Datalogger and RS232 Interface

RS232 Wiring Hardware

RS232 Wiring Diagram

Meter Side
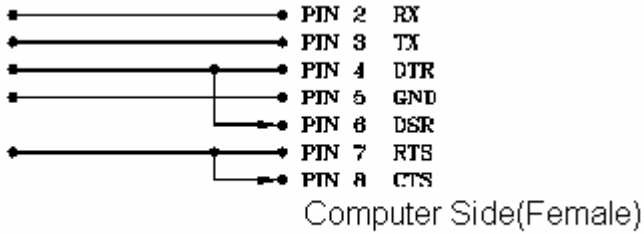

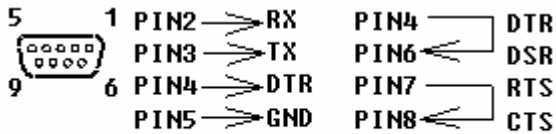**Figure-2**

RS232 Connector Diagram

Figure-3

9 to 25 pins Wiring Diagram

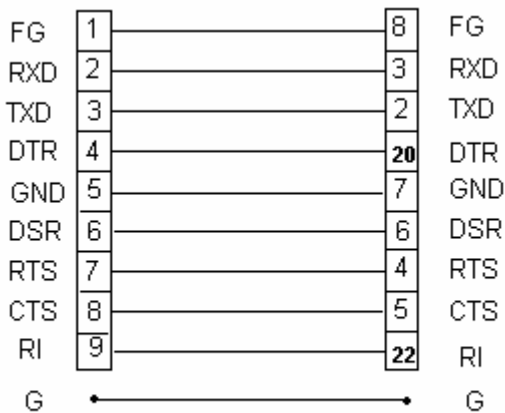If 9 pins COM port is occupied, the 9 to 25 pins connector will be needed.

Figure-4

RS232 Default Settings

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

Baud Rate **9600**

Parity **N**one

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

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0	
----(Ohm)	- (V)	OL(V)	OL(Ohm)		40 V	**00**: 40 Ohm ; **01**: 4 Ohm;		1
					4 V	**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

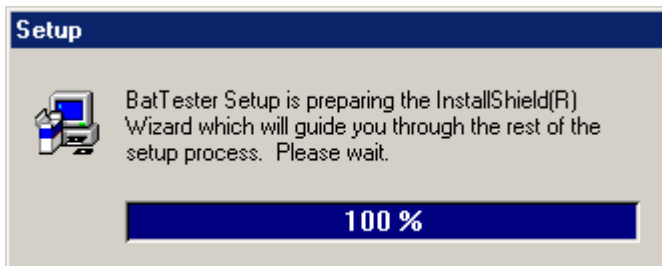4) Connect the socket of RS232 cable to Battery Capacity Tester

Software Requirements and Setup

1) Start up windows 98 / 2000 / XP operating system
2) Close all other applications
3) Insert disk in CD drive

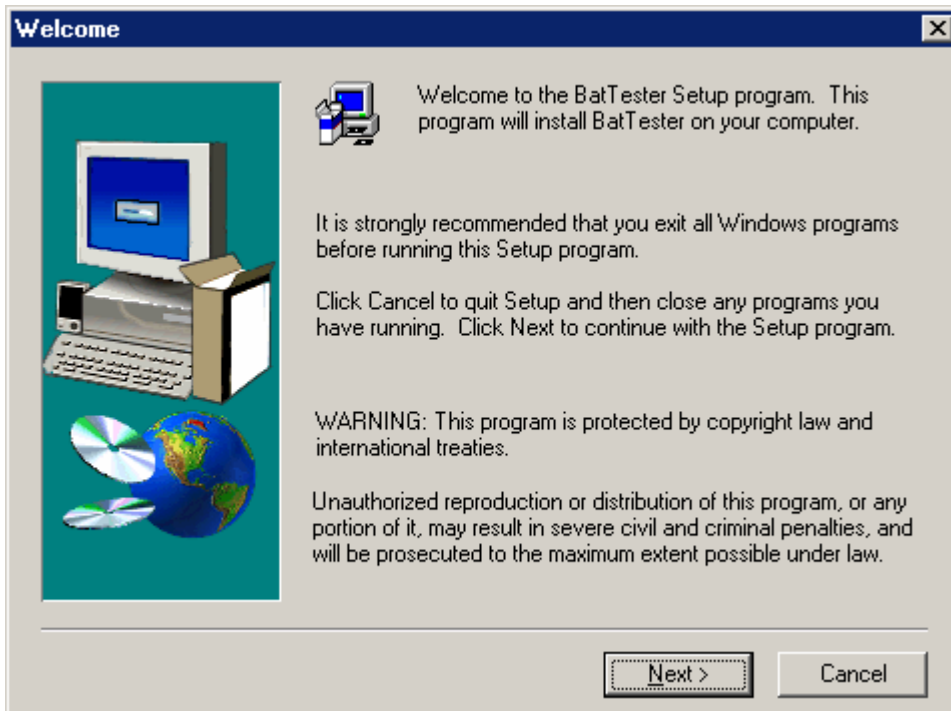Wait for "Autorun" to start and follow on-scree instructions

(If "autorun" does not sart, click on "Start" then "Run". Type the drive letter and

"\ \Disk1\Setup.exe" and click "OK" .)

