



M-12655-F PROCAL4 INSTRUCTIONS

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**PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPLETELY For questions, Call the
FORD PERFORMANCE Techline 1-800-367-3788**

Please visit <https://www.performanceparts.ford.com> for warranty information

*****NOTE*****

The ProCal 4 tool is shipped without vehicle calibrations. The end user must register with Ford Performance Parts (FPP) to download the ProCal 4 software. The software provided to install performance calibrations to the ProCal 4 tool is compatible only with Windows 7 and newer.

Installing FPP ProCal 4 software on PC

1. Create account at www.performanceparts.ford.com/register
2. Upon account creation, log in and navigate to the "Download" page to download ProCal 4 software
3. Once software is downloaded, install software on PC

Preparing the ProCal 4 for use

1. After software install is complete, connect ProCal 4 device to PC via supplied USB cable
2. Program should connect automatically. Follow all on screen prompts and fully complete all updates for ProCal software and ProCal tool before connecting to vehicle.

*****NOTE*****

- ✓ ProCal 4 TOOL WILL ONLY DISPLAY THE "Splash Screen" WHEN CONNECTED TO A PC.
- ✓ THE TOUCH SCREEN WILL NOT FUNCTION UNTIL CONNECTED TO A VEHICLE.

Before connecting the ProCal 4 tool to the vehicle

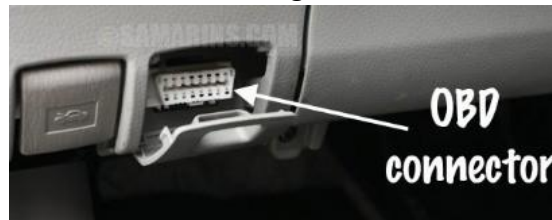
1. Turn off all accessories & unplug all electronic devices from all power & USB ports (A/C, radio, lights, etc.)
2. Ensure vehicle battery is sufficiently charged (12 volts or more)

*****NOTE*****

CONNECT VEHICLE TO A BATTERY CHARGER/TENDER. THIS ENSURES ADEQUATE BATTERY VOLTAGE DURING CALIBRATION PROCESSES.

Saving Stock calibration to ProCal 4 tool

1. Turn ignition to “RUN” position
*****NOTE*** DO NOT start engine. Keep foot off brake/clutch to ensure engine does not start**
2. Connect tool to the vehicle OBDII DLC J1962 port
(Generally located on the bottom of the dash, to the right of the hood release)



3. Select “PROGRAMMING” option in the main menu and follow the on-screen prompts to read/save your stock calibration file. Do not turn off the ignition or unplug the tool until prompted to do so.

Downloading & Installing a Performance calibration into the ProCal 4 tool

1. Connect ProCal 4 tool to PC using provided USB cable
2. Open ProCal software and confirm VIN now displays within software
3. Software will prompt user to backup/save stock calibration to FPP servers for backup purposes, in case of ProCal 4 loss/damage/etc.
4. After successful backup of stock calibration, the software will download the FPP performance calibration.
 - a. Follow any on-screen prompts that may occur
5. Confirm software now shows Ford Performance calibration in addition to Stock file





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Installing Performance Calibration into the vehicle

*****NOTE*** ONCE CALIBRATION PROCESS HAS BEGUN, DO NOT PRESS ANY BUTTONS OR DISCONNECT TOOL UNTIL PROMPTED TO DO SO. ENSURE ALL ELECTRONIC ITEMS (RADIO, WINDOWS, DOORS, LIGHTS) ARE OFF AND ARE NOT OPERATED UNTIL CALIBRATION PROCESS IS COMPLETE**

1. Connect ProCal 4 tool to vehicle OBDII port
2. Ensure vehicle is in "RUN" position (Key on, Engine Off)
*****NOTE*** ENGINE MUST NOT BE STARTED/RUNNING UNTIL PROMPTED BY TOOL, OR CALIBRATION PROCESS IS COMPLETE**
3. Select "PROGRAMMING" option from main menu
4. Select "Performance Calibration" Option on ProCal 4, and Drag/Click to select the desired calibration.
*****NOTE*** DURING CALIBRATION PROCESS, THERE WILL BE VARIOUS WARNING CHIMES/ALARMS (Check Engine light, TPMS light, etc). THIS IS EXPECTED, AND PART OF THE PROCESS.**
5. Follow **ALL** on-screen prompts, until "Clearing Codes, Finished, Key off for 3 seconds" is displayed, signaling the end of the procedure

Diagnostic Features of ProCal 4Tool

1. Module Info

- a. Identified VIN, Vehicle description, calibration, and software installed in the PCM

