

## QA: Unable to Activate Self-Test/Network Communication Error

[← QA: Introduction](#)

### QA1 CARRY OUT A VEHICLE INSPECTION AND VERIFY THE SELF-TEST PROCEDURE

**Note:** If the self-test or communication concern occurred after a failed or an aborted reprogram, the module may be blank. Attempt to reprogram the module again before continuing with this pinpoint test.

- Visually inspect the following for obvious signs of electrical damage:
  - harness wiring
  - electrical connections
- Verify the correct procedure was used to activate the self-test for the scan tool. Refer to Section 2, [Scan Tool Setup and Functionality](#).

Was the correct self-test procedure used?

Yes	No
GO to <a href="#">QA2</a> .	REFER to Section 2, <a href="#">Scan Tool Setup and Functionality</a> .

### QA2 CARRY OUT THE NETWORK TEST

**Note:** When using Integrated Diagnostic System (IDS), the scan tool attempts to communicate with the PCM first. After establishing communication with the PCM, the scan tool then attempts to communicate with all modules on the vehicle. If an IDS session cannot be established, IDS may state no communication can be established with the PCM:

- Choose No when the scan tool prompts whether or not to retry communication.
  - Enter a PCM part number, tear tag or calibration number to identify the vehicle and start a session. The PCM part number and 4-character tear tag are located on the PCM.
- Ignition ON, engine OFF.
  - Carry out the network test.

Do all modules indicate pass?

Yes	No
REFER to Section 3, Symptom Charts, GO to Pinpoint Test <a href="#">QT</a> .	If only PCM indicates fail, GO to <a href="#">QA3</a> .  For network test or all other modules indicates fail, REFER to the Workshop Manual Section 418-00, Module Communications Network, to diagnose The Powertrain Control Module (PCM) Does Not Respond To The Scan Tool Or No High Speed Controller Area Network (HS-CAN) Communication Symptom.

### QA3 CHECK FOR VREF VOLTAGE AT A SENSOR

- Ignition ON, engine OFF.

- For electronic throttle control (ETC) applications,
- ETBTPS connector disconnected.
- Measure the voltage between:

<b>( + ) ETBTPS Connector, Harness Side</b>	<b>( - ) ETBTPS Connector, Harness Side</b>
ETCREF	ETCRTN

- For all others,
- TP Sensor connector disconnected.
- Measure the voltage between:

<b>( + ) TP Sensor Connector, Harness Side</b>	<b>( - ) TP Sensor Connector, Harness Side</b>
VREF	SIGRTN

**Is the voltage between 4.5 - 5.5 V?**

Yes	No
REFER to the Workshop Manual Section 418-00, Module Communications Network to diagnose The Powertrain Control Module (PCM) Does Not Respond To The Scan Tool Or No High Speed Controller Area Network (HS-CAN) Communication Symptom.	For Crown Victoria, Grand Marquis, Ranger, and Town Car, GO to <a href="#">QA6</a> . For all others, GO to <a href="#">QA4</a> .

#### **QA4 CHECK THE ISP-R VOLTAGE AT THE PCM HARNESS CONNECTOR**

- Ignition OFF.
- PCM connector disconnected.
- Ignition ON, engine OFF.
- Measure the voltage between:

<b>( + ) PCM Connector, Harness Side</b>	<b>( - )</b>
ISP-R	Ground

**Is the voltage greater than 10 V?**

Yes	No
GO to <a href="#">QA5</a> .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

#### **QA5 CHECK THE PCM VPWR CIRCUITS FOR VOLTAGE**

- Ignition OFF.
- Disconnect the PCM.
- Connect a 5 amp fused jumper wire between the following:

<b>Point A PCM Connector, Harness Side</b>	<b>Point B</b>
PCMRC	Ground

- Ignition ON, engine OFF.

- Measure the voltage between:

<b>( + ) PCM Connector, Harness Side</b>	<b>( - )</b>
VPWR	Ground

Are the voltages greater than 10 V?

<b>Yes</b>	<b>No</b>
GO to <a href="#">QA7</a> .	GO to Pinpoint Test <a href="#">B</a> .

## QA6 CHECK THE PCM VPWR CIRCUITS FOR VOLTAGE

- Ignition OFF.
- Disconnect the PCM.
- Ignition ON, engine OFF.
- Measure the voltage between:

<b>( + ) PCM Connector, Harness Side</b>	<b>( - )</b>
VPWR	Ground

Is the voltage greater than 10 V?

<b>Yes</b>	<b>No</b>
GO to <a href="#">QA7</a> .	GO to Pinpoint Test <a href="#">B</a> .

## QA7 CHECK THE PCM GROUND CIRCUITS FOR AN OPEN

- Ignition OFF.
- Measure the resistance between:

<b>( + ) PCM Connector, Harness Side</b>	<b>( - )</b>
PWRGND	Ground

Are the resistances less than 5 ohms?

<b>Yes</b>	<b>No</b>
GO to <a href="#">QA8</a> .	REPAIR the open circuit. CLEAR the DTCs. REPEAT the self-test.

## QA8 CHECK FOR CORRECT PCM OPERATION

- Disconnect all the PCM connectors.
- Visually inspect for:
  - pushed out pins
  - corrosion
- Connect all the PCM connectors and make sure they seat correctly.
- Carry out the network test and verify the concern is still present.

Is the concern still present?

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<b>Yes</b>	<b>No</b>
INSTALL a new PCM. REFER to Section 2, <a href="#">Flash Electrically Erasable Programmable Read Only Memory (EEPROM)</a> , Programming the VID Block for a Replacement PCM.	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

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