Zico

Zi-9655

AC Voltage / Current Data Logger
User Manual

Please read this manual before switching the unit on.
Important safety information inside.

www.zicotech.com

Contents

1.Safety Information

⚠ Warning!

Do not attempt to make measurement in flammable gaseous areas!

When testing the non-insulated cable, pay attention to avoiding short circuit.

Do not attempt to use the instrument when your hand is wet!

Do not input over range during measurements.

Never open the battery cover during measurements.

Stop using the instrument when there is any structural defect or exposed metal parts.

Do not install substitute parts or make modifications on the meter.

Never replace the battery in moist areas.

Ensure the meter is disconnected and switch off before opening the battery cover to replace the battery.

Do not attempt to place the instrument in quavering or walloping areas.

Do not get the meter close to floppy disk, magnetic force card, computer or display which will be easy influenced by the magnetic force of the magnet at the back of the meter.

Do not expose the meter to direct sunlight, high temperature and moisture environment.

Switch off the meter after use. When the meter will not be used for a long period, keep storage after removing the battery.

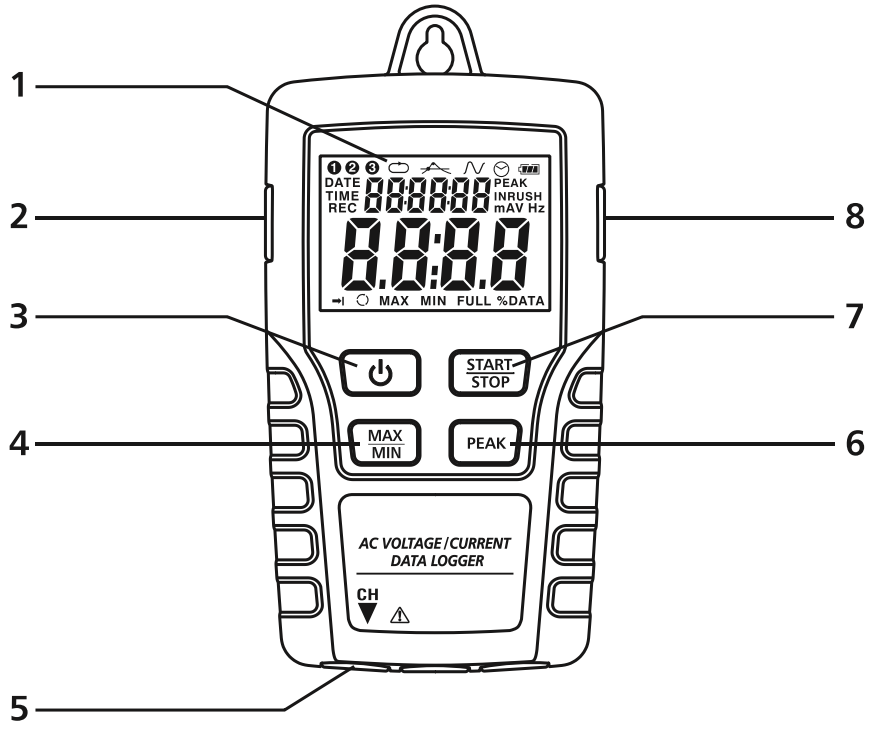
When cleaning, do not use abrasives or solvents on the meter, use a damp cloth and mild detergent only

2.Specifications

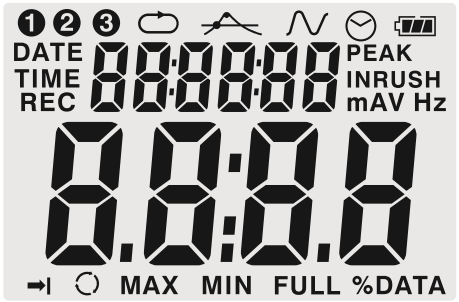
This meter is designed and produced according to IEC61010 safety standard, and leave factory with best status after passed inspection.

Channel	Single-Channel input
RMS	Measure and record virtual value of voltage and leaked current of AC cycle signal. (100,096 data)
Accuracy	Voltage 10V~600V (40Hz ~ 1kHz) ± 2% ± 1V Current 10A~200A (50/60Hz) ± 2% ± 1A
Wave record	Record the wave which exceeds the set Voltage/Current (764 data)
RTC	Real time display, calibrated with software. (If the time is still not correct after power on again, please disconnect all the measurement, and switch off the meter. Open the back cover and replace the 3V button battery, and then recalibrate it.)
MAX/MIN	maximum and minimum reading hold
Data output	USB output

3.Instruction



1.LCD



❶❷❸ Channel display, showing the present channel (It will not be displayed when there is only one channel.)