1).
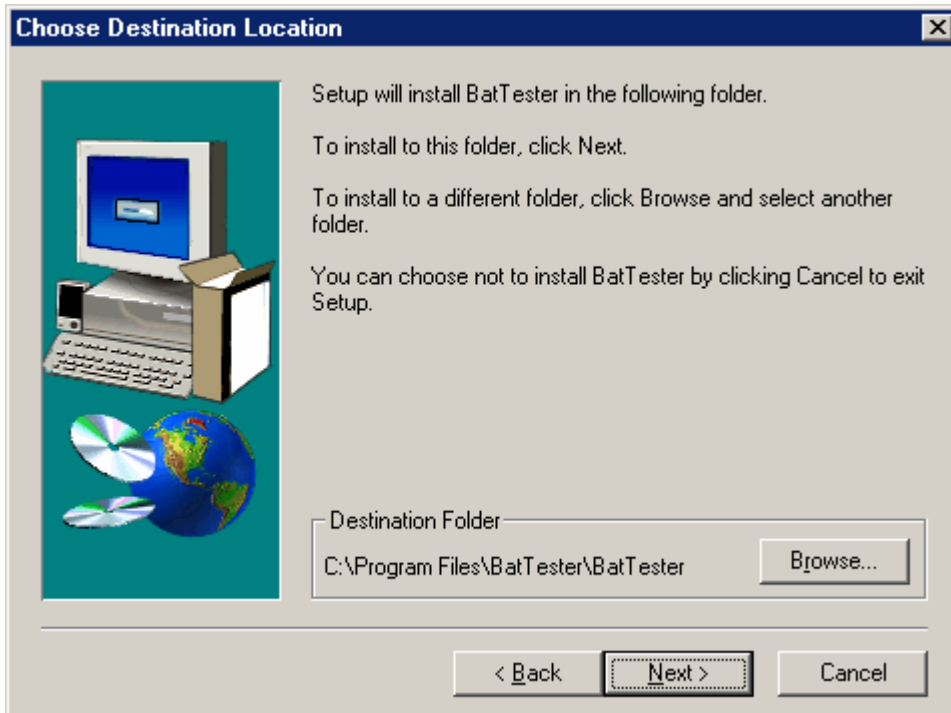

Setup program will run automatically.

2).

Click Next> button

3).

a. Click Next> button to setup on the default folder or

b. Click Browse…button to setup on a different folder

4).

Click Next> button
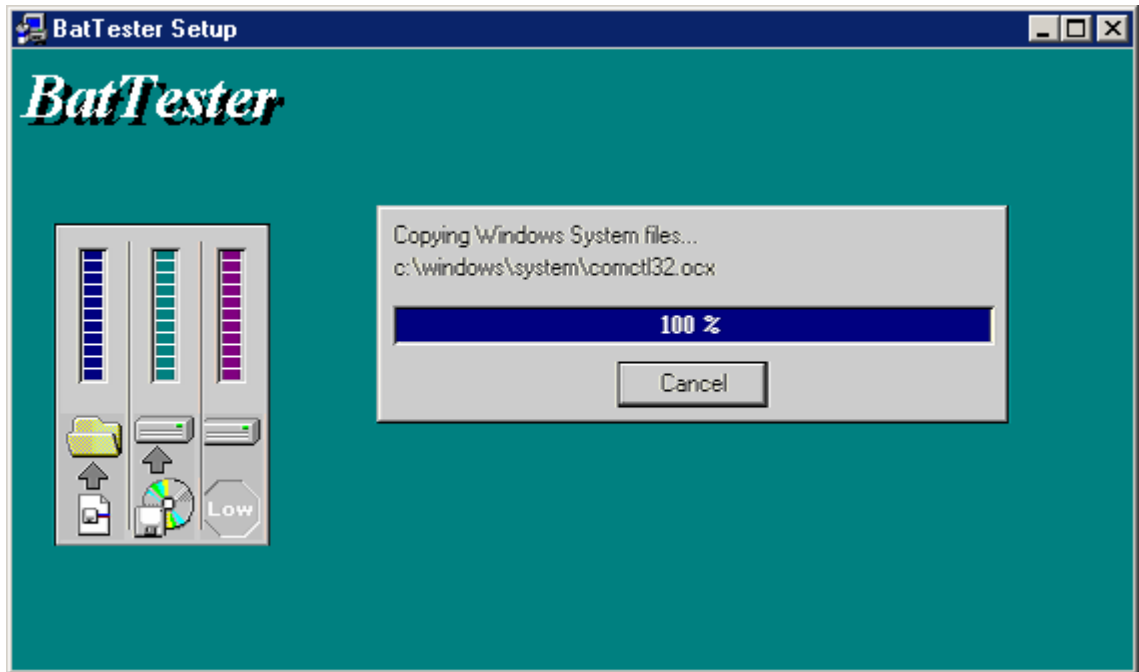
Setup is completed.

