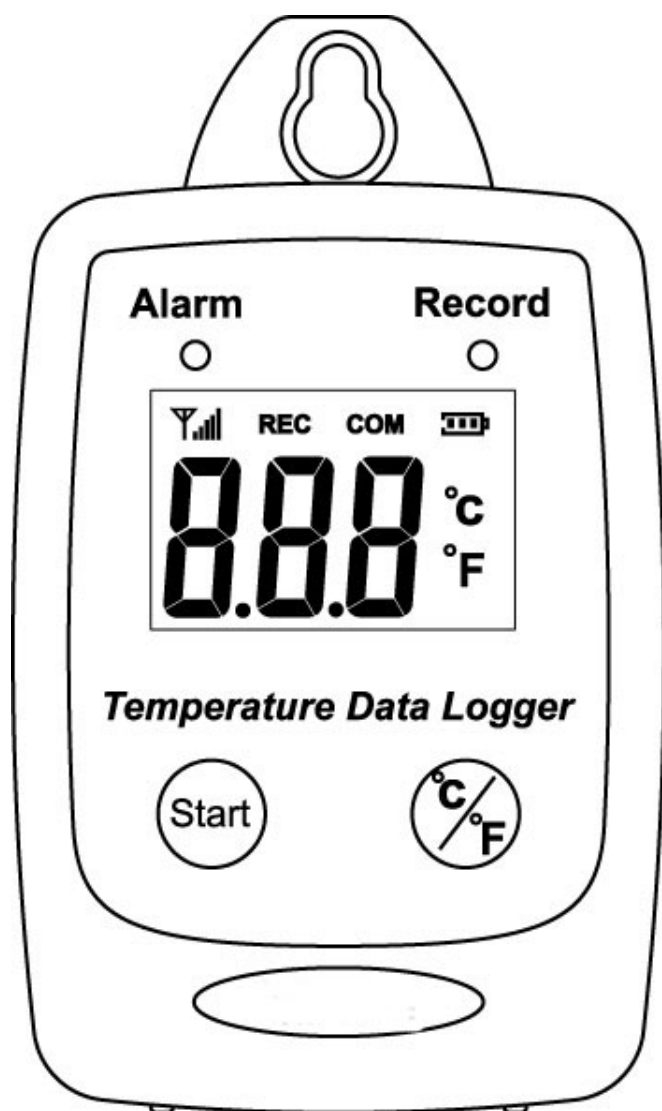


Temperature Datalogger

Users Manual



USB Datalogger
IP 54 Water Proof

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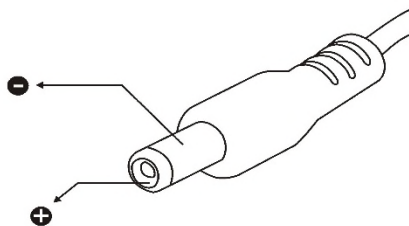
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1 FEATURES

- Measure °C/°F Temperature
- Datalogging- 50,000 records
- Fast USB download
- Easy- to-Use PC software for parameter settings and data analysis
- Internal Temperature alarm

2 Specifications

- Display : 3 digit LCD.
- LED status: red LED of Alarm, green LED of Record.
- Sampling rate: 1 times/3 second.
- Battery : One 3.6V ½ AA lithium battery
- Battery Life : 1 year.
- Operating temperature and humidity : -40 to 85°C(-40~185°F), 0-95%,RH,non-condensing.
- Instrument dimensions : 83(L)*60(W)*24(H) mm.
- Weight : About 77g.
- External power supply: The device can be powered externally via an AC to DC 5V power supply or a USB connection. When using an external power supply, the waterproof function will be disabled.
Please see the specifications below for the additional AC to DC 5V power supply which is not included in our standard kit:
 - Output Current:>500mA
 - DC plug: outside "-", inside "+"
 - DC plug diameters: outer 3.5mm ϕ , inner 1.1mm ϕ





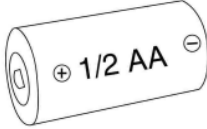
Temperature

Type	Thermistor
Measurement Range	-40 to 85°C(-40~185°F)
Accuracy	$\pm 1.2^{\circ}\text{F}(0.6^{\circ}\text{C})$ from -4 to 122°F(-20 to 50°C) $\pm 1.8^{\circ}\text{F}(1.0^{\circ}\text{C})$ all other ranges
Resolution	0.1°C

3 Applications

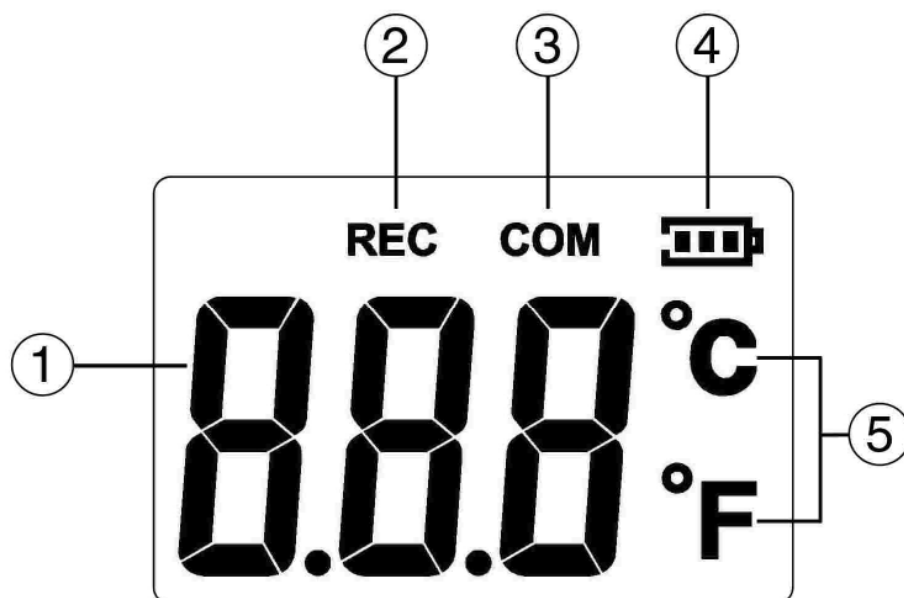
- Building HVAC monitoring.
- Warehouses.
- Refrigerator.
- Clean rooms.
- Freezer.
- Shipping vans.
- Shipping crates.
- Cargo vessels.
- Storage areas.

WHAT'S IN THE BOX

		
1.Main Unit	2. USB Cable	3. 1/2 AA Battery

4 START UP AND GENERAL OPERATION

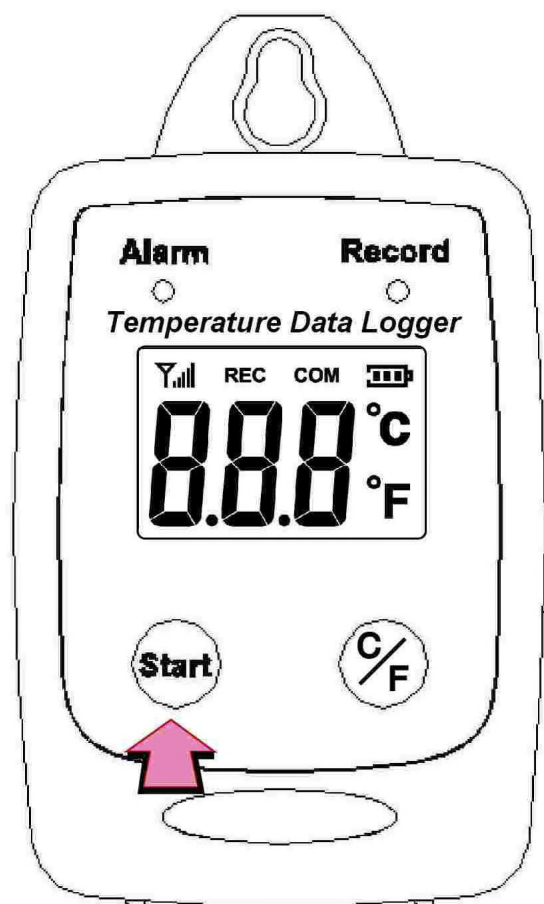
● LCD Display



1.	Temperature Display	4.	Battery Level Indicator
2.	Recording	5.	Unit of Measurement
3.	USB Communication		

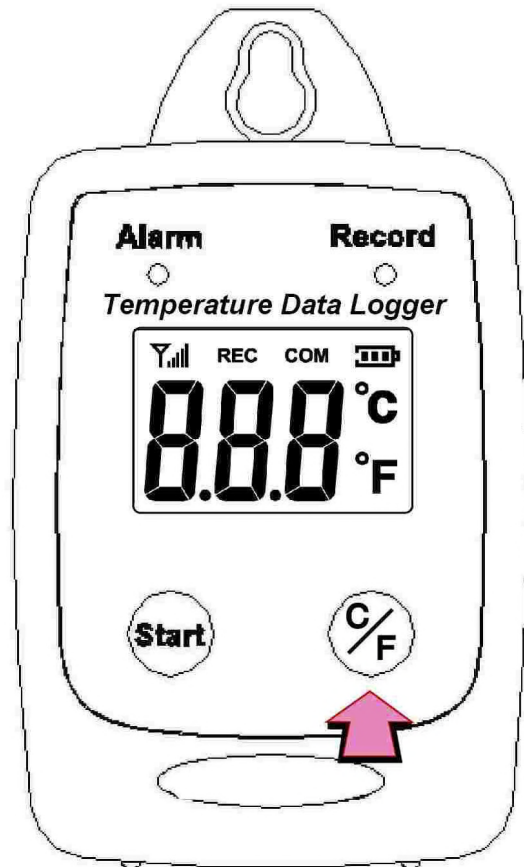
5 Turn On Temperature Data Logger



- Press the Start button for 2 seconds to turn on the Temperature Data Logger.
- The unit is ready to use.



