

DTC	P1520/52	Stop light switch circuit
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CIRCUIT DESCRIPTION

When the brake pedal is depressed, the stop light switch sends a signal to the ECM. When the ECM receives this signal, it cancels the cruise control.

A fail-safe function is provided so that the cancel functions normally, even if there is a malfunction in the stop light signal circuit.

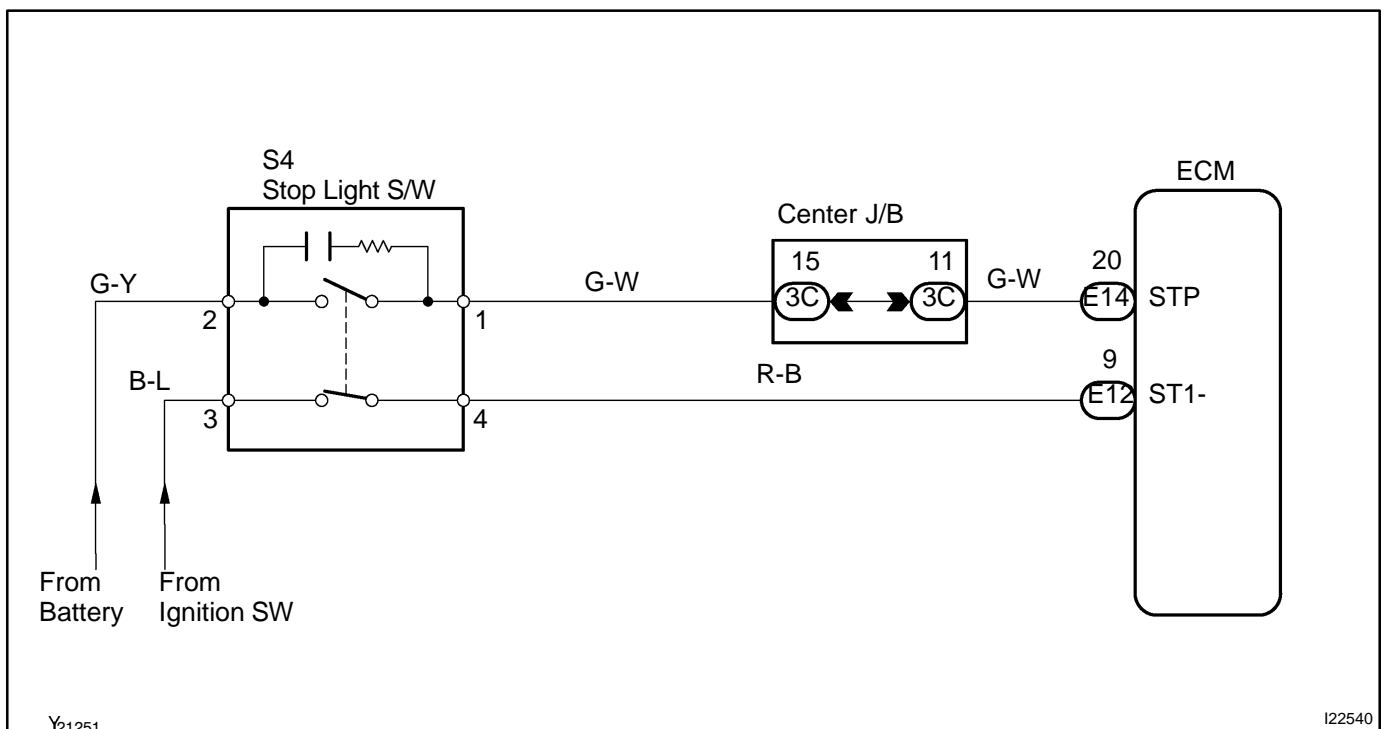
The cancel condition is that battery positive voltage is supplied to terminal STP.

When the brake is on, battery positive voltage is normally applied through the STOP fuse and stop light switch to terminal STP of the ECM, and the ECM turns the cruise control OFF.

If the harness connected to terminal STP has an open circuit, terminal STP will have battery positive voltage and the cruise control will be turned OFF.

DTC No.	DTC Detection Condition	Trouble Area
P1520/52	Stop light switch circuit	<ul style="list-style-type: none"> • Stop light switch • Harness or connector between ECM and stop light switch • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

In case of using the TOYOTA hand-held tester, start the inspection from step 1 and in case of not using the TOYOTA hand-held tester, start it from step 2.

