

FORD PERFORMANCE



July 16, 2025

Technical Service Bulletin – 43

Mustang Dark Horse R Engine Calibration

Note that the current Engine Calibration file for IMSA Mustang Challenge and USAC Mustang cup is 2025DarkHorseR_V8.

Vehicles competing in the Mustang Challenge Le Mans Invitational event used a different calibration.

Action:

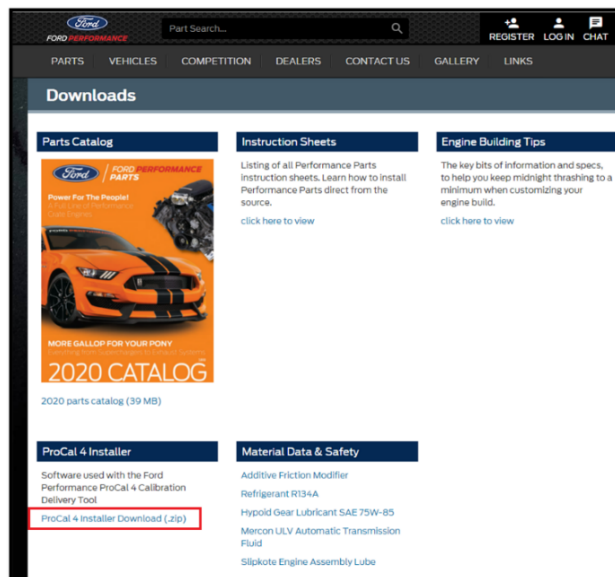
Verify your calibration file matches 2025DarkHorseR_V8, and update if necessary.

- Follow the procedure to update your PCM calibration

Procedure: Follow the flashing procedure from your Owner's Manual

Install ProCal Software on Computer

- Navigate your browser to <https://performanceparts.ford.com/download/> and click on "ProCal 4 Installer Download (.zip)"

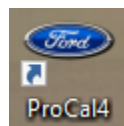


- Extract the files to your computer in a memorable location and run the “setup” file. Follow the prompts to install ProCal.

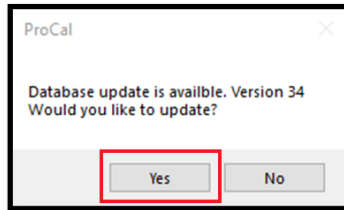
Updating ProCal Firmware

- Connect the ProCal tool with the USB cable provided and plug it into the computer.
- Open ProCal with the desktop icon (or from the start menu).

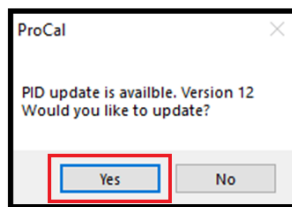
Attention: Some company networks may have security set to block access to downloads. Please contact your network’s IT administrator if you have problems connecting.



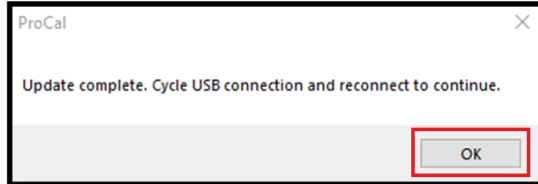
- If database version updates are available, select “Yes.”



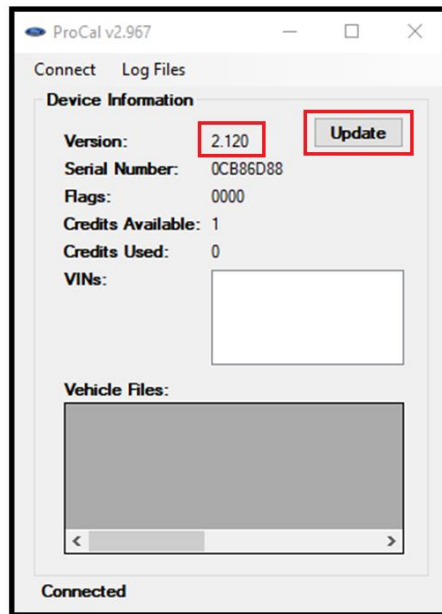
- If PID updates are available, select "Yes."



- When prompted Disconnect the USB cable and plug it back in to power cycle the ProCal. Press "O.K."
 - Note: The ProCal tool may take a minute to load.



- The ProCal Device Information should populate. The software version will have to be updated to at least a 2.204 version to flash the calibration to the Dark Horse PCM. If this is not a high enough version press the "Update" button to update the firmware. Follow the prompts to update.



Flashing Calibration into the Vehicle

Note: The Dark Horse R requires a "Force Flash" be done when updating the PCM calibration. This does require a special procedure and unlock code.

- Plug the ProCal into the OBDII port of the vehicle.



- After the PROCAL loads, press and hold “ABOUT DEVICE” for 5 seconds.

FORD PERFORMANCE



- Enter the code "1, 2, 3, 4, 5, 6, 7, 0, 0, 0"



FORD PERFORMANCE

- Press “PROGRAMMING.”

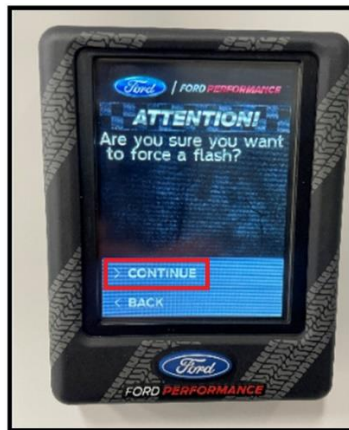


- Press and hold “CONTINUE” for 5 seconds.

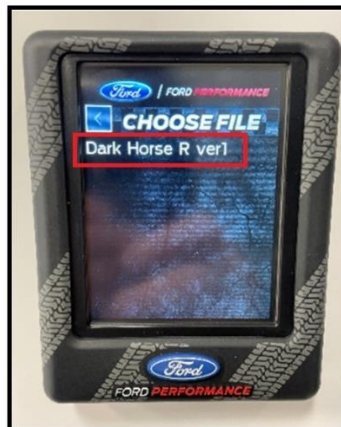


- Press “CONTINUE.”

FORD PERFORMANCE



- Select the file to flash. [2025DarkHorseR_V8] The picture is for illustrative purposes.



- When prompted, turn the ignition switch off, the flash is complete.

FORD *PERFORMANCE*



TSB Complete