

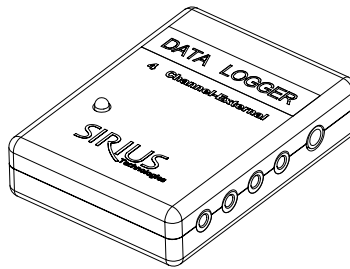
Sirius Technologies ST303 Data Logger
User Manual V1.0

ST303

4-Channel

Signal Processing

Data Logger



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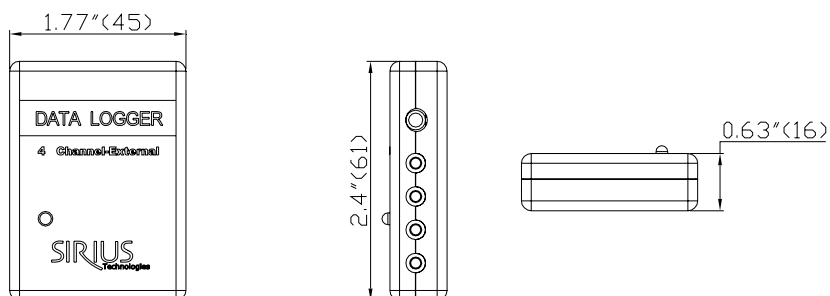
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1. Specifications & Dimension

1.1.- Dimension

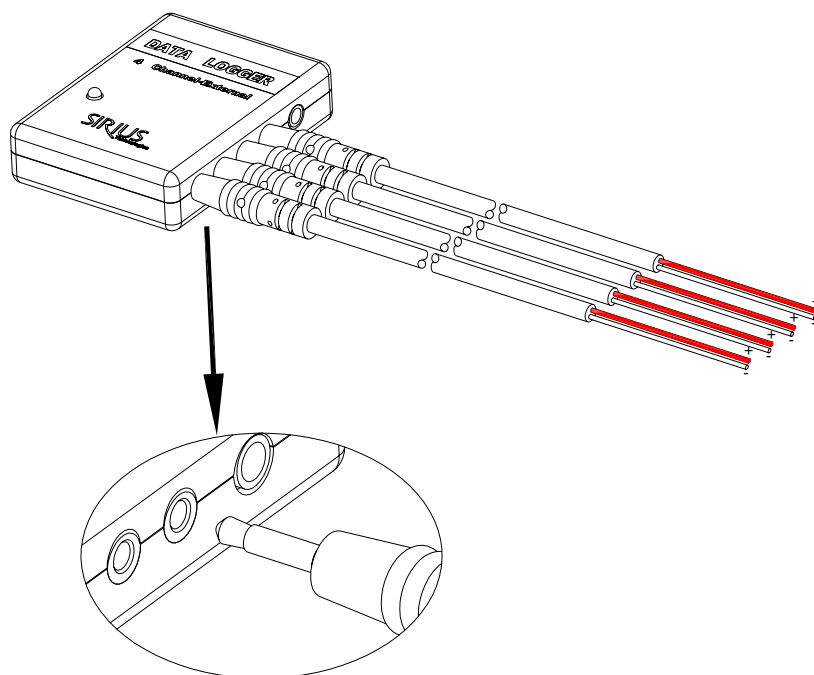


1.2.- Specifications

Model #	ST303
Type	4-Channel Signal Processing
Channels	1
Range	-20°C to 70°C
Temp. Accuracy	±0.7°C at 21°C
Resolution	12 Bits
Memory	128K
Interface	Serial/RS232
# of reading	30,000
Sensor Connection	External
Temperature Sensor	Thermistor-(-20C to 70C)
Voltage Sensor	0-10 DCV
Current Sensor	4-20mA

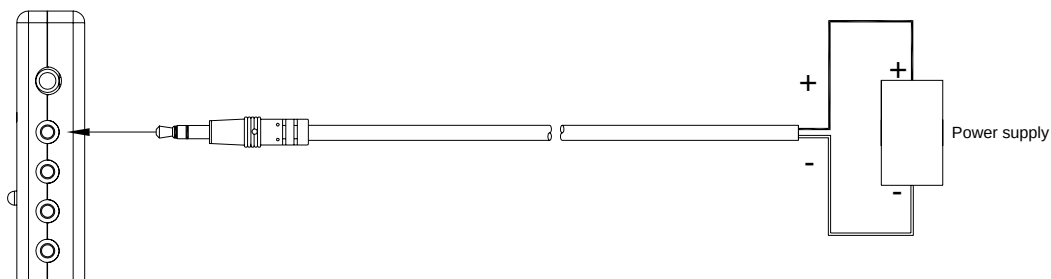
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1.3.- Typical 4-Channel Connection

