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## Manual PCE-AM81 anemometer



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## 1. FEATURES

- \* Tiny bone shape with lightweight and small size case design are suitable for handling with one hand.
- \* Wristlet design provides extra protection to the instrument especially for user one hand operation.
- \* Low-friction ball bearing mounted vane wheel design provides high accuracy at high and low air velocity.
- \* Build in microprocessor circuit assures excellent performance and accuracy.
- \* Concise and compact buttons arrangement, easy operation.
- \* Memorize the maximum and minimum value with recall.
- \* Air velocity measuring units selectable by pressing button on the front panel for five kinds of units.
- \* Hold function to freeze the current reading value.

## 2. SPECIFICATIONS

### *2-1 General Specifications*

Display	8 mm LCD display
Measurement	Air velocity.
Operating Humidity	Max. 80% RH.
Operating Temperature	0 to 50° C (32 to 122° F)
Over Input Display	Indication of "- - - - "
Power Supply	006P DC 9V battery (Heavy duty type)

Power Consumption	Approx. DC 17 mA
Weight	160g (battery included)
Dimension	HWD 156x60x33 mm (6.14x2.36x1.29 inch).
Standard Accessory	Instruction Manual
Optional Accessories	Carrying case.

### 2-2 Electrical Specification ( $23 \pm 5 \text{ }^\circ\text{C}$ )

Unit	Range	Resolution	Accureacy
ft/min	80 to 5910 ft/min	1 ft/min	$\leq 20 \text{ m/s} :$ $\pm 3\% \text{ F.S.}$ $> 20 \text{ m/s} :$ $\pm 4\% \text{ F.S.}$
m/s	0.4 to 30.0 m/s	0.1 m/s	
km/h	1.4 to 108.0 km/h	0.1 km/h	
MPH	0.9 to 67.0 mile/h.	0.1 MPH	
knots	0.8 to 58.3 knots	0.1 knots	
<b>Remark :</b> <i>ft/min : feet per minute</i> <i>m/s : meters per second</i> <i>km/h : kilometers per hour</i> <i>MPH : miles per hour</i> <i>knots : nautical miles per hour</i>			



### 3. FRONT PANEL DESCRIPTION

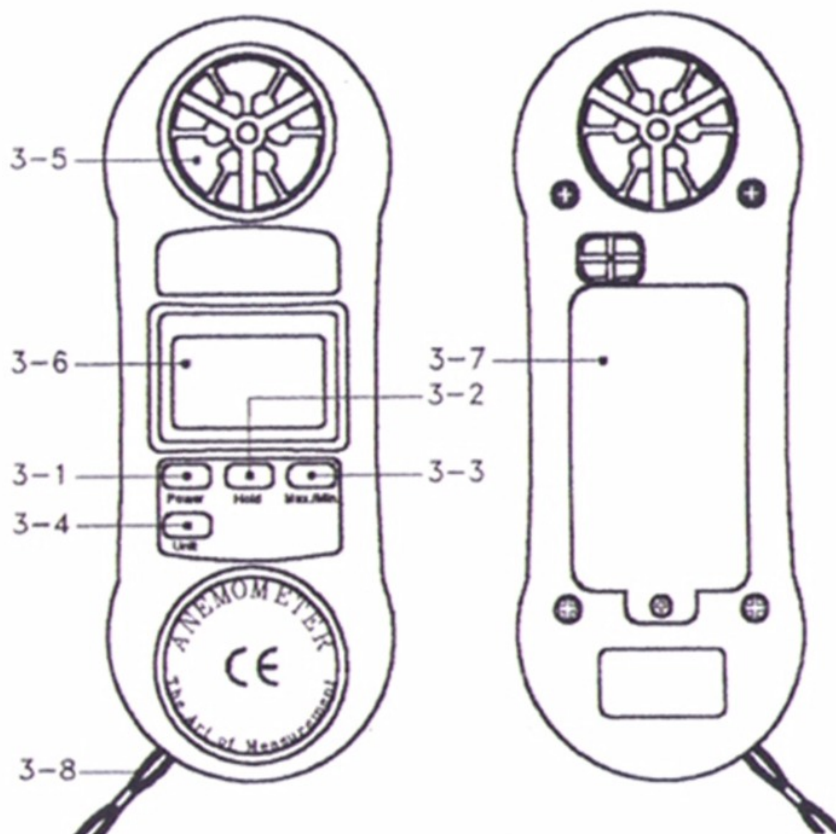


Fig. 1

- 3-1 Power Button
- 3-2 Hold Button
- 3-3 Max. / Min. Button
- 3-4 Unit Button
- 3-5 Air Flow Sensor
- 3-6 LCD display
- 3-7 Battery Compartment / Cover
- 3-8 Wristlet

## 4. MEASURING PROCEDURE

- 1) Power on the instrument by pressing the " Power Button " ( 3-1, Fig. 1 ).
- 2) Press the " Unit Button " ( 3-4, Fig. 1 ) to select unit that you want and then face the " Air Flow Sensor " ( 3-5, Fig. 1 ) to the source of wind.
- 3) Allow time for reading to become stable and note the value indicated. From a practical point of view the velocity may fluctuate.

## 5. OTHER FUNCTIONS

### *5-1 Hold Function*

Pressing the "Hold Button" (3-1. fig. 1) will freeze the current value with a "HOLD" symbol on the display. Press again to release the hold function.

### *5-2 Data Record Function*


- 1) The Data Record function records & displays the maximum and minimum reading values. Start the Data Record function by pressing the " Max./Min. Button " ( 3-3, Fig. 1 ) once. There will be a " REC " symbol on the display.

- 2) With the REC symbol on the display :
  - (a) Press the " Max./Min. Button " ( 3-3, Fig. 1 ) once and the " Max " symbol along with the maximum value will appear on the display.
  - (b) Press the " Max./Min. Button " again, the " Min " symbol along with the minimum value will appear on the display.
  - (c) To exit the memory record function, press the " Max./Min. Button " continuously for at least 2 seconds. The display will revert to the current reading.
  - (d) Clear the Max./Min. value recorded by pressing the " Hold Button " ( 3-2, Fig. 1 ) once. Previous recorded Max./Min. value will be given up and then revert to the REC. function keep on recording.

### ***5-3 Auto Power Off Disable***

In order to prolong the battery life, the instrument has "Auto Power Off " function. The meter will switch off automatically if no buttons are pressed for around 10 minutes.

## **6. BATTERY REPLACEMENT**

- 1) When the LCD display shows "  " symbol, it's necessary to replace a new battery. However measurement may still be made for several hours after the low battery indicator appears.
- 2) Open the " Battery Compartment / Cover " ( 3-7 Fig. 1) and remove the battery.
- 3) Install a 9V battery (Alkaline or Heavy duty type) and then reinstate the cover.



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In this direction will find a vision of the measurement technique:  
<http://www.industrial-needs.com/measuring-instruments.htm>

**NOTE:** "This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases)."