threshold
Brake switch	Remain ON during GO and STOP 5 times

## WIRING DIAGRAM

See page [DI-706](#).

## INSPECTION PROCEDURE

1	Read value of DATA LIST (STP signal).
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### HINT:

According to the DATA LIST displayed by the OBD II scan tool or hand-held tester, you can read the value of the switch, sensor, actuator and so on without parts removal. Reading the DATA LIST as the first step of troubleshooting is one method to shorten labor time.

- Warm up the engine.
- Turn the ignition switch off.
- Connect the OBD II scan tool or hand-held tester to the DLC3.
- Turn the ignition switch to the ON position.
- Push the "ON" button of the OBD II scan tool or the hand-held tester.
- When you use the hand-held tester:  
Select the item "DIAGNOSIS / ENHANCED OBD II / DATA LIST".
- According to the display on the tester, read the "DATA LIST".

### Standard:

Item	Measurement Item/ Range (display)	Normal Condition
Stop Light Switch	Stop light SW Status/ ON or OFF	<ul style="list-style-type: none"> <li>• Brake Pedal is depressed: ON</li> <li>• Brake Pedal is released: OFF</li> </ul>

### NOTICE:

In the table above, the conditions listed under "Normal Condition" are reference conditions. Do not depend solely on these reference conditions when deciding whether a part is faulty or not.

### OK:

Brake Pedal Condition	Specified Condition
Depressed	ON
Released	OFF

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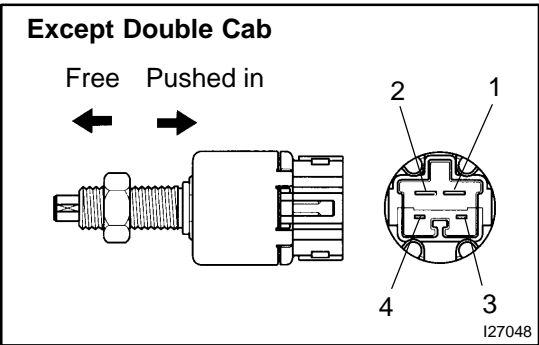
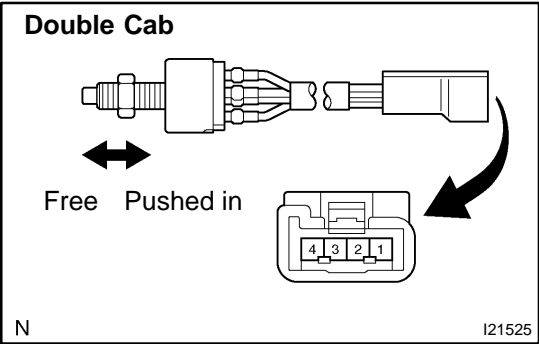
Go to step 2.

OK

Go to step 3.

2

Inspect stop light switch.



**PREPARATION:**

Remove the stop lamp switch assy.

**CHECK:**

Measure the resistance according to the value(s) in the table below.

**OK:**

**Double Cab:**

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

**Except Double Cpb:**

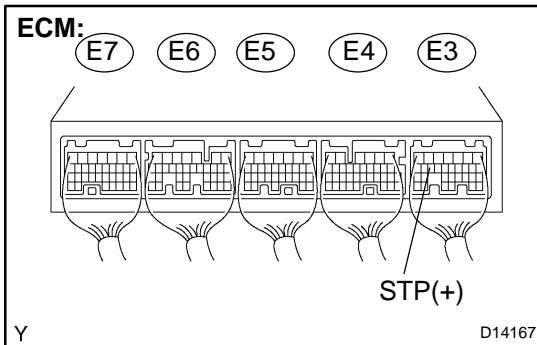
Switch position	Tester Connection	Specified Condition
Switch pin free	1 – 2	Below 1 Ω
Switch pin pushed in	↑	10 kΩ or higher
Switch pin free	3 – 4	10 kΩ or higher
Switch pin pushed in	↑	Below 1 Ω

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Replace stop light switch.

OK

**3 Check harness and connector (ECM – stop light switch).**



**PREPARATION:**

Install the stop lamp switch assy.

**CHECK:**

Measure the voltage according to the value(s) in the table below when the brake pedal is depressed and released.

**OK:**

Condition	Tester Connection	Specified Condition
Brake pedal is depressed	E3 – 15 (STP) – Body ground	10 to 14 V
Brake pedal is released	↑	Below 1 V

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**Repair or replace harness or connector  
(See page [IN-30](#)).**

**OK**

**Replace the ECM (See page [SF-82](#)).**