wintact®

MODEL：WT87B

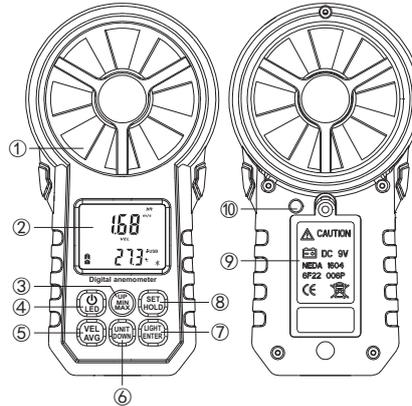# Digital Anemometer
Instruction Manual

Version：WT87B-EN-00

A. Function

1. Measurement of wind speed and temperature
2. Wind cold indicator
3. Switch wind speed units
4. Real-time measurement of wind speed and average wind speed
5. Measurement of maximum wind speed and minimum wind speed
6. Switch between Fahrenheit and Celsius unit
7. Timed automatic shutdown (automatic shutdown after 10mins of no button operation)
8. LED lighting
9. Measurement of air volume
10. USB communication (with computer applications)
11. Bluetooth communication (with mobile APP)
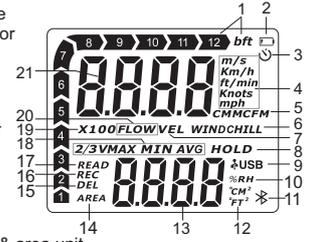
B. Instruction of parts and LCD display

(1). Instruction of parts (as shown in picture)

①.Beaufort wind scale
②.LCD display
③.Up/Maximum/Minimum mode
④.Power/backlight
⑤.Average wind speed measurement
⑥.Switch of wind speed units/Down
⑦.LED lighting/Confirmation
⑧.Data holding/Setting

-01-

⑨.Battery door
⑩.LED lighting

(2).Instruction of LCD display (as shown in picture)

1. Beaufort wind scale
2. Low battery indicator
3. Timing automatic shutdown indicator
4. Wind speed unit
5. Air volume unit
6. Wind cold indicator
7. Wind speed icon
8. Data holding
9. USB
10. Humidity unit
11. Bluetooth icon
12. Temperature unit & area unit
13. Temperature display area
14. Area value
15. Delete records
16. Start recording
17. Read records of instrument
18. Two-thirds of maximum wind speed/maximum/minimum /average wind speed
19. X10 times, X100 times (X10 appears when the value exceeds 99.99, X100 appears when the value exceeds 999.99)
20. Air volume icon
21. Display area of wind speed

C. Operation instruction

1. Power on/off;
   After installing batteries, press " ⏻LED " button to turn on the instrument, LCD display comes in full screen for 1s, and the buzzer lets out two beeps (if the buzzer is on); the instrument enters normal measurement mode of real-time wind speed and temperature. Long press " ⏻LED " button for at least 2s to turn it down.

2. LCD backlight;
   After powering on, press " ⏻LED " button to turn on/off LCD backlight.

3. Maximum/minimum mode;
   Under normal mode, press " UP MIN MAX " button to enter measurement mode, which measures maximum and minimum wind speed in real time. Short press " UP MIN MAX " button again to return to normal mode.

-02-

4. Data holding;
   Under normal mode, press " SET HOLD " button to hold wind speed value when "HOLD" appears on the LCD; short press " SET HOLD " button again to return to normal mode.

5. Measurement of average wind speed;
   Under normal mode, short press " VEL AVG " button to switch to measurement of average wind speed, which is the average value of 30 current wind speed values, and "AVG" icon appears on the LCD; short press " VEL AVG " button again to return to normal mode.

