



## 2003 Honda CRF450

# MUFFLER INSTRUCTIONS

Thank you for purchasing the FMF Powercore 4 muffler for your **2003 CRF450**. We have spent countless hours of design work and testing to insure you receive the highest quality product on the market today.

Your Powercore 4 muffler has been developed using the latest design, testing and manufacturing technologies. It is manufactured from an extruded aluminum canister with a stainless steel tig welded mid pipe, hi-flo modular endcap and uses space age sound-absorbing packing material.

The Powercore 4 muffler is designed to broaden your existing powerband and give you an all around power increase.

**Check out our website [www.fmfracing.com](http://www.fmfracing.com) for more information.**

**Please read all instructions thoroughly before installation.** Failure to follow all installation instructions completely will void any FMF warranty implied or otherwise. FMF Racing will not be held responsible for problems derived from improper installation and/or improper usage.

Before you begin installing this product, be sure you are wearing **eye protection** and gloves. You should have a complete understanding of how to remove and replace your stock exhaust. If you do not, you should have it installed by a professional mechanic. Keep all OEM parts when removing your stock exhaust, as some parts may be utilized with the FMF exhaust depending on your particular application.

### PARTS SUPPLIED

- |                             |                                |
|-----------------------------|--------------------------------|
| (1) Long Strap Bracket      | (1) 25mm x 13mm Bracket Spacer |
| (1) Rubber Bracket Sleeve   | (1) 6mm x 12mm Bracket Bolt    |
| (1) Aluminum Reducer Sleeve | (1) 6mm Bracket Nut            |
| (1) 8mm x 30mm Bracket Bolt |                                |

### TOOLS REQUIRED

- |                  |                 |
|------------------|-----------------|
| 8mm Wrench       | Contact Cleaner |
| 10mm Wrench      | WD-40®          |
| 12mm Wrench      | Hi-temp Silicon |
| Vise Grip Pliers |                 |

### REMOVAL

OEM = Original Equipment Manufacturer

- 1] Remove the right plastic side panel to gain access to the muffler.
- 2] Loosen the OEM header clamp at the front of the muffler.
- 3] Slightly loosen the header flange at the front of the motor.
- 4] Loosen and remove the front OEM muffler bolt. Keep for later use.
- 5] While holding the muffler, loosen and remove the rear OEM muffler bolt.
- 6] Gently slide the muffler rearward to release it from the header. Spray WD-40 on the joint if it is difficult to remove.

### PRE-INSTALLATION

- 7a] If installing the FMF muffler onto the OEM header, insert the aluminum reducer sleeve into the front of the muffler until it is fully seated. Use some hi-temp silicon to aid sealing.
- 7b] If installing the FMF muffler onto a FMF PowerBomb header, the aluminum reducer sleeve will not be used. Keep it for future use though
- 8] Install the rubber sleeve onto the strap bracket so that the rubber is facing inward. Make sure the outer lip is over the bracket edge fully. No rubber should be in the area where the bracket tabs pinch together.
- 9] Clean the header where the muffler slips over with contact cleaner.
- 10] Lightly coat the header with hi-temp silicon to aid sealing.

## INSTALLATION

- 11] Slip the muffler inlet over the header.
- 12] Install the existing OEM bolt into the front lower mount. Do not fully tighten at this time.
- 13] Slide the strap bracket carefully over the muffler and position it to the rear upper mounting point. Be careful not to scratch the aluminum canister and make sure the “inside” sticker on the bracket is towards the subframe.
- 14] Using vise grip pliers, pinch the strap bracket tabs together and install the supplied 8mm bolt with the aluminum spacer between the subframe and the bracket. Do not fully tighten at this time.
- 15] Install the supplied 6mm bolt in the strap bracket using the 6mm nut.
- 16] Slowly tighten all mounting fasteners and clamps to OEM specified torque specs, starting from the header and working back. Make sure the header and muffler are in neutral positions and not binding.
- 17] Inspect the complete exhaust to make sure the exhaust system is not in contact with the frame, shock spring, engine, body panels or any cables, hoses or wiring. The exhaust system should only be in contact with the exhaust port and mounting points. Confirm all controls operate in accordance with the manufacturer’s specifications.

## POST-INSTALLATION

- 18] Before operating your CRF450, we recommend stock jetting with the FMF exhaust. In some cases a larger pilot jet may need to be used. Our sea-level, 70 degree, jetting recommendations are to be used as a guide only. There are too many variables outside of FMF’s control to give you an exact configuration. If you’re not capable of tuning your motorcycle yourself, please find a mechanic in your area who is capable to take on this role. Refer to our website for more jetting information.
- 19] Start the engine and bring it up to operating temperature. Check for exhaust leaks.
- 20] Let engine cool completely and re-torque all mounting hardware to the manufacturers specifications.

## MAINTENANCE

To clean your FMF muffler, simply use soap and water when it becomes dirty. Let exhaust system cool before cleaning. Do not spray cold water onto a hot exhaust. Dry completely.

Use a fine scotch-brite pad and WD-40® to clean the stainless steel mid pipe and endcap if needed.

We recommend repacking your Powercore 4 muffler after 20-30 hours of use when properly jetted. This will maintain peak performance and keep that race tone. We have various packing materials to choose from. We also recommend cleaning the spark arrestor screen (if equipped) every 30 hours of use using a wire brush gently.

To repack the muffler, remove the four (4) allen screws from the front of the muffler using a 4mm allen wrench. Do not remove the rear endcap. Gently slide out the front mid pipe from the muffler canister. You may need to use a rubber or plastic mallet to lightly tap it out. Be careful not to damage the muffler. Unwrap the packing from the core and discard. If your muffler uses a 2 stage packing, only remove the outer layer. Wrap the core with new packing and secure with a strip of masking tape. Do not pack too tightly, as this will hamper performance and increase the sound level. Before re-installing the inner core assembly, apply a thin layer of hi-temp silicon on the front endcap where the aluminum canister slips over. Slip inner core assembly into canister making sure the perforated core fully seats in the rear endcap. Re-install the allen screws until snug or tighten 1/4 turn after the screw makes contact with the canister.

### Disclaimer:

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