

Datalogger and RS232 Interface

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RS232 Wiring Hardware

RS232 Wiring Diagram

Meter Side

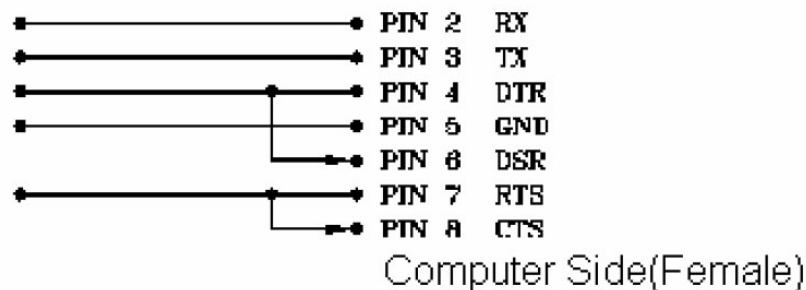


Figure-2

RS232 Connector Diagram

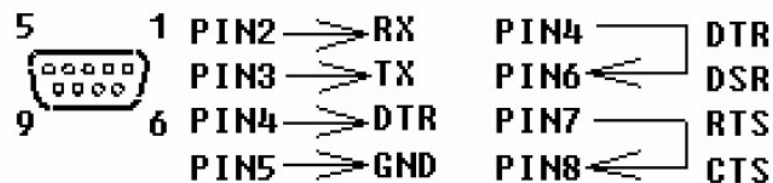


Figure-3

9 to 25 pins Wiring Diagram

If 9 pins COM port is occupied, the 9 to 25 pins connector will be needed.

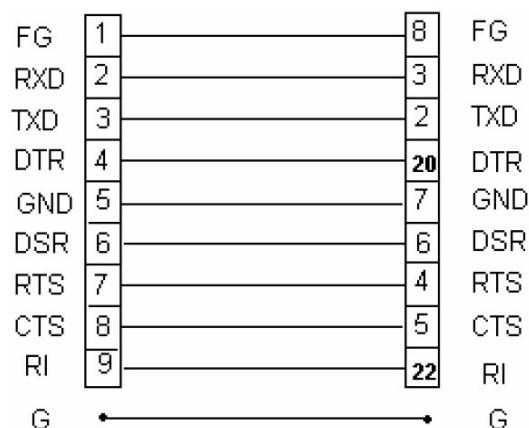


Figure-4

RS232 Default Settings

When RS-232 communication enabled ,the default RS-232 settings are

Baud Rate **9600**

Parity **None**

Data bits **8**

Stop bit **1**

RS232 Protocol

Transmitting Byte Code

Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
02	Ohm		Voltage		Status	03

Byte1 : Starting Byte (02)

Byte2, Byte3 : Ohm Bytes

Byte4, Byte5 : Voltage Bytes

Byte6 : Status Bytes

Byte7	Byte6	Byte5	Byte4	Byte3	Byte2	Byte1	Byte0	
----(Ohm)	-(V)	OL(V)	OL(Ohm)		40V	00 : 40 Ohm ; 01 : 4 Ohm;		1
					4V	10 : 400 mOhm 11 : 40 mOhm		0

Byte7 : Ending Byte

Commands

"U"----- 02 + Last Address (4300h) + 00 55 AA 00 + Sampling + First Set+...

+ 00 55 AA 00 + Sampling + Second Set +.....03

Last Address: 2 Bytes

Sampling: 1 Byte

Each Record: 5 Bytes

Hardware Requirements and Setup

PC HardWare Requirements :

HDD, CD Rom, 486 PC or above, with available COM port
EGA or higher monitor
4M bytes or more memory size

PC HardWare Setup :

- 1) Switch off all power related to the PC
- 2) Connect the socket (female) of RS232 cable to available COM port
- 3) Switch on all related power
- 4) Connect the socket of RS232 cable to Battery Capacity Tester

