

# OPERATION MANUAL

## MULTI-FUNCTION DATALOGGER



■ 96792, Air Flow Datalogger

■ 98792, Air Flow Datalogging Printer



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## **INTRODUCTION**

Thank you for purchasing this multiple function datalogger! This meter is developed to meet your maximum satisfaction by its user-friendly design. Please review the entire manual for a complete overview of how to operate this meter.

### **Features:**

This meter is designed for measuring air velocity and flow in ducts through three measurement modes:

- 1) Single point measurement
- 2) Multiple points measurement ( Manually record)
- 3) Automatically Logging

It also features

- Antenna mini vane for reaching in ducts measurement.
- Measuring/Programming ....Anywhere, anytime
- User friendly interface  
Mini USB cable and software to link to PC for download/upload
- Backlight function
- Tripod mountable for long time use
- Power off time selectable
- Big Dot matrix LCD

## **MATERIAL SUPPLIED**

Check for damaged or missing parts in your meter before starting.  
The complete meter set should contain:

### **96792**

1. Meter
2. 4pcs AAA batteries
3. Operation manual
4. Carry case
5. Mini vane probe
6. Mini USB cable
7. Software CD

### **98792**

1. Meter
2. 4pcs AA batteries
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4. Carry Case
5. Mini vane probe
6. Mini USB cable
7. Software CD
8. Printing paper roll

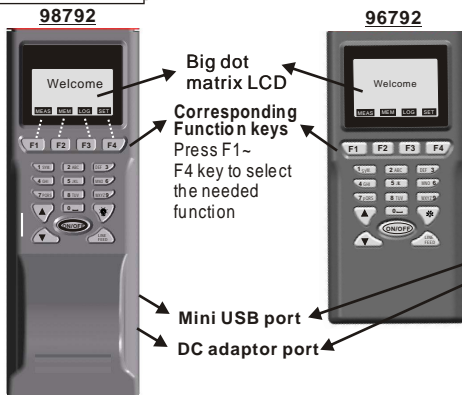
## POWER SUPPLY

The meter is powered by 4pcs AAA batteries (for model 96792) or 4pcs AA batteries (for model 98792). You may also use 9VDC adaptor as power supply for long time logging use.

Please insert the batteries into battery compartment with correct polarity and good contact.

When battery icon appears on LCD means the battery power is low. Suggest to replace the batteries to get correct reading.

## METER KEYPAD



### Keypad

1SYM stands for "1, \*, ., :, \$, +, -, ="  
 2ABC stands for "2, a, b, c, A, B, C"  
 3DEF stands for "3, d, e, f, D, E, F"  
 4GHI stands for "4, g, h, i, G, H, I"  
 5JKL stands for "5, j, k, l, J, K, L"  
 6MNO stands for "6, m, n, o, M, N, O"  
 7PQRS stands for "7, p, q, r, s, P, Q, R, S"  
 8TUV stands for "8, t, u, v, T, U, V"  
 9WXYZ stands for "9, w, x, y, z, W, X, Y, Z"  
 0 stands for "0 and space"

Select key

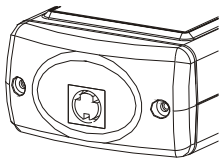
Select key

Backlight key

Paper feeding key of 98792

Power key

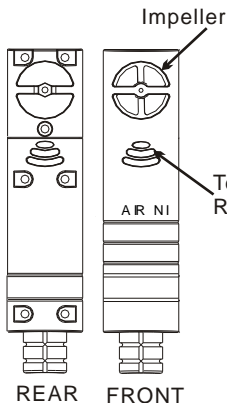
## HOUSING TOP COVER



This illustration is the connector for 96792 & 98792.

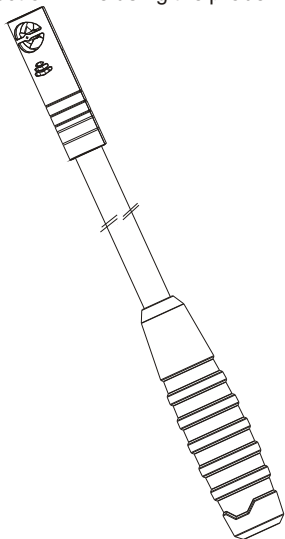
Plug the probe onto the meter before operating. Make sure it is well and tight contacted.