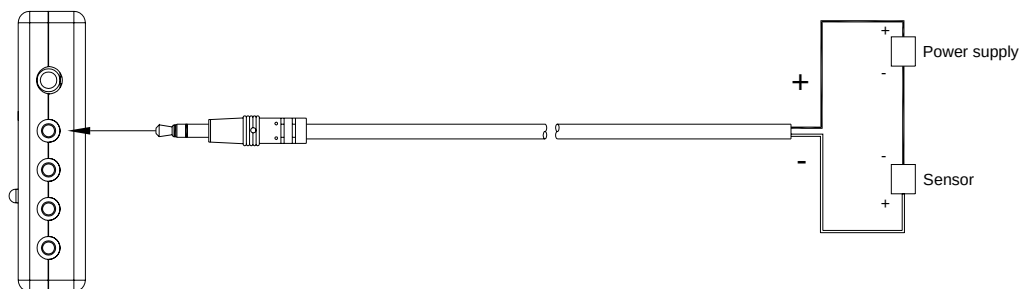


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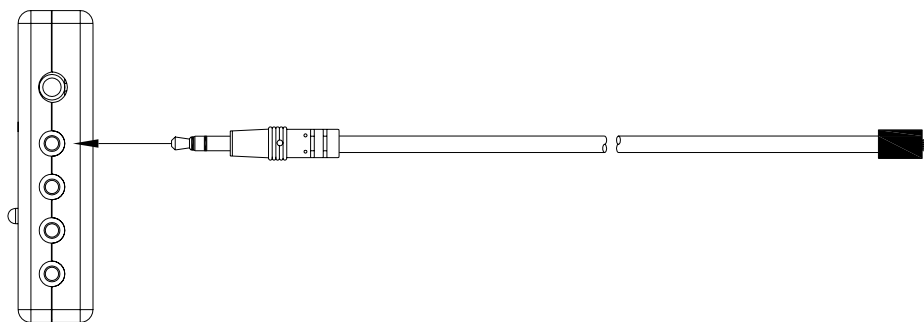
1.4-Voltage Connection



1.5.- Current Connection



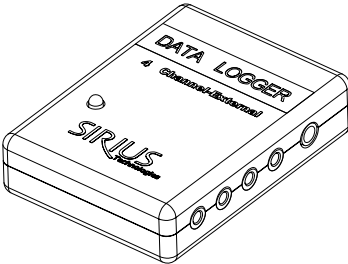
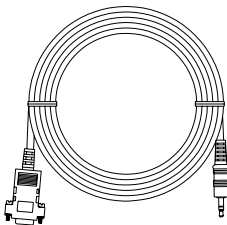
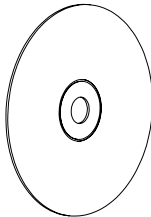
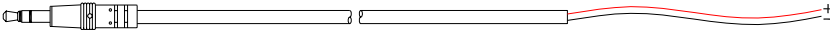
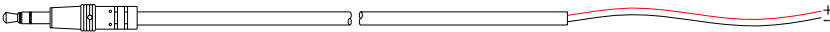
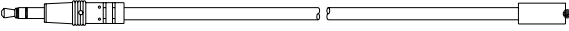
1.6.- Temperature Sensor Connection



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2. Data Logger Content

Model#	Description	Item
ST303	Data Logger	
RS1	RS-232 Cable	
SF300	Installation Disk	
S1	0-10V Voltage Cable	
S3	4-20mA Cable	
S4	Temperature Cable	

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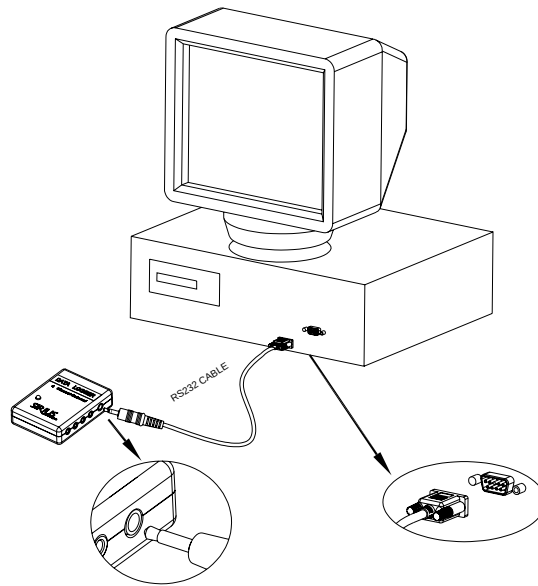
3. Installation Requirements:

- 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 Megas or ram
- Operating System Requirements:
 - Windows 2000
 - Windows XP

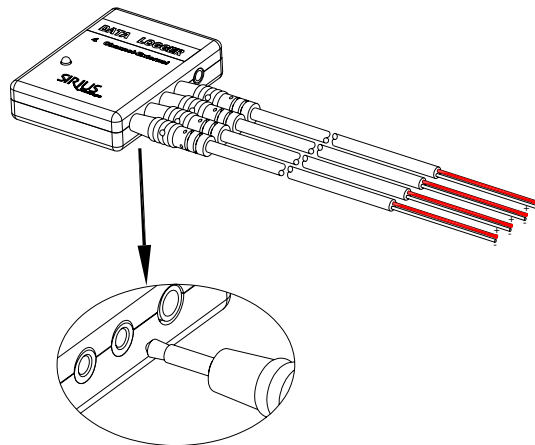
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4. Hardware Setup

1. Connect one end of cable to the data logger.
2. Connect the RS-232 end of the cable to the computer.



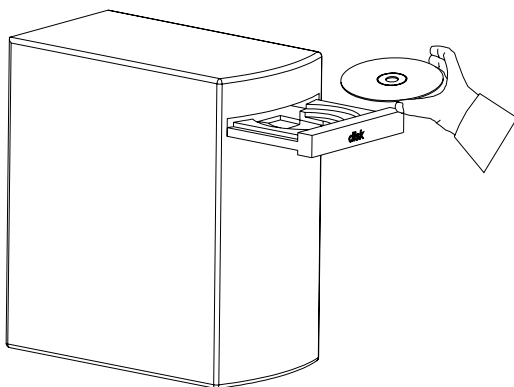
3. 4-Channel sensor connection.