6 Switch between °C or °F

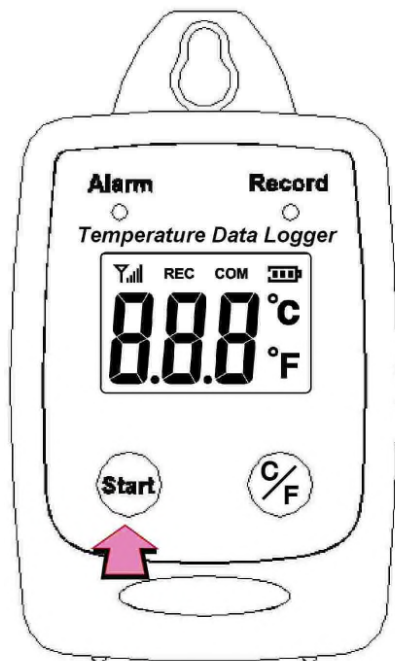
- Press °C/°F to switch between °C or °F



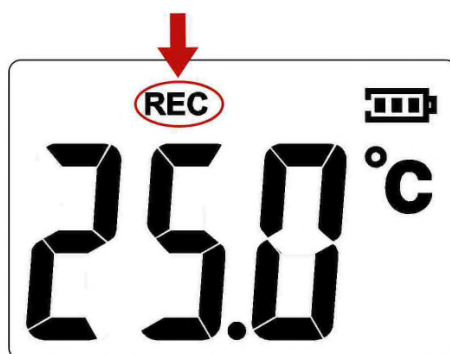
	
Display current Temperature(°C)	Display current Temperature.(°F)

7 Recording Data

- Press the Start button to start data recording.



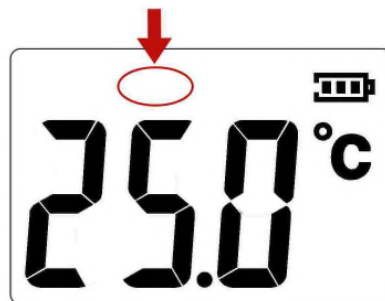
- The LCD display will display REC and the LED green light twinkle when the **Temperature Data Logger** is recording.



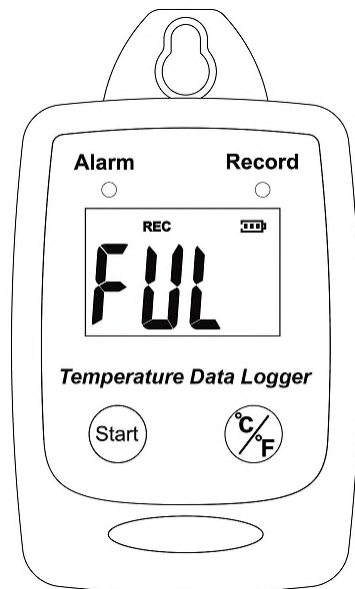
- Press the Start button again to stop recording.



- When recording stopped, the REC will disappear.



- When the data storage is full, the LCD will display FUL and stop recording. To delete recorded data, please refer to page 30 for instructions on clearing data records.



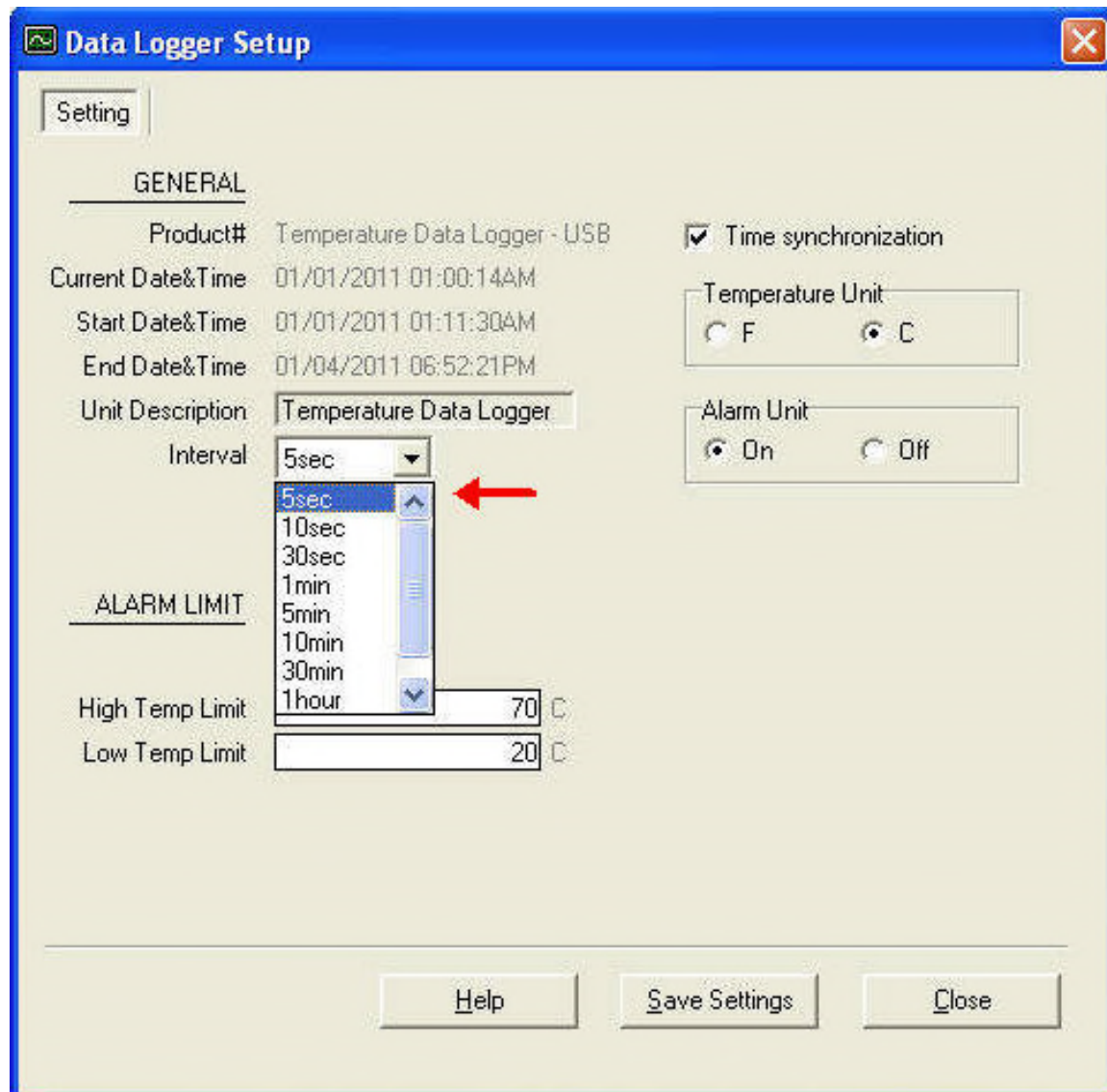
8 Sampling rate

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

Data sampling rate can only be set from PC setup screen.

Select the time interval from the drop-down menu.

Click “Save Settings” to save the setting.



The screenshot shows the "Data Logger Setup" window with the "Setting" tab selected. The "GENERAL" section contains the following fields:

- Product#: Temperature Data Logger - USB
- Current Date&Time: 01/01/2011 01:00:14AM
- Start Date&Time: 01/01/2011 01:11:30AM
- End Date&Time: 01/04/2011 06:52:21PM
- Unit Description: Temperature Data Logger
- Interval: A drop-down menu is open, showing options: 5sec, 10sec, 30sec, 1min, 5min, 10min, 30min, 1hour. A red arrow points to the "5sec" option.

The "ALARM LIMIT" section contains the following fields:

- High Temp Limit: 70 C
- Low Temp Limit: 20 C

On the right side, there are two sections:

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

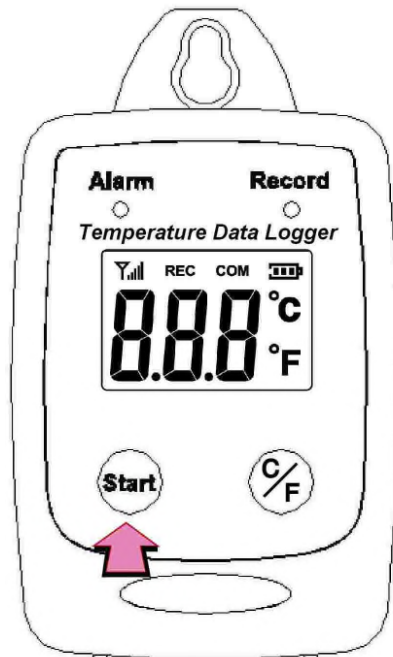
At the bottom, there are three buttons: Help, Save Settings, and Close.

