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Overview

The 72-10455 is a anemoscope featuring a highly accurate, sensitive resistance (NTC) temperature testing point. The fan axis uses a highly durable ruby shaft for accurate and stable measurement. The meter also includes a dual 4-digit display (VEL + Temperature, Flow + Area), with real time wind spead measurement, including m/s, kn/h, ft/min, MPH, KNOT, CFM, CMM as measuring unit options. In addition, the meter can provide maximum value, minimum value, average value record, Centigrade temperature and Fahrenheit temperature.

The meter also features data point storage for up to 2,044 records.

This Operating Manual covers information on safety and cautions. Please read the relevant information carefully and observe all the **Warnings** and **Notes** strictly.

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⚠ **Warning**

To avoid electric shock or personal injury, read the "Rules for Safe Operation"

carefully before using the Anemoscope.

Unpacking Inspection

Open the package case and remove the Meter. Check the following items carefully

for any missing or damaged part:

Item	Description	Qty
1	English Operating Manual	1 piece
2	9 V Battery Software	1 piece

In the event you find anything missing or damaged, please contact your dealer immediately. In this manual, a **Warning** identifies conditions and actions that pose hazards to the user, or may damage the anemoscopes or the equipment under test. A **Note** identifies the information that user should pay attention to.

Rules For Safety Operation

⚠ **Warning**

Before using the anemoscope inspect the case,do not use the anemoscope if it is damaged or the case (or part of the case) is removed. Look for cracks or missing plastic around the case, cord, and connections.

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To avoid possible electric shock or personal injury and to avoid possible damage to

the anemoscopes or to the equipment under test, adhere to the following rules

- Do not use your hand to touch the fan or temperature sensor

- Replace the battery as soon as the battery indicator ⊡ appears

- If the unit does not appear to be working correctly, discontinue use immediately
  and contact your supplier.

- Before using the anemoscopes inspects the case, do not use the anemoscopes
  if it is damaged or the case (or part of the case) is removed. Look for cracks or
  missing plastic. Pay attention to the insulation around the connections.

- Do not use the anemoscopes in an environment of high humidity or around flammable
  or combustible materials.The performance of the anemoscopes may deteriorate
  after dampened.

- Use the specific authorized replacement part if you need to repair the anemoscopes

- Do not use the anemoscope if the housing is open.

- Note the battery " + " and " - "pole when inserting the battery.

The following are conditions which can damage the anemoscope. Please carefully

following these instructions to avoid damage and inaccurate measurements.

- Judge the range of the wind speed before use, and avoid overloading the unit

  (greater than 30 m/s) in unknown or extreme scenarios.

- Make your best judgement to avoid using the meter in extreme temperatures

  (less than 0°C or greater than 40°C).

- Do not try to recharge the battery.
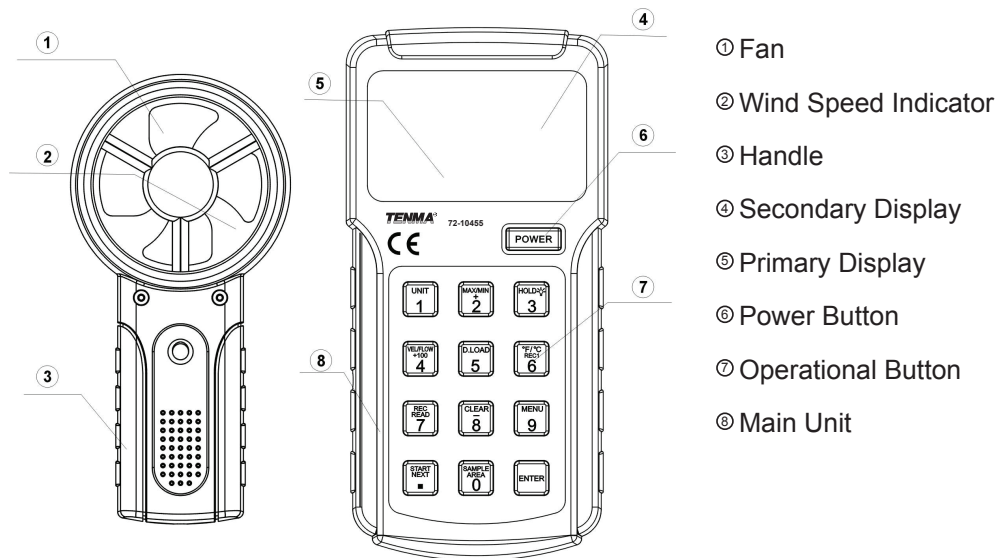
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The Anemoscope Structure (see figure 1)

