

# PMA-2008

## Pocket Mining Anemometer

### OPERATION

#### Turn the unit On

Press the **⏻** button to turn on the unit. The unit will turn on in the mode in which it was last turned off.

#### Turn the unit Off

Hold the **⏻** button for 3 seconds. The unit will also automatically turn off after 45 minutes without any button presses. Any held values or total counts will be cleared when the unit is turned off.

#### Measure Air Flow

There are 2 modes for measuring the air velocity: Instantaneous Velocity Mode and Count Mode (modes described below). In either mode, simply hold the unit into the air flow you wish to measure. The unit should be facing you so the display is visible, and the air flow should be coming towards you.

Change Modes – Press both the **◀** and **▶** buttons simultaneously to change modes.

#### Instantaneous Velocity Mode

In this mode, air velocity is updated every second. The measurement is based on an average of the previous 3 seconds (known as a moving 3-second average).

To hold the current value on the display, press the **◀** button. The measured value and HOLD icon will blink. To release the hold function, press the **◀** button.

#### Count Mode

In this mode, the air velocity is measured by counting the movement of air over 1 minute.

Hold the unit at arms length from your body and press the **▶** button to start the count. The display will show the COUNTING icon and the accumulation of distance of air movement through the impeller. This mode will require 1 minute before a valid measurement can be displayed. The count can be stopped before 1 minute by pressing the **▶** button, but the value will not be a correct count of feet in 1 minute.

While counting, the unit will:

- Beep for 5 seconds when count begins,
- Beep once after 15 seconds have elapsed,
- Beep twice after 30 seconds have elapsed,
- Beep three times after 45 seconds have elapsed,
- Beep for 5 seconds after 60 seconds have elapsed.

The total distance of air movement in 1 minute will be displayed blinking. To clear the display and reset for another count, press the **▶** button.

## Features a New and Improved Adjustable Buzzer Tone!

#### Change Units of Measure

Turn the unit off. With the unit turned off, hold down all three buttons (**◀** **⏻** **▶**) for 5 seconds. Release all buttons. The display will show the word “unit” and the units of measure will blink. To change the units of measure, press the **◀** or **▶** button to toggle between FPM (feet per minute) and M/S (meters per second). Press the **⏻** button to select the units of measure and return to the normal mode.

#### Adjust Buzzer Tone

Turn the unit off. With the unit turned off, hold down all three buttons (**◀** **⏻** **▶**) for 10 seconds (5 seconds after display shows “unit”). Screen will display “Beep”.

Press **⏻** button to enter the buzzer adjust mode. Screen will show 2 digit code (1 for lowest freq and 20 for highest) and beep at the current setting for 5 seconds or until any button is pressed.

Press **◀** button to decrease frequency setting. Unit will beep at new setting for 5 seconds or until any button is pressed. Frequency setting can loop from lowest to highest.

Press **▶** button to increase frequency setting. Unit will beep at new setting for 5 seconds or until any button is pressed. Frequency setting can loop from highest to lowest.

Press **⏻** button to exit the setting mode.

### MAINTENANCE & TROUBLESHOOTING

#### Battery

When the battery indicator is displayed, replace the battery with an Energizer, Panasonic or Sony CR2032 or Duracell DL2032 Lithium cell battery. Replace the battery in fresh air.

#### Impeller

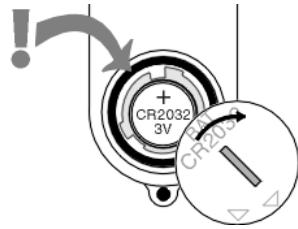
Replace the impeller after approximately 6 months of use. This is a recommendation in order to ensure accurate measurements. (See following page for instructions.)

#### Storing Your PMA-2008

Avoid storing your PMA-2008 where it will be exposed to temperatures below -20°C [-4°F] or above 80°C [176°F] for extended periods of time. Doing so may permanently damage the LCD, electronics, battery or enclosure. (Note that the inside of a car parked in the hot sun can reach very high temperatures.) If the temperature of the actual LCD of your unit exceeds 70° C [158° F], it will temporarily become solid black until it cools down to below this temperature.

## Replacing the Battery

When your display grows dim or blank, replace the battery. Use a large coin to open the battery compartment. Use only new CR2032 coin cell batteries (available from Mine & Process Service, Inc.). Wipe the battery clean of any fingerprints and insert the positive (+) pole up, angling the battery downward and pressing it firmly into place. When replacing the battery door, be sure to keep the black rubber o-ring seated in the groove on the case back. When replacing the battery door, be sure to keep the black rubber o-ring seated in the groove on the case back.



## Why does the Impeller Appear Imbalanced?

Why does the Impeller Appear Imbalanced? It is NORMAL for the impeller to oscillate as it comes to a stop. It is NOT imbalanced. Rather, it contains a very small magnet which responds to the earth's magnetic field. This does not affect the accuracy of the wind speed readings because the magnetic field applies both a braking and an accelerating force which cancel each other. The impeller has been calibrated to be accurate to within at least  $\pm 3\%$ .

## High Speed Use

After several hours of sustained operation over 5,000 FPM, your PMA-2008 will lose some accuracy due to wear of the sapphire bearings in the impeller assembly. If you require accurate high AND low speed measurements, we recommend a second impeller.

## Troubleshooting a Damaged Impeller

If the impeller rotates, but only "0" or "—" shows on the display, the impeller may no longer be sending a signal to the unit. Test the unit by turning it on and placing it near an electromagnetic source (i.e. back of computer monitor or TV). If the display shows any number other than "0" or "—", the unit does not need to be returned but does need a new impeller assembly. Contact MPS or your place of purchase to order a replacement.

## Replacing the Impeller

Press FIRMLY on the sides of the black impeller housing with your thumbs to remove the entire assembly. When inserting the new impeller, be sure the arrow is facing the display side of the unit, and is aligned with the top of the meter. Press on the sides of the housing rather than the center.



## Run the Display Test

This test will show if the display is working properly. Turn the unit off. With the unit turned off, hold down the ◀ and ▶ buttons and then press the center button. The code version will be displayed. Press the ⏸ button to advance the display through the test screens.

## Additional Information

Assembled in the USA. The PMA-2008 is protected by US Patent Number 5,783,753. MPS reserves the right to change product specifications.



**MSHA Approval #18-A070014-0**

**Commonwealth of Pennsylvania Approval # BFE 147-07**

**An NIST Certificate can be provided for your PMA-2008. Please contact Mine & Process Service, Inc. for details.**

## WARRANTY

Your PMA-2008 is covered by a Parts & Labor Warranty for 2 years from your date of purchase. The provisions of this warranty do not apply to:

- a) Batteries, whether contained in a unit or sold individually.
- b) Units which have been subjected to misuse, negligence, accident or improper maintenance or application.
- c) Worn impellers
- d) PMA-2008 units that have been repaired or altered by a party other than Mine & Process Service, Inc. or a party authorized by Mine & Process Service, Inc.

## Parts and Service

To order replacement parts for your PMA-2008 or obtain warranty service, please contact Mine & Process Service, Inc.

**MPS MINE AND PROCESS SERVICE INC.**

Mine & Process Service, Inc.  
Box 484 Kewanee, IL 61443, USA  
Phone: 309.852.6529 Fax: 309.854.5206  
Email: mail@go-mpsinc.com  
www.go-mpsinc.com

