DMM Viewer

GDM-8261(A)

Remote Viewer Guide

GW INSTEK PART NO.

ISO-9001 CERTIFIED MANUFACTURER

The information in this manual was correct at the time of printing. However, Good Will continues to improve products and reserves the right to change specifications, equipment, and maintenance procedures at any time without notice.

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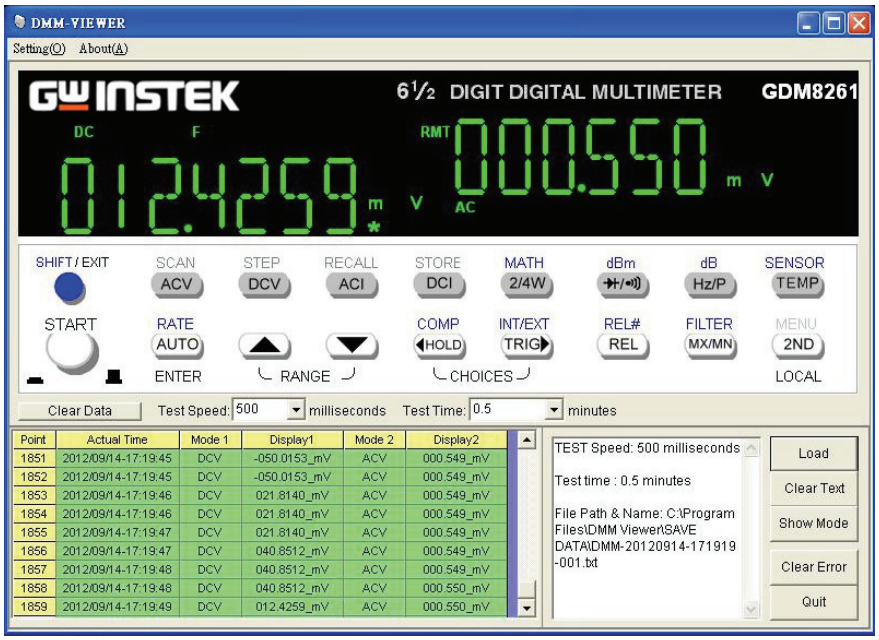
INTRODUCTION

This manual is suitable for both GDM-8261 and GDM-8261A. The GDM-8261(A) Remote Viewer Guide is intended for showing how to use the remote viewer PC software, DMM Viewer, on Windows OS based computers (Windows XP, Windows 7 supported).

This manual consists of the following chapters.

- Setup: Connection, Installation, Uninstallation, Configuration
- Measurement: Measurement procedure, configuration settings
- Plot Graph/Save: Storing data, plotting data in a graph
- Firmware update: Accessing the firmware and firmware update manual

Software overview



The software contains the following functions.

- Making measurements in real-time
- Displaying measurement results in real-time
- Storing measurement data
- Selecting the test speed & time

CD-ROM Overview

The CD-ROM contains all the items needed to install and run the software, plus more.

Main menu

Inserting the CD-ROM into the PC automatically opens the menu screen. If it does not, double-click on the **Autorun.exe** file in the root directory of the CD-ROM.

Autorun.exe file

The main menu screen

Website

http:\\www.gwinstek.com

If you have an active internet connection, this hyperlink will take you to the GWInstek website.

Install DMM-VIEWER software menu

DMM-VIEWER

This menu will allow you to install DMM Viewer and loads the DMM Viewer user manual. For details about software installation, see page 10.

Install USB Driver menu

Install USB Driver

This menu installs the USB driver for the GDM-8261(A) onto the PC. For details about software installation, see page 10.

User Manual menu	 This menu loads the DMM User Manual.
Firmware Update Software menu	 This menu accesses a copy of the firmware and loads the Firmware Upgrade Manual. For details about upgrading the firmware, see page 25.
View CD-ROM Contents menu	 This menu opens the contents of the CD-ROM in Explorer.
Quit menu	 This menu closes the menu screen.

SETUP

Connection

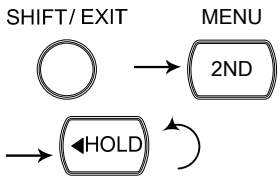
When using DMM Viewer in Conjunction with the GDM-8261(A), use the following instructions to set the DMM to RS232 or USB mode each time the DMM is turned on.

