DI9FZ–02

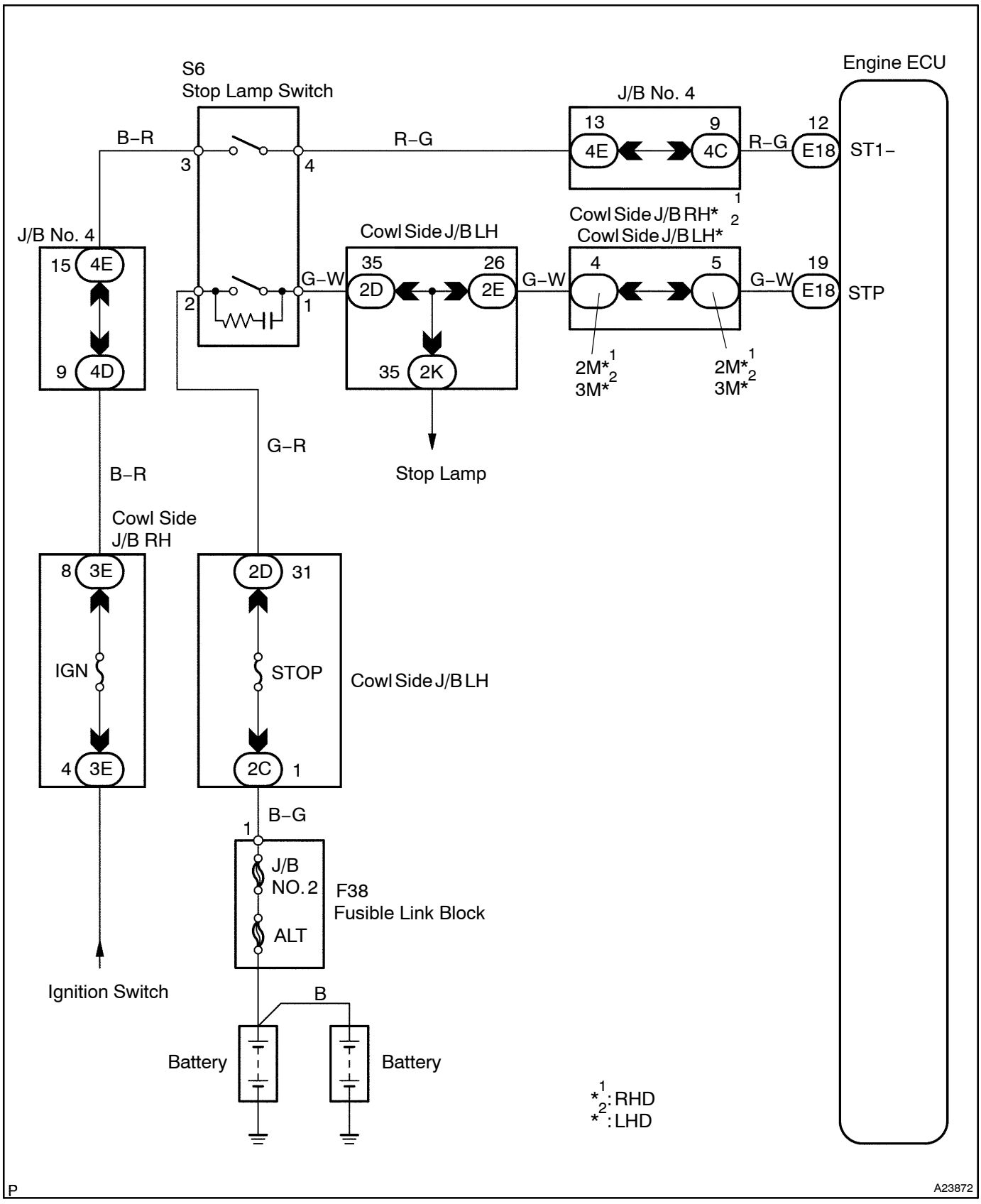
DTC	P 1520/52	Stop Light Switch Signal Malfunction

CIRCUIT DESCRIPTION

This signal is used to detect when the brakes have been applied. The STP signal voltage is the same as the voltage supplied to the stop lamps.
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).

DTC No.	DTC Detection Condition	Trouble Area
P1520/52	The STP signal does not turn off even once the vehicle is driven (1 trip detection logic)	• Short in stop lamp switch signal circuit • Stop lamp switch • Engine ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Read freeze frame data using the intelligent tester II. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, and other data from the time the malfunction occurred.

1	**Check operation of stop lamp.**

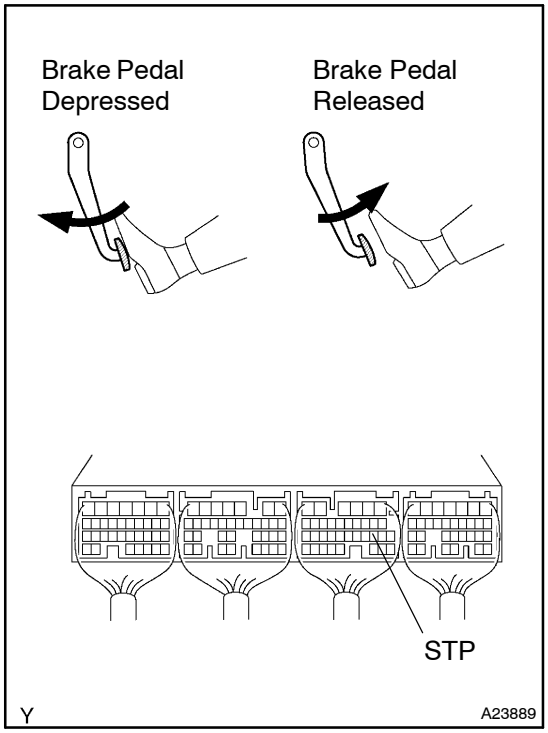
CHECK:

Check if the stop lamps go on and off normally when the brake pedal is depressed and released.

NG → **Check and repair stop lamp circuit.**

OK

2	**Check STP signal.**



When using intelligent tester II:

PREPARATION:

(a) Connect the intelligent tester II to the DLC3.

(b) Turn the ignition switch ON and push the intelligent tester II main switch ON.

CHECK:

Read the STP signal on the intelligent tester II.

OK:

Brake Pedal	STP Signal
Depressed	ON
Released	OFF

When not using intelligent tester II:

PREPARATION:

Turn the ignition switch ON.

CHECK:

Check the voltage between terminal STP of the engine ECU connector and body ground.

OK:

Brake Pedal	Voltage
Depressed	7.5 to 14 V
Released	Below 1.5 V

OK → **Check for intermittent problems (See page DI–4).**

NG

3	Check stop lamp switch (See Pub No. RM6 16E2, page BE –58)

NG → Replace or replace stop lamp switch.

OK

4	Check harness and connector between engine ECU and stop lamp switch (See page IN–19).

NG → Repair or replace harness or connector.

OK

Check and replace engine ECU (See page IN–19).