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[05-05 / #000493]



Yamaha Raptor-350 PowerCore4™ S/A Installation

Thank you for purchasing FMF's PowerCore4™ S/A muffler for your **Yamaha Raptor 350**. We have spent countless hours of R & D and testing to insure you receive the highest quality product on the market today.

All FMF's products are developed using the most current design and manufacturing technologies available. We use only the highest quality materials for function and durability. The PowerCore4™ S/A muffler is constructed of an extruded aluminum canister with a TIG welded stainless steel mandrel bent mid-pipe. Hi-Flo modular endcaps are fitted to both ends and we utilize advanced 3-stage sound absorption packing material.

The PowerCore4™ S/A muffler is specifically engineered as a free flowing exhaust with substantial weight savings over the stock muffler. Bolt on FMF performance and FEEL THE POWER!

Check out our website at 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) PowerCore4 Muffler | (1) 8mm x 60mm Bracket Bolt |
| (2) Strap Bracket | (1) Band Clamp |
| (2) Rubber Bracket Sleeve | |
| (1) 19mm x 15mm Aluminum Spacer | |
| (1) 19mm x 50mm Aluminum Spacer | |
| (1) 8mm x 30mm Bracket Bolt | |

TOOLS REQUIRED

- | | |
|------------------|--------------------|
| 8mm Wrench | WD-40® |
| 10mm Wrench | High Temp Silicone |
| 12mm Wrench | |
| 5mm Allen Wrench | |
| Vise Grip Pliers | |
| Contact Cleaner | |

REMOVAL

OEM = Original Equipment Manufacturer

1. Make sure the Vehicle is completely cool and in a stable position prior to installation.
2. Loosen the OEM band clamp at the front of the muffler.
3. Loosen and remove the upper front OEM muffler bolt.
4. While holding the muffler, loosen and remove the upper rear OEM muffler bolt.
5. Gently slide the muffler rearward disconnecting it from the header. Spray WD-40 into the muffler-header joint if it is difficult to remove.

PRE-INSTALLATION

6. Install the rubber sleeves onto the strap brackets so that the rubber is on the inside of the bracket. Make sure the outer lip of the rubber is over the bracket edge fully. No rubber should be in the area where the bracket tabs pinch together.
7. Using contact cleaner, clean the section of the header where the mid-pipe slips over.
8. Lightly coat the slip fit section of the header with a bead of high temp silicone for an improved seal.
9. Slide the supplied band clamp onto the the muffler inlet. Do not tighten at this time.

INSTALLATION

10. With clean hands, gently slide the FMF muffler onto the header. Positioned correctly the FMF logos should be at the 3 & 9 o'clock position when looking from the rear. Wipe away any excess silicone.
11. Slide the first strap bracket carefully over the muffler and position it to the front lower mounting point. Be careful not to scratch the aluminum canister and make sure the "inside" sticker on the bracket is facing inward to the subframe.
12. To install the forward mounting bracket, use vise grip pliers to pinch the strap bracket tabs together and install the supplied 8mm x 30mm bolt with the 19mm x 15mm aluminum spacer between the subframe and the bracket. Do not fully tighten at this time.
13. Slide the rear 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 facing inward to the subframe.
14. Using vise grip pliers, pinch the rear strap bracket tabs together and install the supplied 8mm x 60mm bolt with the 19mm x 50mm aluminum spacer between the subframe and the mounting bracket. Do not fully tighten at this time.
15. 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.
16. 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

17. 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.
18. 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.
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, 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 a 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. Wrap the core 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 aluminum 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.