2. Diagnostics and Tools

- a. Read DTC
 - i. Displays any Diagnostic Trouble Codes (DTC) stored in the vehicle PCM
- Clear DTC
 - i. Clears all DTC stored in the PCM



3. Service Functions

- a. Clear KAM
 - i. Clears all data stored in vehicle Keep Alive Memory (KAM)
*****NOTE*** THIS IS RARELY NEEDED OPTION, ONLY USE IF YOU EXPERIENCE DRIVABILITY CONCERNS (IRREGULAR SHIFTING, ETC)**
- b. Clear Adaptive KAM
 - i. Clears adaptive learning fuel related data stored in KAM
- c. Crank Relearn
 - i. Used to re-learn the misfire profile for the crank position sensor. Generally used if vehicle has misfire DTC after calibration procedure
- d. KOEO
 - i. Performs a Key on Engine off diagnostic self-test on the vehicle
- e. KOER
 - i. Performs a Key on Engine running diagnostic self-test on the vehicle
- f. KOER

Flash TRID

*****THIS OPTION IS ONLY TO BE USED WHEN DIRECTED TO DO SO BY FPP. MIS-USE OF THIS FEATURE MAY CAUSE ISSUES WITH THE VEHICLE*****

g. Tire/Gear Adjust

- i. Allows the end user to change the tire size or axle ratio stored in the PCM. Only to be used if installed tires or gears deviate from factory installed parts
*****SEE APPENDIX FOR DETAILED INSTRUCTIONS*****

Datalogging

4. Gauges

- a. Allows user to monitor real-time data supported by the tool.
- b. Some examples of monitorable data
 - a. Air fuel ratio
 - ii. Spark timing
 - iii. RPM
 - iv. Temperature
- c. To utilize; select gauges, then select a channel, then select the desired function to be monitored



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5. Datalog

- a. Allows recording of signals received in the “Gauges” screen. To utilize; first select a datalog file and pick a log file to record to. Once complete, select the “start recording” button. The selected logfile number will show up in red in the upper right corner of the screen. When complete, select the “stop recording” button. The logfile can be retrieved by plugging the tool into a computer, opening the ProCal 4 software, and navigating to the datalog tab. Data is stored in a .csv format.

*****NOTE*** If vehicle is equipped with an automatic transmission, several miles and/or days of driving may be required for all adaptive learning to complete. Do not be alarmed at shift quality immediately after installing of calibration. It is recommended to do light throttle driving until shift quality has stabilized.**

APPENDIX

1. Connect Pro Cal 4 tool to the vehicle using the included cable.
2. Power vehicle on by pressing the start button, to full accessory mode (engine off).

It is recommended that you have the vehicle on a battery charger during these following operations. Loss of power during programming/configuration can cause corruption to the modules.

3. You will see this screen pop up once the Pro Cal 4 tool has finished loading.
4. Select Diagnostics & Tools
5. Select Tire/Gear Adjust
6. Notice this will VIN lock this Pro Cal 4 device to this vehicle.



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- On this screen there is 2 parameters that can be adjusted: Only update the top parameter to Tire (Rev/mile).

Help finding the correct Rev/mile: Record your tire make, model and size and navigate to the tire manufacturer's website or tirerack.com to find the size specifications of your tires:

Description Sizes **Specs** Warranty

SPECIFICATIONS

[View Specs for All Sizes >](#)

SELECTED SIZE

Size:	LT315/70R17
Service Description:	121/118Q ?
Load Range:	E ?
Eco Focus:	N/A ?
UTQG:	None ?
Max. Load:	3,195 lbs
Max. Inflation Pressure:	65 psi
Tread Depth:	19/32"
Tire Weight:	77 lbs
Rim Width Range:	8.5-10"
Meas. Rim Width:	9.5"
Sect. Width:	12.7"
Tread Width:	10"
Overall Diam.:	34.4"
Revs. Per Mile:	604
Country of Origin*:	US ?

- Click Continue and then follow the on screen prompts as listed below.
- It will now prompt for the vehicle's ignition to be turned off, then turned back on to key on to accessory mode (engine off).



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10. Follow the prompts on screen, and wait the displayed amount of time that the Pro-Cal 4 needs to configure the modules.
11. Turn the ignition off once again, then turn the vehicle back on to accessory mode (engine off).
12. Go to Diagnostics & Tools
13. Select Service Functions
14. Select CDP Learn
 “CDP” = Configurable Data Parameters
15. Follow the prompts on screen.

Tire size learning is now complete.