

**Revision: 2.6 - 03/30/2010**  
**Install Time: 60 Minutes**

**CAUTION!** We Strongly recommend that a qualified technician install this kit if you do not completely understand the instructions prior to the install.

**INCLUDED IN THE KIT:**

(1) Billet BAK Cover	(1) Black BAK Backing Plate
(1) Re-usable Performance Air Filter	(1) BAK Filter Raincoat
(1) Baron Jet Kit (BA-2410-00)	(2) 1/4-28 x 1 13/16" Hex Bolt Zinc
(2) Mounting Arm SS	(2) 1/4" Lock Washer
(3) M5-.8 x10 Button Head Screw SS	(2) Aluminum Filter Spacer
(2) M6-1.0 x12 Socket Head Screw Chrome	(2) M6 Chrome Washer
(1) M8-1.25x30 Button Head Screw SS	(1) Tube Rubber Cement

**TOOLS REQUIRED:**

3, 4 & 5 mm Allen Wrenches	10 & 12mm Sockets
10mm Open-end Wrench	Phillips & Flat Screwdrivers
Pliers (Std. & Needle-nose)	Factory Service Manual

**INSTRUCTIONS:**

1. Remove fuel tank and air filter assembly per Yamaha service manual procedures.
2. Remove the air silencer box under the tank.
3. Install supplied BA-2410-00 Needle/Jet kit according to the instructions in the jet kit package being sure to use the Jets and Needle Slot setting called out for the external BAK filter assemble.
4. Reinstall the air silencer box under the tank.
5. Remove the rubber boot from the stock air box. It is glued-in from the factory, but will come loose if gently persuaded. See photo #1



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6. Install the stock rubber boot into your new Baron air filter backing plate with the supplied glue. Squeeze glue liberally into sealing groove in stock rubber boot. See photo #2

**Fig. 2**



Allow glue to set up and dry prior to mounting onto bike.

7. Install supplied mounting arms into the backing plate with supplied M5 screws.

8. Insert the included 1/4-28 x 2" Zinc Hex Bolts, lock washers & BAK spacers into the backing plate mounting holes. Slip one aluminum filter spacer onto each bolt and attach the assembly to the BAK cover, sandwiching the filter in-between.

9. Install the prepared air filter assembly onto the bike by sliding the stock snorkel piece into the rubber boot on the back of the air filter and pushing the exposed screw into the grommet on the bike. Align the mounting arms and secure them with the supplied M6 screws and chrome washers.

10. Reinstall your fuel tank and you are ready to ride.

*Check throttle linkages for interference and for full range of motion, check all hoses for kinks, and check all bolts and hardware for tightness. Also check throttle grip action for smooth operation.*



Revision: 3.5 - 01/22/2010

Install Time: 90 Minutes

CAUTION: We strongly recommend that a qualified Yamaha technician install this kit. Please read ALL of the instructions BEFORE installing beginning the installation.

**INCLUDED IN THE KIT:**

(6) Assorted Mikuni Main Jets	(2) E-clips
(2) Mikuni Pilot Jets	(8) Cap head Allen screws
(2) Titanium Adjustable Needles	

**TOOLS REQUIRED:**

10 & 12 MM Wrenches & Sockets	Phillips and Flat Tip Screwdrivers
Assorted Allen Wrenches	Factory Service Manual

**INSTRUCTIONS:**

## JET/NEEDLE Size & Setting Chart

- STOCK AIR BOX or K&N REPLACEMENT FILTER REQUIRES: 100 Main Jet, 22.5 Pilot Jet, Needle with "e" clip in #3 slot
- BARON CHROME EXTRENAL BAK REQUIRES: 112.5 Main Jet, 22.5 Pilot Jet, Needle with "e" clip in #4 slot
- STEALTH BIG AIR KIT REQUIRES: 130 Main Jet, 22.5 Pilot Jet, Needle with "e" clip in #4 slot

You will need to remove and disassemble the following components:

- Fuel Tank
- Factory Airbox
- Carburetors

1. Remove the vacuum slide from the carburetor per Yamaha shop manual procedures.
2. Remove the OEM needle and spacer, noting the order of assembly.
3. Counting from down from the top (The blunt end closest to the grooves) of the adjustable needle, install new "e" Clip in the specified slot of new adjustable Baron Needle as specified in chart at the top of this box.
4. Reinstall the OEM spacer under the e" clip just as it was on the stock needle.
5. Reinstall the vacuum slide along with the diaphragm spring.
6. Be sure the spring base cap, small spring and its containment cap along with the larger slide spring are reinstalled in the same order as removed. Reattach the diaphragm cover and tighten it's screws.  
*Note: Verify the slide and the throttle linkage have full range of motion!*
7. Drain the fuel from float bowl and remove the bowl cover.

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8. Remove the OEM Main Jet and Pilot Jet, and replace them with the appropriate Main and Pilot Jets as specified. See Chart at top of box for proper jet sizes and needle slot/clip position.

9. Thoroughly clean the inside of the float bowl prior to reinstalling it.

10. Reassemble the carburetor by reversing the order of step #1 through step #9. Use the new cap head Allen screws in place of the OEM Phillips head screws.

11. Repeat step #1 through step #10 for the other carburetor.

12. Locate the fuel mixture plug on each carburetor; it will either be a screw head or a brass plug. If it is a screw head, skip to step #12c. If you see a brass plug with a small hole in the center, proceed as follows:

a. With a 5/32" drill bit, carefully and slowly drill through the fuel mixture plug for each carburetor.

**CAUTION:** The fuel mixture screw is located directly beneath this plug. Be prepared to stop the drill and remove the bit the instant you break through the plug.

b. Insert a self-tapping sheet metal screw into the drilled hole and remove the plug.

c. With air/fuel screw now accessible, use a flat blade screwdriver to turn the screw clockwise until it seats, then carefully turn it counter-clockwise 3 turns. Refer to step #15 for assistance in fine-tuning the setting of the air/fuel adjustment screw.

### 13. FILTER INSTALLATION:

- If you are maintaining the stock airbox reinstall the OEM air filter assembly now.
- If you are installing a Baron external BAK, filter refer to their instructions.
- If you are installing a STEALTH BIG AIR KIT refer to their instructions.

14. Check all vent lines, fuel lines, and linkage for any obstructions or blockage. Note: It is important to verify proper throttle operation before starting the engine.

15. The adjusting procedure requires the use of carburetor sticks or a set of vacuum gauges. The carburetors must be synchronized in order to achieve optimum performance. This procedure should be performed by a qualified Yamaha repair technician.

16. Check the engine at idle speed for any popping or back firing. If popping is occurring at idle: Verify the air/fuel adjustment screw has been set to the recommended starting position as described in above step, then fine tune + or - from there until popping stops or improves.(See Tuning note)

**TUNING NOTE:** Proper carburetor adjusting would include balancing which does requires the use of carburetor sticks or a set of vacuum gauges. The carburetors must be synchronized in order to achieve optimum performance. This procedure should be performed by a qualified Yamaha repair technician.

- For best results, we recommend the engine be adjusted on an Exhaust Gas Analyzer (EGA) to a CO reading between 3% and 4%. Please bear in mind this percentage depends on various factors including: Altitude, Humidity, Temperature, Air Pressure, etc.

**CAUTION:** The adjusting procedure is critical. Correct carbon monoxide settings are key to maximum performance. Do not overlook this step!

Contact us if you have any questions regarding this installation.

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