

DTM4007 Air : Fuel Ratio Meter

Fitting Instructions

The DTM4007 Air : Fuel Ratio gauge requires an exhaust mounted 1v Zirconia type lambda sensor for its signal, if the vehicle is already fitted with a sensor and it is of the correct type then it should be possible to use it to supply the signal. Alternatively we can supply a heated 4- wire sensor and a weld-in mounting boss for those vehicles not fitted with a sensor. A heated sensor will give accurate readings more quickly from start up and maintain the sensor at close to its optimum performance regardless of exhaust gas temperature.

Installation:

The DTM4007 can be connected to most original equipment lambda sensors without affecting the operation of the engine management system. It is important to identify the correct sensor output wire for connection to the Pink sensor input of the DTM4007. Typical wiring conventions are detailed below, alternatively this information can be found in the wiring diagrams or workshop manual for the vehicle. Incorrect connection of the input can result in damage to the DTM4007.

If installing a sensor then it should be mounted into the exhaust system as close as possible to the engine where it will sense the gases from all cylinders. Generally this will be in the collector pipe and must be before the catalytic converter if fitted. If the engine is turbo charged the sensor should be mounted at least 150cm from the engine to prevent damage from high temperatures that can occur.

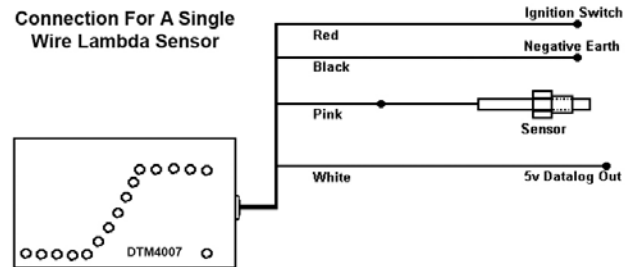
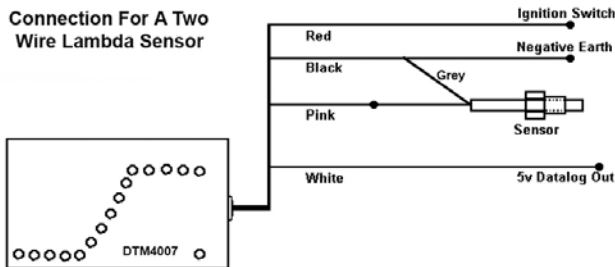
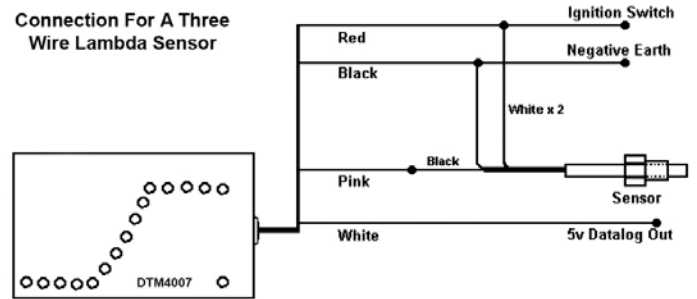
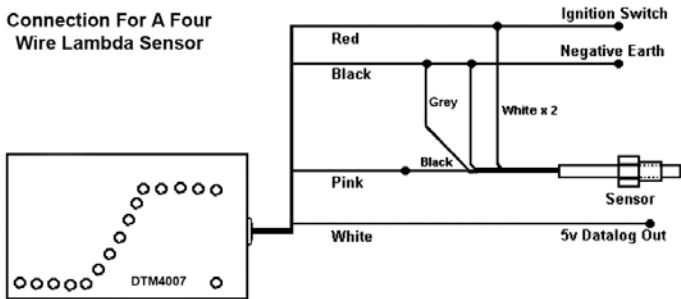
Wiring:

The DTM4007 has four wire connections. Red is a positive 12v ignition switched supply. Black is an earth connection (negative earth only). Pink is connected to the sensor signal output. White is a 0-5v output for data logging use. If using a three or four wire sensor the two white wires are for the heater element, either one should be earthed and the other connected to a switched 12v supply capable of at least 1 amp. The sensor signal output (black wire) is connected to the pink wire of the DTM4007. If using a one or three wire sensor without a separate earth then the sensor mounting point must be well earthed, occasionally exhaust mounts and connectors act as electrical insulators in the instances an additional an earth strap should be fitted to ensure an accurate reading.

Note: Two and four wire sensors generally have a grey earth wire this can be connected to the same earth being used for the black wire of the DTM4007.

Typical Zirconia Sensor Wiring Conventions:

- 1-wire Zirconia Sensor : BLACK = signal
- 2-wire Zirconia Sensor: BLACK = signal, GREY = ground
- 3-wire Zirconia Sensor: BLACK = signal, 2 x WHITE = heater
- 4-wire Zirconia Sensor: BLACK = signal, GREY = ground, 2 x WHITE = heater



Sensors and Accessories : We offer a range of Lambda sensors and fitting accessories for use with the DTM4007 please contact us for details

