

GAUGING INTEREST

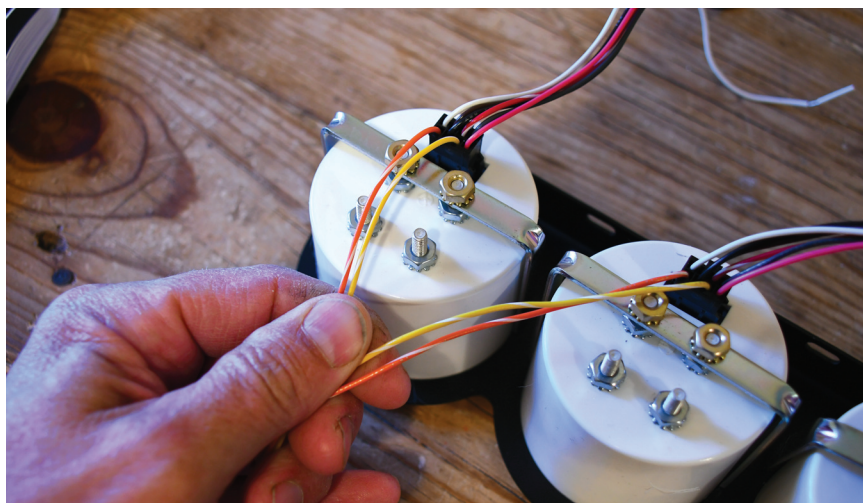
Keep an eye on your race car's particulars with Classic Instruments gauges

The owner chose Classic Instruments' White Hot full-sweep gauges to monitor the vitals on his '55 Gasser.



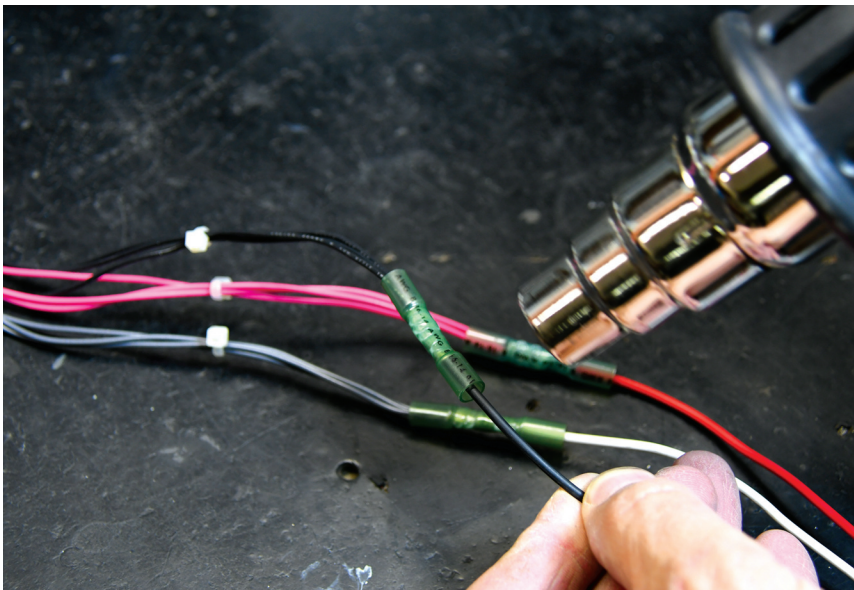
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Every race engine needs a set of gauges to keep the driver informed of any anomaly that could occur during an event. Consistent engine temperatures, stable oil pressures (for obvious reasons), and proper operating voltage (for the ignition, engine control module, and electric fuel pumps) are all vital to a successful run. Depending on your driveline, there's also boost or fuel pressure, trans temps, brake pressure that need tracking as well.

