

Standalone Gauge Kit Accessories:

- LMA-3: Auxiliary Input #3 (AuxBox- RPM, Temp, Duty Cycle, Acceleration, Boost/MAP): #3742
- Exhaust Clamp: #3728
- Stainless Steel Bung w/ Steel Plug" #3736
- HBX-1: Heat-sinking Bung Extender: #3729

Replacement Parts:

- Terminator Plug: #3750
- MTS 2.5mm to 2.5mm serial cable: #3760
- Bung/Plug set: #3735
- Sensor (Bosch LSU4.2): #3737
- Serial Programming Cable: #3746

STANDALONE GAUGE KIT QUICK START GUIDE

The complete instruction manual is on the CD

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



1) The Oxygen Sensor used in 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 LC-1 whenever the car is running. An un-powered oxygen sensor will be quickly damaged when exposed to hot exhaust gases.



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QUICK START GUIDE

1. Connect the terminator plug to the serial IN port of the LC-1.



2. Connect one end of the 2.5mm cable to the serial OUT of the LC-1 and the other end to of the 2.5mm cable to the serial IN of the XD-1.
3. The LC-1 has 7 stripped ends. The **RED** cable should be connected to a switched 12V power source. Make sure the connection is fused with a fuse of minimum 5A. The **BLUE** wire should be grounded to the power source ground or to chassis ground, the **WHITE** and the **GREEN** wires should be connected together and either connected to the analog input's ground or to a different chassis ground away from the blue wire. The **YELLOW** wire is analog output 1 and **BROWN** wire is analog output 2. Lastly, you have a **BLACK** wire which is the calibration wire. Since you have the XD-1 this wire will not be used and should be taped away.
4. The XD-1 has two stripped ends. The **RED** wire should be connected to a switched 12V power source. The **BLACK** wire should be grounded at the same place as the green and white wires of the LC-1.
5. **Do not connect the sensor yet.**
6. Switch ON the 12V supply to the LC-1 and the XD-1 and wait 20 seconds. The XD-1 should be displaying an 'E2' error.
7. Switch OFF the 12V supply after 20 seconds.

8. Connect the sensor to the sensor interface connector. **The sensor must be exposed to free air for the first time calibration.**

9. Switch ON the 12V supply to both the LC-1 and XD-1. The XD-1 will display the sensor warm-up sequence first.



The LC-1 will then proceed with a Heater Calibration. The XD-1 will display "HC" and count down from 9 to 0.



10. A Free Air Calibration is necessary to finalize the calibration process. Press the XD-1's button three times. "CAL" will begin flashing on the XD-1 display. Press the XD-1's button one more time to confirm the Free Air Calibration command; "CAL" will no longer flash and the XD-1 will send the command the LC-1.



11. Attach the oxygen sensor to your vehicle's exhaust. (See chapter 3 of the LC-1 manual for details on how to do this.)

12. **The Standalone Gauge kit is ready. Lambda/AFR measurements can now be taken.**



To gain access to the complete LC-1 and XD-1 manual please install the software provided on the CD which was included as part of your kit. The manual will contain important information such as sensor placement, programming the analog outputs, and other tips & tricks.