① Fan

② Wind Speed Indicator

③ Handle

④ Secondary Display

⑤ Primary Display

⑥ Power Button

⑦ Operational Button

⑧ Main Unit

Figure 1

Display Symbols (see figure 2)

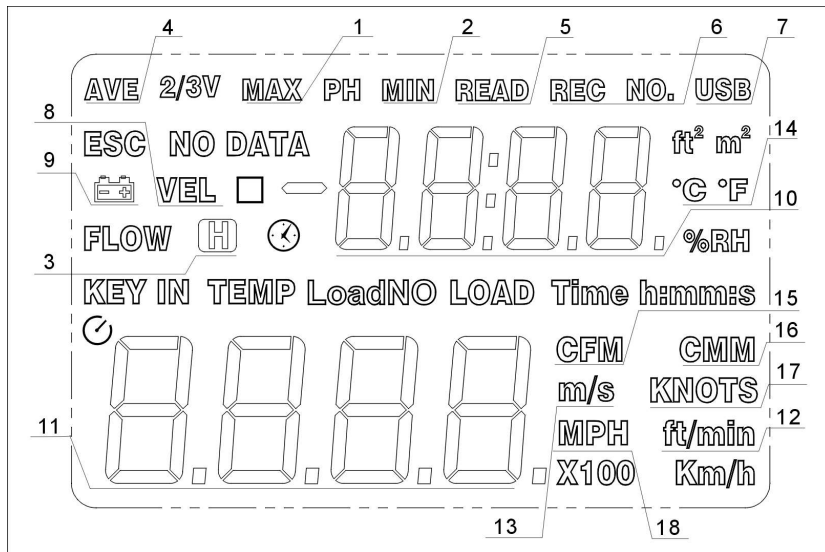
Figure 2
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Functional Signs

Below table indicated for information about the functional sign operations.

Number	Sign	Meaning
1	MAX	Display of Maximum Reading
2	MIN	Display of Minimum Reading
3	Ⓗ	Data Hold is on
4	AVE	Display of Average Reading
5	READ	Display of Data Storage Measurement Reading
6	REC NO.	Display of Data Storage
7	USB	USB is on
8	VEL	Wind Speed Measurement
9	🔋	The battery is Low

Number	Sign	Meaning
10	-8.8.8.8	Secondary Data Display
11	8.8.8.8	Primary Data Display
12	ft/min	Wind Speed Unit - Foot Per Minute
13	m/s	Wind Speed Unit - Meter Per Second
14	˚F/˚C	Fahrenheit Temperature Signal / Centigrade Temperature Signal
15	CFM	Cubic Feet Per Second
16	CMM	Cubic Meter Per Minute
17	KNOTS	Knots Per Hour
18	MPH	Miles Per Hour

Display Symbols (see figure 3)
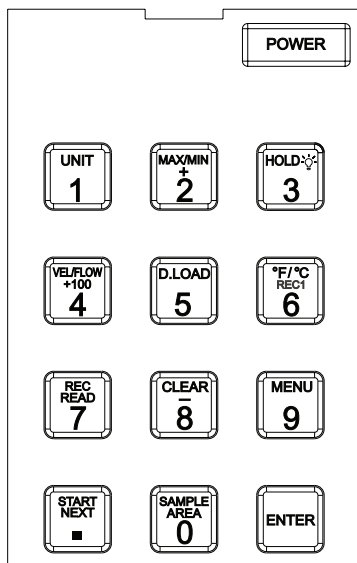
Figure 3

Function Key	Description
POWER	Power on / Power off Button
UNIT 1	Button 1 - This key will toggle between the types of units used to measure wind speed or volume. During wind speed measurement, press "UNIT" button m/s → ft/min → KNOTS → Km/h → MPH and vice versa. During wind volume measurement, press "UNIT" button CMM → CFM and vice versa.