Communicating Operation

■ Run the software

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

+
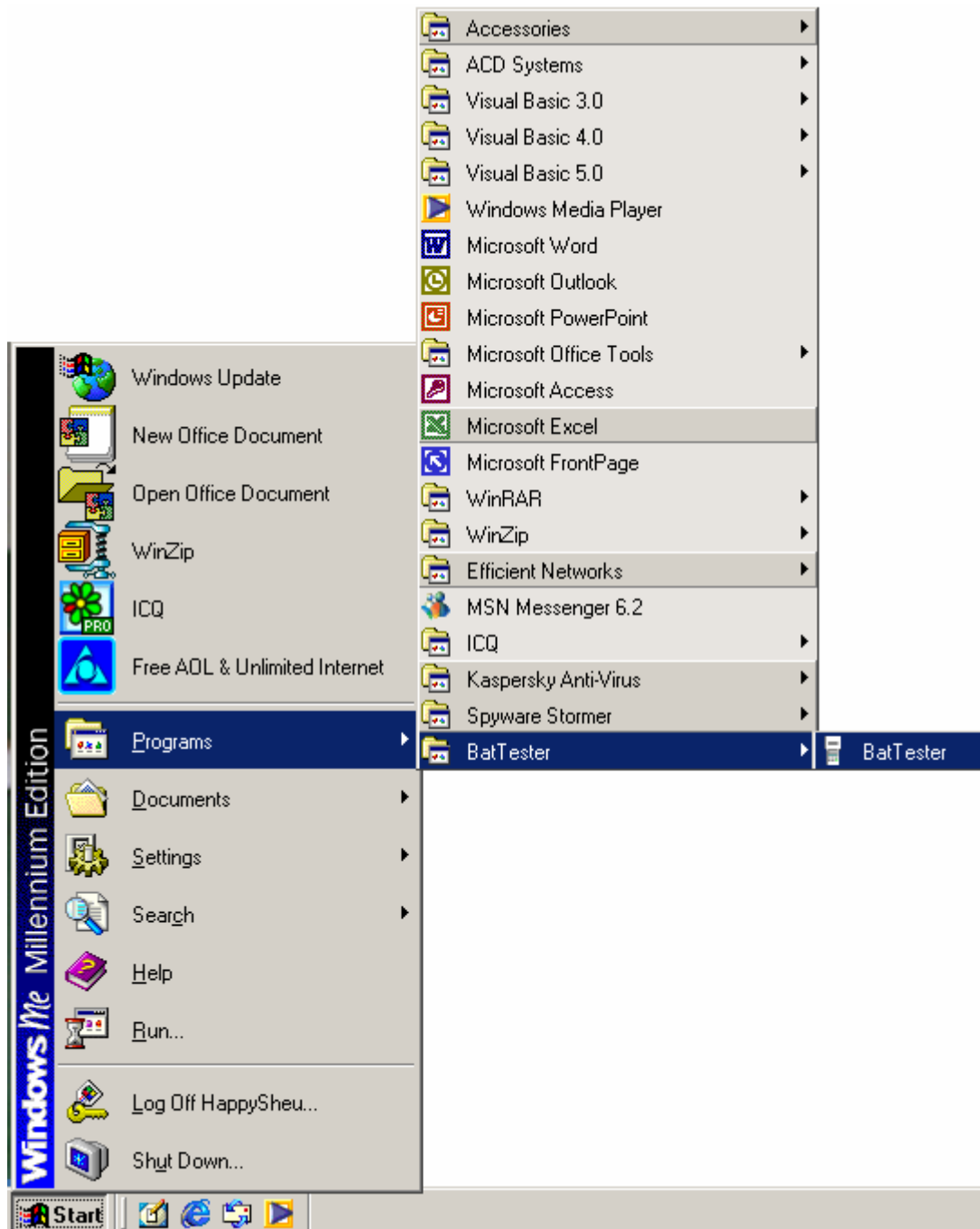
2.

Click an available COM port

3. Main software screen

If no connection, then shows below:

The right bottom side shows "No COM"

■ **Record (Save to HDD)**

Click 🖫 button. The dialog box shown below will appear.

Input a file name and then click "Save" to begin saving data to the file just named.

Click 🛑 button to stop recording.

