

Victory Fuel Control Installation & Tuning Instructions: revised 6-14-06

For Use on "OFF ROAD" Vehicles ONLY.

1. Remove gas tank as per service manual procedure.
 2. Disconnect negative lead from battery.
 3. Determine a location for the VFC unit. Suggested locations are as follows: on left or right side, under the covers, on top or side of battery on inside of side covers or on PCM.
 4. Locate rear injector, disconnect factory connection using care not to break it, the red tab must be lifted first and then push the release to remove plug. Plug it into the female end of the VFC, then plug the male end of the VFC into the injector.
 5. Locate connection of front jumper harness- it is located on the right side of frame - in the center of air box. Disconnect and plug appropriate VFC connectors in place (this is the front injector).
 6. Zip tie harness so that it is free from being contacted.
 7. At this time it is a good idea to check the throttle body and throttle plates for being clean and free of debris and film. If they have either, clean with a cloth and Electrical & Contact cleaner.
 8. Also at this time if "Fast Idle" cable needs adjusting do it now.
 9. Install gas tank and connect ground terminal of VFC along with the factory ground lead.
- Note, On Vegas, Kingpin, Jackpot & Hammer Models BE SURE NOT TO PINCH VFC harness under rear tank mounting bracket, the harness must run on the side of or underneath the frame in this area as not to contact the rear tank mount.

Now For a CRASH COURSE on running symptoms.

A BIKE THAT IS LEAN WILL HAVE THE FOLLOWING CONDITIONS:

- Backfiring or popping out exhaust after roll-out (Ex. leaks will also do this)
- Surging @ Cruising speeds or light throttle
- Overly sensitive throttle feel (Jerky)
- Coughing through Intake
- Excessively high Fuel Mileage (Stg 1 Above 45mpg Stg 2 Above 42)
- Excessive Heat from Motor
- White to light tan spark plug insulator
- Pinging or Detonation under roll-on

A BIKE THAT IS RICH WILL HAVE THE FOLLOWING CONDITIONS.

- Poor Fuel mileage under normal riding conditions
- Heavy soot build up on pipes or fenders
- Lazy or Mushy full throttle feel
- Revert to a Stock Download before tuning with the VFC
- If a Stock Download is present and these conditions persist: the Air box design, too open an exhaust, too large a cam or a bad oil temp sensor may be to blame.

10. With the rubber plug removed from the VFC, turn the motorcycle key to the "ON" position. When you do this the green LED light will remain blinking until you start up the bike.

As the bike's electrical system goes through initial start up mode you will see LEDs flashing on the VFC for a few seconds then go out except for the green one, which will remain flashing, this is normal.

11. Start the motorcycle. The green LED should now be on STEADY and the Yellow will flash rapidly for a few seconds, then go out. (If idle is too low all 3 lights will flash).

The first Dial is the Green or Slow speed pot, it is the most used and most important adjustment.

This should be adjusted to smooth out throttle feel and eliminate problems explained in "LEAN CONDITIONS" (BIKE MUST BE STOPPED BEFORE ADJUSTMENTS ARE MADE!) If you are having difficulty tuning this circuit it is recommended to start out in this manner. Set adjustments to their appropriate starting points. Find a closed course with no traffic to test on. Get a feel for the bike while at a light cruising throttle position. Start turning the adjustment counter clockwise (leaning the circuit) until you start to feel the bike surging and slightly jerky under light throttle. Increase the adjustment a ¼ to position, this should end your green adjustment. You are now ready to move on to the Yellow.

The Yellow pot is an accelerator pump adjustment. This circuit only works under rapid acceleration. Try to add as much as you can until the bike lays down or loses acceleration then back off two clock positions. This pot adds most of its fuel below 4000 Rpm's. This pot will give your bike the biggest benefit in roll on acceleration.

Continued on Rear >

The red pot is your main jet fuel adjustment & will turn on @ half of the 4th pot adjustment. If the 4th pot is set @ 8 o'clock the Red will turn on @ 4000rpm's. This pot should be set at the base suggestion unless the bikes performance feels less then optimum @ full throttle, then experiment with different adjustments keeping in mind the conditions stated above.

