

Temperature/Humidity Datalogger

IP 54 Water Proof

USB Datalogger

Users Manual V.1.0

Eastern Energy Co., Ltd.
40/4 Vitoondumri Rd., Banbueng
Banbueng, Chonburi, Thailand

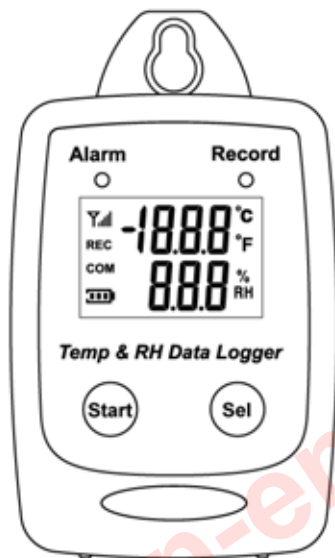


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Model Number



Temperature/Humidity Datalogger

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FEATURES & SPECIFICATIONS

Features

- Measure humidity and temperature.
- Datalogging- 50,000 records.
- Fast USB download .
- Easy- to-Use PC software for parameter settings and data analysis.
- Internal Humidity Temperature alarm.

Specifications

General

Operation Condition	-40-185°F (-40-85°C)
	1-99% RH, non-condensing

Relative Humidity Sensor

Type	Capacitor
Measurement Range	1%-99%
Accuracy	±3.0%RH(20~80%) ±5.0%RH(<20%,>80%)
Resolution	0.1%

Temperature Sensor

Type	Thermistor
Measurement Range	-40-185°F (-40-85°C)
Accuracy	±0.6°C (±1.2°F) from -20-50°C (-4 to 122°F) ±1.0°C (±1.8°F) all other ranges.
Resolution	0.1°C

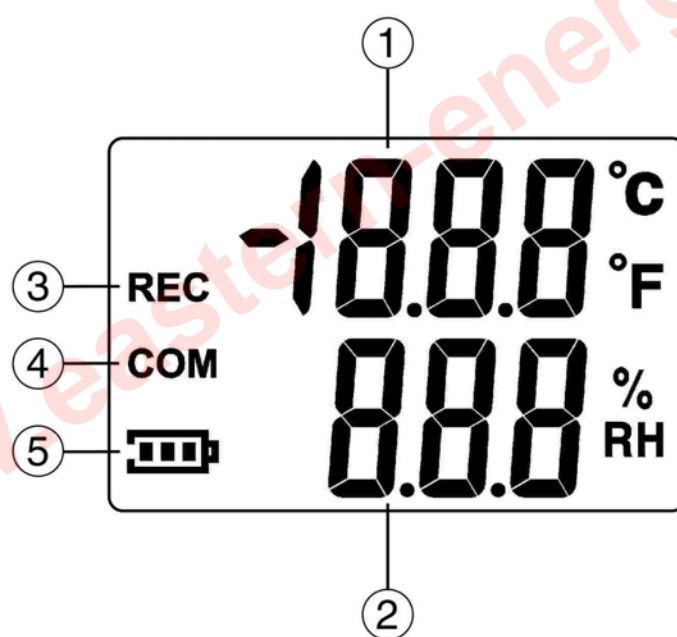
Power Supply

Battery	One 3.6V ½ AA lithium battery
Battery Operation	1 Year
External Power Supply	5 VDC with 0.5A.

Applications

- Building HVAC monitoring.
- Indoor air quality survey.
- Locate the presence of combustion fumes from vehicles and appliances.

LCD Display

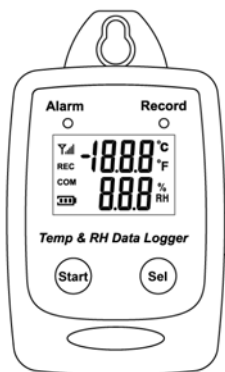


Meter LCD

1.	Temperature Display	4.	USB Communication
2.	Humidity Display	5.	Battery Level Indicator
3.	Recording		

WHAT'S IN THE BOX

1. Main Unit



2. USB Cable



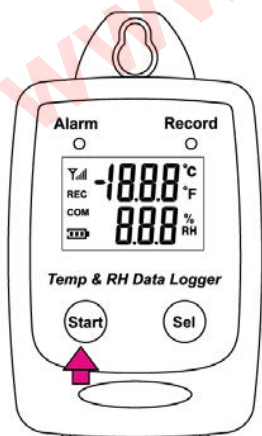
3. Installation Disk



4. 3.6V ½ AA lithium battery



START UP AND GENERAL OPERATION



- Press the Start button for 2 seconds to turn on Meter Datalogger
- The unit is ready to use.

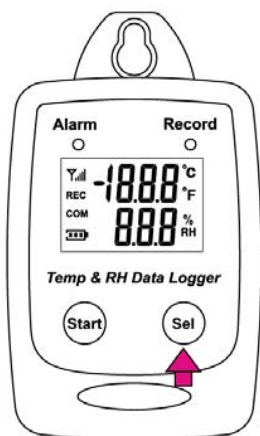
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LCD Display

- Press Sel to jump to the next LCD display.



- Main Screens (1-3)

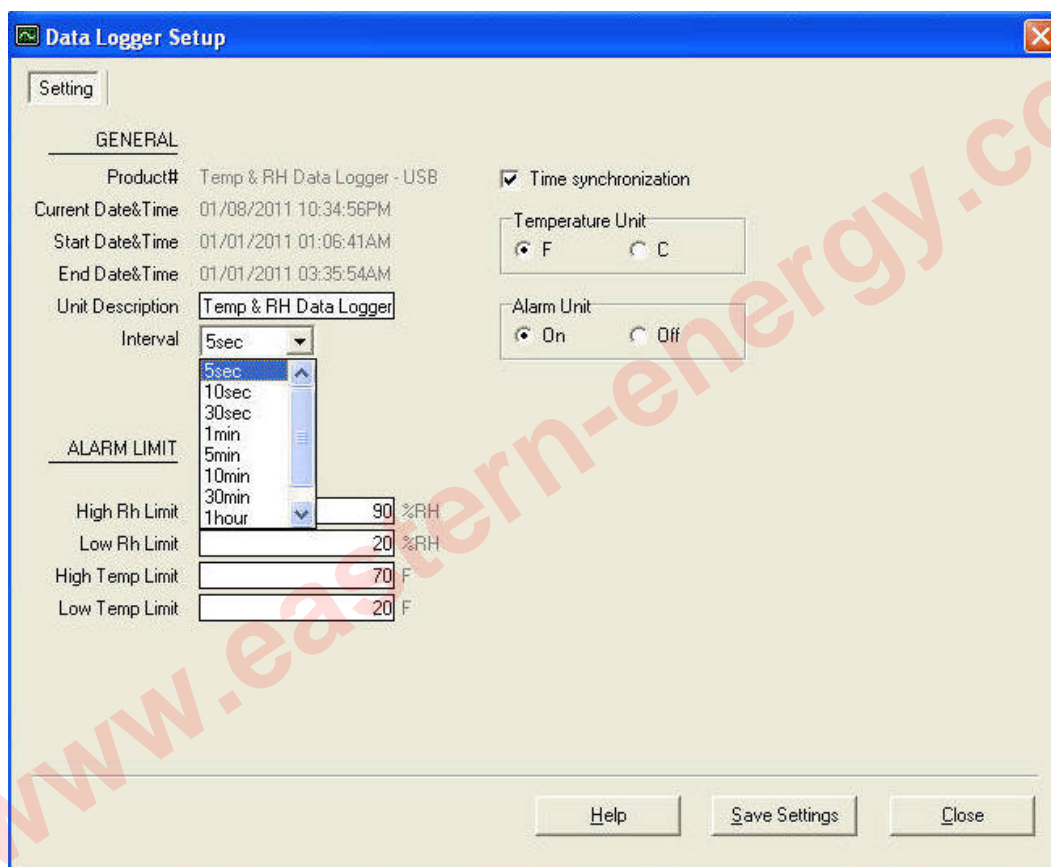
1.	2.	3.
Main Screen Temperature(C)	Main Screen Temperature.(F)	% of Memory Left Total 24,000 records

Main Screens

Sampling Rate

(5sec / 10sec / 1min / 5min / 10min / 30min / 1 hour/ 2 hour)

Can only be set from PC setup screen.