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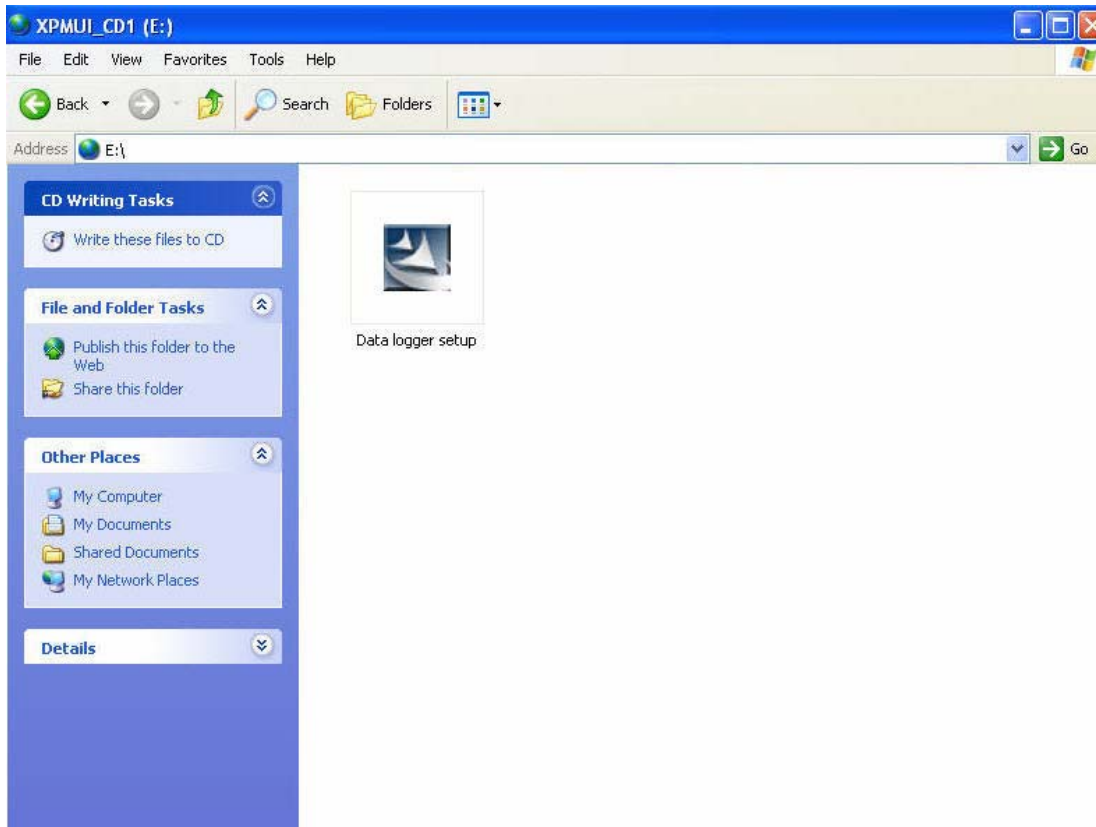
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5. Software Installation



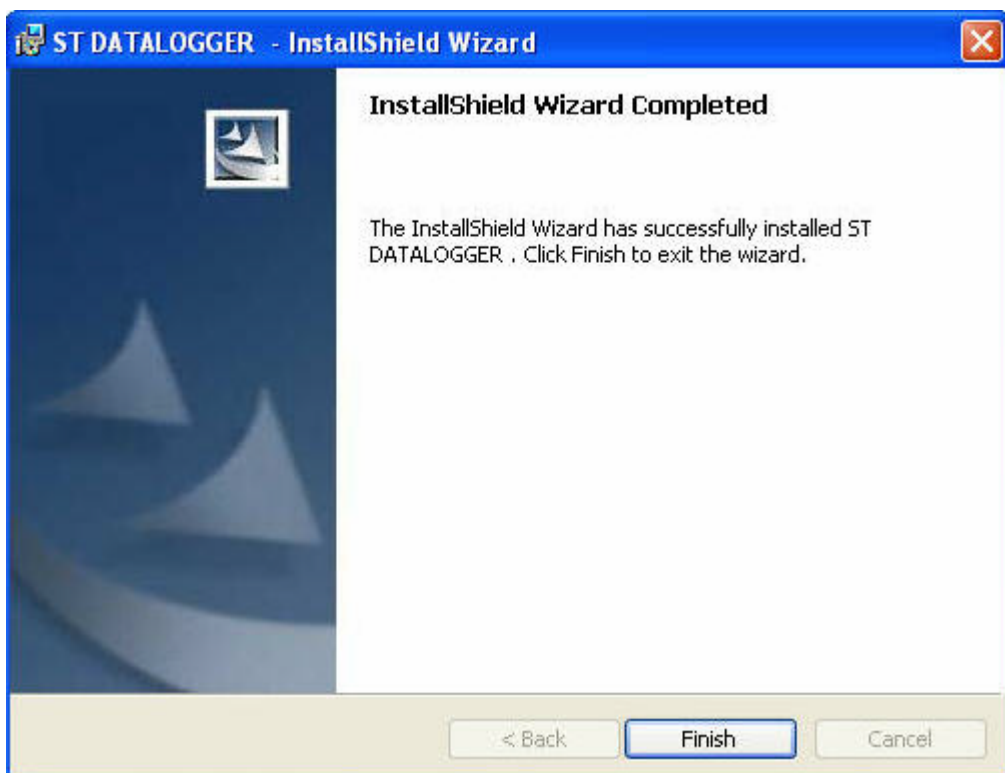
A. Insert the CD into the disk drive.

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B. Click on **Data logger setup** to start installation.

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C. Follow the Installation Shield Wizard and click Finish to complete installation.

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6. Data Logger Setup

6.1.- The ST303 Series data logger requires the user to setup the data logger from the PC interface program.

