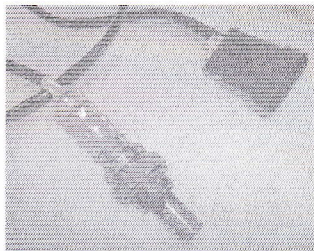


# FAT DUC O2 MANIPULATOR

Thank you for purchasing the FAT DUC O2 MANIPULATOR. Installation is easy, but please thoroughly read the following instructions prior to installing the product.

During installation and subsequent adjustments, the key must be in the **OFF** position.

The O2 MANIPULATOR installs inline with the factory oxygen sensor connection. It is imperative you confirm the location of the factory oxygen sensor connection as the location varies between the models. DO NOT assume you have the correct connection without verification because Ducati uses the same connector for other controls. The easiest method to confirm the correct connector is to trace the cable back from the oxygen sensor.



Oxygen Sensor

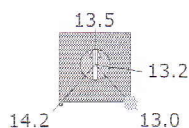
The oxygen sensor is the only electrical component located on the exhaust header and has a four-wire cable attached to it. Follow the cable until you find the factory connectors. This is the connection point where the O2 MANIPULATOR is inserted. Gently disconnect the plugs and install the O2 MANIPULATOR inline. You may have to reroute the factory cables or bend the O2 MANIPULATOR cables to facilitate the installation. Do not install the O2 MANIPULATOR in a way that would put excess pressure on the center circuit board area.

Protect the O2 MANIPULATOR from extreme heat. If installation requires mounting the O2 MANIPULATOR in the open (not under the seat, etc.), use cable ties to prevent the O2 Manipulator from direct contact with the engine and exhaust or other moving parts. The O2 MANIPULATOR is weather resistant, but you should prevent direct contact with water or other liquids.

The only adjustment on the O2 MANIPULATOR is the variable air-fuel ratio trimmer. Adjust the trimmer with a small precision screwdriver. The diagram below indicates the various target AFR reductions to be used as a reference/starting point. Please note the trimmer is fully variable and any setting between the noted points can also be used. After making any trimmer adjustment, ride for a few miles, as the ECU will adapt over time.

## Variable Trimmer Settings

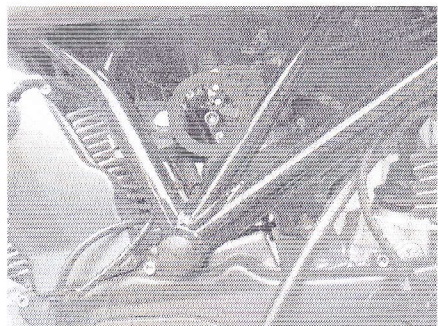
Fully Counter Clockwise = Leaner AFR, Less Sensor Output Reduction  
Fully Clockwise = Richer AFR, More Sensor Output Reduction  
Silver Dot on Manipulator indicates highest voltage reduction (richest setting)  
Arrow Head on trimmer dial indicates desired setting



\* Settings calculated using a base AFR of 14.7/1 @ 500 Millivolt Sensor Output

## Other Notes:

During product development a small percentage of motorcycles needed a slight adjustment to the air bypass screws to stabilize the idle due to the richer fuel mixture. If you experience a surging or sticking idle, you may need to make the following air bleed screw adjustment.



Air Bleed Screw (GT1000)

The air bypass screws (2 total, 1 per side) are located on the throttle bodies. They are brass flat head screws and sometimes have plastic covers over them. Before making any adjustments, note the exact setting of each screw in case you need to revert to the original setting. If you have an erratic idle, you will need to open (turn counter clock wise) the air bleed screws to allow additional air into the idle mixture. Open each screw the same amount, as you'll want to maintain the balance between the throttle bodies. Each bike is slightly different, but opening 1/4 to 3/4 turn should stabilize the idle and keep it between 1100 – 1200 RPMs.

For installation questions or technical support, contact [sales@performanceboulevard.com](mailto:sales@performanceboulevard.com).

The use of this product is subject to the terms & conditions as listed at: <http://www.fatduc.com/terms.html>.

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