

# **Air / Fuel Meter**

# **Engineered For Power!**



# **INSTALLATION & USER GUIDE**

## Installation Instructions JET Air / Fuel Meter

#### 1. Mounting the Air / Fuel Meter

Using the supplied Velcro, Suction Cups or L-Brackets, locate the Air /Fuel Meter in a convenient location that does not obstruct your view.

**TIP**: Clean the mounting area with alcohol or another nonabrasive cleaner to ensure the Velcro or Suction Cups adhere properly.

#### 2. Disconnect the Negative Battery Cable

Locate the battery and remove the negative battery cable.

#### 3. Routing the Wiring Harness

The wiring harness must be routed through the firewall to reach under the hood. Under the dash near the location that you mounted the Air / Fuel Meter, locate an existing plug or wiring harness that goes out under the hood and route the Air / Fuel Meter wiring through the firewall.

**TIP**: Make sure the wiring harness does not interfere with any moving parts (i.e.: gas or brake pedal) or touch anything under the hood that produces excessive heat, such as the exhaust system.

#### 4. Connecting the Air / Fuel Meter + 12 V Power Connection (RED WIRE)

Locate the vehicles fuse box. It is normally located on the drivers side of the vehicle under the dash or in the driver's side kick panel or under the hood. Included in the Air / Fuel Meter installation parts you have two brass fuse adaptors. Depending on which type of fuses your vehicle uses, select the one that fits your type of fuse. Connect the fuse adaptor to a fuse that has  $\pm 12$  **volts all the time**. Connect the **RED WIRE** from the Air / Fuel Meter to the fuse adaptor you just installed.

#### 5. Connecting the Air / Fuel Meter ground wire (BLACK WIRE)

Connect the **<u>Black Wire</u>** from the Air / Fuel Meter to a suitable ground point. Existing screws or nuts that are attached to metal are a good location for this purpose.

#### 6. Connecting the +12 Volt Keyed Source Wire (BROWN WIRE)

Included in the Air / Fuel Meter installation parts you have two brass fuse adaptors. Depending on which type of fuses your vehicle uses, select the one that fits your type of fuse. Connect the fuse adaptor to a fuse that has <u>+12</u> volts only when the key is in the ON and RUN position. Make sure this connection has no voltage when the key is OFF. Connect the <u>BROWN WIRE</u> from the Air / Fuel Meter to the fuse adaptor you just installed.

## Connecting the O2 Sensor Wire

The Purple wire is for the connection to the oxygen sensor.

You will be connecting the **<u>PURPLE WIRE</u>** from the Air / Fuel Meter to the OXYGEN (O2) <u>SENSOR SIGNAL</u> wire. The sensor is located in the exhaust system, on applications that use multiple sensors, make sure that you connect to a sensor that is located before the Catalytic Converter or you will not get accurate readings. (See the chart included for the connection to your vehicle. If your vehicle is not listed you will need the factory manual to determine the correct wire color for the O2 sensor. You can also access/purchase manuals online at websites like www.ondemand5.com or www.haynes.com)

#### Vehicle/Connector type

Acura/Honda 4 Wire Alfa Romeo 3 Wires Audi 3 Wires BMW 3 Wires BMW 4 Wires Chrysler 3 Wires Chrysler 4 Wires Chrysler Import 4 Wires Ford 3 Wires Ford 4 Wires Geo 4 Wires GM 2 Wires GM 3 Wires GM 4 Wires Isuzu 3 Wires Isuzu 4 Wires Kia 3 Wires Lancia 3 Wires Mazda 3 Wires Mazda 4 Wires Mercury 3 Wires Mercury 4 Wires Mitsubishi 4 Wires Nissan 3 Wires Nissan 4 Wires Subaru 3 Wires Suzuki 4 wires

#### 02 Sensor Signal Wire Color

Black Black Black Black Black Black Black Black, Blue or Yellow Black Black Black Black Black orPurple Black orPurple Blue Blue Black Black Black Black Black Black Black, Blue or Yellow Black Black Black Black

## **OPERATING THE AIR / FUEL METER**

Reconnect the negative battery cable that you removed during the first part of the installation.

