

TROUBLESHOOTING GUIDE QUESTIONNAIRE



Kit # _____ Name _____ Current Needle Position Setting _____
 Revision # _____ Voice Phone # (____) _____ Main Jet Size _____
 Mixture Screw Setting _____

Before calling the Dynojet Technical Assistance line (1-800-992-4993), please take a few minutes to fill out the following questionnaire. These are the questions the Dynojet technician will ask, and it will expedite the process if you know the answers ahead of time. Please be sure to fill in your current needle position setting, main jet size, and mixture screw setting above.

You may also elect to Fax this information sheet and your graphs directly to Dynojet and a technician will contact you. Our fax number is (702) 399-1431. Please remember to list a voice number where we can reach you. Thank you.

Idle		
1. Does the bike idle?	Yes	No
2. If yes, is it rough or smooth?	Smooth	Rough
3. If the idle is rough, is it better when the engine is hot or cold?	Hot	Cold
4. Does the bike have an aftermarket pipe? If so, please list:		

Cruising or Steady Throttle (No Acceleration, Maintaining a Steady RPM)		
1. Is the cruise smooth or does the bike surge?	Smooth	Surges
2. If it surges, at what RPM?	RPM	
3. Is this problem worse in a higher gear or lower gear?	Higher	Lower
4. Is the problem worse when the engine is hot or cold?	Hot	Cold

Full Throttle Acceleration Problems		
1. If running Stage 3, were the air filters pre-oiled or did you oil them?	Pre-oiled	You oiled
2. Does the bike accelerate smoothly from approximately 2,000 RPM to red line in every gear?	Yes	No
3. If not, what is the RPM range where the bike has difficulty?	RPM	
4. On a dyno, do a roll on* in 2nd gear from 2,000 RPM to red line then another roll on in 4th gear from 2,000 RPM to red line. Do this as many times as necessary to determine which gear the problem is worse in. Is this problem worse in a higher gear or a lower gear?	Higher	Lower
5. Is this problem worse when the engine is hot or cold?	Hot	Cold
6. If the bike is set up as Stage 1 (stock air box and lid), repeat step 4 with approximately 1/4 of the filter element covered with duct tape. Did this make the problem better or worse?	Better	Worse
7. If the bike is set up as Stage 3 (no air box, individual filters), repeat step 4 with approximately 1/3 of the filter area of each filter element covered with duct tape. Did this make the problem better or worse?	Better	Worse
8. Repeat step 4 again with the filters completely off the bike. Did this make the problem better or worse?	Better	Worse

* Roll on: with the bike at 2,000 RPM, open the throttle wide open and accelerate to red line without changing gears.

WARNING - BEFORE STARTING THE MOTORCYCLE

- 1) Double check vacuum lines, fuel lines, throttle cables, choke cable, clamps, mounting bolts, hose and wire routing, and any other parts that have been removed or adjusted during installation.
- 2) Turn the fuel valve to the prime position and check for leaks while the float bowls are filling.

ADJUSTMENTS BEFORE DRIVING

CARB SYNC AND MIXTURE SCREW ADJUSTMENT

Carb sync is a must. Set idle to factory recommended settings. We suggest you use the mercury carb sticks. Start and warm the bike up to normal operating temperature. Adjust carbs as necessary. Once the sync is finished, check your base settings on your mixture screws. Slowly turn one screw in at a time until that cylinder starts to miss. Stop at that point and turn the screw back out until your idle is smooth. Perform this step to the other cylinder or cylinders.

Note

DYNOJET DOES NOT CHANGE YOUR MOTORCYCLE'S STOCK IDLE. IF YOUR BIKE FAILS TO START OR WILL NOT IDLE, STOP. PROCEED TO "Starting and Idling Problems" FOR TROUBLESHOOTING INFORMATION.

WARNING - BEFORE OPERATING THE MOTORCYCLE

- 1) Start the engine, turn the handle bars from lock to lock to ensure that the throttle cables are routed properly.
- 2) Blip the throttle a couple of times to ensure that the throttle linkage is not sticking.
- 3) Verify the engine kill switch is operating properly.