Ordinary RMS record Mode

Capture record mode selected. Record the wave of the time when the set value is exceeded.

Time power off setting, the meter will automatically shuts off after 5mins without any operation.

PEAK Average peak measure and record mode selected (about 195ms)

REC Recording status. After the record mode set, press the START/STOP button for more than 4 seconds, this sign will be displayed. It means the meter is recording data. Press the same button again for more than 4 seconds to stop recording.

Data in memory is full, no more data can be recorded.

Record with circular mode, the data in memory will keep updating.

FULL Memory full and stop recording.

Battery sign, when display completely, it means battery power is full. When there is only a frame icon displayed, it means the battery is exhausted and should be replaced with a new one.

2.AC adaptor
AC---DC 9V

3.ON/OFF
Press the button to switch on/off the meter.
Note: Do not press this button when recording data.

4.MAX/MIN
Press the button one time to display MAX and reading the maximum value of the measurement. Press again to display MIN and read the minimum reading. The third press will exit MAX/MIN mode. The meter will automatically exit MAX /MIN mode in 10 seconds if no pressing.

5.COM
Insert the current/voltage sensor to this COM to measure and record the corresponding data.

6.PEAK HOLD
It is invalid to press this button in PEAK recording mode. In the non-PEAK measurement, press PEAK HOLD button to show the average Peak value of the present value. Press the button again to exit PEAK display. The meter will automatically exit in 10s if no pressing.

7.START/STOP
Press the START/STOP button for one time, data pause. Press again to get back display. After setting record mode, press this button for more than 4 seconds and then release it after REC is shown on LCD, then the meter will measure and record data according to the setting mode.

8.USB interface
USB signal output is a 115200 bps serial interface.

4.Software Introduction

1. Put the CD into the CD-ROM, there will be installation interface pop-up after a moment. You can install the software to your PC accordingly.
2. After the software is installed, keep the CD in the CD-ROM and connect the datalogger with the PC by the USB cable. Then, there will be a USB Driver installation window pop-up. Follow with the clew, select the path of CD driver and you will finish the USB driver installation very soon.

The Datalogger USB software is a program for collecting data from the DATA LOGGER when it is connected to a PC or notebook computer. The data may be displayed graphically, as Excel or similar programs. The major functions are all listed in the main window.

The maximum number of data points is 100,096.

System Required:
Windows 2000 or XP or Vista

Minimum Hardware Required:
PC or NoteBook with Pentium 90MHz or higher 32 MB RAM;
At least 7 MB byte hard disk space available to install Datalogger USB software.
Recommended display resolution 1024X768 with High Color(16 bit).

5.Main Menu

File
Save: Save the recorded data to the disk.
Open: Open a saved file.
Print Setup: Change the printer and printing options.
Print Preview: Print preview the graph or the list.
Print: Print the graph or the list.

Instrument
Correct Time: Correct the DATA LOGGER TIME.
Datalogger Setup: Setup the DATA LOGGER Recording Mode, Normal/Peak samprate,Auto Power off,Circulate Logging and CAP Detection Level.
Download Data: Download data from the DATA LOGGER .
Import Data To List.
Previous Measurement: Import the previous measurement data.

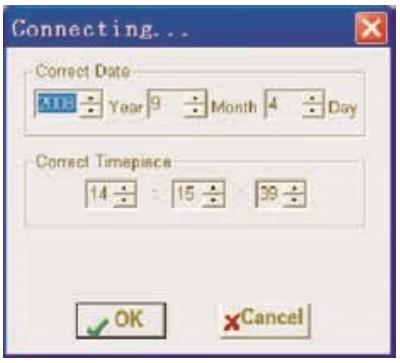
Window
Instrument: Show or hide the instrument window.
Infor Dialog: Show or hide the infor dialog window.

Help
About: Show the version information of the Datalogger Software.
Help Topics: Show the software help document.

6.Operation

Correct Time

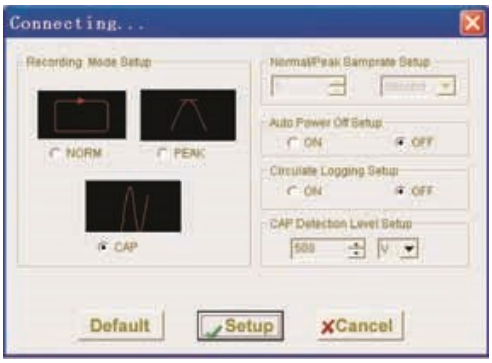
If you find the DATA LOGGER time is not correct,you can click the icon to open the Correct Time Dialog:



Input the correct date and correct timepiece and click "OK"button,the DATA LOGGER time will update.

