



FORD PERFORMANCE

50th Anniversary Cobra Jet ProCal 3 Download Supplement

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Getting Started

Please visit www.fordracingparts.com for the most current instruction information.

!!! PLEASE READ ALL OF THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO INSTALLATION. AT ANY TIME YOU DO NOT UNDERSTAND THE INSTRUCTIONS, PLEASE CALL THE FORD PERFORMANCE TECHLINE AT 1-800-367-3788 !!!

ProCal Flash Tool Instructions

Read the instructions below in their entirety prior to beginning the flash procedure. If you have questions or concerns after reading these instructions, call the Ford Performance Techline at 1-800-367-3788.

!!! This supplement is not meant to replace the information in the owner's manual. It is a supplement to aid with the registration and initial set up of the Pro Cal 3 hardware and software!!!

Verify Package Contents



ProCal 3 Interface



Mini-USB Cable

Voucher

A data sheet with your voucher number will be included in the documentation shipped with each vehicle in the trunk kit.

Questions? Call the Ford Performance Techline at 1-800-367-3788



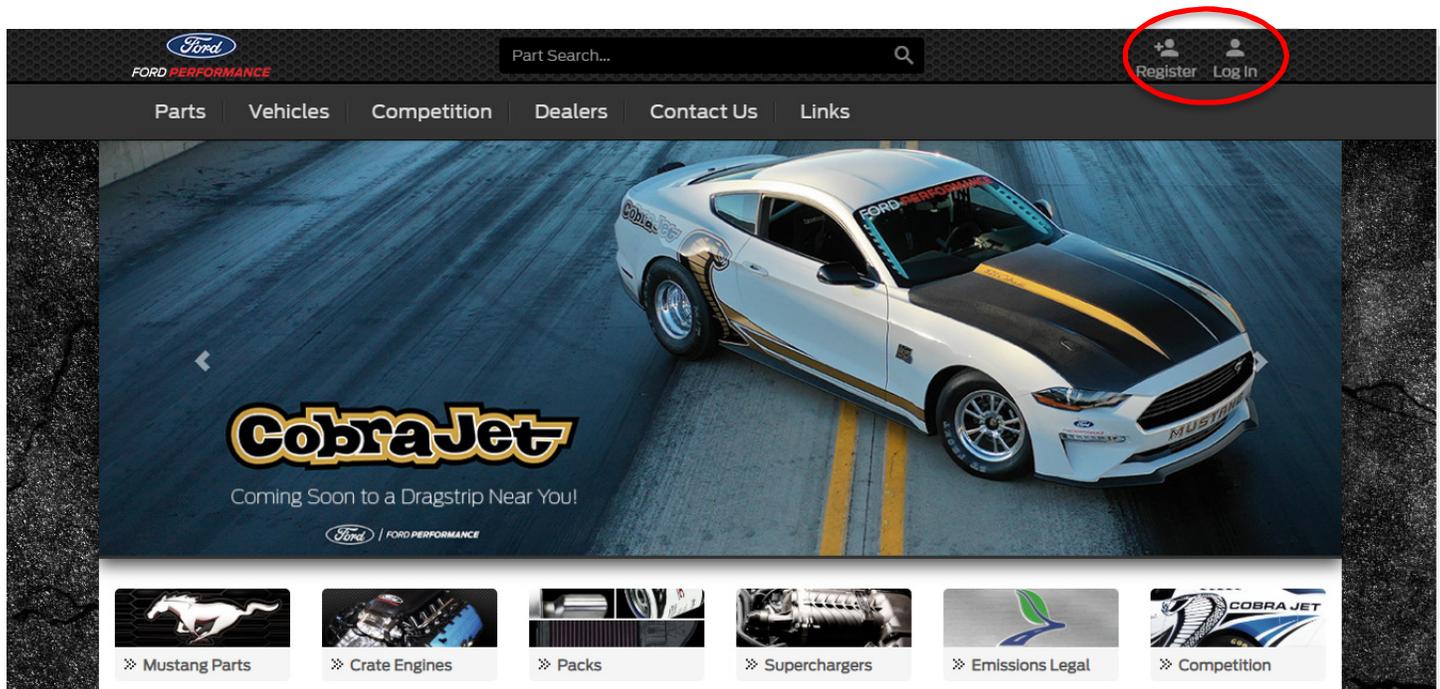
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Registering and Installing the ProCal 3 Software

- STEP 1:** Locate your Voucher in the documents delivered with your vehicle. You will need it for both the registration and for downloading the calibration file steps.
- STEP 2:** Use an internet browser to visit <https://www.performanceparts.ford.com/Default.asp>
- STEP 3:** Log in if you previously have a user ID, if not register for a new ID.



