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INSTALLATION GUIDE

LED Mini-Tachometer w/RPM Ground Switch

Part Number: M9002



After completing all wiring reconnect battery and power up the unit. Test all gauges before reinstalling dash, bezels, and hardware to prevent having to remove it all for any future troubleshooting.



Always disconnect the battery before attempting any electrical work on your vehicle.

INSTALLATION (default setting is 8-cylinder)



If you do an LS engine swap, pick up the tach signal wire from the ECM/ECU and then set the tach switch to 4-cylinders. You may also need to order the INTELLITRONIX LS Series 1, 2 and 3 Engine Swap Adapter Kit (Part # 8014LS).

Black, Wire to the vehicle engine block ground. The engine block should have heavy ground cables connected to the battery, frame, and firewall.

Red, Wire to switched +12V power from the fuse panel or vehicle wiring harness. (Recommended to use at minimum a 3-amp inline fuse). This wire should have power when key-on and starting ignition.

Violet, Wire to the +12V side of the parking lights. This will dim the dash lighting 50% when your headlights turn on.

Grey, Wire to the ground side of the device you want your RPM switch to activate.



The tachometer requires a minimum 9VDC square wave signal.

Green:

- **Ignition Coil,** Run wire to the negative (-) side of the coil or the wire that goes to the points or electronic ignition module.
- **GM HEI ignition,** Run wire to the terminal marked 'TACH' or, on some systems, a single white wire with a spade terminal.
- **After-Market Ignition and CDI Box** – Most systems offer a 12 VDC Square Wave TACH output terminal. Refer to those system instructions for setup.
- **Magneto** system, connect the tach signal wire to the negative side of the coil. Do not connect the tach terminal to the positive (+ or high voltage) side of the ignition coil. Many tachometers, shift lights or RPM-activated switches will not read directly from a Magneto, so your installation may need a Magneto Signal Converter to function properly.
- **Diesel,** The tachometer will not work correctly for a diesel engine without the use of a diesel tachometer adapter (Intellitronix does not sell this part).



A vehicle's engine can generate a large amount of electromagnetic interference. To ensure that the ignition system does not interfere with dashboard functions check to ensure the following conditions are met.

- Do not run tachometer wire alongside other senders or input wires.
- Do not use solid core spark plug wires with this dashboard system.
- Do not run wires close to the alternator.
- Check for cracked spark plug wires and boots.
- Use of Dielectric grease on connectors and in distributor is recommended.
- Use of grounded tin-plated copper sleeving can help to remove EMI.
- Use of ferrite tape and beads can help to remove EMI.

❖ Programming:

The display will only show setting options while in ac-power and no tach signal. Upon power up the program will continuously scroll through the three setting options below:

- Sets # of cylinders, press button to change to: 1, 2, 4, 6, 8, 10, or 12.
- Sets RPM ground switch limit. Ranges from 100 to 9900.
- Sets ground switch function.
 1. **Normally Open (NO)**, The Grey wire will provide a ground and TURN ON after the switch reaches the set RPM.
 2. **Normally Closed (NC)**, The Grey wire will always provide ground and TURN OFF after the switch reaches the set RPM.
- Sets RPM increments, press button to change to: (hundreds) 8800, (tens) 8880, or (ones) 8888.

All settings will be saved immediately unless you press the button again to change them.



If the engine is running and the programming mode is still scrolling through the settings, there is no signal to the tachometer or the signal is too weak.