

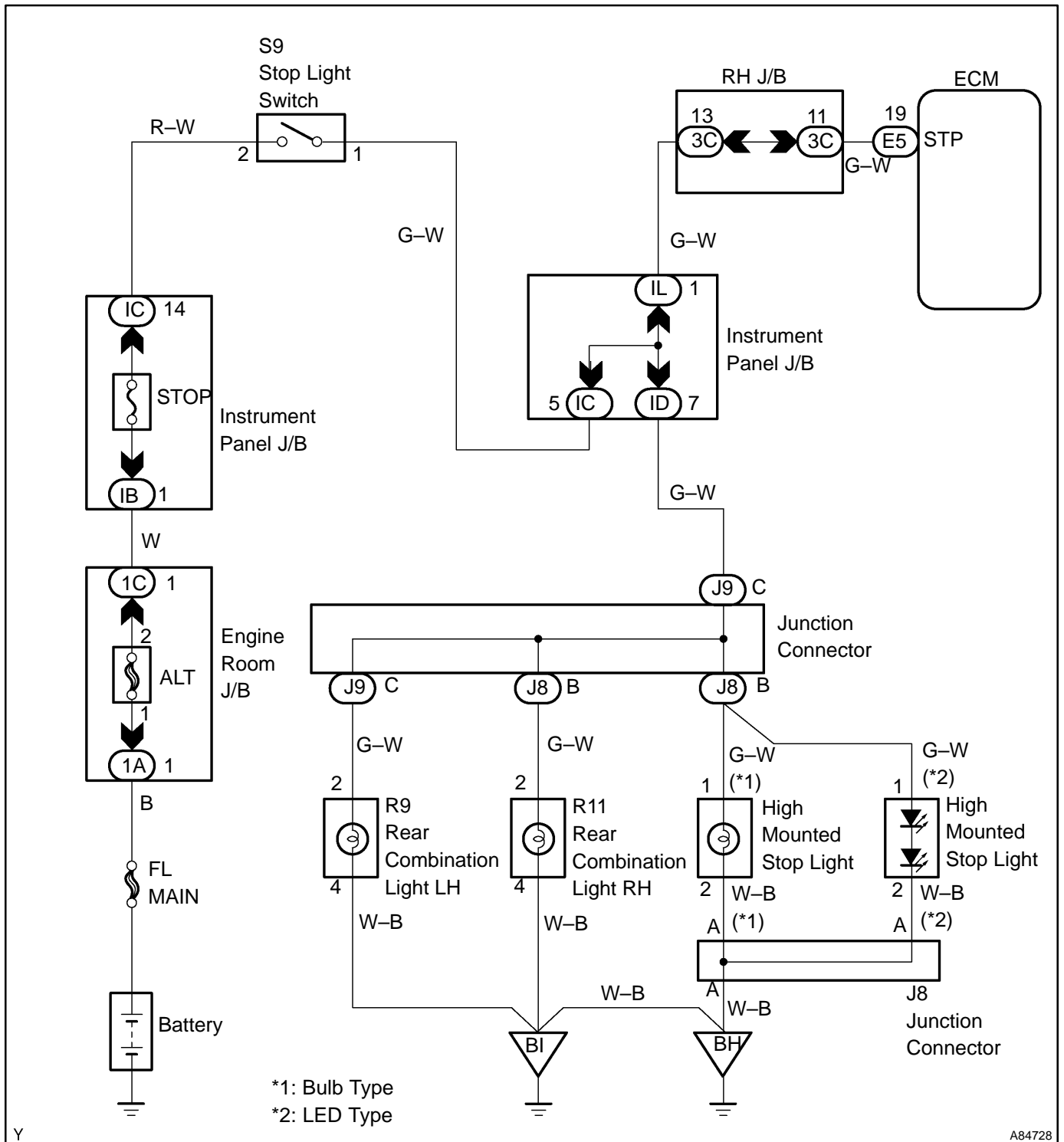
## STOP LIGHT SWITCH CIRCUIT

### 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.).

WIRING DIAGRAM



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A84728

## INSPECTION PROCEDURE

### Hand-held tester:

#### 1 CHECK OPERATION OF STOP LIGHT

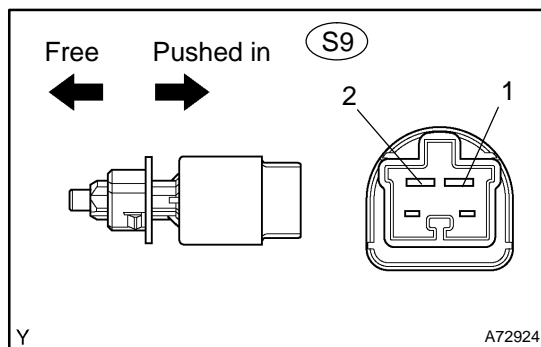
- (a) Check if the stop lights go on and off normally when the brake pedal is depressed and released.