9 Temperature Calibration

1. The preparation 25°C calibrator chamber.
2. Press and hold “C/°F” button first, then press and hold “Start” button for 2 seconds to enter the calibration mode.



3. Press “Start” button to start the calibration.



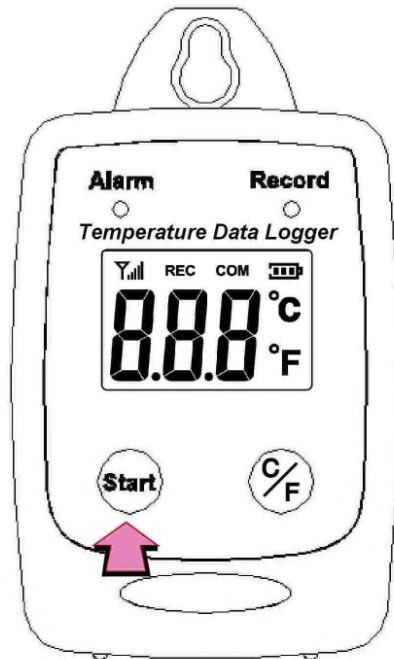
4. During the calibration, the LCD will display the antenna sign.



5. The datalogger will start 25°C calibration 20 minutes after the Start button is pressed.
6. When the calibration is completed, the COM will show up.



- Press and hold the Start button for two seconds to turn off and restart the unit



10 Software Installation

1.Link website <https://www.tenmars.com/>

or scan below QR code:



2.Search TM-306U.

3.Click on the TM-306U photo.

4.Click File Download, then select Software Download.

5.Download and unzip the software.

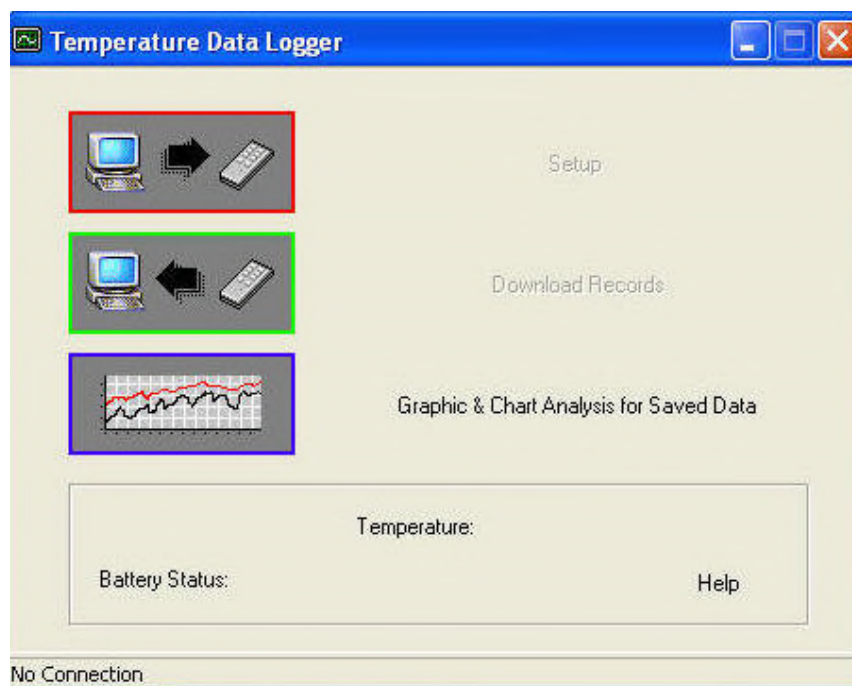
6. For the latest software information and installation procedures, please refer to the **software installation guide**.

11 USING PC SOFTWARE

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

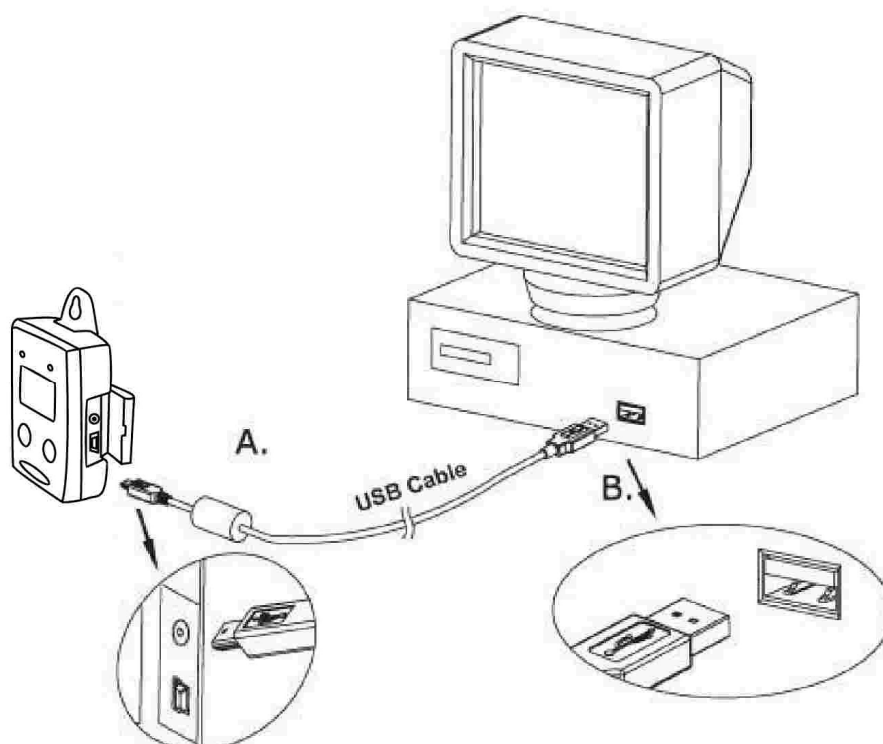


12 Connection Status

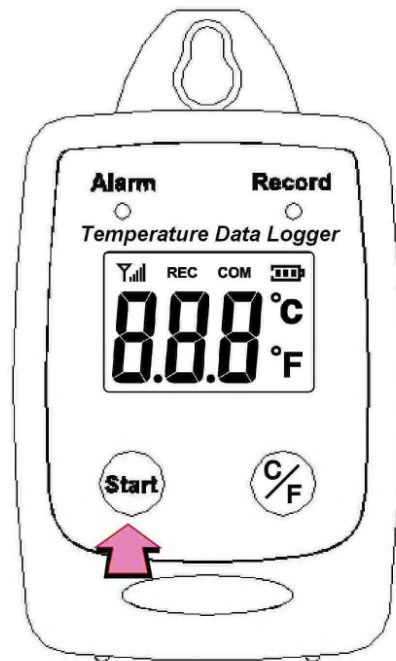


No Connection Screen

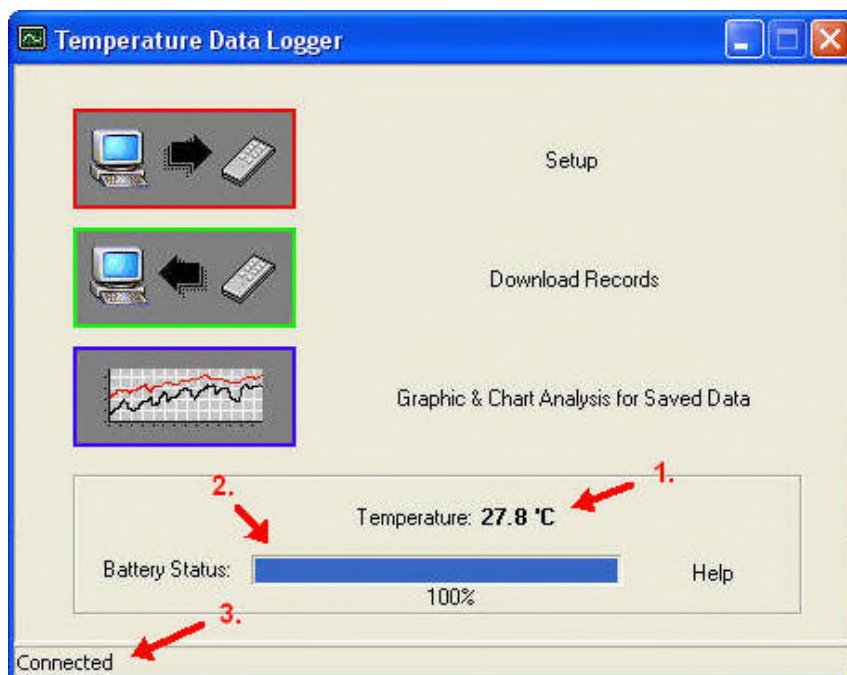
- Connect **Temperature Data Logger** to the PC with a USB cable.



- Press Start for 2 seconds to turn on Temperature Data Logger. **Temperature Data Logger** is now connected to the PC.



