

Instructions for installing the Best Dual Sport Bikes fuel programmer for the KTM 390 Adventure. This is a fuel tuner that stays on your bike. We have spent a lot of time getting the correct software written for it, so that it will provide you with the optimum amount of fuel and greatest power output, for various stages of modification for your KTM 390 Adventure Bike.

Here you see the fuel programmer in a great area to fasten it down. You will get some 2 sided velcro with the programmer. Use it to stick the programmer to the back of the air box, below the battery.

You also see the ground wire of the programmer here, connected to the battery ground. This is the best place to connect it.



Here you see how the injectore wires plug in. The grey plug up top is the stock wiring plug that you will disconnect from the injector.

The new lighter grey colored plug from the piggy back unit now plugs onto the injecto and the stock wiring clip plugs into the other side of the piggy back harness.

The injector is locate under the gas tank and you'll see it on the throttle body.

You don't have to take the tank all the way off, but you'll need to take off the seat and radiator shrouds to lift the tank up enough to gain access the injector clip.



When you turn the power on, lights will start flashing on the screen. There are 6 modes. Hit the mode button, and the first mode (green lights) will come on. It doesn't matter where they light up, but you'll want them in the 4 and 5 position when we are done.

If the light is in the 1 position (far left), push the + until positions 4 and 5 are illuminated. If you need to move the lights to the left, push the - button.



This is the 2nd mode, which is YELLOW lights. They will be set on 4 and 5 as well. Every mode, EXCEPT the 3rd mode (RED lights), will be set on the 4 and 5 position.



The 3rd mode, RED lights, you will want to set to the number 3 position (one light). This will provide an AIR/FUEL ratio of 12.5:1 when the bike is running above 7500 RPMs. This is true whether you are running an open exhaust or using our end cap. It runs in the same area with the stock header or De-cat header and stock airbox lid or more of an open lid.

If you set the Red lights at 4 and 5, this would increase the fuel above 7500rpm and the AIR/FUEL ratio would be in the 11.5:1 range...and that is too rich.



What you need to know about setting the programmer is this. We have tested a lot, and wrote the base program for this programmer. You can mess around with it if you want, but our settings are pretty solid and proven, and I wouldn't stray from them.

If you add more fuel to the accelerator pump circuit, there is a good chance that the settings we have will produce a more sluggish feel, or the engine light will come on after a while. This is because you are trying to give the bike too much fuel in the closed loop mode, the o2 sensor is trying to compensate for it. After trying to compensate for too long, the sensor tells the ECU something is wrong and the engine light comes on. You would have to get an OBD2 scanner tool at this point to erase the code.

The first three modes dictate the AMOUNT of fuel being provided.

- The GREEN light is the amount of fuel when the accelerator pump turns on. The green light on #8 position will give the bike a lot more fuel when you crack the gas vs the #1 position.
- The YELLOW light is the amount of fuel the accelerator circuit gets when it shuts off.
- The RED light is the amount of fuel the bike gets when the bike runs over 7500 RPM with our settings.

The last three modes, (4,5 & 6), are the switch points, or when each of the first 3 modes turns on. These are dictated by the green/blue, yellow/blue and red/blue lights. These modes are RPM based.

- Green/Blue is when the accelerator pump turns on. The 4 and 5 position turn it on at 2,500 RPM.
- Yellow/Blue controls when the pump turns off. Our setting turns it off at 8,000 RPM. Move this to position 6 and it would turn off at about 9,000 RPM.
- Red/Blue controls what RPM the added top end fuel turns on. We have it set at 7,500 RPM. If you lower the light to the number 3 position, it would turn on at about 6,000 RPM. The problem is, the bike would still be in closed loop mode, and try to fight the extra fuel being added, triggering an engine light to come on.

LONG STORY SHORT, THE SETTINGS ARE WELL FIGURED OUT AND CAUSE NO PROBLEMS, ONLY IMPROVEMENTS, SO WE STRONGLY ADVISE NOT TO MESS WITH THEM.