6. Selection of wind speed unit;
   Short press " UNIT DOWN " button to select different wind speed unit in turn.

7. LED lighting;
   Under normal mode, short press " LIGHT ENTER " button to turn on/off LED lighting.

8. Setting of temperature unit;
   Long press " SET HOLD " button for 2s to enter setting mode; "ELE" icon appears on display area of wind speed, indicating that the temperature measurement mode is on. Short press " UP MIN MAX " to switch to Fahrenheit unit, short press " UNIT DOWN " to switch to Celsius unit and the corresponding temperature value will display. Long press " SET HOLD " button for 2s to save setting and return to normal mode. (the setting is automatically saved if the instrument shuts down)

9. Automatic shutdown setting;
   Long press " SET HOLD " button for 2s to enter setting mode. short press " SET HOLD " button again until "OFF" appears on display area of wind speed, indicating that automatic shutdown setting is on. Short press " UNIT DOWN " button to turn on timing shutdown, and short press " UP MIN MAX " button to turn off timing shutdown. Long press " SET HOLD " button for 2s to save setting and return to normal mode. (the setting is automatic saved if the instrument shuts down)

10. Buzzer setting;
    Long press " SET HOLD " button for 2s to enter setting mode. Short press " SET HOLD " button twice to until " bu2" appears on display area of wind speed, indicating that the buzzer setting is on. Short press " UNIT DOWN " button to turn on buzzer, short press " UP MIN MAX " button to turn off buzzer. Long press " SET HOLD " button for 2s to save setting and return to normal mode. (the setting is automatically saved if the instrument shuts down)

11. Bluetooth setting;
    Long press " SET HOLD " button for 2s to enter setting mode. Short press " SET HOLD " button for three times until "bLE" appears on the display area of wind speed, indicating that automatic shutdown setting is on. Short press " UP MIN MAX " button to close

-03-

Bluetooth with "CLO", short press " UNIT DOWN " button to open Bluetooth with "OPE"; long press " SET HOLD " button for 2s to save setting and return to normal mode. When Bluetooth is on, mobile APP searches for a source named "Anemometer" for connection. After the connection is successful, the icon " ✳ " of Bluetooth changes from blinking to continuous display, and it flashes again due to disconnection. (It is advised to turn off Bluetooth to save power)

12. View/record/set/delete records of wind speed value;
    Long press " LIGHT ENTER " button for 2s to enter viewing mode of wind speed records. The number of records appears on the display area of temperature. Short press " UP MIN MAX " to page down, short press " UNIT DOWN " to page up, the display area of wind speed will show wind speed value recorded at the time with corresponding unit and Beaufort wind scale. (better to set in the APP) Under this interface:
    A. Long press " SET HOLD " button for 2s to enter setting mode of recording interval. "----" appears on the display area of wind speed, and the time interval of the last setting appears on the display area of temperature. Short press " SET HOLD " to select setting, short press " UP MIN MAX " to add 1, short press " UNIT DOWN " to deduct 1, and the maximum setting value is 9999; long press " SET HOLD " button for 2s to save setting and return to viewing mode.
    B. Long press " VEL AVG " button for 2s to enter record deleting mode. Total number of records appears on the display area of temperature displays. At this time:
    ①Short press " LIGHT ENTER " button to delete all records of wind speed values and return to viewing mode. "----" appears on the display area of wind speed, and "0' appears on the display area of temperature.
    ②If you do not want to delete records, long press " VEL AVG " button for 2s to return to viewing mode.
    C. Short press " LIGHT ENTER " button to start recording and saving data, with "rec " flashing.
    D. When records are full, "Full" icon appears, and you need to manually delete records as Step B.

13. Air volume display setting;
    Long press " VEL AVG " button for 2s to enter air volume display mode. The current air volume value appears on the display area of wind speed, and the current set area value appears on the display area of temperature. At this time:
    A. Long press " SET HOLD " button for 2s to enter setting mode of area value. Short press " SET HOLD " to select setting, short press " UP MIN MAX " to add 1, short press " UNIT DOWN " to deduct 1, and the maximum setting value is 9999; long press " LIGHT ENTER " button to adjust position of decimal point, and long press " SET HOLD " button

-04-

for 2s to save setting and return to display mode of air volume.
B. Long press " VEL AVG " button for 2s to return to display mode of wind speed.
C. Short press " VEL AVG " button and "2/3VMAX" appears, indicating that the current air volume value is 2/3 of the maximum value. Short press to return to normal reading value under display mode of air volume.
D. Short press " UP MIN MAX " button to switch between maximum and minimum mode of air volume.
E. Short press " UNIT DOWN " button to switch between CMM /CFM ——M2/FM2.
F. Short press " SET HOLD " button to hold data.