NOTE: If you are using DMM Viewer in software demonstration mode (no hardware) skip the Connection and Configuration procedure and install the DMM Viewer software, page 10.

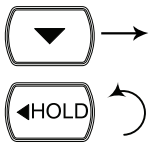
Note The following procedure describes a USB connection configuration and procedure. Skip this step if connecting with an RS232 cable.

1. Configure the DMM for USB

1. Press the **Shift** key, the **2ND** (Menu) key, then the **Left** key until the I/O configuration menu appears.



2. Press the **Down** key then press the Left key until the USB selection display appears.



3. Press the **Down** key. The USB ON/OFF selection appears.

4. The USB ON or OFF selection appears. Press the Up or Down key to turn on.

5. Press the **ENTER** key to confirm the USB (either on or off) selection.

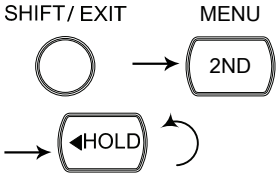
6. Press the **EXT** key to get out of the configuration mode.

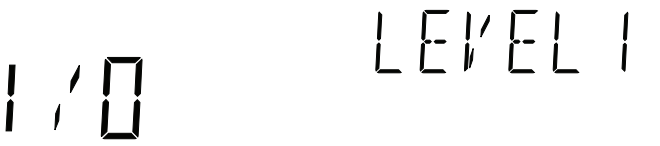
⚠Note When the GDM-8261(A) is turned off, the USB configuration will be lost.

⚠Note The following procedure describes an RS232 connection configuration and procedure. Skip this step if connecting with USB.

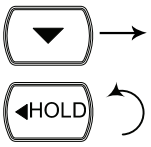
2. Configure the DMM for RS232

1. Press the **Shift** key, the **2ND** (Menu) key, then the **Left** key until the I/O configuration menu appears.





2. Press the **Down** key then press the Left key until the RS232 selection display appears.



3. Press the **Down** key. The RS232 Baud Rate selection appears.

4. Press the Up or Down keys to select the baud rate.

Baud rate: 9600, 19200, 38400, 57600, 115200, 230400

5. Press the **ENTER** key to confirm the RS232 baud rate.

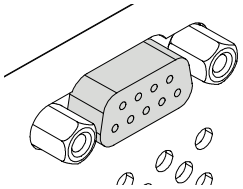
6. Press the **EXT** key to get out of the configuration mode.

⚠ When the DMM is turned off, the RS232 configuration will be lost.

3. Connect the USB/RS232 cable

1. Connect the USB or RS232 cable to the rear panel terminal (upper port) for USB or to the RS232 port for RS232 connections.

USB



RS232

2. Connect the other side of the USB/RS232 cable to the PC.

Installation

Two items, the USB driver and DMM Viewer Software need to be installed onto the PC in order to run the software properly.

Make sure the USB driver is installed *first* onto the PC if using USB.

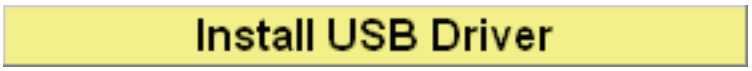
1. Accessing the CD-ROM

Open the CD-ROM menu. For details, see page 5.

2. Installing the USB driver

⚠ If using RS232 rather than a USB connection, this section (Installing the USB driver) may be skipped.

1. Click on the **Install USB Driver** icon.



2. The USB driver file, **USB_Driver.inf** is shown in the file explorer.
3. Configure the GDM-8261(A) I/O to USB=ON. Page 7
4. Connect the USB cable from the GDM-8261(A) rear panel USB port to the host PC.
5. The GDM-8261(A) will be recognized as new hardware. Follow the Windows Installation Wizard to install the USB driver (**USB_Driver.inf**) from the CD.

⚠Note

The PC may need to be restarted once the driver is installed.

3. Installing DMM Viewer

1. Click on the **DMM-Viewer** icon.

2. Click on the **Install DMM-Viewer** icon.

3. The installation wizard will start up. Follow the directions of the installation wizard. When choosing an install location it is recommended that the default location is chosen.

The default location of the software is C:\Program Files\DMM Viewer

A program icon should be available from the Start Menu.

⚠Note To check the software version please see page 25.

