



## Aircraft and Medical Instruments

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### **Electronic Manifold Pressure Indicator N07-x1Mx-xxxx-xxx & 3<sup>1/8</sup>" 7-360-xx w/ DB9 connector (For use with UMA N1EU50A Sender)**

#### **Installation Instructions:**

- **All connections are to be made in accordance with AC 43.13.**
- **Additional wire and fuses may be necessary for installation of unit.**
- **Keep all wire and unshielded areas to a minimum.**

1. Mount indicator in desired location in aircraft's instrument panel.
2. Install pressure sensor in proper location. Connect the 9-pin connector (on the harness) to the instrument and connect the 6 foot length of 3 conductor wire to the sender (Refer to Installation Instructions of Sender for details)(see diagram on back).
3. Once harness is in place, connect black wire extending from harness to the common ground of the aircraft. Next, connect red wire from harness to the switch side of master switch. Use a one (1) amp fuse inline between the power source and the instrument, or use power from fuse/breaker panel. Use #24 AWG (or larger) for all connections and keep the unshielded portion of all connections to an absolute minimum (4" or less).
4. When internally lit, power for the light must be provided by UMA Part # 10-700-xx inverter, and connected to the DC buss by means of a dimmer.

**Note:** UMA P/N N1EU50A absolute pressure sender is required for this instrument!

#### **Specifications:**

Description: Type II, Remote-indicating electronic manifold pressure instrument built to meet or exceed RTCA/DO160D standards.

Supply Voltage: 12-28 Volts DC (Nominal)  
10-32 Volts DC (Max)

Current Draw: 100 mA (Maximum)

Weight: 4 oz.

#### **Inaccurate Readings?**

Many people do not understand what a manifold gauge should read. Here is how it works. A Manifold Pressure Indicator reads **Absolute Pressure**, simply, the weight of air on the gauge, uncorrected for anything. That pressure, when corrected for altitude to sea level, for temperature, and for gravity, is the pressure used to set the altimeter called "Altimeter Setting", "Sea Level Pressure", or "Barometric Pressure". This is the pressure reported in aviation and weather reports. The only time the Manifold Pressure and the barometric window on the altimeter will agree is on the ramp **at sea level** with the engine off. NOAA's National Weather Forecast Office in El Paso has an Altimeter Setting calculator on their website: <http://www.srh.noaa.gov/elp/wxcalc/altimetersetting.shtml>  
To check your gauge, you will need to use the Station Pressure as measured by a mercury barometer rather than the number from the TV or weather office. **On a standard day in Denver, (alt. setting 29.92), your manifold gauge should read about 25"!**

## Warranty

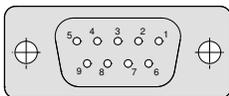
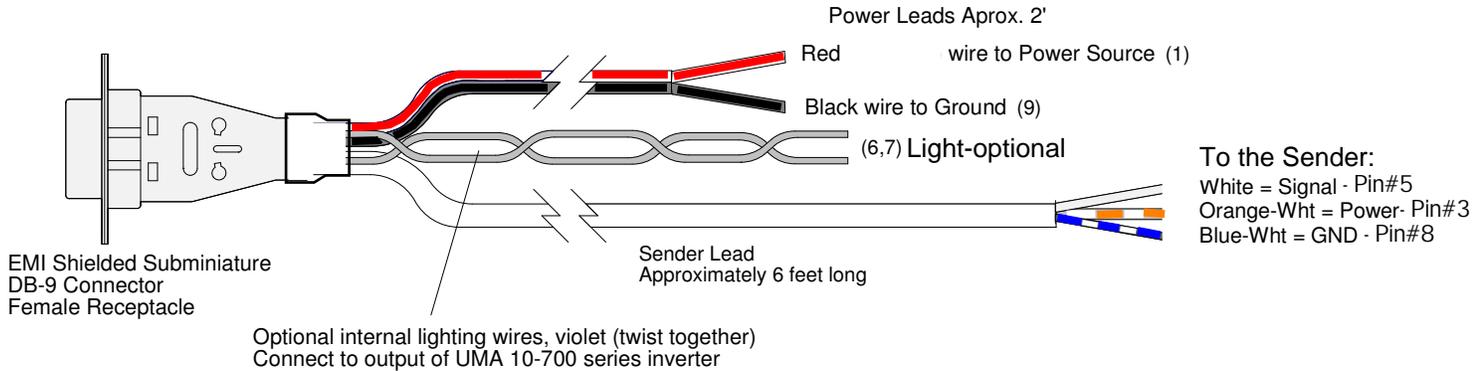
**UMA, Inc. warrants all products to be free from defects in material and workmanship under normal use and operation. UMA does not warrant any product which has been damaged as the result of accident, abuse, negligence, improper operational voltage, lightning, fire, flood, or other acts of nature. Any indication that the unit has been opened can void warranty. Under no circumstances shall UMA be liable for any loss or damage, direct, consequential or incidental, arising from the use of or inability to use this product.**

**This warranty is limited to the repair or replacement, at the manufacturer's option, of any product or part thereof, which has been returned to UMA within the specified warranty period, and which after examination shall disclose to the customer service department's satisfaction that the product is defective. Transportation to the factory or authorized service center must be prepaid; the product after repair or replacement, will be returned at the expense of the dealer or end customer. This warranty does not apply to any product or integral part thereof, which has been altered or serviced by other than the manufacturer or authorized service center.**

**The warranty period is twelve (12) months to the user.**

**This warranty supersedes all other warranties either expressed or implied and shall be governed and executed under the laws of the Commonwealth of Virginia, USA**

UMA carries a full line of engine instruments available in 1 1/4" or 2 1/4" sizes. Including many temperature and pressure types and ranges, along with other indicators such as Voltmeters, Ammeters, Flap Position Indicators, and Fuel Level Indicators.



All wire leads to meet or exceed  
MIL-W-16878D Type B/N, 24 AWG, or equivalent

- 1 Voltage In +10 to 30VDC
- 2
- 3 Voltage Out to Sender - Org-Wht wire from sender
- 4
- 5 Signal return - Wht wire from sender
- 6 opt. EL Lighting
- 7 opt. EL Lighting
- 8 Ground - Blue-Wht wire from sender
- 9 Ground