The screenshot shows the 'Data Logger Setup' window with the 'Setting' tab selected. The 'GENERAL' section displays the following information:

- Product#: Temp & RH Data Logger - USB
- Current Date&Time: 01/08/2011 10:34:56PM
- Start Date&Time: 01/01/2011 01:06:41AM
- End Date&Time: 01/01/2011 03:35:54AM
- Unit Description: Temp & RH Data Logger
- Interval: 5sec (selected from a dropdown menu showing options: 5sec, 10sec, 30sec, 1min, 5min, 10min, 30min, 1hour)

The 'ALARM LIMIT' section shows the following settings:

- High Rh Limit: 90 %RH
- Low Rh Limit: 20 %RH
- High Temp Limit: 70 F
- Low Temp Limit: 20 F

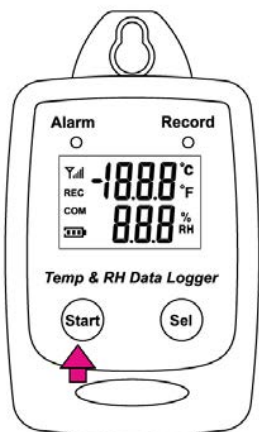
Additional settings include:

- ☒ Time synchronization
- Temperature Unit: ☒ F ☐ C
- Alarm Unit: ☒ On ☐ Off

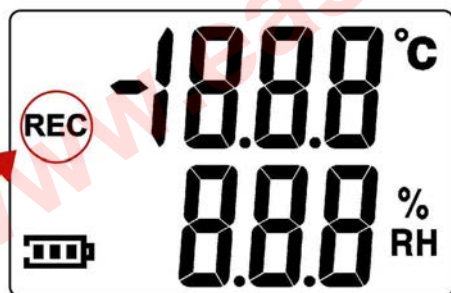
At the bottom of the window are three buttons: 'Help', 'Save Settings', and 'Close'.

Recording and Datalogging

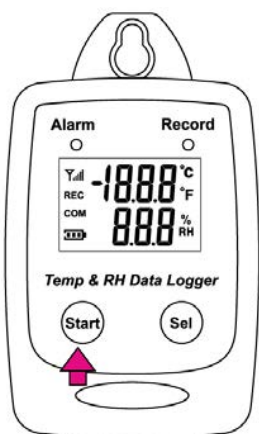
- Press the Start button to start data recording.



- The LCD will display REC when Meter is in the datalogging mode.



- Press the Start button again to stop recording.



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Calibration

33% Calibration



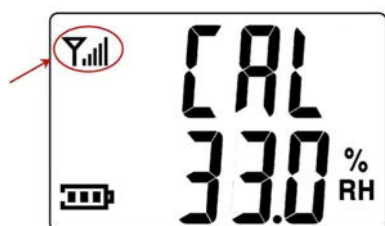
Press Start + SEL to enter 33% humidity calibration mode.



- Press Start to start 33% calibration.



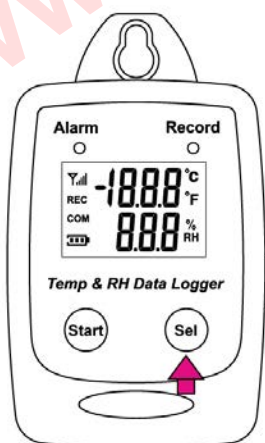
- During the calibration, the LCD will display an antenna sign.



- Meter Datalogger will start 33% Rh sampling 45 minutes after the Start button is pressed.
- The COM icon will show up when calibration is completed.



- Press SEL to select the next calibration page.



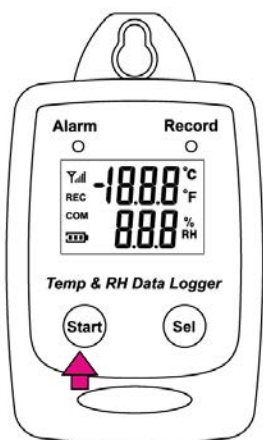
75% Calibration



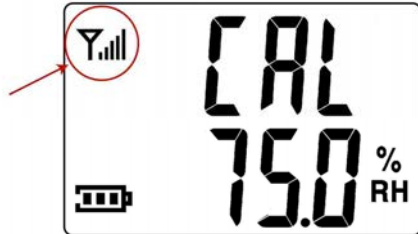
- Press and SEL button then press the Start button at the same time to enter the calibration mode.



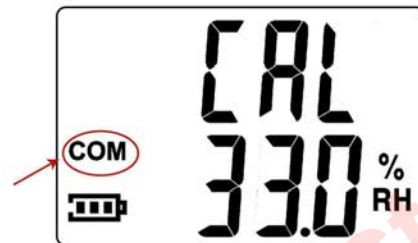
- Press Sel one more time to switch to the 75% Rh calibration page.
- Press Start to start 75% calibration.



- Meter Datalogger will start 75% Rh sampling 45 minutes after the Start button is pressed.
During the calibration, the LCD will display an antenna icon.



- The COM icon will show up when calibration is completed.

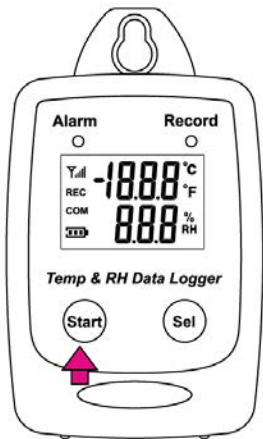


- Press SEL to select the next calibration page

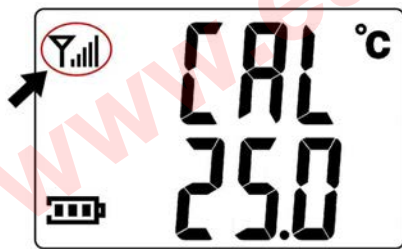


25C Calibration

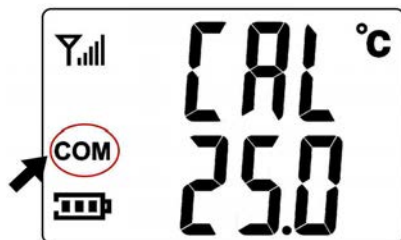
- Press Sel one more time to jump to the 25C calibration page.
- Press Start to start 25C calibration.