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- STEP 4:** After signing in/registering:
- Click on the "ProCal" tab.
 - Click on the "Register for ProCal" button.

The screenshot shows the Ford Performance website's 'My Profile' page. At the top, there is a navigation bar with 'Parts', 'Vehicles', 'Competition', 'Dealers', 'Contact Us', 'Links', and 'FPP Tools'. Below this, the 'My Profile' section has several tabs: 'My Profile', 'My Email & Password', 'Wish List', 'ProCal', 'Contingency', and 'Engine Registration'. The 'ProCal' tab is circled in red. Below the tabs is a 'Filter rows:' input field. A table displays two rows of ProCal software download records:

Date	Voucher #	Part #	Status
04/18/2019	ZWY8-W4CC-FX2U-SZ3H	M-FP500-CJ18R	ProCal Software Download
04/18/2019	ZWY8-W4CC-FX2U-SZ3H	M-FP500-CJ18R	ProCal Software Download

Below the table, it says 'Showing 1 to 2 of 2 rows'. At the bottom right of the page, there is a blue button labeled 'Register for ProCal', which is also circled in red.

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STEP 5: Enter your Voucher ID in the empty field, then press "Validate Voucher".

The screenshot shows the 'My Profile' section of the Ford Performance website. The 'ProCal' tab is active. A text input field labeled 'Voucher ID *' is highlighted with a red oval. Below the input field are two buttons: 'Cancel' and 'Validate Voucher'. The 'Validate Voucher' button is also highlighted with a red oval. The page includes a navigation menu with options like 'Parts', 'Vehicles', 'Competition', 'Dealers', 'Contact Us', 'Links', and 'FPP Tools'. The top of the page features the Ford Performance logo and a search bar.

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STEP 5:

After validating your Voucher number:

- c) Click on the "ProCal Software Download" link.
- d) Click and open the executable file when it completes downloading.
- e) Allow the program/application to make changes to your computer when prompted.

The screenshot displays the Ford Performance website's 'My Profile' page. The navigation menu includes 'Parts', 'Vehicles', 'Competition', 'Dealers', 'Contact Us', 'Links', and 'FPP Tools'. The 'My Profile' section has tabs for 'My Profile', 'My Email & Password', 'Wish List', 'ProCal', 'Contingency', and 'Engine Registration'. A table lists ProCal software download records with columns for Date, Voucher #, Part #, and Status. Two rows are shown, both with the status 'ProCal Software Download', which is circled in red. A 'Register for ProCal' button is located at the bottom right of the table. The Windows taskbar at the bottom shows a download progress bar for 'procal3_win_setup...exe' (12.0/66.9 MB, 1 min left), which is also circled in red.

Date	Voucher #	Part #	Status
04/18/2019	ZWY8-W4CC-FX2U-SZ3H	M-FP500-CJ18R	ProCal Software Download
04/18/2019	ZWY8-W4CC-FX2U-SZ3H	M-FP500-CJ18R	ProCal Software Download

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Downloading the Calibration File

!!! This must be done following registration. For the 50th Anniversary Cobra Jet, you will need the calibration file to unlock parameters on the calibration tab. Without completing this step, you will not be able to take the vehicle out of its reduced power shipping calibration. This step should only need to be completed once when you receive the vehicle, and when you have been notified of potential service improvements.