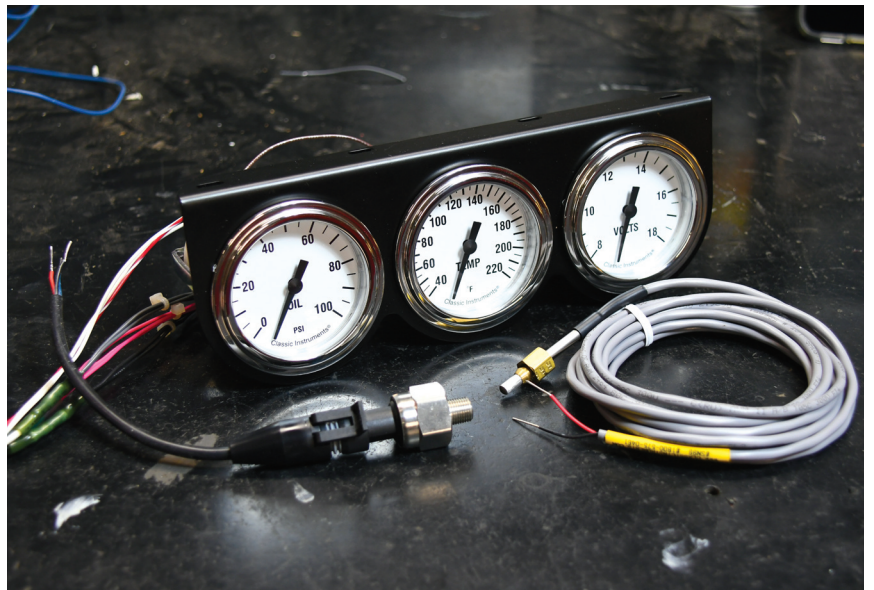


After mounting the gauges in the panel, we started sorting out the wires. Each gauge has a 5-volt output wire (yellow/white) to share the sensor information with a datalogger to reduce sensor duplication. We won't be using that wire or the optional orange/white wire that will provide a ground to activate an external warning light.

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Each gauge requires switched 12 volts, ground and a wire for the lights. We put each of the wire groupings into one heat-shrink butt connector and ran a single wire to its connection on the car.



With the main wires connected, it was time to install the panel under the dash then get to work on the temp and pressure sensors.

As a racer gets prepped for a lap, the gauges generally get a quick glance and likely do not get looked at again until the car is coasting to a stop – or if something breaks on the pass. When our friend Max started looking for new gauges for his big-block '55 gasser, he wanted something that had a warning-light option to alert him if there was a problem during a race or on the road. This led him to Classic Instruments.



The oil pressure sensor comes with a three-wire pigtail so you need to connect a power, signal, and ground wire. This sensor also operates with 5 volts rather than resistance, which allows for a compact sensor. We added a heat sleeve to protect the wires and routed the sensor ground back to the same point as the other gauges.



The low-temp gauge (40 to 220 degrees) uses a 5-volt sensor rather than a usual resistance-based sensor. The voltage signal is much more accurate for the full-sweep gauge. Classic has found it best to install the sensor in the intake manifold but the cylinder head is acceptable when a port is not available (such as on LS intakes).



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Classic Instruments, located in Boyne City in northern Michigan, has built and designed gauges for over 42 years. Their work is showcased in many well-known street rods including complete custom-built gauge panels in high end, award-winning cars. With an owner and staff largely made up of hot rodders and racers, the team has been working on a new line of performance gauges designed for racing.

Each gauge is hand assembled starting with their exclusive air-core movement. This design has proven to be rugged and durable against extreme vibrations and the abuse that racing delivers. The company's full-sweep gauges feature a programmable warning light that can easily be set to illuminate in an attention grabbing bright red if a problem occurs. Another handy option is a 5-volt output that can be connected to a data-acquisition system to share the sensor's information. This reduces wiring and will save time and money by eliminating sensor duplication.



Max wanted to mount the tach right on top of the dash for easy view, not to mention cool looks.



Thanks to the fenderwell headers, there was plenty of room to mount the oil-pressure sensor on the side of the block.



Several yoga positions were needed to reach up under the dash to mount the tach and finish off the wiring.



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The Classic tachometer can receive a trigger signal from the coil negative of an inductive ignition system, the output from an ECU of an LS application or right from the 12-volt, square-wave tach output of a CD box such as the MSD unit.



Key-on and the gauges light up and sweep through their range before settling on the values coming in from the sensors.

Classic offers a number of designs for its performance gauges, or you can even custom order a face with your race team name or logo. Gauges are available in common sizes including 2 1/8-, 2 5/8-inch, tachs are also available in 3 3/8- and 4 5/8-inch varieties. The gauges all come with a seven-year warranty and are supplied with heavy-duty, precision sensors for each application.

Max decided to go with a set of Classic's White Hot full-sweep gauges that offer a nostalgia hot rod look, but with a touch of modern style. We followed along as he installed the basic needs of a carb-fed big-block – temp, voltage, and oil pressure along with a tach mounted right atop the dash. Everything was included to complete the installation including compact, race-proven sensors and warning lights were easy to program and are definitely provide an attention grabbing warning.

Be sure to contact Classic Instruments for your instrumentation needs, especially since the company is a new contingency sponsor for a number of NMCA classes this year. **FSC**



To program the warning-light activation of the gauges, Classic Instruments provides a small momentary push button that connects to the brown gauge wire and ground. From there, you can easily set the value for a warning light to trigger should the oil pressure be too low or the coolant temperature too high.

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