

If you choose not to read this, you most likely will not have success???? KNOW YOUR BIKE!!!

We at KJS really do care that you enjoy all the performance that you paid for, simply said, besides the instruction sheet you received, Your more than welcome to contact me by email or phone with any problems you are having and to analyze your specific issues, I will ask if you have done these tips I will provide in this letter. Always include your name, & purchase date, and model and engine size. I'm not a mind reader. Help me to help you.

It's a fact that some folks by this system because they just want raw performance, and others as an alternative to the older crappy duals and there folly's, which ever, there are some things you should know, there simple facts and to get to know your Yamaha better.

1. Vacuum leaks: It is mentioned in the instructions about manifold vacuum leaks, this is so important, specially on the big brother, 700 through 1100's Viragos and V Star manifold has 3 compound angles and is not like any other manifold, car or otherwise to fit, it can be a challenge. On the 500/535 and 650 stars, it's to easy and no hard ship there. If the engine pop's back through the carb. YOU HAVE AN INTAKE MANIFOLD LEAK. Do not attempt to adjust the carb that would be futile. Spray the manifold /cylinder head joints with ether only!! About 2 inches away and soak the heck out of it and the liquefied ether will evaporate quickly and let you know there's a vac leak

2, Sticky Throttle: Using the stock grips, or after market, they should be greased on the bars and on the plastic sleeve and oil the cable(s). There is the white knob on the carb for idle control and after a few miles and warm up (will have) to be adjusted lower to drop the RPM,s Use 3 in 1 oil on the upper carb shaft so it gets in behind the shaft spring on both side so the slide will drop all the way down. This system is more (mechanical than automatic!!!) These carbs are built with nice tight tolerance's and may need to break in a bit, and will last for many years with out servicing

3, FLOODING: there are 3 hose's coming of the carb and must hang downward, not up under the tank (never twist tie them or pinch them) the top 2 are just vents for the internal operation, the bottom one on the float bowl and is there to release fuel when the needle and seat is jammed with junk, if this happens, there are a few solutions .The tank, or reserve tanks, are rusty inside and the fuel filter is jammed up, or the fuel lines are rotting inside, or when you cut them to fit you used side cutters instead of a razor and that released small chunks of rubber and jammed the needle and seat causing flooding. HOW to fix, don't take the carb apart yet to clean, simply remove the 17 MM nut on the bottom of the carb and drain the bowl, this will let the float go to the bottom and leave enough space to let the chucks pass through, again, leaving the nut off, on a gravity feed system turn the fuel tap to the gravity feed position, and let it flow, this should wash any small partials out. On electric models, simply turn the key on and it will flush it out, once satisfied, replace the nut and pray it worked otherwise, you'll have to remove the float assembly and clean it manually How could this been avoided!!!!!!!!!! A simple glass wire screen filter for gravity feed system's (They can be taken apart and cleaned) just before the fuel line is attached to the carb!!!! Is a good way to see what's up and if you see crud, then you'll know that the tanks are screwing up with junk. So a newer model or older you'll have to determine that part

4, Valves: again, on older abused models, dual carb's allowing one cylinder to run richer than the other, very common, the valves and stems as well as the piston rings most likely have a build up of gummy deposits, not really on new bike model, but older Yes. If you're absolutely sure there's no vacuum leaks, then I would adjust the valves God knows, how many have tried to adjust them it in

the past, assume nothing! That the gummy situation exist and the valve can't seat properly and when that happens the ignition pass's back past the valve causing it to fart back or popping.

5, Adjusting the valves, now that there is easy access to the valve covers with the duals out of the way, why not do it now, to be sure! Your service manual has all the specs and mentions how to remove the covers to see the crankshaft markings. I have found that even though the marks may be lined up, I always remove the 2 bolts for the cam shaft covers to be sure that the dot on the gear lines up with the digit on the head casting, not to the left or right but dead center. This is the lowest point of the cam and both the intake and exhaust can be adjusted at the same time remembering the 2 inside are the intakes, and the 2 outside are the exhaust, anyway it's worth checking!!!!

