

# USB e-Meter 8870 Manuel

## Non-Contact Current Meter Recorder



## Introduction

USB e-Meter 88700 is a very convenient and economical “Non-Contact USB Current Meter”. Just open the meter and put the L or N cable then you can get and record the current value in PC. Support USB CDC Emulation model for wild supplication .

- \* **Without having to make physical contact of power line , simply place around an electrical conductor.**
- \* Safety measure the power current in “ Distribution Box” .
- \* **Auto record the current value and save in PC for evaluation and application .**

Measure the current range of electricity device at 0A~ 10A, User do not need to search the metal part and can quick and safely get detect the value of current.

Features:

- Small size , light weight , convenient and safe.
- Fit for long time display record in PC
- Support USB CDC emulation mode ( RS232 control ). Read the current in Hyper terminal. .
- Support SDK for system integrator or hobbyist to make development

## How to use the 8870 Current clamp ?

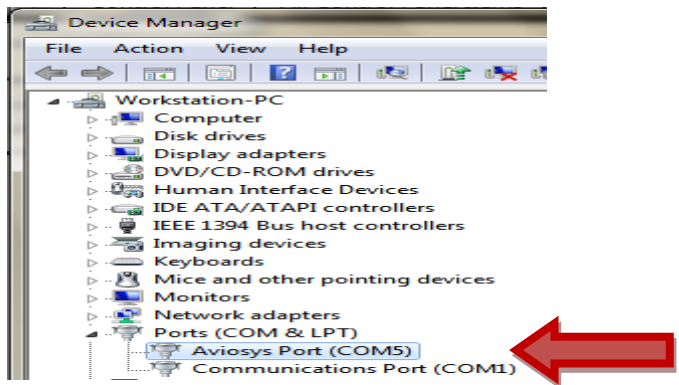
Open the clamp and put the L or N line of power line pass through .  
Do not put more than ONE line .

SPEC:	
Interface	One side : USB jack (male) to connect to PC and get USB power in Another side : Current meter Ouch
For	L / N line of power line
Measure Current Range	40~66Hz, 0~10A ( Accuracy: : ±0.2A ).
Power Input	Standard USB 5V
Sampling Rate	Max. Software read : 2 times per second. 8870 output the value : 3 second. Response Time : 0.1 sec.
Power In	USB 5V standard
Operation Temperature	0 ~50° C
PC System inquire	<ul style="list-style-type: none"> <li>Windows OS : WIN 7 ( 32 bit) , Vista or XP</li> <li>USB 2.0 / 1.1 * Microsoft .NET Framework Version 3.5 or above</li> </ul>
Package	8870 device , CD- Include driver , driver , manual and SDK.
Length & Weight	111cm & 90g

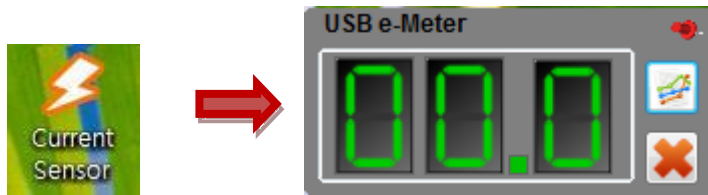
**Installation Procedure**

- 1.) Turn on your PC , put the CD in your CD ROM .
- 2.) Plug in the 8870 device to your PC , then PC would show out “ Detect New Hardware” and then select the driver in CD suggest to save into your desktop to install the USB driver of 8870.
- 3.) After install the driver, you can get “Aviosys Port (COM X) in Ports (COM& LPT) device manager as following .

Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)

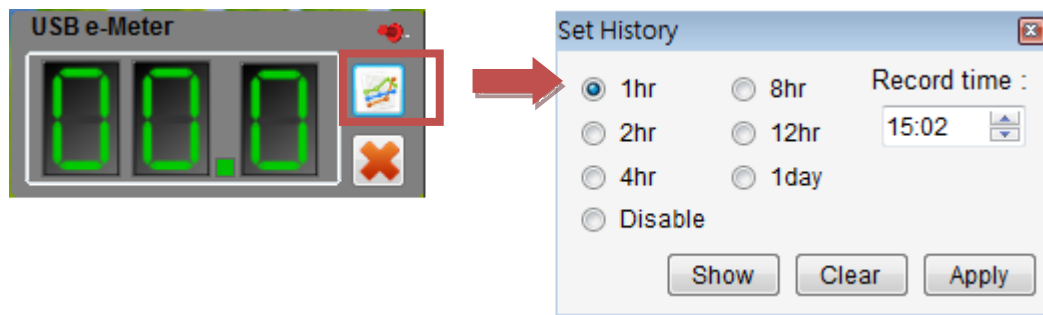


4.) After install the software “Current Sensor” , please execute it and you will get the software as following :



5.) User can record the current value ( from 1 hour to 1day ) into PC:

If need long time record please do keep PC awake and turn off the sleep function ) .



- Record Time : the time start recording
- 1hr : record every hour .                      1day : record every day
- Disable: disable record function ( Default)
- Apply : Confirm setting
- Clear: remove all record
- Show: display all record

Example of Show record :

```
<?xml version="1.0" encoding="UTF-8" ?>
- <History>
  <Record Time="2013/5/30 11:19:30" Current="0.1" />
</History>
```

## SDK

For user to arrange own development :

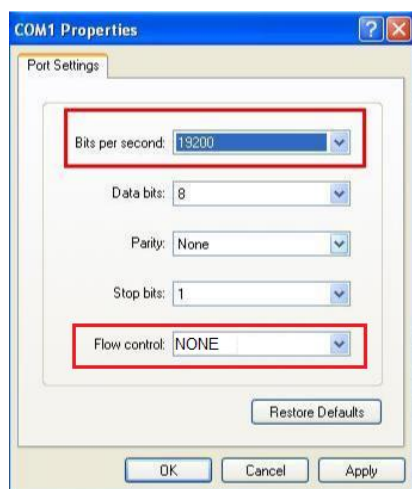
- Developing environment: :

VB.NET 2008 , Microsoft NET. Framework Version 3.5 , Microsoft office access 2007

USB CDC series emulation model .

USB e-Meter 8870 support USB CDC emulation model , Please refer the following :

1. First , make sure that the 8870 is connect with your PC. Please go to  
Control Panel → System → Device manager → Ports(COM& LPT) → Aviosys Port (COM X)
2. Then open Hyper terminal to connect with 8870.  
Start → All programs→ Accessories → Communication → Hyper terminal  
\* There is no Hyper terminal program in WIN 7. Please use other serial software like Putty .  
Select the COM port 8870 use .
3. Setup “ Bits per second” as 19200 and “ Flow control” as NONE. Then press OK to log in .



RS232:

- Read Device model : Command is ~
- Read current : Command is @

Thank you for support Aviosys .

If any question please email to our Service Dep. : [Service@Aviosys.com](mailto:Service@Aviosys.com).