

# DL160 Datalogger Software Guide



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

## System Required:

Windows 7, 8, and 10

## Minimum Hardware Required:

PC or Laptop with Pentium 90MHz or higher 32 MB RAM ;

At least 7 MB hard disk space available to install Datalogger USB software.

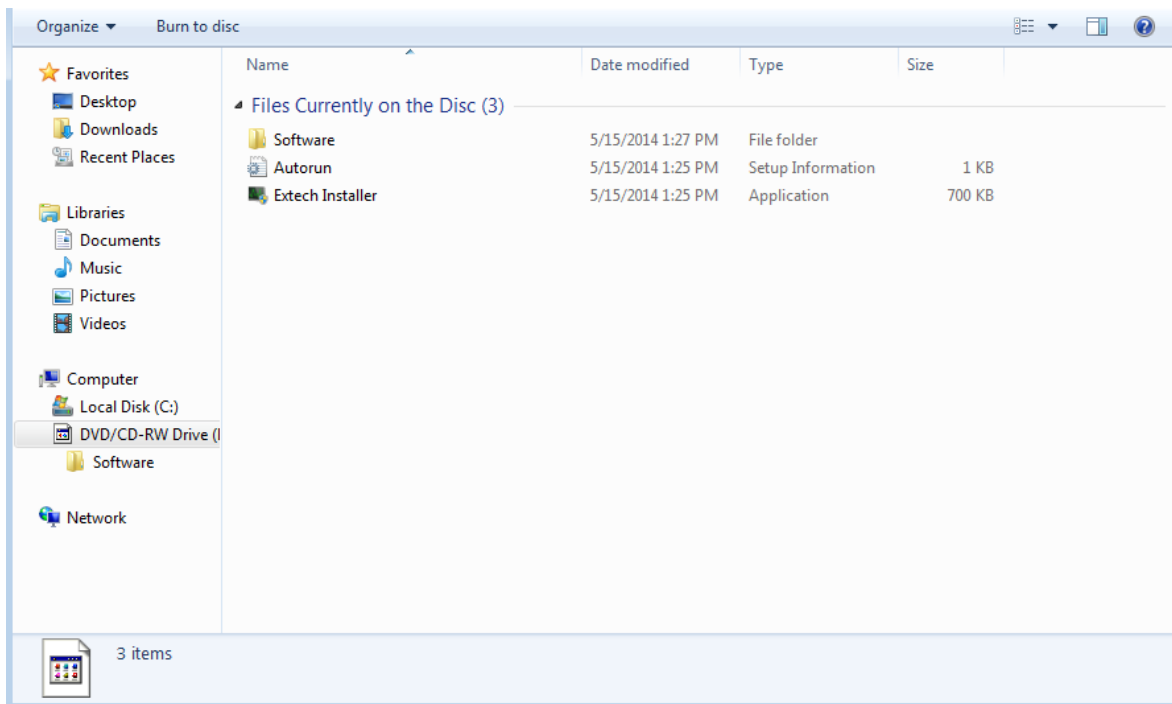
Recommended display resolution 1280X1024 with High Color(16 bit).

## Installing the Software

Insert the disk into the CD drive. An Autorun window should appear.

Run the **Extech Installer.exe**. If the Autorun message does not appear, navigate to the CD, under My Computer.

In the CD find the **Extech Installer.exe** and double click it to run it.