6, Winter storage, remove again the 17 MM nut, and drain it dry, leave no gas in it and replace the plug its also a fact that if you don't ride your bike for say a month that the 10% ethanol gas starts to plug up the carb jets and in the near future there going to raise it to 20% ethanol which will really can cause problems with the jets getting clogged up with fuel injected model of bikes, this isn't a problem but I still like carbs that I can fix if needed .

7, Electric fuel pumps & Gravity systems::Electric will always click to fill the float bowl ,But gravity when the bike sits for a while the gas will evaporate and partially drain the bowl, So if it's hard to start, turn the fuel tap to the gravity position to fill it then return to the on position, If your fuel pump ever fails in the middle of no where, no worry's, simply run an extension line from the pump inlet, to the filter/carb and it will flow from the reserve tank on a virago with gravity. On V Star's, just run the line from the fuel tap, again to the carb. But be sure to disconnect the power to the pump so it doesn't run on and short out, even if the motor part works, it could be just the diaphragm inside that went south.

8: Manifold gaskets: If you have to reseal the manifold gasket paper is available at any good auto parts store, part # 3187 for the .060 thou rubberized paper made by Felpro.030 thou is Part # 3157 and simply trace and cut them out and also, the gaskets on the manifold you receive are marked with what size they are, record the number size for your records.

9: If your idle is erratic, high then low, it's most likely carbon has built up inside the cylinder and valve stems, carbon glows when it gets hot and robs the fuel charge making it temporarily lean and so the washing of the valves and piston rings to get ride of any gumming as mentioned in the instruction sheet with WD40 which is a diesel petroleum product it's suggested that letting the engine warm up and a short ride it will flush all the crud into the crankcase, so changing the oil & filter is a good thing within 10 miles On rare occasions some folks connect some lines incorrectly and they didn't know that some how fuel filled the crankcase up so they had over 7 Quarts of combined oil and gas, not good, so be sure your oil level is correct and that the hose off the cam cover is not pinched or blocked off otherwise the crankcase can't breathe. Quick mention, whatever oil brand you like, stay away from heavy weights, 10W 30/40 is good no 50 W.

10: Hard starting after a few days? Fuel evaporated from the carb! Re prime the float bowl, gravity models .Electric will self prime,

11: Electrical problems: One of the two most over looked problems is basic. All the switches have to make smooth good electrical contact and most likely over many years have never been lubricated with a good grade oil to help this problem, or gremlins ?. Your bike has many of these switch's , such as side stand, clutch lever, brake lights frt./rear, key ignition ,even the gas cap needs oil in it as

well, So, with your spray oil, not WD40, use the plastic nozzle and soak all connections, even in between the slots in your handle bar switch's.

2nd: Spark Plug Wires? Big problem hidden there! Again, after years of removing and tugging on the plastic spark plug caps and wires the connection between them becomes diminished. The plug wires are a steel core not a carbon core .so with steel core they need a resistor cap to meet (electrical interference laws) Everyone should check this by simply unscrewing the cap from the plug wire and cutting it back $\frac{3}{4}$ 'S of a inch and re screw it back in to make good contact These 2 procedures should be done to eliminate any possibility!

700/750/920's; The fuel pet cock/tap's are notorious for vacuum/diaphragms leaks causing the fuel not to flow and causing a vac leak to the side port of the carb, How to fix, get a fuel tap from a 99 to late 2000 /650 v star and eliminate the vac line all together and simply turn your fuel on and off manually when for riding.

FINE Tuning: the PMS, pilot mixture screw, it was pre set and is marked on the carb the brass one in the back of the float bowl is set at 3 turns from lightly seated. Never screw it in tightly' the point on the end of it is like a needle and one does not want to damage it

WHY would I adjust the PMS? Example: free flowing exhaust with our short stroke, low compression engines like 2 $\frac{1}{2}$ to 3 turns out. Pipes more like stock, or restrictive don't need that much fuel mixture and 2 turns can be good, so finding that sweet spot is there, but remember, This can't be done if you have Bad valve seating, Gummed up , or a Vacuum leak ! Conclusion DON'T TRY TO ADJUST ANY THING ELSE! Your system from me was configured exactly for your model (CC's) by KJS. Email me, or phone I'm here for your issues. Don't here from ya, your ridin,
Cheers, Ken