BENETECH®

Model:GT8916

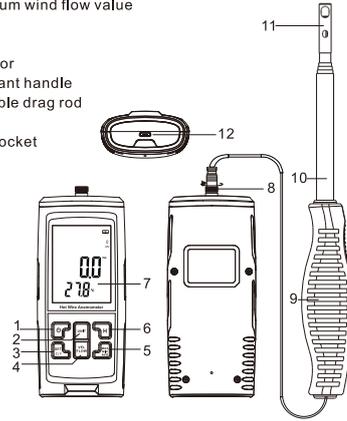# Hot Wire Anemometer Instruction Manual

Veision: GT8916-EN-01

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A. Features

1. Measurement of wind velocity, temperature and flow
2. Selection among max wind velocity,min wind velocity,average wind velocity,current wind velocity.
3. Selection among max wind flow,min wind flow,average wind flow,current wind flow,2/3 maximum wind flow value.
4. Inlet area set
5. Selection wind velocity unit among m/s, km/h, ft/min, knots, mph
6. Temperature unit selection between ℃/℉
7. Data hold/Data record/Data read/Data delete function
8. Real-time measurement when connecting USB with computer software.
9. Beaufort scale
10. Wind chill alert
11. LCD backlight
12. Manual/automatic turning off
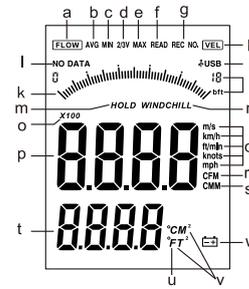13. Retractable drag rod
14. Low battery indication

B. Button

1. Power on/Backlight button
2. Unit switch button for wind velocity and flow
3. Button for temperature unit switch
4. Switch button between the interfaces of wind velocity and flow
5. Switch button among max/min/average/2/3 maximum wind flow value
6. Data hold
7. LCD
8. Battery door
9. Slip resistant handle
10. Retractable drag rod
11. Probe
12. Handle socket

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C. LCD display

a. FLOW: Wind flow icon
b. AVG: Average wind velocity / flow
c. MIN: Minimum wind velocity / flow
d. 2/3V MAX: 2/3 maximum wind flow value
e. MAX: Maximum wind velocity / flow
f. READ: Data read
g. REC NO.: Data record
h. VEL: wind velocity icon
i. USB
j. Francis Beaufort wind scale
k. Dynamic indicating bar for wind velocity
l. NO DATA
m. HOLD: Data hold
n. WINDCHILL: Wind chill alert
o. Data X10/100
p. wind velocity / flow display
q. Wind velocity unit
r. CFM: Wind flow unit(FT³/MIN)
s. CMM: Wind flow unit(M³/MIN)
t. Temperature/area display
u. ℃/℉: Temperature unit
v. M²/FT²: Area unit
w. Low battery

D. Operation

1.Preparation before measuring
   Insert the battery properly into the battery door.Insert the on necting wire into the socket on the top of the main unit.

2.Power on/off and backlight
   Press the "Power on/Backlight" button to turn on the unit with the backlight on, and the full screen display for 2 seconds to enter into wind velocity mode, the readings of temperature and wind velocity shows on the LCD, short press on it will turn on the backlight or turn it off, and it will turn off automatically if there is no operation on the button within 2 minute. the unit will turn off automatically after 10 minutes if there is no any further button operation.Long press on the "Power on/Backlight" button turns off the unit manually.

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3. Data hold
   In measuring, press "H" button to hold the reading measured, and press the "H" button again to return to the measuring mode.

4. Switch between wind velocity / flow
   After power on,press "VEL/FLOW" button to switch between the wind velocity / flow mode;The upper right corner displays [VEL] as the wind velocity measurement interface; The upper left corner displays [FLOW] as the wind flow measurement interface.

5.Set up the units of wind velocity / flow
   After power on, on the wind velocity measurement interface,press the "UNIT" button to select wind velocity unit among m/s, km/h, ft/min, knots.
   On the wind flow measurement interface, press the "UNIT" button to select wind flow unit among CFM/FT², CMM/M².

