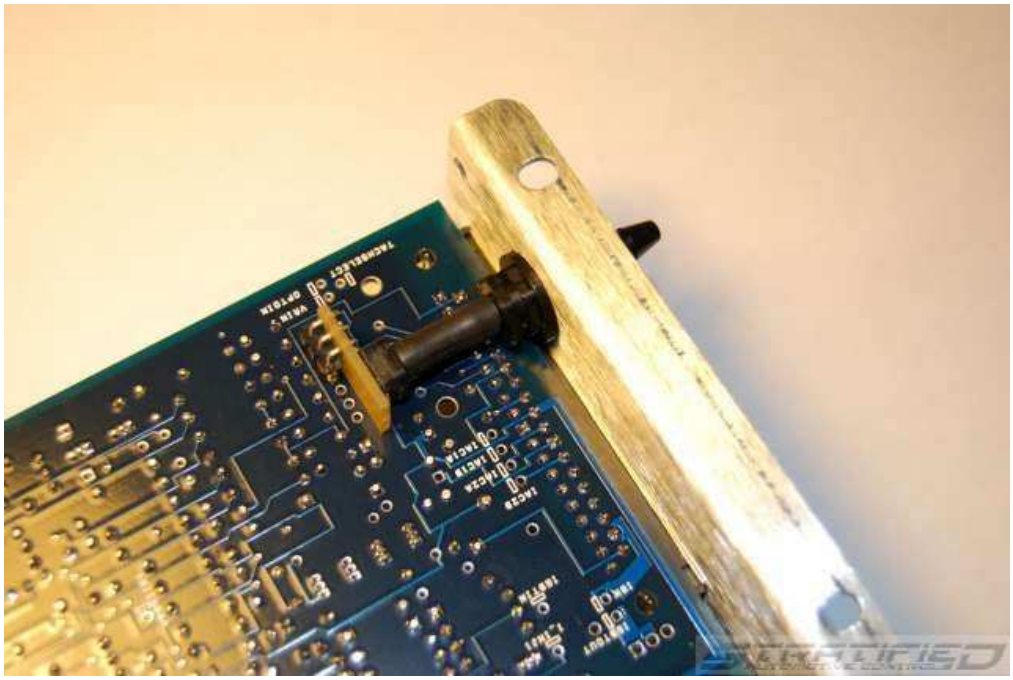
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Stratified MAP Sensor Installation Instructions



WARNINGS – PLEASE READ CAREFULLY

ALL parts are sold for OFF ROAD RACE-ONLY ground vehicle use only.
Aftermarket EFI/EMS systems are not for use on pollution controller vehicles. Alteration of emission related components constitutes tampering under most local emission regulation guidelines and can lead to fines and penalties.

Stratified Automotive Controls is not responsible for any fines, injuries, or damages incurred as a result of the installation or use of our products. It is the complete responsibility of the purchaser of such products to ensure that they are used in a legal and safe manner.

DISCONNECT THE NEGATIVE BATTERY TERMINAL BEFORE PERFORMING ANY OF THIS WORK. IF YOU DO NOT FEEL COMFORTABLE ABOUT MAKING THESE MODIFICATIONS, HAVE THEM PERFORMED BY A PROFESSIONAL.

Thank you for purchasing a Stratified Upgraded MAP Sensor!

The installation of the upgraded MAP Sensor (3 Bar or 4 Bar) in your Megasquirt is a simple procedure – however - it does require the use of a soldering iron and opening up the Megasquirt unit.