Uninstallation

Follow the procedures described in this section when the viewer software or the USB driver needs to be updated or removed.

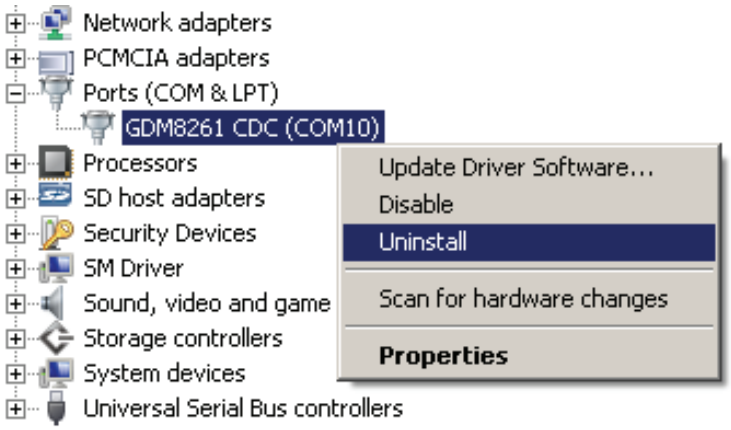
Uninstalling the USB driver

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 **GDM8261(A) CDC (COMX)** and choose the **Uninstall** option**.**

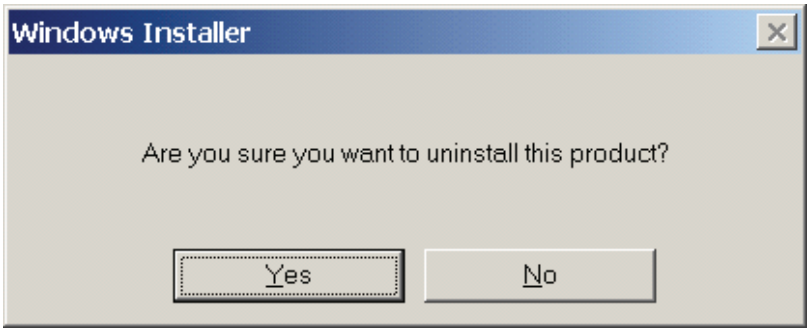


3. Select **Delete the driver software for this device**, then press the **OK** button. The driver will uninstall automatically.

Uninstalling the Viewer software

1. From the Windows Start menu select the **DMM Viewer** program directory and choose **Uninstall**.

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

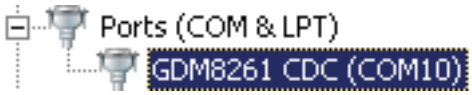


3. The Uninstaller will automatically finish the uninstallation.

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**. If using USB, the USB driver, **GDM8261(A) CDC**, should be listed in the Ports section.
2. Check which COM port the USB driver/RS232 connection is assigned to.



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

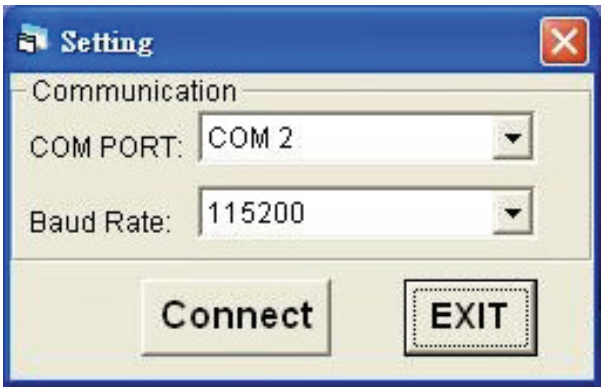
2. Configure DMM Viewer

1. Activate DMM Viewer.

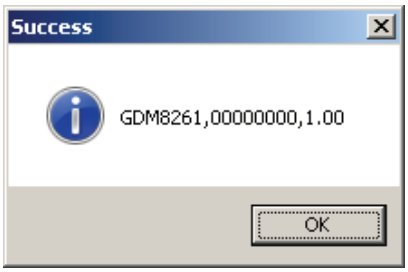
2. Click on the **Setting(O)** menu and open the settings dialog. Enter the default settings as detailed below. For more information on configuring Sample Rate and Recording, see the measurement chapter on page 16.

