# EM151/EM201 Electronic Manometer

INSTRUCTION MANUAL



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# INTRODUCTION

The EM151 and EM201 provide a simple, timesaving alternative to U-tube pressure measurements. Use the UEi EM151 & EM201 to measure gas supply and draft pressures in residential or light commercial properties. The EM201 differential mode provides a convenient method to measure pressure drops.

# **SAFETY RULES**

# **↑** WARNING!

Before every use, check to be sure the meter and its tubing are free from breaks or blockage. While using the meter, if you suspect gas is leaking, or if you can smell gas, close off the gas supply and ventilate the occupied space. Identify and repair the source of the leak before continuing with the test.

In the interest of safety, this instrument should only be used by trained, competent professionals who know the hazards and consider the risks of working on and with industrial equipment.

These meters do not measure water pressures; under these conditions they will fail. Do not exceed 10 PSI input pressure

## **FEATURES**

#### EM151

- Single input to measure positive and negative pressure to ±20" wg
- Ruggedized, including rubber boot with integral magnet
- Simple two-button operation
- Measures in inches water gauge
- Auto power-off after 20 minutes
- 1 year limited warranty

#### EM201

- Dual input differential measurement to ±40" wg or ±100 mBar
- Ruggedized, including rubber boot with integral magnet
- Measures in inches water gauge and mBar
- Auto power-off after 20 minutes
- · Min/Max value capture
- Data Hold
- Back-lit display
- 1 year limited warranty

# **OPERATING INSTRUCTIONS**

#### 1. Zero the meter

Prior to use, the meter must be zeroed. To do this, ensure the meter is in a non-pressurized area, and press and hold the 'ZERO' button for approximately four seconds. The display will show '888' to indicate that the zero function has occurred.

#### 2. Measure Pressure

Connect the flexible tube between the meter and the pressure source.

The EM201's positive input is to the right when looking at the front of the instrument. Applying a positive pressure to this port will display a positive reading. The input to the left is the negative port. (Applying a positive pressure here will display a positive reading). Use either input to measure a single source by venting the unused input to atmosphere. The instrument will continually provide a differential reading of the two inputs.

#### 3. SCALE

To select mBar press the "SCALE" button on the EM201. Press "Scale" again to return to inches of water gauge. To select scale on the EM151 briefly press the green button.

## 4. MIN/MAX (EM201 Only)

The EM201 will capture values for both the minimum and maximum values read. To reset zero the instrument or simply power the meter off, then back on. Captured values can be displayed in either inches water gauge or mBar.

## 5. HOLD (EM201 only)

The EM201 has a display hold feature. Press this during reading to freeze the display. Press again to return to actual measurement.

## 6. BACKLIGHT (EM201 only)

The EM201 has a backlit display. Press Light feature.

## 7. Over-range

If the input exceeds the meter range "OL" will be displayed. Immediately disconnect from the pressure supply safely to reduce chances of damage to the instrument.

# **SPECIFICATIONS**

### EM151

Measurement range: -20" to +20" WG

Minimum pressure displayed: 0.01" WG Accuracy:  $\pm 0.02$ " < 2"  $\pm 1$ %rdg > 2"

Resolution: 0.01" -9.99" to +9.99" WG

0.1'' < -10'', > +10'' wg

Operating range: 0 - 40°C, 10 - 90% RH

non condensing
Battery life: 50 hours min with

alkaline battery

### EM201

Measurement range: -40 to +40" WG
Minimum pressure displayed: 0.01" WG

Accuracy:  $\pm 0.02'' < 2''WG$  $\pm 1\% rdg > 2''WG$ 

Resolution: 0.001" -9.999" to +9.999"WG

0.01" < -10", > +10" wg
Operating range: 0 - 40°C, 10 - 90% RH

non condensing
Battery life: 40 hours min with

alkaline battery

# PRESSURE CONVERSIONS

Multiply	Ву	To Get
In. of H2O	1.868	mmHG
In. of H2O	0.074	in HG
In. of H2O	0.249	kPa
In. of H2O	249.1	Pascals
In. of H2O	2.491	mBar
In. of H2O	0.036	PSI
In. of H2O	25.40	mmH2O

## WARRANTY

The EM151 or EM201 are warranted to be free from defects in materials and workmanship for a period of three years from the date of purchase. If within the warranty period your instrument should become inoperative from such defects, the unit will be repaired or replaced at UE's option. This warranty covers normal use and does not cover damage which occurs in shipment or failure which results from alteration, tampering, accident, misuse, abuse, neglect or improper maintenance. Batteries and consequential damage resulting from failed batteries are not covered by warranty.

Any implied warranties, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the express warranty. UEi shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expenses or economic loss.

A purchase receipt or other proof of original purchase date will be required before warranty repairs will be rendered. Instruments out of warranty will be repaired (when repairable) for a service charge. Return the unit postage paid and insured to:

#### **UEi Service Department**

8030 SW Nimbus, Beaverton, OR 97008

(503) 644-8723 • FAX: (503) 643-6322 • Email: info@ueitest.com

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Call our UEi sales office to receive a FREE catalog of our complete line of diagnostic equipment. (503) 644-8723

Visit our web site: www.ueitest.com and email: info@ueitest.com