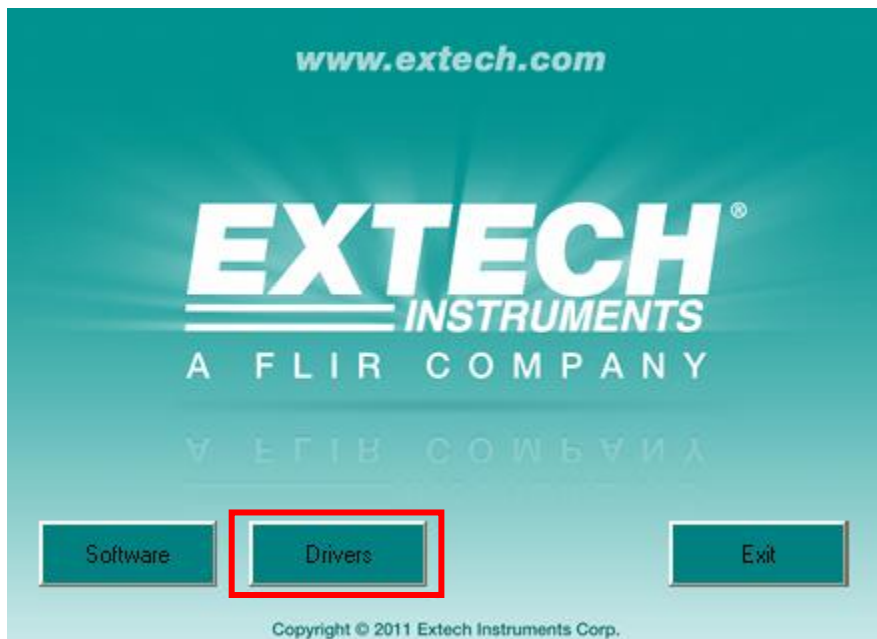


Once the application has started the following menu will appear.

Select the Software button to begin the installation of the device software.  
Proceed through the software installation wizard selecting the default settings.



Select Drivers button to begin the installation of the device driver.  
Proceed through the software installation wizard selecting the default settings.



# 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 Data List
- Exit** – Exit the DL160 program

- **Instrument**

- Correct Time** - Correct the DATA LOGGER TIME
- Datalogger Setup** - Setup the datalogger sampling rate, Auto Power off, and continuous or single pass datalogging
- Download Data** - Download data which has been stored in the datalogger
- Import Data to List** - Import data to a list for saving or printing
- Previous Measurement** - Display the data from the most recent data file

- **Window**

- Instrument** - Show or hide the instrument side pane
- Info Dialog** - Show or hide the Top information dialog window of the Graph

- **Help**

- About** - Software version information
- Help Topics** - Launch the help document


**The DL160 can record up to a maximum of 262144 data points.**

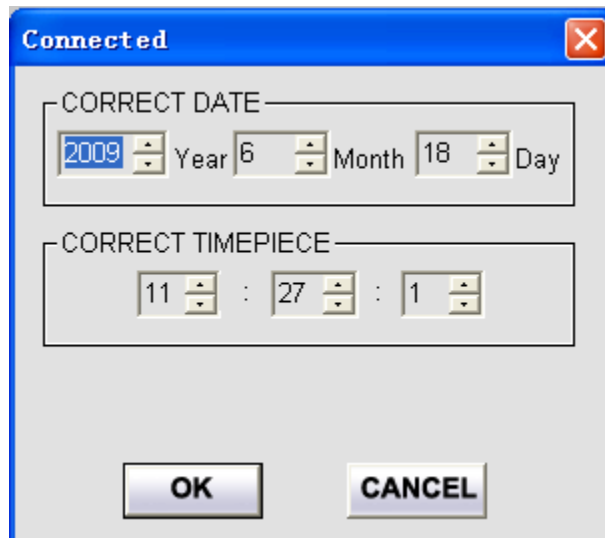
That is 262144 data points for one channel of recording data (1 cable plugged in) or 131072 data points for recording two channels of data (2 cables plugged in)

Note: if the power line is noisy, Transients (TR) will be recorded and the total number of data points recorded will be reduced.

