DTC	C1776/76	SPEED SENSOR CIRCUIT

DTC	C1794/94	RIGHT FRONT SPEED SENSOR CIRCUIT

DTC	C1795/95	LEFT FRONT SPEED SENSOR CIRCUIT

CIRCUIT DESCRIPTION

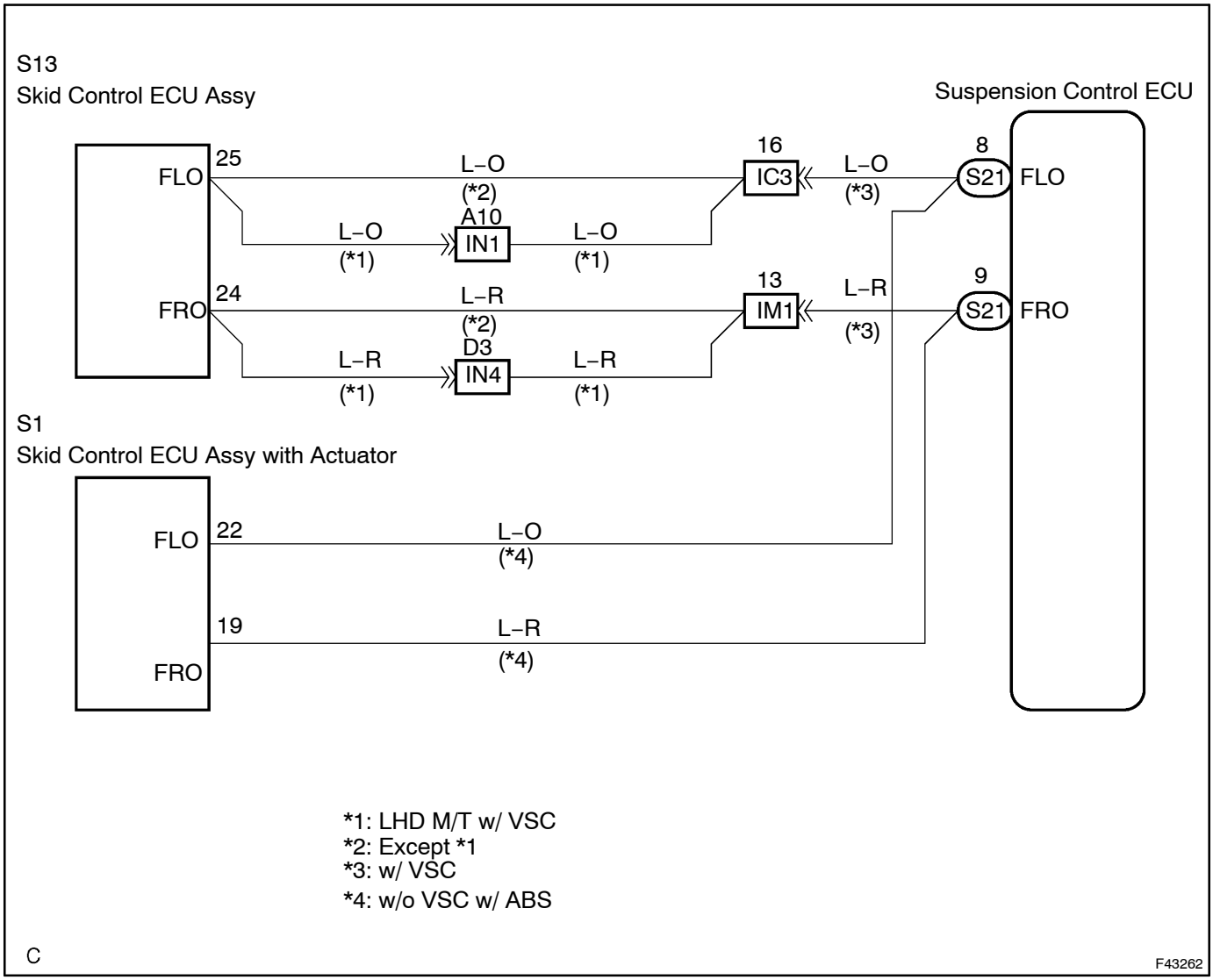
The speed sensor detects the wheel speed and transmits the appropriate vehicle speed signal to the suspension control ECU through the skid control ECU assy.

DTC No.	DTC Detecting Condition	Trouble Area
C1776/76	Speed sensor circuit malfunction.	• Speed sensor • Speed sensor circuit • Skid control ECU assy • Suspension control ECU

HINT:

When DTC C1794/94 and C1795/95 are output, follow the same procedure as DTC1776/76.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 in the case of using the hand–held tester, and start from step 2 in the case of not using the hand–held tester.

