

DTC	P0045	TURBO/SUPERCHARGER BOOST CONTROL SOLENOID CIRCUIT OPEN
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CIRCUIT DESCRIPTION

DTC No.	DTC Detection Condition	Trouble Area
P0045	Open or short in VRV circuit for 0.5 seconds or more (1 trip detection logic)	<ul style="list-style-type: none"> • VRV • Open or short in VRV circuit • ECM

WIRING DIAGRAM

Refer to DTC P0234 on [page 05-507](#).

INSPECTION PROCEDURE

HINT:

Read freeze frame data using the intelligent tester. Freeze frame data record the engine condition when malfunctions are detected. When troubleshooting, freeze frame data can help determine if the vehicle was moving or stationary, if the engine was warmed up or not, and other data from the time the malfunction occurred.

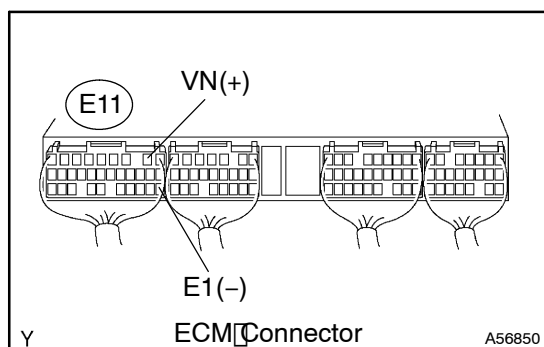
- 1 INSPECT VACUUM REGULATING VALVE ASSY**
(See page 12-7 of Pub. No. RM864E AVENSIS/VERSO/PICNIC REPAIR MANUAL)

NG

REPLACE VACUUM REGULATING VALVE ASSY

OK

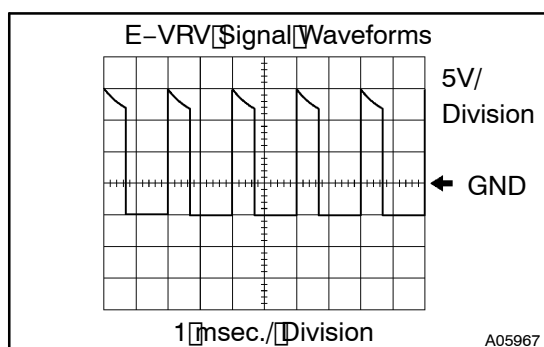
- 2 INSPECT ECM (VN VOLTAGE)**



- Inspect using the oscilloscope.
- During idling, check the waveform between terminals VN and E1 of the E11 ECM connector.

Standard:

Tester Connection	Specified Condition
VN (E11-2) – E1 (E11-22)	Correct waveform is as shown

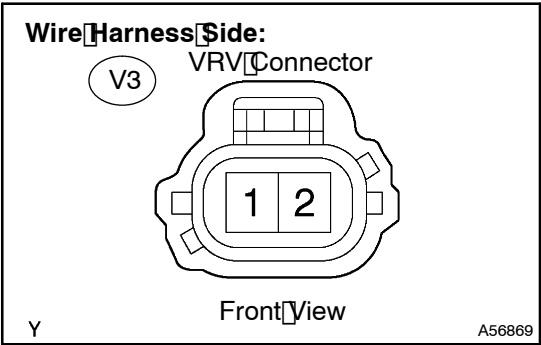


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REPLACE ECM (See page 10-30)

OK

3 CHECK HARNESS AND CONNECTOR (VRV - ECM)



- (a) Disconnect the V3 VRV connector.
- (b) Disconnect the E11 ECM connector.
- (c) Check the resistance.

Standard (Check for open):

Tester Connection	Specified Condition
VN (E11-2) - (V3-2)	Below 1 Ω

Standard (Check for short):

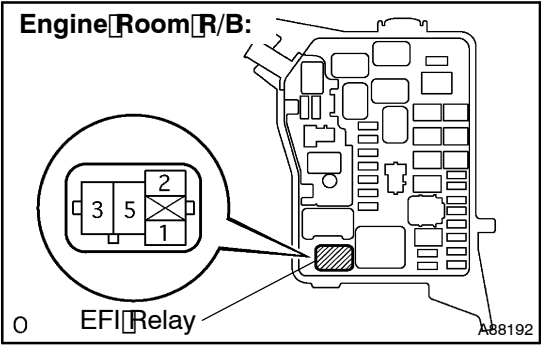
Tester Connection	Specified Condition
VN (E11-2) or (V3-2) - Body Ground	10 kΩ or higher

- (d) Reconnect the VRV connector.
- (e) Reconnect the ECM connector.

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4 CHECK HARNESS AND CONNECTOR (VRV - EFI RELAY)



- (a) Remove the EFI relay from the engine room R/B.
- (b) Disconnect the E7 ECM connector.
- (c) Check the resistance.

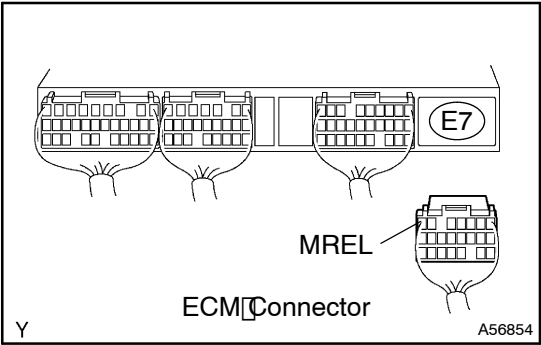
Standard (Check for open):

Tester Connection	Specified Condition
EFI relay (1) - MREL (E7-7)	Below 1 Ω

Standard (Check for short):

Tester Connection	Specified Condition
EFI relay (1) or MREL (E7-7) - Body Ground	10 kΩ or higher

- (d) Reinstall the EFI relay.
- (e) Reconnect the ECM connector.



NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE ECM (See page 10-30)