- During the calibration, the LCD will display an antenna icon.



- When the calibration is completed, the COM will show up.



PC SOFTWARE INSTALLATION

Installation Requirements:

Minimum system requirements for the software:

-Pentium III - 500 MHz processor or equivalent with 128 megabytes of RAM.

Optimal Performance:

-Pentium 4 - 2.8 gigahertz processor or equivalent with 256 megabytes or RAM.

Operating System Requirements:

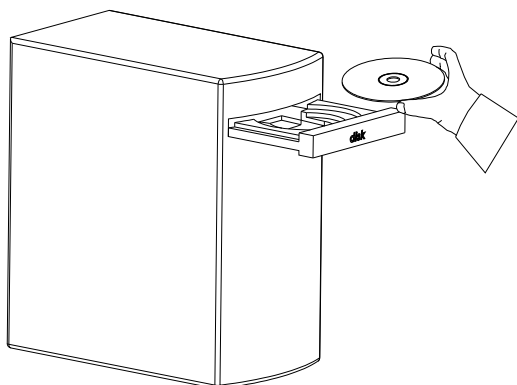
-Windows 2000

-Windows XP

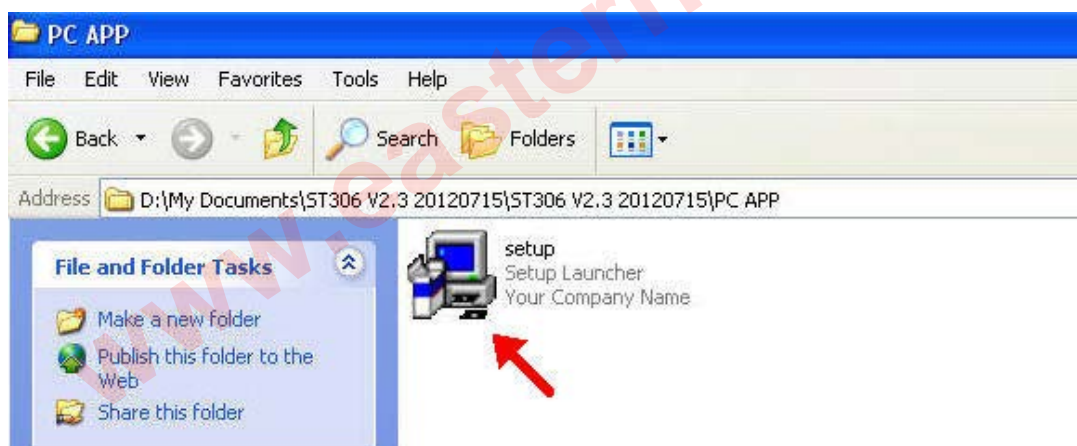
-Window 7

-Window 8

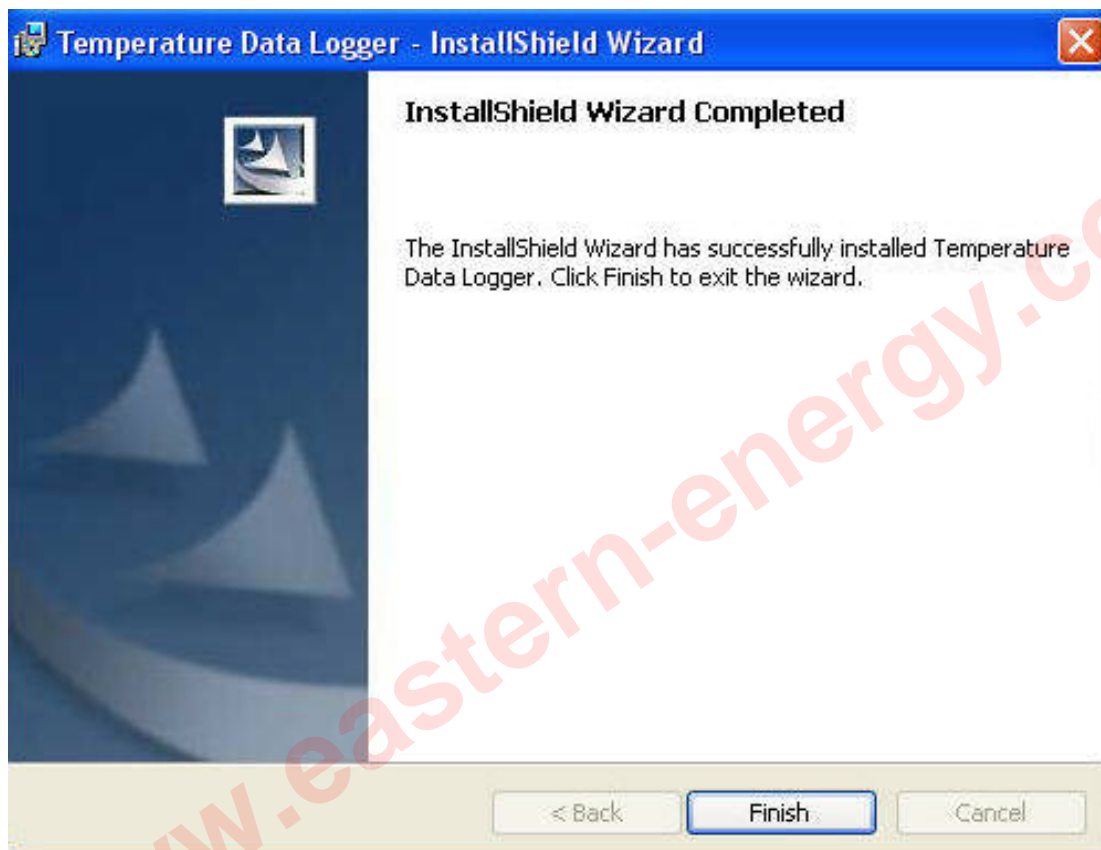
- Insert the CD into the disk drive.



- Click Setup to start installation.



- Follow the steps on the Installation Shield Wizard and click Finish to complete the installation.

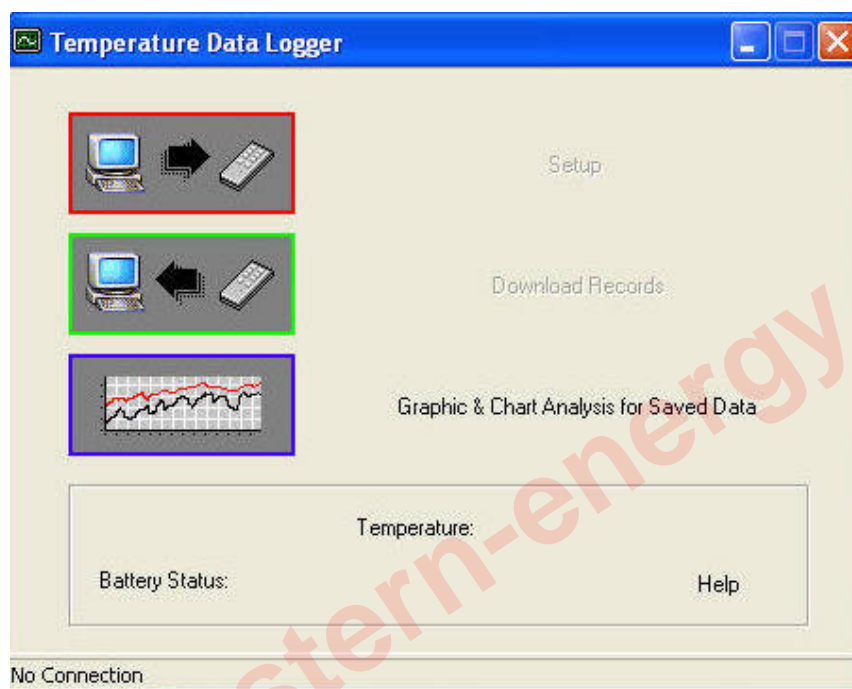


USING PC SOFTWARE WITH Meter Datalogger

- Start Window PC software.
- Click on All programs, Click on “Meter Logger”
- Click on Logger to start the datalogger program.

