



# Meter Software

850080

Instruction Manual

SPER  
SCIENTIFIC LTD.

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### Introduction

Your software works with a number of Sper Scientific Meters. It provides 3 displays, up to 8-channel simultaneous monitoring, high/low alarm, variable sampling times (2~3600 sec), and produces .mdb data files compatible with spreadsheets and databases.





### **System Requirements:**

At least one Communications Port  
VGA Monitor Type or higher  
RS232 Cable (840057 sold separately), and  
Win 95: 16 mb memory, 486, 586 or higher, or  
Win 98, Windows ME, Windows XP: 32 mb mem, 586 or higher.

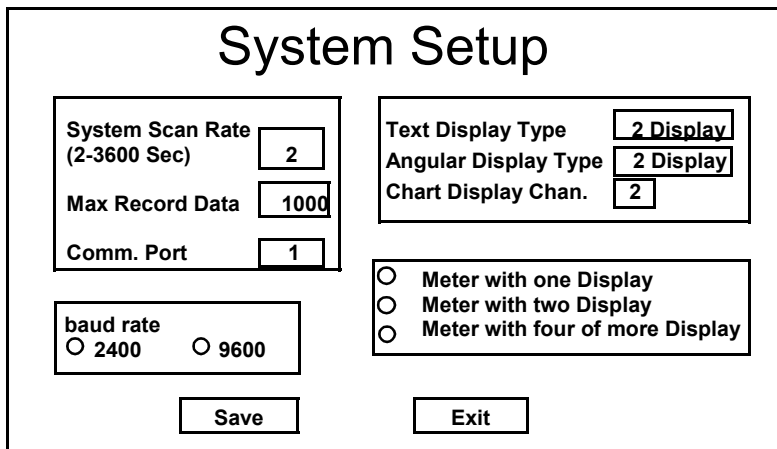
### **Software Installation:**

- Before installation, remove any previous version of the software.
- With the computer turned off, connect the RS232 cable to both the computer's 9-pin COM port and to the meter's RS232 output.
- Start the computer and insert the CD Rom into the computer.
- Select "RUN" from the computer's Start Menu.
- Type "D:\setup.exe and click OK. Substitute your CD's drive letter for D: if necessary. Follow the on-screen prompts.
- Restart your computer when the installation ends.

### **System Setup (Fig. 1):**

- From your computer's Start Menu, select "Programs" and Click on "SPER."
- Once the program opens, select "Setup" from the menu bar, then click "System Setup".
- Enter a value in the "System Scan Rate" box to specify the sampling time (2 –3600 seconds).
- Enter a value in the "Max Record Data" box to specify the maximum record number.
- Click the "Comm. Port" selector to set the Communications Port.
- Select the baud rate: 2400 (slow) or 9600 (fast).
- Select the desired number of "Text Display Type" (1, 2, 4, 6 or 8 digital displays).
- Select the desired number of "Angular Display Type" (1, 2 or 4 analog displays).
- Select the desired number of "Chart Display Chan." (1-8 channels).
- Select the meter display information (1, 2 or 4+ displays).
- Click "Save", then click "Exit" to return to the main menu.

Fig. 1

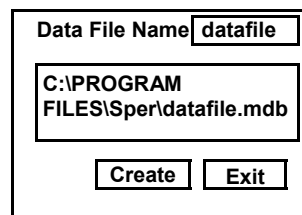


The 'System Setup' dialog box contains several configuration options. On the left, there are three input fields: 'System Scan Rate (2-3600 Sec)' with the value '2', 'Max Record Data' with '1000', and 'Comm. Port' with '1'. Below these is a 'baud rate' section with radio buttons for '2400' and '9600'. On the right, there are three more input fields: 'Text Display Type' with '2 Display', 'Angular Display Type' with '2 Display', and 'Chart Display Chan.' with '2'. Below these is a radio button group with three options: 'Meter with one Display', 'Meter with two Display', and 'Meter with four of more Display'. At the bottom, there are 'Save' and 'Exit' buttons.

**Create a New Data File (Fig. 2)**

- From the program's menu bar, select "Setup", then click "Create New Data File".
- Enter a file name in the "Data File Name" box.
- Click on "Create" then click "Exit".

Fig. 2



The 'Create New Data File' dialog box features a 'Data File Name' input field containing the text 'datafile'. Below this is a text box showing the file path 'C:\PROGRAM FILES\Sper\datafile.mdb'. At the bottom, there are 'Create' and 'Exit' buttons.

## Operating Procedures:

### Angular Display (Analog)

- From the program's main menu bar, select "Monitor", then click "Angular Display".
- Select the "Page Setup" tab.
- Enter your settings (Fig. 3).
- Click "Save."