From the ST303 software main menu,
Click on **All programs**, Click on **Siriustech**, Click on **ST DATALOGGER**, Click on **ST Datalogger** to start the PC program.

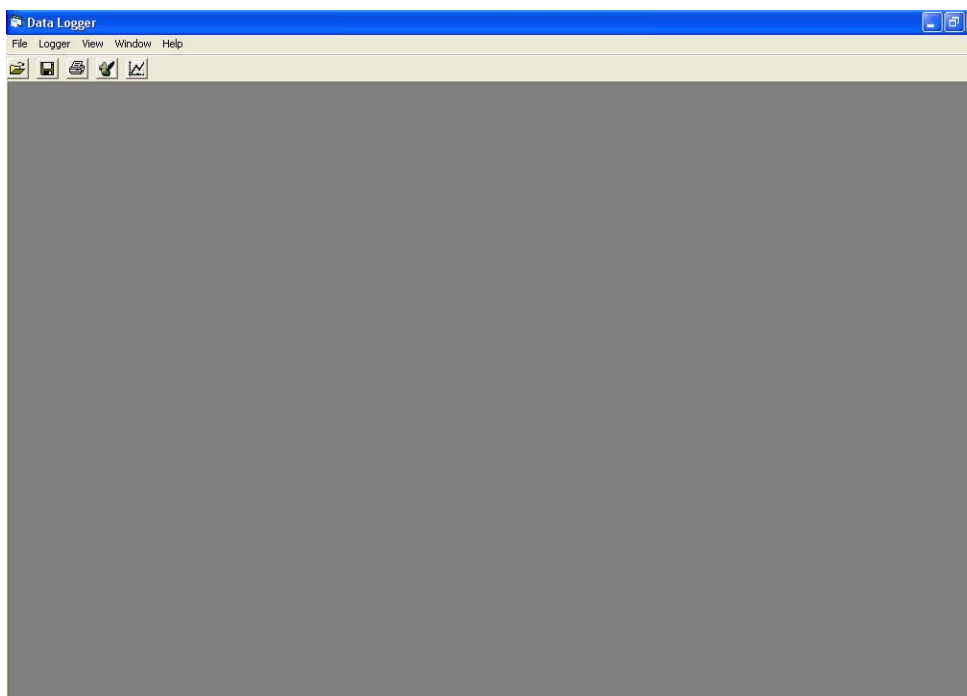


Figure 6.1- ST301 Data logger software main menu.

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Click on the icon to start the Setup menu.

Or



Click on **Logger**, click on **Setup** to enter the setup screen.