Tools required:

- Fine tipped soldering pen
- Fine solder
- *Solder removing tool or solder wick if you are removing an existing MAP sensor
- Pliers
- Cutters

What should have arrived with your Stratified MAP sensor package:

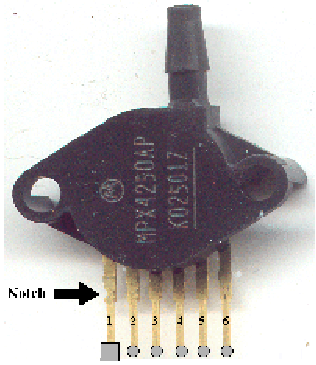
- 1 MAP Sensor (3 or 4 Bar)
- 1 nylon barb
- 1 locking nut
- 1 inch rubber hose



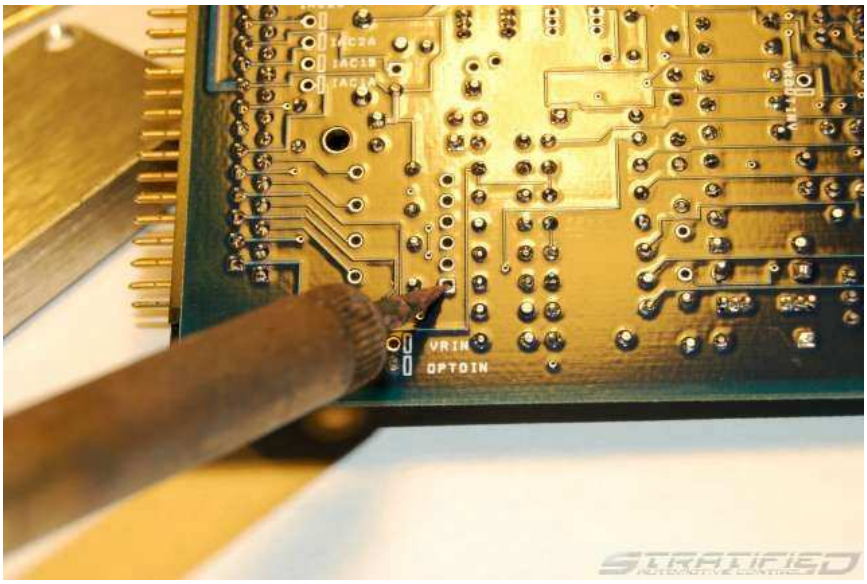
Installation steps:

1. Disassemble the Megasquirt unit such that the MAP sensor is exposed.

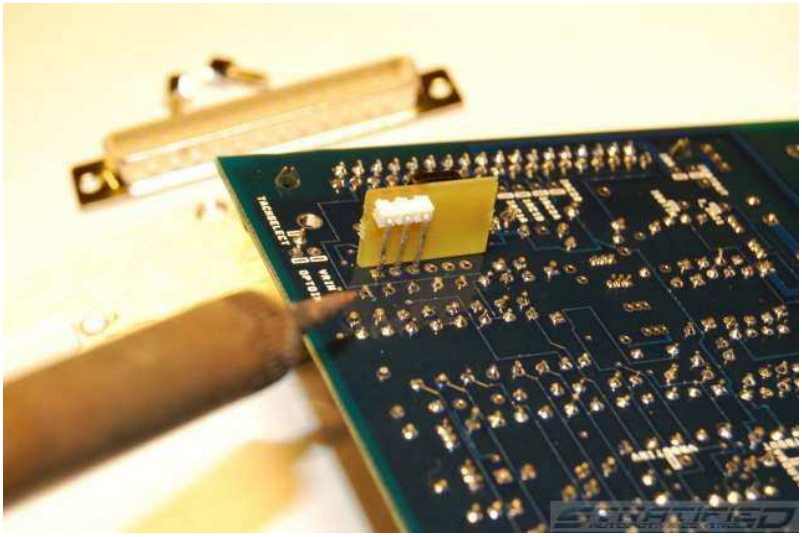
2. If this is an already built Megasquirt remove any old MAP sensor already present. Otherwise skip this step. The easiest way to remove an installed MAP sensor is to either use a solder sucking tool or solder wick and to gently heat up and remove the existing solder around the pins of the old sensor. This can be tedious, and you must be careful not to damage the solder pads or board. There are a total of 6 pins to unsolder. The stock Megasquirt MAP sensor is shown below.