Function Key	Description
MAXMIN 2	Button 2 - Press this button to toggle min/max function. In wind speed measurement: maximum reading, minimum reading and the instant measuring unit exchange In wind count measurement: maximum reading, minimum reading, average reading, 2/3V maximum value and instant measurement units exchange.
HOLD 3	Button 3 - Press once to enter the Hold mode. Press it again to exit Hold mode. Continually press to for backlight display
VEL/FLOW +100 4	Button 4 - Toggle between the Air Flow and Air Velocity/ Temperature measurements. Also use to read data in increments of 100.
°F/°C REC1 6	Button 6 - Toggle between the temperature units of Centigrade and Fahrenheit. Also use to return to data point "1" while

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Function Key	Description
REC READ 7	Button 7 - Press this button to activate the REC feature. Press and Hold this button to access data reading from database
CLEAR 8	Button 8 - Hold this button during the power-on to clear the stored data records.
MENU 9	Button 9 - Press to enter menu settings; press and hold to enter wind speed settings.
START NEXT ■	Button Start / Next - Press for first decimal point input. Also press for next decimal point for area input and wind flow measurement.
SAMPLE AREA 0	Button Sample Area - Sample area measurement
ENTER	Button Enter - Confirmation key. See User Setting

Note: Under the button 1-9, it is under the area 0.000 ~ 9999 range of the wind count

measurement

Setup up the Anemoscopes

Press and hold button 9 (menu) to select feature setup. Press next button to go next feature sub-menu.

A. Auto Switch Down

Press button "8" while in the menu to toggle the auto power off feature. The display will change from APOO to APO1 when activated. This will change the default, and there is no need to reset it when the unit powers back on.

B. Auto Record

Next, you will see the "REC" displayed on the LCD with the current auto recording time (between 0.5 ~ 255 seconds). Press button 2 to extend auto recording time at the bottom of the LCD. Press button 8 to reduce auto recording time. Press and hold button to store in after power off.

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This will change the default time, and there is no need to reset it when the unit powers back on.

C. Master Reset

The unit will display and flash "DEF". You can reset your anemoscopes to the factory settings. Press button 2 of to the factory settings for USBO, APO1, 60S data clearing. Press button 9 (menu) to cancel the factory setting. Then enter wind speed measurement

Using the Anemoscopes–

- Power On: Press and hold the "POWER" button to turn the meter on.

- Wind Speed and Wind Count Feature Switch: Press VEL / FLOW button. VEL (wind speed) to FLOW (wind count)

- Data Hold: Press " Hold " button to data capture, then press again to cancel the data capture feature.

- Wind Speed Measuring Unit Switch: Under the wind speed measurement, press " UNIT " button m/s → ft/min → KNOTS → Km/hr → MPH in order to random to have the measuring unit switch.

- Wind Count Measuring Unit Switch: Under the wind count measurement, press " UNIT " button CMM → CFM to have the measuring unit switch.

- Wind pipe input area:

     1) Enter the correct area for the duct or tunnel before wind count measurement.

     2) Set default area is one square meter after the entering wind count

     measurement.

     3) Select the approiate wind count-measuring unit. The press " Sample " button

     to enter area input. LCD shows KEYIN blank on the top.

     4) Enter the data and four digits value, then LCD will be manipulated it a new

     display on the top

     Example:

Enter 1, 0, 0, 0	Mean 1000	LCD display " 1000 "
Enter 1, ., 0, 0, 0	Mean 1.000	LCD display " 1.000 "
Enter 1, ., ENTET	Mean 1.0	LCD display " 1.000 "

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Enter 1, ENTET	Mean 1	LCD display " 1.000 "
Enter 0, 0, 0, 1	Mean 0001	LCD display " 1.000 "
Enter ., 0, 0, 1	Mean . 001	LCD display " 0.001 "

... ...

In one area, it will probably to have a different input methods

but finally it **will have** one display: Data Input Range: 0.000~9999

- Temperature Measuring Unit Switch: Under the wind speed measurement, press

  " °F / °C " button °C → °F and vice versa

- Maximum Wind Speed, Temperature: Under the wind speed measurement, press

  " MAX/MIN " button Normal → MAX and vice versa

- Maximum, 2/3, Average Wind count: Under the wind count measurement, press

  " MAX/MIN " button Normal → MAX → AVE and vice versa

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- Data Storage Functions:

    1) LCD display " No Data " if no data storage

    2) LCD display " Time " if database is full and cannot store any data in the current time.

    3) Manual data storage: press button 7 to display the automatic data storage in LCD, also LCD displays REC and around 0.5 seconds to disappear " REC "signal. Then press button 7, the data store in next position.

    4) Automatic data storage: press button 7. The LCD displays "REC" and resumes if you press button 7 again (quickly pressing button 7 twice). You will then enter automatic data storage, and the REC will begin to flash. Press the setup menu - automatic data storage. In case of full data storage, it exits the automatic data storage features.

5) Record Clearing

> Method 1: Press and hold button 8 until LCD displays CLR during when power on.

> Method 2: Restore to factory settings (see function setting notes)

Press and hold button 7 to view the data records of wind speed measurement and

wind count measurement.It will automatically display the last data record. The unit will

display the recoding number or recording data. LCD display will show "RECNO"

> 1) Press button 2 to increase the reading records. Press and Hold to

automatically increase the reading records

> 2) Press button 8 to reduce the reading records. Press and Hold to

automatically reduce the reading records

> 3) Press button 4 to increase 100 pieces of records (when the database

is large to use). The maximum record is 2044.

> 4) Press and hold button 7 to quite the database records module.

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Measuring For Wind Speed (Wind Count) (see figure 4)

Note: before use, make sure the wind speed is over 10m/s under 1 - 2 minutes duration.
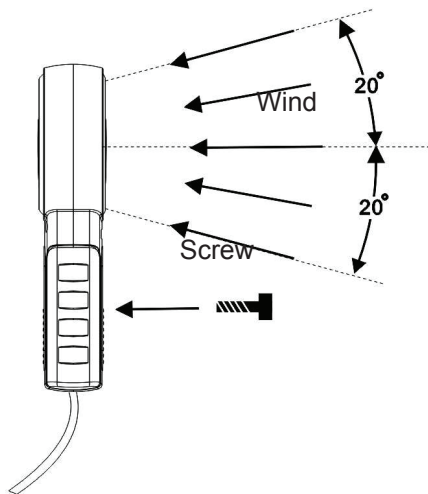

Figure 4

To carry out measurement, follow this procedure:

1. Press on " Power " button until the unit powers on

2. Press VEC / FLOW (figure 4) to conduct function switch. LCD shows either " VEL " or " FLOW "

3. Press Button 1 (UNIT) to toggle measuring unit.

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4.   See figure 4 for example of wind speed measurement. Follow the wind direction labeled on the unit. WARNING - do no use the unit backwards, especially if utilizing the mounting screw (not included).

5.   Wait for at least two seconds after initial reading to obtain a precise measurement.

6.   Tip: Also, to obtain a more accurate reading.

7.   The secondary display will show air temperature value.

8.   Press " °C / °F " (button 6) to conduct temperature unit selection of Centigrade Temperature and Fahrenheit Temperature.

9.   The primary display show wind speed measurement value

Maintenance

A.   Replacing The Battery

To avoid false readings, which could lead to damage or injury, be sure to replace the

battery as soon as the battery indicator ⊟ appears.

To replace the battery

> 1)   Turn the anemoscope off
>
> 2)   Turn the anemoscope's front case down
>
> 3)   Remove the screw from the battery compartment and separate the
>
> battery compartment from the case bottom
>
> 4)   Take out the old battery and replace with a new 9V battery (6LF22)

5) Rejoin the case bottom and the battery compartment and reinstall the screw.

B.   Cleaning

Periodically wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents.

C.   Service And Repairing

This anemoscope is an auto calibration. Do not attempt to repair or service your anemoscope unless you are qualified to do so and have the relevant calibration, performance test, and service information

D.   General Service

1) Periodically wipe the case with a damp cloth and mild detergent. Do not use abrasives or solvents.

2) Take out the battery when it is not using for a long time.

3) Do not use or store the Meter in a place of humidity, high temperature,

explosive, inflammable and strong magnetic field.

Environmental Requirements

- Operating Temperature Range: $0°C \sim 50°C$ ($32°F \sim 122°F$)

- Relative Humidity: $0 \sim 75\%$, no condensation

- Storage Temperature: $-20°C \sim 65°C$ ($-4°F \sim 149°F$)

- Pressure: 500mB ~ 2 Bar

- Safety/ Compliances:

- Certification: $C\epsilon$ EN61326: 2006

                             EN55022: 1998+A1+A2

                             EN55024: 1998+A1+A2

Technical Specification

Wind Speed Measurement

Range	Accuracy	
	UT361	UT362
2~10 m/s	$\pm$(3%+0.5)	$\pm$(3%+0.5)
10~30 m/s	$\pm$(3%+0.8)	$\pm$(3%+0.8)

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Temperature Measurement

Temperature	Range	Accuracy	
		UT361	UT362
Main Unit Temperature	0°C ~40°C	±3°C	±3°C
	32°F ~ 104°F	±4°F	±4°F
Sensor Temperature	0°C ~40°C	±3°C	±3°C
	32°F ~ 104°F	±4°F	±4°F

This operating manual is subject to change without notice.

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