

# USB e-Meter 8870 Manuel

## Non-Contact Current Meter Recorder



## Introduction

USB e-Meter 8870 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 many different 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: : $\pm 0.2A$ ).
Power Input	Standard USB 5V
Sampling Rate	Max. Software read : 2 times per second. 8870 output the value : 7 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 and 64bit ) , 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	150cm & 90g

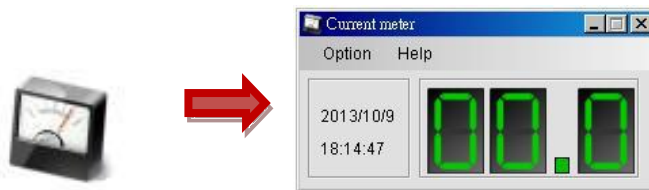
## Installation Procedure

1. Please make sure that your PC had install .NET . Or please go to here to download before install USB Power 8870 . :  
<http://www.microsoft.com/en-us/download/details.aspx?id=21>
2. After install .NET, please put the CD in your CD ROM and it will execute AUTORUN. file or you can open by Windows . Please use web browser “ IE “ to open the CD.
3. Then go to Manual → USB Series → USB Power 8870 to Download the driver “ USB 8870 Driver” and the software “ Current meter.exe “ into your hard disk .
4. 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.
5. After install the driver, you can get “8870 (COM X) in Ports (COM& LPT) device manager as following .

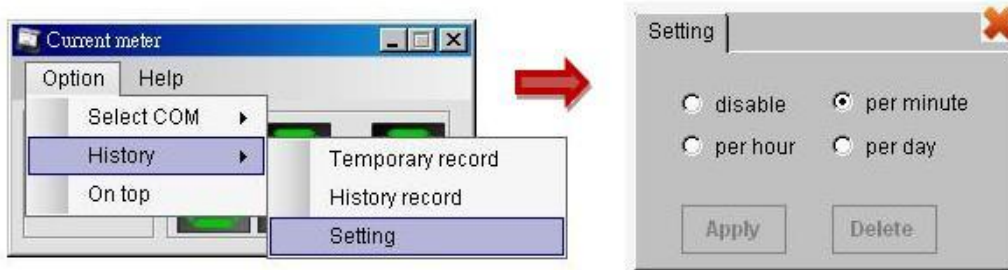
Control Panel → System → Device manager → Ports(COM& LPT) → 8870 (COM X)



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



5.) User can record the current value ( from 1 min to 1day ) into PC:  
 If need long time record please do keep PC awake and turn off the sleep function ) .



- • Disable: turn this feature off (default)
- • Per minute: every minutes of recording time.
- • Per hour: record once every hour.
- • Per day: every day recorded once
- • Apply: Confirm the set value
- • Delete: Delete all the records contents
- • Temporary: shows 1000 records content
- • History record: shows all records contents

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

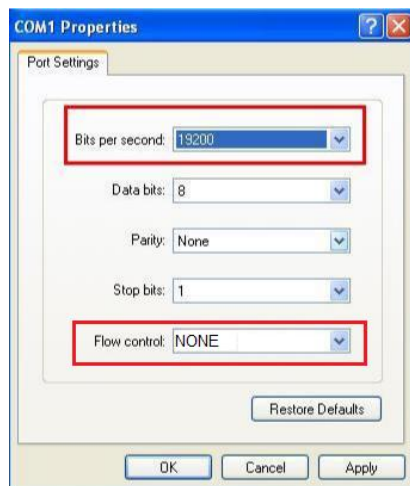
For user to arrange own development :

- Developing environment: :

VB.NET 2008 , Microsoft NET. Framework Version 3.5 , 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) → 8870 (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 current values : Command is ~
- Instruction: Press: Enter
- read current values: Input: read\_current
- automatically display on / off: Input: auto on / off
- device name and version Date: Input: ver