

# Instructions for Installing Full System

Thank you choosing FMF as your performance aftermarket exhaust. We have spent countless hours of R&D and testing to ensure you receive the highest quality product on the market today.

All FMF products are developed using the most current technology available for design and manufacturing. Every exhaust is made 100% at the Flying Machine Factory in Southern California. We use only the highest quality American materials for function and durability.

Since 1973, FMF has been bringing you the very best in bolt on performance. Our products are specifically engineered to broaden your existing powerband and give you an all around power increase with substantial weight savings. Bolt on FMF and *FEEL THE POWER*!

Please read all instructions thoroughly before installation. Failure to follow all installation instructions will void any warranty implied or otherwise. FMF Racing is not responsible for problems due to improper installation and/or improper use.

Before you begin installing this product, we recommend wearing safety glasses and mechanics gloves. You must know how to remove and replace your stock exhaust in order to install this FMF product otherwise have it installed by a professional mechanic. Keep all stock parts from your existing system as some components may be necessary to install your new FMF exhaust depending on the application.

Parts Supplied Tools Required

(1) 4.1 Complete system 045094,95,97; 045103-05; 145049,50

(1) 8x20mm bolt 920192 spri

8, 10, 13mm socket wrench spring puller WD-40 contact cleaner High Temp silicone

## Removal

- 1. Make sure the engine is completely cool prior to installation and the vehicle is in a stable position with the rear wheel off the ground.
- 2. Using a spring puller tool, remove the spring connecting the muffler to the header. Keep for later use.
- 3. While holding the muffler, loosen and remove the two muffler mounting bolts. Keep for later use.
- 4. Gently slide the muffler rearward to release it from the header. Use WD-40 in the muffler/header junction to help ease removal.
- 5. Remove the rear shock
- 6. Using a spring puller tool, remove the two springs attaching the header to the exhaust flange. Keep for later use.
- 7. Remove the bolt attaching the header to the frame.
- 8. Remove lower subframe bolts and loosen upper ones. Carefully rotate subframe up to gain clearance to remove header.
- 9. Gently slide the header forward off the header flange. Use WD-40 in the header/flange junction to help ease removal.
- 10. Carefully remove the header.

## Pre - Installation

- 11. Reinstall the shock and subframe bolts.
- 12. One of the stock rubber muffler mounts will be used with your new muffler. Remove the two aluminum washers from one mount and carefully push out the rubber grommet with a small screwdriver using care not to tear the rubber. Install grommet and washers onto your new muffler. Use WD-40 to aid in removal and installation of the grommet.
- 13. Using contact cleaner, clean the section of the exhaust port where the header connects. Allow to dry then lightly coat with a bead of high temp silicone for an improved seal.

# Installation

- 14. Position the FMF header and slide over the exhaust port flange. Using a spring puller tool, attach the stock springs from the header to the flange. Wipe off any excess silicone.
- 15. Lightly coat the slip-fit section of the header where the midpipe connects with a bead of high temp silicone for an improved seal.
- 16. Slide the FMF midpipe onto the header and make sure it is fully seated. Wipe off any excess silicone.
- 17. Thread the supplied 8x20mm bolt through the frame into the midpipe. Do not full tighten at this time.
- 18. Install the stock muffler spring removed in step #2 from the header to the midpipe using a spring puller tool.
- 19. Lightly coat the slip-fit section of the midpipe where the muffler connects with a bead of high temp silicone for an improved seal.
- 20. Slide the FMF muffler onto the midpipe. Wipe away any excess silicone.
- 21. Use one of the stock bolts removed in step #3 to mount the muffler to the subframe. Do not fully tighten at this time.
- 22. Make sure the header and muffler are in a neutral position and not binding. Slowly tighten all mounting fasteners and clamps to manufacturer's specifications starting at the midpipe and finishing at the rearmost muffler mount.
- 23. 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 manufacturer's specifications.
- 24. Reinstall all body parts and panels to manufacturer's specifications.

# Post - Installation

- 25. We recommend using high temp silicone for an improved seal. Please follow instructions for the silicone and allow sufficient time to cure before starting the engine.
- 26. All FMF exhaust products are designed to use stock jetting unless otherwise noted. However for optimum performance, we offer our Power Up Jet Kit for many applications. Our jetting recommendations are to be used as a guide only and were derived from operation at sea level at 70 degree ambient air temperature. There are too many variables to provide precise jetting specifications; mainly altitude and temperature. If you are not capable of tuning a carburetor yourself, please find a mechanic in your area.
- 27. Start the engine and bring to operating temperature. Check for exhaust leaks.
- 28. Allow the engine to cool completely and torque all mounting hardware to manufacturer's specifications.

## Maintenance

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

We recommend repacking your FMF muffler after every 20-30 hours of normal use when properly jetted (more frequently for less than optimal jetting). This will maintain peak performance and keep that race tone. Water will ruin packing. Cover the exhaust outlet when washing your vehicle. Repack your muffler if water enters the chamber and saturates the packing. We offer various repack kits to choose from. If the muffler has a spark arrestor screen, we recommend cleaning it gently with a wire brush after every 30 hours of use.

To repack the muffler, remove the allen screws from the <u>front</u> of the muffler. Do not remove the rear end cap. Grasping the midpipe, work the front end cap out of the canister. Use care not to damage or distort the shape of the canister or end cap. You may need a rubber or plastic mallet to lightly tap the front end cap out of the canister. Unwrap the packing from the core and discard. Clean the core with a wire brush then wrap with new packing and secure with a strip of 1/2" masking tape near each end of the core. Do not pack too tightly as this will hamper performance and increase sound level. Before reinstalling the inner core assembly, apply a thin bead of high temps silicone on the front endcap where it makes contact with the canister. Slide the inner core assembly into the canister making sure the perforated core is fully seated into the rear end cap. Wipe off any excess silicone. Reinstall the allen screws and tighten 1/4 turn after the screw contacts the canister. Allow sufficient time for the silicone to cure before starting the engine.

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