■ Download Data

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

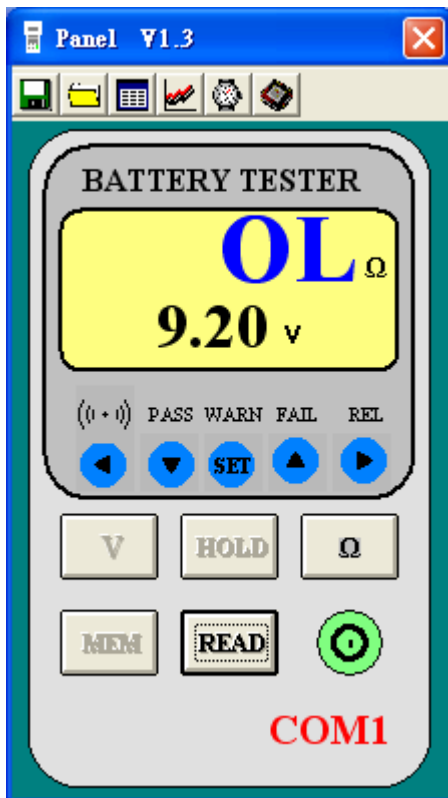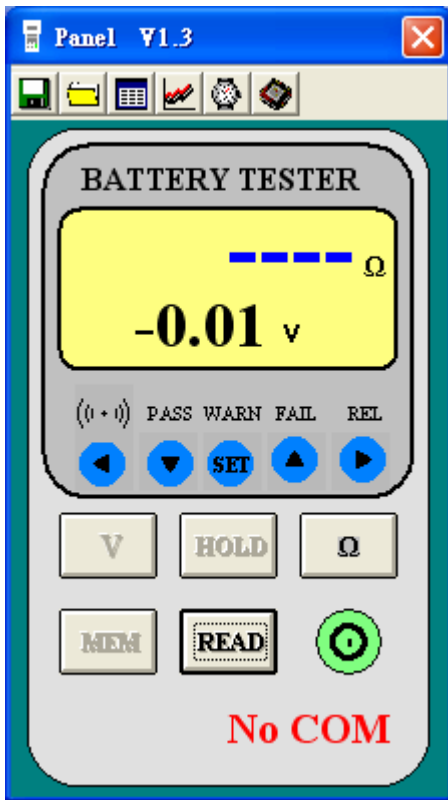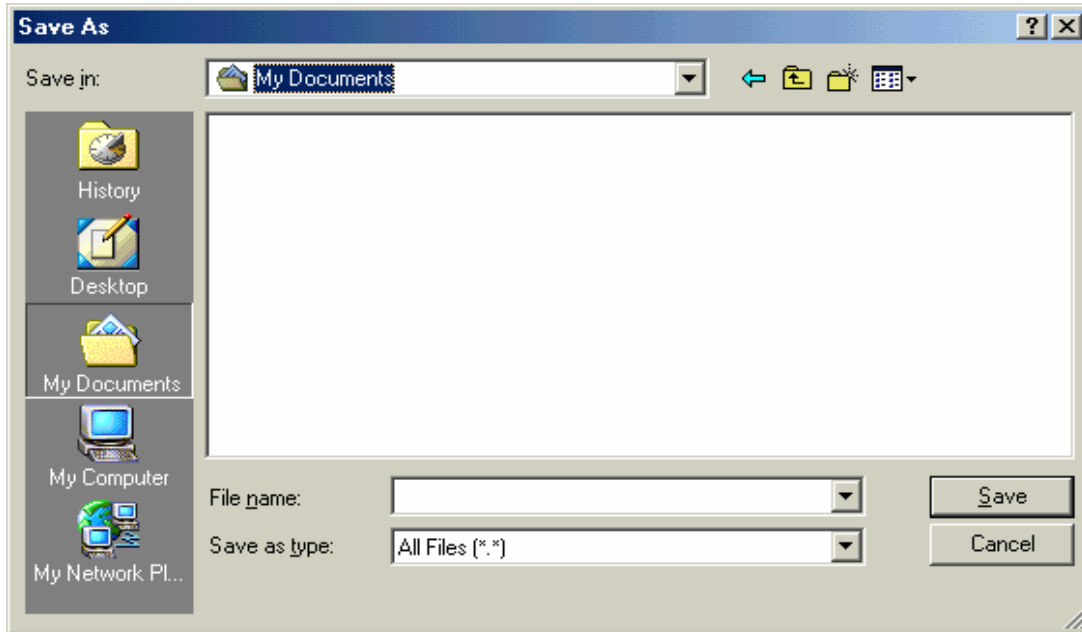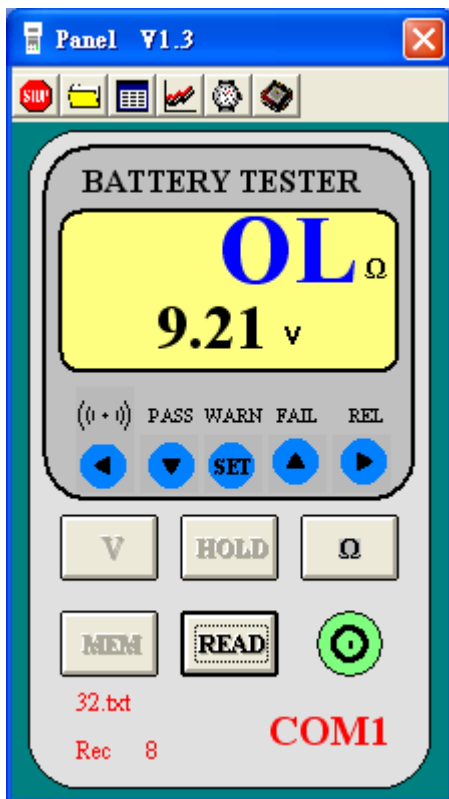Click button. The Data Logger window, shown below, will open.