Datalogger Setup

Click on the icon on the menu bar. The Setup window will appear as shown below; descriptions for each field in the Setup window are listed directly below the illustration:



- The LOGGER recording mode can be set as NORM,PEAK or CAP.
- The Normal/Peak Samprate Setup field instructs the Data Logger to log readings at a specific rate. You can input specific data at the left Edit box,and select the time unit at the right Combo box.

  This function is available at NORM and PEAK mode.
- Startup or close auto power off function .
- Startup or close circulating record.

  If the circulating record function is started, DATA LOGGER will continue logging data to cover the earlier data when it is full.

If the circulating record function is closed,data Logger will stop logging when it is full.

- CAP Detection Level Setup

You can input specific data at the left Edit box,and select the level unit at the right Combo box.

This function is only available at CAP mode.

Click on the SETUP button to save changes. Press the DEFAULT button to set the Logger to factory default condition. Press the CANCEL button to abort the setup.

Notes: Any stored data will be permanently erased when Setup is finished. To enable you to save this data before it is lost, click Cancel and then you need to download data.

Datalogger Download

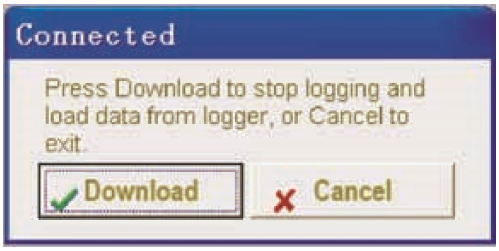
To transfer the readings stored in the Logger to the PC:

1.Connect the datalogger to the same USB port used when the datalogger was initialized.

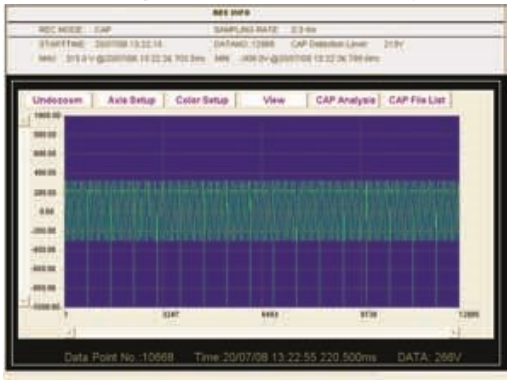
2.Open the datalogger software program if it is not still running

3.Click the download icon .

4.The window shown below will appear. Press download to begin transferring readings.



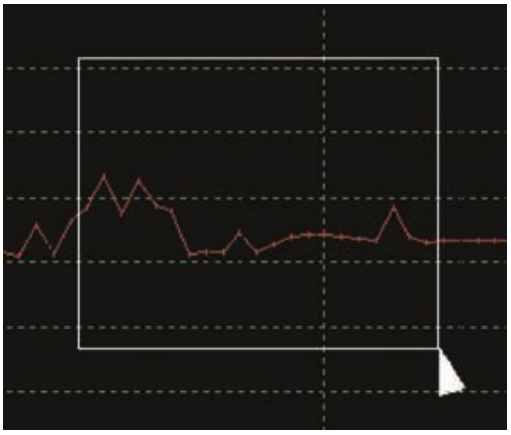
If readings are successfully transferred,the Data graph window will appear.



The top field show detail infomation of the readings(REC MODE ,SAMPLING RATE, START TIME,DATANO,CAP Detection Level, Record Max data,Min data),

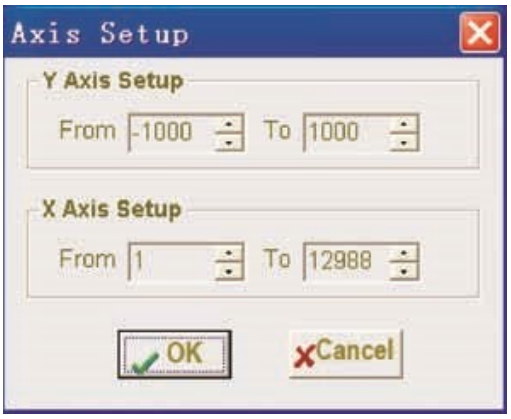
Zoom in:

1.Press the left mouse button and drag a rectangle around the area to be expanded.
2.Release the mouse button.
3.Use the horizontal scrollbar to scroll through all the data.
Use the left vertical scrollbar to scroll through the data point.



