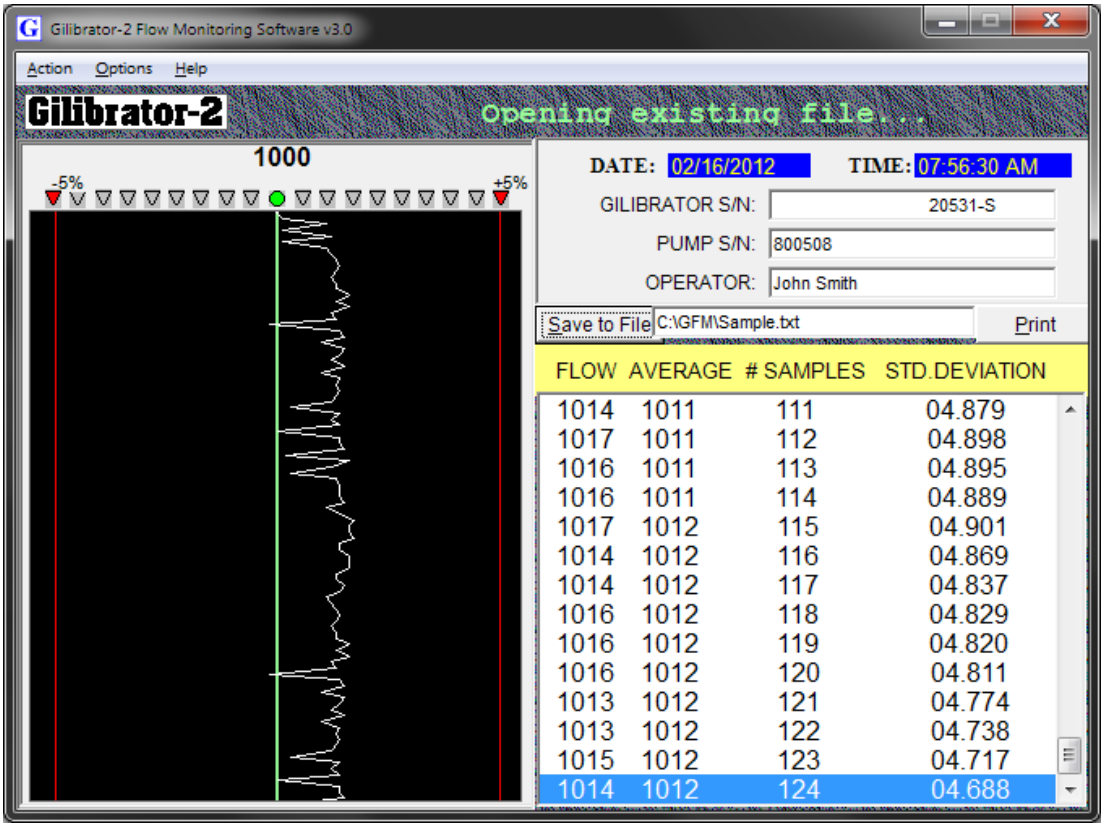
Gilian Gilibrator 2®

Flow Monitoring Software

Version 3.0 for Windows

(Windows XP SP2 or later)



User Manual

SENSIDYNE®
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Our products are designed and manufactured in accordance with ISO 9001:2008, EN 13980:2002, ATEX Directive 94/9/EEC, and IECEx.

Through ongoing review of our designs, supplier performance, and customer feedback we strive to ensure continuous improvement.

All employees at Sensidyne share the responsibility to provide products that are produced efficiently and economically representing the best value to our customers.

We are committed to meeting or exceeding customer expectations in everything we do.

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SECTION ONE: Preface

Proprietary Notice

The intended use of this manual is exclusive to owners of the Gilian Gilibrator-2 Flow Monitoring Software used with the Gilibrator-2 Calibration System. The material within this manual is proprietary information and is to be used only to understand, operate, and service the instrument. By receiving this document, the recipient agrees that neither this document, the information disclosed within, nor any part thereof shall be reproduced or transferred, physically, electronically or in any other form or used or disclosed to others for manufacturing or for any other purpose except as specifically authorized in writing by Sensidyne, LP.

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SECTION TWO: Introduction

What's Included

The Gilibrator-2 Flow Monitoring (GFM) Software Kit (PNº 811-0501-01) contains the following items:

- Special 6 Foot Serial Cable (850082)
  Gilibrator-2 Side: D-SUB, 25-pin (male)
  PC Side: D-SUB, 9-pin (female)
- Program CD (611-0501-01) containing Software and User Manual
- Serial to USB Adaptor Cable (297-0018-01)

Introduction

The Gilibrator-2 Flow Monitoring (GFM) software is a Windows-based software program that runs on Microsoft Windows XP with Service Pack 2 or later.
The software allows Gilibrator-2 measurement data to be stored on a hard drive or other storage media, printed on a standard printer, or used in a spreadsheet or a word processing program.