Data Logger

Memory Size | **Remained** | 100.0% Completed
48.0 K | **46.9K**

No.:	Ohm Range	V Range	Sampling	Records
1	400mOhm	40Voltage	1	9
2	40Ohm	40Voltage	1	13
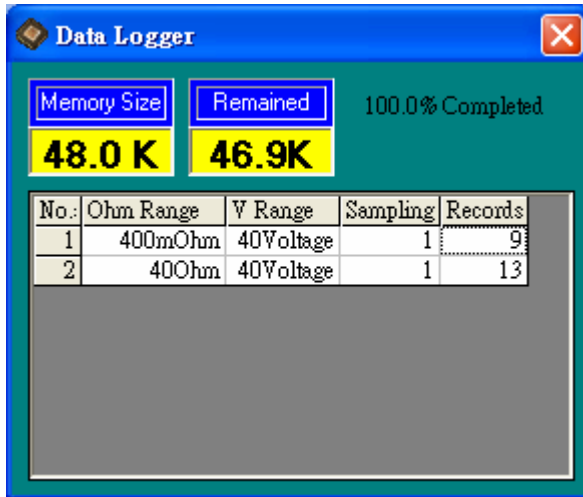
Click on a SET number to view the set's details. For example, in the window above, there are 2 sets from which to choose. The list below is an example of an opened set.

Data List

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
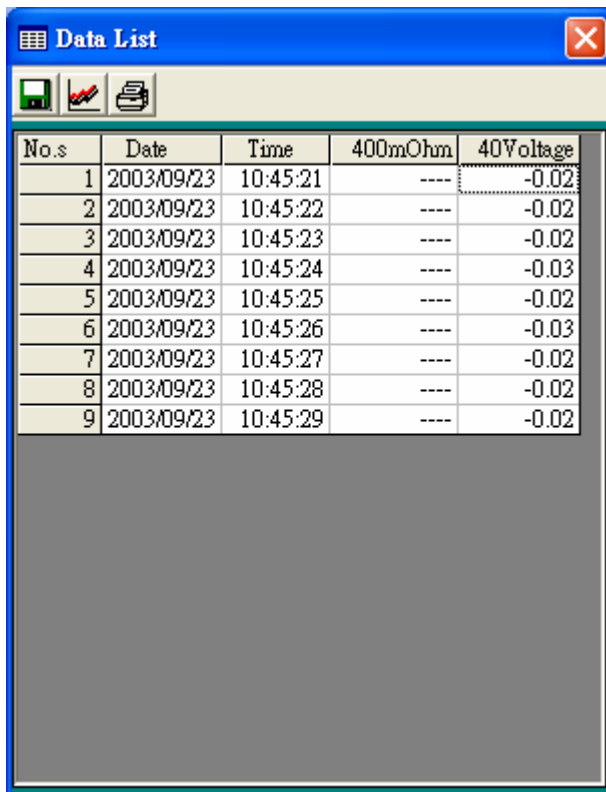
(to read manual recorded data)
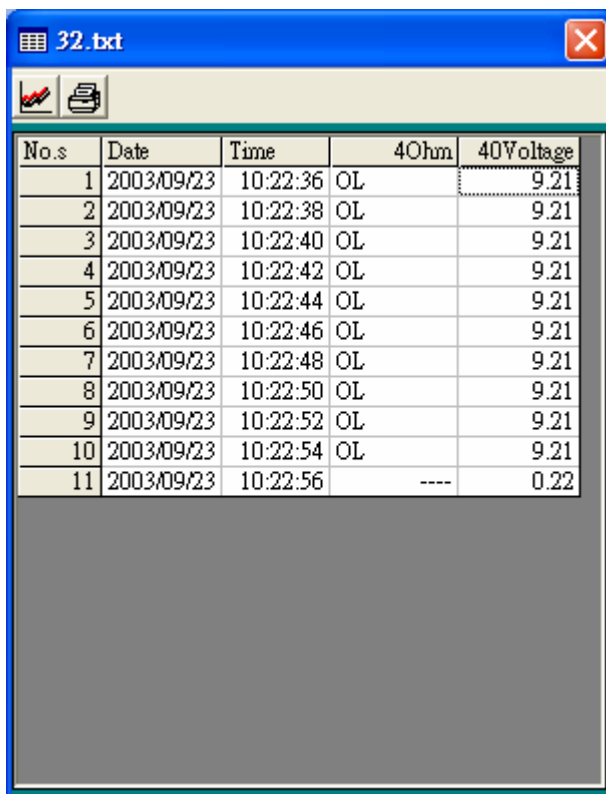
Click **READ** to read details.