- 1. The Power Button (PWR) will turn the unit ON / OFF. When Powering the Air / Fuel Meter for the first time, the display will show the Jet Logo then display the version number of the current software. The Air / Fuel Meter can be left ON from this point. The unit will go into StandBy mode when the vehicle is turned off and will come out of StandBy mode when the vehicle is restarted. After the first power up the Air / Fuel Meter will automatically revert back to the last screen used the next time you start the vehicle.
- 2. The Arrow Buttons allow the user to scroll forward or back through the screens.
- 3. The DIM button adjust the Brightness of the display, by repeatedly pressing the DIM button the Brightness will continue to increase.
- 4. Pushing the DIM button and then using the arrow keys, you can control the contrast of the display.

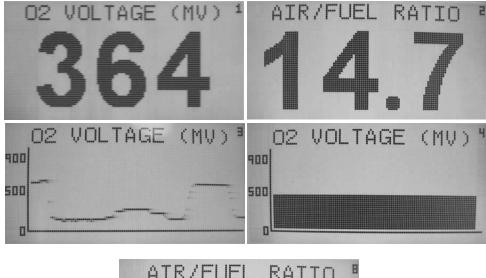


## **Reading the Air/Fuel Meter:**

The Oxygen Sensor must be at operating temperature before you will get any reading on the screen, normally it must reach 600 degrees F before you will get an accurate reading. Once up to operating temperature at idle and cruise the air/fuel ratio will cycle up and down, this is normal, it is the vehicles PCM trying to maintain a perfect air/fuel ratio. This ratio is called stoichiometric, at this ratio all of the fuel and oxygen is burned. During acceleration you will notice that the meter will move to a richer mixture, this is also normal, by accelerating you have increased the amount of fuel the sensor is reading.

#### SCREENS

The Air / Fuel Meter has different screens to chose from. These screens allow the user to monitor the vehicles' Oxygen Sensor. The display makes use of three different types of displays. A Bar Graph, Line Graph and Data Display.





Air-fuel ratio (AFR) is the mass ratio of air to fuel present during combustion. When all the fuel is combined with all the free oxygen, typically within a vehicle's combustion chamber, the mixture is chemically balanced and this AFR is called the stoichiometric mixture. AFR is an important measure for performance tuning reasons. A mixture is the working point that modern engine management systems employing fuel injection attempt to achieve in light load cruise situations. For gasoline fuel, the stoichiometric air/fuel mixture is approximately 14.7 times the mass of air to fuel. Any mixture less than 14.7 to 1 is considered to be a rich mixture, any more than 14.7 to 1 is a lean mixture.

# **Limited Warranty**

Jet Performance Products warrants Chips and Modules to be free from defects in material and workmanship under normal use and if properly installed. This limited lifetime warranty is to the original purchaser for as long as he or she owns the vehicle on which the product was originally installed, provided all information requested is furnished. If found to be defective as mentioned above, it will be replaced or repaired at the sole discretion of Jet if returned prepaid along with proof of purchase.

All other products and services performed by Jet are warranted to be free of defects in material and workmanship for a period of 6 months from date of purchase. This warranty is to the original purchaser for as long as he or she owns the vehicle on which the product was originally installed. Repair, Replacement or Credit will be based on the date of purchase. Costs for labor are specifically excluded and are the sole responsibility of the purchaser.

This warranty does not apply to Custom Programming or any product incorrectly installed, modified by the purchaser, or to any product that has been subjected to misuse, negligence or accident.

To obtain warranty service and Return Authorization Number, contact our Customer Service Department at 714-848-5515 between 8 am and 5 pm Pacific Standard Time, Monday through Friday.

Defective Products may be brought or sent prepaid (with Return Number) to Jet Performance Products, 17491 Apex Circle, Huntington Beach, CA 92647.

For Warranty Registration go to www.jetchip.com/register.asp

#### **JET Performance Products**

17491 Apex Circle Huntington Beach, CA 92647 (714) 848-5515 • Fax: (714) 847-6290 www.JETCHIP.com