IMPORTANT

For complete instructions on using your Gilibrator-2 Calibration System, refer to the Operation & Service manual (PN 850190M).

Software Installation

This software should be installed on a stand-alone or dedicated computer. You must have administrator rights for installation.

To install the GFM software perform the following steps (*Please quit all running application programs before installing the GFM software*):

1) Insert the Program CD into the CD drive, if not already inserted.
2) From the START menu select RUN. Click on BROWSE to locate your CD drive.
3) Type "setup" then click "OK" (or hit ENTER) to run the installation program.
4) Follow the on-screen instructions to complete the installation. Install may require you to reboot your computer.
5) When the installation is complete, the software will start and a shortcut will be placed in your Start Menu. For other users, those without administrative rights, simply re-run the setup from the CD and it will create a shortcut in the Start Menu of that user.

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Action Menu

The Action Menu contains the following sub-menus:

New File
Creates a blank file to receive data from the Gilibrator-2.

Open file
Opens a previously saved data file.

Save to file
Saves your data file to a hard drive or a floppy drive.

Setup Printer
Allows you to set the options for your primary printer.

Print
Prints a formatted report of your data file.

Options Menu

Set Com Port
Allows you to set the Communications port used to connect to your Gilibrator-2 flow meter.

Set Saving Option
Allows to set the program to automatically save your data file after a specified number of samples have been taken. You can also choose to save your data manually. Additionally you have the option of specifying the interval (no. of samples) taken before automatically saving the file (range: 1-99).

Data files can also be saved or printed without having to use any menus or sub-menus by clicking on the screen buttons (see screen illustration on front cover).

Set Graphic Display Option
Allows you to activate or deactivate the Graphic Display. When the Graphic Display is activated, data will appear in both list and graph formats as samples are taken. The Graphic Display (refer to front cover) has red vertical lines to indicate ± 5% deviation in flow rate. The center green line indicates the flow rate you wish to establish. You can change this value simply by clicking on the green button above the center line. The value you enter depends on the type of flow cell you are using. If you are using a Low Flow or Standard Flow cell, enter the value in cc/min. If you are using a High Flow cell, enter the value in Liters Per Minute (LPM).

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Set-Up and Operation

1) *Disable any screen savers first*. Make certain the Flow Monitoring software is running and the Gilibrator-2 unit is turned OFF.

2) Connect one end of the Interface (Serial) Cable to the printer jack on the Gilibrator-2.

3) Connect the other end of the cable to the serial port on your computer or a serial to USB adapter. *Only use Gilian serial cable (PN 850082). No other cable will work!*

4) Turn ON the Gilibrator-2 by pressing the **ON** button. Let the unit go through the start-up self test. (For older Gilibrator models, press and hold the DELETE button while turning on the unit. Wait for the "RUN" light to turn off.)

5) Select **Set Com Port** from the **Options** menu, then select the **COM** port associated with your Gilibrator-2.

6) Before beginning sampling, enter the required information in the **GILIBRATOR S/N**, **PUMP S/N**, and **OPERATOR** fields (hit the TAB key to advance to the next field). This information will be saved with the file

7) Locate the folder where you want the data file to be saved. Enter the name of the file then click "OK".

8) Operate the Gilibrator-2 unit normally, one reading at a time. All the data measurements will be sent to the computer screen. Data for **FLOW**, **AVERAGE**, and **# Samples** come directly from the unit. The **STD. DEVIATION** is computed by the program according to the following formula:

$$\sigma = \sqrt{\frac{n\Sigma x^2 - (\Sigma x)^2}{n^2}}$$

where:
σ = standard deviation
x = flow value
n = no. of samples

9) Up to 99 readings may be saved to a file. On the 100th sample, the Gilibrator-2 does an automatic reset causing previous data to be lost unless first saved to a file. Important data should be saved prior to 100th sample and a new session started using a new file name for the new session other wise the old file will be overwritten.

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Miscellaneous

- To save the sample data at any time, click on the **Save to File** button.
- To print out a graph of the sample data, click on the **Print** button.
- To clear the sample data collected so far and start a new session of flow monitoring, press and hold the **RESET** button on the Gilibrator-2 until the sample data list clears itself.
- To delete the sample just collected, press the **Delete** button on the Gilibrator-2.
- Data may not print or graph bars may obscure data, if the data are out of ± 5% range. Also, may not print if data are incomplete or missing.

Troubleshooting

If you get an error message, answer the following questions:

- Does your computer have at least one serial port available?
- Did you choose the proper serial port for your communication?
- Did you check the cable connection?
- Is the Gilibrator-2 battery pack fully charged?

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Factory Calibration and Service

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