

Excel Add-In

GDM-834X Series

GDM-834X Series Excel Add-In Manual

GW INSTEK PART NO.



ISO-9001 CERTIFIED MANUFACTURER

GW INSTEK

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TABLE OF CONTENTS

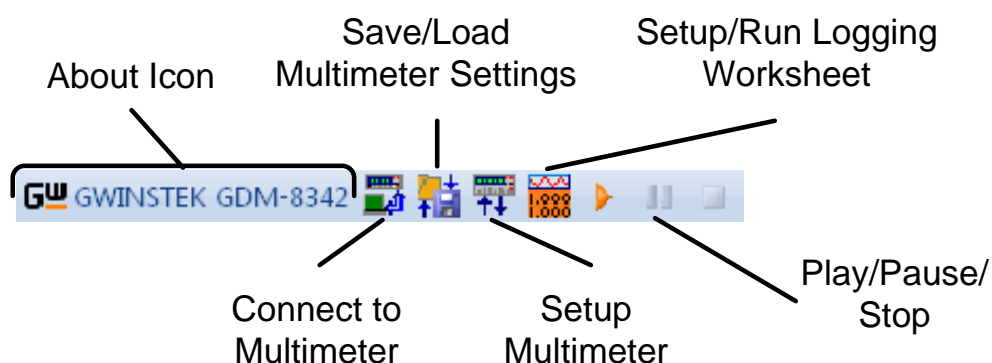
INTRODUCTION	4
Overview.....	4
SETUP.....	5
Connection.....	5
Installation	6
Uninstallation.....	7
Configuration	8
DATA LOGGING REMOTE CONTROL.....	11
View Add-In Software Version.....	19

INTRODUCTION

This manual is suitable for both the GDM-8341 and GDM-8342. This manual is to be used with all versions of Excel from 2003 and onwards with Windows PCs (Windows XP, Vista and 7: 32 or 64 bit). Please note that Macros must be enabled for the Add-In to function.

The GDM-834X Excel AddIns software is an Add-In for Microsoft Excel. The Add-In allows you to log measurements from the DMM and to plot the resulting data as a graph or a histogram using the built-in Excel graphing functions.

Overview



- **Connect to Multimeter:** Clicking this icon will allow you to establish a connection to the DMM.
- **Save/Load Multimeter Settings:** Clicking this icon will let you save or load settings to/from the multimeter.
- **Setup Multimeter:** Clicking this icon will allow you to choose the measurement function, range and rate to use for the data logging.
- **Setup/Run Logging Worksheet:** Clicking this icon will allow you to setup the data logging and graphing functions for the software.
- **Play/Pause/Stop:** These control keys will allow you to start, pause and stop data logging.
- **About:** The about icon will display the software version.

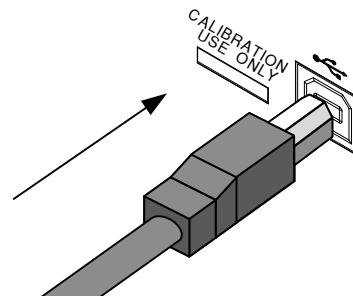
SETUP

Connection

Before using the Excel Add-In you must set the baud rate for the DMM in the USB menu. This configuration will be used when using the software to connect to the DMM remotely.

Note: This Add-In cannot be used with the GPIB option.

- | | |
|---------------|---|
| 1. Connection | 1. Connect the rear panel USB B port on the DMM to a USB port on the PC using a Type A to Type B USB cable. |
|---------------|---|



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- | | |
|----------------------|--|
| 2. Configure the DMM | 2. Press MENU.
3. Go to I/O on level 1.
4. Go to USB on level 2.
5. Set the baud rate to an applicable rate.
6. Press Enter to confirm the baud rate settings.
7. Press EXIT to exit from the USB menu. |
|----------------------|--|

Installation

Two items, the USB driver and the GDM-834X Excel Addins Software need to be installed onto the PC.

- | | |
|--------------------------------|--|
| 2. Installing the USB driver | <ol style="list-style-type: none">1. Connect the DMM to the PC using the supplied USB TypeA to TypeB cable (GTL-246).2. The Windows Found New Hardware Wizard will detect the DMM as a new device and ask for the device driver.

Choose to locate the driver manually.

