

# ZR-2 Multi Gauge

Congratulations on purchasing the Zeitronix ZR-2 Multi Gauge. The gauge displays AFR, Lambda, Boost/Vacuum and EGT. The Gauge works with the Zeitronix Zt-2 Wideband AFR meter and Datalogging System. The ZR-2 plugs into the Zt-2 DATA port. For clean and easy plug and play installation, power and data is supplied from the Zt-2 DATA port. The ZR-2 cable length is 5 ft (1.5m).

#### Items included

ZR-2 Gauge	4-40 set screws 2 pc
Data Splitter	4-40 nuts 2 pc

### INSTALLATION INSTRUCTIONS

Power down the Zt-2, which usually requires turning off your car's ignition. Plug the ZR-2 directly into the Zt-2 DATA port or use the signal splitter for sharing the DATA connection with a PC for datalogging. Up to 3 Zeitronix displays can be used with the Zt-2 2010 model at the same time. These displays may be any combination of the LCD, ZR-1 or ZR-2 including all 3 being of the same type. For the 2009/earlier Zt-2's only one display at a time is recommended.

Power up the Zt-2. The ZR-2 gauge will power up in a self-test mode showing **"8.8.8.8.**" on the 4-digit numeric display up and briefly light up each LED diode. The ZR-2 gauge is set up as an AFR gauge by default with both the center numeric digits and top (outer) LEDs reading AFR. After the initial start up the gauge shows **"tAFr"** signaling that the top LEDs are setup as AFR value, then **"CAFr"** is shown indicating the center digit display is set to show AFR. After initial start up gauge goes into a normal operation mode displaying real time values. During a normal gauge operation pressing the button can cycle through value displayed on the center digits. See SETTING UP THE GAUGE below for different than AFR primary gauge start up.

See SETTING UP THE GAUGE below for Lambda start up.

## **ZR-2 BUTTON FUNCTIONALITY**

During a normal gauge operation, holding the button for 1 second puts the ZR-2 gauge in a Peak and Hold mode. If the primary gauge mode is set to AFR then "**PAFr**" is shown on the 4-digit numeric display. After 1 second the gauge displays a Peak and Hold AFR number. Briefly pressing the button cycles through peak AFR, Lambda, Boost, EGT and User2 values showing "**PAFr**", "**PLbd**", "**Pboo**", "**PEGt**" and "**P U2**". Holding the button for 1 second puts the ZR-2 gauge back into the primary gauge mode. A peak and Hold value is erased after returning back to the primary gauge mode.

#### **SETTING UP THE ZR-2 GAUGE**

The ZR-2 gauge top LEDs can be set up to start up as AFR, Lambda, Boost and EGT. The center digits can be set up to start up as AFR, Lambda, Boost/Vacuum, EGT and User2. The center digits can be cycled through during normal gauge operation by briefly pressing the button.

To change value displayed on the top LEDs. Power down the gauge by powering down the Zt-2, which usually requires turning off your car's the ignition. At the start up the center digits display "t ". Wait one second until a value is shown following the "t ". By briefly pressing the button, cycle through "tAFr" "tLbd" "tBoo" "tEGt" stopping on the desired value. If the button is NOT being pressed for one second the gauge moves into the center digits setup. When "C " appears on the center digits, wait one second until a value is shown following the "C ". By briefly pressing the button, cycle through "CAFr" "CLbd" "Cboo" "CEGt" "C U2" stopping on the desired value. If the button is NOT being pressed for one second the gauge moves into normal operation mode. Chosen values are saved in the ZR-2 Gauge flash memory and will be shown at next start up and become a primary gauge mode. Regardless of the chosen primary gauge mode pressing the button can cycle through a value displayed on the center digits.

## TOP LEDs

3mm circular LEDs located around the gauge are referred to as the top LEDs. The gauge is equipped with an overlay matching the AFR numbers to the LED locations. For EGT read out, a single LED corresponds to 50 degrees C (122F) ranging from 200C (392F) to 1200C (2192F). For vacuum read out, first 5 red LEDs display vacuum at 50 inHg each. The following LEDs display boost at rate 2 PSI per LED.

## **MOUNTING OPTIONS**

The back of the ZR-2 gauge back is completely flat and can be surface mounted almost anywhere inside the car's cabin using a piece of Velcro or double sided tape (not included). The ZR-2 base allows the gauge to be mounted in a standard 2" 1/16 (52mm) gauge pod. For additional mounting options the package includes 2 stainless steel setscrews and 2 nuts.

## Warning!

For automotive use only. This product is for off road use only. Never place in a location, which obstructs the view. Never tune the car while driving. To be used with Zeitronix Zt-2 or Zt-3 Wideband AFR Meter only. Tune responsibly. Zeitronix Inc. is not responsible for any damages.

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