- COM PORT: according to the Device Manager
- Baud Rate: 115200 (Or the baud rate set above)

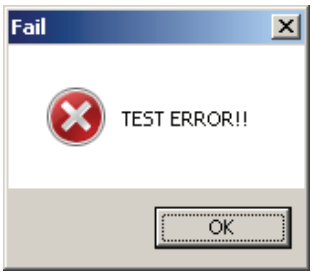
3. Click on the **Connect** button. The viewer software and the GDM-8261(A) will try to establish a connection (success), or an error message appears (fail). If the connection is successful, a pop-up message will return the model type, serial number and firmware version.



Success



Fail



4. Click on **OK** to save and leave the Settings screen.

5. Move on to Measurement (page 16).

MEASUREMENT

1. Establish remote connection

Follow the procedures for connection and configuration on page 7 and page 14.

2. Select measurement item

The front panel keys on the GDM-8261(A) and the DMM Viewer software are the same.

Press the measurement keys just like on the GDM-8261(A) front panel.

Any changes in DMM Viewer will be reflected on the DMM.

For details on how to measure, please see the GDM-8261(A) user manual.

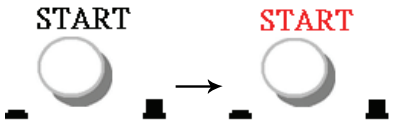
Normal measurements

(Viewer software: dBm) (GDM panel: dBm)

3. Start measurement

After selecting the measurement type, click on the **START** button to start the measurement. The result is updated in real time in the display as well as in the data field.

START key



Display

Data field

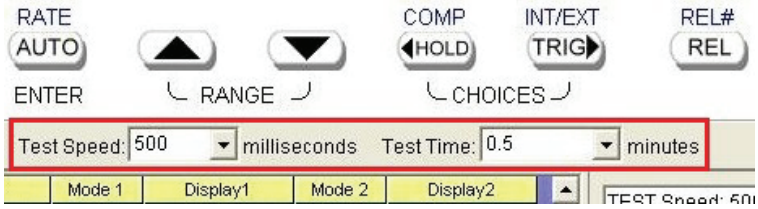
Point	Time	Actual Time	Mode 1	Display1	Mode 2	Display2
1	00:00:01	2011/06/14-10:03:17	DCV	000.0597_mV		
2	00:00:01	2011/06/14-10:03:18	DCV	000.0645_mV		
3	00:00:02	2011/06/14-10:03:18	DCV	000.0701_mV		
4	00:00:02	2011/06/14-10:03:19	DCV	000.0671_mV		
5	00:00:03	2011/06/14-10:03:19	DCV	000.0640_mV		
6	00:00:03	2011/06/14-10:03:20	DCV	000.0638_mV		
7	00:00:04	2011/06/14-10:03:20	DCV	000.0623_mV		
8	00:00:04	2011/06/14-10:03:21	DCV	000.0613_mV		
9	00:00:05	2011/06/14-10:03:22	DCV	000.0559_mV		

4. Stop measurement

Click on the **START** button again to stop the measurement. The button color changes from red to black.

Configuration

1. In the middle of the DMM Viewer main window, the Test Speed and Test Time are selectable as shown in the fields marked inside the red frame below.