Steps 1-6 do not require an internet connection. **Step 7 requires an internet connection!**

- STEP 1:** Open ProCal 3 from the icon on your computer, or select ProCal 3 from the start menu.
- STEP 2:** Locate the onboard Diagnostic Link Connector (DLC) on the far right side of the passenger side dashboard.
- STEP 3:** Plug your blue ProCal 3 interface into the DLC. Make sure the blue ProCal 3 interface is fully seated.
- STEP 4:** Turn the ignition switch of your vehicle to the "On" position.
- STEP 5:** Navigate to the "Download" tab. It will auto populate the VIN, PCM Part Number and PCM SW Part Number. Just use the numbers as auto populated. You do not need to change them.
- STEP 6:** Enter your Email, Password, and Voucher Number on the "Download" tab.
- STEP 7:** **You must have internet access to complete this step.** Click the "Download" button to begin downloading your performance calibration. If necessary, you can unplug the blue ProCal 3 interface from the vehicle and move the computer to a location that has internet connectivity.

Questions? Call the Ford Performance Techline at 1-800-367-3788

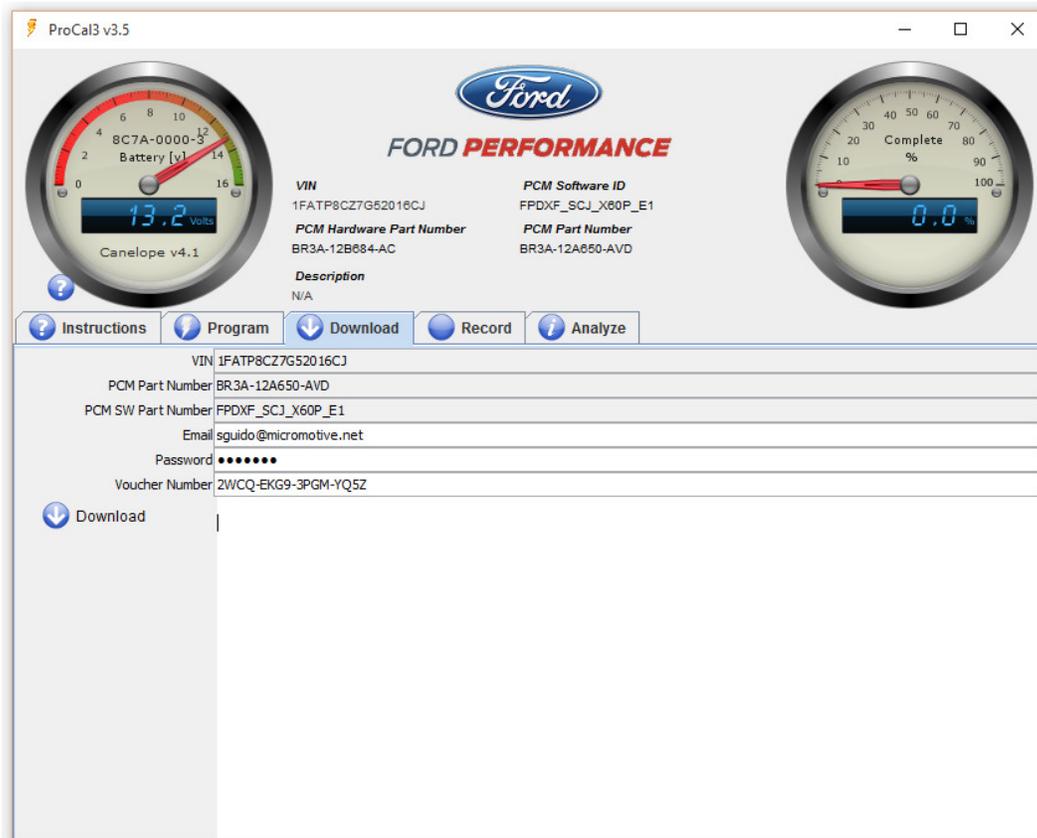


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STEP 8: Upon successfully downloading the performance calibration, ProCal 3 will automatically open the downloaded file and switch to the Program Tab. The downloaded file will be saved for future reference in your “**Documents/ProCal3/calibrations**” folder on a Windows computer or “**<userhome>/ProCal3/calibrations**” on Mac OSX based computers. The Download tab should appear similar to this:



!!! Remember this file location from Step 8. You will need it each time you open Pro Cal. Without it you will not be able to make calibration changes!