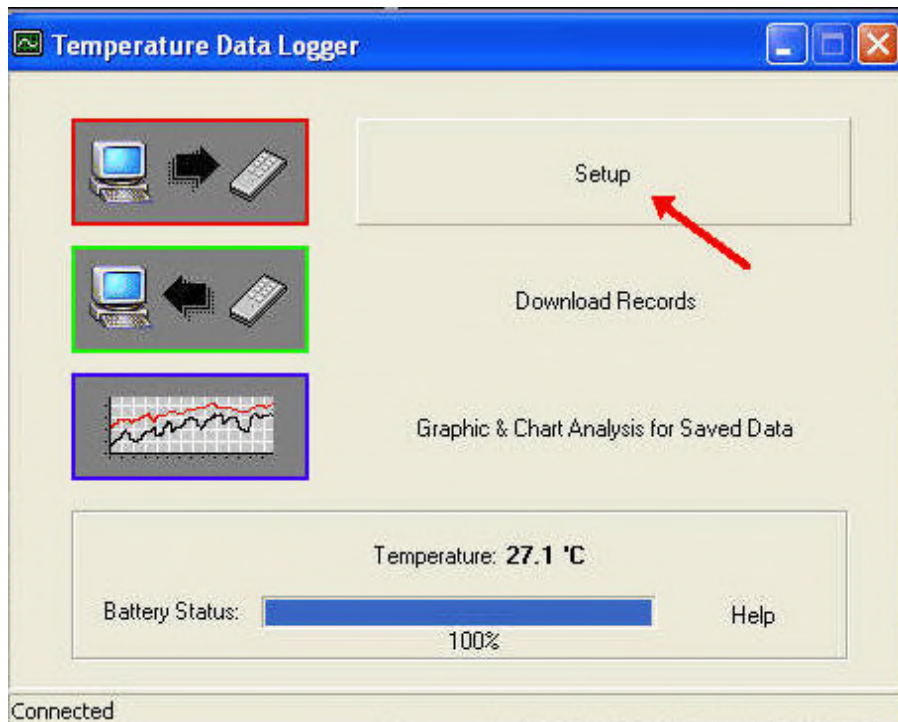
- If the datalogger is properly connected, these three values will show up.
 1. Temperature Reading
 2. Battery Status
 3. Display "Connected"



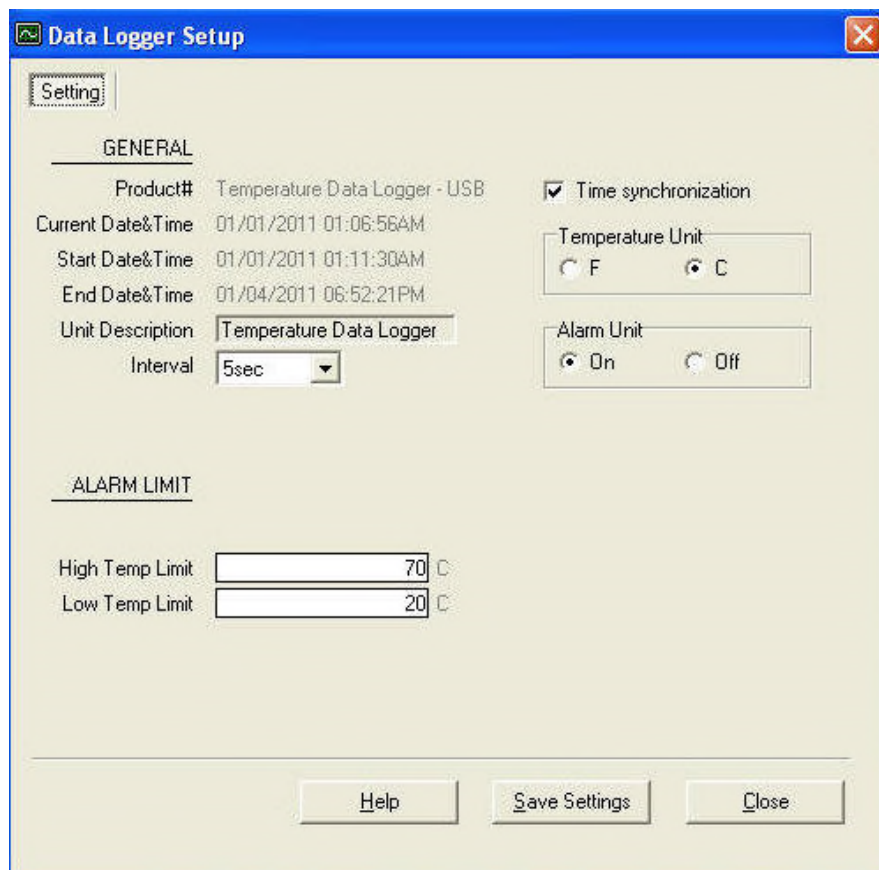
Connected Screen

13 Setup Screen

- Click “Setup” to enter the Setup screen.

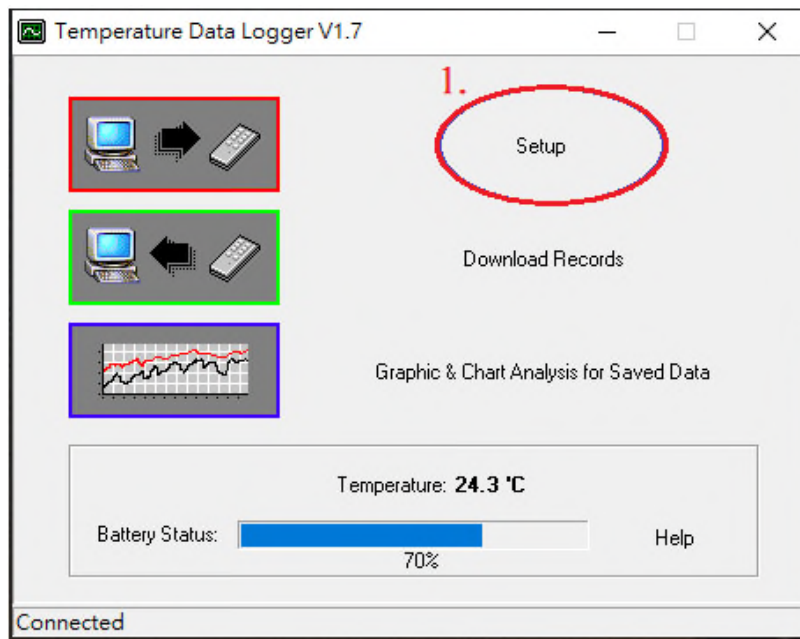


- The values in the white area can be changed by the user.
- The value in the grey area can not be changed by the user.
- Click “Save Settings” to save the values to the datalogger.

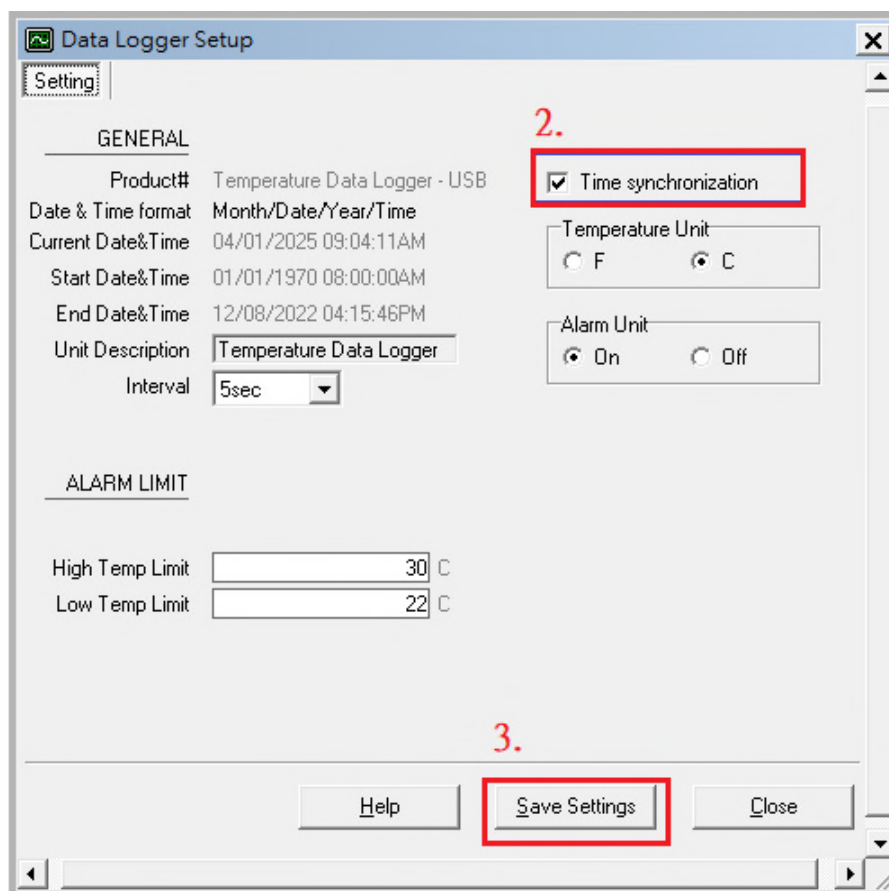


14 Synchronize with Computer Time

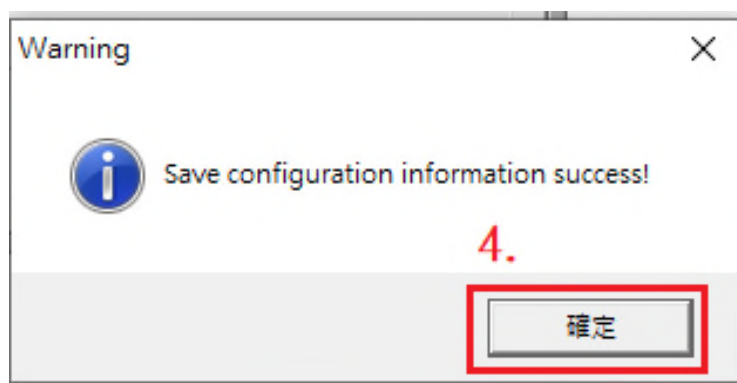
- When using the data recording function, it is recommended to synchronize with the computer time to ensure the date of the recorded data is accurate.
- Tap Setup



- Check Time synchronization and tap Save Settings to synchronize with the computer time.

