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 [12-05 / #000691]

## Yamaha YZ/WR450F

# Ti-Powercore™ Installation

Thank you for purchasing the FMF Ti-PowerCore™ muffler for your Yamaha. We have spent countless hours of R & D and testing to ensure you receive the highest quality product on the market today.

All FMF's products are developed using the most current technology available for design and manufacturing. We use only the highest quality materials for function and durability. The Ti-PowerCore™ muffler is constructed from military grade titanium for the canister and rear endcap with a stainless steel front endcap and mandrel bent mid-pipe and we utilize advanced multi stage packing material.

The Ti-PowerCore™ muffler is specifically engineered to broaden your existing powerband and give you an all-around power increase with substantial weight savings. Bolt on FMF performance and FEEL THE POWER!

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

### ATTENTION

This product is designed for closed course use only unless otherwise stated and not intended to meet emission regulations for use on public lands, roads, or access routes - consult with local jurisdictions.

**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. Otherwise, you should have it installed by a professional mechanic. Keep all OEM parts when removing your stock exhaust, as some parts may be necessary to install the FMF exhaust depending on your particular application.

### PARTS SUPPLIED

(1) Ti-PowerCore Muffler	044143, 160, 192, 199, 222
(1) 8mm x 20mm Bolt	920192
(1) Stepped Aluminum Panel Spacer	920139

### TOOLS REQUIRED

8mm Wrench  
 10mm Wrench  
 12mm Wrench  
 Contact Cleaner  
 High Temp Silicone  
 WD-40®

### REMOVAL

*OEM = Original Equipment Manufacturer*

1. Make sure the engine is completely cool prior to installation and the vehicle is in a stable position.
2. Remove the right plastic side panel to gain access to the muffler.
3. Loosen the band clamp connecting the muffler to the header.
4. Remove the OEM bolt that attaches the mid-pipe to the subframe. Keep for later use.
5. While holding the muffler, loosen and remove the OEM muffler mounting bolt.
6. Gently slide the muffler rearward to release it from the header. Spray WD-40 into the muffler-header junction if it is difficult to remove.

### PRE-INSTALLATION

8. Using contact cleaner, clean the section of the header where the mid-pipe slips over.
9. Lightly coat the slip fit section of the header where the mid-pipe connects with a bead of High Temp Silicone for an improved seal.

## **INSTALLATION**

10. With clean hands, gently slide the FMF muffler onto the header. Wipe away any excess silicone.
11. Install the existing OEM bolt through the subframe into the mid-pipe. Do not fully tighten at this time.
12. Install the supplied 8mm x 20mm bolt. Do not fully tighten at this time.
13. Make sure the header and muffler are in neutral positions and not binding. Slowly tighten all mounting fasteners and clamps to OEM specified torque specs, starting from the front and working your way back.
14. When re-installing the right plastic side panel, replace the aluminum insert at the bottom front mounting hole with the supplied stepped spacer. This spaces the side panel out more for proper clearances.
15. Inspect the complete exhaust to make sure there is no 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**

16. We recommend using High Temp Silicone for an improved seal. Please follow instructions for the Silicone and allow sufficient time to dry before starting the engine.
17. Before operating your vehicle, we recommend either stock jetting or installing our Power-Up jetting kit for optimum performance. Our jetting recommendations are to be used as a guide only and were developed based on operation at sea-level at 70 degree ambient air temperature. There are too many variables outside of FMF's control to give you an exact specification. If you're not capable of tuning the carburetor yourself, please find a mechanic in your area who is capable to take on this role. Refer to our website for more jetting information.
18. Start the engine and bring it up to operating temperature. Check for exhaust leaks.
19. Let engine cool completely and re-torque all mounting hardware to the manufacturers specifications.

## **MAINTENANCE**

To clean your FMF muffler, allow to cool and use mild soap and water. Do not spray water onto a hot exhaust. Dry completely to prevent streaking. Mild soap and water is recommended on the muffler canister to prevent streaking and uneven discoloration.

We recommend repacking your FMF muffler after every 20-30 hours of normal use when properly jetted. This will maintain peak performance and keep that race tone. Water will ruin the packing. Cover the exhaust outlet when washing your machine. Repack your muffler if water enters into the chamber. We have various packing materials to choose from. We also recommend cleaning the spark arrestor screen (if equipped) gently using a wire brush after every 30 hours of use.

To repack the muffler, remove the allen screws from the front of the muffler using an 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. Clean core with a wire brush then wrap with new packing and secure with a strip of 1/2" 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 high temp silicone on the front endcap where the canister slips over. Slide inner core assembly into canister making sure the perforated core fully seats in the rear endcap. Wipe off any excess silicone. Re-install the allen screws until snug or tighten 1/4 turn after the screw makes contact with the canister.

DISCLAIMER: All products manufactured and/or distributed by FMF Racing are a) intended for use on stock vehicles specific to the U.S. market; b) for closed course use only unless otherwise stated and c) not intended to meet emission regulations for use on public lands, roads or access routes – consult with local jurisdictions. FMF Racing makes no claims as to the products applicability, effectiveness or fitment 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. Buyer assumes all risk for any and all damage caused to themselves, a third party and/or property by virtue of failure of these products. By installing and/or using an FMF product, you hereby accept and understand these stated terms and conditions and have followed all instructional steps.