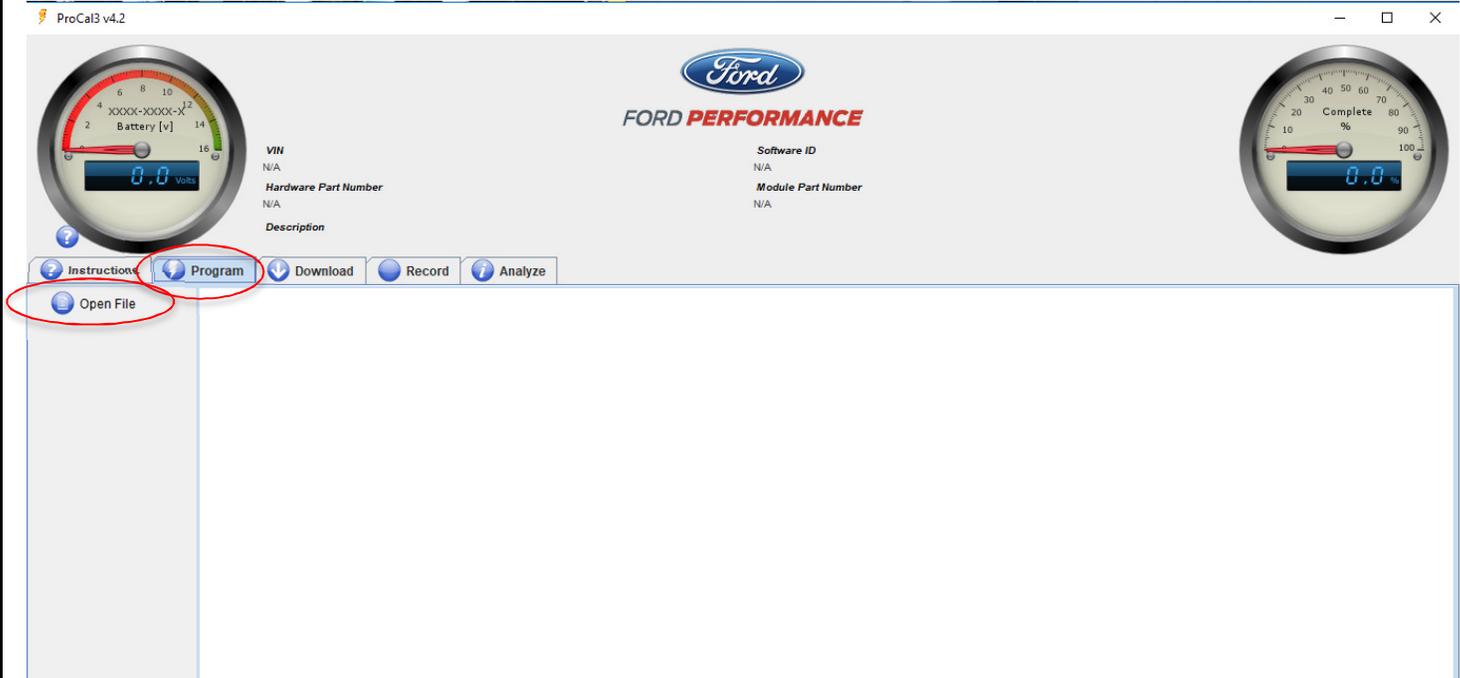
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Changing the Calibration Parameters

!!! Remember this procedure and familiarize yourself with it prior to going to the race track. You will need to do it each time you restart the Pro Cal 3 program and make calibration changes to your vehicle.

