Temperature Datalogger

800057
INSTRUCTION
MANUAL

SPER
SCIENTIFIC LTD.

Data Logger: 64,000 Records
I. SAFETY INFORMATION .................. 2
II. FEATURES .............................. 2
III. GENERAL SPECIFICATIONS ......... 3
IV. PANEL DESCRIPTION ................... 4
V. OPERATION INSTRUCTIONS
   5.1 Setup ................................ 6
   5.2 Record Temperature .................. 8
   5.3 Erase Memory ........................ 9
   5.4 Download Memory ..................... 9
   5.5 Battery Replacement ................. 10
VI. Software
   6.1 Installation .......................... 11
   6.2 Introduction .......................... 13
I.  🚨 SAFETY INFORMATION

• Read the following safety information carefully before attempting to operate or service the meter.
• Only qualified personnel should perform repairs or servicing not covered in this manual.
• Periodically wipe the case with a dry cloth. Do not use abrasives or solvents on this instrument.
• Safety symbols:

⚠️ Dangerous, refer to this manual before using the meter.

లేదా Complies with European CE.

II. FEATURES

• LCD With Back Light
• Battery Status Display
• Memory Status Display
• Easy To Setup
• Windows Interface Software
• 64,000 Records Data Logger
• Water Proof
III. GENERAL SPECIFICATIONS

Measurement Range: -30°C ~ 70°C ; -22°F ~ 158°F
Accuracy: ±0.7°C(± 1.3°F)
Resolution: 0.1°C / 0.1°F
Data Logger: 64,000 Records
Storage Conditions: -30°C ~ 70°C
Operating Conditions: -30°C ~ 70°C
Response time: 20minutes to 95% under slow air.
Battery: Size AAA 1.5V x 2 (alkaline battery)
Battery Life: more than 1 year (1 minute interval @ 25°C)
Dimension: Recorder: 92 x 55 x 21mm
            Base: 107.5 x 62 x 28 mm
Weight: Recorder: 95g Approx.; Base: 60g Approx.
Accessory:
Instructions, Wall Hanger, Alkaline Battery Size AAA 1.5V x 2,
Communication Base, RS-232 Connection Cable,
Windows Software Disk.
(Battery is placed in the logger before shipping.)
IV. PANEL DESCRIPTION

1. LCD Display
2. INTV Setup Button
3. Select Button
4. Back Light Button
5. Temperature Sensor
6. Infrared RS232 Interface

Data Logger: 64,000 Records
① RS-232 Jack
② Slip Proof Rubber
③ Infrared RS232 Port
V. OPERATION INSTRUCTIONS

5.1 Setup

Date And Time Setup:

1. Hold \textit{INTV} \textit{SELECT} buttons simultaneously for 3 seconds to enter date and time setup mode.
2. Press \textit{INTV} to select year, month, day, hour and minute setup.

\begin{center}
\begin{tabular}{c}
2002 \rightarrow 10:25 \rightarrow 12:40
\end{tabular}
\end{center}

3. Press \textit{SELECT} to set value on year, month, day, hour and minute.

\textbf{Note:}
Be sure to reset the data and time after replacing battery.

The user can also setup the time through the PC software. There is a button in the software directly synchronize the setup to the PC.
Setup Recording Interval and Temperature Unit:

1. Press and hold \( \text{INTV} \) for 2 seconds to record interval setup mode.(P-1)

2. Press \( \text{SELECT} \) to select recording interval. Options are 1,2,5,10,15,20,30 seconds and 1,2,5,10,20,30,60 minutes.

3. Press \( \text{INTV} \) to finish recording interval setup and go to temperature unit setup mode. (P-2)

4. Press \( \text{SELECT} \) to select °C or °F.

5. Press \( \text{INTV} \) to save and exit setup mode.
5.2 Temperature Recording

1. Press and hold \text{SELECT} for 1 second to start recording and LCD will display "REC".

2. To stop recording, press and hold \text{SELECT} for 1 second again. The “REC” symbol will disappear.

3. After step 1 and 2, it is called a data set stored in Recorder.

Note:

1. It is important to check the memory status before recording.

2. LCD will show “FULL” when 64,000 record, or 15 data sets are stored in the Recorder.

3. If temperature recording is not active, recorder will power off automatically after 60 seconds. It can be powered on by pressing any button.
4. During temperature recording, recorder will turn on the LCD for 2 seconds and then go into power saving mode during each record interval.

