



MTX-L (Digital Air/Fuel Ratio Gauge) QUICK START GUIDE

The complete instruction manual is on the CD

MTX-L Accessories:

- 4 pin to 2.5mm daisy chain cable: #3812
- 4 pin to 4 pin daisy-chain cable: #3846
- Exhaust Clamp: #3728
- Stainless Steel Bung w/ Steel Plug" #3838
- HBX-1: Heat-sinking Bung Extender: #3729
- 18ft sensor cable: #3828

Replacement Parts:

- Bung/Plug set: #3764
- Sensor (Bosch LSU4.2): #3737
- 4 pin Serial Programming Cable: #3840
- 8ft sensor cable: #3810
- 3ft sensor cable: #3843

Order parts, get support, find FAQ answers, and read case studies at www.tuneyouengine.com



Warning!



1) The Oxygen Sensor used with this device gets very hot in operation. Do not touch the hot sensor. Do not let a hot sensor touch a combustible surface. Do not use the sensor with or near flammable liquids or gases. Failure to heed these warnings may result in severe burns, explosions or fires. 2) When installed in the exhaust, the oxygen sensor MUST be connected and operating with the MTX-L whenever the car is running. An un-powered oxygen sensor will be quickly damaged when exposed to hot exhaust gases.



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To gain access to the complete MTX-L manual please install the software provided on the CD which was included as part of your kit.

Wiring

1. Connect the **RED** wire to a switched 12V source. A switched 12V source goes on as soon as the ignition on the car is on. Make sure the connection is fused with a minimum fuse size of 3A.
2. Connect the **BLACK** wire to a ground source. Avoid noisy ground sources, such as grounds used for radio and or ignition sources.
3. Connect the **WHITE** wire to a headlight power wire (a wire that supplies current to the headlights). This enables the display to dim for better nighttime viewing. **DO NOT CONNECT THIS WIRE TO THE HEADLIGHT DIMMING WIRE.** Connection to this rheostat type of switch will cause the gauge to malfunction. If you chose not to utilize the dimming feature, connect the **WHITE** wire to ground.
4. *Optionally*, the **YELLOW** (Analog out 1) and/or **BROWN** (Analog out 2) can be connected to the analog inputs of other devices such as data loggers or ECUs. If either one or both of these wires are not being used isolate and tape the wire(s) out of the way. The default analog outputs are as follows: Analog output one (yellow) is 0V = 7.35 AFR and 5V = 22.39 AFR. Analog output two (brown) is 1.1V = 14 AFR and .1V = 15 AFR. This is a simulated narrowband signal.

Sensor Calibration

1. The calibration procedure requires that the oxygen sensor be in **free air**, not in the exhaust.
2. With the **sensor disconnected** from the MTX-L, apply power to the MTX-L. When power is applied, all three digits will light up and the needle bar will sweep once through all LEDs. Then the status light will turn red and the numeric display will read “E2”. This is an error code, indicating that no sensor is detected. Leave unit powered on for minimum 30 seconds.
3. **Power down** the MTX-L and attach the oxygen sensor using the cable provided. Again, make sure that the sensor is in **free air (not in the exhaust)**.
4. **Power up** the MTX-L.

Again, the display should ‘sweep’, but instead of an error, the display will display “Htr”. This indicates that the sensor is being heated up to operating temperature. After 30-60 seconds, the display will switch from “Htr” to “CAL”, indicating that the sensor is being calibrated. A few seconds later, your MTX-L will begin displaying AFR. Since the sensor is in free air, the gauge will default to the upper limit of 22.4.

The calibration procedure has completed and the system is now ready for use.

Important: You can disconnect and reconnect the sensor and sensor cable for installation without losing your calibration. However, if you power up the MTX-L without a sensor connected, **your calibration will be reset** (see step #1 above).