INSTRUCTION MANUAL

MINI TYPE
THERMO-ANEMOMETER

 C ϵ **Model:89088**

INTRODUCTION

Congratulations on your purchase of the unique mini Anemo-Thermometer. The meter features big display of Air Velocity and Temperature, simple and easy to operate, 7 units of scale to be selected .

A pocket design makes it convenient and portable, easy to use and to get an accurate reading.

INTRODUCTION

This package contains:
✓The meter x 1
✓CR2032 battery x 1
✓Operation manual x 1
✓Wrist strap x 1
✓Plain box x 1
✓Pouch x 1

FEATURES

✽ **T**emp./Windchill **:** Averaging & LCD display is updated every second.
✽ **W**indspeed **:** Moving 2-sec average with maximum 2-second average. LCD is updated every second.
✽ **T**emperature sensor **:** Sealed precision thermister.
✽ **S**hock proof housing.
✽ **O**ne button data hold operation.
✽ **R**ecords maximum reading.
✽ **U**nit °C/°F switchable.
✽ **R**eplaceable lithium battery.
✽ **6** different windspeed units selectable.
✽ **S**afety wrist strap makes it carry around and avoids falling down.

1.

DESCRIPTION

1. Vane impeller
2. Precision thermister temp. sensor
3. LCD display
4. **POWER** and **HOLD** key
5. **UNIT** and **MODE** key
6. Battery compartment(on rear side)
7. Wrist strap holder
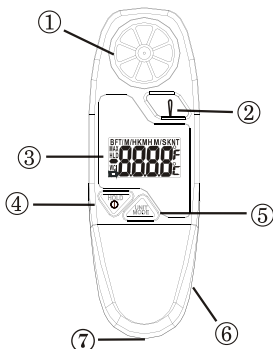
Accessory included:
Wrist strap. Battery (CR2032). Manual.
Pouch

UNITS CONVERSION TABLE

	1 m/s	1 ft/min	1 knot	1 km/hr	1 mph
m/s	1	0.00508	0.5144	0.2778	0.4464
ft/min	196.87	1	101.27	54.69	87.89
knots	1.944	0.00987	1	0.54	0.8679
km/hr	3.6	0.01829	1.8519	1	1.6071
mph	2.24	0.01138	1.1523	0.6222	1

2.

SPECIFICATION

Air velocity range & Res.	**0.5~44.7 M/H (0.1)**
	60~3937 FT/M (2)
	0.4~38.8 KNT (0.1)
	1.1~20.0 M/S (0.1)
	0.8~72.0 KMH (0.1)
	1~8 Beaufort (1)
Air velocity accuracy	**±5% or ± last significant digit** (whichever is greater)
Temperature range & Res.	**0~50°C (0.1)** **32~122°F (0.1)**
Temperature accuracy	**±1°C (±2°F)**
Air velocity display	**LCD update every sec. and display every 2 second average.**
Temperature response	**Update every second. Response time: 1 min**
Dimension	**130 x 43.5 x 16mm**
Impeller Dia.	**24mm**
Unit in Imperial	**°F , FT/M, M/H**
Unit in Metric	**°C , M/S, KMH**
Unit	**KNT, BF**
Power off	**Automatic shut off after 5 minutes**
Power Supply	**CR2032 battery x 1**
Battery Life	**48 hours (continuous use)**

NOTE:

M/S	meter per second	**KMH**	Kilometer per hour
FT/M	Feet per minute	**M/H**	Mile per hour
KNT	Knot	**BF**	Beaufort

BFT/M/HKMH M/SKNT
MAX
HLD
WCI
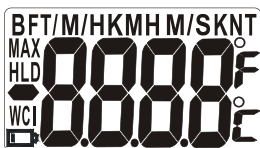
* **Air velocity unit:**
  BF, FT/M(feet per minute), M/H
  (mile per hour), KMH (kilometer per
  hour), M/S(meter per second)& KNT

* **Primary digital display:**
  Air velocity or Air temperature or
  windchill (WCI).

* F or C is the unit of temperature.

* MAX : the maximum air velocity since
  powered on.

* HLD :To freeze the latest display.

* 🔋 :Low battery reminder.

KEYPAD

This meter can be operated by
pressing two keys.

> 　-Press to turn on the meter.
>   -Press more than 3 seconds
>   to turn off the meter.
>   -In normal mode, press to
>   freeze the readings.
>   - In power off mode, press
>   more than 3 seconds to
>   disable the auto sleep mode.

4.

 -In normal mode, press to display different modes in turns: Velocity/Max. Velocity /air temp./windchill.

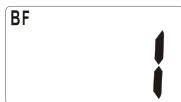 -In air velocity mode, press these two keys to change the air velocity unit.
+ -In air temperature mode, press these two keys to change the temperature unit.

POWER ON

By pressing the key momentarily. The full display will appear (Fig.1) The top display indicates the unit of wind speed and the primary display indicates the value (Fig. 2)

⌒ Fig.1   **⌒ Fig.2**

By pressing and holding the key more than 3 seconds to power off the meter.

TAKING MEASUREMENTS

Hold the meter and target the air source from the rear of the unit. When holding the meter, hold it at arm's length and away from your body.

5.