## EXTERNAL PROBE



The temperature and humidity sensors are built in the vane probe

An "AIR IN" text on the probe to indicate the direction while using the probe.



## OPERATION

Measured parameters of this meter are wind velocity, wind volume, temperature, RH% & wet bulb temperature

There are 3 different measuring modes to record above parameters:

MEASUREMENT	DESCRIPTION	MEMORY POINT
<b>Single Point Measurement</b>	-Single point measurement	No Memory
<b>Multiple Point Measurement</b>	-File name editable -Multiple point measurement	99 points
<b>Automatic Logging</b>	-Programmable datalogging function	2400 points

In 99-point measurement mode, each record is designed to show current date and time if user doesn't edit any.

Example: If the file name is "05-06 09:21:51" means the date is 6th May (or 5th June, based on your date mode setting) and the time is 09:21:51.

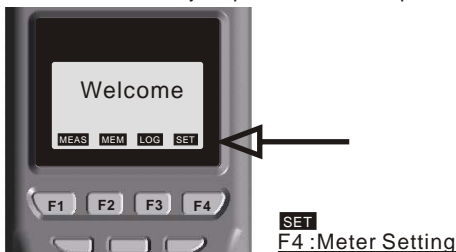
In 2400-point auto logging mode, each record is designed to show current date and time. More functions are available in auto logging mode:

- To set up Begin-Date, Start-Time, End-Date, Suspend-time and sample rate from the meter.
- Each meter starts to record from Begin-Date & time with specified sample rate until Suspend-time.
- Automatically start again next day from Start-Time until End-Date.
- Logging stops recording when End-Date or max. memory points is achieved.
- Logging can be stopped and start again with the same setting.

## METER SETTING

Before measuring, please check the meter setting first to confirm the basic settings of the meter are what you need.

To enter each command, just press the corresponding F1 to F4 key.



- Pressing ▲ or ▼ key to shift the cursor.
- Pressing EDIT to enter modification mode.
- Pressing NEXT/BACK to enter next or previous page.
- Pressing EXIT to return to main menu

### Descriptions :

- LCD Cont.(1-5): LCD brightness. From darkest 1 to brightest 5
- Unit: The unit could be metric or imperial / °C or °F
- Auto Off: The selectable time frame is 1 to 20 min.
- Set Clock: To choose the date mode and set your local time.  
Date mode:MM-DD-YY or DD-MM-YY or YY-MM-DD
- Set ID: To choose "Disable or Enable.
- ID: To edit an ID of this meter.
- Select item: To select which measured parameters need to be showed on the LCD. The unit of each parameter could be selected from here as well.

## **SINGLE MEASUREMENT**

There are three measurement modes :

1. Single measurement(MEAS)
2. Multiple measurement(MEM)
3. Auto logging (LOG).

**MEAS**

F1 :Single Measurement



### Definition

- Press F1 (MEAS) to proceed single measurement.



## MULTIPLE MEASUREMENT

You can manually record what you are measuring with real time or file name stamp. File name is editable.

There are total 99 memorize capacities in this measurement.

**MEM**

F2 :Multiple measurement



### Definition

- Press MEAS to measure the parameters.
- Select F1(ABORT) or F4(SAVE) to exit the measurement or to save the measurement.
- Press F3 ( Edit ) to edit the file name of recorded value . While editing the file name, select from the keys 1SYM, 2ABC, 3DEF, 4GHI...., Press and hold one of the key to select from the displayed letters by releasing the key .
- Press CLR shortly to delete one data or press for over 2 seconds to delete all memories.

## AUTOMATIC LOGGING

Meter will automatically record what you have pre-setup with real time.

Start/stop, date and time and sample rate have to be setup when you want to use auto logging function. The screen content shows Expect memory points and Remain memory points while setting.