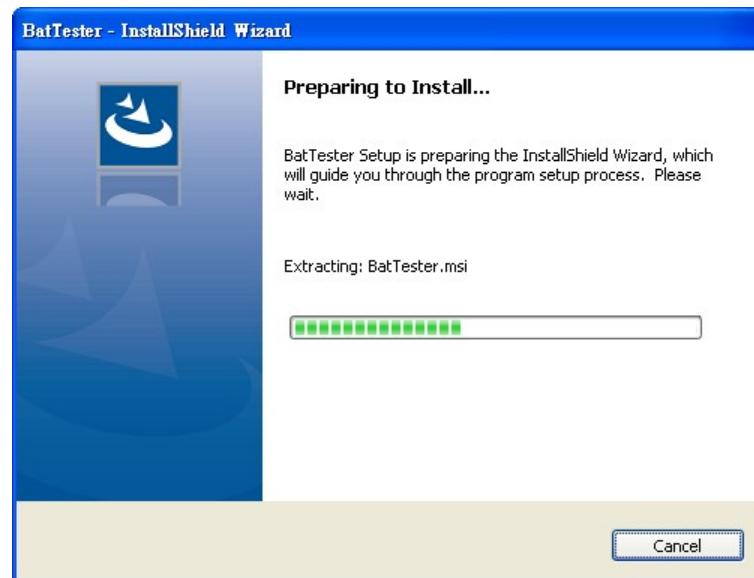
Software Requirements and Setup

- 1) Start up windows OS.
- 2) Close all other applications
- 3) Insert disk in CD drive

Wait for “Autorun” to start and follow on-screen instructions

(If “autorun” does not start, click on “Start” then “Run”. Type the drive letter and “: \Disk1\Setup.exe” and click “OK” .)

1).



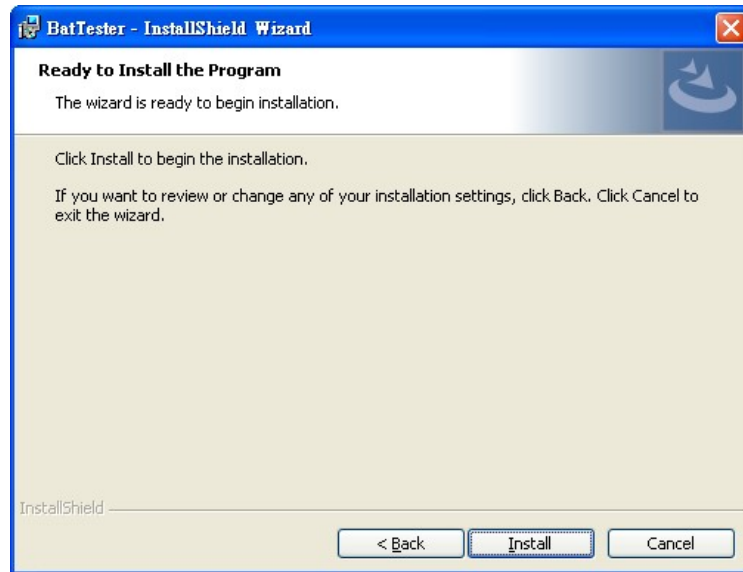
Setup program will run automatically.

2).



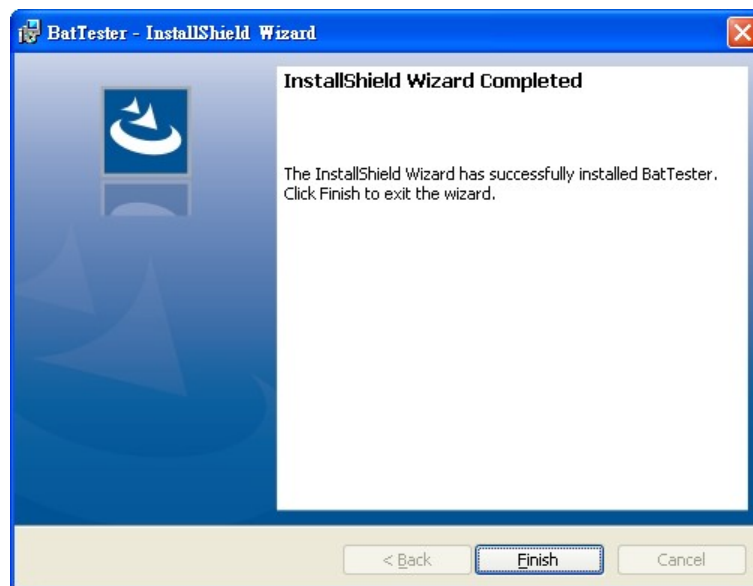
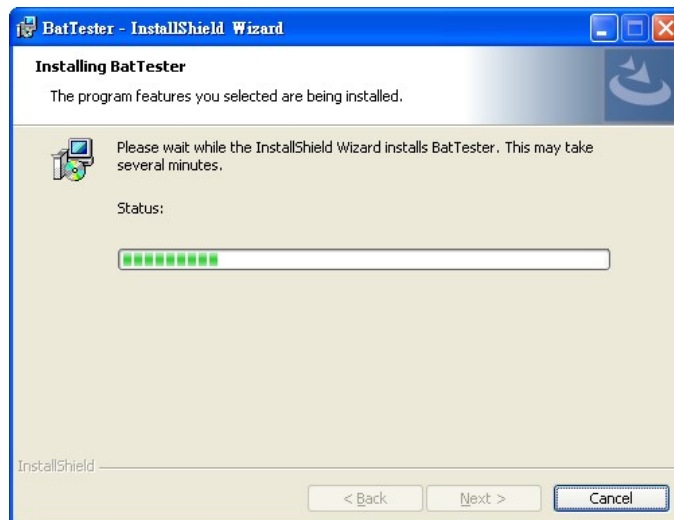
Click Next> button

