



FORD PERFORMANCE

M-14204-FSTA CALIBRATION WITH SPARK PLUGS INSTRUCTIONS

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR AGREEMENT AND WRITTEN PERMISSION OF FORD PERFORMANCE PARTS.

Please visit www.fordracingparts.com/Focus 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 !!!**

Attention: Installation should require approximately one hour of labor for a dealership to complete.

KIT INCLUDES:

<u>Description:</u>	<u>Qty:</u>	<u>Tools Needed:</u>
ProCal III Voucher**	1	Laptop
ProCal III Vehicle Interface (Canelope and Mini USB cable)	1	16mm Spark Plug Socket
91+ Octane Label	1	8mm Socket
Spark Plugs	4	Ratchet
		6" Extension
		In-lb Torque Wrench
		Spark Plug Gap Gauge
		Spark Plug Gapping Tool
		Flathead Screwdriver



About your Ford Performance Calibration:

Premium fuel (91 octane or higher, 93 recommended) is required to prevent “spark knock” or detonation under certain operating conditions. The use of fuel additives (i.e., octane boosters) is not recommended. There is a possibility that these chemicals can damage your engine and cause drivability issues with your vehicle.

Factory Ford shop manuals are available from Helm Publications, 1-800-782-4356



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The fuel economy of your vehicle can remain the same between the stock and performance calibrations provided the driving conditions and driver demands are the same. Utilization of the additional power available with this calibration will use more fuel than stock.

The shift light activity was significantly changed. It is now calibrated to engage just before the optimum shift point for performance driving with fully depressed (open) accelerator pedal. This keeps the light out of the way for most drivers under most conditions, but may provide an assist on track.

NOTES:

- **BEFORE INSTALLING** the spark plugs refer to the documents in the calibration interface tool (CM-CANTELOPE-B) and on the Ford Performance calibration voucher (CM-0800- PC103). The manual will guide you through the PCM flashing procedure. **WARNING: OPERATING THE ENGINE WITHOUT THE RECALIBRATED PCM WILL RESULT IN ENGINE DAMAGE OR FAILURE AND WILL VOID THE WARRANTY.**

Install Spark Plugs:

- STEP 1:** Allow the vehicle's engine to cool as much as possible. Park the vehicle in a location away from trees and other sources of debris which could fall into the engine bay during the installation.
- STEP 2:** Validate the spark plugs have been gapped to **0.026"-0.028"** using a spark plug gap gauge. If adjustment is needed, utilize caution and adjust the ground strap tip towards or away from the electrode using a gapping tool, then recheck the gap distance using the spark plug gap gauge. Be careful not to damage the center electrode during the gapping process.

Note: Spark plugs must be handled with care. Accidentally pressing on the electrode or ceramic during gapping, dropping the plugs while handling, or overtightening during installation can all cause irreparable damage which may not be evident at first glance. The M-12405-20T spark plugs are thread size 14mm, and the hex is 16mm.

- STEP 3:** Open the hood of the vehicle and remove the engine cover.

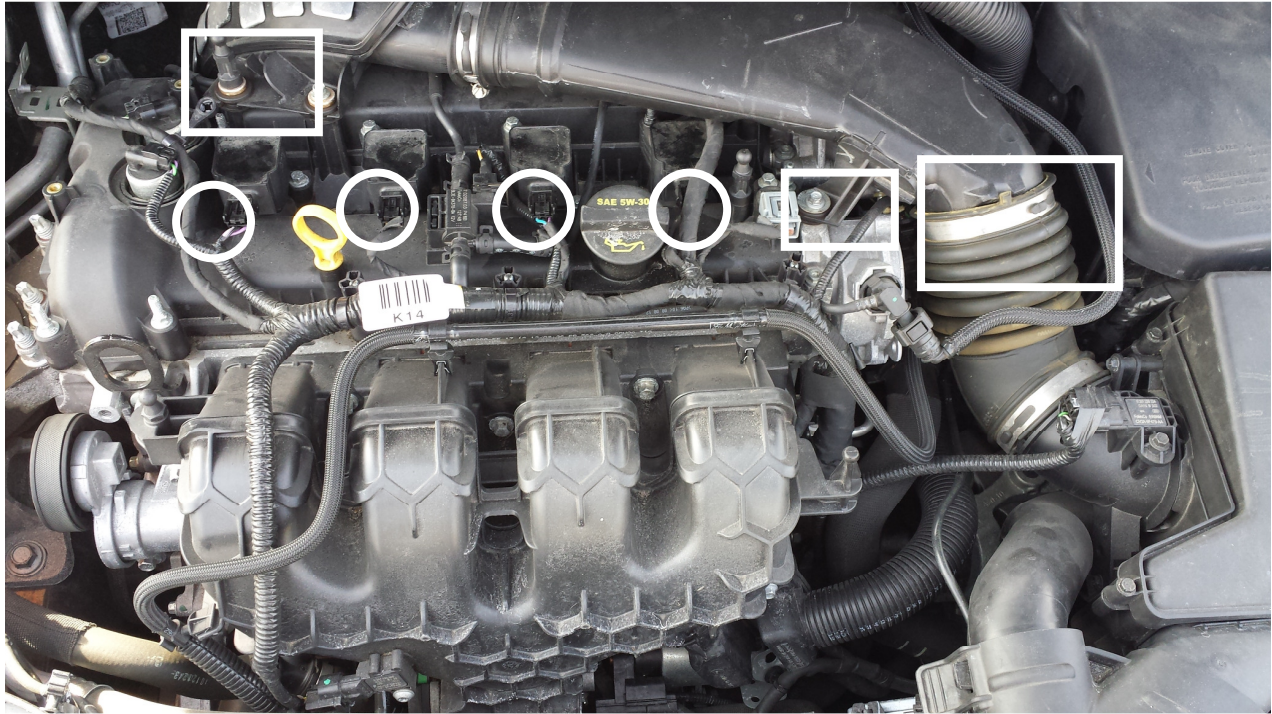
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Address the components enclosed in rectangles above. Use the flathead screwdriver to loosen the clamps on the section of intake covering the plug coil. Remove the bolt attaching the intake to the engine. Remove the section of intake and set aside.

- STEP 4:** Unplug the wiring harness from each spark plug coil circled above.
- STEP 5:** Use the 8mm socket to remove the spark plug coil bolts from each cylinder.
- STEP 6:** Remove the spark plugs using the 16mm socket. Remove the spark plug from the socket and set aside.
- STEP 7:** Replace with the M-12405-20T spark plugs, making sure to remove the protective plastic sleeves first. Use a torque wrench and tighten to 106 In-Lb (12Nm).
- STEP 8:** Replace the spark plug coils, reinstall attaching bolts, and reattach electrical harnesses.
- STEP 9:** Replace the intake section and retighten clamps.
- STEP 10:** Replace the engine cover.
- STEP 11:** Once the PCM has been successfully recalibrated and spark plugs installed, start the engine and check for unusual noises, dash service lights, and unusual operation. If problems are detected, immediately stop the engine or vehicle, diagnose and repair the problem.

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