

SMi™ Waterproof Stepper Motor Gauge & Panel

Wiring Instructions



WIRING

- **Single Brown/Yellow wire:** To ignition switch so power to gauge will be shut off when ignition is off.
- **Single Red wire:** To ignition switch or other source so power is always on, regardless of ignition switch. This allows the pointer to always return to 0 when shut off.
- **Black wire:** Connect to ground (this connection is important as many problems are caused by poor ground).



Use only on 12 or 16 volt systems with negative ground.

TO SET WARNING LIGHT POINTS

OIL PRESSURE

Hold both buttons on lower front of gauge for 3 seconds. This is the first setpoint or pre-warning. Use the right button to raise the setpoint as shown by the pointer. If you go past your desired setpoint, continue pressing and releasing the right button until the gauge goes to the highest setting and then back to zero. When you get the setting you want, push the left button. With the gauge flashing, this is the second setpoint or final warning. Adjust as above with the right button. This setting must be lower than the first setting. After you have the desired setpoint, press and release the left button. Next is the backlight brightness. You adjust the brightness with the right button. There are 5 settings to choose from. After the desired brightness is set, press and release the left button. You are now in operation mode and your gauge is ready to use.

WATER TEMPERATURE

Hold both buttons on lower front of gauge for 3 seconds. This is the first setpoint or pre-warning. Use the right button to raise the setpoint as shown by the pointer. If you go past your desired setpoint continue pressing and releasing the right button until the gauge goes to the highest setting and then back to zero. When you get the setting you want, push the left button. With the gauge flashing this is the second setpoint or final warning. Adjust as above with the right button. This setting must be higher than the first setting. After you have the desired setpoint press and release the left button. Next is the backlight brightness. You adjust the brightness with the right button. There are 5 settings to choose. After the desired brightness is set press and release the left button. You are now in the operation mode and your gauge is ready to use.



WARNING

These gauges are reasonably heat resistant but may be damaged by excessive radiant heat from the exhaust system. If you mount your gauges or panel directly into the firewall, so that the gauges and wiring are exposed to the engine compartment, YOU MUST BUILD A SHIELD to protect them from radiant exhaust heat.

FUEL PRESSURE, WATER PRESSURE OIL TEMPERATURE, & VOLTAGE

Hold both buttons on lower front of gauge for 3 seconds. This is the first setpoint. Use the right button to raise the setpoint as shown by the pointer. If you go past your desired setpoint, continue pressing and releasing the right button until the gauge goes to the highest setting and then back to zero. When you get the setting you want, push the left button. Next is the backlight brightness. You adjust the brightness with the right button. There are 5 settings to choose from. After the desired brightness is set, press and release the left button. You are now in operation mode and your gauge is ready to use.

REMOTE WARNING LIGHT:

The Oil Pressure gauge, Fuel Pressure gauges and Water Pressure gauge have two additional wires coming from the harness. They operate an optional 12-volt external warning light that can be mounted on the left side of the dash or as preferred. Wire colors are brown and green. They are identified.

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2 ½" TACHOMETER SETUP

Hold both buttons on lower front of gauge for 3 seconds. This is the first setpoint to set the number of cylinders. Use the right button to raise the setpoint as shown by the pointer. If you go past your desired setpoint, continue pressing and releasing the right button until the gauge goes to the highest setting and then back to zero. When you get the setting you want, (8 cylinder = 4 setting, 4 cylinder = 2 setting, 6 cylinder = 3 setting, 10 cylinder = 5 setting, and 12 cylinder = 6 setting) push the left button. The second setting is the shift light setpoint or pre warning. Adjust as above with the right button. This setting must be lower than the 3rd setting. After you have the desired setpoint, press and release the left button. The 3rd setting is the warning setting. This setting must be larger than the second setting. After you have the desired setting, press and release the left button. Next is the backlight brightness. You adjust the brightness with the right button. There are 5 settings to choose from. After the desired brightness is set press and release the left button. You are now in the operation mode and your gauge is ready to use.

2 ½" TACHOMETER RECALL INSTRUCTIONS

This tachometer has 3 recall functions. First recall is the absolute highest RPM. Second recall is the average high RPM. Third recall is the average low RPM. To recall, press and release the right button once for the highest RPM. Press the right button again for the average high RPM. Press the right button a 3rd time for the average load. Press the right button a 4th time return to the operation mode. To erase the memory, press the right button one time to get into the recall function. While in the recall function, press and hold the right button 5 seconds to erase the memory. The tach will return to operation mode after this.

PRESSURE SENSORS

The pressure sensor(s) MUST be mounted on a firewall mount (**52-43530 1 sensor, 52-43531 2 sensor, and 52-43532 3 sensor**) on the outside of the driver's compartment for safety. To be eligible for warranty replacement, the sensors must be mounted with a flexible line between the sensor and the engine. Mounting the pressure sensor(s) to the engine can cause the sensor to prematurely fail. Pressure sensors with 127 PSI marked on it are for pressure gauges above 100 PSI. Pressure sensors with 60 PSI marked on it are for gauges 60 PSI and lower.

OIL/FUEL/WATER PRESSURE: SENSOR

This sensor is connected from the firewall sensor block (**52-43530 1 sensor, 52-43531 2 sensor, and 52-43532 3 sensor, SOLD SEPARATELY**) to the engine in the usual place by using a flexible line of your choice.

WATER/OIL TEMPERATURE: SENSOR

This sensor can be mounted on the motor in the usual place or in the radiator. Included is an adapter that installs directly into a traditional mechanical gauge style manifold fitting. The sensor can be removed from this adapter and installed directly in the manifold if you wish. It has a 1/8" NPT thread. If longer wire is needed (marine, etc.) splicing is acceptable. Make solid connections.

There is no separate sensor for the volt gauge.