3).



Click Install> button

4).

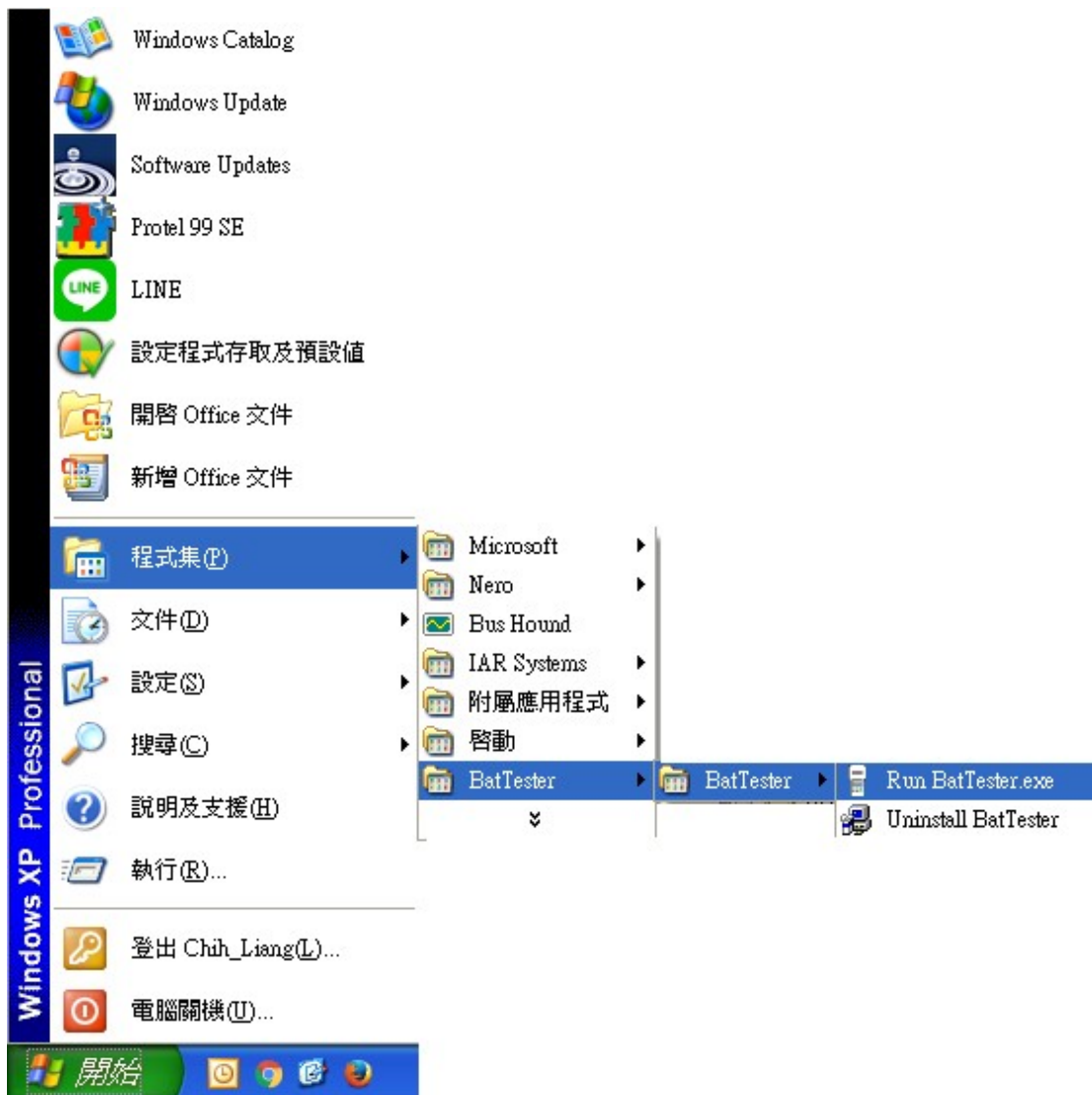


Setup is completed.