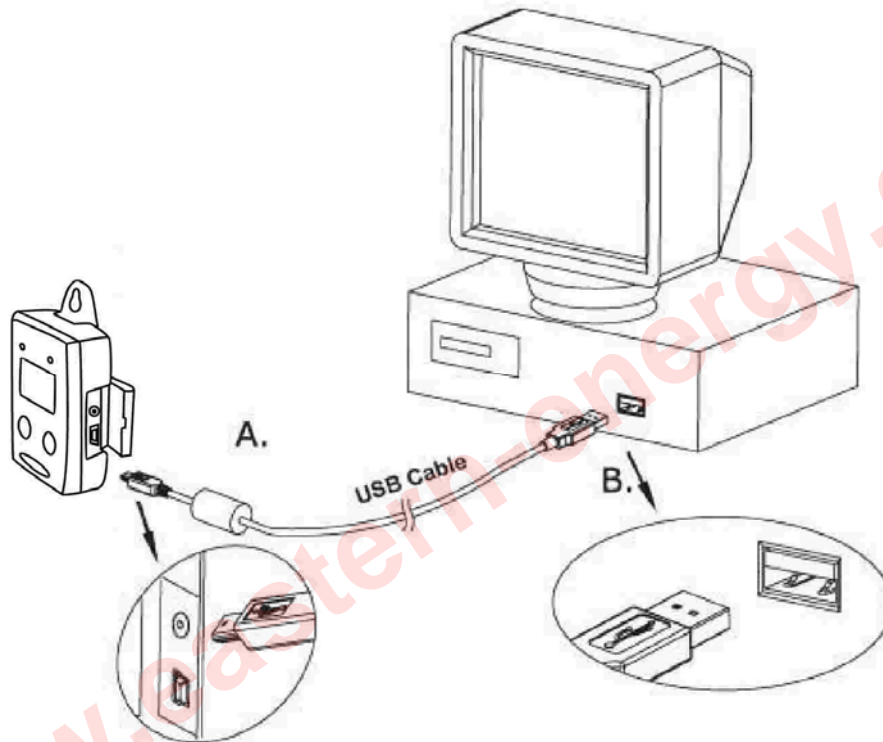


Connect Meter Datalogger to PC

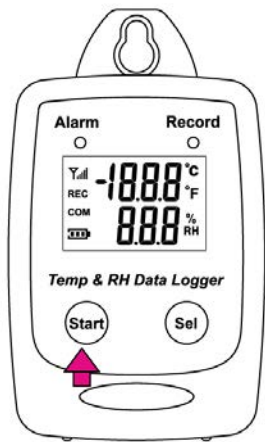


No Connection Screen

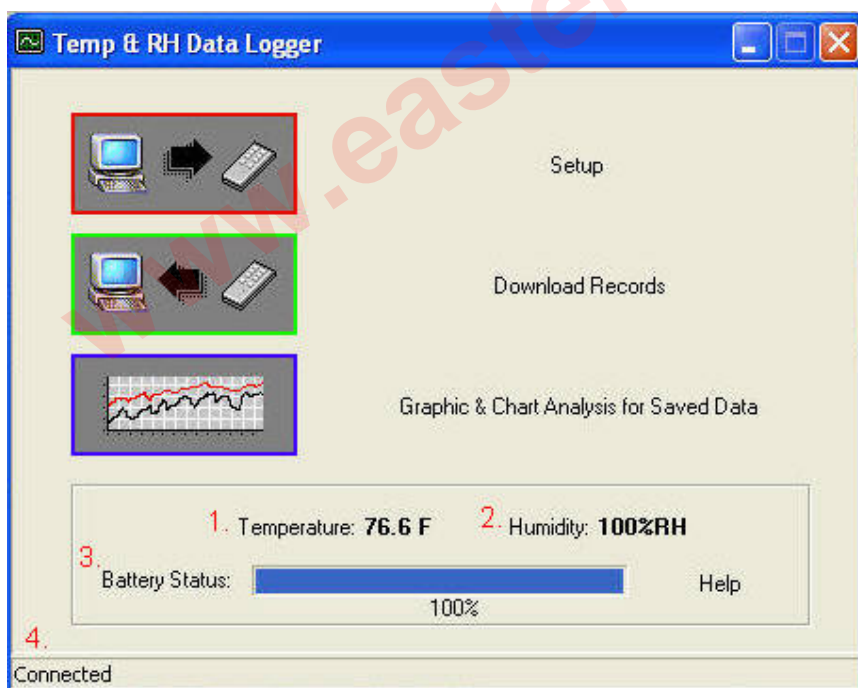
- Connect Meter Datalogger to the PC with a USB cable.



- Press Start for 2 seconds to turn on Meter Datalogger. Meter Datalogger is now connected to the PC.