1. Download Data from Hard Disk

Click 📁 button. The Open window, shown below, appears
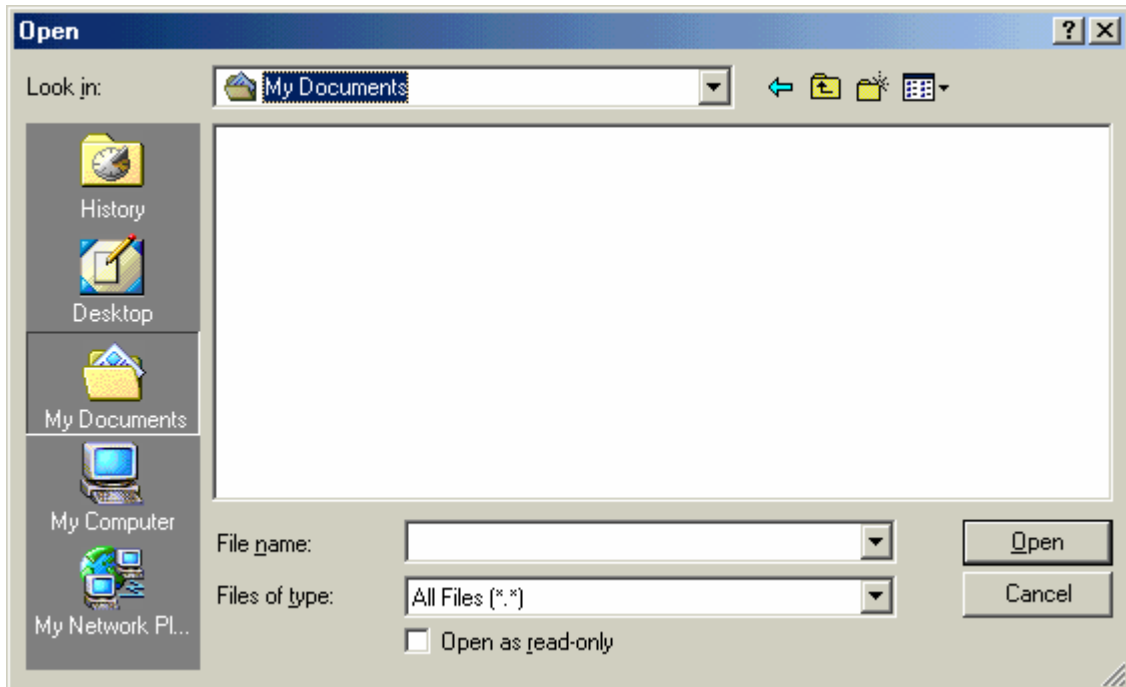
Input the file that was selected earlier and then click the Open button.

No.s	Date	Time	4Ohm	40Voltage
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.
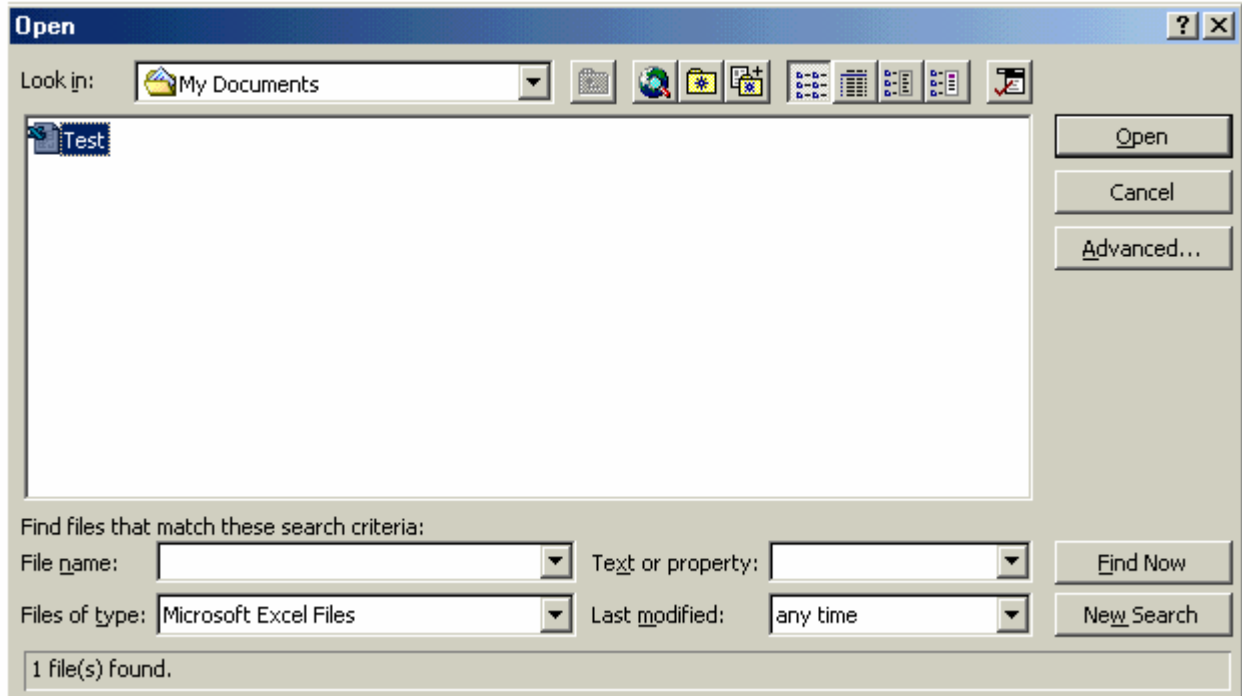
or find any file already saved in HDD, for example, sample.dat.(see below)

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: 1   File origin: Windows (ANSI)