Communicating Operation

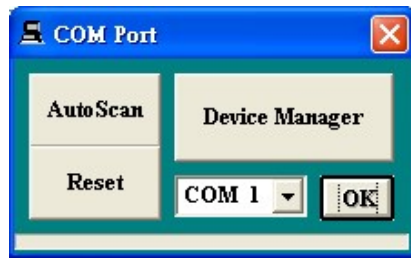
■ Run the software

1. Click "Start" from Start menu and then move to "Programs" then "BatTester" and then click the "BatTester" icon.

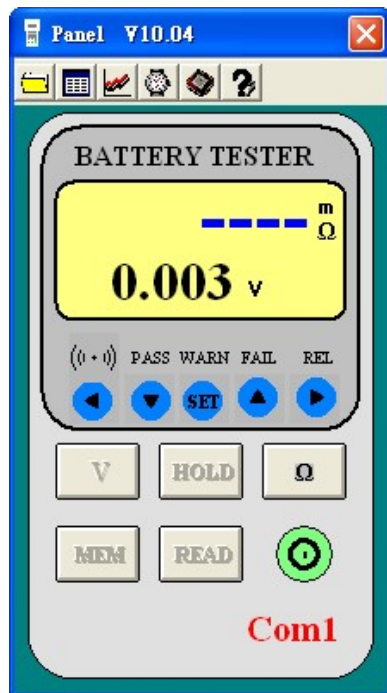


2.

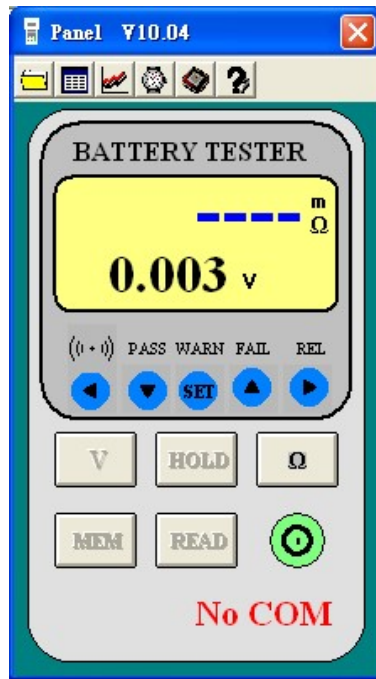
Click an available COM port



3. Main software screen



If no connection, then shows below:

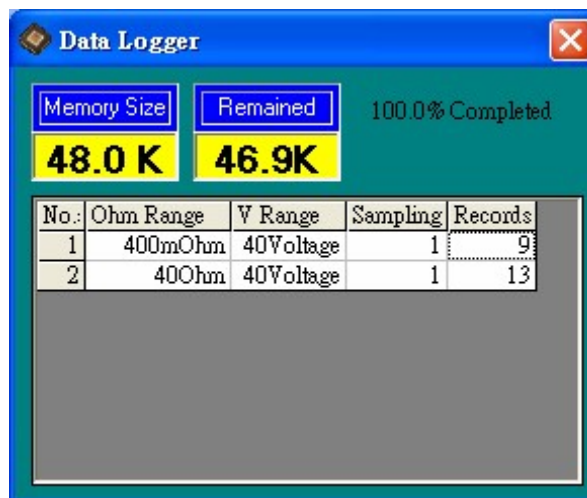


The right bottom side shows “No COM”

■ Download Data

Download Data from EEP ROM (to read automatically recorded data)

Click button. The Data Logger window, shown below, will open.



Click on a SET number to view the set's details. For example, in the window above, there are 2 sets from which to choose. The list below is an example of an opened set.


