

EHS Racing EFI Controller Tuning

100% Satisfaction Guaranteed

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Agreement:

EHS Racing manufactures after market parts and accessories that can be used for racing. These parts are intended for use by professionals that have proper experience in operating the equipment that those products were designed for. These products are to be installed by qualified technicians whether it be yourself or dealer, by installing any products manufactured by EHS Racing or directly for EHS Racing you assume all liability for any damages direct or consequential resulting from the installation. EHS Racing's liability extends to product replacement only.

Tuning Instructions Continued

12. Now that you have the basics of how the EHS Tuner operates you need will need to put it to use in real situations. But first we are going to give you a few more things to consider.

Its recommended to use the map that has been configured for your application by EHS Racing. But we realize that every application is somewhat different that is why this is a configurable tuning device. You need to realize that settings you adjust can have adverse effects sometimes causing less power output. Also all maps that are designed by EHS Racing are at almost Sea Level so installing this box in different altitude will require adjustments.

For all those familiar with AFR good, for those that are not its ok but it provides a great insight to how your engine is performing. AFR stands for air to fuel ratio, it is how many parts of air compared to fuel are present during combustion. If you have a way to measure AFR it will greatly improve your tuning ability. If you don't have a way, don't worry we have done almost all the hard work already by creating solid maps to start with.

13. Knowing what your quad is doing and what adjustments to make can be a very complicated thing, especially when you don't have a baseline AFR measurement to go by. We are going to provide a little insight on how the box works to further familiarize you with it's capabilities and functions. Obviously we are not going to be able to cover every situation and tuning is something that comes with experience from trial and error. We just basically want to get you moving in the right direction so your not scratching your head wondering why, what, and running in circles.

14. One also needs to realize that this tuner will not correct mechanical problems which can sometimes be the case of engines that are very hard to tune. Mechanical problems are not limited to moving parts if your stock electrical or fuel ignition system is faulty this will not correct the faulty parts. Its only function is to

add more fuel where and how you tell it to add more fuel. It does not subtract fuel from the stock map it just adds it to the stock map by adding to the pulse signal that the injectors see.

15. The EHS Tuner takes the thought process of adding fuel and relates it to how a carburetor works confused don't worry.

The cruise mode relates to what a pilot jet would accomplish it affects the low rpm or partial throttle area of the fuel circuit. When you make changes it acts as increasing or decreasing the pilot jet. Depending on your application the cruise circuit may or may not affect your application at idle or below 1000 rpm usually it wont.

The acceleration mode will act like adjusting the needle position, subtracting or lowering the number will decrease fuel like raising the clip position to lower the needle into the main jet.

The full throttle mode will act like main jet adjustments bigger numbers act like bigger jets and vice versa

There is a little more to it but we want to get you thinking right before we really confuse you.

16. After you finish the installation and turn the engine on, the box will flash and go through its initiation settings when it turns green its on and ready. The first thing you should do is rev the engine and see what happens hopefully all is well. If not you will need to notice where the problem is and take into thought what throttle position and what lights on the tuner correspond with the problem area. If you have a serious issue you will need to address it then, if not try doing a run. After you make a run take those results into thought. Its a good idea to keep a log of what changes you make and the results. For safety purposes were going state please don't write these down while operating the vehicle.

17. Knowing what to change, this is where you will want to refer to the main three modes green, yellow, red. First you will need to determine if the problem is a lean condition or rich condition usually a lean condition will result in popping or erratic behaviors. A rich condition will usually feel sluggish or the power seems to come on slower than it should. Sometime you wont know only by trial and error and seeing what helps and what doesn't. Remember to log your changes it is much easier to look back at a list and see results.

18. The three main modes G,Y,R is where you will make the majority of the changes you are basically fine tuning for your situation we have set the last three blue modes for you. These modes are configurable and have larger effects on performance. They relate to switching points from mode to mode for example lowering the green/blue (mode 4) will tell that mode to come on sooner or at a lower rpm if you find you need fuel earlier in the initial acceleration then this is where you would adjust for that. It will also effect normal cruising conditions depending on application. Again try the main G, Y, R modes before changing the blue circuits.

The yellow blue (mode 5). If your running into situations where your are to lean on hard throttle acceleration runs, you may want to lower the yellow blue mode. The green (mode 1) generally adds the least amount of fuel over the stock curve because performance modifications do not usually require much more fuel over the stock map in comparison to the other modes. The yellow blue mode will either tell the tuner to push more fuel earlier or later in the hard acceleration part of the power curve.

The red blue (mode 6) this mode determines the switching point from the yellow mode (mode 5) to the red mode (mode 6) depending on your application this mode can come very quick where you will not be in the acceleration or yellow mode for very long. It will determine when the main fuel addition comes into play adjusting this mode will generally have a pretty noticeable affect on performance. Lowering the number will make the red mode come sooner this will also shorten the length that the yellow mode stays on.

The yellow blue and red blue modes are important because they are set to push different amounts of fuel in the base map, the part that you don't get to see. Some engines might like a leaner situations on initial hard accel and making them switch to full throttle mode to soon can hurt power.