The 4th pot or Cross over is what turns the Green -Low speed- Fuel off and turns the Red main fuel on.

. VICTORY PROGRAMING VARIES GREATLY FROM BIKE TO BIKE AND CLIMATE IS ANOTHER FACTOR, THE FOLLOWING ARE GOOD STARTING POINTS:

For 5 speed applications the 4th pot setting will always be 7.5 - 8 o'clock.

For 6 speed applications it can be set at 7 o'clock.

Clock positions are based on the numbers on a clock: 3 o'clock is 90 degrees right, 6 o'clock is straight down, etc...

- 92 or 100/5 – 100/6 Stk. Ex. W/ K&N Filter GREEN@ 2 oclock YELLOW @ 4 oclock RED @ 3 oclock
- 92 or 100/5 – 100/6 Stg. 1 Ex. & Filter GREEN@ 3 oclock YELLOW @ 4 oclock RED @ 3 oclock
- 92 or 100/5 – 100/6 Cam, piston or both GREEN@ 4 oclock YELLOW @ 5 oclock RED @ 5 oclock
- Stg 2 (92 to 100) & Perf. Ex. GREEN@ 4 oclock YELLOW @ 5 oclock RED @ 5 oclock
- Stg 2 (92 to 100) With Cams, Pistons or Both GREEN@ 4 oclock YELLOW @ 6 oclock RED @ 5 oclock

ALL ABOVE SUGGESTIONS ARE BASED ON A STOCK DOWNLOAD!!!

NO SETTINGS YET DETERMINED FOR AIR BOXS OTHER THAN STOCK!!!

The EAGLE CAT Air Box is not endorsed by Lloyd with the use of the VFC. However, a STOCK DOWNLOAD is highly recommended if both units are used. No further technical support will be available from Lloyd if this AIRBOX is installed “You must contact your EAGLE CAT Dealer for further support on correcting tuning issues.”

Now that you have the capability to tune your own fuel, please don't be afraid to try different adjustments. You won't do any harm staying within the perimeters outlined and may find improved feel and acceleration by dialing the pots in small increments to suit your riding style. This is a user-friendly system designed to be easy to use and adjust to the feel you want! Happy tuning!

I've always had a straightforward approach to Motorcycle tuning and relating to my customers. Some may feel that the next couple of paragraphs aren't necessary. I feel you need to know all you can about your bike and the money you spend on it.

If all else fails in an attempt to tune your bike properly and have it run at its peak performance you may have other problems. Please keep a mental note of the following issues:

- A (not ideal) combination of parts can dramatically effect performance and drive qualities. Making more power requires more fuel! The need to take away fuel just tells us one thing. You have a bad combination of parts installed that aren't working properly together.

Some (not ideal) combinations are as follows.

- Very open exhausts (ones with no baffles or too large of a diameter pipe).
- Poor air box designs (open air boxes with no radius in the lower plate).
- Too large of a cam profile (ones that have too much overlap and duration).
- Not enough compression for the performance upgrades.

For a few years in the beginning (the start of Victory), we didn't have to worry about “Bad Combinations”, there just weren't enough parts available to have these issues come up often. Now we're seeing a fast growing after market of parts and exhaust systems for Victory. All of the available parts were not designed to work in conjunction with other bolt-on items and goodies and some just won't work at all! That exhaust that looks and sounds great, that cam that claims all sorts of gains, that air box that looks more appealing, those are some of the items that combined together can create total Havoc on the way your bike runs and performs. Leaving you on your own to fix the problem. What can be done? We'll I could write a book explaining all the pro's and con's but that would change monthly and be extensive. Your **best bet** is to **choose wisely** and **do research**. If you're experiencing some of these symptoms, you can add Band-Aids to stop the bleeding or fix the true problem.

You can also select optimum performing parts and packages at www.lloydz.com

Please E-mail Technical support questions pertaining to our products to tech@lloydz.com Thank You.