6. Set up the units of temperature
   After power on, on the wind velocity measurement interface, press the "SET/℃/℉" button to select wind velocity unit among ℃,℉.

7. Data recording interval setting
   After power on, on the wind velocity measurement interface, long press the "SET/℃/℉" button, the first digit flashes, short press the "H" button to increase the value, press the "MAX/MIN/AVG" button to decrease the value, or press the "H" button or "MAX/MIN/AVG" button separately to cycle the value from 0 to 9 or 9 to 0; Short press the "SET/℃/℉" button to switch to the second, third, and fourth positions in sequence. After completing the fourth position setting, short press the "SET/℃/℉" button to complete the setting.

8. wind flow area setting
   After power on, on the wind flow measurement interface, long press the "SET/℃/℉" button, the first digit flashes, Press the "H" button or the "MAX/MIN/AVG" button to set the value (as above); When the number flashes, press the "VEL/FLOW" button briefly to switch the Decimal separator position, Continuously short press the "SET/℃/℉" button until no digits flash, to complete and exit the wind flow area setting.

9. Switching among readings max/min/average/2/3 maximum wind flow
   After power on, on the wind velocity measurement interface, press the "MAX/MIN/AVG" button to select among max/min/average.

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   On the wind flow measurement interface, press the "MAX/MIN/AVG" button to select among max/min/average/ 2/3 maximum wind flow.

10.Sampling for average wind velocity
   Take the average value after sampling 21 times at an interval of 0.3 seconds.

11. Data recording/viewing/deleting:
   After starting up, long press the "MAX/MIN/AVG" button, and [READ] will blink on the screen, which means you can view the data. Short press this button again, [REC.NO] will blink, which means you can record the data. Then, short press the button again, [CLA] will blink, which means you can delete the data:
(1) Data viewing [READ] :
   When [READ] blinks on the screen, short press the "SET" button to enter the Data viewing mode. If no data is recorded, [NO DATA] will be displayed; If there is recorded data, the specific value of the data will be displayed at the top and the data number will be displayed briefly at the bottom, and [READ] will stop blinking. At this time, short press the "MAX/MIN/AVG" button to switch to the next data, or long press the "MAX/MIN/AVG" button to enter the data number setting, you can select the data number you want to view. If the input number exceeds the number of recorded strokes, the last data will be automatically displayed. Long press the "MAX/MIN/AVG" button to return to the measurement interface.
(2) Data recording [REC.NO] :
   When [REC.NO] blinks on the screen , short press the "SET" button to enter the Data Recording mode (at this time [REC.NO] will stop blinking). If the recording interval is 0, the current data will be saved only once and then return to the measurement interface. If the record interval is not 0, data will be automatically saved at the specified interval. It will not automatically turn off when recording data, and it can record up to 5500 strokes. Long press the "MAX/MIN/AVG" button to return to the measurement interface.
(3) Data deletion [CLA] :
When [CLA] blinks on the screen, press the "SET" button to enter the Data Recording mode. All the recorded data will be deleted, and then return to the measurement interface.

12.Wind chill alert
   In measuring, when the temperature is under 0℃ the wind chill icon appears on LCD.

13.Retractable drag rod
   The rod can be dragged longer as much as 533mm for long distance measuring.(Length including line 2100mm)

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14.wind velocity dynamic indicating bar
   This bar varies with the wind velocity in normal measuring but does not vary in case the wind velocity is above Beaufort scale 10.

15. Low battery prompt:
   When the LCD displays [ ], please charge it in a timely manner. When charging, the USB icon will be displayed and [ ] will flash at the same time.

