



Edelbrock Supercharger System
2011-2014 Ford Mustang 5.0L
Stage II Upgrade for #1588
Installation Instructions

KIT CONTENT

- 3.25" High Boost Pulley
- Edelbrock Competition Air Intake System
- Gatorback Drive Belt

TOOLS REQUIRED

- Ratchet and Socket Set
- 3/8 Breaker Bar
- Drill and Step Drill Bit
- 5mm Hex
- Red Thread Locker

IMPORTANT WARNINGS

WARNING: Please note that this Stage II upgrade is intended for racing and off road applications only. Use of this kit with an E.O. Legal Supercharger (#1588) will negate its street legal status and void the optional extended warranty.



WARNING: Installation of this Stage II upgrade will result in a significant change to the performance characteristics of your vehicle. It is highly recommended that you take some time to familiarize yourself with the added power, and how it is delivered, in a controlled environment. Take extra care on wet and slippery roads, as the rear tires will be more likely to lose traction, with the added power. It is never recommended to turn off your vehicles traction control system.



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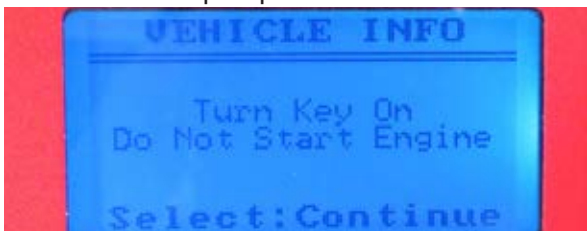
ECU Flash Procedure

WARNING: Please note that this Stage II upgrade comes with a custom calibration file. In order to receive the calibration file specific for this upgrade, the disclaimer form included in this kit must be filled out completely and sent back to Edelbrock.

- Original Equipment Manufacturers often release updates to the computer programming for your vehicle. Edelbrock highly recommends that you verify, with your new car dealer, that your vehicle is equipped with the latest software version from your vehicle manufacturer, before proceeding.
- Begin by downloading the SCT device updater software to your computer.
- Put the car into Acc mode, but don't start the vehicle.
- Connect the supplied PCM cable to the OBD-II connector located below the steering wheel and to the left of your knee.
- Use directional pad to highlight **Vehicle Info** and press the Select button.



- Use directional pad to highlight **Vehicle Info** again and press the Select button.
- Follow the on screen prompts.



- The programmer will connect to the vehicles ECU. On the first screen, verify the vehicle's Vin number is correct and press select.

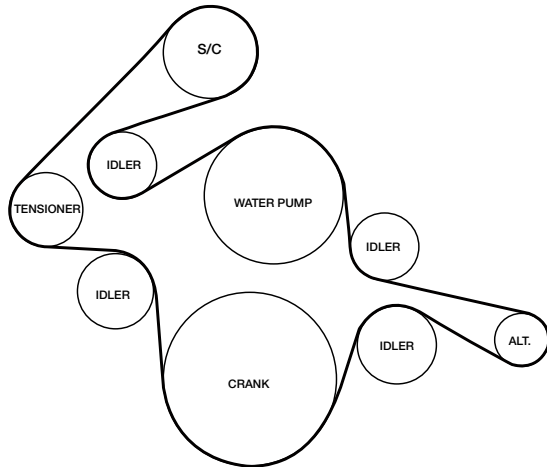
- On the second screen, write down the 7 digit Strategy Number (Cal ID). This number, along with the vehicle's Vin number and the Programmer's Serial number are required in order to receive your calibration.
- Once you receive the calibration file from Edelbrock. The file can be installed into your programmer using the following steps:
 1. Save the attached .cef file to a location you can remember on your computer.
 2. Open the SCT Device updater program and click on Load Custom Tune File.
 3. Browse to the location you saved the attached .cef file and select it.
 4. Select File 1 and give it a name, then press program and it will write the tune to the programmer.
 5. Once this is finished, put the car into Acc mode, but don't start the vehicle.
 6. Hook the programmer up to the vehicle, select Program Vehicle, then select Custom Tune and choose the file you named.
 7. Read disclaimer then press Select to continue.
 8. Verify ignition is in the 'Key On' position but that the engine is not running then press Select.
 9. Use directional pad to highlight Begin Program then press Select.
 10. Depending on your specific drivetrain configuration, several separate operations may take place during this step. Completion of each operation will cause the progress bar to reset to zero.
 11. DO NOT unplug the programmer until prompted.
 12. Turn the car off when prompted to do so by the handheld programmer.
 13. Read parting message from programmer then press Select to continue.
 14. Unplug the programmer cable from the OBD-II port.
 15. Your vehicle's ECU has been flashed, you may now proceed with the installation.



