



## **FAT BOY 4 COMPLETE EXHAUST SYSTEM**

**MODEL: 2009-16 Yamaha YFZ 450R (EFI Model)**

1. Remove stock exhaust system; Retain stock head nuts
2. Before starting your Fat Boy 4 installation. You must make sure that the cylinder head exhaust gasket is intact and in good condition (usually they stay in the cylinder head when exhaust header is removed). Under normal conditions it is OK to reuse them. If it is missing or in need of replacement (if gasket appears squashed or mushroomed out-replace) New exhaust gaskets are available from your Yamaha Dealer Part # 3VD-14613-01-00.

**DO NOT RUN MACHINE WITHOUT EXHAUST GASKET.** It also a good idea to make sure that the (exhaust studs mounted in cylinder head are in good shape. If there is any doubt of their condition. Replace with new OEM Yamaha studs part # 90116-08022-00  
*Improperly sealing exhaust gaskets will decrease performance and can also cause engine to pop and back fire, especially when engine is decelerating.*

3. Install Fat Boy 4 header pipe using. Use stock oem head nuts. Hand tighten only.
4. You are now ready to install the Fat Boy 4 muffler/tail section. The tail section is secured to the Fat Boy 4 muffler at the factory before shipping. *If these (4) 6mm stainless button head allen screws are ever loosened or removed they must be reinstalled with some form of medium strength hi temp thread lock (recommended Loctite 246 Blue Hi Temp).*  
Before sliding tail section onto header it is recommended to apply a thin coat of hi-temp silicone to the inside of the tail section (female side) covering approximately about ½" of the initial part of the tail pipe. This will keep exhaust from leaking at the slip-fit joint and make removing pipe in future easier.
5. Reinstall the (2) 8mm OEM muffler flange type bolts in the muffler mounts going into sub-frame. Tighten muffler bolts and sub frame nut securely.
6. Tighten header pipe (torque 17 ftlbs). Make sure to tighten header nuts evenly.

### **SEE BELOW FOR TUNING and AIR INTAKE RECOMMENDATIONS**

7. AIR INDUCTION: For maximum performance DRI recommends installing a Pro Flow Air Cleaner kit (billet flange, K&N Filter, Outerwear) with air box lid removed.
8. **AIR FUEL MIXTURE MUST BE ADJUSTED. MIXTURE WILL BE TOO LEAN IF MACHINE IS RUN UNCORRECTED, RESULTING IN POSSIBLE ENGINE DAMAGE.**



**CARBURETION:** This machine is NOT carbureted. This machine is equipped with fuel injection. Read EFI information (below) regarding tuning/adjusting air fuel mixture

**AIR FUEL RATIO/IGNITION:** Stock ECU should be replaced with Vortex X10 ECU. The Vortex ECU is preprogrammed with new fuel and ignition maps to work with modified exhausts systems and stock or modified engines.

**NOTE: The ECU (Engine Control Unit) controls all fuel (jetting equivalent in carbureted engine) and all spark (CDI equivalent on carbureted engines)**

**ELECTRONIC FUEL INJECTION:** To adjust the air fuel mixture on this machine (which is required with ALL performance engine modifications) a VORTEX X10 ECU- Engine Control Unit or VORTEX Interceptor or similar piggy back type fuel controller s required.

**VORTEX ECU:** Pre Programmed with 10 Performance Fuel & Ignition maps developed on the Dyno & Track - all the work is done for you! · Instant Plug in Performance (replaces standard ECU with no mods to wiring required) · Additional 3 fuel trim switches to adjust fuel mapping by +12.5% to minus 10% in Lo , Mid and Hi throttle opening· Adjustments made using a screwdriver and switches provide visual feedback as to changes made· Rubber Mounting Boot + Brackets supplied (where required)

· **V-Boost** - Programmable Voltage Boost Circuit for maximizing Spark Energy across the entire rev range· Higher Rev Limit (where required) · Robust design -fully waterproof - o-ring sealed switches

· **Diagnostic Flash codes** - tests for sensor faults and flashes codes to FI light

· **Re Programmable** (Software and Interface hardware not Included)

#### **TUNING TIPS:**

Colder temperature requires richer settings.

Higher elevations cause engine to be low on compression and generally require leaner settings.

Air box lid on requires leaner settings than with lid off.

**OPTIONAL PIPE GUARD:** For those riders that would like a heat shield guard on pipe exhaust pipe back where tail pipe passes by the rear fender. We recommend using the guard and clamp off a 2006-15 Honda TRX 450ER.

Part Numbers are as follows and are available from any authorized Honda Dealer.

Guard/Protector # 18327-HB1-600

Clamp # 18325-HN2-000

Guard and clamp are reasonably priced and installation takes minutes.

\*Call DR with any questions



**REPACKING SCHEDULE:** For proper exhaust performance and to keep noise level consistent it is recommended to repack your Fat Boy 4 exhaust every 20 hours of usage. Under extreme riding conditions packing could need replacement in as short as 10 hours. The repacking used in your Fat Boy 4 exhaust is a perishable item. (Similar to the oil in your engine). It is designed to suppress the exhaust note of your engine while maintaining proper exhaust function and maximum performance.

Failure to repack and maintain your exhaust system can and will result in engine power loss and excessive db noise levels. Running your fat Boy 4 equipped ATV with burnt, worn or low packing will also cause damage to your Fat Boy 4. Core, body and front and rear end caps. This unnecessary damage can and will affect your manufactures limited warranty. Unnecessary damage incurred to Fat Boy 4 due to use with failed packing will **NOT** be covered under **Limited Lifetime Warranty**

**WARRANTY CARD:** Make sure to fill out and mail in the Warranty Card included with the purchase of your new Fat Boy 4 exhaust System. Failure to mail in warranty card can void warranty. \* Warranty is only applicable to original purchaser.

**NOTE:** WARRANTY DOES NOT APPLY TO USED PARTS BOUGHT ON E-BAY, CRAIGS LIST, SWAP MEET ETC.

**For more information contact:**

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**Check our Website for additional YFZ 450R Performance items.  
[www.duncanracing.com](http://www.duncanracing.com)**