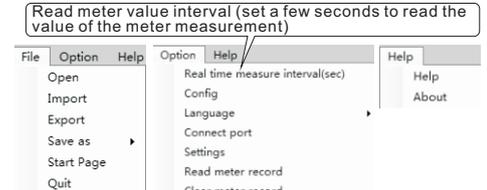### D.USB communication (with computer application)

1. After starting software, first connect to port and turn on the instrument.
   The current connection state of the instrument will be indicated in the lower left corner.
   Start page: Real-time measurement: Enter real-time measurement interface.
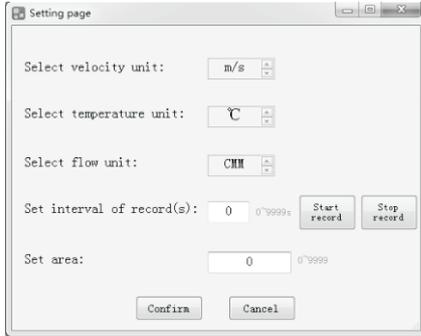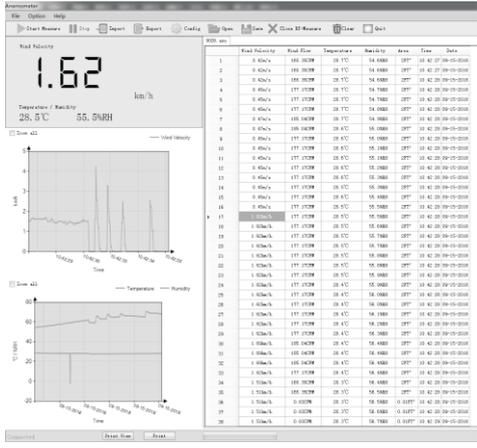
2. Software interface description:

Toolbar
Button bar

3. Toolbar description:

Read meter value interval (set a few seconds to read the value of the meter measurement)

File	Option	Help
Open		
Import		
Export		
Save as ▶		
Start Page		
Quit		

Option	Help
Real time measure interval(sec)	
Config	
Language	
Connect port	
Settings	
Read meter record	
Clear meter record	

Help
Help
About

-05-

4. Settings interface description:

Setting page

Select velocity unit: m/s
Select temperature unit: ℃
Select flow unit: CMM
Set interval of record(s): 0   0~9999s   Start record   Stop record
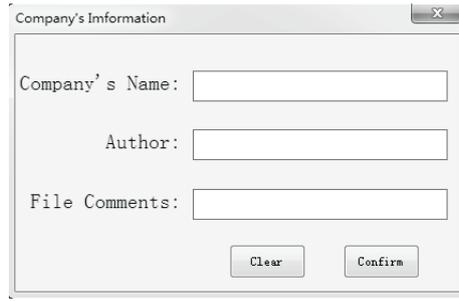Set area: 0   0~9999

Confirm   Cancel

5. Display area:
as the instrument switches wind speed ←→ air volume, the display area shows correspondingly (so does line chart).
Line chart: Figure 1 is wind speed / air volume chart, Figure 2 is temperature / humidity chart.
List: recording the data passed by the instrument, which can import and export data (data can be saved in two formats: ane/.xls).

6. Configuration page description:
The contents of window that pops out after clicking configuration button in button bar will be displayed in the exported EXCEL.
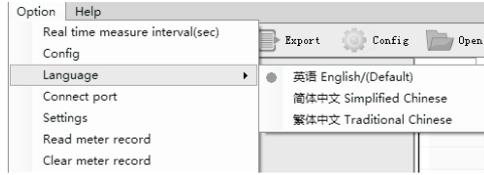

Company's Imformation

Company's Name:
Author:
File Comments:

Clear   Confirm

7. Status bar:
The status of the operation process will be presented in the bottom column;
Print button: printing the current page.

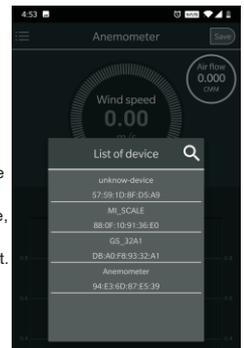Status bar — Connected
Print button
Print View   Print

NOTE:
1. After successful installation, the default language at first is English, which can be changed by user.