Direct the Wizard to the GDM-834X USB DRIVER directory on the User Manual CD, or download the USB driver from the GW Instek Website.3. Follow the instructions on the Hardware Wizard to finish the installation. |
| <hr/> | |
| 1. Installing the Excel Add-In | <ol style="list-style-type: none">1. On the User Manual CD, go to the Excel Add-in subdirectory under the Software directory and execute the Setup.exe file.2. If the Microsoft User Account Control Shield appears, allow the setup file to be executed.3. Follow the InstallShield Wizard to install GDM-834X Excel Addins. |

Uninstallation

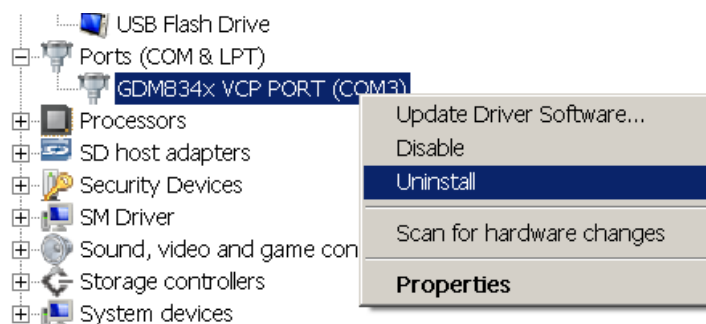
Follow the procedures described in this section when the Excel Add-In or the USB driver needs to be updated or removed.

Uninstalling the USB driver To remove the USB driver, it must be uninstalled from the Windows Device Manager.

1. Launch **Device Manager** from the Start menu.

Start→Control Panel→Device Manager (XP, Windows 7)

2. Double-click **Ports (COM & LPT)**. Right-click **GDM834X VCP PORT (COMXX)** and choose the Uninstall option.



3. Select **Delete the driver software for this device**, then press the **OK** button. The driver will uninstall automatically.

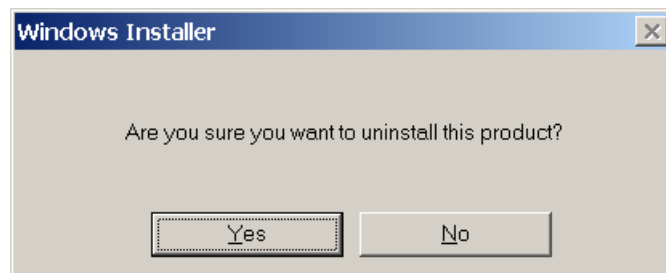


Uninstalling the Excel Add-In

1. From the Windows Start menu select the **Start → All Programs → GWINSTEK DMM → GDM-834x** directory and choose **Uninstall**.



2. Select **Yes** to uninstall the product.

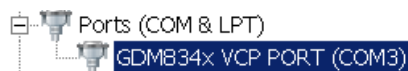


3. The Uninstaller will automatically finish the uninstallation.

Configuration

1. Configure the PC

1. To make sure the DMM is recognized by the PC, open the **Device Manager (Start → Control Panel → (System) → Device Manager)**.
2. Check which COM port the device is assigned to.



3. Please note the COM port number for the PC connection.

2. Configure the Add-In

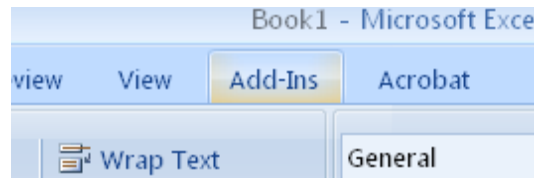
1. From the Windows Start menu select: **Start → All Programs → GWINSTEK DMM → GDM-834x → GDM-834x Excel Addins**



2. Opening GDM-834x Excel Addins will automatically open an Excel Spreadsheet.

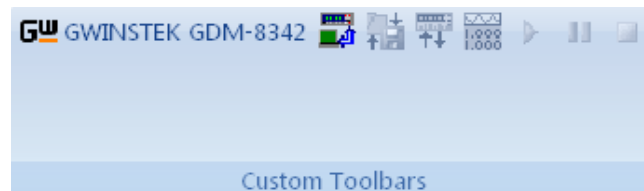
If asked by Windows to enable Macros, choose **Enable Macros**.

3. For Excel 2007 and up: Go to the **Add-Ins tab** in the Ribbon UI.

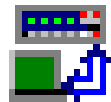


For older versions such as Excel 2003: Go to the **Tools** menu and select the **Add-Ins** option.

