

DTC	P0500	Vehicle Speed Sensor Circuit Malfunction
DTC	P0503	Vehicle Speed Sensor Circuit Malfunction

DESCRIPTION1GR-FE: (See page [ES-238](#))2TR-FE: (See page [ES-243](#))

DTC No.	DTC Detection Conditions	Trouble Areas
P0500	This trouble code is output when the vehicle speed signal from the vehicle speed sensor is cut for 0.14 seconds or more while the cruise control is in operation.	• Combination meter assembly • Vehicle speed sensor • Vehicle speed sensor signal circuit • ECM
P0503	Momentary interruption and noise are detected when a rapid change of vehicle speed occurs while the cruise control is in operation.	• Combination meter assembly • Vehicle speed sensor • Vehicle speed sensor signal circuit • ECM

WIRING DIAGRAM1GR-FE: (See page [ES-238](#))2TR-FE: (See page [ES-243](#))1GR-FE: (See page [ES-238](#))2TR-FE: (See page [ES-243](#))

DTC**P0571****Stop Light Switch Circuit Malfunction****DESCRIPTION**

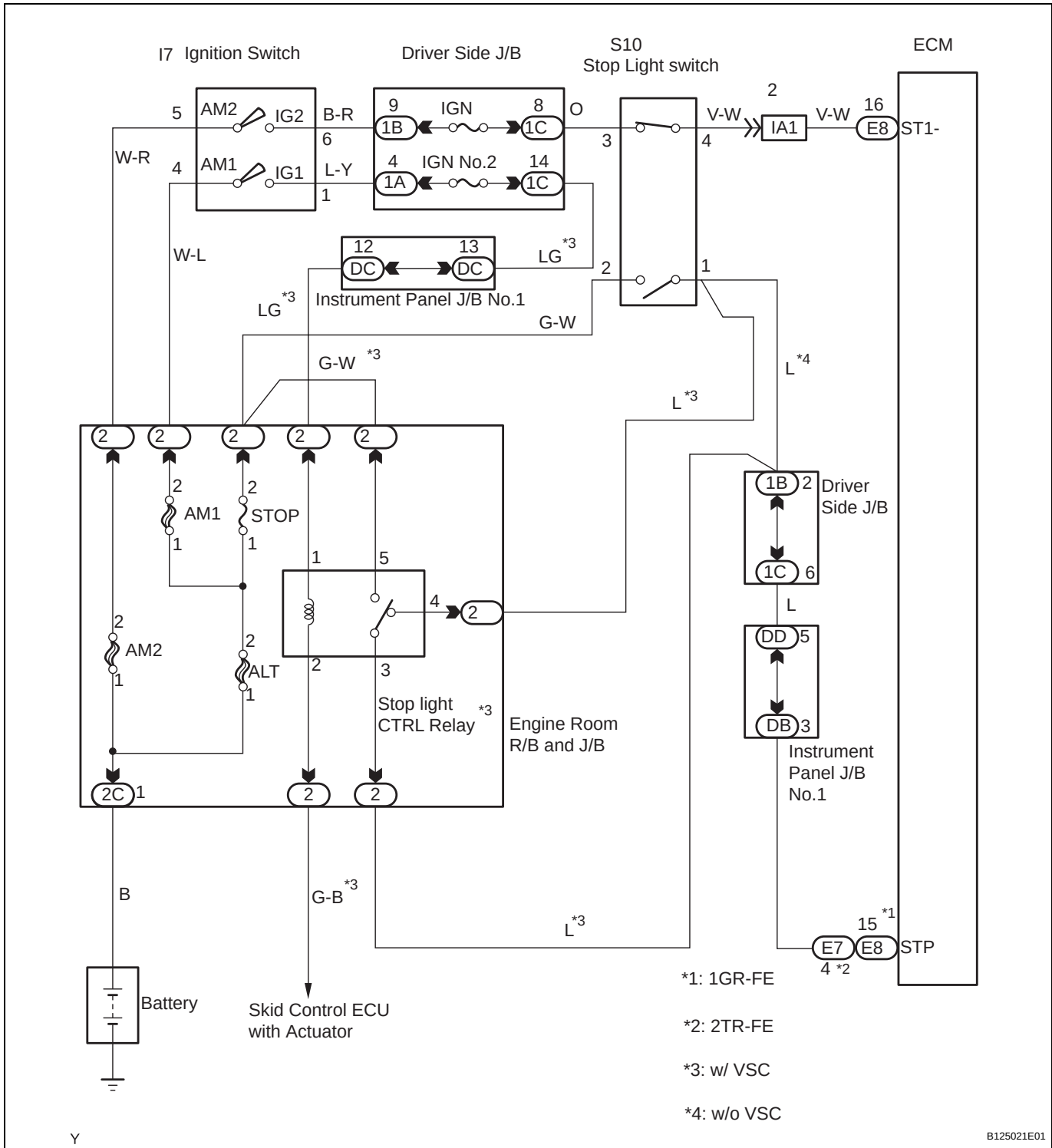
The cruise control system cancels cruising when the ECM detects that the brake pedal is depressed while cruise control driving. The stop light switch assembly sends signals to the ECM according to the brake pedal conditions. When the brake pedal is free, terminal ST1- is the positive (+) battery voltage, and terminal STP voltage is below 1 V. While depressing the brake pedal, terminal ST1- is below 1 V, and STP is positive (+) battery voltage. Under braking, the ECM cancels cruise control as one of the manual cancel functions.

