

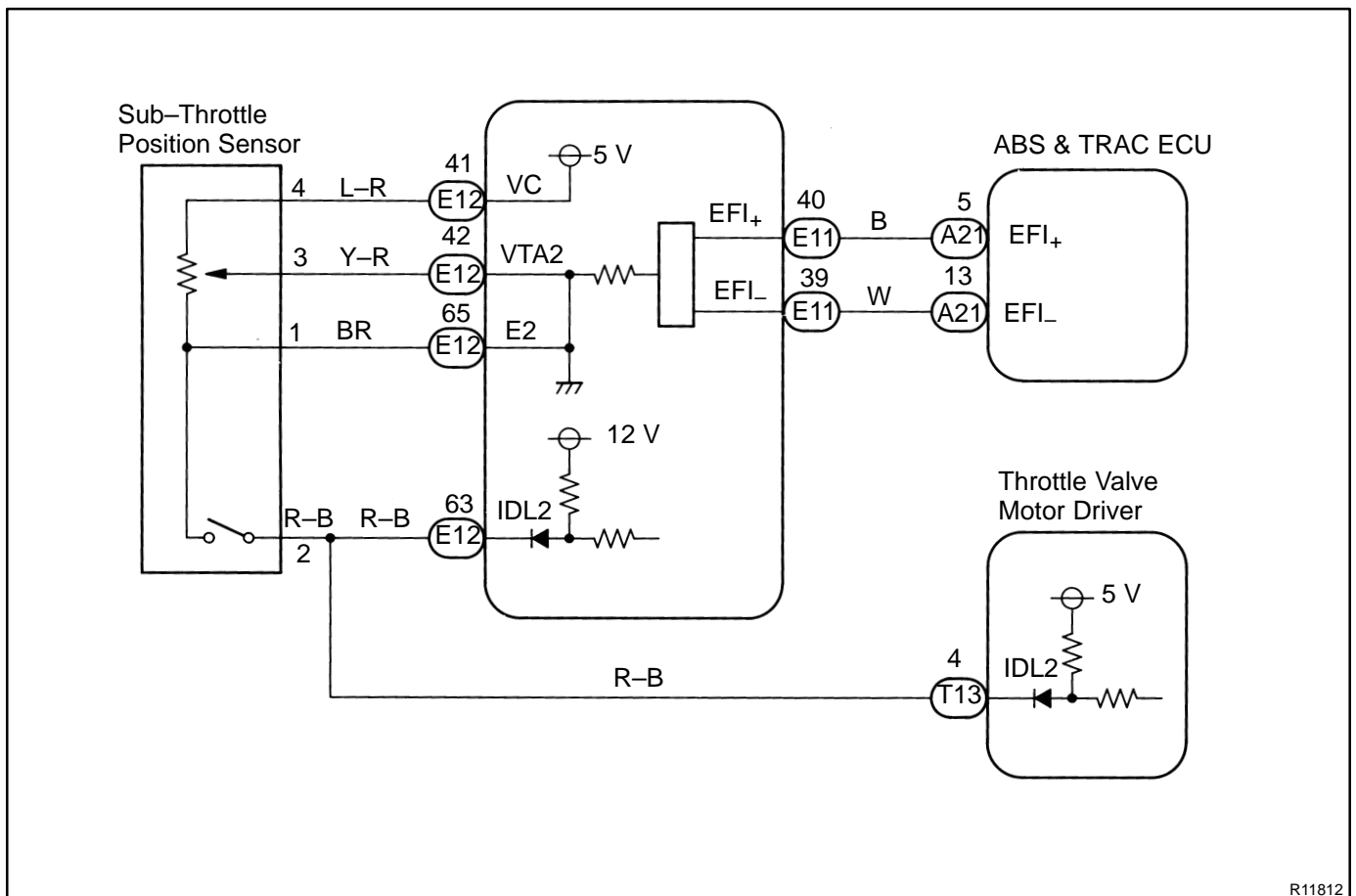
DTC	47, 48	Sub-Throttle Position Sensor Circuit
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CIRCUIT DESCRIPTION

This sensor detects the opening angle of the sub-throttle valve and sends the appropriate signals to the ECU. If a trouble signal is input, the ECU prohibits TRAC control.

DTC No.	DTC Detecting Condition	Trouble Area
47	When any of the following (1) through (2) is detected: (1) Voltage at terminal IDL2 switch is OFF even after sub-throttle is driven to fully closed position during sub-throttle initial check. (2) Voltage at terminal IDL2 switch is ON for at least 1 sec. during sub-throttle initial electrical check. (In this case sub-throttle in nearly opened position.)	<ul style="list-style-type: none"> • Sub-throttle position sensor • Open or short in IDL2 circuit • ECM • Throttle valve motor driver
48	Either of the following (1) or (2) continues for at least 1 sec.: (1) Input voltage of ECM terminal VTA2: 4.9 V or more. (2) Input voltage of ECM terminal VTA2 is 0.1 V or less.	<ul style="list-style-type: none"> • Sub-throttle position sensor • Open or short in VTA2 circuit • ECM

WIRING DIAGRAM



R11812

INSPECTION PROCEDURE

HINT:

The sub-throttle position sensor signal is transmitted to the ABS & TRAC ECU from ECM., so if an error occurs at the engine side, the ABS & TRAC ECU also detects it.