**LOG**

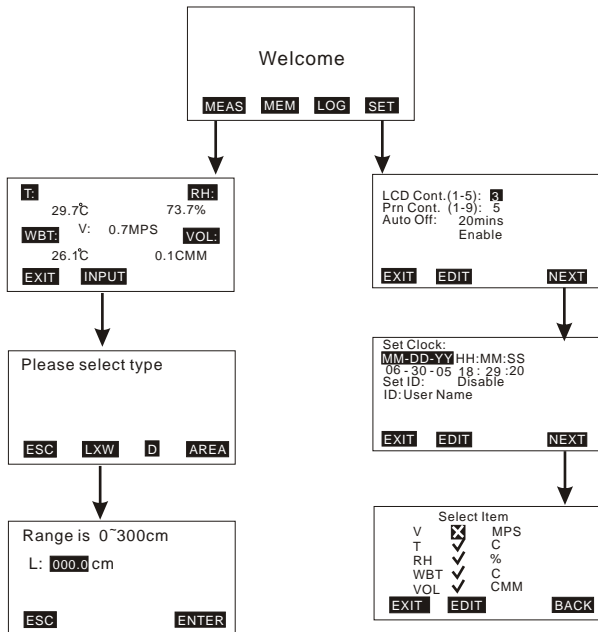
F3 :Datalogging



### Definition

- Press SET to set needed setting first. The Date mode is based on the mode you set under SET (see page 5). The sampling rate is from 1 to 7200 seconds. "Expect" means total memory of this meter, "Remain" means how many memory left in meter.
- Press START to begin the logging function. While logging: Press VIEW to see the data ( more than one ) in the screen, or press MEAS to see a real-time data, or press STOP to quit logging.
- Press P-PG or N-PG to review previous or next 100 points. After stopping, press START to begin again. The sampling rate and previous record are remained if the previous setting has not been changed.
- "Suspend" is the stop time of each day during setting date. If you want to record 24 hours a day, you have to set : 00:00:00 as "Start" , and 23:59:59 as "Suspend" .

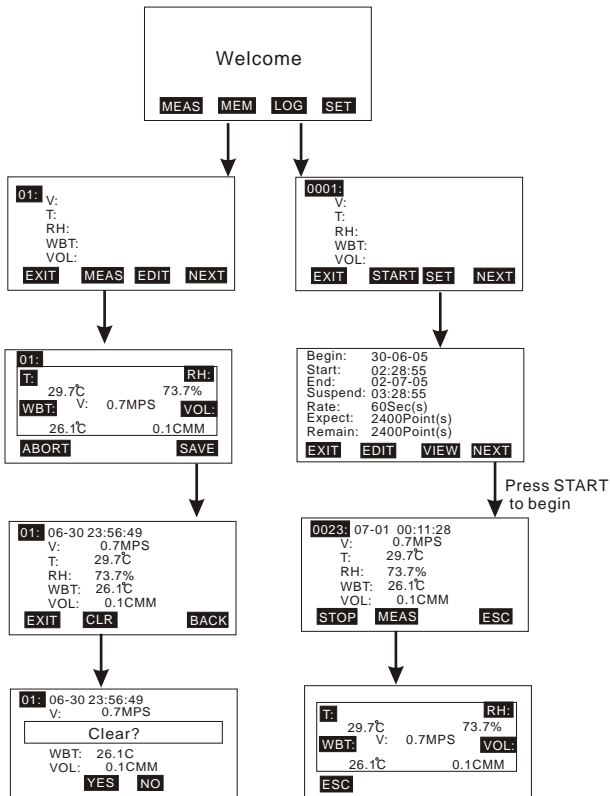
## 96792 Anemometer +Psychrometer Setting/Single measurement



### Remarks:

1. To calculate Air Volume, first input the value of the Air source area. There are three choices: length x width (Rectangle), Diameter (Round) and Area (Input the most accurate value).
2. The available range is shown on the LCD to remind user.
3. Rectangle and round setting range: 0~300cm or 0~110inch  
Outlet area setting range: 0~90000sq.cm or 13000 sq.inch.

