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### **INSTALLATION GUIDE**

**LED CoPilot Voltmeter Gauge w/Alarm**

**Part Number: C 9015**



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

### **KIT COMPONENTS**

One (1) **C9015 CoPilot LED** Gauge 2 5/8 in. diameter, plus bezel and mounting bracket

### **SPECIFICATIONS**

This gauge reads voltage output from 9 to 16 volts, (in tenths) with two visual alarm LED lights that will warn if the voltage goes either above or below the pre-set limits. There are two buttons on the lower face of the gauge to enable these settings: one is for low and the other is high.

## WIRING INSTRUCTIONS - Gauge

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

**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. 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.

**Ground Input - Blue NO (Normally Open)** Connect to the ground of the device to be controlled

**Ground Output - Gray NC (Normally Closed) if between limits** Connect to the ground unless you exceed limits.

## OPERATION

### Voltage - Controlled Ground Switch

This device has two settings for *Normally Open* (the *Blue* wire will provide ground AFTER the switch reaches the set voltage), and for *Normally Closed* (the *Blue* wire will provide ground UNTIL the switch reaches the set voltage). Activation is at 9V *Normally Open*. The display will stay in Settings Mode until it is programmed.

### Setting up low and high voltage

Setting mode starts as power comes on without starting Engine and will stay at each setting position for 5 seconds for adjustments to be made. While in Settings Mode, use the push buttons on the device face to change the voltage limits settings in increments of 00.10 at a time, up to a maximum of 16V. The first value is low voltage setting. The second value is high voltage setting. The third setting is for setting NO or NC then it moves into gauge function.

The left button increases, while the right button decreases. Once you are at the desired setting, the LED display will stay on the desired voltage setting for a few seconds, then switch to NO and NC settings. Use the left button to choose.

After the engine is turned off, the settings will remain in memory, until they are manually changed, as described above.

If voltage is below low limit or above high limit settings, display and light will flash. Output will be pulled to ground for Normally Open settings, above ground for Normally Open setting.

## **To Re-Calibrate**

If, at any time, you wish to change the settings, press both buttons until you see "CAL" displayed. Release buttons. Edit displayed voltage up and down, using the buttons, to desired settings. The display will be blank, then will show the new measured voltage.

## **How to Calibrate Battery Voltage**

On powerup, normal startup timed menu displays, where you set upper and lower alarm limits and N.O. or N.C. for output. Any time after that, press both buttons for more than 5 seconds, until you see "CAL" displayed. Release buttons. Press left button for up, right button for down to whatever voltage you want it to read.

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Technical Support

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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.