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6.2. Setup menu

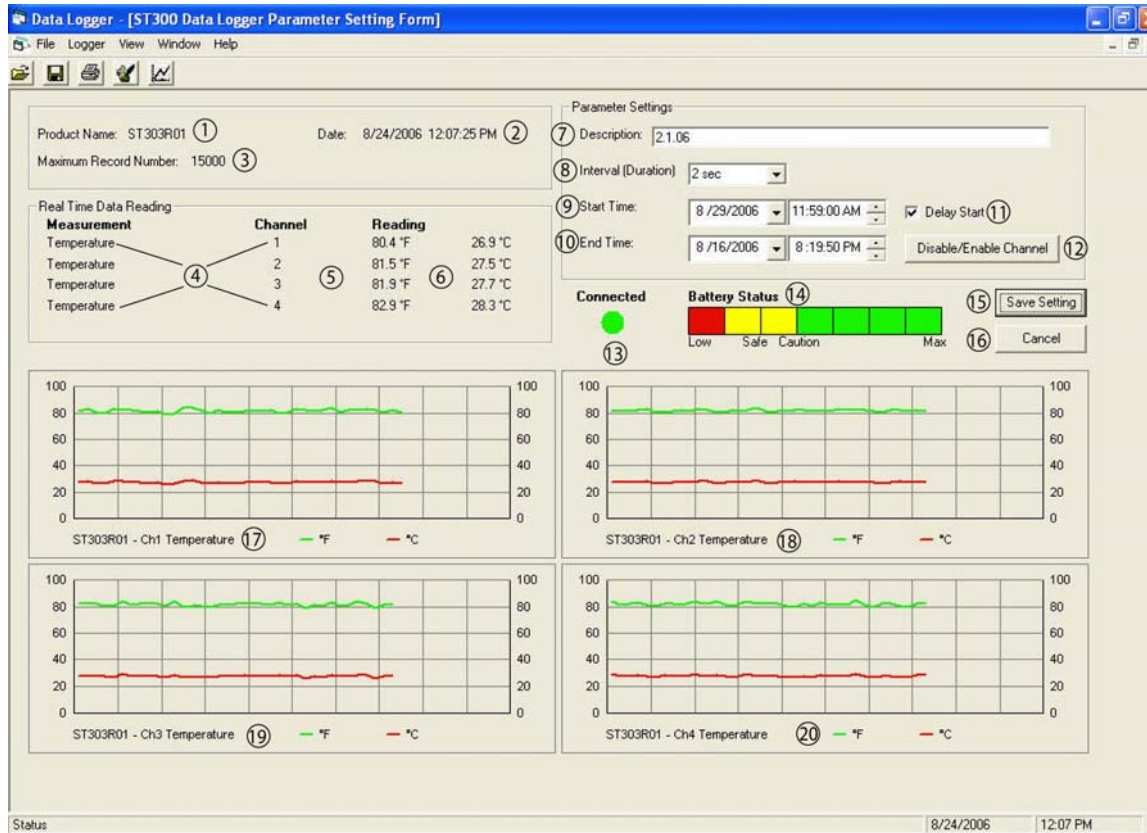


Figure 6.2- Setup Menu

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#	Item	Description
1.	Product Name	Program will identify model # connected to the RS232 port
2.	Date	Current computer date
3.	Maximum Record number	Maximum number of records can be store in one data logger
4.	Channel 1-4	Channel 1 to 4 display
5.	Temperature(F)	Current real time temperature reading in F
6.	Temperature(C)	Current real time temperature reading in C
7.	Description	Type in description for the data logger. The description will be saved in the data logger memory.
8.	Interval(Duration)	Select sampling Interval Sec(1/2/3/4/5/6/7/8/9/10/15/30/45) Min(1/5/10/20/30) Hour(1,2,8)
9.	Start Time	Select start date to start recording
10.	End Time	Select end date to end recording
11.	Delay Start	Check this box to start at later time(Need to set 9.Start time and 10.End time)
12.	Disable/Enable Channel	Select to enable or disable channel 1-4
13.	Connect	Connection Status –Green-Connected, Red-Disconnect
14.	Battery Status	Battery Status Indicator
15.	Save Setting	Click to save setting to the logger and start logging
16.	Cancel	Cancel
17.	Ch1 Real Time	Channel 1 real-time graphic display
18.	Ch2 Real Time	Channel 2 real-time graphic display
19.	Ch3 Real Time	Channel 3 real-time graphic display
20.	Ch4 Real Time	Channel 4 real-time graphic display

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Once the (9.)start date and (10)end date parameters have been selected, click (15)Save Setting to save the parameters to the data logger. If the (11)Delay Start Record box is checked, the logger will start according to the set start and end time. If the box is leave blank, the data logger will start recording immediately once the (15)Save Setting button is clicked.

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7. Data Logger Data Download



A. Click on the icon to start the **Download** menu.

Or

Click on **Logger**, Click **Download Records** to start the Download menu.



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7B. The software will try to establish the connection between PC and the data logger.

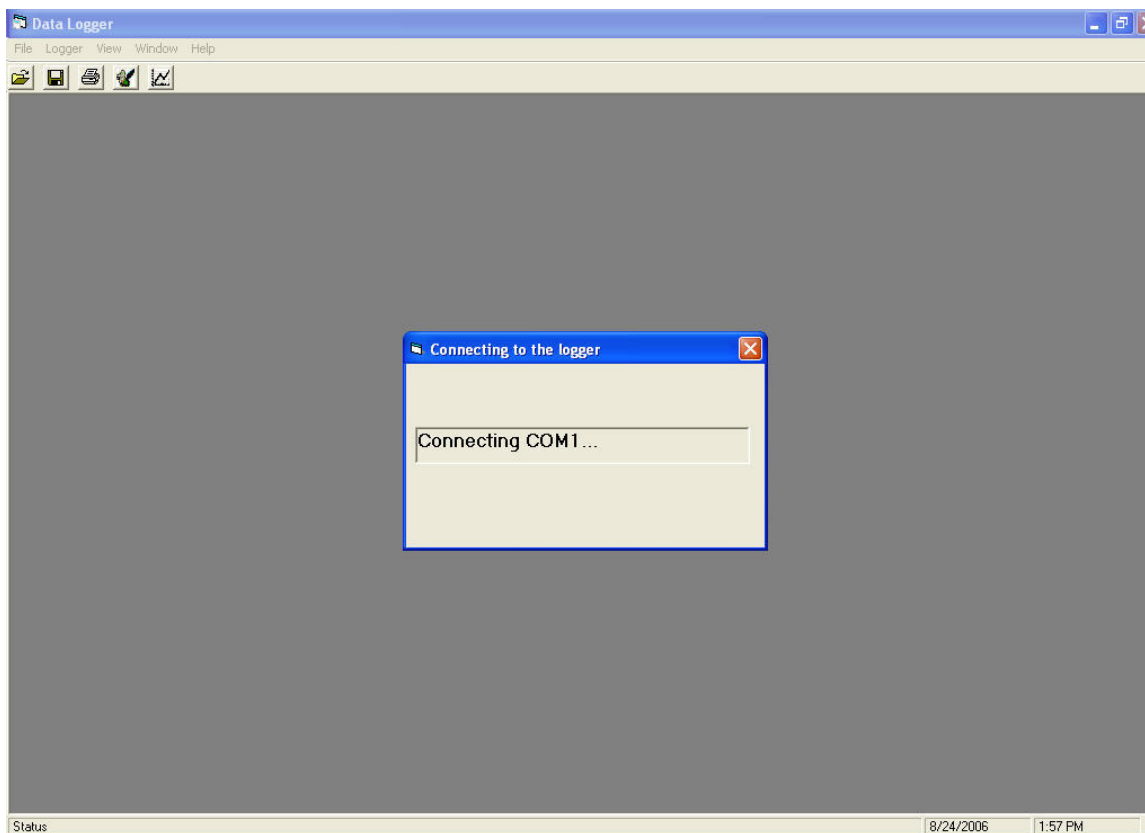


Figure 7B-Establishing Connection

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7C.- Data Logger Found.