4. The Add-In will be shown in a custom tool bar.

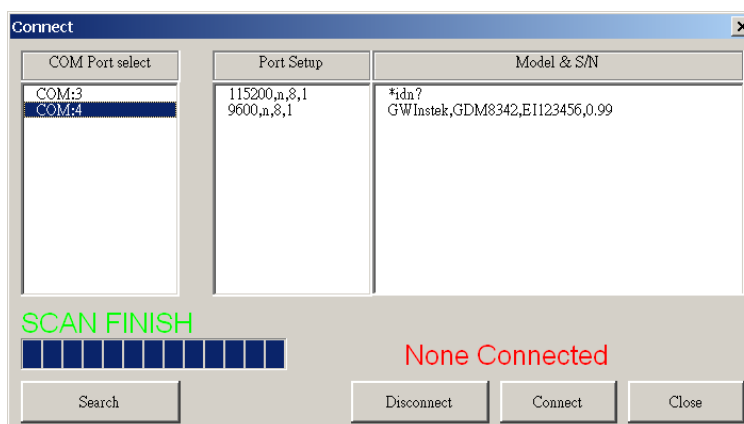


5. Click on the **Connect to Multimeter** icon.



6. In the **Connect window** that appears, click **Search** to scan for the DMM.
7. After the DMM has been detected, click on the **COM port** that the DMM is connected to (see page 8). If the model name and serial number of your device are not returned, click the Search key again.
8. Press **Connect**.

9. The Splash screen will close automatically after the connection is successful.



10. Move on to Measurement.

Disconnect

Press **Disconnect** to end the remote control session.

Cancel and Exit

Press **Close** to exit from the Connection window without connecting or disconnecting.

DATA LOGGING

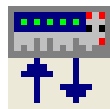
REMOTE CONTROL

1. Establish remote connection

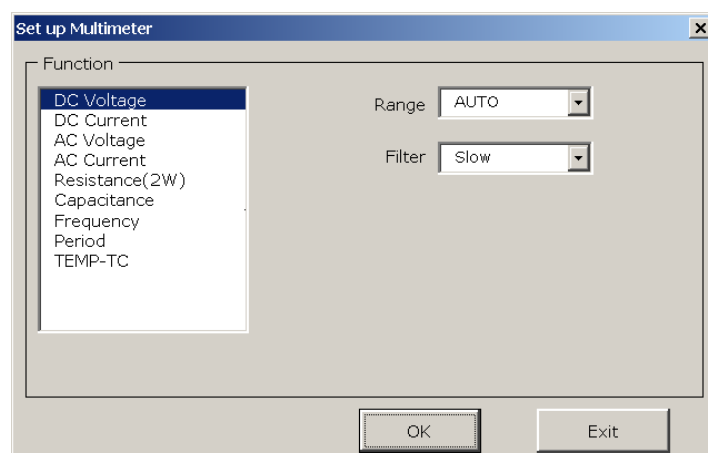
Follow the procedures for connection and configuration on page 5 and page 8.

2. Setup

1. Press the Setup Multimeter icon.



2. The Set Up Multimeter window appears.
3. Choose a measurement item.
4. Choose the measurement range.
5. Choose the measurement rate.
6. Press OK to confirm the settings and exit automatically.



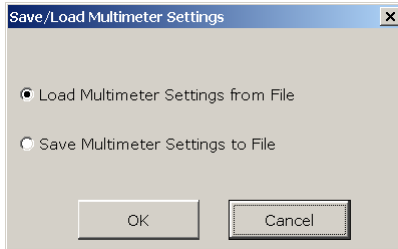
7. Press Exit to cancel and exit with making a setting.

3. Save/Recall Load Settings

1. Press the Save/Load Multimeter Settings icon.



2. The Save/Load Multimeter Settings panel appears.



3. Choose to Load Multimeter Settings from File or Save Multimeter Settings to File.

If saving a file, choose a directory and filename. Click Save to save the file. The file will be saved as XXXXX.DMM.

After a few moments, if the save was successful a message “Saved OK!” will appear. Click OK.



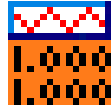
If loading a file, choose a previously saved setup and click Open. A message will appear if the setup has been loaded successfully. Click OK.



The panel will close automatically after saving/loading settings.