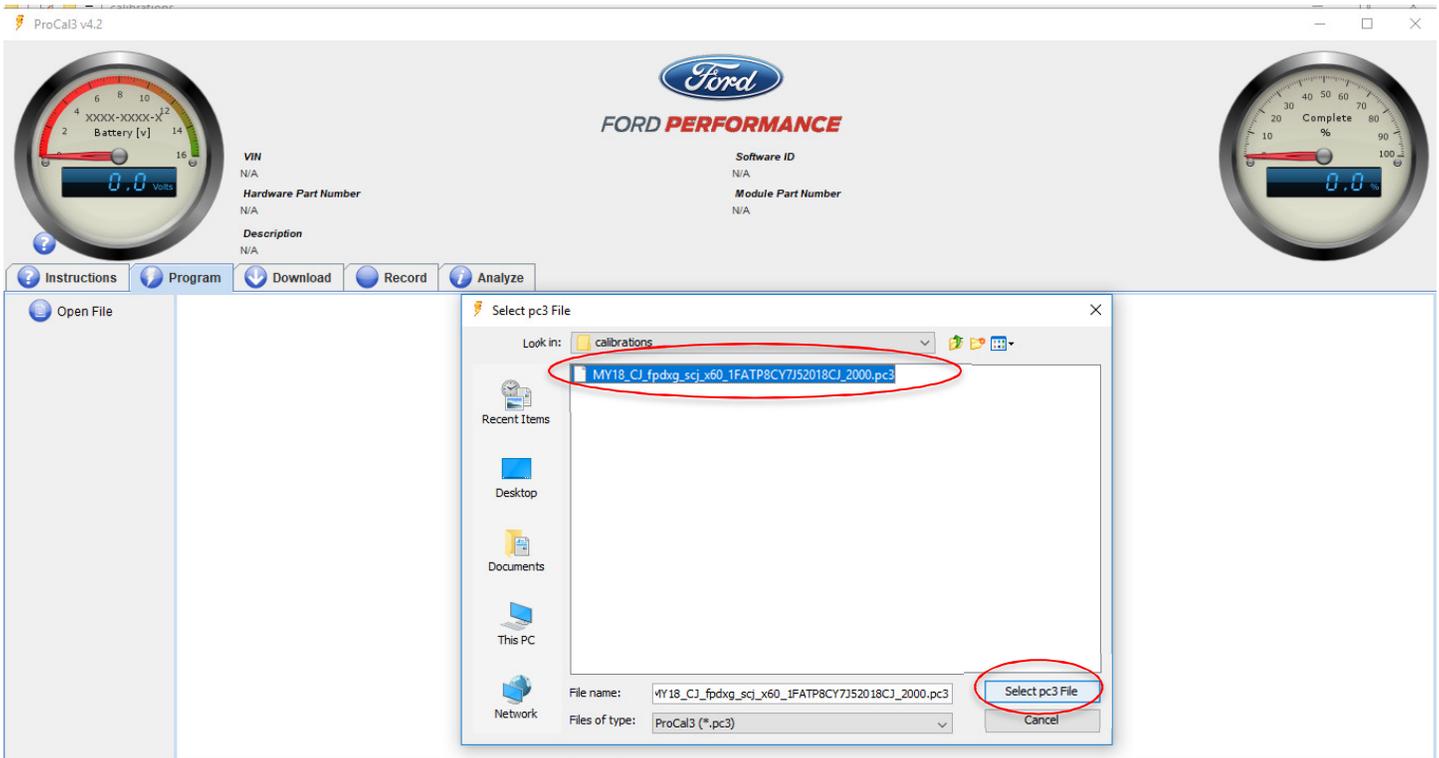
This step will be required to take the vehicle out of the reduced power shipping calibration!!!

- STEP 1:** Open ProCal 3 from the icon on your computer, or select Pro Cal 3 from the start menu.
- STEP 2:** Locate the onboard Diagnostic Link Connector (DLC) on the far right side of the passenger side dashboard.
- STEP 3:** Plug your blue ProCal 3 interface into the DLC, be sure the blue ProCal 3 inter face is fully seated.
- STEP 4:** Turn the ignition switch of your vehicle to the ON position.
- STEP 5:** Navigate to the “Program” tab and click the “Open File” button.



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- STEP 6:** Navigate to your “Documents/ProCal3/calibrations” folder on a Windows computer or “<userhome>/ProCal3/calibrations” on Mac OSX based computers.
- Select the calibration file (PC3) downloaded previously in the “Download Calibration File” steps.
 - Click the “Select pc3 File” button.





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STEP 7: Click on the “Calibration” tab to review modifiable parameters. Review your owner’s manual to view recommended values.

ATTENTION!
Some of the parameter ranges are beyond the values tested by Ford Performance and may result in damage to your engine. Consult your owner’s manual before making changes,

STEP 8: Click on the “Write Data” button to apply changes.