The Data List window displays the following table:

No.s	Date	Time	400mOhm	40Voltage
1	2003/09/23	10:45:21	----	-0.02
2	2003/09/23	10:45:22	----	-0.02
3	2003/09/23	10:45:23	----	-0.02
4	2003/09/23	10:45:24	----	-0.03
5	2003/09/23	10:45:25	----	-0.02
6	2003/09/23	10:45:26	----	-0.03
7	2003/09/23	10:45:27	----	-0.02
8	2003/09/23	10:45:28	----	-0.02
9	2003/09/23	10:45:29	----	-0.02

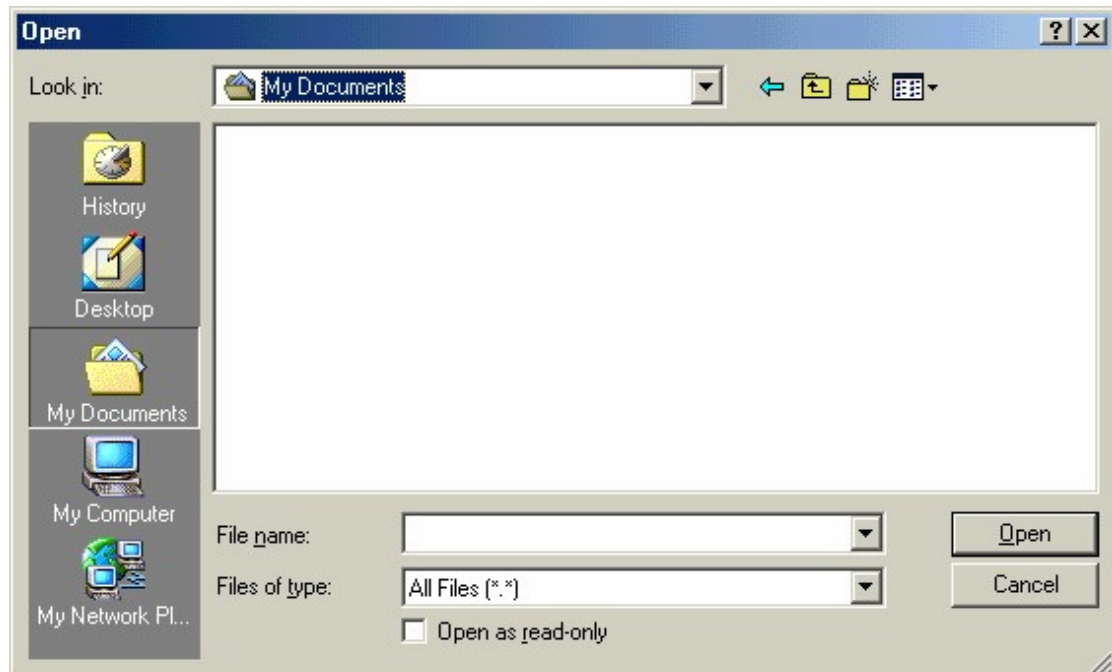
(to read manual recorded data)

Click  to read details.

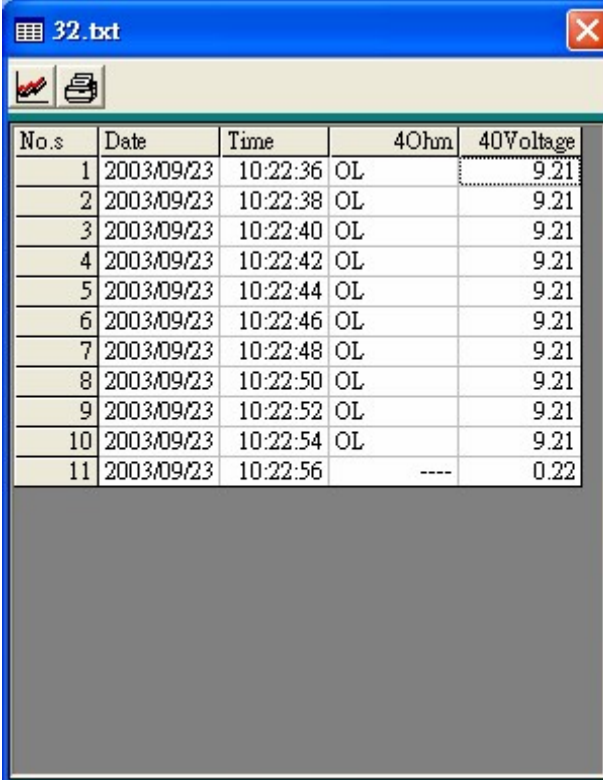
1. Download Data from Hard Disk

Click  button. The Open window, shown below, appears

Input the



Input the file that was selected earlier and then click the Open button.

