

# HMF Optimizer

Installation and Programming

Watch the Instructional Video at [HMFacing.com](http://HMFacing.com)



## Please Read Carefully

Read all instructions before installation. Make sure the motorcycle and exhaust system are completely cool & on level ground before installation. This is an involved installation process that may take up to 4 hours to install. You should have some mechanical knowledge and a basic set of tools. We advise that this installation be done by a qualified technician. Please consult your local motorcycle dealer. Make sure bike is on level ground and cooled down. A lift, center or rear stand will help. Check you local laws to make sure you are in compliance. HMF is not responsible if you are not. **The HMF Optimizer comes preset with our baseline settings. These settings have proven to produce the most horse power and torque on your specific make and model with our exhaust system being the only modification. Other modifications to your machine, as well as varying outside conditions, may warrant fine tuning.**

## HMF Optimizer Installation:

1. Locate the **Fuel Injector** on the **Throttle Body** which is located between the **Cylinder Head** and **Air Intake**.
2. Unplug the **Electric Connector** from the **Fuel Injector**.
3. Connect the **Female Optimizer Connector** to the **Fuel Injector**.
4. Connect the **Male Optimizer Connector** to the **OEM Fuel Injection Wire Harness**.
5. Mount the **Optimizer** in an area where you have easy access to it for "in the field tuning."
6. Route the single black **Optimizer Wire** to the **Negative Battery Post**. Run the HMF Optimizer wires so they're clear any moving or hot parts. (i.e. exhaust system, headpipe, s-bend, oil lines, hydraulic lines, etc.)

*On certain models, when you turn the key to the on position prior to starting the engine, you will see a red and green flashing light on the LED Bar. This is normal. If you see the same flashing red and green lights with the engine running, you have a bad connection. Check all of your connections and re-test.*

## HMF Optimizer Programming:

### Mode 1 (Idle - 1/4 Throttle): Green Light

1. Start your **Engine** and bring it up to operating temperature.
2. Press the **Mode Button** once.
3. Verify the position of the flashing **Green Light(s)**
4. Using the **(+) or (-) Button**, move the **Green Light** to your desired setting.
5. With the **Engine** idling, wait until a solid **Green Light** appears at the number 1 position. Once you see the solid **Green Light**, your settings are locked in.

### Mode 2 (1/4 - 3/4 Throttle): Amber Light

1. With your **Engine** at idle and the solid **Green Light** lit, press the **Mode Button** twice.
2. Verify the position of the flashing **Amber Light**.
3. Using the **(+) or (-) Button**, move the **Amber Light** to your desired setting.
4. With the **Engine** idling, wait until a solid **Green Light** appears at the number 1 position. Once you see the solid **Green Light**, your settings are locked in.

### Mode 3 (3/4 - Full Throttle): Red Light

1. With your **Engine** at idle and the solid **Green Light** lit, press the **Mode Button** three times.
2. Verify the position of the flashing **Red Light**.
3. Using the **(+) or (-) Button**, move the **Red Light** to your desired setting.
4. With the **Engine** idling, wait until a solid **Green Light** appears at the number 1 position. Once you see the solid **Green Light**, your settings are locked in.

### Modes 4 and 5:

Modes 4 and 5 are sensitivity modes that **Should Not Be Changed**. These baseline settings are pre-set in your Optimizer.

### 3 things you should never do with the Optimizer:

1. Never turn all the settings up to 8. This can damage your ATV by adding too much fuel.
2. Do not submerge your Optimizer in any fluid. It is only water resistant.
3. Do not attach your Optimizer or Optimizer Harness to your ATV in a place that it would likely get wet or be exposed to any moving or hot parts.

## Warranty Information

Your HMF Optimizer comes standard with a limited 2 year warranty against manufacturing defects. If you notice a problem with the Optimizer upon removal from the package please call HMF immediately. Evidence of water or heat damage will void the warranty. An Optimizer or Optimizer harness that has been altered in any way will also void the warranty.

## Having trouble? We can help

If your still having trouble with your installation, visit [www.HMFacing.com](http://www.HMFacing.com) to watch the video or contact us by e-mail, Live Chat, Forums, or calling 866.HMF.PIPE

