

tech review

>> INNOVATE MOTORSPORTS MTX-L DIGITAL WIDEBAND GAUGE

In today's world, wideband oxygen sensors have become far more common than even just a few years ago. Previously the engine's mixture was monitored via an exhaust pyrometer, but thanks to sensor and computer technology, accurately reading the actual mixture of the engine, in real time, is possible. With the technology available, companies like Innovate Motorsports has used their knowledge and experience to not only make an extremely versatile and easy-to-install wideband gauge kit, but one that won't come close to breaking the bank. Enter the MTX- Digital Wideband Gauge.

The large digital numerical display and programmable "Digital Needle" design combines the best of both analog and digital gauges.



>> The centerpiece of the MTX-L kit is the 2-1/16-inch digital gauge. With a light ring around the outer edge and clear digital numerals in the center, it's very easy to read. The gauge also comes with an extra trim ring and a white gauge face, so you can change it up to meet your style.

SPEED AND ACCURACY

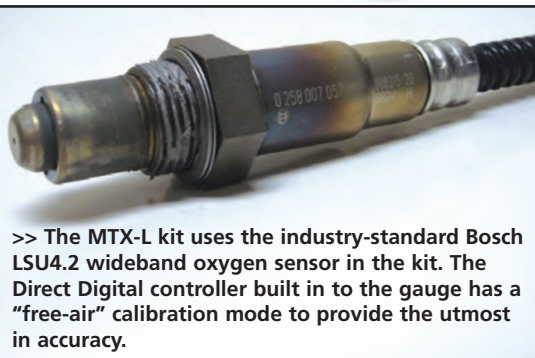
The Innovate Motorsports MTX-L sets itself apart from the field by being a 100-percent digital gauge with class-leading response time and accuracy. The brain of the gauge is actually Innovate's Direct Digital Wideband Controller, which is built into the body of the gauge itself and replaces the need for an external controller such as the LC-1. The large digital numerical display and programmable "Digital Needle" design of the gauge keeps you instantly apprised of the goings-on of your engine, and combines the best of both analog and digital gauges.

Achieving repeatable, precise readings is no easy task. The Innovate starts by using the industry-standard Bosch LSU4.2 wideband oxygen sensor and then coupling that with user-performed sensor calibration to get the sensor and the Direct Digital brain working in sync.

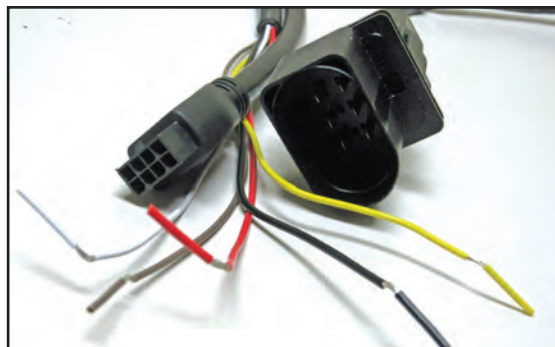
ALL THE BELLS AND WHISTLES

The MTX-L kit is an all-in-one package. The kit comes with the Air/Fuel ratio gauge, black and silver interchangeable bezels, white and black faceplates, Bosch LSU4.2 wideband oxygen sensor, an eight-foot sensor cable, a program cable, software, and even includes a weld-in sensor bung.

The kit is simple to install, requiring just three connections (power, ground, and headlight power). In addition to those three connections, the MTX-L offers two fully programmable analog outputs for use with external engine management systems or dataloggers, and there is even the option so configure one of the outputs to simulate a narrow-band signal for the factory ECU. The display can also be configured for six different ranges: Gasoline (7.35 to 22.4), Lambda (0.50 to 1.52), Diesel (7.3 to 99.9), Methanol (3.2 to 9.95), E85 (4.9 to 14.93) and Liquid Propane (7.85 to 23.91).



>> The MTX-L kit uses the industry-standard Bosch LSU4.2 wideband oxygen sensor in the kit. The Direct Digital controller built in to the gauge has a "free-air" calibration mode to provide the utmost in accuracy.



>> The wiring for the MTX-L is amazingly simple. All you need to do is plug the sensor into the harness, and the harness into the gauge, and then, Connect red to power, black to ground, and you're done. If you want to use the auto-dim feature, you can tie the white wire into the headlight circuit. Brown and yellow are analog outputs that can be programmed for your specific needs.

The gauge itself measures 2-1/16-inches and as mentioned earlier, comes with black and silver gauge bezels, and black and white faceplates. While not necessarily super-high-tech, the interchangeability helps to tailor the gauge to match your existing gauges, or to match your specific tastes. The center of the gauge features large digital numerals reading out your exact air/fuel ratio to the tenth of a point. Around the gauge is a series of lights that provide a visual reference similar to that of a needle-gauge, with the center point being perfectly stoichiometric. The Innovate Motorsports team has taken the most desirable features of a wideband oxygen sensor setup and combined them into one inexpensive, easy-to-install package and named it the MTX-L. ■

SOURCE

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