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**Thank you for purchasing this instrument from Intellitronix. We value our customers!**

**INSTALLATION GUIDE**

**LED Digital Multi-Function Programmable Tachometer**

**Part Number: M9003**



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

***Note: Automotive circuit connectors are the preferred method of connecting wires. However, you may solder if you prefer.***

***Note: If doing a 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 Engine Swap Adapter Kit for Series 1, 2 and 3 engines. The part number is 8014LS. If you are getting the tach signal from the ECU, the resistor in the adapter kit will help pull a stronger signal for the tachometer. If your engine is a LS the Tachometer will need to be put into 4 cylinder mode by removing Resistors if the Tachometer does not have a push button for programing, please call Tech Support at Intellitronix, as you may need to send the gauge back to us to be reconfigured. There is no charge for this additional service.***

## WIRING INSTRUCTIONS

**Ground – Black**--This is the main ground for the display system. A wire should be run from this board to the vehicle engine block for the best ground. Use 18 AWG or larger wire to ensure sufficient grounding. Proper vehicle grounding is extremely important for any gauges (or electronics) to operate correctly. The engine block should have heavy ground cables to the battery, frame, and firewall. Failure to properly ground the engine block, senders, or digital dash can cause incorrect or erratic operation.

**Power - Red**--Connect the power terminal to accessory +12V power from the fuse panel or vehicle wiring harness. Using a 5-amp fuse or an inline 5-amp fuse holder This terminal should have power when the key is on or in accessory position. Use 18 AWG wire to ensure the system receives a sufficient power feed.

**Dimmer – Purple** Connect to the parking lights to dim the LEDs 50% when the headlights are on. However, **\*DO NOT\*** connect to the headlight rheostat control wire, or the dimming feature will not work properly and may cause damage to Unit.

**Switch - Grey** Connect to the ground of the device to which you want your RPM switch to activate. This device has two settings for *Normally Open* (the *Gray* wire will provide power AFTER the switch reaches the set RPM), and for *Normally Closed* (the *Gray* wire will provide power UNTIL the switch reaches the set RPM).

### **Tachometer – Green**

If your vehicle has a **separate ignition coil**, connect the green wire to the **negative (-)** side of the coil – the wire that goes to the points or electronic ignition module.

To ensure that the ignition system does not interfere with any other dashboard functions, do not run the tachometer wire alongside any other sender or input wires. **Do not** use solid core spark plug wires with this dashboard system. Solid core ignition wires cause a large amount of electromagnetic and radio frequency interference which can disrupt the system's operation.

If your vehicle has a **GM HEI ignition**, connect to the terminal marked 'TACH', or, on some systems, a single white wire with a spade terminal.

If your vehicle has an **after-market ignition** – some systems will connect to the TACH output terminal.

If your vehicle has a **Computer controlled ignition** system, consult the service manual for the wire color and location.

If your vehicle has a **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.

***The default setting for the tachometer is for an 8-cylinder engine.***

**Note:** If doing a LS engine swap you will normally need to have the tachometer set at 4-cylinders. You may program the tach by following setting # 2. (see below.)

This unit comes with a factory setting for an 8-cylinder engine, with activation at 5000 RPM Normally Open. The display will stay in Settings Mode until it receives a signal from the ignition system. To program the unit after starting the engine, shut the engine off and turn on only the ignition.

A blue LED (at top of gauge) will indicate when the shift light command is activated on the gauge. A green LED (at bottom of gauge) indicates that RPM settings have been activated.

**To change settings:** (a light tap on the left button engages the menu system: the right button will then be used to adjust each specific setting.)

**1. Left button pressed once:**

Sets # of digits in RPM display, using right button, display shows: (hundreds) 9900, (tens) 9990, and (ones) 9999.

**2. Left button pressed twice:**

Sets # of cylinders using right button, display shows: 01\_C 02\_C 04\_C 06\_C 08\_C 10\_C 12\_C

**3-A. Left button pressed three times:**

Sets first digit on max RPM on gauge bar display (in thousands) using right button, display shows: 10\_\_B to 99\_\_B

**3-B. Left button pressed four times:**

Sets second digit max RPM on gauge bar display (in hundreds) using right button, display shows: 10\_\_B to 99\_\_B

**4-A. Left button pressed five times:**

Sets RPM first digit shift light threshold (in thousands) using right button, display shows: 10\_S to 90\_S

**4-B. Left button pressed six times:**

Sets RPM second digit shift light threshold (in hundreds) using right button, display shows: 19\_S to 99\_S

**5-A. Left button pressed seven times:**

Sets first digit output switch RPM threshold (in thousands) using right button, display shows: 10\_S to 90\_o

**5-B. Left button pressed eight times:**

Set second digit output switch RPM threshold (in hundreds) using right button, display shows: 19\_S to 99\_o

**6. Left button pressed nine times:**

Will return to normal mode, or if there is no new information to access, after 8 seconds, the gauge automatically returns to normal mode.

When you have finished programming the settings, turn off the ignition to retain them in the gauge's memory. Next time you turn on the ignition, your new settings will be the default.

# # #

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Technical Support

Monday – Friday

9am to 5 pm EST

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CHECK OUT THE **SUPPORT** PAGE AT

[www.intellitronix.com](http://www.intellitronix.com)

FOR QUICK ANSWERS (**Q&A**) TO YOUR QUESTIONS



**This product carries a limited Lifetime Warranty.**

**This warranty is limited to replacement or repair of the unit at the discretion of Intellitronix.**

## **RETURN POLICY PROCEDURES**

### **Return Policy Instructions**

1. Download the Intellitronix Return/Repair Form and fill in the information on the form about the product.
2. Place the product being returned in the original packaging that it came in and include a copy of the completed Intellitronix Return/Repair Form.
3. All packages must be accompanied with an RMA Number.

Please call Technical Support at +1 440-359-7200 to receive an RMA Number.

4. Mail the product being returned with the completed Return/Repair Form and a copy of the original sales invoice.

### **Request for Product Refund**

1. All returns for a refund must have a completed Intellitronix Return/Repair Form included in the package with the returned product.
2. If the return is for a product that is not defective a 20% restocking fee will be charged. The product must be in the same pristine condition that it was sent to you.
3. Proof of purchase is required. Please include a copy of the original sales order with the returned product.
4. All product must be returned undamaged and in working order in the original packaging including plexiglass, sending units, mounting hardware, or you will be subject to additional charges for product and accessories not returned.
5. All refunds will be reviewed by the Accounting Office.