1	READ VALUE OF HAND–HELD TESTER

(a) Connect the hand–held tester to DLC3.
(b) Turn the ignition switch to ON, and turn the hand–held tester main switch to ON.
(c) Select the item "VEHICLE SPEED" in the DATA LIST, and read its value displayed on the hand–held tester.
(d) Check that there is no difference between the speed value output from the speed sensor displayed on the hand–held tester and the speed value displayed on the speedometer when driving the vehicle.
Standard:
There is almost no difference in the displayed speed values.

HINT:
There is tolerance of ±10% in the speedometer indication.

OK → **CHECK AND REPLACE SUSPENSION CONTROL ECU (See page 01–36)**

NG

2	CHECK DIAGNOSTIC CODE OUTPUT

(a) w/ ABS only:
Check if the normal code is output by ABS (See page 05–671).
(b) w/ VSC:
Check if the normal code is output by VSC (See page 05–730).

NG → **REPAIR CIRCUIT INDICATED BY OUTPUT CODE**

OK

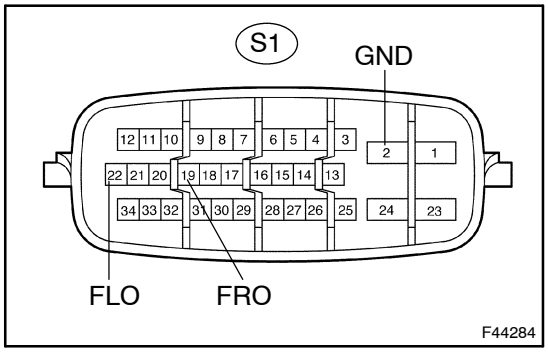
3	CHECK HARNESS AND CONNECTOR (SUSPENSION CONTROL ECU – SKID CONTROL ECU ASSY)

(a) Check for open and short circuit in the harness and the connector between the suspension control ECU and the skid control ECU assy (See page 01–36).

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

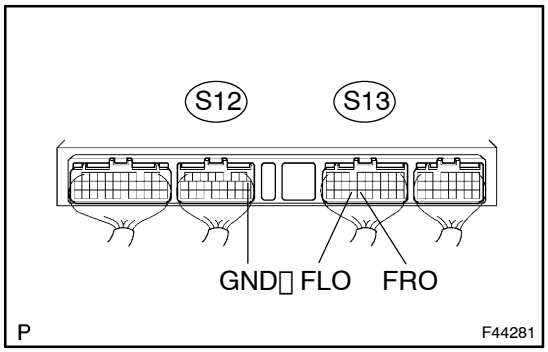
4 INSPECT SKID CONTROL ECU ASSY (FLO OUTPUT, FRO OUTPUT)



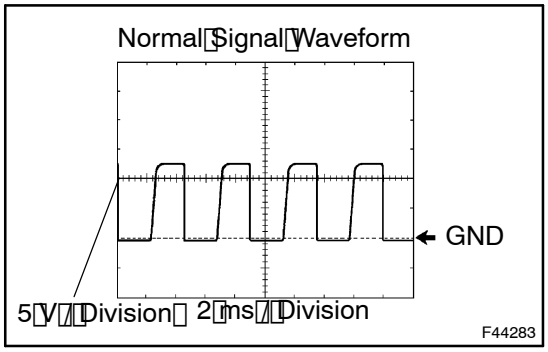
(a) Remove the skid control ECU with connector being connected.

(b) Turn the ignition switch to ON.

(c) w/ ABS only:
Connect an oscilloscope to between terminal S1–22 (FLO) and S1–2 (GND) and between terminal S1–19 (FRO) and S1–2 (GND) of the skid control ECU harness side connector.



(d) w/ VSC:
Connect an oscilloscope to between terminal S13–25 (FLO) and S12–8 (GND) and between terminal S13–24 (FRO) and S12–8 (GND) of the skid control ECU harness side connector.



(e) Drive the vehicle with about 20 km/h (12 mph), and check the signal waveform.
Standard:
Signal waveform appears as shown in the illustration.

HINT:
As the engine speed becomes higher, the waveform cycle gets shorter.

NG → **CHECK AND REPLACE SKID CONTROL ECU ASSY (See page 01–36)**

OK

CHECK AND REPLACE SUSPENSION CONTROL ECU (See page 01–36)