PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPETELY
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.

Ford Factory Shop Manual purchase options www.motorcraftservice.com

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

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

---

Ford Factory Shop Manual purchase options www.motorcraftservice.com

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
   b. 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. 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

Ford Factory Shop Manual purchase options www.motorcraftservice.com

Datalogging

4. **Gauges**
   a. Allows user to monitor real-time data supported by the tool.
   b. Some examples of monitorable data
      i. 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

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.