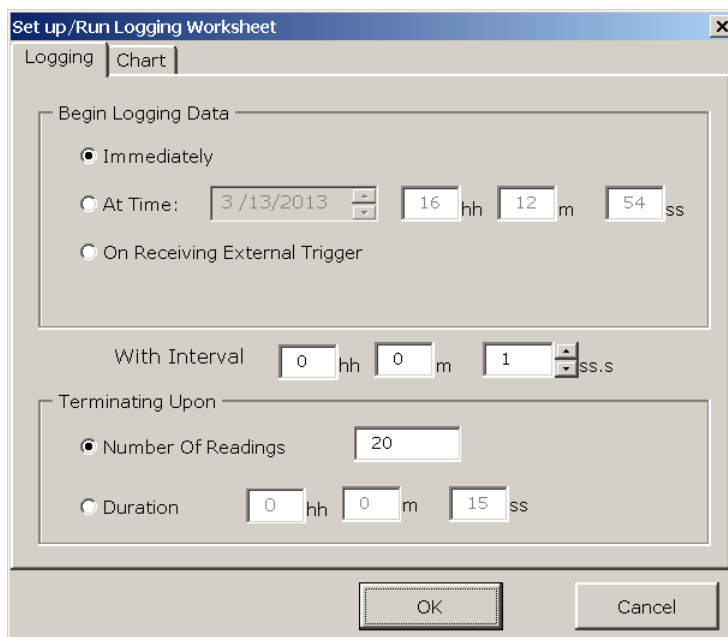
4. Setup Data Logging

1. Press the Record SetupStart icon. This icon will only be available after a measurement has been selected with the Setup Multimeter icon (page 11).



2. Choose the Logging tab.
3. Set the logging start time in **Begin Logging Data** panel.
 - Immediately: Choose this option to begin logging measurements as soon as the “Play” icon is pressed. (see page 17 for details)
 - At Time: This option allows you to choose the exact time that the logging will start. The start date, hour, minute and second can be chosen.
 - On Receiving External Trigger: This option will only start logging after the TRIG key is pressed on the DMM front panel.

4. To select the logging interval, configure the **With Interval** option. This option can set how often the DMM will trigger, down to the number hours, minutes and seconds between each measurement.
5. Use the **Terminating Upon** panel to set when to stop the data logging.
 - **Number of Readings:** Configures the logger to stop after a set amount of measurements.
 - **Duration:** Sets the logger to stop logging measurements after a set amount of time or number of readings.

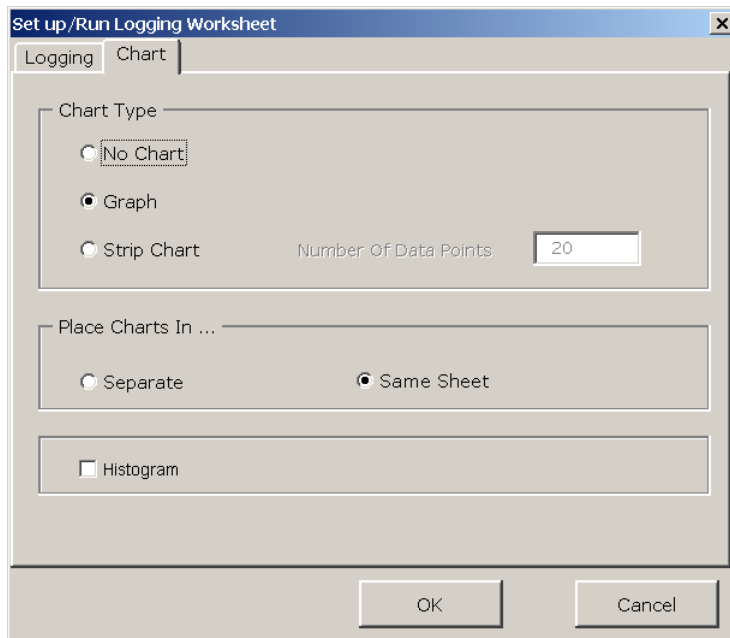


6. By default the measurements are plotted as a graph as soon as the data logging starts. Press the **Chart tab** to edit the chart behavior.

The Chart Type panel selects which type of graph, if any, to plot.

- **No Chart:** This option will disable plotting a graph.
- **Graph:** This is the default option. This will plot each point in a graph as soon as it is logged.
- **Strip Chart:** This option creates a graph that allows you to view detailed sections of the graph using Excel Format controls.
- **Number of Data Points:** This option allows you to specify the number of data points to graph. This number cannot exceed 1000.

7. Use the **Place Charts In...** panel to draw the chart in the same Excel sheet or to plot the graph in a new Excel sheet.
 - **Separate:** Places charts in a new sheet each time logging is started.
 - **Same Sheet:** Places charts in the same sheet as the logging data.
8. The **Histogram** option will open a new sheet and perform statistical analysis on the logged data in real-time so that a histogram can be created. The average, median, standard deviation as well as minimum and maximum values will also be calculated.
 - This option will disable the graphing option mentioned above.
 - The number of bins for the data (and thus the interval) is determined automatically by the software. This can be changed after data logging has stopped.