Zoom out: Zoom out to full view by clicking 

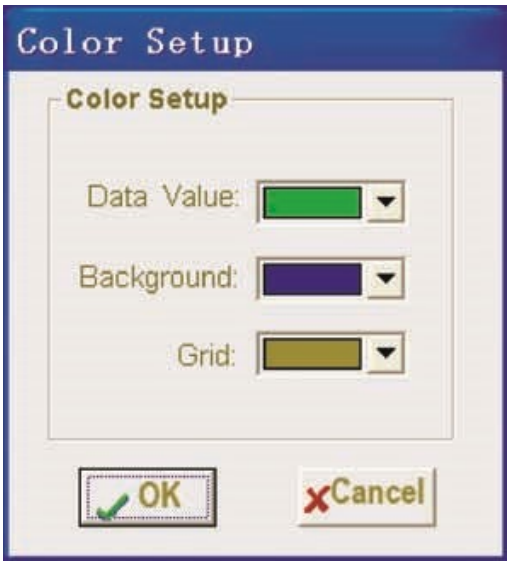
Setup the X Axis and Y Axis.



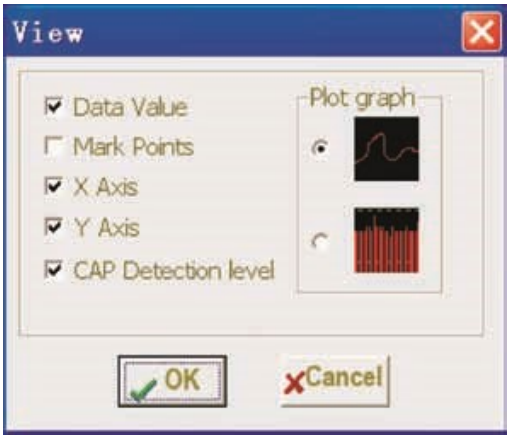
Y Axis Setup:Input the required data value.
X Axis Setup:Input the required data points.

You will get the graph corresponding to this setting.

Color Setup Setup the data value color,background color and grid color.

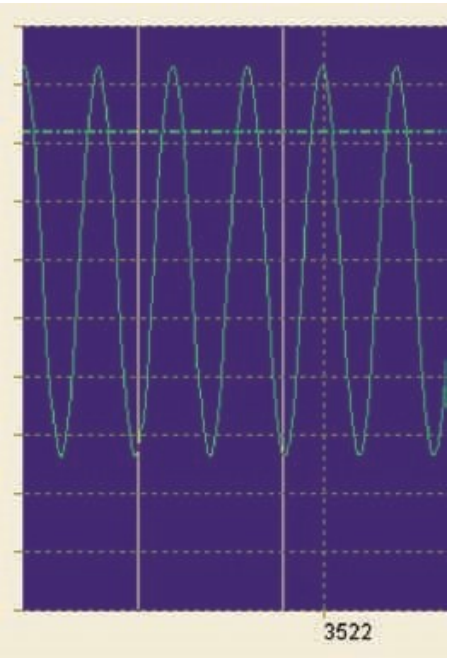


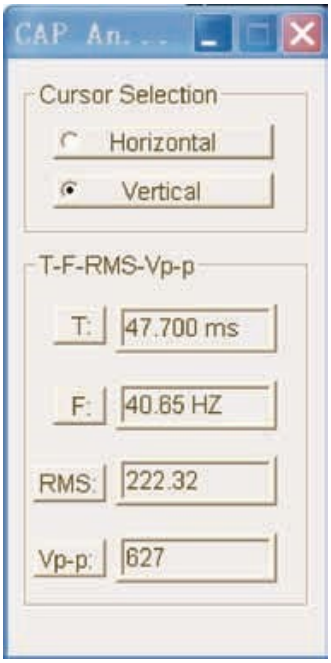
View Customize the graph window



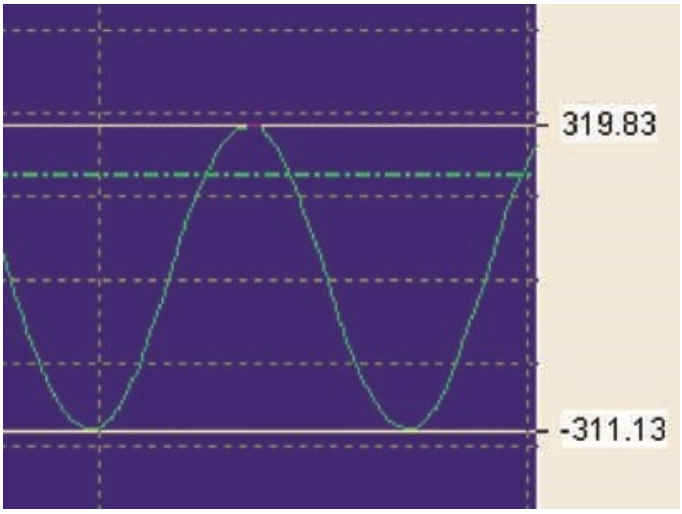
Allows the user to select which data to view as a trace and the graph type.
Add or remove grid lines from x and y axes.
Mark Points: Places dots on the traces for the actual data points, breaking up the continuous nature of a trace.