ProCal3 v4.2 - MY18_CJ_fpdxcg_scj_x60_1FATP8CY7J52018CJ_2000.pc3

The screenshot shows the ProCal3 software interface. On the left, there are two gauges: a battery voltage gauge showing 12.3 Volts and a complete percentage gauge showing 0.0%. The center displays the Ford Performance logo and vehicle information including VIN (1FATP8CY7J52018CJ), PCM Hardware Part Number (BR3A-12B884-AC), and PCM Software ID (MY18_CJ_FPDXCg_SCJ_X60_FI). Below this is a navigation bar with buttons for Instructions, Program, Record, Analyze, Diagnose, and Calibrate. A yellow banner reads "WHEN MAKING CHANGES, CLICK 'Write Data', DO NOT RE-FLASH THE PCM". On the left side of the interface, the "Write Data" button is circled in red. Below the banner is a table of parameters with columns for Parameter, Value, Unit, Min, and Max.

Parameter	Value	Unit	Min	Max
Tire Size	704	rev/mile	400.0000	800.0000
Axle Ratio	3.890	:1	2.0000	6.0000
Idle Speed Adder	0	RPM	-200.0000	400.0000
Stoichiometric Air/Fuel Ratio	14.820	:1	12.0000	17.0000
WOT Fuel Adder	0.000	lambda	-0.1000	0.2000
Spark Adder	0.000	deg	-20.0000	20.0000
Closed Loop Fuel Enable	Enabled			
Launch Select	Launch Assist 1			

STEP 9: Click on the “Read Data” button to verify that changes have been applied.

STEP 10: If the numbers in the “Value” column match your intended entries, **your vehicle has accepted the changes and is ready to go!** Remember to read your Owner’s manual and have fun!

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Prepare Vehicle for Flashing

!!!The flash functionality will only be required when updated calibration files are developed by Ford Performance.

For the 50th Anniversary Cobra Jet, the track ready program is already flashed prior to shipping. However, it is shipped in a reduced power mode locking many of the parameters on the calibration tab. To unlock this calibration, you do NOT need to flash your vehicle. Once the new calibration file has been downloaded (see page 7 “Download Calibration File”, the calibration parameters can be changed on the calibration tab then written using the “Write Data” button as shown in “Changing Calibration Values” on page 9.!!!

STEP 1: Make sure your vehicle’s battery is fully charged (at least 12.0 volts) and all accessories (radio, interior fan, headlights, etc.) are off. Headlights on ‘auto’ will turn on during programming, so make sure the lights are fully off. If you are unsure if your vehicle’s battery is fully charged, connect a battery charger prior to beginning the programming process.

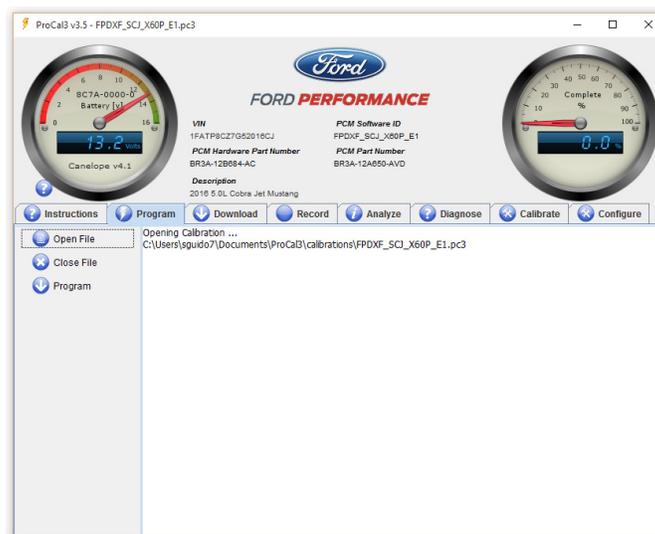
CAUTION: If your ProCal aborts programming due to low voltage or if the programming process is interrupted for any reason, you can simply repeat the flash process, however, it may require 2 consecutive flash cycles to complete.

STEP 2: Locate the onboard Diagnostic Link Connector (DLC) beneath the driver side dashboard.