## 96792 Anemometer +Psychrometer Multiple meas/Datalogging



### Remarks:

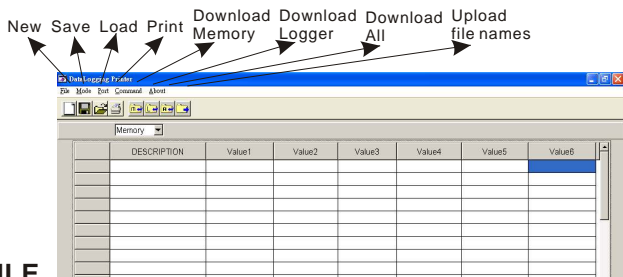
1. "Select Item" : There are 2,400points for each item, press EDIT to cancel the item you don't want to record. Meter will only record the items you checked off .

## SOFTWARE

The enclosed software is a quick tool for you to download the memorized data to PC for further analysis or upload the pre-edited file names to meters, this may save your setting time.

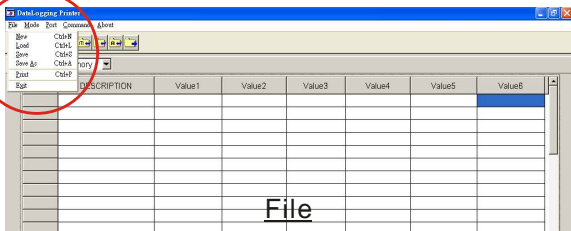
### Material & O/S

- Software CD and mini-USB cable are needed.
- Operating system need to be WIN98/2000/NT/XP or above.

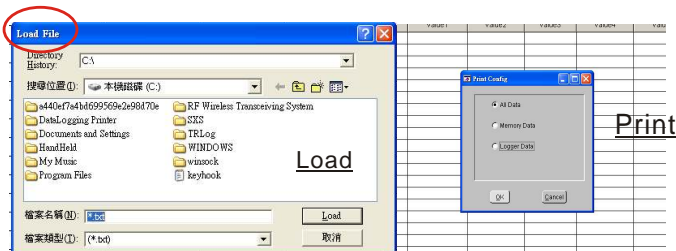


## FILE

- New: To create a new file.
- Load: To open a saved file.
- Save: To save current file.
- Save as: To save current file as new file name.
- Print: To print all data or logging data or memory data.
- Exit: To withdraw the software

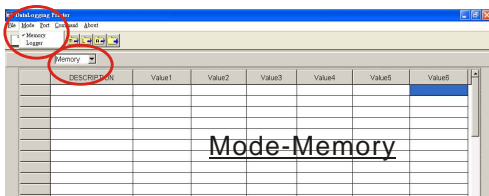


File

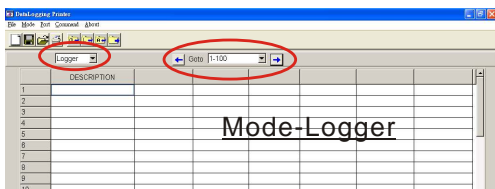


## MODE

- There are two data modes. One is Memory, the other one is Logger.
- To select the mode from main menu or quick selection window.
- In logger mode, you may select from "Goto" to choose logged data range. There are 100 points in one page.



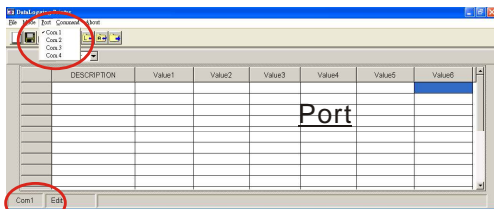
Mode-Memory



Mode-Logger

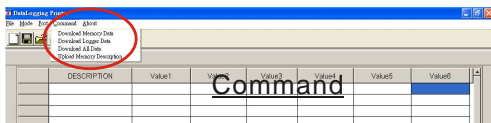
## PORT

- Select the correct Com. port to ensure the meter is communicated with PC. In connecting mode, "PC Mode" will appear on the LCD and "COM #" & Edit will show on the left bottom corner of screen.
- For most PCs, the Com. port number is COM1.
- There are 8 COM ports for selection in this software.