5.3 Erase Memory

1. Press and hold simultaneously for 3 seconds to clear memory.

2. LCD will display “CLR”.

   ![LCD Display](image)

   Memory display will resume in full status

**Note:** You cannot erase the memory while temperature recording is active.

5.4 Download Data

1. Dock the recorder to the communication base and connect the RS-232 cable to PC.

2. Run the SE-345 software, LCD will display “RS-232” to indicate the linking status.
3. Click “DataLogger” from SE-345 menu to download data.

**Note:**
1. Refer to page 11(6.1) about installing SE-345 software.
2. Refer to page 12(6.2) about software introduction.

### 5.5 Battery Replacement

1. Please stop data recording before replacing battery.
2. Use two Alkaline Battery Size AAA 1.5V.
3. After replacing the battery, tighten these three screws securely.
VI. Software

6.1 Installation

• System Required:
  Windows 95/98/ME/NT 4.0. /2000/XP

• Minimum Hardware Required:
  PC system with Pentium 233MHz or higher.
  64 MB RAM.
  4X CD-ROM Drive or higher.
  Recommended resolution 1024X768(or 800X600).
  At least 15 MB byte of free hard disk space available to install SE-345.

• Installation:
  1. Close all other applications before installing the TestLink SE-345 software.
  2. Insert the setup CD disc into CD-ROM drive and the installation program should start automatically.
  3. If installation does not start automatically, choose the start button on the Taskbar and select Run.
  4. Type E:\SETUP and choose OK. The SE345.exe (executable file) and Help file will be copied to your hard drive (default is c:\program files\SE345).
6.2 Introduction

• Main Screen

Main menu
Tool menu
DataLogger window
Data Set List
Data List
Graph
Max/Min/Avg display

• Main Menu

**File**: Open - Open files saved previously from the disk.
  *Save* - Save the data to the disk.
  *Print* - Print the data (graph or list).
  *Printer Setup* - Select printer.
  *Exit* - Terminates program.

**DataLogger**: By opening the DataLogger Window, the user can download recorded data from the meter to PC in this window.

**Setup**: Setup Recorder from PC.

**COM port**: Select PC communication port manually.
**View**: Open LCD display window.

**Window**: Arrange windows

**Help**: On line help.

**• DataLogger**

Connect the Temperature Recorder to the PC. Start the SE345 software and select "DataLogger" from main menu or click from tool bar to load recorded data from the logger. There will be a progress indicator to show the download progress. If error occurs, just click "DataLogger" again. After the data was downloaded completely, the top left hand side the widow will show how many data sets were loaded and information for each data set (start data, start time, recording rate and record numbers).

For examples, the figure below indicates that there are two data sets. Set 1 has 1325 records and set 2 has 19349 records.

**Note**: It will transfer first data set to the graph on the right hand side and list data after loading; you can click other data set to view the graph and list of the data set you select.

**• Setup Logger**

You can setup Logger from the software, just select “Setup” from main menu or click from tool.
Note: After you select interval or unit, you have to click the OK button to make this change valid.

- Tutorial Quick Start

(1) Recording real time data from PC.

1. Put the Temperature Recorder on the Communication Base, and connect it to a PC serial port with the SE-120 cable.
2. Run the SE345 Software.
3. If the connection is successful, the LCD will display the same value as the Temperature Recorder. If the communication fails, there will be no "RS-232" symbol on the LCD window.
(2) Save the recorded real time data to a file:

1. Select the window you want to save by clicking it, then choose File|Save from main menu or click from the tool bar.

2. There will be a save dialog window for you to assign the file name and file type to save.

3. There are three types of file you can choose, they are binary file (*.ghf), text file (*.txt) and EXCEL format file (*.csv). The * .ghf file uses less disk space to save the data than the other two file formats, but it can only be used in TestLink SE345 software. Text file can be opened by TestLink SE345 and any other word processor program like word, notepad etc. EXCEL format file can be opened by TestLink SE345 and Microsoft EXCEL.
(3) Download the recorded data from the memory of Temperature Recorder and save it to a file:
1. Connect the Communication Base to PC
2. Put the Temperature Recorder on the Communication Base.
3. Start SE345 program.
4. Choose Data Logger from main menu or click from tool bar.
WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of five (5) years from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover probes, batteries, or damage resulting from accident, misuse, or abuse of the product. In order to obtain warranty service, simply ship the unit postage prepaid to:

Sper Scientific, Ltd.
7720 East Redfield, Suite 7, Scottsdale, Arizona 85260

Please note: The defective unit must be accompanied by a description of the problem and your return address.

Please be sure to return your warranty registration care within ten (10) days of purchase.