Test Speed

2. In the **Test Speed** drop down selection menu choose the sample rate in milliseconds, from 16.667ms to 60000ms.

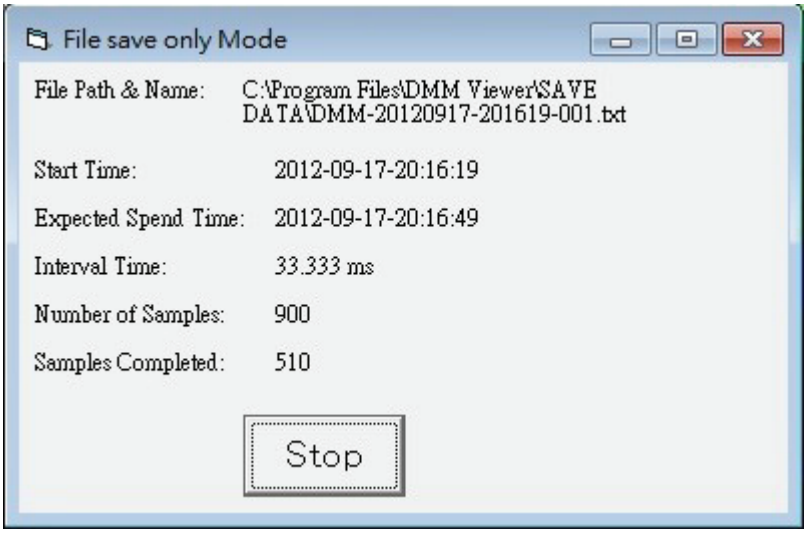
Test Time

3. Choose the duration of the measurement (in minutes) from the **Test Time** drop down selection menu. You can choose from continuous or .5 to 1440 minutes. Measurements will cease after the allotted time has elapsed from when the Start button is pressed.

   If **Continuous** is selected then the measurements will continue until the Start button is pressed again.

⚠Note

If Test Speed is set to 16.667ms or 33.333ms, the test value will be directly written to a log file and will not be displayed in the Data field.



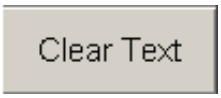
To stop test and record, press the Stop button in the dialog box

Command Plane

The Command Plane will display any changes to the Test Speed, Test Time, Save Path and Log File name.

Clear Text from the Command plane

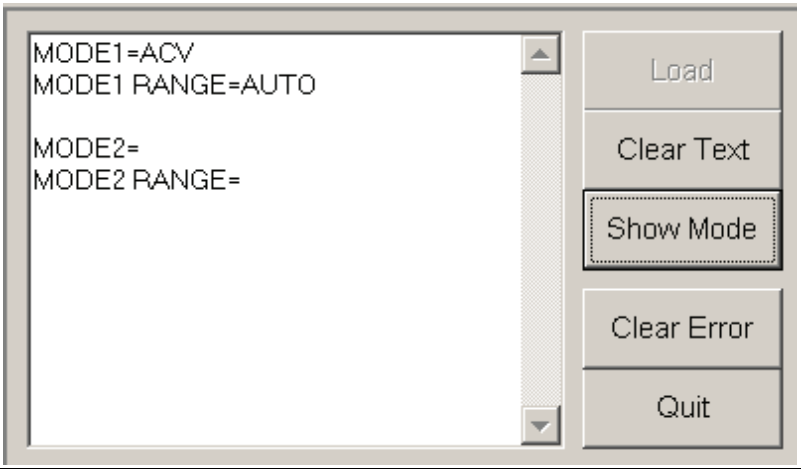
Click **Clear Text** in the Command Plane menu to clear the text box.



View the measurement mode

To check the measurement mode of the DMM, click on the **Show Mode** button in the command plane. The mode appears.

- MODE1 is the measurement type for the 1st display.
- MODE1 RANGE is the range of the measurement setting for the 1st display.
- MODE2 refers to the 2nd display.



Clearing errors

To clear errors from the Command plane, click **Clear Error.**

Quitting the program

To quit the program simply click **Quit**.

PLOT GRAPH/ SAVE

To be able to plot data, it must first be saved. Once data is retrieved, the measurement data can be viewed in graph mode or used in a spreadsheet. This section shows how to store the data and view it (offline) using the graph function.

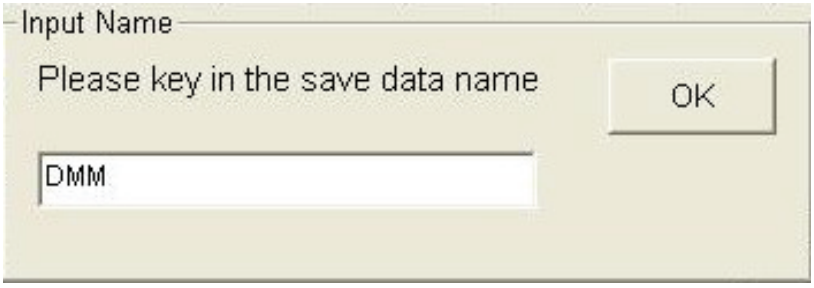
Store data

To store data, click the **START** button and then key in the log file name in the Input Name dialog box *before* starting your measurements.

You can *only* plot data after it has been saved first! The following instructions must be made every time you wish to save data.