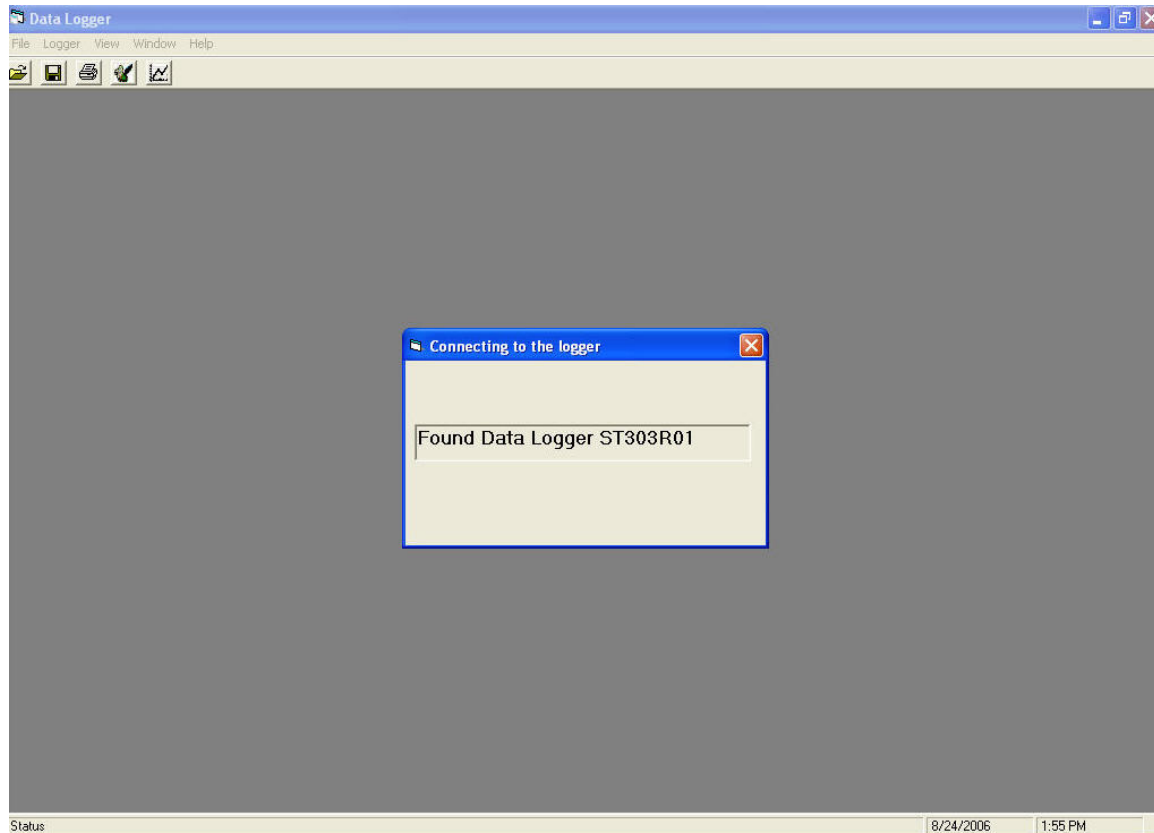


Figure 7C- Data logger Found.

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7D. Once the Connection is established, the software will automatically download all the records in the data logger to the PC.

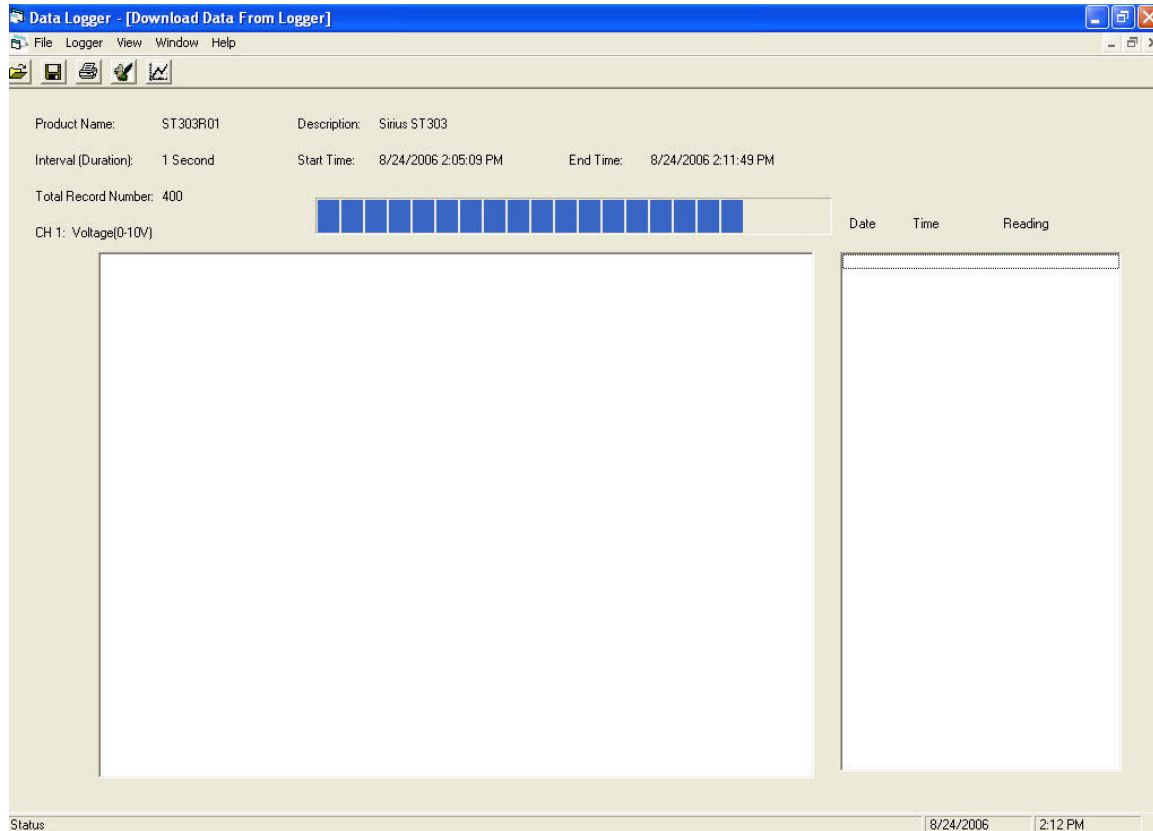


Figure 7D- Downloading Record

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7.E. Once the download is completed, the software will prompt you to save an .adc file. The .adc file is for ST301 software use only. The retrieved data records are saved in .adc format. The saved file can later be downloaded back to the computer for graphic and data viewing.