STEP 3: Plug your blue ProCal 3 interface into the DLC, be sure the blue ProCal 3 interface is fully seated.

STEP 4: Turn the ignition switch of your vehicle to the ON position.

STEP 5: If the blue ProCal 3 interface is properly connected, the **HOME** screen should now be similar to this:



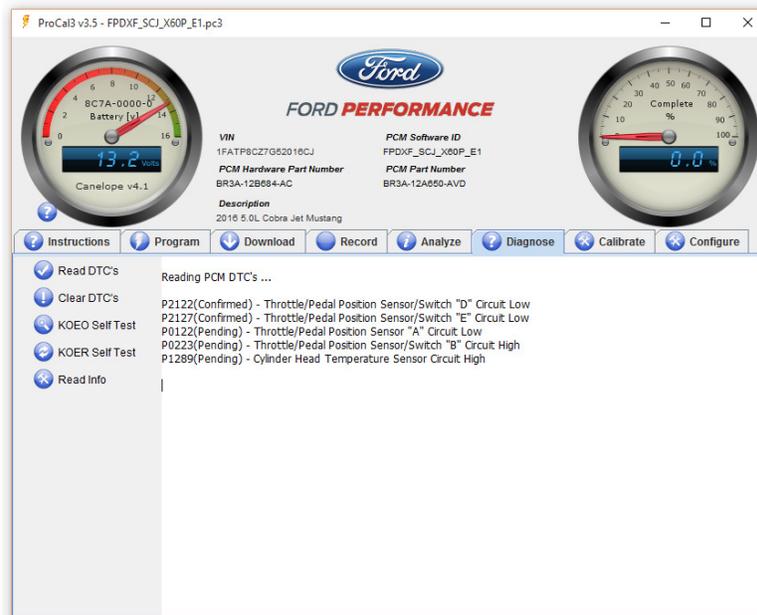


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- STEP 6:** Navigate to the “Diagnose” tab and click on the “Read DTCs” Button
Diagnostic trouble codes that exist for your vehicle are displayed.



Causes of all existing trouble codes must be resolved prior to proceeding with installation of your performance calibration. Write down or copy and paste displayed codes and contact the Ford Performance Techline at 1-800-367-3788 for assistance with resolution of existing trouble codes **before** continuing.

- STEP 7:** Resolve causes of all existing trouble codes then clear DTCs by clicking the “Clear DTCs” button on the “Diagnostics” tab.
- STEP 8:** Click “Read DTCs” again to verify all issues have been resolved.

Questions? Call the Ford Performance Techline at 1-800-367-3788

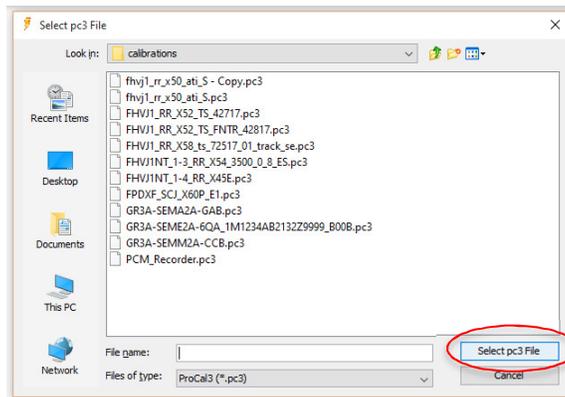
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Programming Your Vehicle

!!! For the 50th Anniversary Cobra Jet, the track ready program is already flashed prior to shipping. The flash functionality will only be required when updated calibration files are developed by Ford Performance!!!

STEP 1: Navigate to the “Program Tab”, and click on the “Open” button.

STEP 2: Navigate to the performance calibration file that you downloaded. By default, ProCal 3 will look in the “Documents/ProCal3/calibrations” folder on Windows PC’s or the “<user_home>/ProCal3/calibrations” folder on a MAC that was created the first time you ran the ProCal 3 application. Double-click on the performance calibration file (should have a .pc3 extension) or single-click and then press the “Select pc3 File” button.