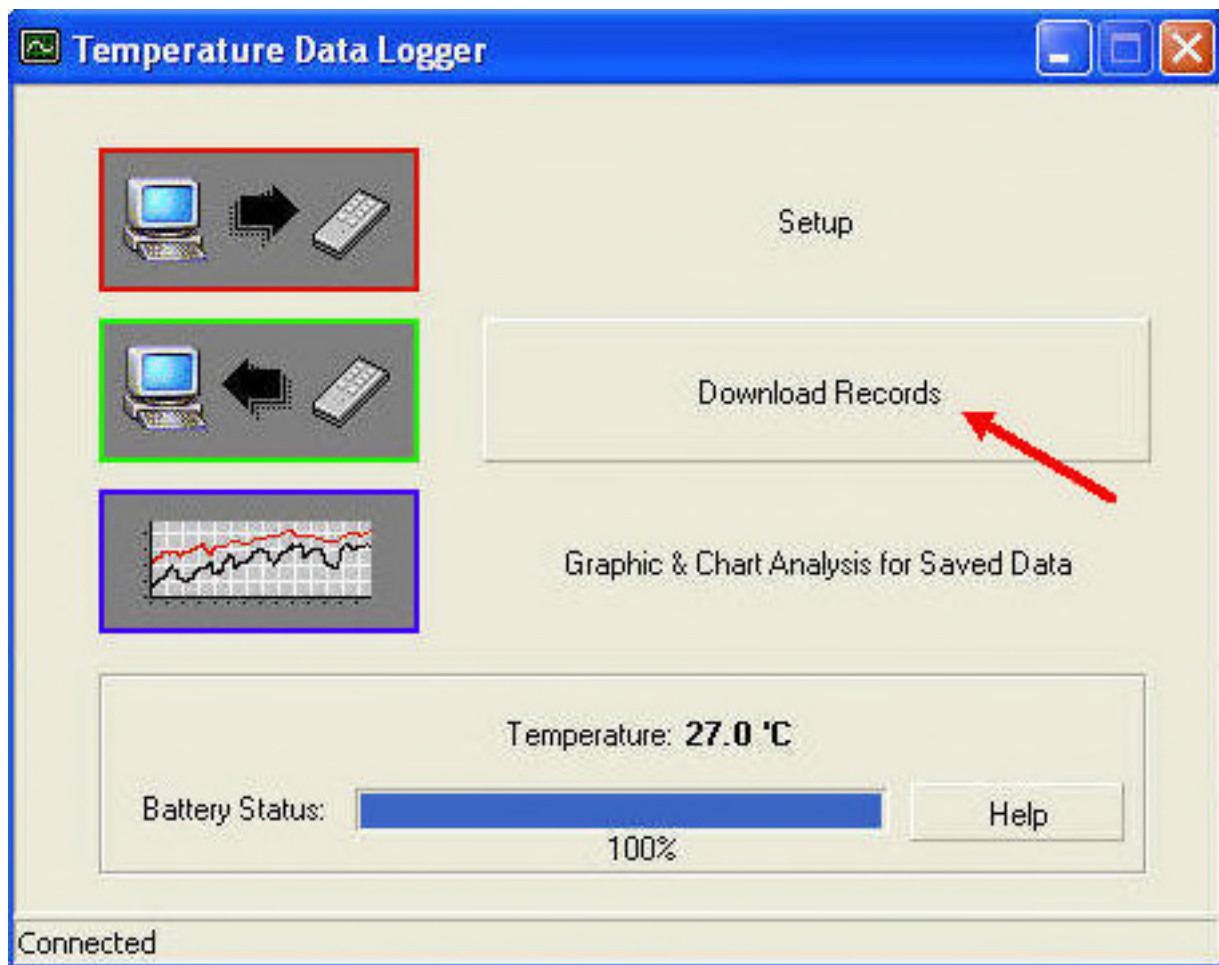


- Tap OK to confirm successful synchronization.