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**REPAIR OR REPLACE STOP LIGHT SWITCH ASSY**

OK

#### 2 INSPECT STOP LIGHT SWITCH ASSY



- (a) Check the resistance between the terminals when the switch is turned ON and OFF.

**Standard:**

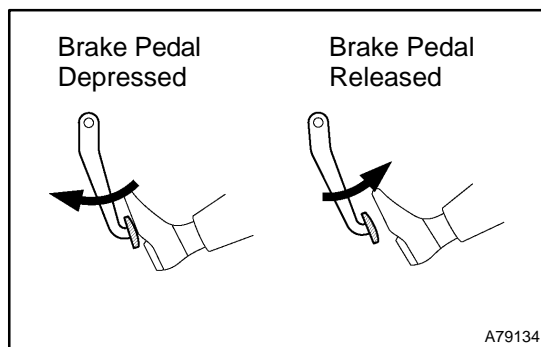
Switch Position	Tester Connection	Specified Condition
ON (free)	1 - 2	Below 1 $\Omega$
OFF (pushed in)		10 k $\Omega$ or higher

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**REPLACE STOP LIGHT SWITCH ASSY**

OK

#### 3 READ VALUE OF HAND-HELD TESTER(STP SIGNAL)



- (a) Turn the ignition switch ON.  
 (b) Select the item "DIAGNOSIS / ENHANCED OBD II / DATA LIST / ALL / STOP LIGHT SW" and read its value displayed on the hand-held tester.

**Standard:**

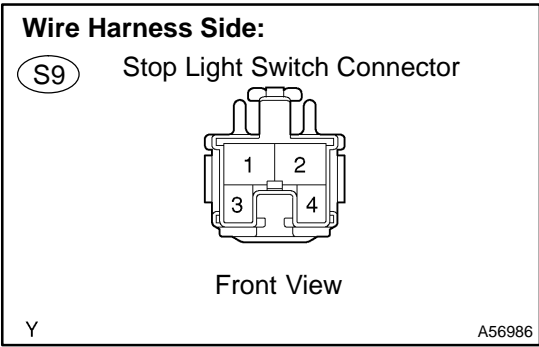
Brake Pedal	Specified Condition
Depressed	STP Signal ON
Released	STP Signal OFF

OK

**CHECK FOR INTERMITTENT PROBLEMS  
 (See page 05-41)**

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**4 CHECK HARNESS AND CONNECTOR(STOP LIGHT SWITCH - ECM)**



- (a) Disconnect the S9 stop light switch connector.
- (b) Disconnect the E5 ECM connector.
- (c) Check the resistance between the wire harness side connectors.

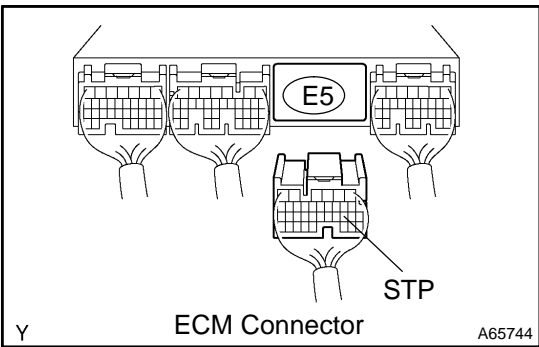
**Standard (Check for open):**

Tester Connection	Specified Condition
Stop light switch (S9-1) - STP (E5-19)	Below 1 Ω

**Standard (Check for short):**

Tester Connection	Specified Condition
Stop light switch (S9-1) or STP (E5-19) - Body ground	10 kΩ or higher

- (d) Reconnect the ECM connector.
- (e) Reconnect the stop light switch connector.



**NG REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

**REPLACE ECM (See page 10-11)**

**OBD II scan tool (excluding hand-held tester):**

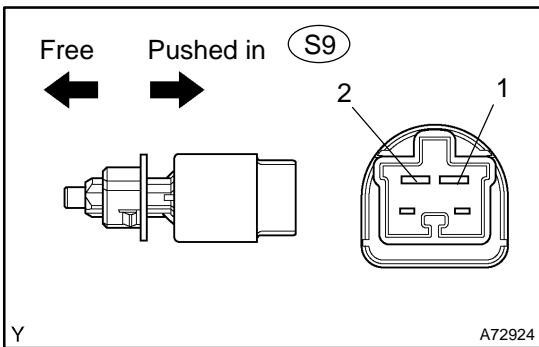
**1 CHECK OPERATION OF STOP LIGHT**

- (a) Check if the stop lights go on and off normally when the brake pedal is depressed and released.