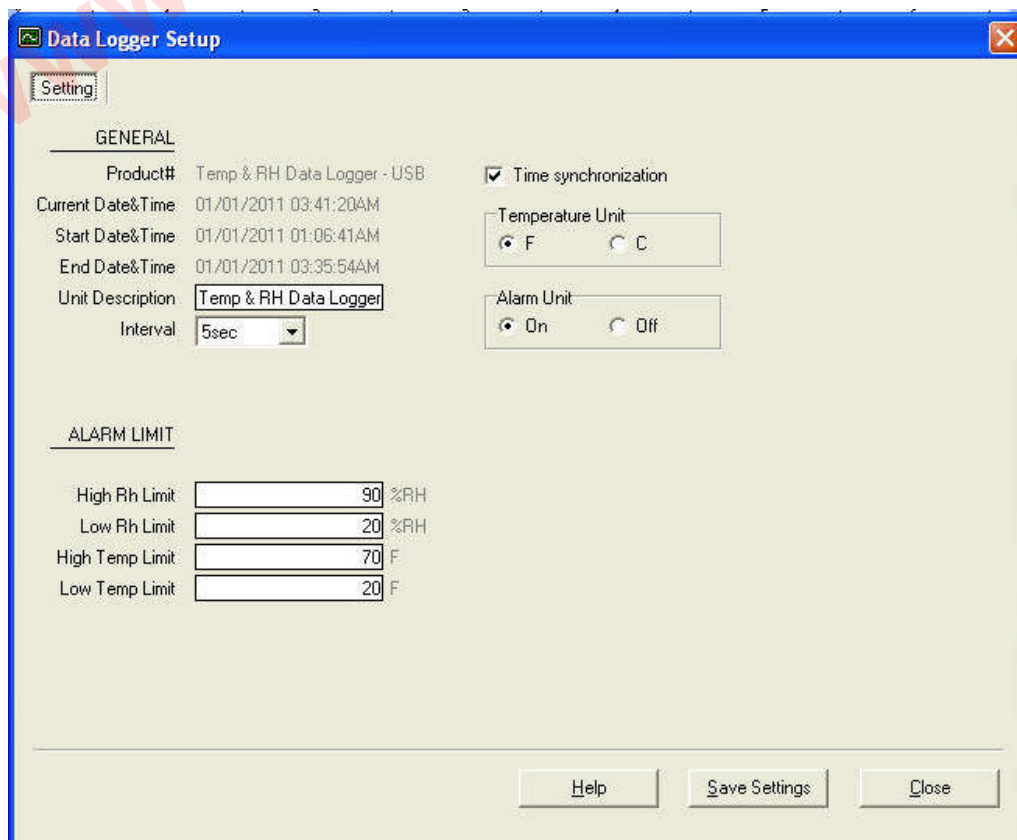
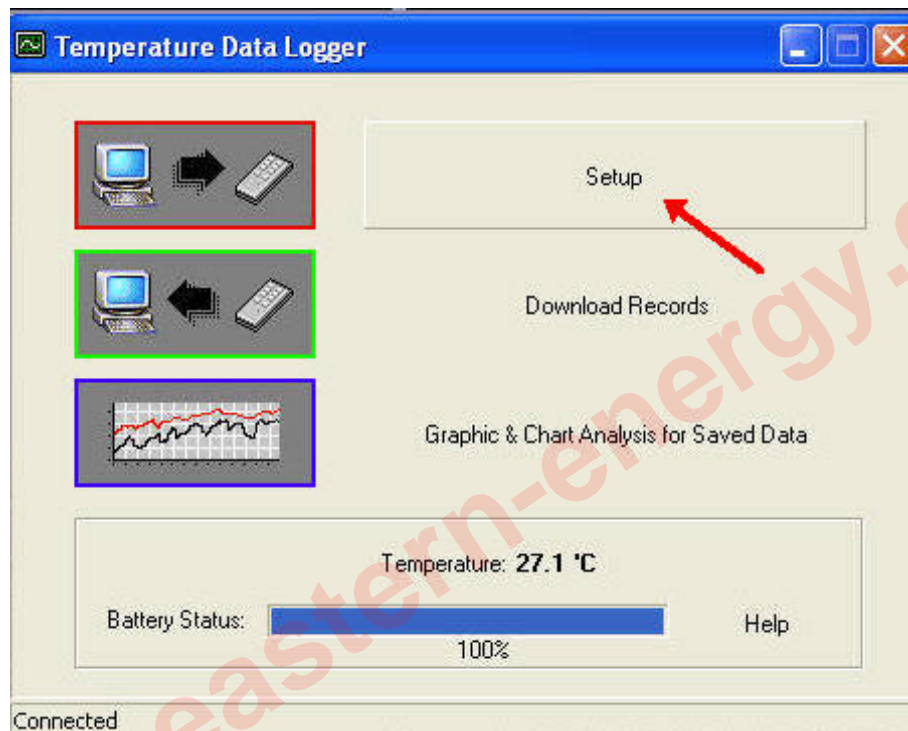
Connected Screen



- If the datalogger is properly connected, these three values will show up.
 1. Temperature Reading.
 2. Humidity Reading.
 3. Battery Status.
 4. Connection Status- "Connected".

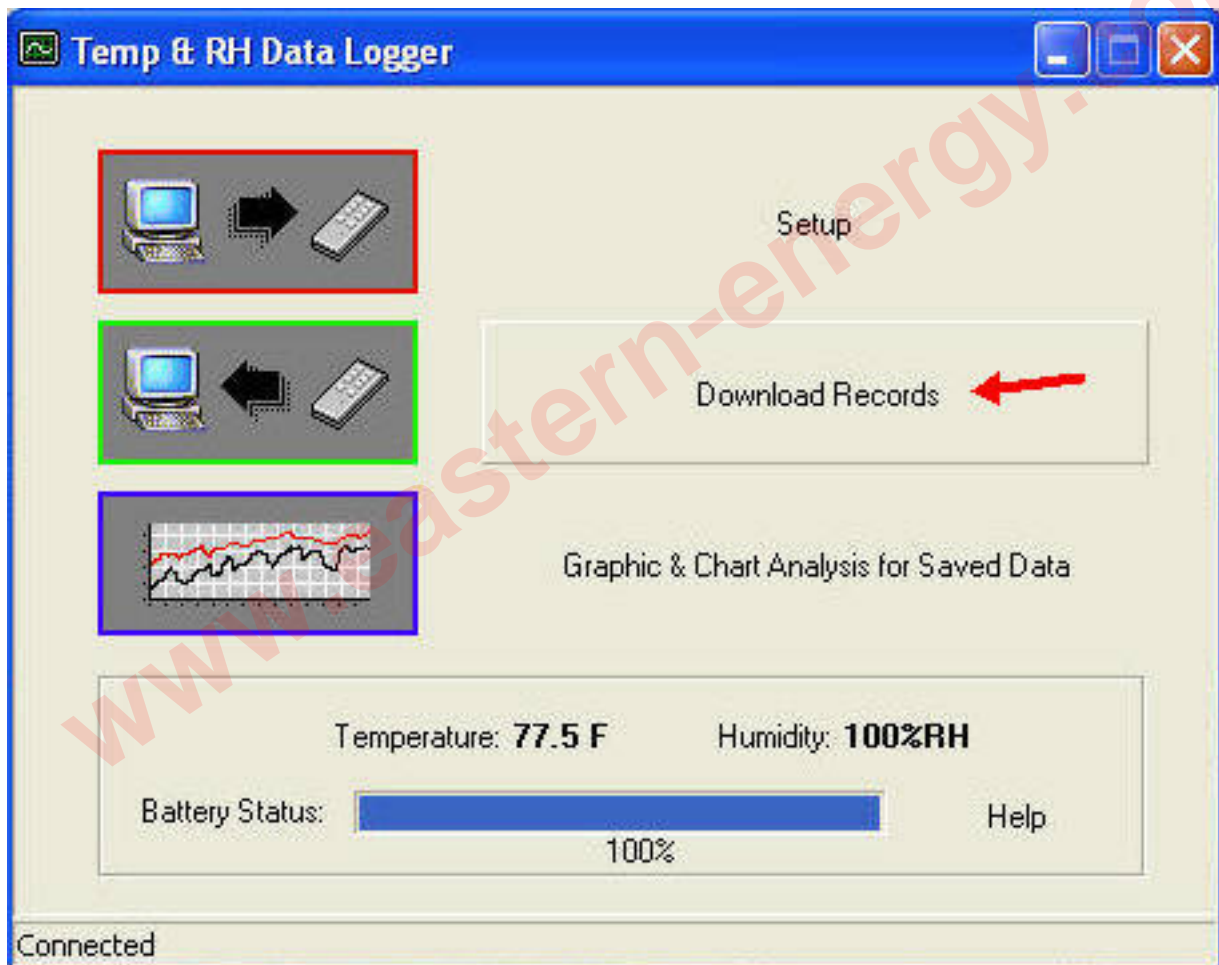
Setup Screen

- Click "Setup" to enter the Setup screen.