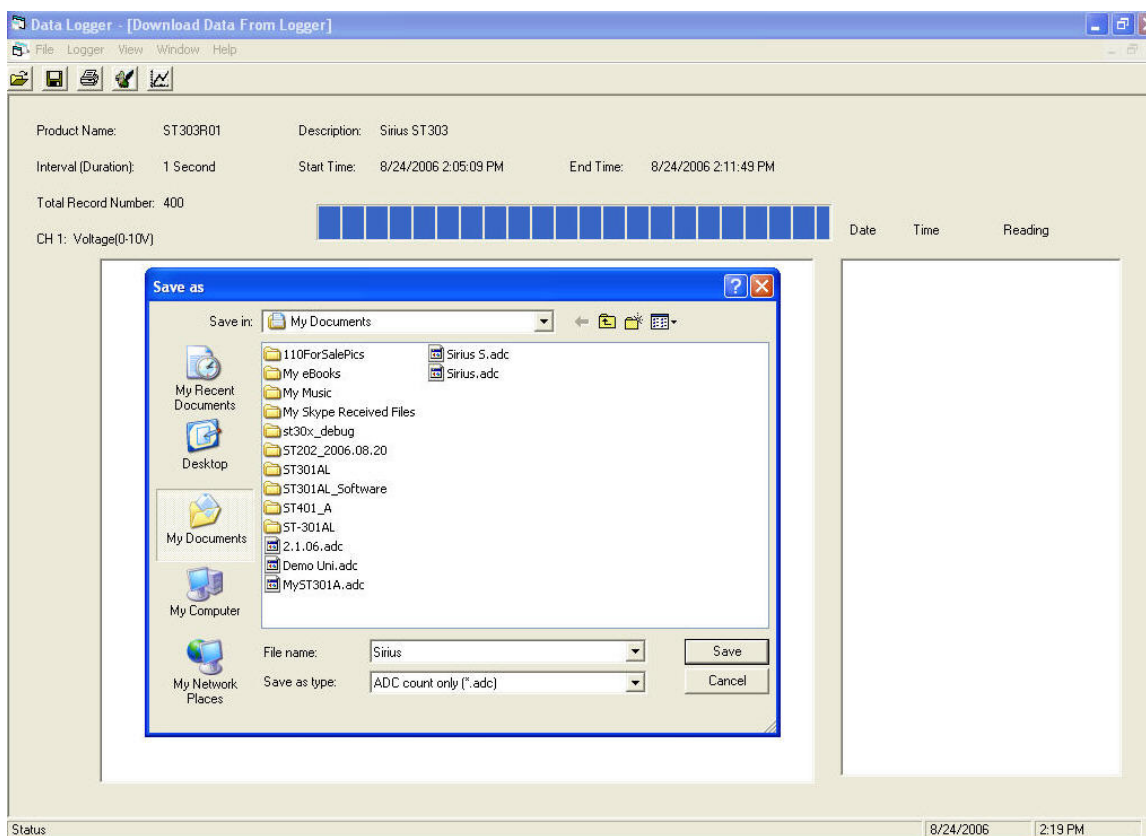


Figure 7E- Enter .adc file name

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7.F. After the .adc file is saved, the retrieved data will be display in both the graphic and data format for viewing. Click on the any data record set (A), will correspond to the exact point on the graphic(B).