PROPER IDLE BEFORE INSTALLATION OF THIS KIT IS REQUIRED

After completing your installation and following the proper safety precautions, your machine should function properly with noticeable performance gains. If your machine functions well but does not seem to have any performance gains, try needle positions on either side of the base settings to improve performance. If you machine has more pronounced troubles in function or performance, read through the troubleshooting guide. Find the problem description that best matches your trouble and perform each of the adjustment procedures. In some cases more than one description closely resembles your problem. If so, perform each of the adjustment procedures in the easiest manner, or most logical, whichever you prefer.

STARTING AND IDLING PROBLEMS

1. Motorcycle will not start cold.

It is important to know that your motorcycle will start and idle without your needles, slides, or main jets in place. Dynojet will rarely alter your idle circuit, and never alter your starting circuit. The following are things to check before going further:

Check for fuel in the float bowls.

Check for function of the choke plungers.

2. Motorcycle will not start hot.

It is important to note whether the bike starts hard only when you let it set for a period of time, or starts hard all the time. Both of these conditions are usually rich problems. If you have trouble after the bike sits, then check for gas tank venting problems or excess carb temperature. Also, check the following for both problems.

3. Motorcycle idles rough until it reaches normal temperature.

Mixture screws are set too lean. Turn counter clockwise to richen the mixture.

4. A - Motorcycle idles well until it reaches normal temperature, then idles rough, fluctuates, or stalls.

B - Motorcycle starts but does not idle at all, black smoke pours out of the exhaust pipe, and revs very rich.

Mixture screws are set too rich. Turn clockwise to lean out the mixture.

Check for choke plungers closing all the way.

Proper slack in the throttle and choke cables. Check for plugged pilot jets.

Choke not closing fully, fuel level in bowl too high.

Verify the throttle plates are closed, proper slack remains in the throttle cables, and that no manifold clamps are touching throttle linkage.

Verify the float bowls are not running over with gas because a float was damaged or installed wrong.

Check for vacuum leaks. Look for hoses not hooked up, clamps not tightened down, etc.

Float bowls are over flowing with gas, or improper float adjustments.

Mixture screw turned out too far.

Carb sync is off.

If all of that checks out, then install your stock needle. Then check low speed again.

Dynojet Kits are designed to use your stock pilot jets. Do not change your stock pilot jets.

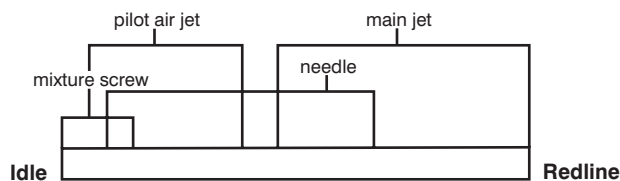
If it works, call Dynojet with results. Needles will be replaced at no cost on an [exchange basis](#).

LOW SPEED AND CRUISING PROBLEMS

Dynojet receives many calls where customers install a jet kit and the bike then idles poorly so they proceed to change the main jets. It is important to distinguish the difference between fueling circuits in your carburetors. Using the figure below, you will notice changing the main jet to fix a problem at 3,000 RPM will have little to no effect to the fuel curve. So if you are making a carb

adjustment, refer to the figure below for its effectiveness.

The float level is another troublesome circuit. It is always a good idea to check your float level whether Dynojet is asking you to change it or not. Especially when experiencing idling or 0 - 4,000 RPM problems.



LOW SPEED AND CRUISING PROBLEMS

5. A - Engine does not accept throttle past idle.

B - Engine accepts throttle in neutral but not in first gear.

C - Engine passes symptoms A and B but surges when holding a steady speed.

D - Engine passes symptoms A, B, and C, but does not accelerate.

Verify the main jets are drilled completely.

Verify all stock spacers are in the order as required by Dynojet.

Verify your slides are free and the rubber diaphragms are sealed properly.

Check to make sure your application matches the parameters on your fact sheet (the year, the model, and stage 1 or 3). If you have a stock air box or K & N filters USE ONLY THE INTAKE MODIFICATION DESCRIBED UNDER THE PARAMETERS SECTION ON THE FACT SHEET.