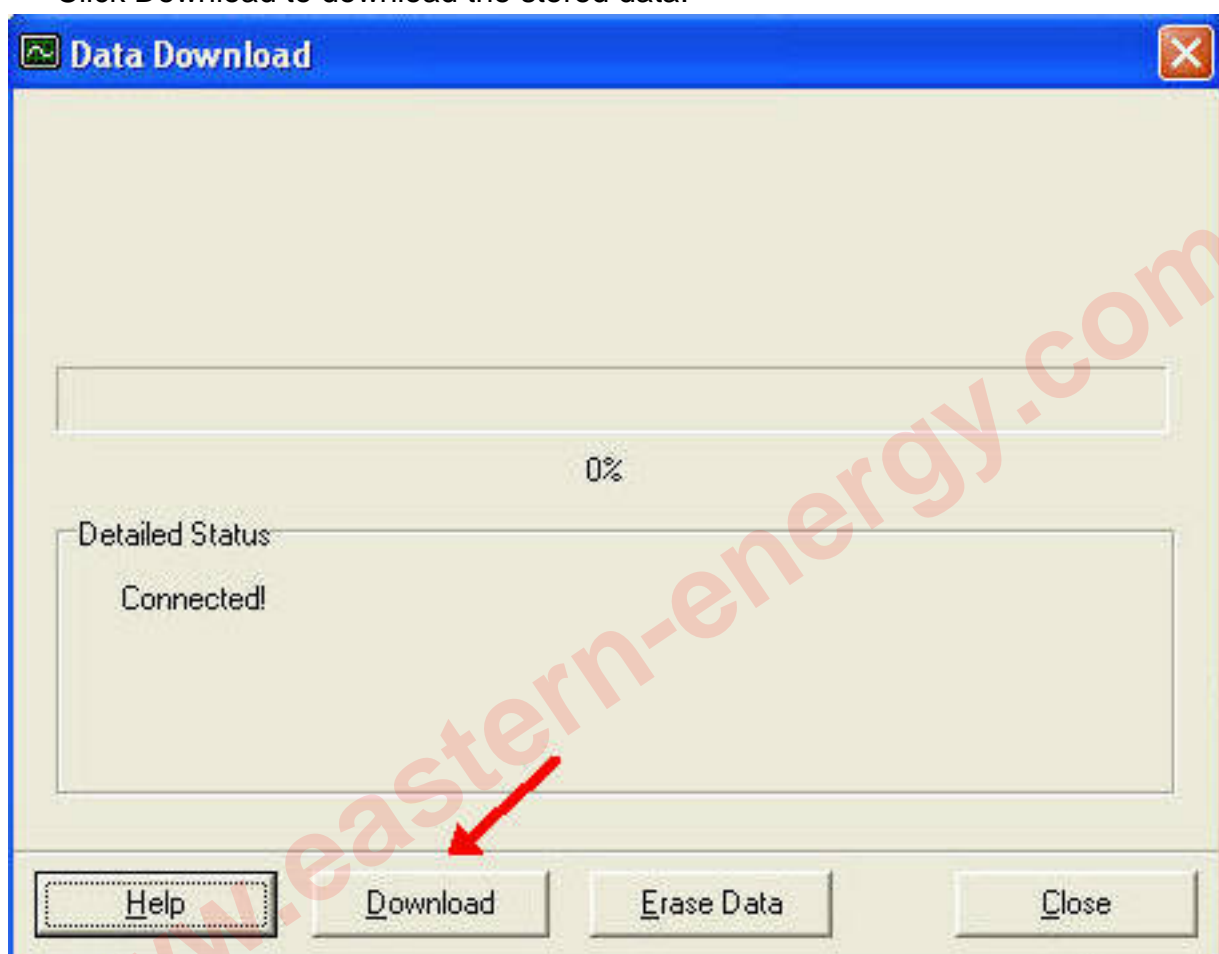


- The values in the white area can be changed by the user.
- The value in the grey area can not be changed by the user.
- Click “Save Settings” to save the values to the datalogger.

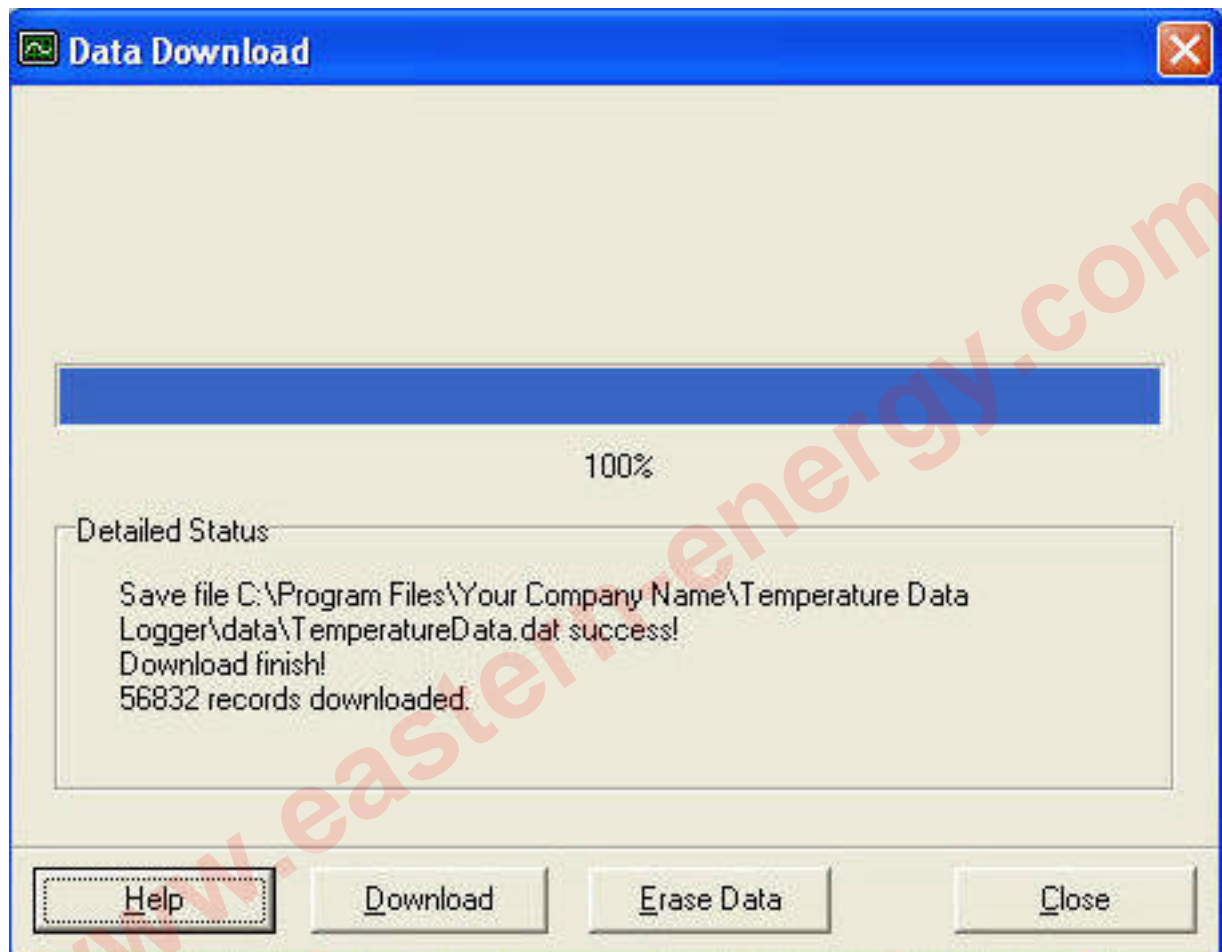
Download Records



- Click Download to download the stored data.

