



# Factory 4 SYSTEM

2004 HONDA CRF250R

## EXHAUST INSTRUCTIONS

Thank you for purchasing the FMF Factory 4 system for your **2004 CRF250R**. We have spent countless hours of design work and testing to insure you receive the highest quality product on the market today.

Your Factory 4 exhaust has been developed using the latest design, testing and manufacturing technologies. The muffler is manufactured from military grade titanium with a TIG welded mid pipe, modular endcap and uses space age sound-absorbing packing material alongside the titanium PowerBomb header..

The Factory 4 system is designed to broaden your existing powerband and give you an all around power increase with substantial centralized weight savings.

**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) Rubber Bracket Sleeve
- (1) 8mm x 25mm Bracket Bolt
- (1) 19mm x 7.5mm Bracket Spacer
- (2) 70mm Exhaust Springs
- (1) 6mm Nut & Bolt

### TOOLS REQUIRED

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

### 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 engine.
- 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.
- 7 - Using a 12mm wrench remove the two (2) nuts attaching the exhaust flange to the front of the engine. Keep for later use.
- 8 - Remove the stock header and put the exhaust port gasket to the side to be re-used if in good condition, replace if needed.

### PRE-INSTALLATION

- 9 - 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.
- 10 - Clean the exhaust port with contact cleaner and coat the OEM exhaust port gasket with some hi-temp silicon and insert up into the exhaust port.

## **INSTALLATION**

- 11 - Install the new FMF PowerBomb header by following the supplied header instructions.
- 12 - Lightly coat the header with a bead of high temp. silicon where the exhaust inlet slips over.
- 13 - Slip the FMF mid-pipe inlet over the header until it is fully seated.
- 14 - Lightly coat the mid-pipe with a bead of high temp. silicon where the muffler inlet slips over.
- 15 - With clean hands, gently slip the FMF muffler onto the mid-pipe. The FMF logo should be at 3 & 9 o'clock when looking from the rear for proper positioning.
- 16 - While supporting the muffler, install the two (2) exhaust springs from the muffler to the mid-pipe using a spring puller tool. (one spring on top, one on bottom)
- 17 - Slide the long strap bracket carefully over the muffler and position it to the rear upper mounting point. Make sure the "inside" sticker on the bracket is towards the subframe.
- 18 - Using vise grip pliers, pinch the strap bracket tabs together and install the supplied 8mm x 25mm bolt with the 19mm x 7.5mm aluminum spacer between the subframe and the bracket.
- 19 - Install the supplied 6mm bolt in the strap bracket using the 6mm nut.
- 20 - 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.
- 21 - 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.
- 22 - Your muffler may have a protective coating to protect its finish. You will need to clean this off prior to starting the engine with either Windex® or 409®.

## **POST-INSTALLATION**

- 23 - Before operating your CRF250R follow the instructions and install the Power-Up jetting kit for optimum performance. There are too many variables outside of FMF's control to give you an exact configuration. If you're not capable of tuning your bike/ATV yourself, please find a mechanic in your area who is capable to take on this role. Refer to our website for more jetting information.
- 24 - Start the engine and bring it up to operating temperature. Check for exhaust leaks.
- 25 - 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. Windex® works great on the muffler canister to prevent streaking and uneven discoloration. Let the exhaust system cool before cleaning. Do not spray cold water onto a hot exhaust. Dry completely to prevent streaking.

We recommend repacking your Titanium 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.

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### **Disclaimer**

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