3. Without the stock sensor in place, the Megasquirt board should look as shown below. Locate pad number 1 of where the MAP sensor installs on the Megasquirt board. Add a small amount solder to this pad only using the fine tipped soldering pen. This is also shown in the diagram below.



4. Gently insert the Stratified MAP sensor as shown below into the 3 pads it occupies. You must heat pad 1 up such that the sensor pin slides into the hole and the solder locks it in place as it cools.

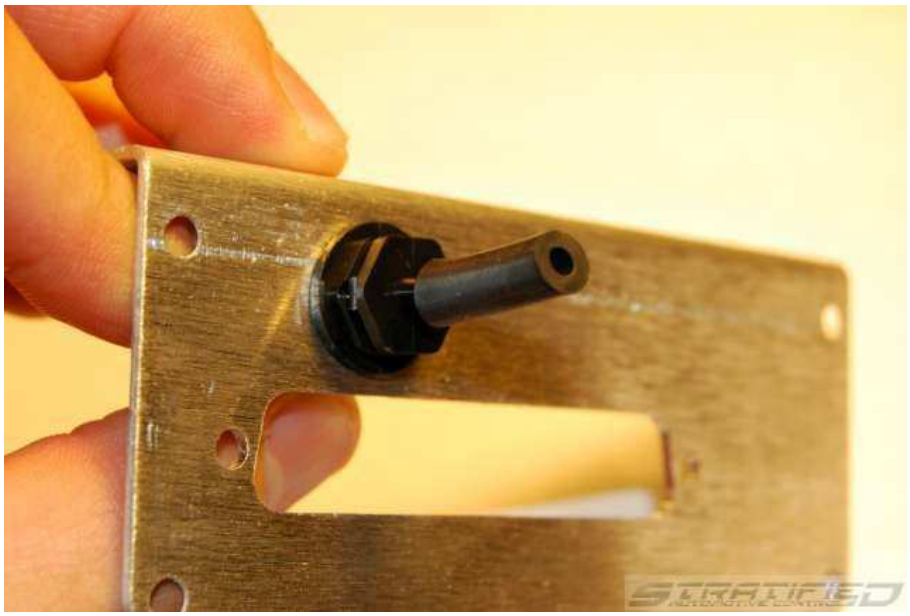


5. Securely solder the other 2 pins of the MAP sensor. Note that the upgraded MAP sensor only requires 3 pins, unlike the stock sensor.

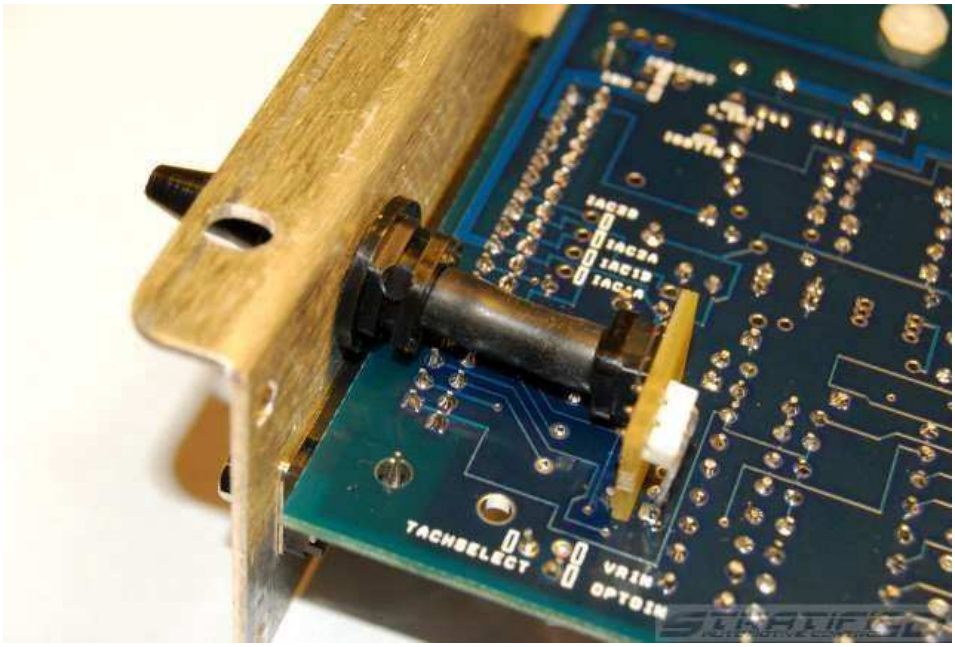
6. With the sensor in place on the board, take the end plate of the Megasquirt case and place the provided nylon barb through the MAP sensor hole with the larger barb towards the outside of the case. Use the locknut and a set of pliers to secure the barb to the case. Tighten the nut so that the barb is snug on the case, but do not over-tighten and damage the barb. This is shown below.