9. Press the **OK** button to save the settings and exit.
-

5. Starting Data Logging

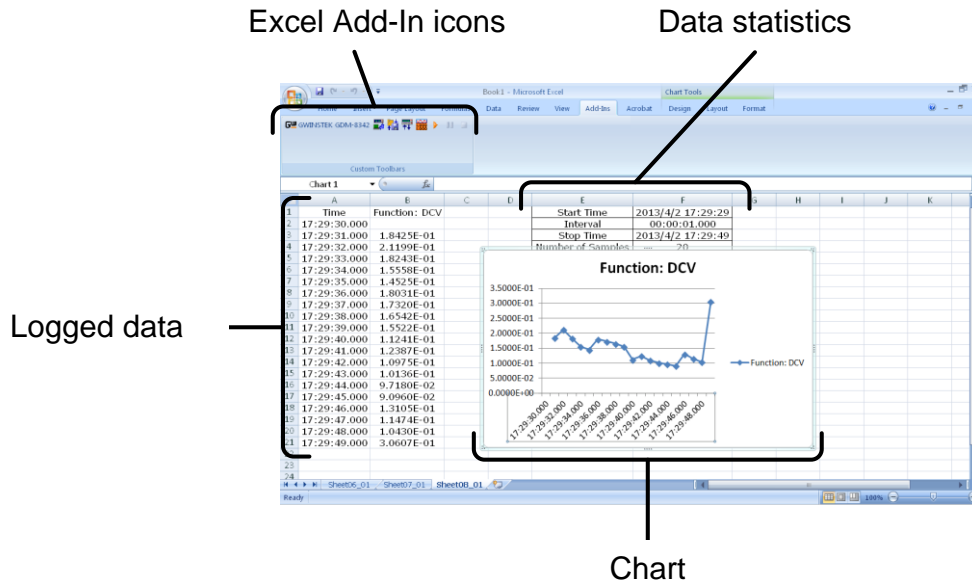
1. After the data logging setup has been completed, the Play, Pause and Stop icons will become available. The icons are colored orange when they are available.

To start measurement, press the **Play** icon. Measurements will automatically start to be logged. If the Chart or Histogram options were selected, then they will also be plotted as the data is logged.

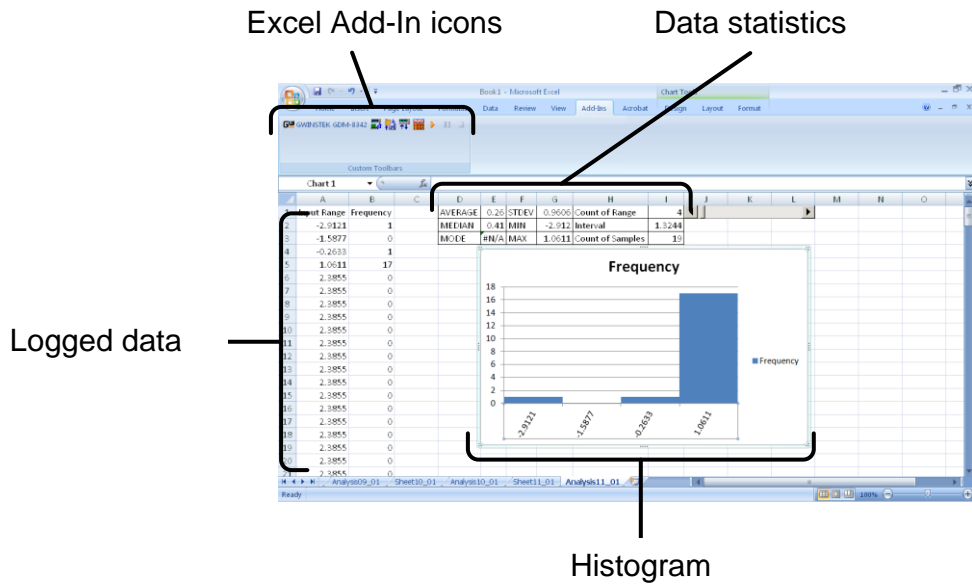
- Press the **Pause** icon to pause logging. Press the Play icon again to resume.
- Press the **Stop** Icon to stop data logging prematurely.
- Each time you use the data logging function, a new sheet will be created for the data and for the histogram data, if the Histogram option is enabled.
- Note that the other icons are now disabled until logging has finished or is stopped.



Chart Example



Histogram Example



View Add-In Software Version

1. View software version
1. Click on the **About** Icon to view the software version number.

About Icon



2. The About Multimeter splash screen will appear displaying software version number.