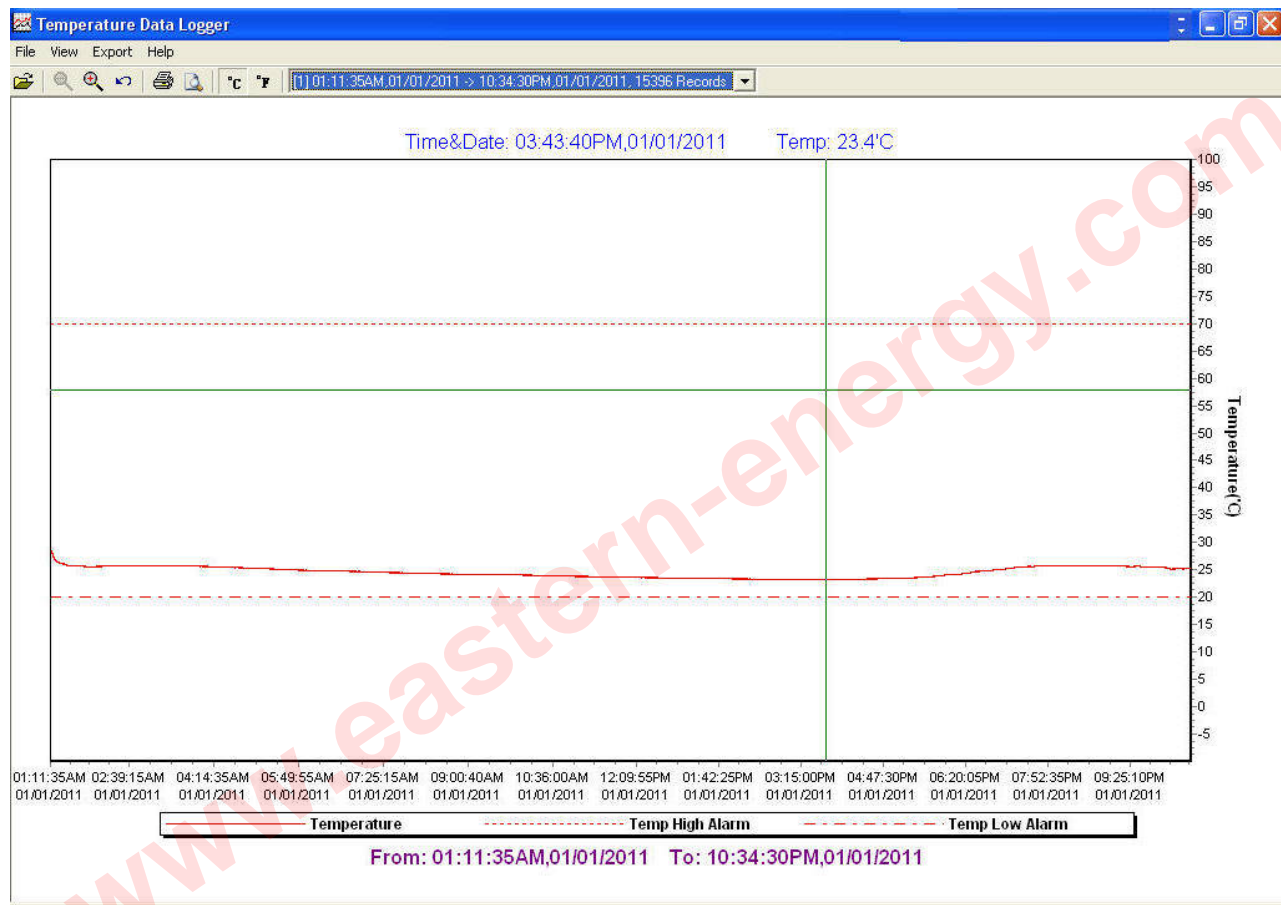


- Click "Download" to start the download.