## COMMAND

- There are four commands in this software.
  - Download measured logging data from meter to PC.
  - Download measured memory data from meter to PC.
  - Download measured logging & memory data from meter to PC.
  - Upload pre-edited file names from PC to meter.
- To edit the file names, click left key of mouse twice quickly , then the cursor will flash to indicate the column is ready for editing.
- Before uploading or downloading, make sure you choose the correct download mode . If you choose "Download memory data" but execute downloading "Logger data ", you will have to switch the mode to have the correct display.



## **PRINT**

Select the data you want to print : There are 3 selection :

1. Print only Logger Data
2. Print only Memory Data
3. Print all ( Both Logger Data and Memory Data in sequel )

Example: (If you choose Print all from 9811 IR meter )

Page1

<< DataLogging Printer Report Date:07-12-2005 TIME:17:26:30 >>

Memory Data:

STEP	DESCRIPTION	Temp
=====	=====	=====
1	07-12 10:46:24	26.2 C
2	07-12 10:46:30	26.5 C
3	07-12 10:46:33	25.8 C
4	07-12 10:46:38	25.9 C
5	07-12 10:46:48	26.1 C

.....

Logger Data:

STEP	DESCRIPTION	Temp
=====	=====	=====
1	07-12 13:00:00	28.5 C
2	07-12 13:10:00	28.4 C
3	07-12 13:20:00	28.0 C
4	07-12 13:30:00	27.8 C
5	07-12 13:40:00	28.1 C

.....



## SPECIFICATION

Model	96792/98792
Mini USB interface	YES
Backlight	YES
Wind speed range	0.5~25M/S
Wind speed accuracy	+/- (2% of reading+0.3m/s)
Air temp. range	-20~60.0°C
Air temp. resolution	0.1°C/°F
Air temp. accuracy	+/-0.6°C (-20~50°C); +/-1.2°C at others
Air RH% range	0.1%RH~99.9%RH
Air RH% resolution	0.1%RH
Air RH% accuracy	+/-3%RH(at 25°C, 10~90%RH, others +/-5%RH)
Wet Bulb temp. Range	-22~70.0°C
Wet Bulb temp. Resolution	0.1°C/°F
Air volume display	0 to 99999m <sup>3</sup> /s
Air volume resolution	0.1 (0 to 9999.9) or 1 (10000 to 99999)
LCD size (mm, HxW)	26(H)x45(W)mm
Operating temp.	0~50°C
Operating RH%	Humidity < 80%
Storage temp.	-20~50°C
Storage RH%	Humidity < 90%
Dimension(mm,LxWxT)	170x70x40(H) mm / 208x70x53
Weight	210g
Battery	AAA battery x 4pcs / AA x 4
Standard Package	96792: Meter, external vane probe, battery, manual ,software CD & cable ,hard carry case 98792: Meter, external vane probe, battery, manual ,software CD & cable ,hard carry case, paper roll
Optional Accessory	External vane probe

## **TROUBLE SHOOTING**

1. Power on but no display
  - a) Make sure the time of pressing "ON/OFF" key is more than 200 mini seconds(ms).
  - b) Check the battery are in place and make sure they are at good contact and correct polarity.
  - c) Replace with new batteries and try again .
  - d) Move the batteries for ten seconds , then replace back again.
2. Display disappear
  - a) Check whether the low battery indicator is displayed on or before display disappears. If yes , replace with new batteries .
3. Error code:
  - 1) E2. Problem : Meter value is under flow .
  - 2) E3. Problem : Meter value is overflow.
  - 3) E4. Problem: Calculated source value occurs error.

## **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 returned along with good packing to prevent any damage in shipment and insured against possible damage or loss.

## **WARRANTY**

The meter is warranted to be free from defects in material and workmanship for a period of one year from the date of purchase. This warranty covers normal operation and does not cover battery, misuse, abuse, alteration, tampering, neglect, improper maintenance or damage resulting from leaking batteries.

Proof of purchase is required for warranty repairs. Warranty is void if the meter has been opened .

## **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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