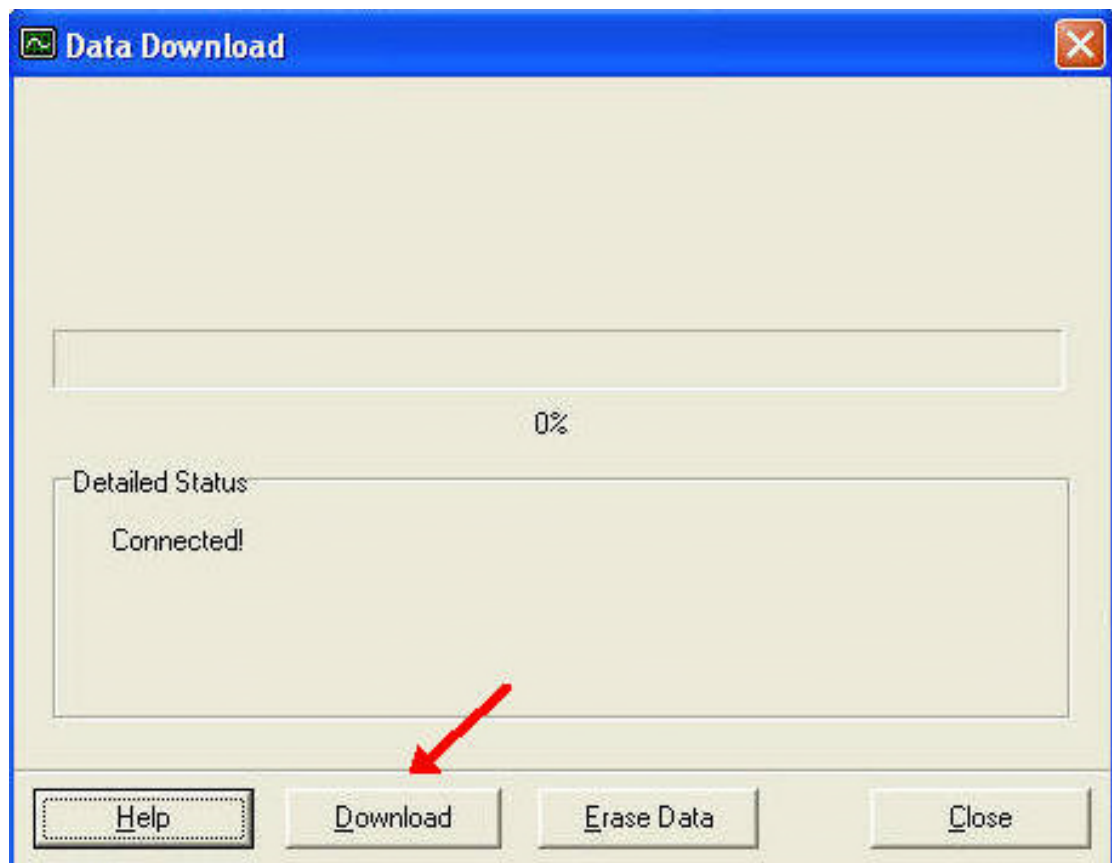


15 Download Records

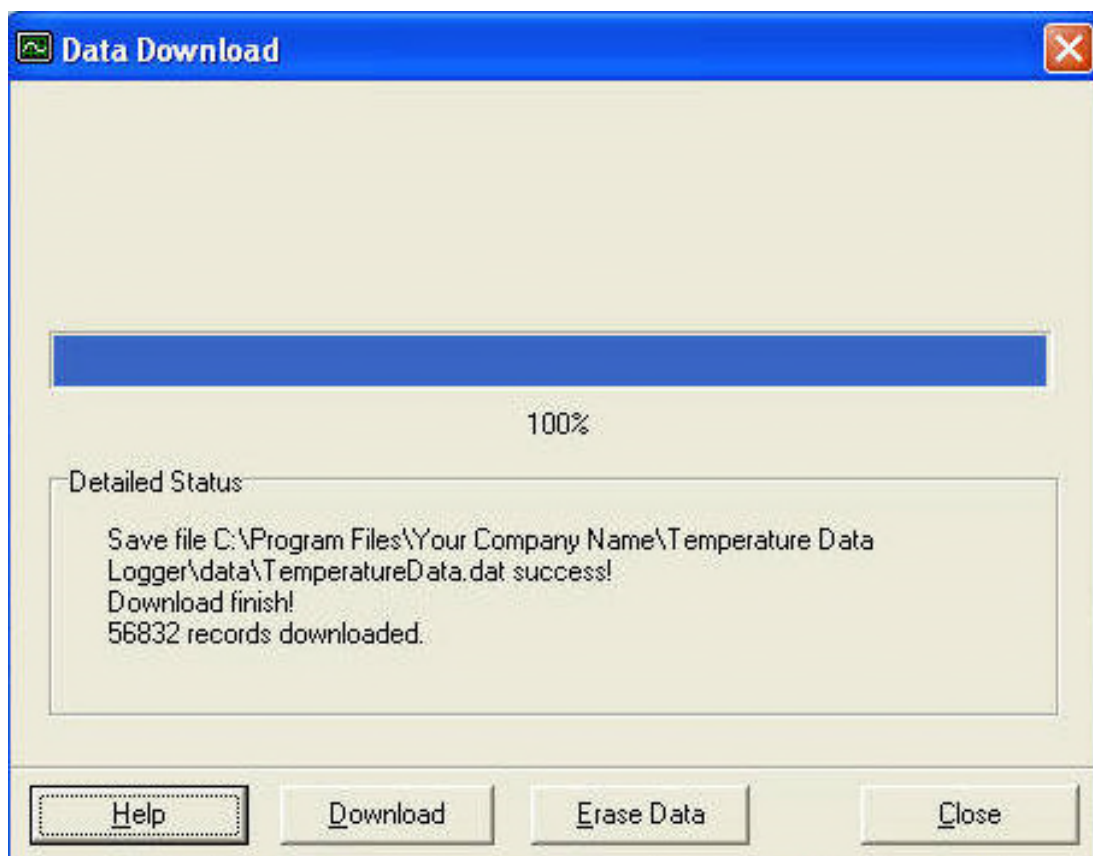
- Click Download to download the stored data.



- Click "Download" to start the download.

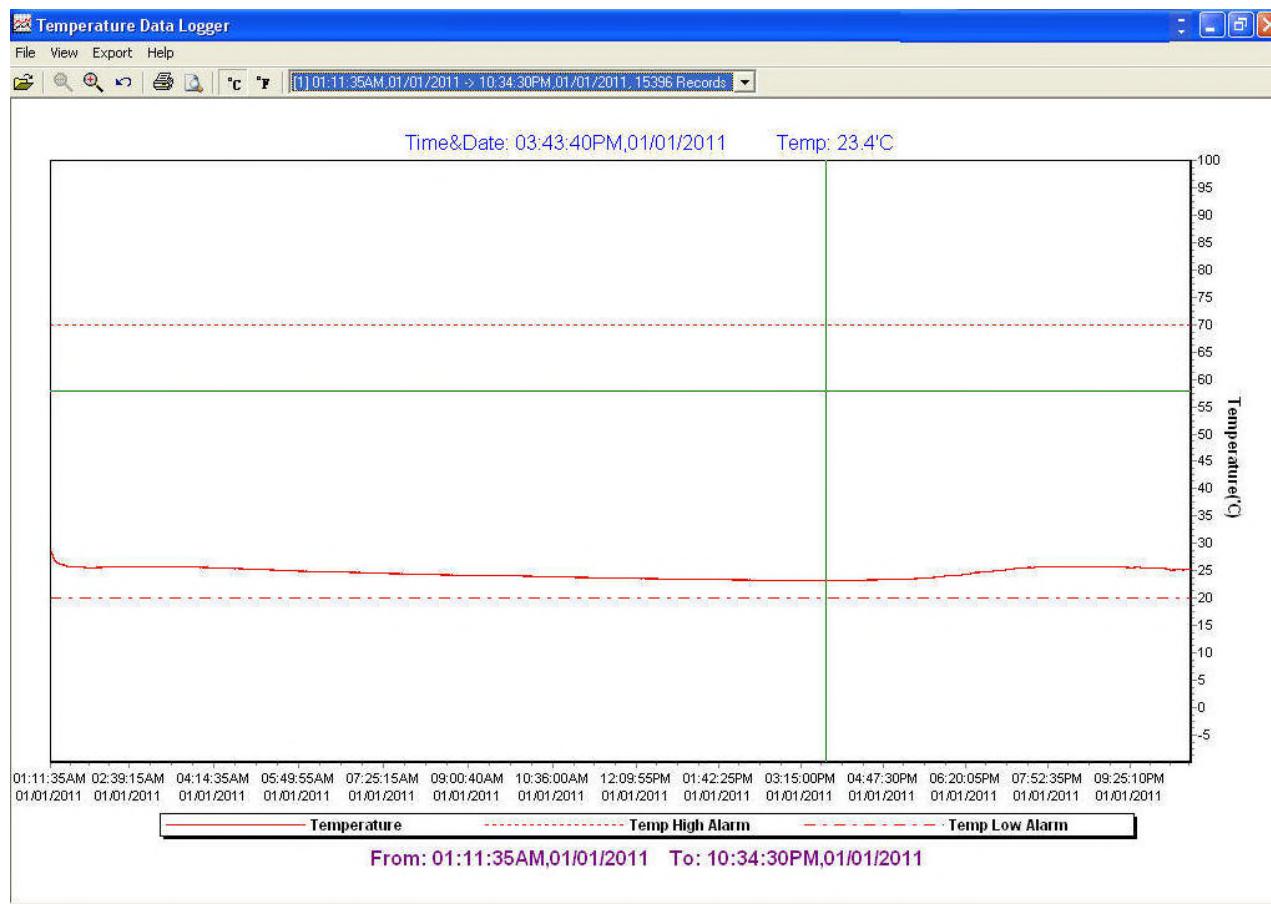


- Download Completed

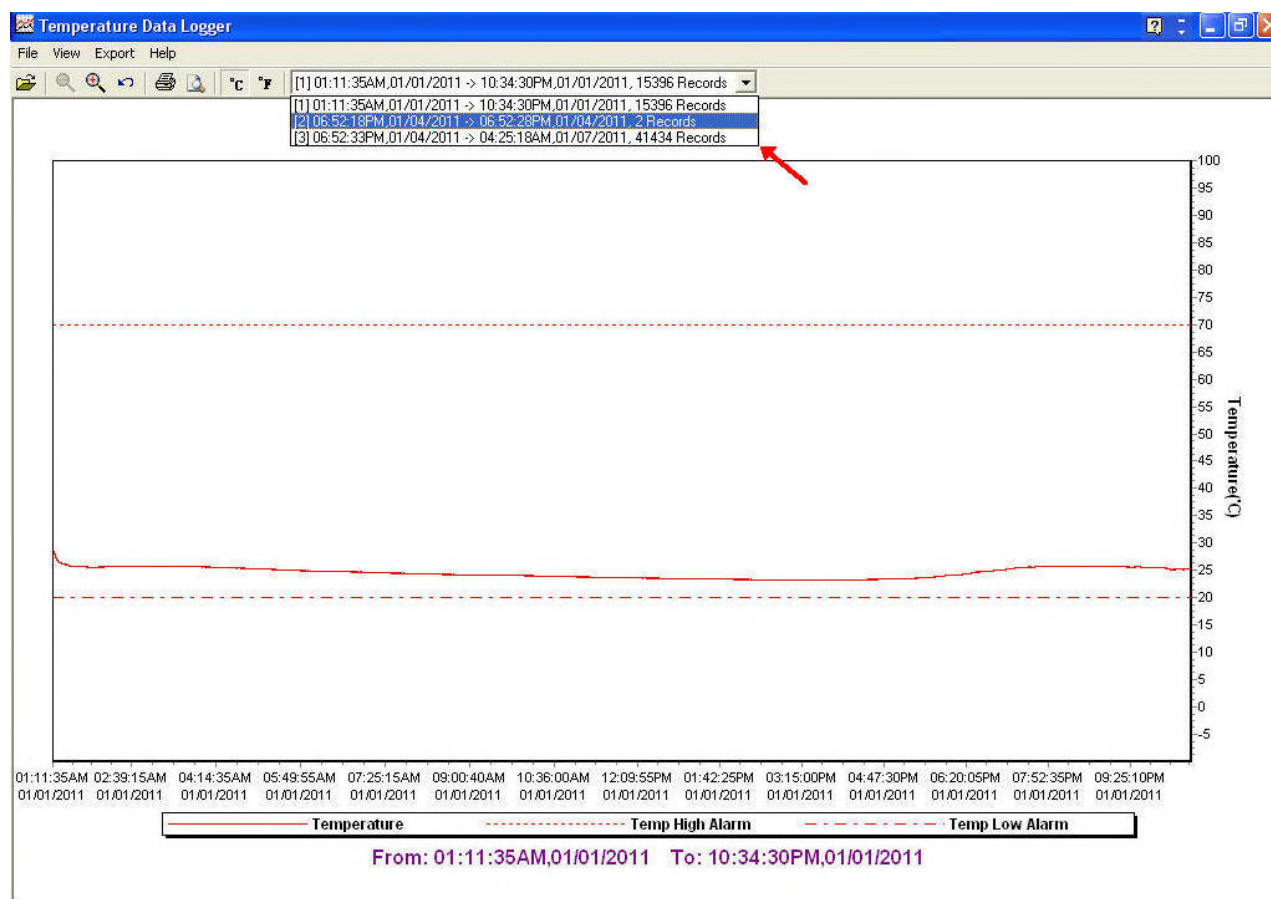
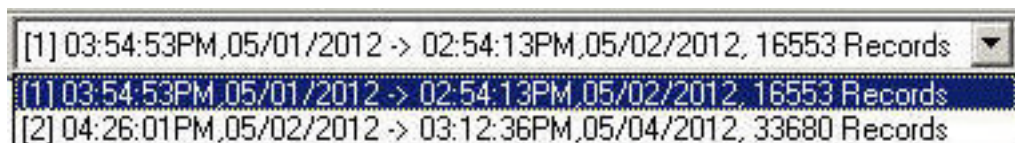


16 Graphic & Chart Analysis

Downloaded data will first be displayed in graph format.



