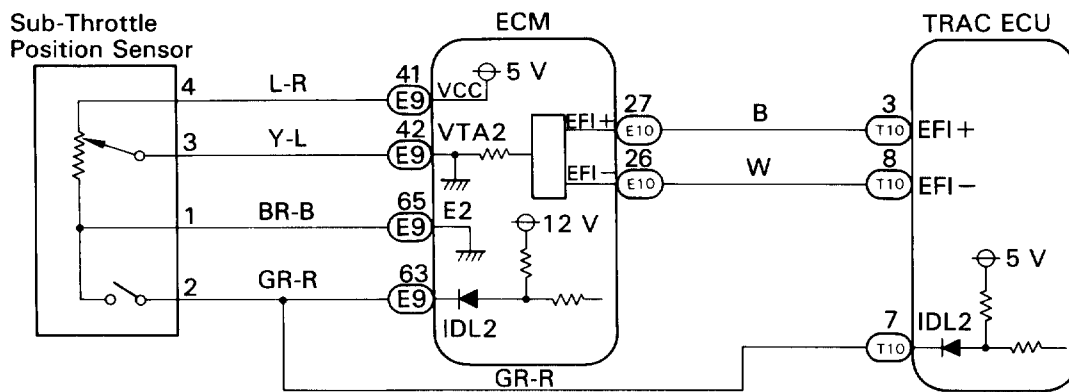


DTC 47 48 Sub-Throttle Position Sensor Circuit CIRCUIT DESCRIPTION

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.	Diagnostic Trouble Code Detecting Condition	Trouble area
47	When any of the following (1) through (3) is detected: (1) Deviation of 5 steps or more to the closed side of the idle step during sub-throttle initial check. (2) Voltage at terminal IDL2 does not become 0 V even after sub-throttle is driven to fully closed position during sub-throttle initial check. (3) Voltage at terminal VTA2 of ECM is 1.5 V or more for at least 0.31 sec. while CTP switch is ON.	<ul style="list-style-type: none"> • Sub-throttle position sensor • Open or short in IDL2 circuit • ECM • TRAC ECU
48	Either of the following (1) or (2) continues for at least 0.26 sec.: (1) Input voltage of ECM terminal VTA2: 4.9 V or more (2) Input voltage of ECM terminal VTA2: 0.1 V or less.	<ul style="list-style-type: none"> • Sub-throttle position sensor • Open or short in VTA2 circuit • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

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

If diagnostic trouble code No. 47 is being output for the engine, troubleshoot the engine first.

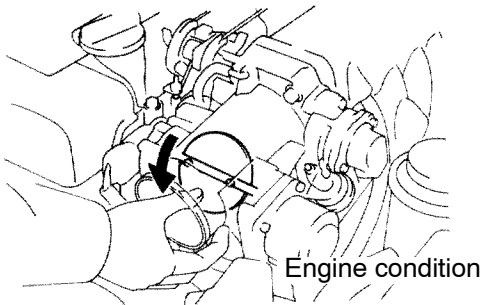
1 Is diagnostic trouble code output for the engine?

Do diagnostic trouble code check on page [EG-491](#).

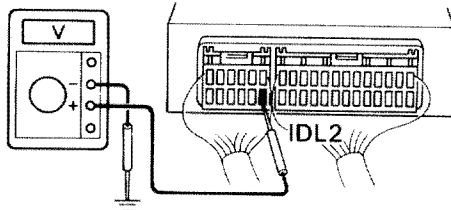
NO

YES Repair circuit indicated by the code output.

2 Check voltage between terminal IDL2 of TRAC ECU and body ground.



 ON



R06986
BE6653
R06993

- P**
1. Remove TRAC ECU with connectors still connected.
 2. Remove intake air duct.
 3. Disconnect step motor connector.
 4. Turn ignition switch ON.

- C** Measure voltage between terminal IDL2 of TRAC ECU and body ground, when the sub-throttle valve is fully closed and fully open.

OK

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

NG

OK Go to step 6.

3

Check for open and short in harness and connector between terminal IDL2 of TRAC ECU and main throttle position sensor with TRAC ECU, ECM and main throttle position sensor connectors disconnected (See page [IN-30](#)).

OK

NG

Repair or replace harness or connector.

4

Check for short in harness between terminal IDL2 of TRAC ECU and body ground with only main throttle position sensor connector connected (See page [IN-30](#)).

OK

NG

Check and replace main throttle position sensor.

5

Check for short in harness between terminal IDL2 of TRAC ECU and body ground with only ECM connector connected (See page [IN-30](#)).

OK

NG

Check and replace ECM.

Check and replace TRAC ECU.

6

Check voltage of terminal VTA2 of ECM (See page [EG-554](#)).

NG

OK

Check and replace ECM.

7

Check for open and short in harness and connector between terminal VTA2 of ECM and main throttle position sensor (See page [IN-30](#)).

OK

NG

Repair or replace harness or connector.

8

Check main throttle position sensor (See page [EG-555](#)).

OK

NG

Adjust or replace main throttle position sensor
See page [EG-294](#).

Check and replace ECM.