Fig. 3

2 Angular Display Page Setup		4 Angular Display 1 Angular Display	
One Display Display 1 1		Display Setup Channel No 1	
Two Display Display 1 1 Display 2 2		Min Value 2	
Four Display Display 1 1 Display 2 2 Display 3 1 Display 4 2		Max Value 80	
Save		Large Tick Delta 10	
		Small Tick Delta 5	
		Label Delta 10	
		High Warning 70	
		Low Warning 50	
		Decimals 1	
		Scale 1	
		<input type="checkbox"/> Unit Auto Sense	
		Manual Unit	
Chart Display		Text Display	
		Exit	

10-28-2002  
13:10:19

00000008

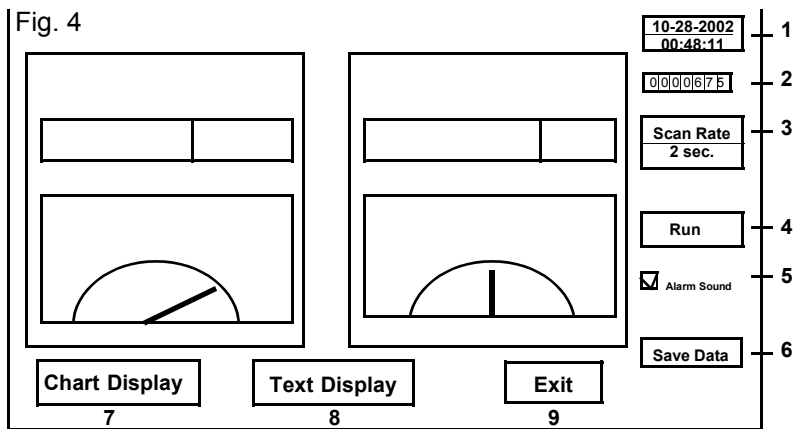
Scan Rate  
2 sec

PAUSE

Alarm Sound  
Low !!!

Save Data

Select the appropriate "Angular Displays" tab to view your settings. Below is an example of "2 Angular Display."



1. Timer: indicates the measured time.
2. Counter: indicates the number of data recorded.
3. Scan Rate Indicator: indicates the sampling time.
4. Run/Pause button.
5. Alarm Sound: check the box for an audible alarm.
6. Save Data button.
7. Chart Display button: click to view the chart display.
8. Text Display button: click to view the digital display.
9. Exit.

### Text Display (Digital)

- From the Angular Display Screen, select "Text Display" (Fig 4).
- Select the "Page Setup" tab.
- Enter your settings (select the desired group and select a channel for each display, Fig. 5).
- Click "Save."

Fig. 5

The screenshot shows a 'Page Setup' screen for configuring text displays. The screen is divided into several sections:

- 6 Channel Display** (2 Channel Display):
  - Two Display**:
    - Display 1: 1
    - Display 2: 2
  - Four Display**:
    - Display 1: 1
    - Display 2: 2
    - Display 3: 3
    - Display 4: 4
- 8 Channel Display** (4 Channel Display):
  - One Channel Display**:
    - Display 1: 4
  - Six Channel Display**:
    - Display 1: 1
    - Display 2: 2
    - Display 3: 3
    - Display 4: 4
    - Display 5: 7
    - Display 6: 8

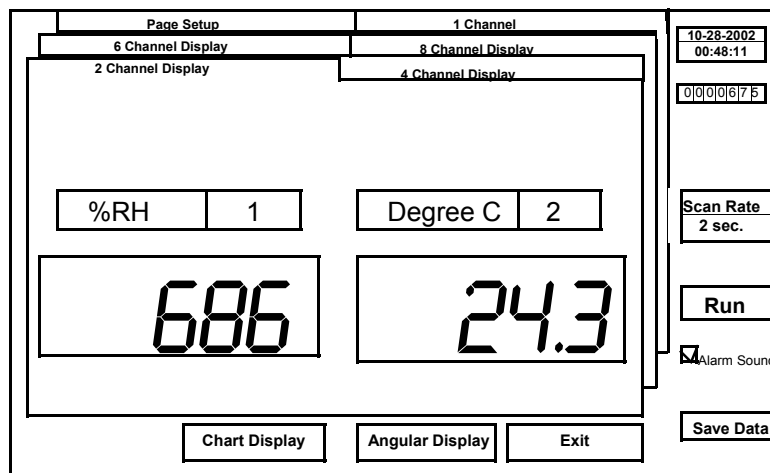
At the bottom of the main configuration area is a **Save** button. Below the main area are three navigation buttons: **Chart Display**, **Text Display**, and **Exit**.

On the right side of the screen, there is a vertical panel with the following elements from top to bottom:

- Date: 10-28-2002
- Time: 13:10:19
- Barcode: 00000008
- Scan Rate: 2 sec
- PAUSE button
- Alarm Sound
- Save Data button

- Select the desired "Channel Display" tab to view your settings and results.
- Click Run.
- Before exiting, click "Save Data."
- Fig. 6 is an example of a "2 Channel Display" screen.