1. After you click the **START** button, your measurements will be recorded into the DMM VIEWER program directory with the file name that you typed in the Input Name dialog box.

2. Type in the file name (no file extensions are needed)from the pop-up window and click **OK**



The file will be saved in the directory where the viewer software is installed.

3. Wait for the Test Time to finish or click the START button again to finish.

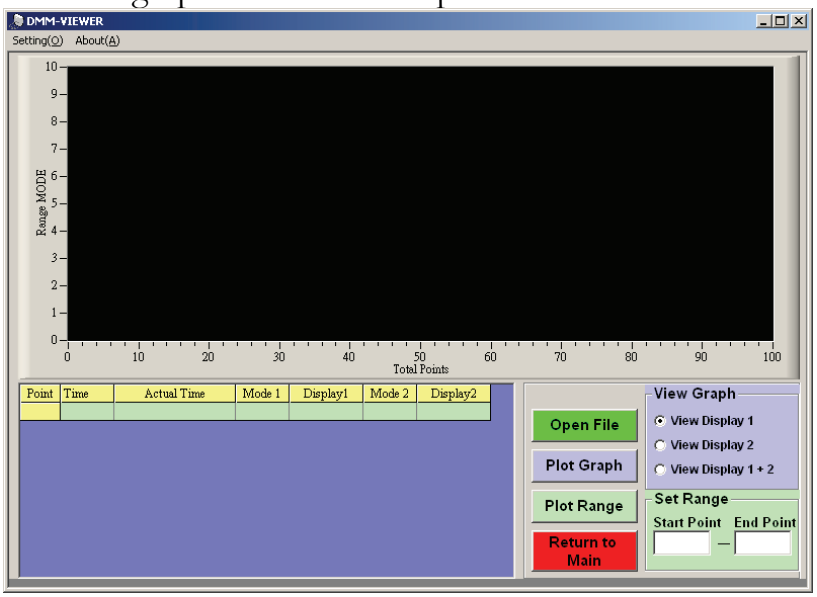
Note

The log file will immediately start to save after the OK button has been pressed.

Load data

1. Click on the **Load** button at the lower right side of the screen.

2. The graph mode screen opens.



3. Click on the **Open File** button.

4. A file dialog window opens, pointing to the saved measurement files in the remote viewer software directory. Select a data file and click on the **Open** button.

5. The measurement data will be displayed in the data plane in the lower left part of the screen.

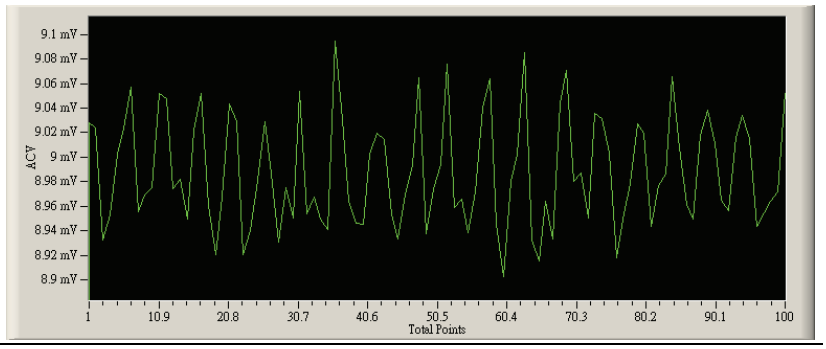
6. Version V1.05 or above of the Viewer software cannot load log files from Version V1.04 or earlier.

Point	Time	Actual Time	Mode 1	Display1	Mode 2	Display2
921	00:08:49	2011/06/14-10:12:05	DCV	000.0653_mV		
922	00:08:49	2011/06/14-10:12:06	DCV	000.0670_mV		
923	00:08:50	2011/06/14-10:12:07	DCV	000.0655_mV		
924	00:08:51	2011/06/14-10:12:07	DCV	000.0682_mV		
925	00:08:51	2011/06/14-10:12:08	DCV	000.0678_mV		
926	00:08:52	2011/06/14-10:12:08	DCV	000.0669_mV		
927	00:08:52	2011/06/14-10:12:09	DCV	000.0584_mV		
928	00:08:53	2011/06/14-10:12:09	DCV	000.0574_mV		
929	00:08:53	2011/06/14-10:12:10	DCV	000.0676_mV		

Plotting the data

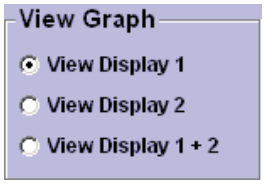
1. First make sure you have saved a session and loaded data to be able to plot data.