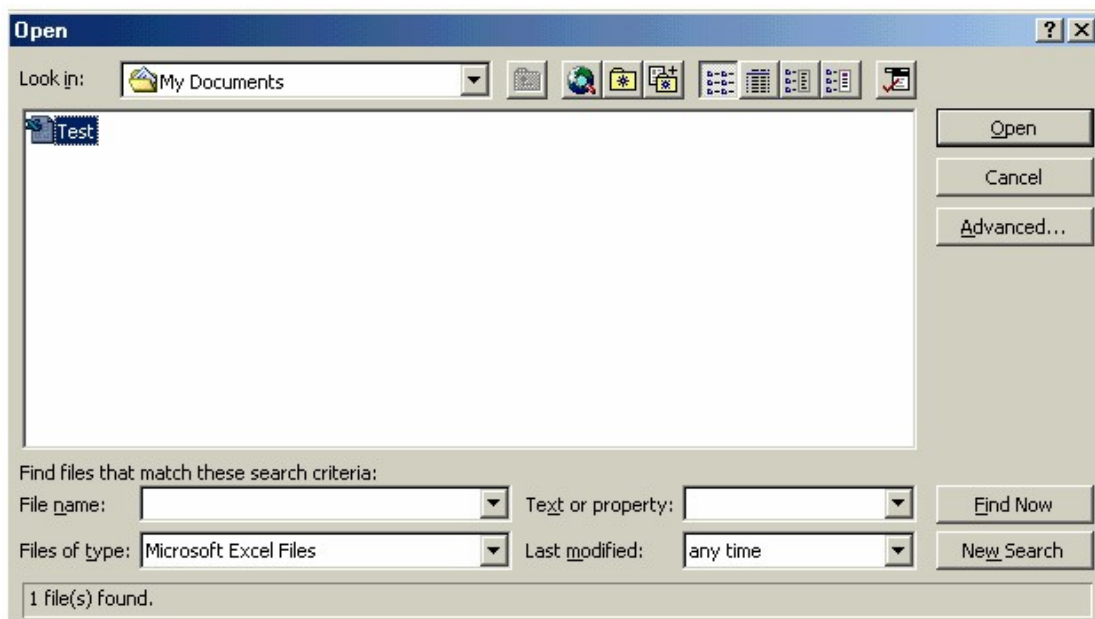


No.s	Date	Time	4Ohm	40V voltage
1	2003/09/23	10:22:36	OL	9.21
2	2003/09/23	10:22:38	OL	9.21
3	2003/09/23	10:22:40	OL	9.21
4	2003/09/23	10:22:42	OL	9.21
5	2003/09/23	10:22:44	OL	9.21
6	2003/09/23	10:22:46	OL	9.21
7	2003/09/23	10:22:48	OL	9.21
8	2003/09/23	10:22:50	OL	9.21
9	2003/09/23	10:22:52	OL	9.21
10	2003/09/23	10:22:54	OL	9.21
11	2003/09/23	10:22:56	----	0.22