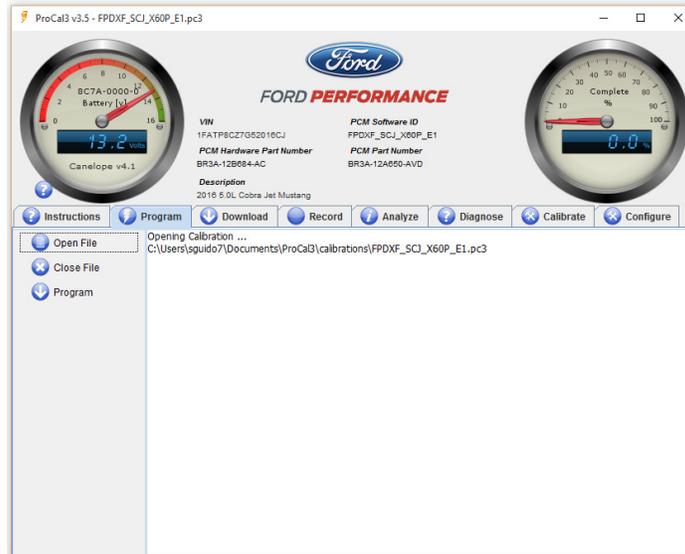
STEP 3: The “Description” field on the “Program” tab should now display a short description of your performance calibration, similar to what is shown below.



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STEP 4: After all DTCs have been repaired and cleared and the PC3 file is open, the vehicle is ready to be programmed; On the “Program Tab”, click “Program” to begin installation of your performance calibration. ProCal may upload the stock calibration first prior to programming in order to save the calibration that is currently in your vehicle. This saved file will be contained within the same PC3 file that is being used to program your vehicle.

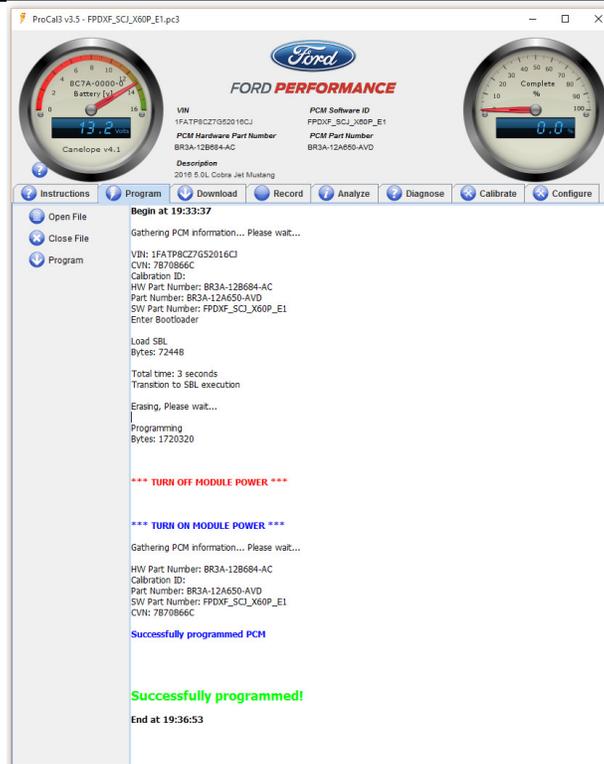
STEP 5: When programming is complete, your screen should appear similar to the one shown below:



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STEP 6: Once the display shows “Successfully programmed!” turn ignition key to OFF position. Wait at least 15 seconds, turn ignition key to the ON (not start) position.

If your ProCal aborts programming due to low voltage or if the programming process is interrupted for any reason, you can simply repeat the flash process, however, it may require 2 consecutive flash cycles to complete.

STEP 7: If the vehicle has stock sized tires on the drive wheels and stock axle ratio, the programming process is complete, the tool may be disconnected, and the vehicle is ready to drive.

Restore Previous Calibration

STEP 1: Navigate to the “Program Tab”, and click on the “Open” button and open the PC3 file that was originally used to program the performance calibration.

STEP 2: The Restore button will appear. Click the Restore button to flash the vehicle back to the previous calibration.

Note that you may need to enter the stock tire size and axle ratio values (if they have been changed) or a P1635 code may be set indicating tire size or axle ratio is out of limits.

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