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
```
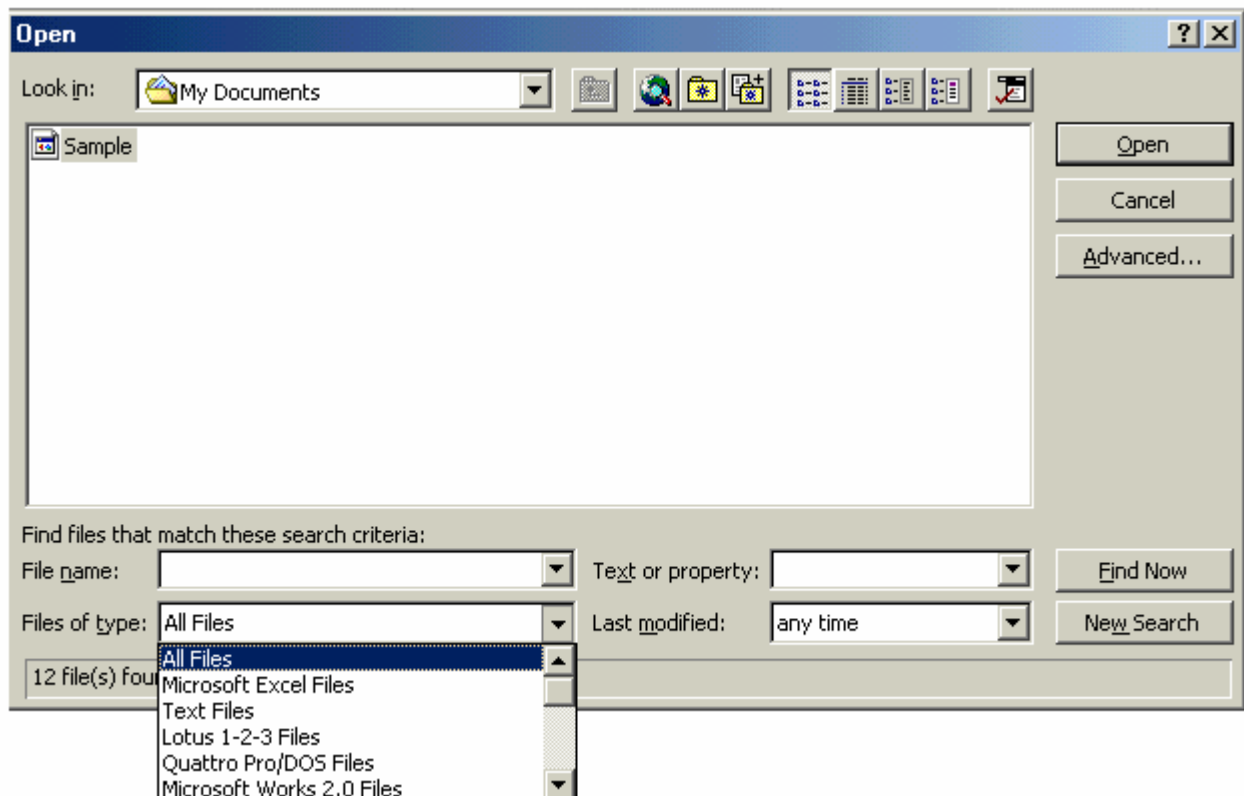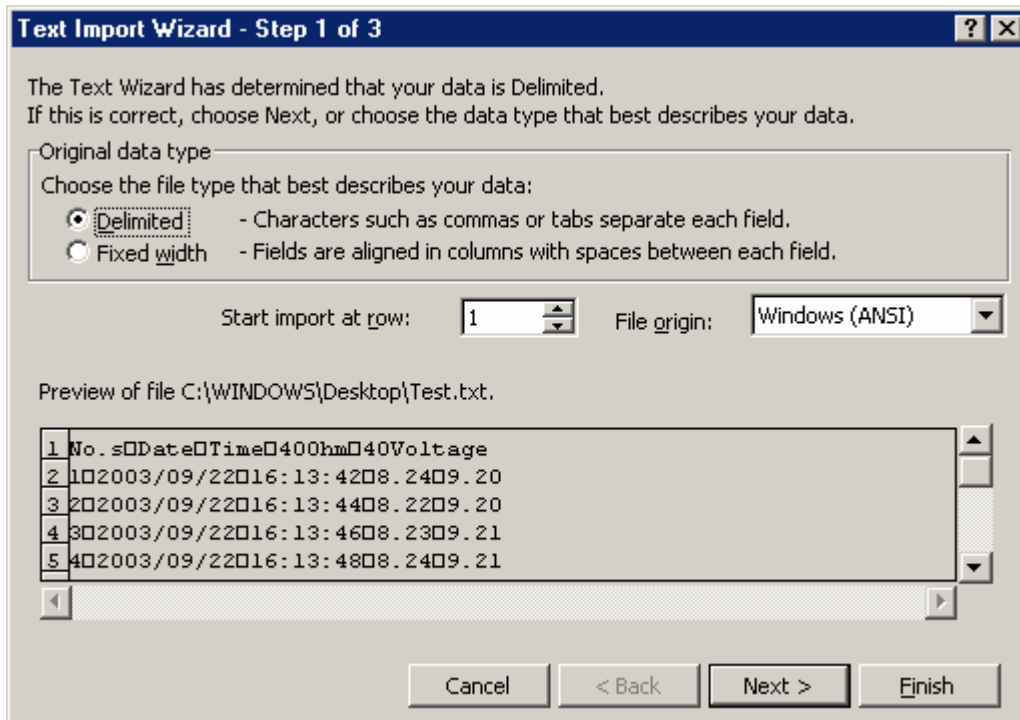
Cancel   < Back   Next >   Finish

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.

Column data format
- ● General
- ○ Text
- ○ Date: MDY
- ○ Do not import column (skip)

Advanced...

Data preview

Gener	General	General	Genera	General