Option   Help
Real time measure interval(sec)
Config
Language ▶   英语 English/(Default)
Connect port   简体中文 Simplified Chinese
Settings   繁体中文 Traditional Chinese
Read meter record
Clear meter record

Export   Config   Open

2. Click on line chart area for labels of current X and Y axis, drag and drop for enlarged image, and double-click to return to the previous state.
3. Click on any cell in the list for labels of X and Y axis in line chart.

E. APP operation instruction

1. Bluetooth connection interface:
1) Before Bluetooth is connected, click start button or reset button on home page for Bluetooth connection window.
2) Click on the search icon in the upper right corner of window to search for Bluetooth device, which takes about 5s.
3) Click on the device to connect.

2. Home page interface:
1) Button in upper left corner: Enter setting interface.
2) Storage button in upper right corner: Save real-time data.
3) Start button: Perform real-time data sampling.
4) Reset button: Clear real-time sampled data.
5) The upper half of interface is real-time data display, green numbers are values of wind speed, and yellow numbers are values of temperature and humidity.
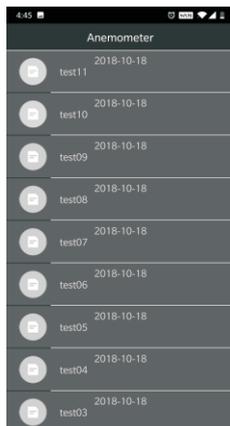6) The lower half of interface is a real-time wind speed curve.
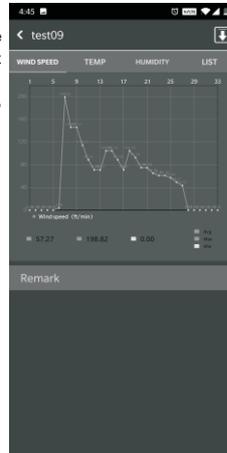
3. Real-time data list interface:

4. Saved data interface:
1) Short press to enter data display interface.
2) Long press to choose data to be deleted.
3) Gray icon stands for the data read from lower computer (anemometer).
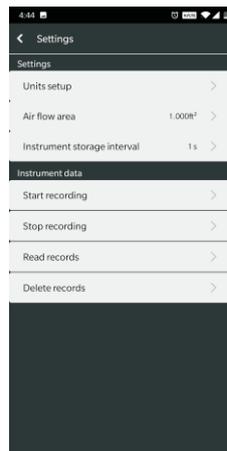4). Blue icon stands for the real-time saved data.

5. Data display interface:
1) Wind speed curve, temperature and humidity curve and data list are displayed in the interface.
2) Upper right button: Export data, the data is exported to mobile phone in the form of EXCEL.

6. Settings interface:
1) Unit setting: air volume area setting and time interval setting of data storage.
2) Start recording: control lower computer to start recording.
3) End recording: Control lower computer to end recording.
4) Read record: Read the data saved by lower computer.
5) Delete record: delete the data saved by lower computer.
Note: Lower computer: anemometer

F. Technical Parameters

A. Wind velocity measurement

Unit	Measurement range	Resolution	Threshold	Accuracy
m/s	0~30	0.01	0.3	±5% ±0.1
ft/min	0~5860	1.968	60	±5% ±20
knots	0~55	0.019	0.6	±5% ±0.2
km/h	0~90	0.036	1	±5% ±0.4
mph	0~65	0.022	0.7	±5% ±0.2

B. Wind temperature measurement

Unit	Measurement range	Resolution	Accuracy
℃	-10℃~+45℃	0.1	±2℃
℉	14℉~113℉	0.2	±3.6℉
Battery	9V battery（6F22）		
Temperature sensor	Negative Temperature Coefficient Resistance		
Operation temperature	-10℃~+45℃(14℉~113℉)		
Operation humidity	Less than 90%RH		
Storage temperature	-10℃~+50℃(14℉~122℉)		
Current consumption	About 6mA/ with Bluetooth on: 16mA		
Weight	186g(including battery)		
Size	165x85x39mm		

Specific Declarations:
Our company shall hold no any responsibility resulting from using output from this product as an direct or indirect evidence. We reserves the right to modify product design and specification without notice.

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