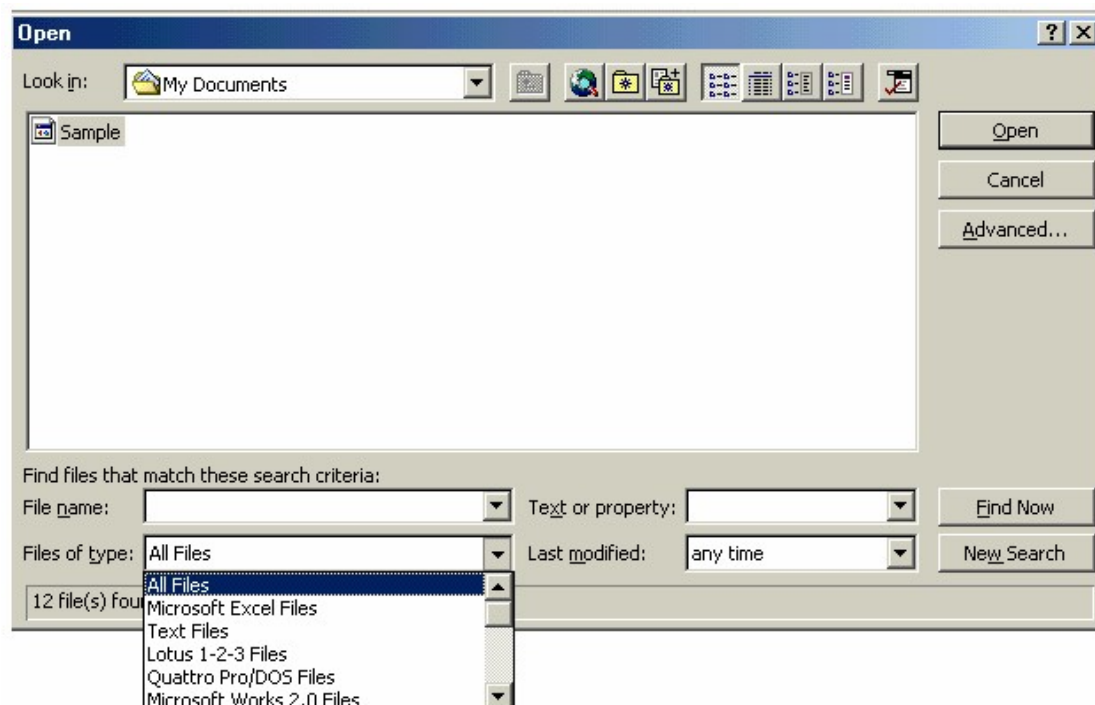
■ Data Convert

Apply for Excel

Open Microsoft Excel, find the file saved in Excel type, for example, test.xls.



or find any file already saved in HDD, for example, sample.dat.(see below)



The "Text Import Wizard" then appears. Follow the steps 1 to 3 to complete.

Text Import Wizard - Step 1 of 3

The Text Wizard has determined that your data is Delimited.
If this is correct, choose Next, or choose the data type that best describes your data.

Original data type

Choose the file type that best describes your data:

☒ **Delimited** - Characters such as commas or tabs separate each field.
☐ Fixed width - Fields are aligned in columns with spaces between each field.

Start import at row: File origin:

Preview of file C:\WINDOWS\Desktop\Test.txt.

1	No. s	Date	Time	400hm	40Voltage
2	1	2003/09/22	16:13:42	8.24	9.20
3	2	2003/09/22	16:13:44	8.22	9.20
4	3	2003/09/22	16:13:46	8.23	9.21
5	4	2003/09/22	16:13:48	8.24	9.21

Cancel < Back **Next >** Finish

Click Next> button

Text Import Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

☒ Tab ☐ Semicolon ☐ Comma
☐ Space ☐ Other:

☐ Treat consecutive delimiters as one

Text qualifier:

Data preview

No. s	Date	Time	400hm	40Voltage
1	2003/09/22	16:13:42	8.24	9.20
2	2003/09/22	16:13:44	8.22	9.20
3	2003/09/22	16:13:46	8.23	9.21
4	2003/09/22	16:13:48	8.24	9.21

Cancel < Back **Next >** Finish

Click "Next"

Text Import Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Column data format:

- ☒ General
- ☐ Text
- ☐ Date: MDY
- ☐ Do not import column (skip)

Data preview

General	General	General	General	General
No.s	Date	Time	400hm	40Voltage
1	2003/09/22	16:13:42	8.24	9.20
2	2003/09/22	16:13:44	8.22	9.20
3	2003/09/22	16:13:46	8.23	9.21
4	2003/09/22	16:13:48	8.24	9.21