**NG REPAIR OR REPLACE STOP LIGHT SWITCH CIRCUIT**

**OK**

**2 INSPECT STOP LIGHT SWITCH ASSY**



- (a) Check the resistance between terminals when the switch ON and OFF.

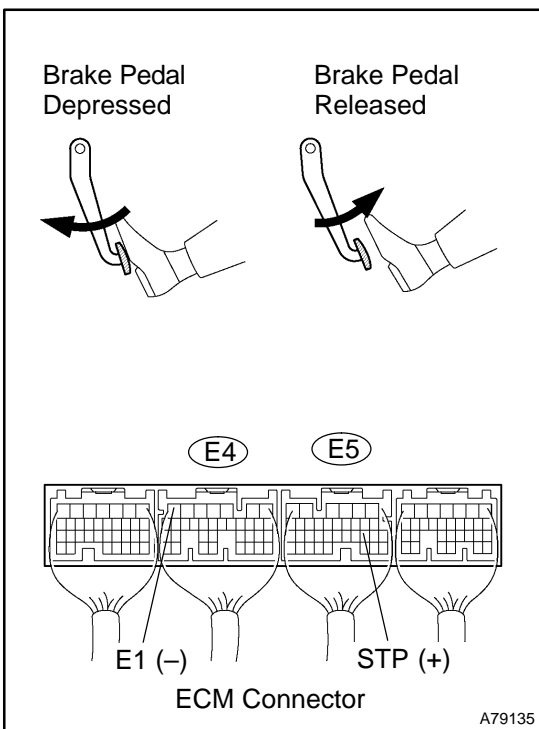
**Standard:**

Switch Position	Tester Connection	Specified Condition
ON (free)	1 - 2	Below 1 Ω
OFF (pushed in)		10 kΩ or higher

**NG** → REPLACE STOP LIGHT SWITCH ASSY

**OK**

**3 INSPECT ECM(STP VOLTAGE)**



- (a) Turn the ignition switch ON.  
 (b) Measure the voltage between the terminals of the E4 and E5 ECM connectors.

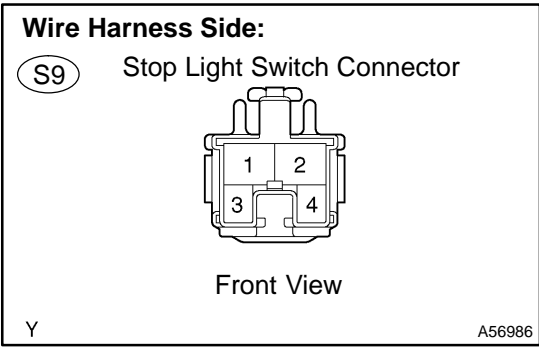
**Standard:**

Between Terminals	Brake Pedal position	Specified Condition
STP (E5-19) - E1 (E4-7)	Depressed	8 to 14 V
	Released	Below 1.5 V

**OK** → CHECK FOR INTERMITTENT PROBLEMS (See page 05-41)

**NG**

**4 CHECK HARNESS AND CONNECTOR(STOP LIGHT SWITCH - ECM)**



- (a) Disconnect the S9 stop light switch connector.
- (b) Disconnect the E5 ECM connector.
- (c) Check the resistance between the wire harness side connectors.

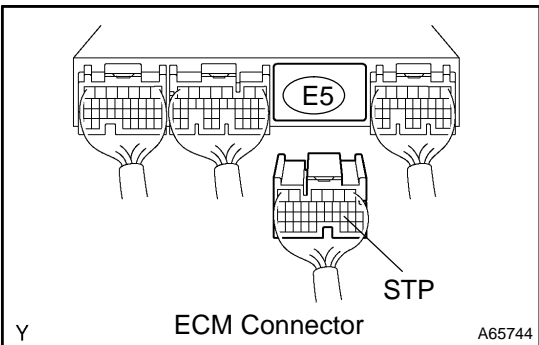
**Standard (Check for open):**

Between Terminals	Specified Condition
Stop light switch (S9-1) - STP (E5-19)	Below 1 Ω

**Standard (Check for short):**

Between Terminals	Specified Condition
Stop light switch (S9-1) or STP (E5-19) - Body ground	10 kΩ or higher

- (d) Reconnect the ECM connector.
- (e) Reconnect the stop light switch connector.



**NG REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

**REPLACE ECM (See page 10-11)**