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Supercharger Installation

1. Use an 8mm socket to remove the negative battery terminal. Tuck the terminal to the side to prevent any accidental contact with the battery post.
2. Using a 3/8" breaker bar, rotate the tensioner clockwise to remove the drive belt. The drive belt will not be reused.
3. Remove the tamper-proof seal on the supercharger pulley hub and remove bolts securing the stock pulley using a 5mm hex tool. Be aware that these bolts are secured by red loctite.
4. Install the new pulley onto the supercharger hub. Apply red loctite on the pulley bolts and securely fasten in a star pattern. Torque all bolts in a star pattern to 8 ft-lbs (91 in-lbs).
5. Use a 3/8" drive breaker bar to rotate the tensioner enough to install the belt on the tensioner pulley. Install the supplied belt according to the routing diagram shown below .



6. Unplug and remove the MAF sensor located on the factory airbox. Remove the factory intake airbox and previously installed silicone elbow.

NOTE: Steps 7-8 applies to Automatic transmission only. Manual transmissions, disregard and proceed to Step 9.

7. Locate the small dimple on the underside of the hard plastic elbow. Use the dimple to center a step drill bit and drill through the elbow until the hole is 5/8" in diameter. Once the hole has been drilled, install the supplied 3/8" grommet and 10mm fitting.



8. Install the 5/8" grommet and fitting in the boss extending from the elbow.

9. Insert the round MAFS housing through the hole in the new airbox so that the large end will be inside. Orient the housing so that the MAF provision will point forward and down when the airbox is installed then secure the housing using the three supplied M6 x 16mm bolts.



10. Reinstall the stock MAF sensor in the new MAFS housing using the two supplied #8-32 thread-forming screws.

11. Install the new airbox by sliding it into the rubber snorkel as you drop the lower bosses into the grommets on the fender. Secure the airbox using the stock bolt.





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12. Install the new filter onto the MAFS housing and secure it with the large worm clamp supplied. Install the supplied edge trim along the top ridge of the new airbox.

13. Visually orient the hard plastic elbow so that the dimple or drilled hole is on the bottom, then slide a worm clamp on each end of the silicone hump hose and slide it onto the end of the elbow that will connect to the MAFS housing.

14. Install the silicone reducer hose on the throttle body end of the elbow, then slide two worm clamps over the hose.

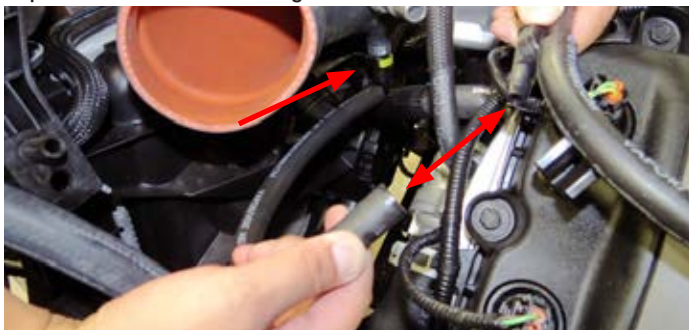
15. Install the elbow and silicone hoses between the throttle body and MAFS housing. Spraying some silicone lubricant inside the hoses can make this process easier. Tighten all four worm clamps once satisfied with the installation.



16. Re-clock the hose end on the driver side PCV hose and connect it to the large fitting extending from the boss on the elbow.

NOTE: Step 17 applies to Automatic vehicles only. Disregard otherwise.

17. Install the brake aspirator to intake hose with the 90° quick connect fitting onto the intake elbow and then to the brake aspirator. Trim hose to length as needed.



18. Reattach the MAF sensor harness to the MAF sensor on the airbox.

IMPORTANT NOTE: The transfer function values provided in the table below are only provided as a guide. It is always required that you verify the Air/Fuel ratio with a wideband lambda sensor, installed in front of the catalytic converter, while running the vehicle on a chassis dyno through the entire RPM & load range.

Frequency	Lb / Min	Frequency	Lb / Min
1485	0	207	7.7263
650	0.5023	200	8.3808
635	0.5315	193	9.2718
605	0.5742	188	9.8093
590	0.6022	183.5	10.4823
540	0.7071	178	11.5846
500	0.8168	173	12.6664
450	1.0423	160.5	15.8482
410	1.2679	150	19.9931
360	1.8043	143.5	21.9437
330	2.2919	139	23.9374
320	2.4382	136	25.4466
290	3.1940	132	27.9213
275	3.7304	128	31.3117
259	4.3278	123	34.9811
242	5.1202	119.8	36.9873
226	6.2118	114	42.3269
220	6.6748	107	50.3937
215.5	6.9517	101	58.6262
210	7.4370	83.3	82.8984

19. Reinstall the negative battery terminal.

20. If you have access to a diagnostic scan tool, run a 'Key On, Engine Off' test to verify that all connectors are properly installed, otherwise move on to the next step.

21. Start the vehicle and verify a smooth idle. If you are using a diagnostic scan tool, run a 'Key On, Engine Run' test.