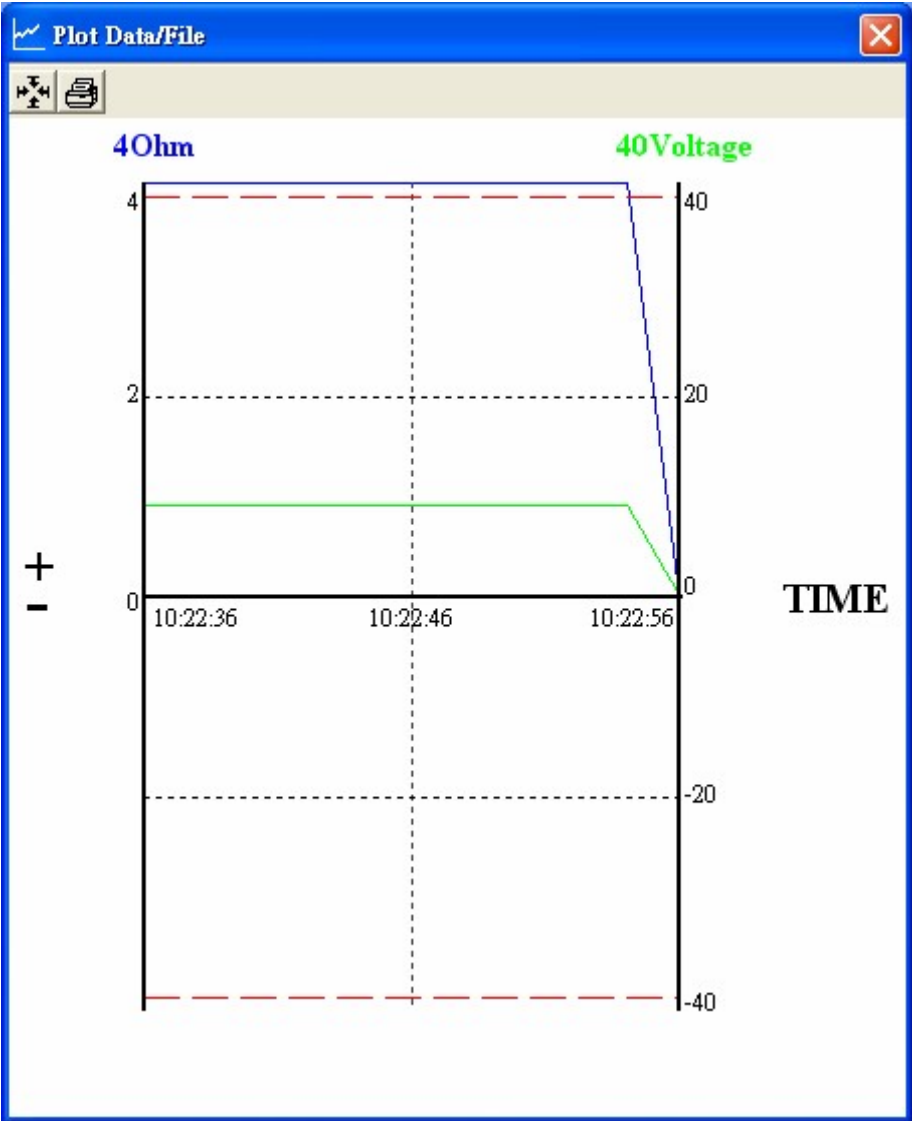
Cancel < Back Next > Finish

Click **Finish** to complete.

	A	B	C	D	E
1	No.s	Date	Time	400hm	40Voltage
2		1 9/22/2003	16:13:42	8.24	9.2
3		2 9/22/2003	16:13:44	8.22	9.2
4		3 9/22/2003	16:13:46	8.23	9.21
5		4 9/22/2003	16:13:48	8.24	9.21
6		5 9/22/2003	16:13:50	8.25	9.2
7		6 9/22/2003	16:13:52	8.23	9.2
8		7 9/22/2003	16:13:54	8.24	9.2
9		8 9/22/2003	16:13:56	8.24	9.21
10		9 9/22/2003	16:13:58	8.24	9.2
11		10 9/22/2003	16:14:00	8.24	9.21
12		11 9/22/2003	16:14:02	8.22	9.2
13		12 9/22/2003	16:14:04	8.24	9.21
14		13 9/22/2003	16:14:06	8.23	9.21
15		14 9/22/2003	16:14:08	8.23	9.2


Apply for Graph

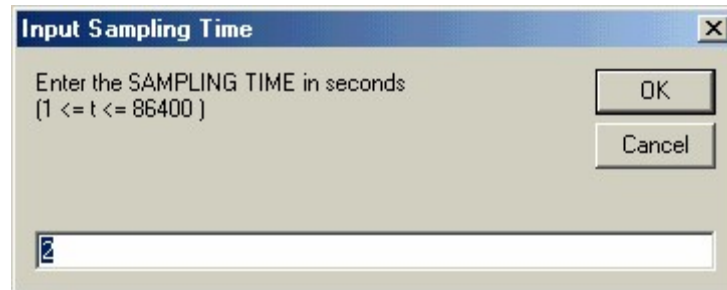
Open a saved data in **HDD** or **EEP ROM**, click  button to complete.



■ Sampling Time

PC Sampling Rate:

Click  button on the **Menu Bar**.



In the **Input Sampling Time** dialog box, input the willing sampling time and then click "OK" button to complete.