# Operation


## Correct Time

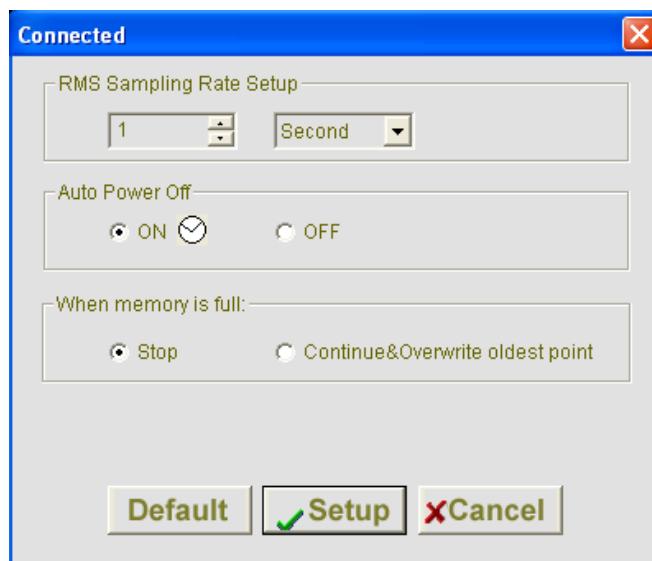
Set the DATA LOGGER Date and Time, click the icon  to open the Date / Time Dialog:



The Date and Time appear based on the PC Date and Time.  
Click "OK" to set the DATA LOGGER Date and Time to match these settings.

## 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:



**RMS Sampling Rate Setup:** Set the sample rate for how often to take a measurement.

**Auto Power Off:** Enable or disable the auto power off function.

Note: When logging, Auto power off is disabled.

**When memory is full:**

If STOP is selected, the datalogger will stop logging when the memory is full.

If Continue & Overwrite is selected, the data will overwrite the existing data and continue logging.

Click **SETUP** to save the changes and erase all previously stored data.

Click **DEFAULT** to set the Logger to factory default condition.

Click **CANCEL** to abort the setup.


Note: All stored data will be permanently erased when the Setup button is Pressed.

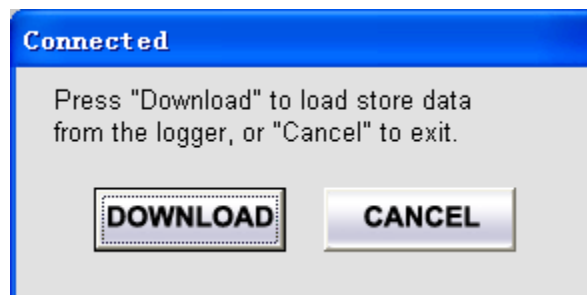
To save the recorded data before it is lost, click Cancel and Download the recorded data.

Note: Fresh batteries will last about 5 days. Replace the batteries before logging starts or connect the AC power adapter to ensure that the logging operation will complete successfully.

## Download Stored Data

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

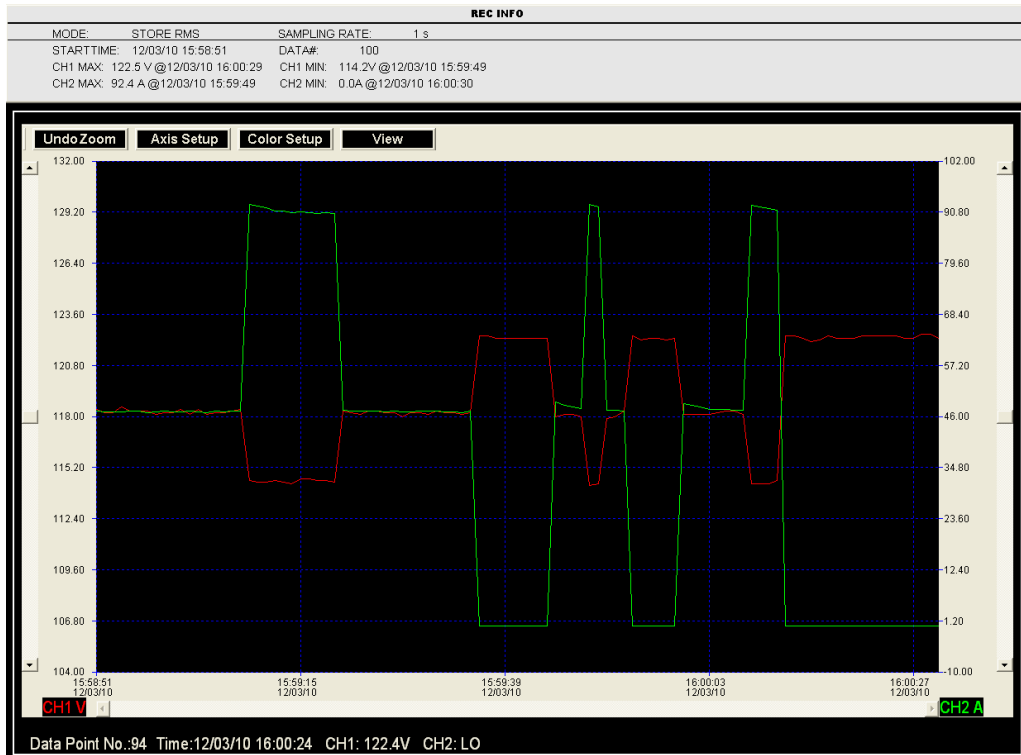
1. Connect the DATA LOGGER to the USB port.
2. Start the Datalogger software program.
3. Click the Download icon .
4. Press the DOWNLOAD button to begin transferring data.