1	Check stop light switch using TOYOTA hand-held tester.
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PREPARATION:

Connect the TOYOTA hand-held tester to the DLC3.

CHECK:

Check the stop light switch using DATA LIST.

OK:

Condition	STP LIGHT SW1-S (Sub CPU)	STP LIGHT SW2-S (Sub CPU)	STP LIGHT SW2-M (Main CPU)
Depressed	ON	ON	ON
Released	OFF	OFF	OFF

HINT:

- STP LIGHT SW1 has a function to disconnect the connection (OFF) when depressing the pedal, however, the ECM is control by the logic reverse, so with the TOYOTA hand-held tester, it displays ON.
- STP LIGHT SW1 indicates an input of the ST1- terminal and STP LIGHT SW2 indicates an input of the STP terminal.

OK

Proceed to next circuit inspection shown in problem symptoms table (See page [DI-479](#)).

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2	Check operation of stop light.
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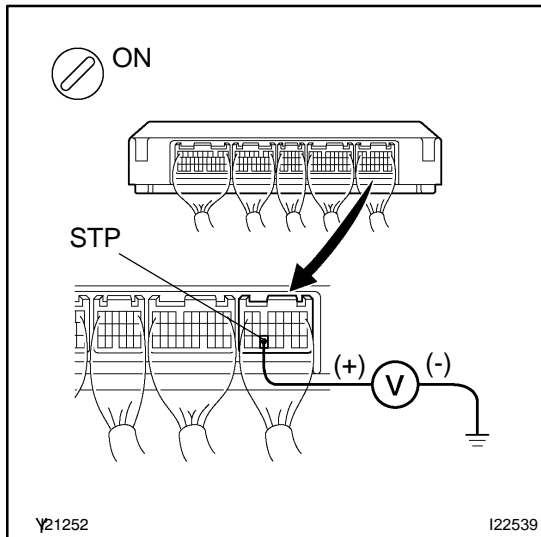
CHECK:

Check that the stop light comes on when the brake pedal is depressed, and goes off when the brake pedal is released.

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Check stop light system (See page [BE-32](#)).

OK

3 Check voltage between terminal STP of ECM connector and body ground.**PREPARATION:**

- (a) Remove the ECM with connectors being connected.
- (b) Turn the ignition switch ON.

CHECK:

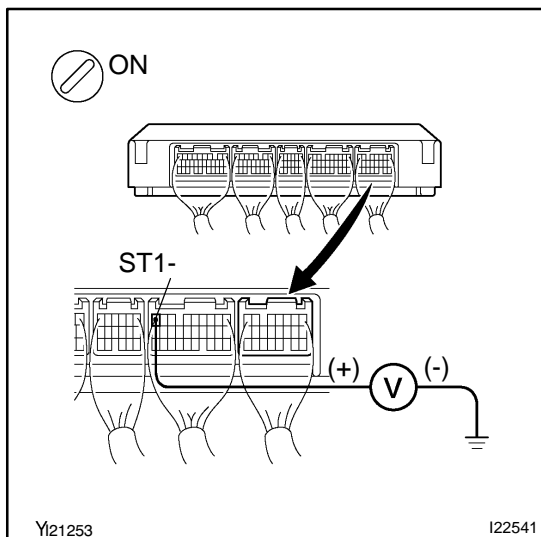
Measure the voltage between terminal STP of the ECM connector and the body ground when the brake pedal is depressed and released.

OK:

Brake Pedal	Voltage
Depressed	7.5 - 14 V
Released	0 - 1.5 V

OK

Proceed to next circuit inspection shown in problem symptoms table (See page [DI-479](#)).

NG**4 Check voltage between terminal ST1- of ECM connector and body ground.****PREPARATION:**

- (a) Remove the ECM with connectors being connected.
- (b) Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal ST1- of the ECM connector and the body ground when the brake pedal is depressed and released.

OK:

Brake Pedal	Voltage
Depressed	Below 1 V
Released	7.5 - 14 V

OK

Proceed to next circuit inspection shown in problem symptoms table (See page [DI-479](#)).

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5	Check harness and connector between terminal STP of ECM and stop light switch, and terminal ST1- of ECM and stop light switch (See page IN-28).
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Repair or replace harness or connector.

OKCheck and replace ECM (See page [IN-28](#)).