



## Polaris Ace

Installation: Full System



### Please Read Carefully

Read all instructions before installation. Make sure the vehicle and exhaust system are completely cool & on level ground before installation. You should have some mechanical knowledge and a basic set of tools. (A lift, center or rear stand will help.) We advise that this installation be done by a qualified technician. If this is a street vehicle, you may need to modify or replace your stock license plate bracket and turn signals. Please consult your local dealer. Check your local laws to make sure you are in compliance. HMF is not responsible if you are not.

### Stock Slip On Removal

1. Remove the: **Seat, Front engine cover, Rear bumper, Original muffler & head pipe**
2. The original gasket is reusable. Inspect it for wear or damage and replace if necessary.
3. Remove the original **heat shield** from the **muffler** and set it aside as you will reuse it with your new HMF exhaust.

### HMF Full System Installation

1. Install the **original heat shield** on the **HMF muffler** using the supplied hardware.  
Note: Secure the **left-side-rear-heat-shield-tab** using the supplied metal zip tie.
2. Be sure that the gasket is installed in the **cylinder head**. Install the **HMF head pipe** to the **cylinder head** using the original nuts and lock washers. Do not tighten
3. Install the muffler in the original location using the supplied bolt (with original washer) on the bottom mount.
4. Use a long piece of electrical wire to install the supplied spring at the **head pipe-to-inlet joint**. (See Figure 1)
5. Tighten the **head pipe-to-cylinder head** nuts.
6. Install the rear bumper, front engine cover and seat.
7. Check all areas around the exhaust system for clearance and alignment.

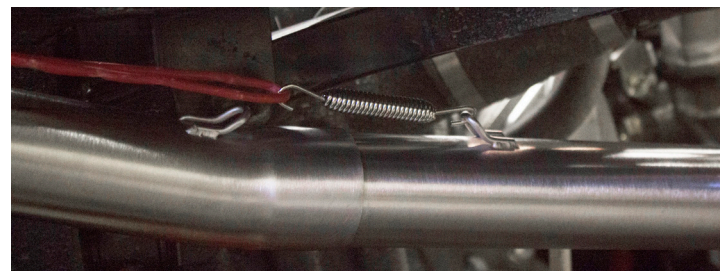


Figure 1

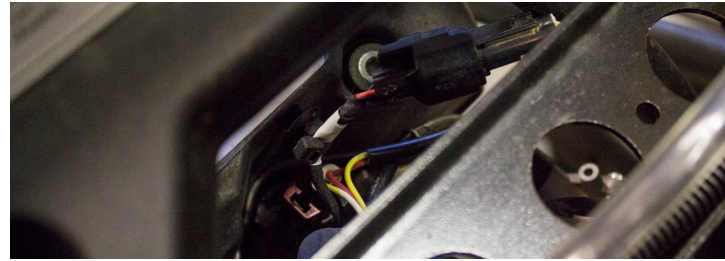


Figure 2

### HMF Optimizer Installation

1. Remove the top engine cover
2. Locate the fuel injector on the throttle body of the engine. It is directly in front of the fuel supply line. (See Figure 2)
3. Unplug the wire harness connector from the fuel injector. Plug the Female end of the Optimizer harness into the fuel injector. This connector has a maroon lock tab on it.
4. Plug the male Optimizer connector into the injector connector on the vehicle wiring harness.
5. Run the black ground wire to a good chassis ground or to the negative battery post.
6. Route the optimizer harness away from any hot or moving parts securing it with the supplied zip ties.
7. Using the supplied Velcro, mount the Optimizer away from any hot or moving parts.

### Recommended Optimizer Settings

**Green Mode: 4** (Idle and low throttle input)

**Yellow Mode: 2** (Moderate throttle input)

**Red Mode: 4.5** (High throttle input)

**Green/Blue: 4** (Idle lower swept)

*The next modes rarely needs to be changed:*

**Yellow/Blue Mode: 7** (Moderate throttle lower switch point)

**Red/Blue Mode: 7** (Moderate throttle lower switch point)

These settings are to be used as a starting point and were determined on our dyno at 900ft - 60°F. The final tuning is up to the customer. For more information about tuning, visit [www.HMFrac.com](http://www.HMFrac.com).

### Warranty Information

All HMF exhaust systems are covered by a limited warranty described on the enclosed warranty card. Mapping/Jetting and installation are the responsibility of the customer. HMF Performance exhausts are designed for closed-course competition use only.

### Having trouble? We can help.

If you're still having trouble with your installation, visit [www.HMFrac.com](http://www.HMFrac.com) and contact us by e-mail, Forums, or by calling 866.HMF.PIPE



This exhaust, EFI Controller, air filter, jet kit is not intended for use/sale in California and does not meet California, Federal, EPA, CARB noise or emission standards for on road/highway, public, private or state land and is prohibited for use by Federal law. This exhaust, EFI Controller, air filter, jet kit is intended for use in "closed course competition off road racing use only" on machines which do not fall under the California, Federal, EPA, CARB noise or emission standards. Modifications which exceed California, Federal, EPA, CARB noise or emission standards on non "Closed course competition off road racing use only" vehicles is prohibited by Federal law.

FOOTNOTE: 2006 and newer motorcycles with head/tail lights OEM from the manufacturer and every all terrain vehicle, even those intended for off road closed course competition use, are considered California, Federal, EPA CARB noise or emission controlled vehicles. Vehicle emission control information is noted in the owners manual and on the machine air box lid and exhaust muffler. Any modifications which exceed the California, Federal, EPA, and CARB noise or emission standard is prohibited by Federal LAW.