CAP Analysis Analysis the time,frequent,RMS and the Vp-p of the wave graph. This function is only available at CAP mode.

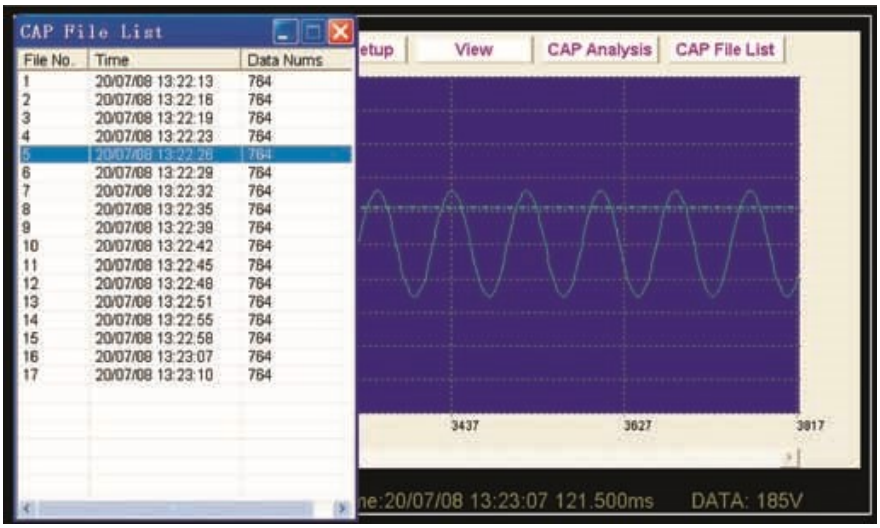




Select Vertical cursor,and click the right mouse button on the wave graph,the dialog will show the T,F,RMS and the Vp-p of this file wave graph.
Select horizontal cursor,and click the right mouse button on the wave graph,the panel will show the specific data value of the cursor.



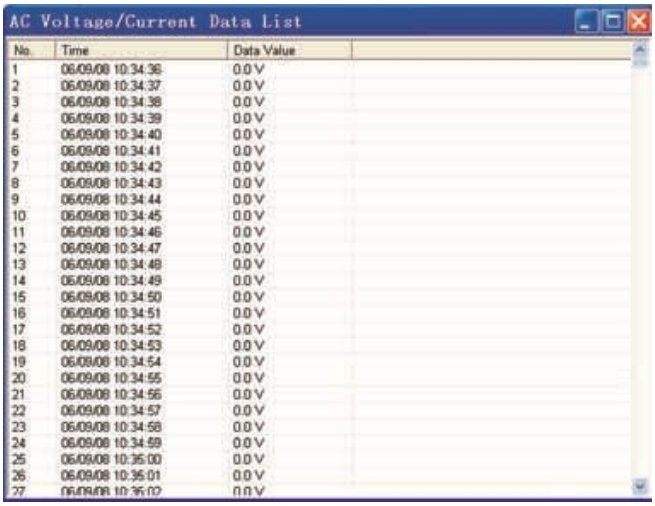
CAP File List Get the file list of the wave graph.



Click any list to get the wave graph of this file.

Import data to list

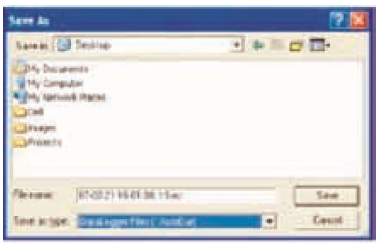
Click the list icon to import data to list.



It shows specific time and data.

File save and open

1.Click the icon to open the file save dialog box.



2.Name the file and save it with the default extension. The file will be saved with the ".avdata" extension to be reopened in the Datalogger software program and also as a ".xls"file to be opened in spreadsheet program or other word processing program.

To open an existing data file for viewing on the data graph window, click on the  icon. When prompted, select a ". avdata" file saved earlier.

Print graph and list
Click the icon  to print the graph.
Click the icon  to import data to list,then click  to print the list.

Notes

Notes

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