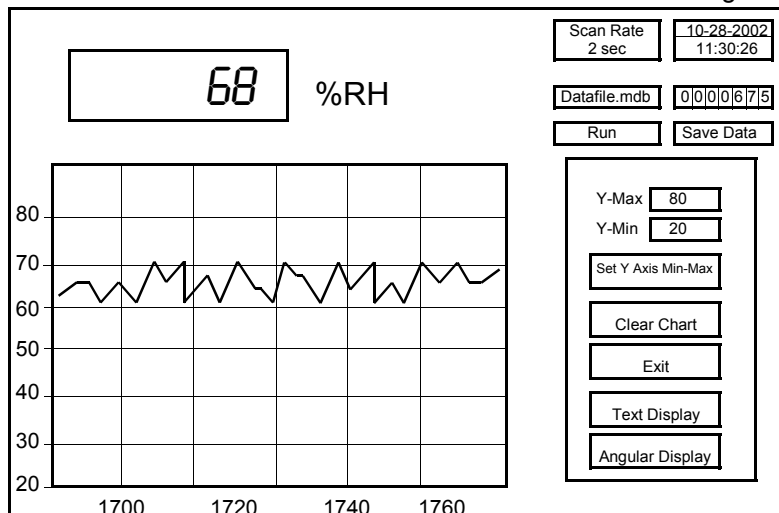
Fig. 6



### System Monitor

- From the "Text Display" screen, click the "Chart Display" button (Fig. 6).
- Enter the desired minimum and maximum ranges in the **Y-Max** and **Y-Min** boxes (Fig. 7). Click the **Set Y-Axis Min\_Max** button whenever a new value is entered.
- Click "Exit" to return to the previous menu.
- Continue clicking "Exit" to return to the main menu.

Fig. 7



### Data Query

- From the main menu, select "Report," then click "Data Query."
- Select the Database (Channel 1~ 8).
- Enter Start and End Dates. Check the "Add Time Condition" box and enter Start and End Times if desired.
- Enter a Header, Footer, Y and X data, then click Setup.
- Click buttons for desired results (print, query, chart options).
- To exit the program, click "X" (upper right) at any time.

Fig. 8

Select Database		C:\PROGRAM FILES\SPER\data\test.mdb	
<input type="checkbox"/> Chan 1	<input type="checkbox"/> Chan 5	Start Date	10/28/2002
<input type="checkbox"/> Chan 2	<input type="checkbox"/> Chan 6	End Date	10/28/2002
<input type="checkbox"/> Chan 3	<input type="checkbox"/> Chan 7	Start Time	00:23
<input type="checkbox"/> Chan 4	<input type="checkbox"/> Chan 8	End Time	01:23
<input type="checkbox"/> Add Time Condition		hhmm hh(0-23) mm (0-59)	

Record No	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>																			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Data Query</td><td>Show Chart</td></tr> <tr><td>Print Chart</td><td>Clear Chart</td></tr> <tr><td>Print Data</td><td>Exit</td></tr> </table>	Data Query	Show Chart	Print Chart	Clear Chart	Print Data	Exit
Data Query	Show Chart																									
Print Chart	Clear Chart																									
Print Data	Exit																									

Chart Header	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Header</td><td> </td></tr> <tr><td>Footer</td><td> </td></tr> <tr><td>Y-Max</td><td> </td></tr> <tr><td>Y-Min</td><td> </td></tr> <tr><td>Y-Grid</td><td> </td></tr> <tr><td>X-Grid</td><td> </td></tr> </table>	Header		Footer		Y-Max		Y-Min		Y-Grid		X-Grid	
Header													
Footer													
Y-Max													
Y-Min													
Y-Grid													
X-Grid													

Chart Footer	Setup
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**License Information:** Your software is licensed for one (1) machine only. You may not transfer this software, nor make copies for distribution to others. You may not reverse engineer, disassemble, translate, or in any way derive from this software any source code.

#### **1 YEAR LIMITED WARRANTY**

SPER SCIENTIFIC warrants that this software, is free from defects under normal use for a period of one year as evidenced by a receipt from our authorized dealer. Return the enclosed warranty card within 10 days of purchase, completed with the user's name. If a defect appears during the warranty period, return the CD ROM to us with a copy of your receipt for replacement. Any and all risk from installation or post installation performance is with the consumer of this product. The consumer assumes the cost of all necessary computer servicing, repair or system correction. This warranty does not extend to any CD which has been damaged as a result of misuse or modification. If a problem arises during initial installation, we will assist you for the first half hour by phone consultation. Assistance thereafter will cost an additional \$20 for each half-hour increment. Disabled or incorrectly configured ports and any other system problems must be corrected before the software can read from your meter:

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