- Download Completed

Graphic & Chart Analysis

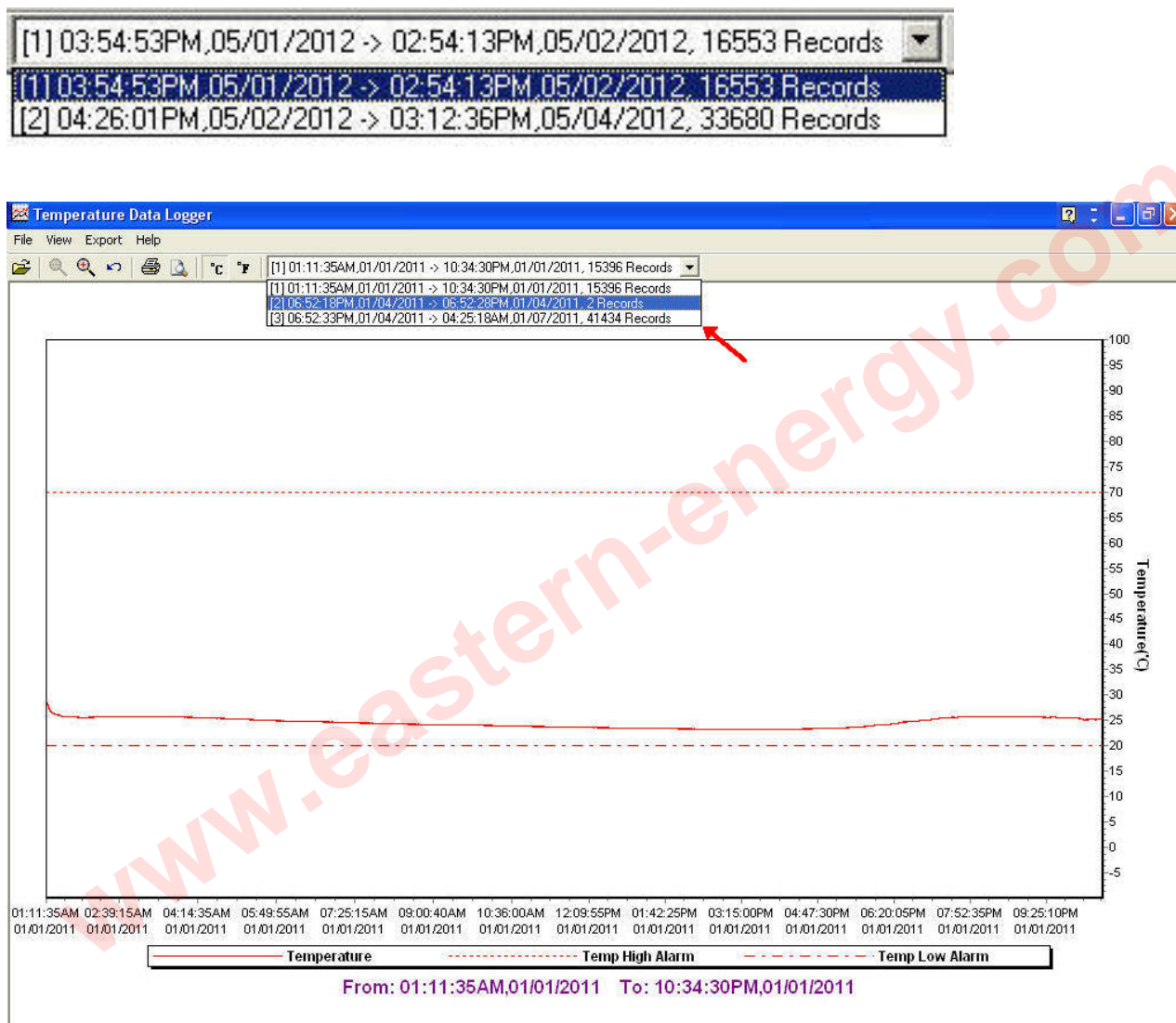


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- Downloaded data will first be displayed in graph format.



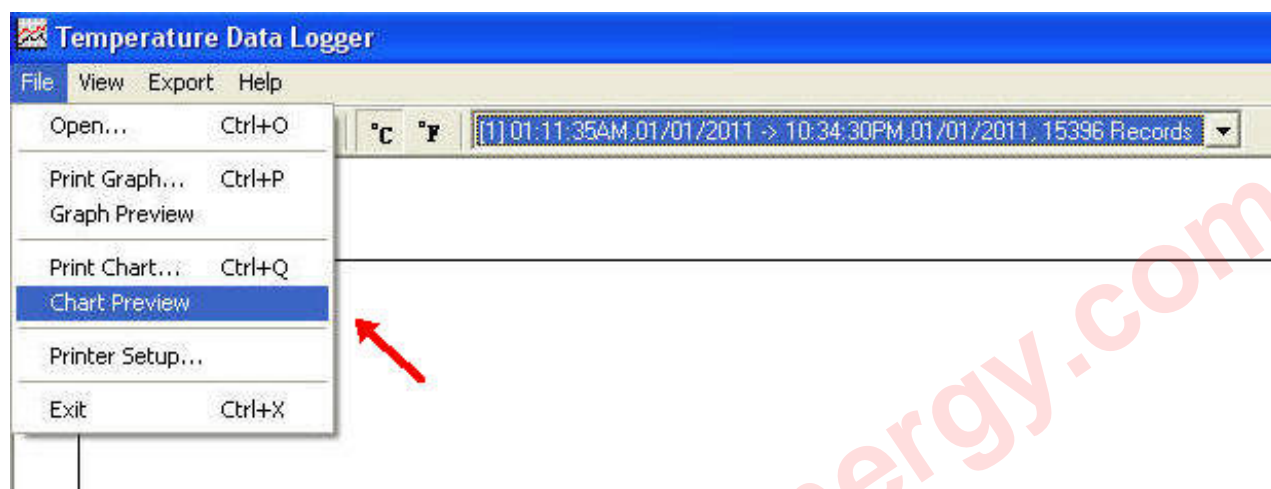
- Each data groups are listed according to the date of the sampling. Lowest group number represents earliest sampling date.

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Data in Listing Format



To display data in Listing format:

- Click File
- Click Chart Preview

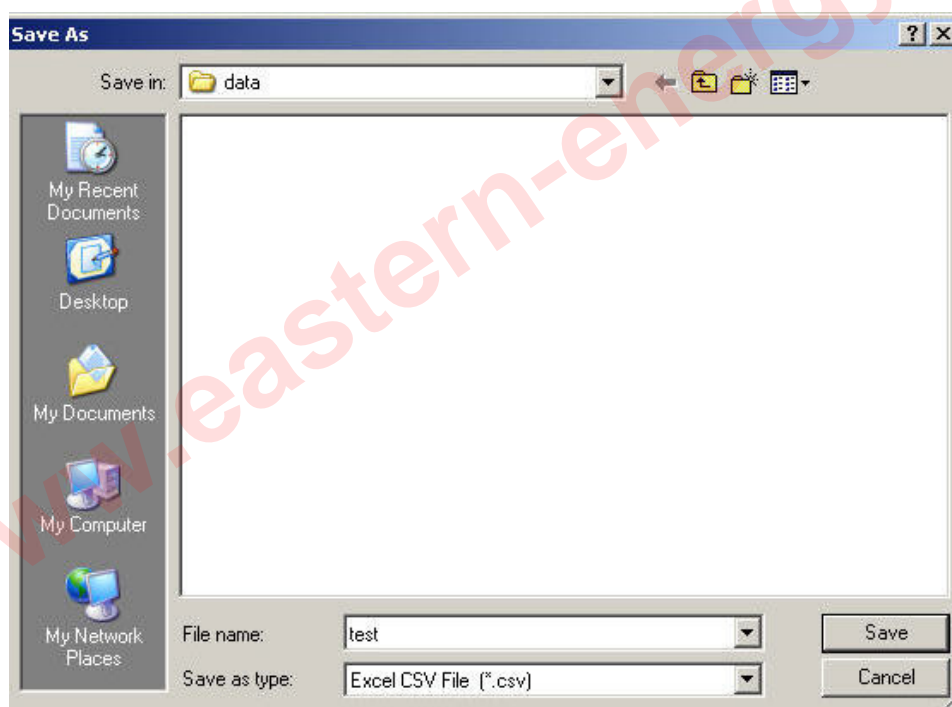
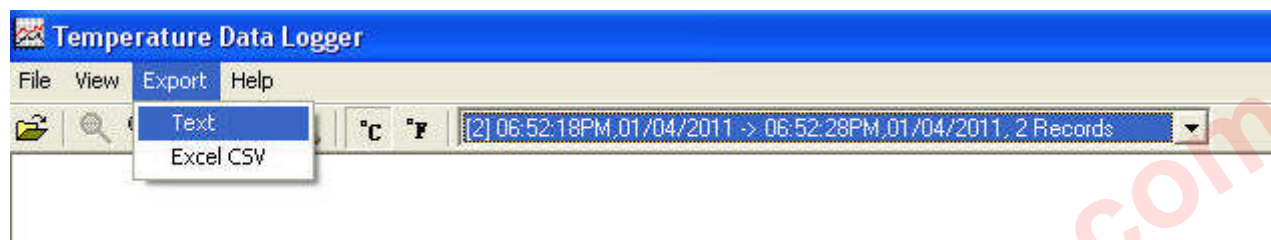
Data Listing Format

Product Name: Temperature Data Logger
Description: STLogger Record Data
Start Data&Time: 06:52:18PM,01/04/2011
End Data&Time: 06:52:28PM,01/04/2011
Interval: 10 seconds
Record Count: 2
Temp Alarm High: 70.0 'C
Temp Alarm Low: 20.0 'C

<u>No.</u>	<u>Time</u>	<u>Date</u>	<u>Temp('C)</u>	<u>Alarm</u>
1	06:52:18PM	01/04/2011	33.2	
2	06:52:28PM	01/04/2011	33.5	

Data Export

- Select export data type: Text or Excel CSV.



Click Save to save the file in .CSV/Txt format.



File Saved.