If data is successfully transferred, the Data graph window will appear.

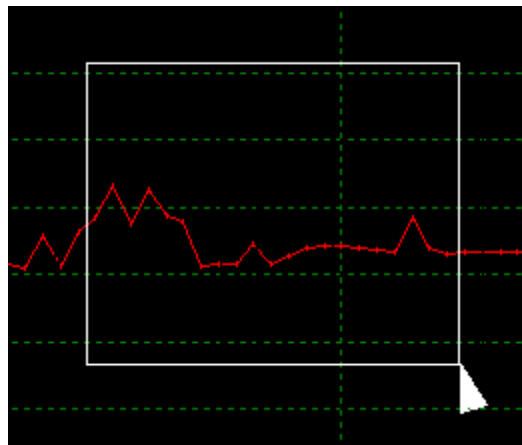
The top field shows detailed information: (MODE ,SAMPLING RATE, START TIME,DATA#, Max data, Min data),

The lower field displays the data at the cursor location.



**Zoom in:**

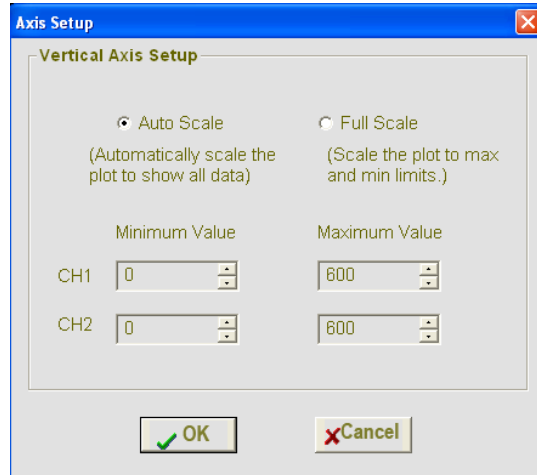
1. Press the left mouse button and drag a rectangle around the area to be expanded.
2. Release the mouse button.
3. Use the horizontal scrollbar to scroll through all the data.
4. Use the vertical scrollbars (CH1:left, CH2:right) to scroll a data point.



**Zoom out:** Zoom out to full view by clicking **UndoZoom**

## Axis Setup

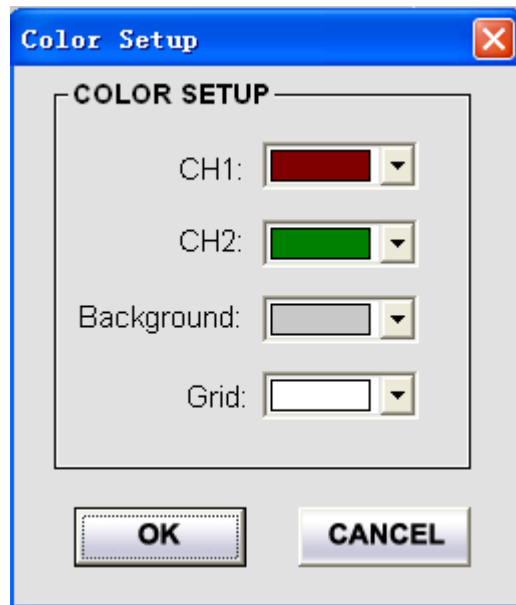
Setup the X Axis.



