



18033 S. Santa Fe Ave
 Rancho Dominguez, CA 90221-5514
 PH: 310-631-4363 FX: 310-900-5699
 www.fmfracing.com
 [09-03 / #000397]

2004 Honda CRF450R

MUFFLER INSTRUCTIONS

Thank you for purchasing the FMF Titanium 4 muffler for your **2004 CRF450R**. We have spent countless hours of design work and testing to insure you receive the highest quality product on the market today.

Your Titanium 4 muffler has been developed using the latest design, testing and manufacturing technologies. It is manufactured from military grade titanium with either a stainless steel or titanium TIG welded mid pipe, modular endcap and uses space age sound-absorbing packing material.

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

Check out our website 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		TOOLS REQUIRED	
(1) Long Strap Bracket	(1) 6mm Nut & Bolt	5mm Allen Wrench	Contact Cleaner
(1) Rubber Bracket Sleeve	(2) 70mm Exhaust Springs	8mm Wrench	WD-40®
(1) 8mm x 35mm Bracket Bolt	(1) #58 Header Band Clamp	12mm Wrench	Hi-temp Silicon
(1) 25mm x 13mm Bracket Spacer		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.
- 11> Slip the header band clamp onto the front of the mid-pipe. Do not tighten at this time.

INSTALLATION

- 12> Slip the FMF mid-pipe inlet over the header until it is fully seated. (The inlet is the side with the notches)
- 13> Loosely install the OEM front muffler bolt through the subframe and into the front of the mid-pipe.
- 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 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 upper mounting point. Be careful not to scratch the canister and 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 bolt with the 25mm x 13mm aluminum spacer between the subframe and the bracket. Do not fully tighten at this time. Install the supplied 6mm bolt in the strap bracket using the 6mm nut.
- 19> 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.
- 20> 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.
- 21> 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

- 22> Before operating your CRF450R, 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 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.
- 23> Start the engine and bring it up to operating temperature. Check for exhaust leaks.
- 24> 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 end-cap. 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

FMF Racing inspects all products prior to packaging and strives toward improving its products. Our guarantee is limited to the replacement of defective products. This limited guarantee is in lieu of all other guarantees or warranties implied or expressed. Buyer assumes all risk for any and all damage caused to himself, a third party and/or property by virtue of failure of this product. We make no warranty as to products distributed by FMF Racing, expressed or implied from our suppliers or 3rd party vendors. This includes, without limitation, any warranties or merchantability and fitness for a particular purpose. All products are offered and designed for use with standard machines. FMF Racing makes no claims as to the products effectiveness on modified machines. FMF Racing is the sole determiner of abuse, misuse, installation errors and modifications. We assume no liability for any errors in listings, specifications, part numbers, prices or model applications. We reserve the right to change specifications, product descriptions, product quality, pricing and application at any time without notice and without further obligation. By installing and/or using an FMF product, you hereby accept and understand these stated terms and conditions and have followed all instructional steps.