No.s	Date	Time	40Ohm	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	40Ohm	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 [graph icon] button to complete.
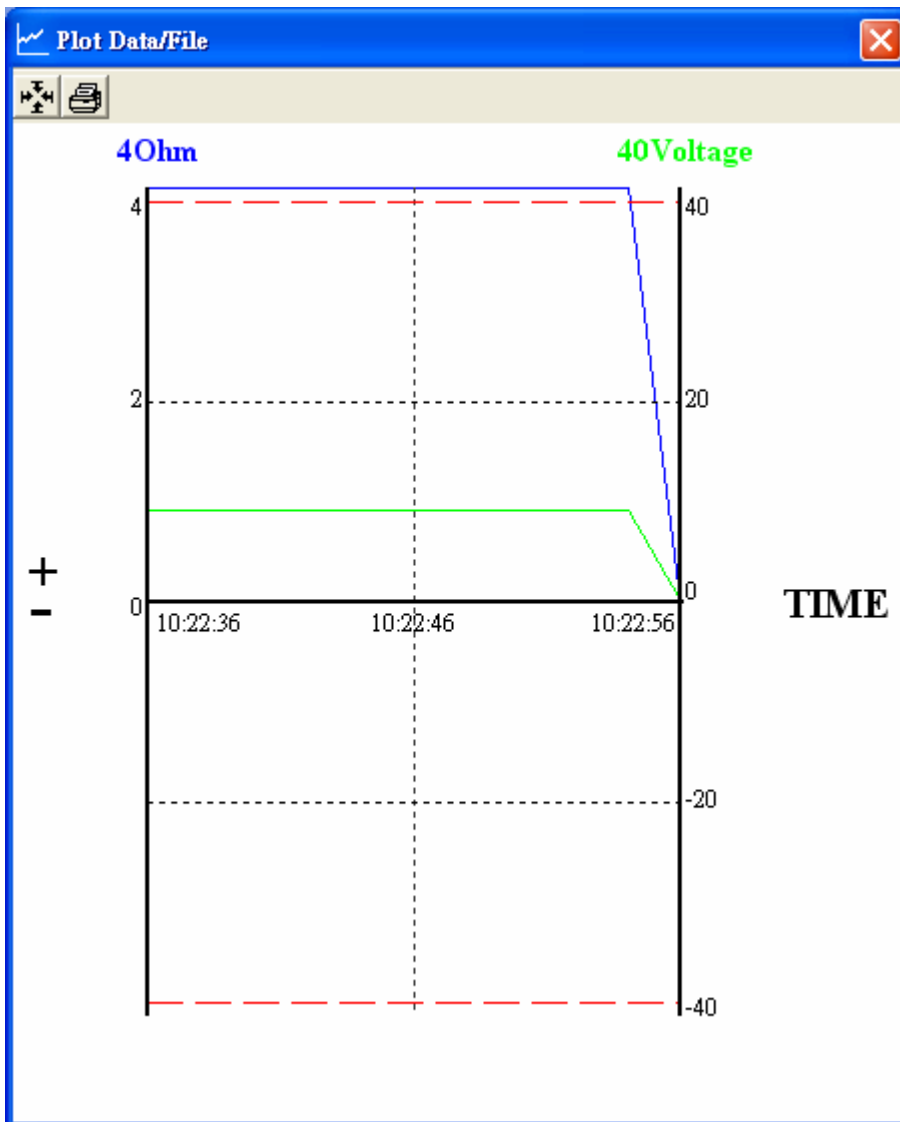
■ Sampling Time

PC Sampling Rate:

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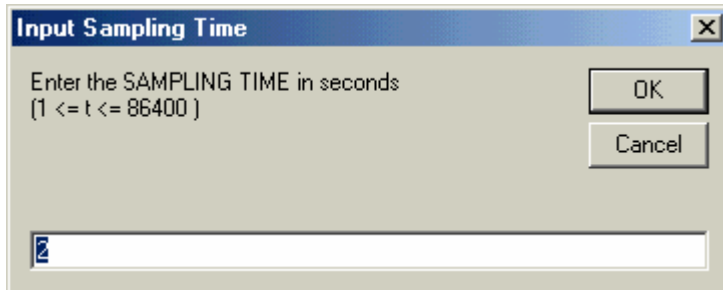
In the **Input Sampling Time** dialog box, input the willing sampling time and then click "**OK**" button to complete.