7. Cut the provided rubber hose to approximately 0.7-0.75 inches. This assumes you are installing in a standard case. Install the hose on the interior end (small end) of the barb as shown below.

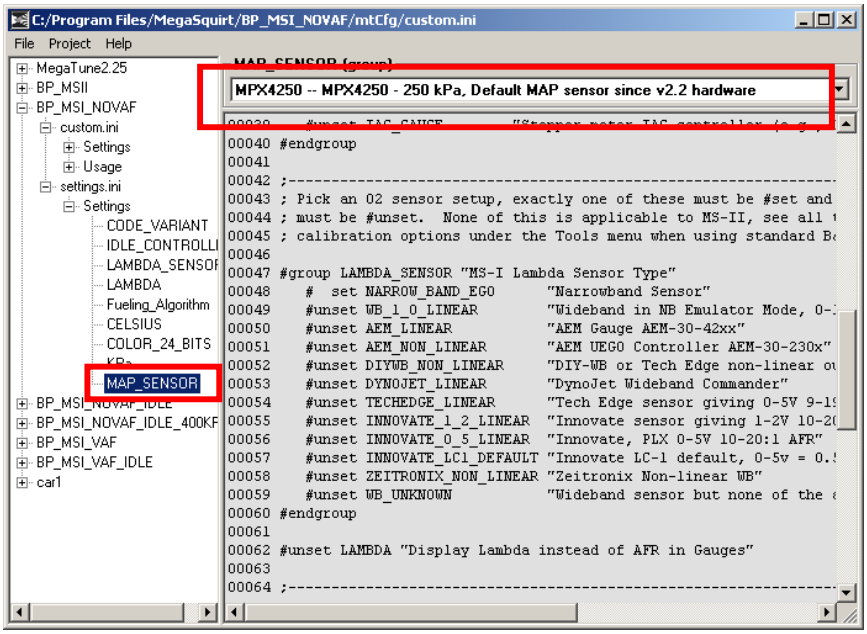


8. Re-install the end panel of the Megasquirt case, and connect the other end of the rubber hose to the MAP sensor. Ensure the hose fits snug over the MAP sensor barb as you are tightening down the Megasquirt case end panel as shown below.