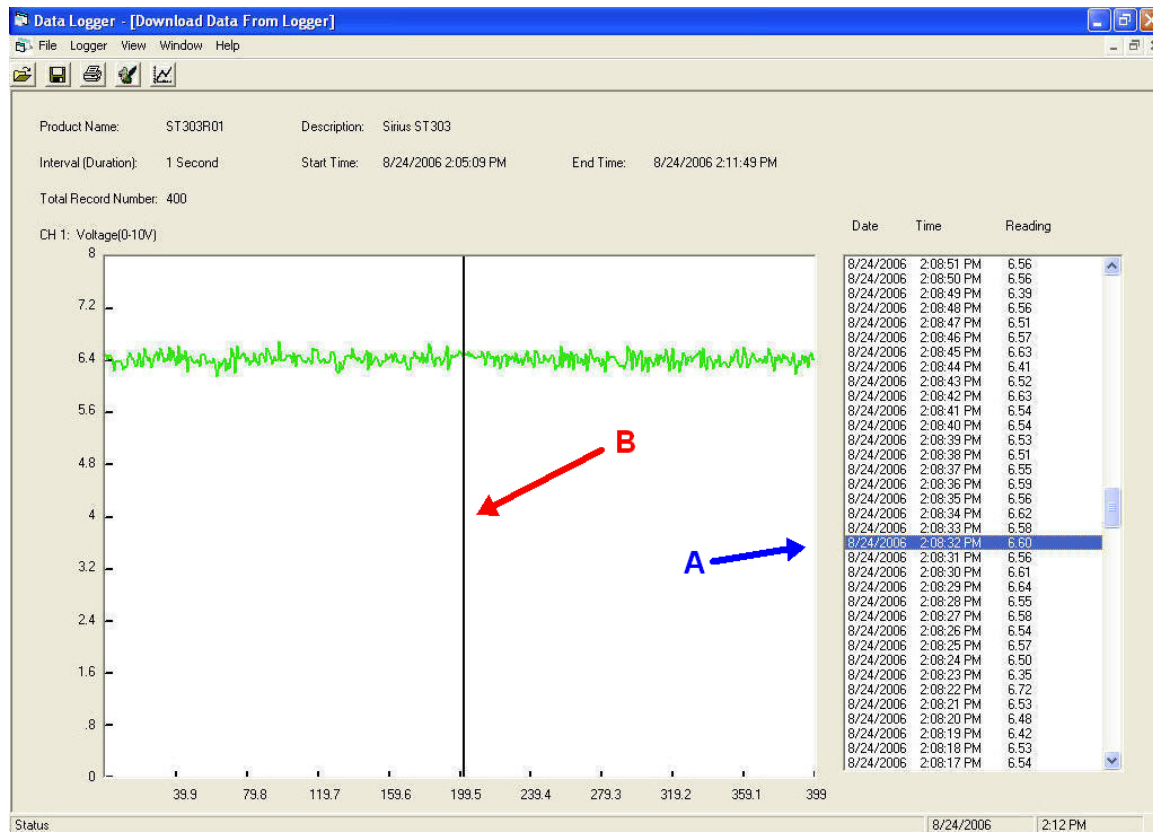


Figure 7.F.

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7.G. Channel Selection

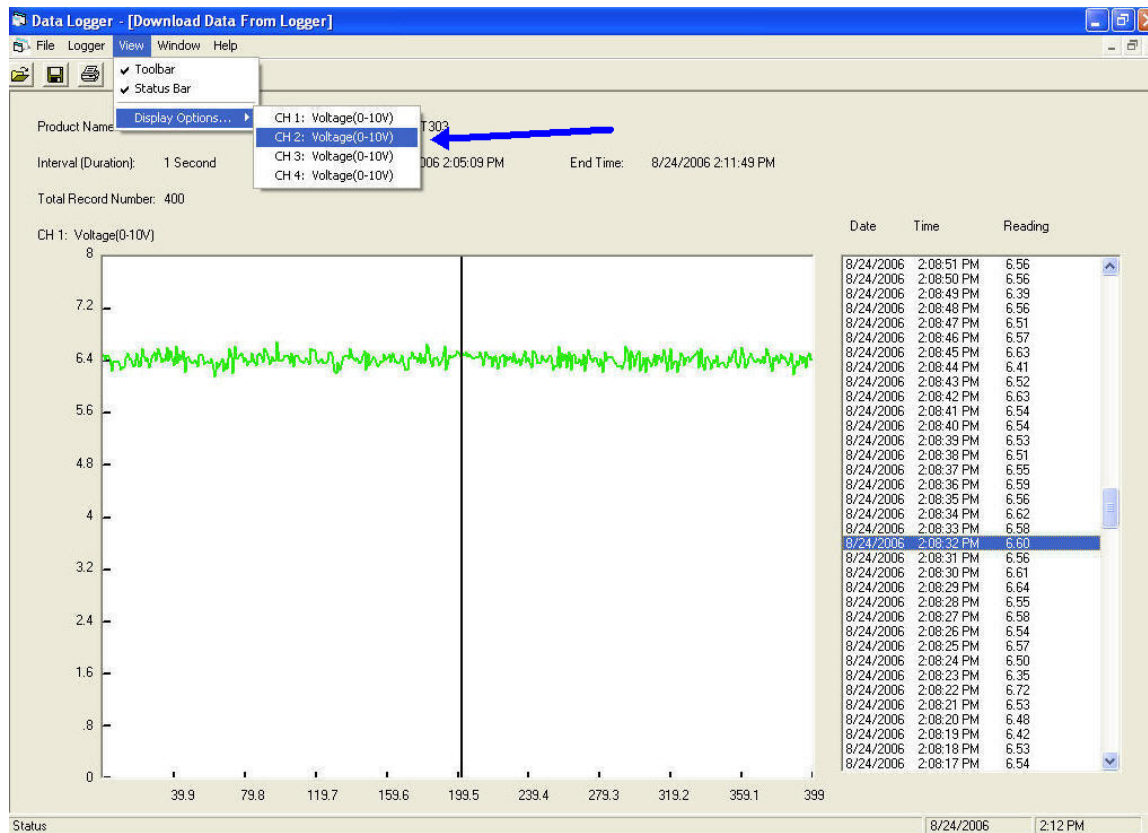


Figure 7.G.

Click on View, Click on Display Options to select Channel 1-4 to display on the screen. On the example, Channel 2 is selected.

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8. Using Other Software Functions

A. FILE

1. Open
 - Click on **Open** to open the file in .adc format.
2. Export Data to Excel File
 - .adc format file can be saved in Excel format for editing.
3. Print-
 - The display data set can be send to the printer by click on the **Print** command.
4. Exit
 - Click on **Exit** the ST303 data logger program.

B. Test COM Port

Click on **Logger**, click on **Test COM** port to test the validity of the communication port.

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9. Warranty

Sirius Technologies, Inc. equipment is warranted for a period of twelve (12) months from the date of purchase to be free of defects in material or workmanship. This warranty does not apply to damage resulting from accident, alteration, abuse, loss of parts or repair by other than Sirius Technologies, Inc. The equipment will be repaired or replaced, at our option, without charge to the owner for parts or labor incurred in such repair. This warranty shall not apply unless the equipment is returned for our examination with all transportation charges prepaid to:

Sirius Technologies, Inc.
418-B Cloverleaf Drive
Baldwin Park, CA 91706
U.S.A.