If DTC P1400 is being output for the engine, troubleshoot the engine 1st.

DTC 47	Go to step 4
DTC 48	Go to step 1

1	Is DTC output for the engine?
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Check DTC on page [DI-150](#) or [DI-3](#).

YES

Repair circuit indicated by the code output.

NO

2	Check voltage of terminal VTA2 of ECM (See page DI-274 or DI-120).
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OK

Check and replace ECM.

NG

3	Check for open and short in harness and connector between terminal VTA2 of ECM and sub-throttle position sensor (See page IN-29).
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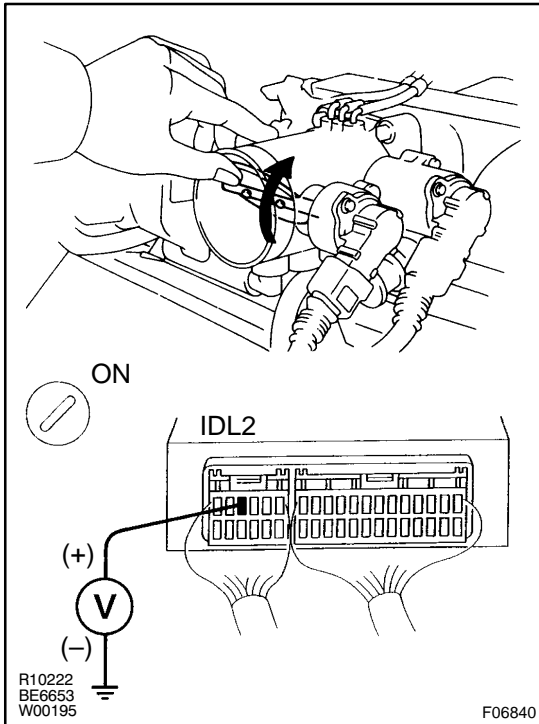
NG

Repair or replace harness or connector.

OK

Adjust or replace sub-throttle position sensor (See page [SF-40](#) or [SF-37](#)).

4 Check voltage between terminal IDL2 of throttle valve motor driver and body ground.



PREPARATION:

Turn IG switch ON.

CHECK:

Measure voltage between terminal IDL2 of throttle valve motor driver connector and body ground, when the sub-throttle valve is fully closed and fully opened.

OK:

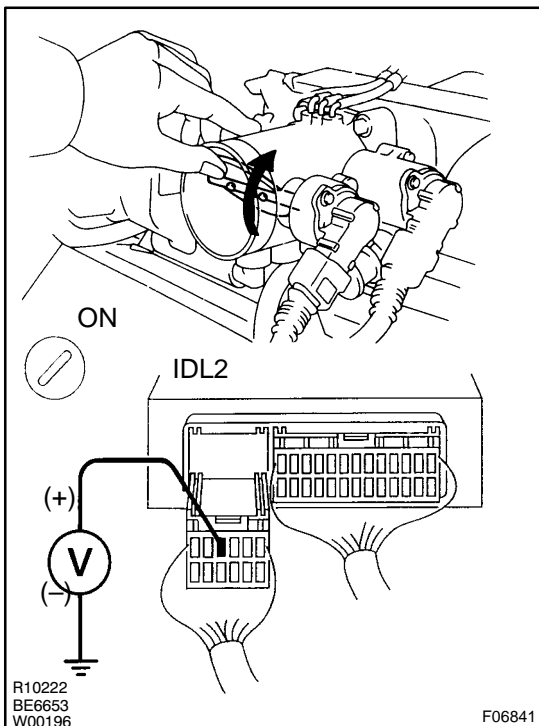
Sub-throttle valve position	Voltage
Fully closed	Below 1.0 V
Fully opened	10 – 14 V

OK

Check a.nd replace throttle valve motor driver.

NG

5 Check voltage between terminal IDL2 of throttle valve motor driver connect and body ground with throttle valve motor driver connector disconnected.



PREPARATION:

(a) Disconnect the throttle valve motor driver connector.

(b) Turn IG switch ON.

CHECK:

Measure voltage between terminal IDL2 of throttle valve motor driver connector and body ground, when the sub-throttle valve is fully closed and fully opened.

OK:

Sub-throttle valve position	Voltage
Fully closed	Below 1.0 V
Fully opened	10 – 14 V

HINT:

Because the check is done with the connector disconnected, it is possible that other DTC may be recorded.

OK

Check and replace throttle valve motor driver.

NG**6****Check for open and short in harness and connector between terminal IDL2 of throttle valve motor driver and ECM (See page [IN-29](#)).****NG****Repair or replace harness or connector.****OK****7****Check sub-throttle position sensor (See page [DI-274](#) or [DI-120](#)).****NG****Adjust or replace sub-throttle position sensor (See page [SF-40](#) or [SF-37](#)).****OK****Check and replace ECM and clear DTC of ABS & TRAC ECU.**