AIR VELOCITY & TEMP. MODE

The default display mode is air velocity.
To change the display mode to air temp.,
Press [MODE] key repeatedly until LCD
changes to air temperature.

When re-powered on,
the meter will stay
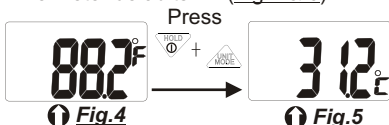at the mode which
you last selected.

🎧 *Fig.3*

UNITS SELECTION

(TEMPERATURE)

To select the temperature unit, first of all,
make sure you are in temp. mode (see
above section for mode switching). Press
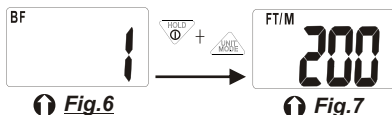[MODE] and [HOLD] simultaneously to change
the units of measurement.

The meter defaults °F (Fig.4 & 5)

Press

🎧 *Fig.4* ⟶ 🎧 *Fig.5*

(WIND SPEED)

To select the air velocity unit when you
are in air velocity mode. Press [MODE] and
[HOLD] simultaneously repeatedly to scroll
the units of measurement.
The meter defaults BF (Fig.6 & 7)

🎧 *Fig.6* ⟶ 🎧 *Fig.7*

6.

DATA HOLD

To freeze the reading, press the 🔲⊘ key while taking measurements. " HLD " will appear on LCD and the reading is frozen. To return to normal operation, press ⊘ key again. (Fig. 8&9)


Fig.8
(Air velocity)

Fig.9
(Air temperature)

MAX. OPERATION

After a measurement session, press 🔲 until "**MAX**"icon appears on the LCD. (Fig. 10). **ONLY** the air velocity will represent the highest readings since the meter was last powered on.

Fig.10

Fig.11

WIND CHILL INDICATOR

Press 🔲 key repeatedly until **"WCI"** icon appears. (Fig.11)
The temperature display will now factor in the wind chill.
To return to normal operation, press 🔲 key again and **WCI** icon will disappear.

7.

AUTO POWER OFF

The meter will automatically shut down to preserve battery life after 5 minutes of inactivity.

To cancel this function, press and hold $\frac{HOLD}{\Phi}$ more than 3 seconds before turning on. Now, LCD will display "n" and then release key.
The meter defaults as sleep mode.
Sleeping disable mode is invalid once the meter is turned off. (Fig. 12)

➲ *Fig.12*

BATTERY REPLACEMENT

If the meter does not power on as usual or the battery icon " ▭ " appears on LCD, replace with a new lithium battery. To do so, turn the battery compartment cover in a **COUNTERCLOCKWISE** direction to remove it. (Fig.13)
Observe the position of the battery and replace a new one in the same position. Affix the battery compartment cover by turning it in a **CLOCKWISE** direction.
Dispose of the lithium battery in accordance with local, state, or national waste disposal codes.

➲ *Fig.13*

OPEN

BAT 2032

8.

NOTE:

The meter is accurate at low and mid-range air speeds. Consistent use at very high speeds., ie, From the window of a fast-moving car will damage the impeller's bearing and reduce accuracy.

NOTE:

When you program the meter and then restart the meter, it will default to the last mode (except the sleep mode) and unit used.

NOTE:

You can remove the transparent protection film of the LCD if you feel the display is blurred.

TROUBLE SHOOTING

1. Power on but no display
a) Make sure the time of pressing key is > 0.1 second.
B)Check the batteries are in place with good contact & correct polarity.
c) Replace battery or move away the battery for one minute and re-install.

2. Display disappear
a) Replace a new battery.
b) Disable the auto power off function before power on for long time using.

3. Err
The temp. related components or circuit is damaged. Sent back for repair.

4. HI
The windspeed is higher than 44.7M/H

5. Windspeed reading is always zero
The windspeed components or circuit is damaged. Sent back for repair

WARRANTY

The meter is warranted to be free from defects in material and workmanship for a period of two years from the date of purchase.

This warranty covers normal operation and does not cover batteries,misuse, abuse, alteration, tampering, neglect, improper maintenance, or damage resulting from leaking batteries.
Proof of purchase is required for warranty repairs.

RETURN AUTHORIZATION

Authorization must be obtained from the supplier before returning items for any reason. When requiring a RA (Return Authorization), please include data regarding the defective reason, the meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss .

CE CERTIFICATION

The meter conforms to the following standards:
* EN 61326-1:2006
 (CISPR11, IEC/EN61000-4-2(1995+A1:
 +A2:2001)/EN61000-4-3(2006))
, the meter complies with the essential protection requirements of Council Directive 2004/108/EC on the approxi-mation of the laws of the Member States relating to electromagnetic compatibility.

**Accuracy, the Zenith of
Measuring / Testing Instruments !**

Hygrometer/Psychrometer
Thermometer
Anemometer
Sound Level Meter
Air Flow meter
Infrared Thermometer
K type Thermometer
K.J.T. type Thermometer
K.J.T.R.S.E. type Thermometer
pH Meter
Conductivity Meter
T.D.S. Meter
D.O. Meter
Saccharimeter
Manometer
Tacho Meter
Lux / Light Meter
Moisture Meter
Data logger
Temp./RH transmitter
Wireless Transmitter ....

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