The ECM outputs this trouble code when the voltage of terminals ST1- and STP are both below 1 V for 0.5 seconds or more at the same moment.

The fail-safe function operates to enable normal driving even if there is a malfunction in the stop light signal circuit.

DTC No.	DTC Detected Conditions	Trouble Areas
P0571	ECM detects a malfunction of the stop light switch circuit under both of the following conditions. - Voltage of terminal STP is below 1 V for 0.5 seconds or more. - Voltage of terminal ST1- is below 1 V for 0.5 seconds or more.	- Stop light switch assembly - Stop light switch assembly circuit - ECM

WIRING DIAGRAM



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1

INSPECT STOP LIGHT SWITCH OPERATION (FOR STOP LIGHT)

- (a) Check that the stop lights come on while the brake pedal is depressed, and go off when the brake pedal is released.

OK

Brake pedal condition	Stop light condition
Depressed	ON
Released	OFF

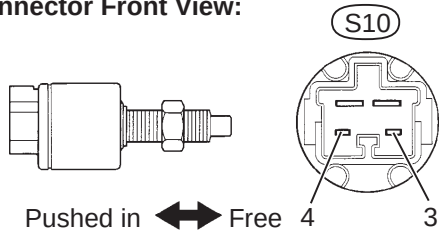
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INSPECT STOP LIGHT SWITCH CIRCUIT

OK

2 INSPECT STOP LIGHT SWITCH OPERATION (FOR BACK-UP SIGNAL)

Stop Light Switch
Connector Front View:



I038520E03

- Turn the ignition switch off.
- Disconnect the stop light switch assembly connector.
- Measure the resistance according to the value(s) in the table below.

Standard Resistance

Tester connection	Switch condition	Stop light condition
S10-3 - S10-4	Switch pin free (Brake pedal depressed)	10 kΩ or higher
S10-3 - S10-4	Switch pin pushed in (Brake pedal released)	Below 1Ω

- Reconnect the stop light switch assembly connector.

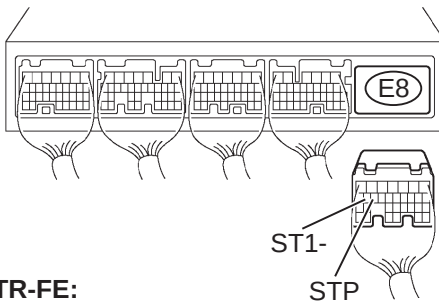
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REPLACE STOP LIGHT SWITCH ASSEMBLY

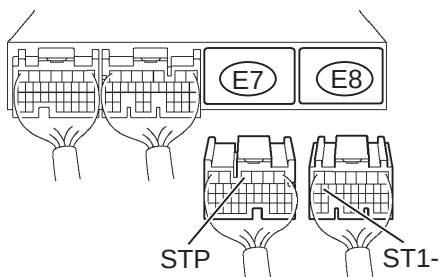
OK

3 INSPECT ECM (STP SIGNAL)

1GR-FE:



2TR-FE:



I101320E01

- Reconnect the stop light switch assembly connector.
- 1GR-FE: Disconnect the E8 ECM connector.
- 2TR-FE: Disconnect the E7 and E8 ECM connectors.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Standard Voltage(1GR-FE)

Tester connection	Brake pedal condition	Specification
STP (E8-15) - Body ground	Depressed	10 to 14 V
STP (E8-15) - Body ground	Released	Below 1V

Standard Voltage(2TR-FE)

Tester connection	Brake pedal condition	Specification
STP (E7-4) - Body ground	Depressed	10 to 14 V
STP (E7-4) - Body ground	Released	Below 1V

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

Standard Voltage(1GR-FE)

Tester connection	Brake pedal condition	Specification
ST1 (E8-16) - Body ground	Depressed	Below 1V
ST1 (E8-16) - Body ground	Released	10 to 14 V

Standard Voltage(2TR-FE)

Tester connection	Brake pedal condition	Specification
ST1 (E8-16) - Body ground	Depressed	Below 1V
STP (E8-16) - Body ground	Released	10 to 14 V

(g) Reconnect the ECM connector.

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**REPAIR OR REPLACE HARNESS OR
CONNECTOR (STOP LIGHT SWITCH
ASSEMBLY - ECM)**

OK

REPLACE ECM