

- **DIAGNOSTIC TROUBLE CODE (DTC)—P1635 AND/OR P1639 PRESENT AFTER POWERTRAIN CONTROL MODULE (PCM) OR INSTRUMENT CLUSTER REPLACEMENT—GASOLINE ENGINE VEHICLES ONLY**
- **LAMP—4X4 LAMP ILLUMINATED AFTER POWERTRAIN CONTROL MODULE (PCM) OR INSTRUMENT CLUSTER REPLACEMENT—GASOLINE ENGINE VEHICLES ONLY**
- **SPEEDOMETER—INACCURATE AND/OR INOPERATIVE AFTER POWERTRAIN CONTROL MODULE (PCM) OR INSTRUMENT CLUSTER REPLACEMENT—GASOLINE ENGINE VEHICLES ONLY**

**Article No.
02-23-4**

FORD: 1999-2002 MUSTANG
 2000-2002 FOCUS
 1999-2002 EXPEDITION, F-150
 2000-2002 E SERIES
 2001-2002 EXPLORER SPORT TRAC, EXPLORER SPORT, RANGER
 2002 EXPLORER

LINCOLN: 1999-2002 TOWN CAR, NAVIGATOR
 2002 BLACKWOOD

MERCURY: 2002 MOUNTAINEER

Article **02-5-8** is being republished in its entirety to update the Service Procedure and to clarify build dates for Explorer.

This article applies to all vehicles listed with the exception of 2002 Explorer. This article applies to 2002 Explorer (SLAP) St. Louis Assembly Plant built before 3/11/2002 and 2002 Explorer (LAP) Louisville Assembly Plant built before 3/4/2002 only.

and/or Diagnostic Trouble Code (DTCs) P1635 or P1639 present after a Powertrain Control Module (PCM) or Instrument Cluster replacement. This may be caused by the Vehicle Identification (VID) block that must be programmed when replacing the PCM.

ISSUE

Some vehicles may exhibit an inoperative or inaccurate speedometer, 4x4 lamp illuminated,

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ACTION

As part of the calibration, there is an area referred to as the Vehicle Identification (VID) block. The VID block must be programmed when replacing the PCM. Failure to perform the proper Programmable Module Installation procedure may generate fault code: P1639 VID Block not programmed or is corrupt--P1635 Tire/Axle Out Of Acceptable Range. Refer to the following procedures to ensure the PCM is properly configured.

SERVICE PROCEDURE

NGS Procedure "A" will prevent P1639/P1635 from setting. In the event either code is set, use one of the following NGS Procedures "B" or "C" or WDS Procedure "D" to ensure the PCM is properly configured.

NOTE

THE FOLLOWING NGS PROCEDURES MUST BE PERFORMED USING THE NGS FLASH CABLE.

Procedure A - NGS PREFERRED Method To Prevent P1635/P1639

1. With the original PCM installed and using the NGS service card, select "Programmable Module Installation".
2. Select PCM from the module list.
3. Select "Retrieve Module Config-Old ECU".
4. After the Module data has been stored, install the new PCM, press CANCEL to return to the menu and select "Restore Module Config-New ECU".

This procedure will retrieve the VID data from the original PCM and store it into the new PCM. If the original PCM will not communicate, install the new PCM and start the procedure over at Step 1. If the new PCM VID is blank, the NGS will direct you to contact the As-Built Data center during Step 3 above. Obtain As-Built Data from the Professional Technician Society (PTS) website and manually enter the PCM data from the As-Built Data sheet as the NGS asks for it. After the data has been entered, continue to Step 4 above.

Procedure B - NGS Alternative Method

1. Using NGS service card, select "Service Bay Functions".
2. Select PCM from the module list.

3. Select "Module Configuration".
4. Select "94-02 EECV & PTEC-By TSB".
5. Cycle ignition as directed by NGS.
6. Once the PCM initializes and the warning screen is displayed, Tire size/Axle, etc. can then be updated.

Procedure C - If the VID block is not correctly programmed - but has some data stored in it, the NGS Service Function Card may not be able to configure the PCM due to the need to reprogram the module

1. Create an NGS Flash Card with the correct calibration (Tear Tag).
2. Start the reprogramming process. (you will be notified that the vehicle already has the latest calibration).
3. Select CANCEL - you will be given the opportunity to update PCM parameters (Vehicle ID block data).
4. Update the Vehicle ID block data and, if necessary, the NGS will continue to reflash the module.