E. Specification

A. Wind flow			
Unit	Range	Resolution	Area
CFM(FT³/MIN)	0~999900	0.001~100	0.001~9999FT²
CMM(M³/MIN)	0~999900	0.001~100	0.001~9999M²

B. Wind Velocity				
Unit	Range	Resolution	Threshold	Accouracy
m/s	0~30	0.01	0.3	±3% ±0.1
ft/min	0~5904	0.01/0.1/1	60	±3% ±20
knots	0~58.3	0.01	0.6	±3% ±0.2
km/h	0~108	0.01	1	±3% ±0.4
mph	0~67	0.01	0.7	±3% ±0.2

C. Wind Temperature			
Unit	Range	Resolution	Accuracy
℃	0~45	0.1	±1.0
℉	32~113	0.18	±1.8
Power supply	3.7V lithium battery (1000mAh)		
Operating temperature	0℃~45℃(32℉~113℉)		
Operating humidity	40%RH~80%RH		
Store temperature	-10℃~50℃(-14℉~122℉)		
Store humidity	≤80%RH		

Specific Declarations:
   Our company shall hold no any responisibility 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.
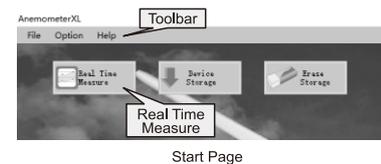
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F. PC software

Software installation instructions

1. Computer configuration requirements:
   a. CPU: Pentium III 600MHz or above.
   b. A freely available USB connector.
   c. The screen resolution of screen should be at least 800*600 (or higher) with true color;
   d. At least 8MB of available memory space.At least 50MB of free disk space.
   e. Operating system: XP, Win7, Win10.
2.Install data acquisition software:
   Enter the website "www.benetechco.net" in the browser, press enter and enter the page to find the menu "Support"-"Download Catalog".Click into the page to find the software installation package "Anemometer 8911.zip". Click the download button to directly extract the "zip package" after downloading. Double click on "setup_AnemometerXL. exe" to install.

Software interface instruction

1. Language switch step:
   Click real-time measurement icon "Real Time Measure" to enter into measurement interface, select "Option"-"Language".

Start Page

2. Toolbar:
(1) File: Open, Import, Export, Save as, Start Page, Quit
(2) Option:
   1) Read interval(sec): Set the communication interval with the computer APP, adjustable range: 1~10000s;
   2) Configration:Set company information to export table company information
   3) Language:English(Default), Simplified Chinese, Traditional Chinese
(3) Help:Help, About

3.Start page
(1) Real Time Measure: Enter real-time measurement interface.
(2) Device Storage: Read history record of instrument.
(3) Erase Storage

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4. Button bar:
(1) Start measurement (2) Pause (3) Import
(4) Export (5) Configuration (6) Open
(7) Save (8) Off - Real-time measurement
(9) Empty (10) Exit

5. Display area
   During real-time measurement, real-time display of wind velocity/flow/temperature data measured by the instrument,(Short press the product "VEL/FLOW" button to switch between wind velocity/flow).

6.wind velocity/flow/temperature line chart:
   Shows the change of wind velocity/flow/temperature data: Short press the left mouse button and drag in the line chart. Enlarge the selected range of data, and select "Full View" in the upper left corner of the line chart to narrow the line.
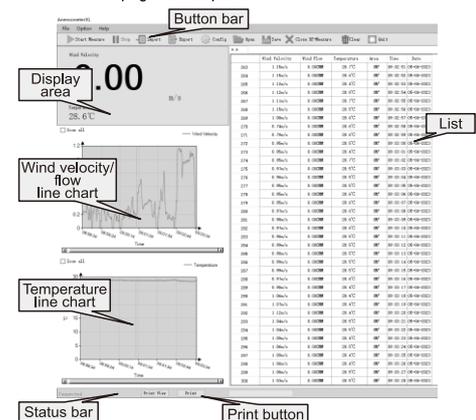
7.List:
   Record the data passed by the meter, you can import and export data (can have Two formats. save form in ane/.xls).

8.Status bar:
   The status of operation process will be presented in the lowermost column.

9.Print button:
   The current page can be printed out.

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