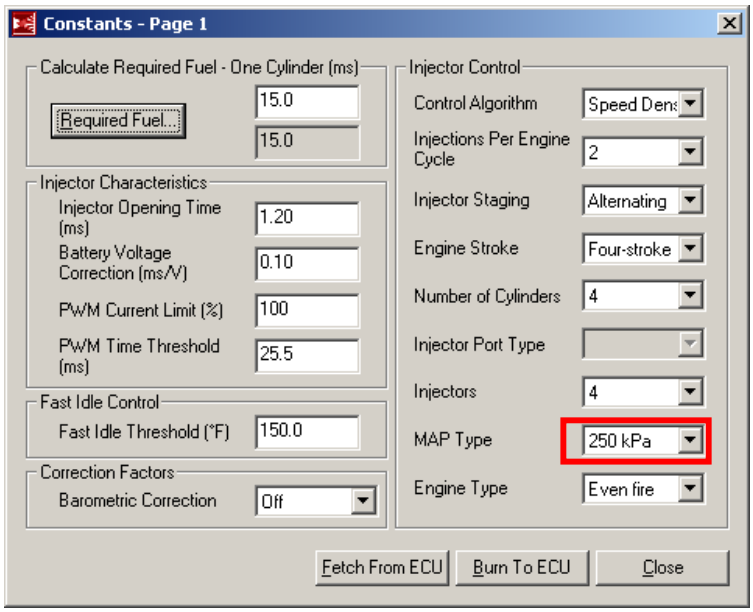


9. Re-assemble the Megasquirt case and install it into your vehicle. After doing this you need to calibrate the Megasquirt for the new sensor. This is different depending on the Megasquirt ECU you have and tuning software. Generally it is done in 3 steps:

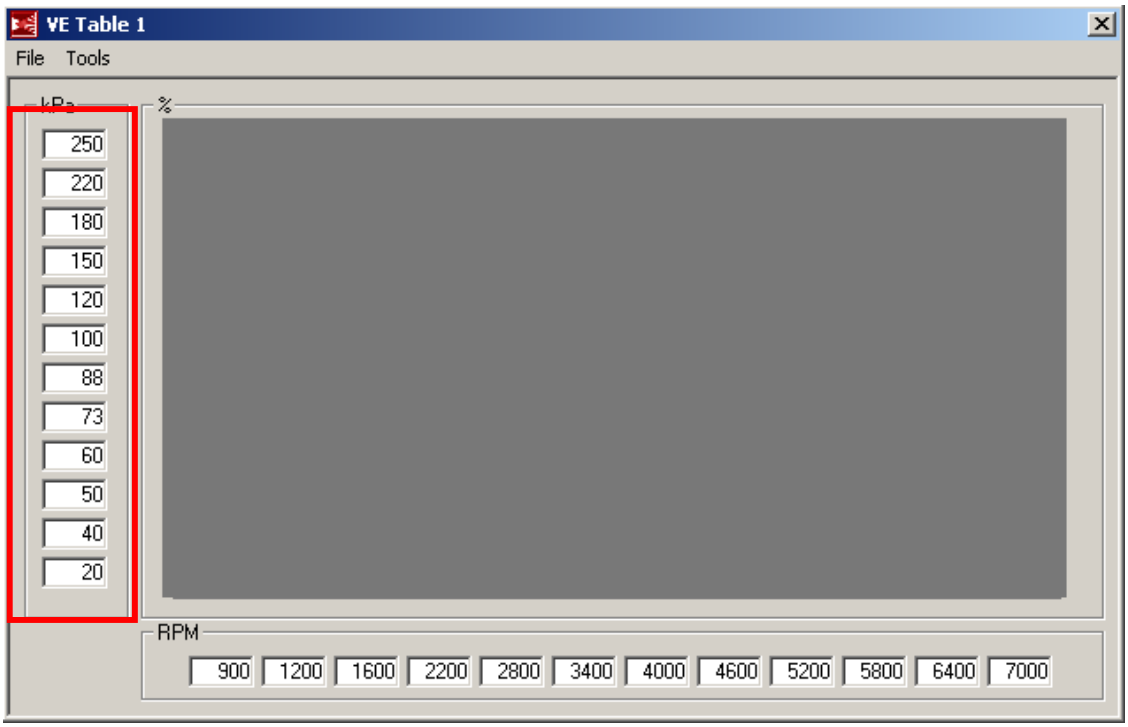
    a. Configure the software to read that the MAP sensor is the correct one. This is done in the Configurator in Megatune.



    b. Set the MAP sensor size under Engine Constants in Megatune to the correct size and burn this to the ECU.



c. Do not forget that your VE, spark, and fuel target tables have their Y-axis scaled for the old MAP sensor size. Rescale the Y-axis as necessary to take advantage of the larger range of the new MAP sensor.



10. Verify that the ECU is reading 100Kpa +/- 2 Kpa with the ignition on and engine off.

11. Enjoy tuning for your higher boost levels!