Select "Auto Scale" to allow the program to scale the vertical axis.  
Select "Full Scale" to set the Minimum and Maximum scale values manually.

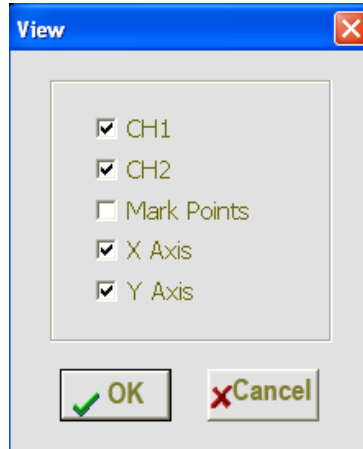
## Color Setup

Setup the CH1 data color, CH2 data color, background color and grid color.



## View

Customize the graph window.



- Select which channels to display
- Add or remove grid lines from X and Y axes.
- Mark Points: Show the actual data points.

## Import data to list

Click the list icon  to import data to a list.

It shows specific Date (dd/mm/yy), time, and data values.


REC INFO				
MODE:	STORE RMS	SAMPLING RATE:	1 s	
STARTTIME:	12/03/10 15:58:51	DATA#:	100	
CH1 MAX:	122.5 V @12/03/10 16:00:29	CH1 MIN:	114.2V @12/03/10 15:59:49	
CH2 MAX:	92.4 A @12/03/10 15:59:49	CH2 MIN:	0.0A @12/03/10 16:00:30	

STORE RMS Data List				
No.	Time	CH1	CH2	
1	12/03/10 15:58:51	118.4 V	47.1 A	
2	12/03/10 15:58:52	118.2 V	47.0 A	
3	12/03/10 15:58:53	118.2 V	47.0 A	
4	12/03/10 15:58:54	118.5 V	47.0 A	
5	12/03/10 15:58:55	118.3 V	47.1 A	
6	12/03/10 15:58:56	118.3 V	47.2 A	
7	12/03/10 15:58:57	118.3 V	46.9 A	
8	12/03/10 15:58:58	118.1 V	47.0 A	
9	12/03/10 15:58:59	118.2 V	47.1 A	
10	12/03/10 15:59:00	118.2 V	47.0 A	
11	12/03/10 15:59:01	118.4 V	47.0 A	
12	12/03/10 15:59:02	118.1 V	47.1 A	
13	12/03/10 15:59:03	118.4 V	47.0 A	
14	12/03/10 15:59:04	118.1 V	46.9 A	
15	12/03/10 15:59:05	118.2 V	47.1 A	
16	12/03/10 15:59:06	118.2 V	47.0 A	
17	12/03/10 15:59:07	118.3 V	47.2 A	
18	12/03/10 15:59:08	118.4 V	47.1 A	
19	12/03/10 15:59:09	114.5 V	92.4 A	
20	12/03/10 15:59:10	114.4 V	92.1 A	




## File save and open

1. Click the  icon, then the save dialog box will appear.



2. Accept the default name or Name the file and save it with the default extension. The file will be saved with the “.stdata” extension which can be reopened in the Datalogger software program as a graph and also saved as a “.xls” List file which can be opened in a spreadsheet program or other word processing program.

## Display a Graph of the data

Click on the  icon, then select a “.stdata” file to open an existing data file for viewing on the data graph window,

## Print Graph and Data List

Click the Print Graph icon  to print the graph.

Click the List icon  to view the data list, then click the Print List icon  to print the list.

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