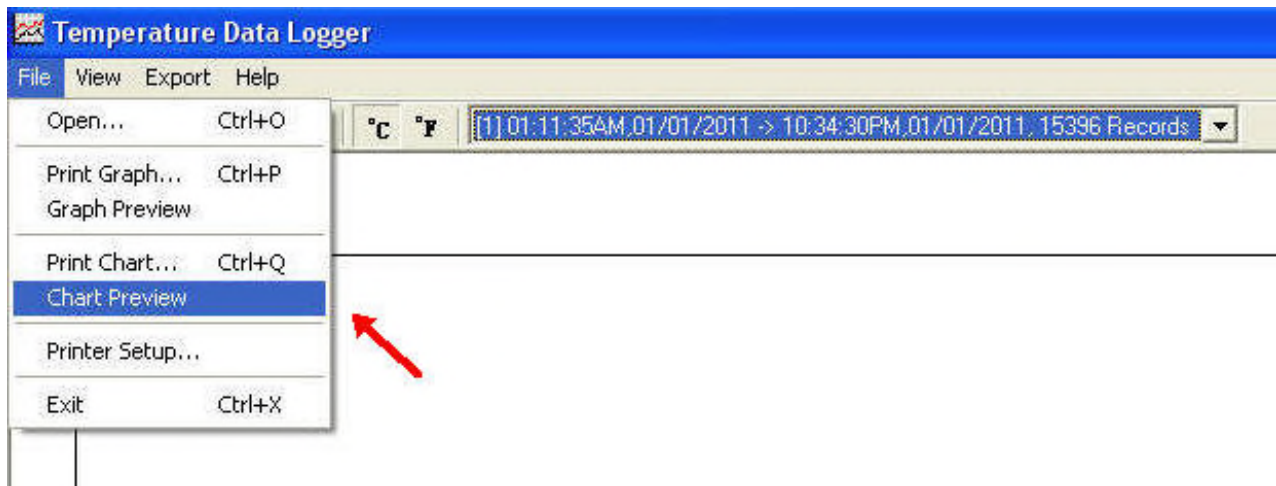
Each data groups are listed according to the date of the sampling. Lowest group number represents earliest sampling date.



17 Data in Listing Format

To display data in Listing format:

- Click File
- Click Chart Preview



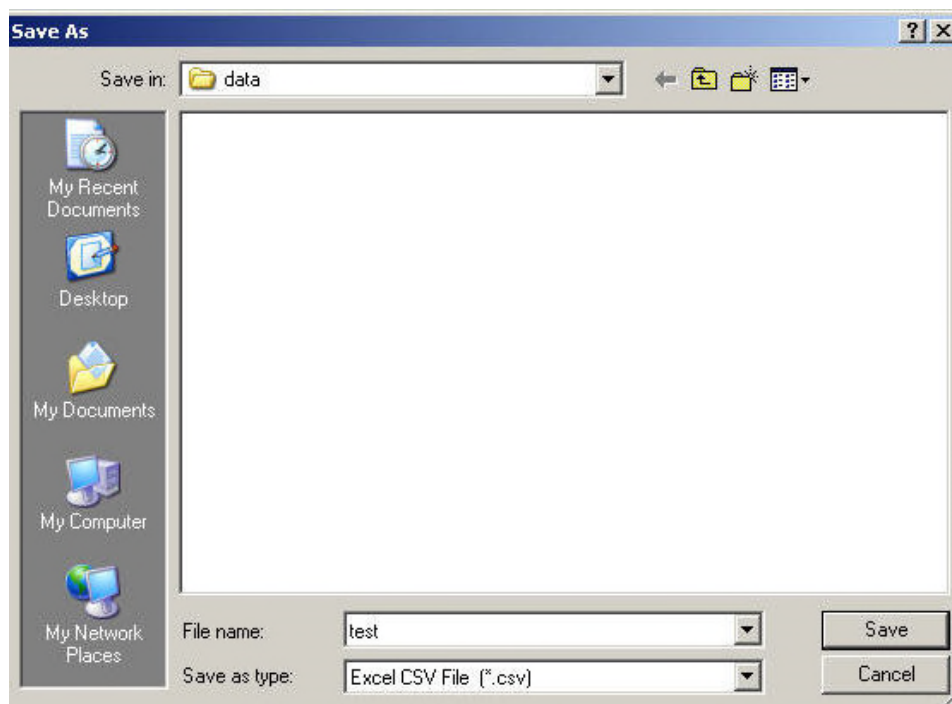
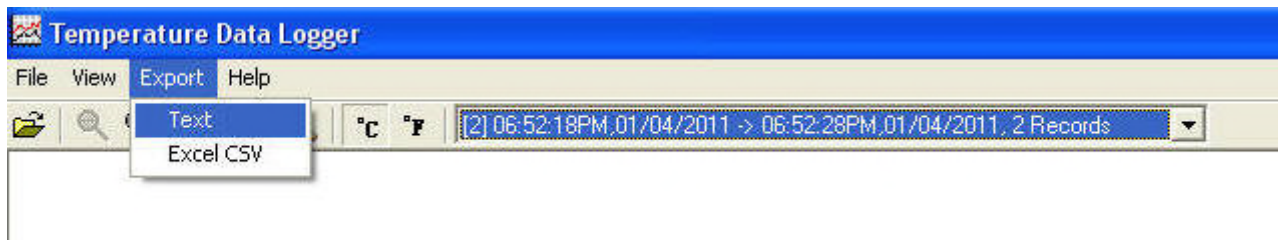
18 Data Listing Format

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	

19 Data Export

Select export data type: Text or Excel CSV.



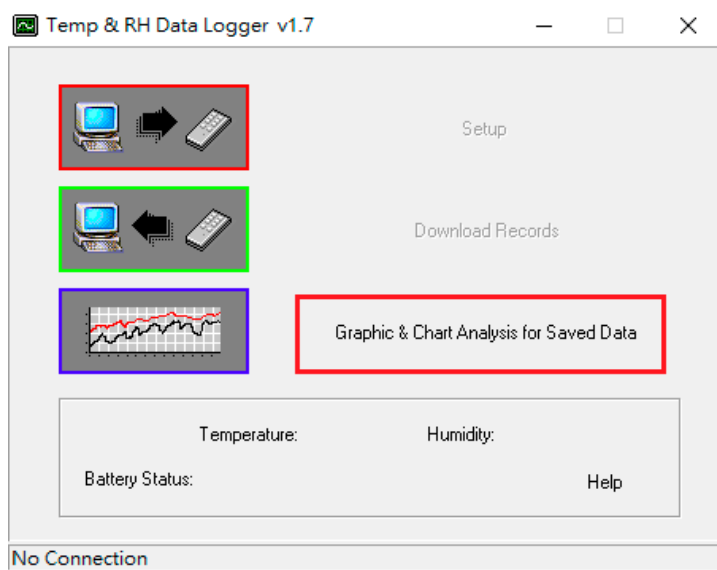
Click Save to save the file in .CSV/Text format.



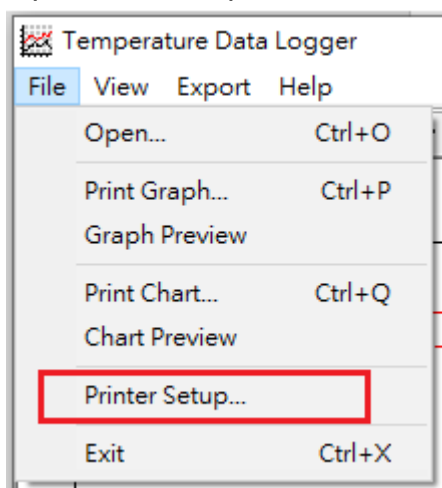
File Saved.