Procedure D - WDS Procedure if proper Programmable Module Installation was not performed and P1639/P1635 is set

Using WDS with B11 or later software and ignition in OFF position:

1. Connect WDS DLC cable to vehicle OBD II connector (lower center of dash).
2. Select "16 PIN", select "All others, except those below", press TICK.
3. Screen shows installation of cable, press TICK.
4. Screen tells you to turn Ignition ON, **DO NOT TURN IGNITION ON.** Press TICK.
5. Screen shows progress bar, then screens tells you WDS cannot communicate with the PCM and gives you a "YES" selection and a "NO" selection; select "NO".
6. Make sure the key is still OFF. Press TICK.
7. Screen then shows turn ignition ON, Now turn ignition to ON.

8. Screen shows "The PCM installed to this vehicle is blank". You will be prompted with a list of previous sessions to check if the vehicle was previously identified; press TICK.
9. Select "None of the above".
10. Screen shows "To enable WDS to reprogram the PCM with the correct calibration"; please enter the vehicle calibration number (7 digits) or the tear tag number (4 digits), press TICK.

NOTE

PCM ENGINEERING NUMBER, CALIBRATION NUMBER AND TEAR TAG NUMBER ARE FOUND ON THE PCM PLASTIC ELECTRICAL CONNECTOR (I.E PCM ENGINEERING NUMBER 1L5F-12A650-MB, TEAR TAG NUMBER RIH1). THE TEAR TAG NUMBER MAY ALSO BE FOUND ON A SQUARE WHITE TAG WITH BLACK LETTERS LOCATED ON THE RIGHT FRONT FENDER AREA NEAR WHERE THE FENDER MEETS THE COWL.

11. Input the PCM engineering number, enter the first (4) digits then select the box at the end of the part number and enter the last (2 or 3) digits of the part number; press TICK.
12. Screen shows "Set ignition switch to OFF", turn ignition OFF; press TICK.
13. Screen shows "Remove fuel pump relay and cooling fan relays to prevent electrical interference and battery drain". Press TICK
14. Screen shows "Is vehicle equipped with PATS: Yes or No?" Select correct answer, the screen shows "Please wait" and progress bar moving at bottom of screen.
15. Screen shows "Set ignition switch to ON" - turn ignition to ON. Screen then shows "Downloading data" with a progress bar.
16. Screen shows "Set Ignition switch to OFF", turn ignition OFF then press TICK.
17. Screen shows "This module requires some configuration settings"; manually select those parameters for your vehicle; press TICK.
18. Screen shows "Set Ignition to ON", turn ignition to ON; press TICK.
19. Screen shows selection of parameters:
 - 4X4 low range input - (PCM)? = Yes or No?
 - Manual shift on the fly - (PCM)? = manual or not manual?
 - Tire size? = Selection of tire sizes
 - Axle Ratio? = Selection of axle ratios

Choose the correct information for your vehicle; press TICK.

NOTE

EVEN THOUGH THE PARAMETER APPEARS CORRECTLY PROGRAMMED ON THE WDS SCREEN, YOU MUST MANUALLY RE-SELECT EACH ONE WITH THE CORRECT SELECTION OR WDS WILL NOT CORRECTLY PROGRAM THESE PARAMETERS.

20. Screen shows "Set ignition switch to OFF", turn ignition OFF; press TICK.
21. Screen shows "Set ignition switch to ON"; turn ignition ON.
22. Screen shows "Downloading data", then "Calibration has been loaded and checked"; press Tick.
23. Screen shows "Set ignition switch to OFF", turn ignition to OFF; press TICK.
24. Screen shows "Reinstall Fuel pump relay and cooling fan relays" - Reinstall fuel pump relay; press Tick.
25. Screen shows "Install calibration label....."; press TICK.
26. Screen shows "Set ignition switch to ON"; turn ignition ON.
27. Screen shows "At least 2 PATS keys are programmed. PATS initialization is not required"; press TICK.
28. Screen shows "Set ignition switch to OFF"; turn ignition OFF. Disconnect WDS DLC cable from vehicle. Press the ICON at the bottom of the screen with the blue car and folder above it to return back to delete sessions menu. Delete the session and return to main screen on WDS.
29. PCM is now reprogrammed, start engine and confirm MIL light is off. Recheck for DTC's and confirm only P1000 is present.
30. Verify repair.

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OTHER APPLICABLE ARTICLES: NONE

SUPERSEDES: 02-5-8

WARRANTY STATUS: INFORMATION ONLY

OASIS CODES: 204000, 204100, 206000, 690000,
698298

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle.