

UT361/UT362 OPERATING MANUAL**Table of Contents**

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Overview

Model UT361 and UT362 are anemoscopes with high accurate sensitive resistance (NTC) as testing point. For fan axis, it uses a high durable ruby shaft in order to provide the accurate and stable measurement. It also comes with 8 digits chip to conduct the digital mode and double display (VEL + Temperature, Flow + Area)

Model UT361 and UT362 come with the real time wind speed measurement, including m/s, km/h, ft/min, MPH, KNOT, CFM, CMM as measuring units. In addition, it can provide maximum value, minimum value, average value record, Centigrade temperature and Fahrenheit temperature.

For data storage record, the maximum is 2,044 records capability. In sync, it can provide auto switch down and continuity use functions.

Model UT362 can work with the computer to conduct the real time wind speed, data transmitting storage and analysis as well as printing purpose.

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

⚠ 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 take out the Meter. Check the following items carefully to see any missing or damaged part:

Item	Description	Qty
1	English Operating Manual	1 piece
2	USB Interface Cable (UT362) only	1 piece
3	Software (UT362) only	1 piece
4	9 V Battery Software	1 piece

In the event you find any missing or damage, 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 anemoscopes inspect 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 attentions to the insulation around the connections.

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 and / or the measurement of wind count and temperature portion
- Replace the battery as soon as the battery indicator  appears
- If anemoscopes is in abnormal function stage, please stop to use it and sent it your nearby service center for the further investigation.
- 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 attentions to the insulation around the connections.
- Do not use the anemoscopes in an environment of explosive, humidity, inflammable. 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 anemoscopes if the opening the housing cover
- Note the battery "+" and "-" pole when battery insert.

Followings are the condition which cause anemoscopes damages. Please carefully use it to avoid any unit damage

- Select the appropriate wind speed before use, it may avoid to load wind speed (0 ~ 30 m/s), under the unknown scenarios.
- Select the temperature meaning in 0°C to 40°C in order to avoid any fan damage caused by the high temperature.
- Do not try to recharge the battery.

The Anemoscope Structure (see figure 1)

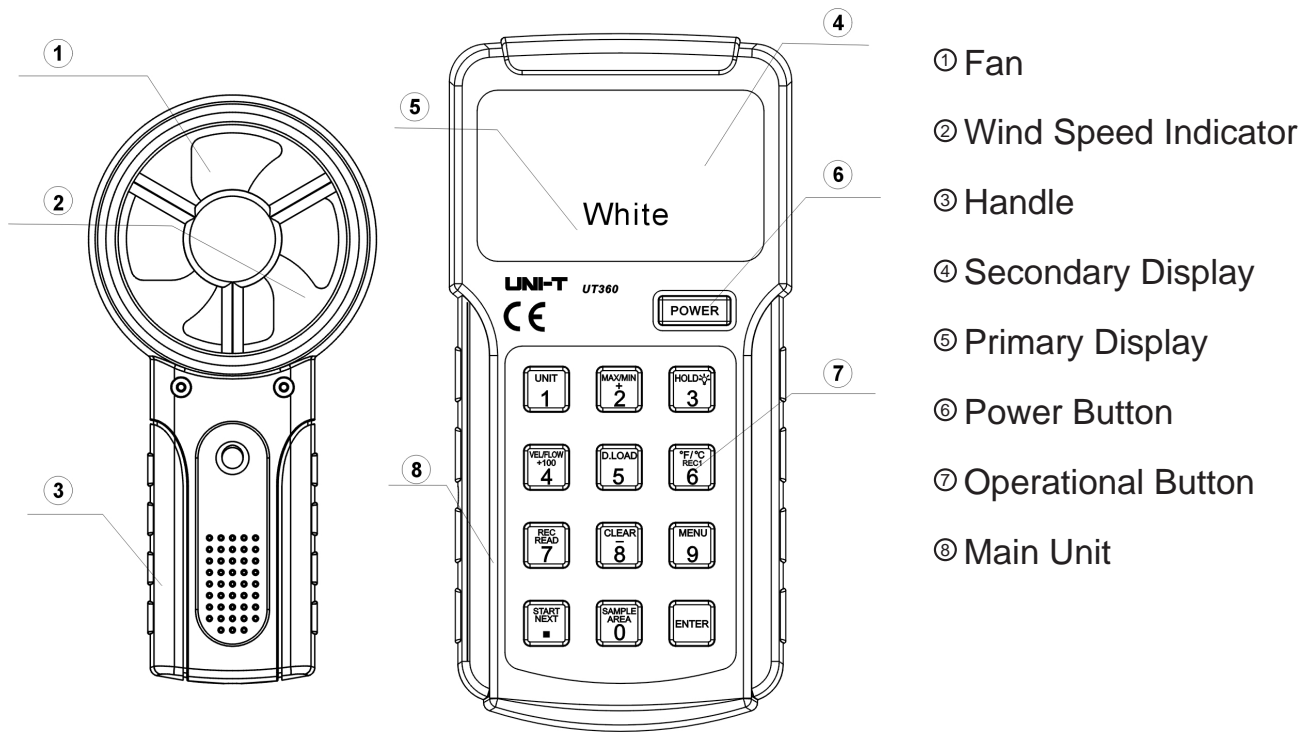


Figure 1

Display Symbols (see figure 2)

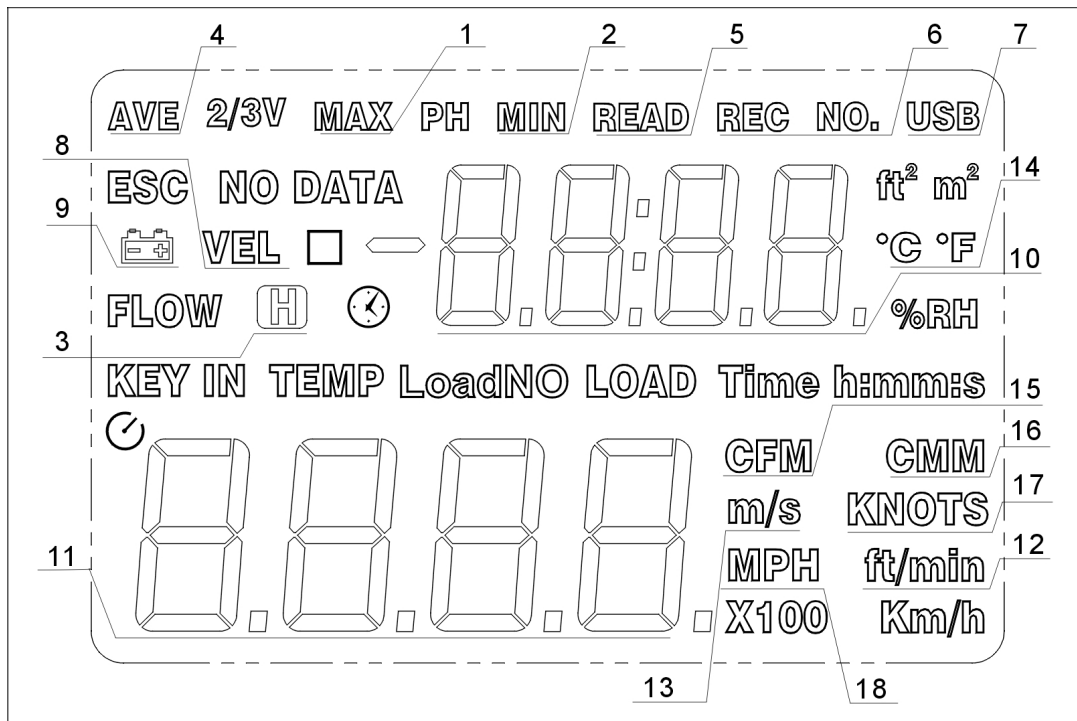




Figure 2

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	-	Secondary Data Display
11		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)

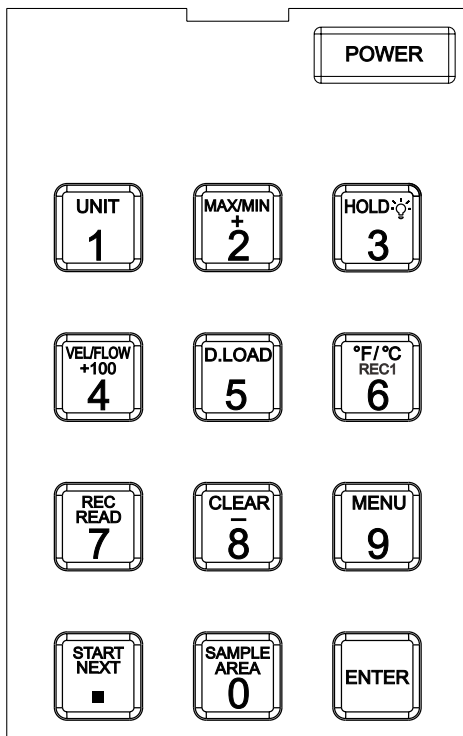















Figure 3

Function Key	Description
	Power on / Power off Button
	<p>Button 1 - This button function key switch is for wind speed measurement and wind count measurement. During wind speed measurement, press "UNIT" button m/s → ft/min → KNOTS → Km/h → MPH and vice versa. During wind count measurement, press "UNIT" button CMM → CFM and vice versa.</p>

Function Key	Description
	<p>Button 2 - Press this button to choose</p> <p>In wind speed measurement: maximum reading, minimum reading and the instant measuring unit exchange</p> <p>In wind count measurement: maximum reading, minimum reading, average reading, 2/3V maximum value and instant measurement units exchange. It can add together in the setup stage</p>
	<p>Button 3 - Press once to enter the Hold mode. Press it again to exit Hold mode. Continually press to open backlight display</p>
	<p>Button 4 - Press this button to read 100 pieces of data records and function switch on between wind speed measurement mode and wind count measurement mode</p>
	<p>Button 5 - Display the data download to USB port (For UT362 only)</p>
	<p>Button 6 - This button function key switch is for Centigrade temperature and Fahrenheit temperature</p> <p>RELOC1 means in data processing as you can view it from first data</p>

Function Key	Description
	Button 7 - Press this button to activate the REC feature. Press and Hold this button to access data reading from database
	Button 8 - Press this button to erase the data records before power on. The data reduction shows on the database as well
	Button 9 - It is a functional menu button. Press and Hold it to conduct wind speed setting
	Button Start / Next - Press Start to mean the first decimal point input. Press Next to mean next decimal point during area input and wind count measurement
	Button Sample Area - Measurement in area setting
	Button Enter - Confirmation key. See User Setting Stuff

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. USB setup

Press button 8 from USB0 → USB1. Then set up is as the opening default

B. Auto Switch Down

Press button 8 from AP00 → AP01 and store in after power off. The default keep it and need to reset when power on.

C. Auto Record

"REC" display on the LCD with the 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.

This default keep it and no need to reset when power on.

D. Master Reset

LCD shows the DEF with flash. You can reset your anemoscopes to the factory settings.

Press button 2 of to the factory settings for USB0, APO1, 60S data clearing. Press

button 9 (menu) to cancel the factory setting. Then enter wind speed measurement

Using the Anemoscopes

- Power On: Press "Power " button for a while to switch the anemoscopes 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) Correct input the wind pipe area before wind count measurement
- 2) Set default area is one square meter after the entering wind count measurement.
- 3) Select the appropriate 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 "

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 has 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

- 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. LCD display " REC " and resume it if press button 7 again (Fast press button 7 twice). Then enter automatic data storage REC signal flash appear. 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 appear CLR when power on.

Method 2: Resume to factory setting (see function setting stuff)

Press and hold button 7 to view the data records of wind speed measurement and wind count measurement. It automatically display last data record. LCD will be displayed the recording number or recording data. LCD display " 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.

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

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

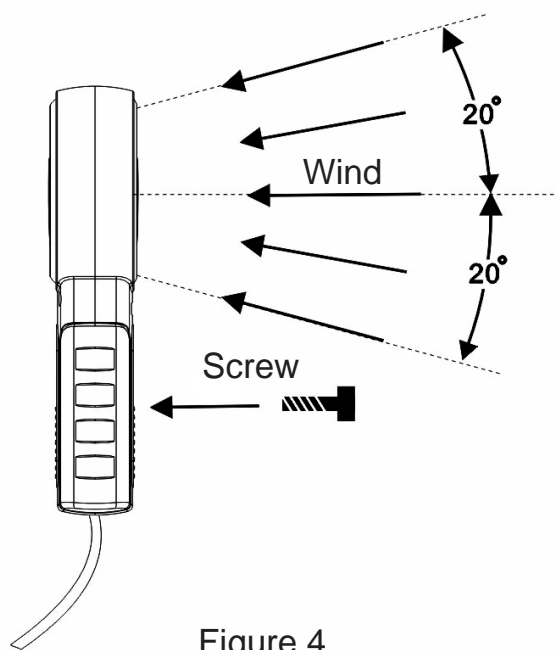



Figure 4

To carry out anemoscopes, follow the following procedure:

1. Press on " Power " button until the anemoscopes on
2. Press VEC / FLOW (figure 4) to conduct function switch. LCD shows either " VEL " or " FLOW "
3. Press Button 1 (UNIT) to conduct measuring unit switch.

4. Use figure 4 to conduct wind speed measurement , it shows wind flow direction, but bear in mind  **Warning** do not use it in opposite. A screw can fix on it.
(Note: UNI-T will not provide this screw to the customer, the customer need to buy it separately)
5. Wait for 2 seconds to obtain a more precise reading during the connection between wind speed measurement and wind source.
6. Obtain a more precise reading; you should move the anemoscope on at least 20 angle degrees in order to get more accuracy.
7. When the measurement of wind speed and wind temperature in parallel, the secondary display show wind temperature value.
8. Press " °C / °F " (button 6) to conduct temperature unit selection, namely, Centigrade Temperature and Fahrenheit Temperature.
9. The primary display show wind speed measurement value

Computer Connectivity (For UT362 only)(see figure 5)

When use the anemoscopes model UT362 need to connect USB cable with the computer

Connect the USB interface cable, the anemoscope and the computer as reference to the figure 5

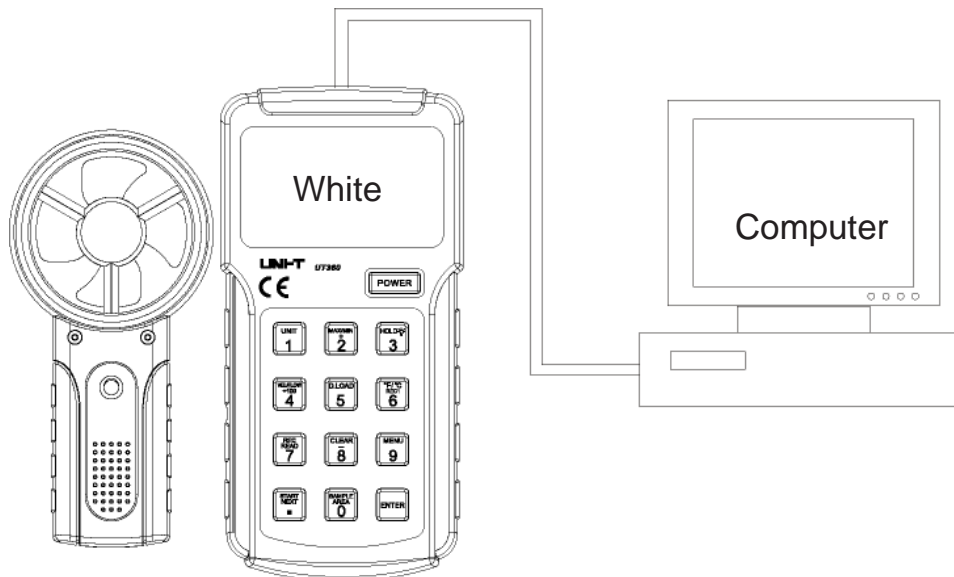



Figure 5
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Maintenance

A. Replacing The Battery

To avoid false reading, which could lead to possible electronic shock or personal injury, replace the battery as soon as the battery indicator "  " appears.

To replace the battery

- 1) Turn the anemoscope off and remove all the connections from the input terminals
- 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)

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

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 ~50°C (32°F ~ 122°F)
- Relative Humidity: 0 ~75%, no condensation
- Storage Temperature: - 20°C ~ 65°C (- 4°F ~ 149 °F)
- Pressure: 500mB ~ 2 Bar
- Safety/ Compliances:
- Certification: **CE**

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	$\pm(3\%+0.8)$	$\pm(3\%+0.8)$

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

**** END ****
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UT361/UT362 OPERATING MANUAL

UNI-T®

This operating manual is subject to change without notice.

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UT361/UT362 OPERATING MANUAL

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