6. Full throttle at 2,000 RPM, engine stumbles, then clears up after 4,000 RPM.

This condition occurs primarily when the engine has a fair amount of cam overlap (for example, the Yamaha Genesis design or Kawasaki ZX-10 to name the most troublesome). This problem of cam overlap is being controlled at the factory level by special exhaust systems like the Yamaha EXUP pipes. On the carburetion side, they use strong slide springs and small lift holes. Changing either the exhaust or the carbs does not present a problem in most cases, but change both and the problem appears. At this point you notice you get your best performance with both, but a loss to the bottom end. So check the following to minimize your compromise.

Verify the float bowl vent tubes are removed (not applicable to Pressurized Air Box Models).

Any changes other than those described by Dynojet will alter your base settings. If you are using something other than K & N filters, leave them off until the test drive is over.

Verify the float bowl vent tubes are removed (not applicable to Pressurized Air Box Models).

If these items check out, raise the needle up one groove at a time. With these symptoms, it is not uncommon to raise the needle 2 grooves or more.

Check for consistent float level setting among the carbs.

Verify your exhaust baffle is larger than that of stock. Remember that most stock pipes have two exhaust outlets.

You may slow the slide down with the stock springs or lean the needle but it will be at the expense of acceleration.

Trying to fix this problem when the EXUP pipe is removed may prove hopeless.

Adjusting the cam timing and/or ignition timing can improve the problem in some cases. See your dealer or specialist with your model.

ACCELERATION PROBLEMS

Troubleshooting the acceleration curve is where the most time consuming problems occur. A good rule of thumb is if you have a problem while asking for horsepower (accelerating, climbing a hill), the mixture is rich. If you have a problem while asking for horsepower (cruising, not accelerating), then mixture is lean. So, before you start adjusting the carbs, check these two most common problems.

The stage 1 kit was designed with a clean stock filter, not an aftermarket replacement filter. Do not assume that the aftermarket filter is flowing the same as stock. Verify your intake air matches what your base settings were designed for.

Now look at the exhaust outlet size. If your stock pipes had two 1-inch outlets and you installed a four into one with an exhaust outlet that measures 1 1/2 inch, you are probably not flowing as well as your stock pipes. Simply remove the baffle and test again. Checking the intake and exhaust flow is the key to a trouble-free installation.

7. Engine accelerates until the midrange then pauses, stumbles, or shuts down until you back off the throttle. This problem gets worse the higher the gear used.

Verify the parameters on the Fact Sheet are being met. For example, the mains are stage 1 mains if you have the stock air box. The stage 3 mains are used with the individual filters.

Verify the intake and exhaust flow matches those described by Dynojet.

Verify the float bowl vent tubes are removed (not applicable to Pressurized Air Box Models).

Verify proper installation of parts, spacers under the needle etc. as Dynojet recommends, and that your needles and mains are all matched and free of obvious defects.

If these items check out, lower the needle down to fix a slight pause or stumble. Lower the needle and install a smaller main jet to fix a more severe problem.

8. Engine accelerates to red line but flattens out, pauses in between shifts, or signs off completely.

This problem can be either rich or lean. First determine this by using either of these methods. If the spot is more noticeable when the engine is cold, the mixture is lean. If the problem gets worse as it warms up, the mixture is rich. Restrict the air entering the engine a small amount at a time with duct tape. If the problem gets better, the mixture is

too lean. If the problem gets worse as you restrict the air, the mixture is too rich. Once you find the problem to be rich or lean, simply change the mains in the direction necessary (lean = bigger jet, rich = smaller jet). The flow of Dynojet main jets does not correspond with Mikuni or Keihin main jets.

9. Bike functions normal except that it pops when you get off the throttle. Main jet, needle, and slide have no effect on deceleration.

Verify there are no vacuum leaks.

Verify there are no exhaust flange gaskets leaking or joints that are leaking air into the pipe.

If those things check out, try turning the mixture screw out 1/2 turn, making sure you have a good stock idle.

Some emission models have fresh air devices pumping air into the exhaust. Check for this being the problem by temporarily plugging the air hose leading to the cylinder head.