20 Printing report data

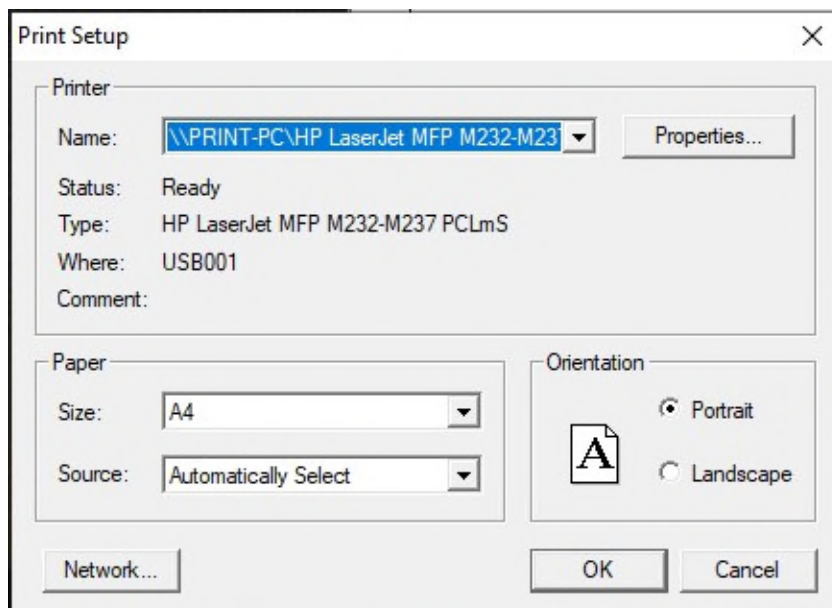
- Open the report window.



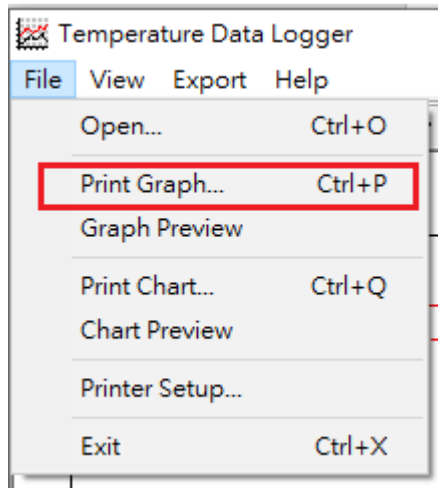
- Tap Printer Setup.



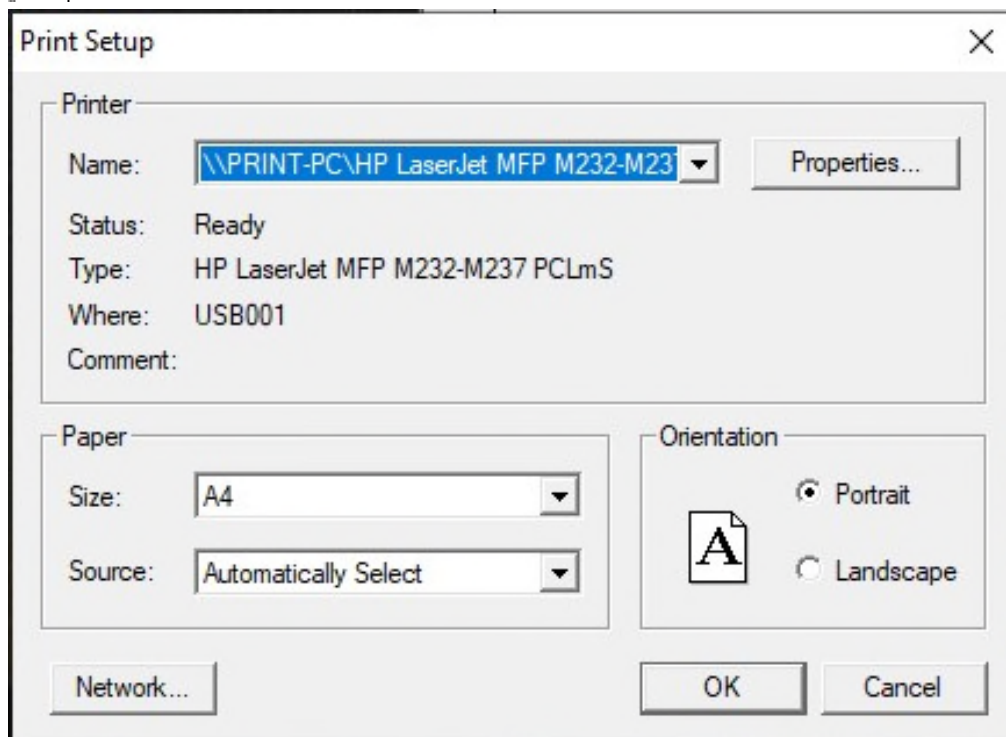
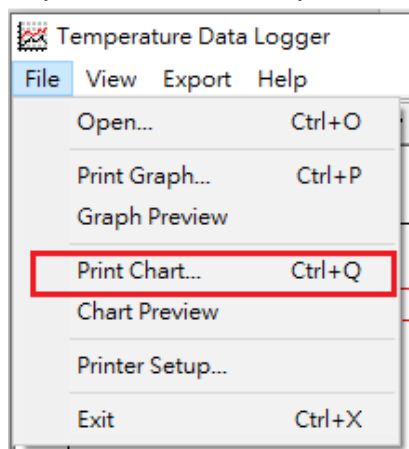
- Set the print.



- To print the Graph: Tap Print Graph to print directly.

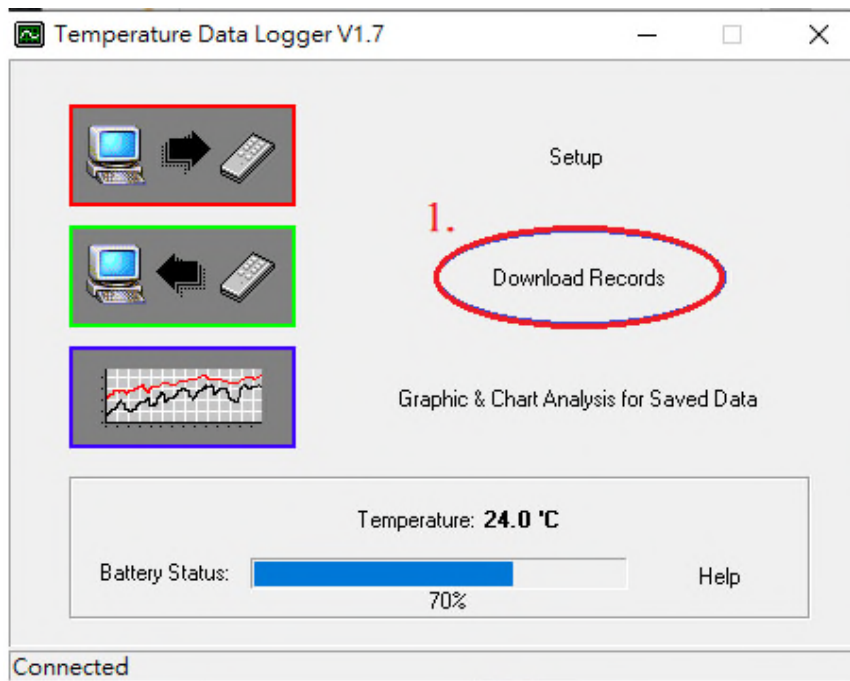


- To print the Chart: Tap Print Chart, set the print format, then print.

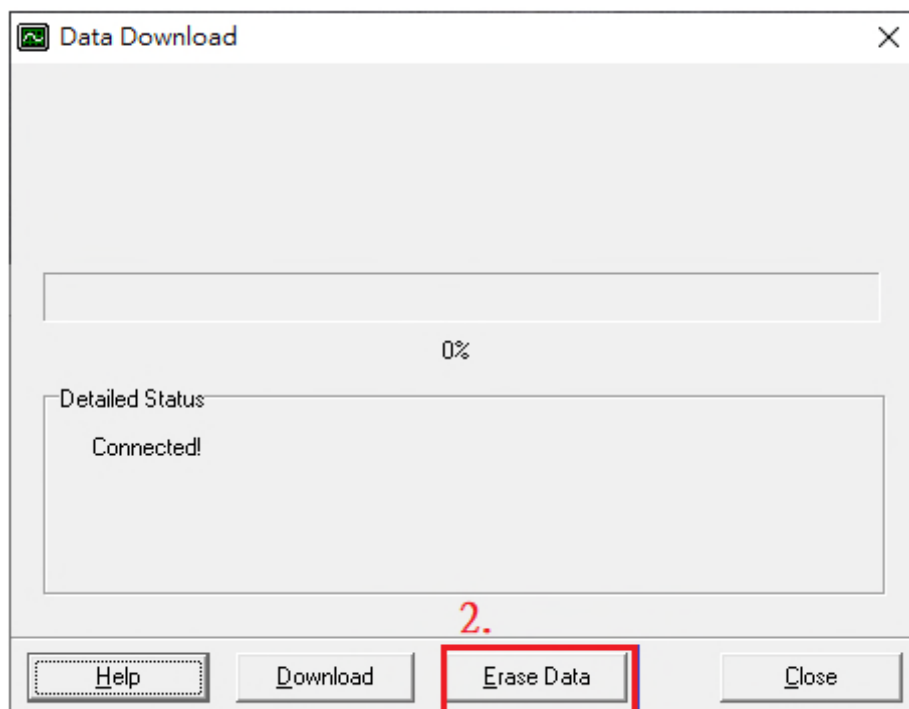


21 Erase Data

- Tap Download Records.



- Tap Erase Data to delete all recorded data.



- When erasing is finished, tap Close to exit the window.