2. Press the **Plot Graph** button. The data will be converted into a graph form and will be displayed in the screen. Currently the graph will plot "Mode 1" (display 1).

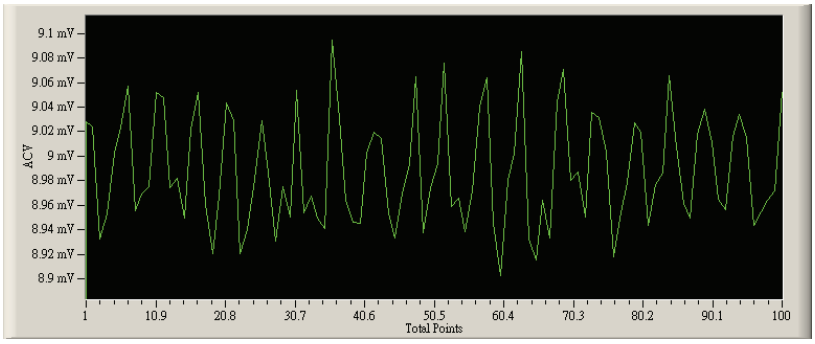


View different displays

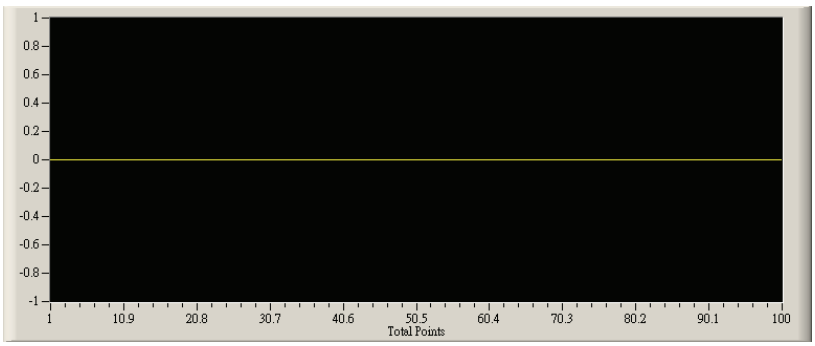
Click on any of the options in the **View Graph** panel to switch between different display modes

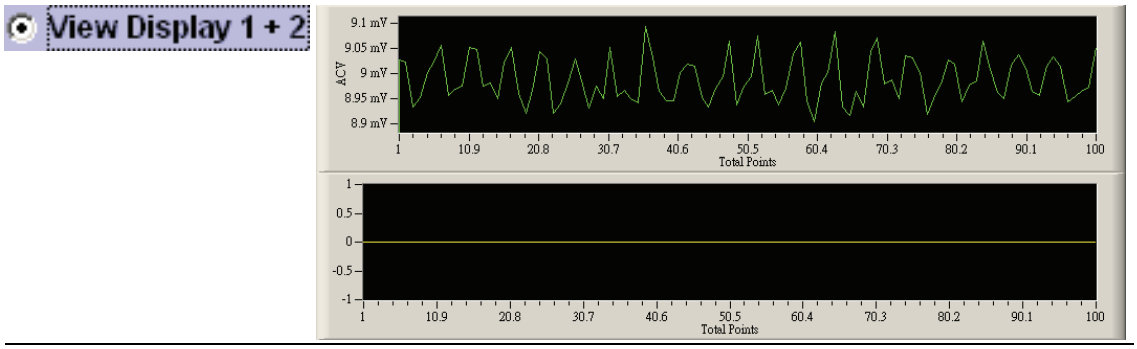


View Display 1



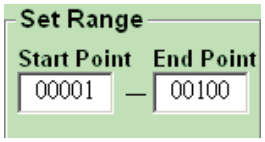
View Display 2



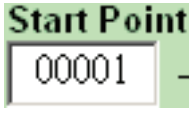


Changing the plot point range

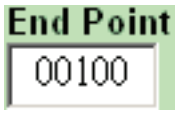
1. The start and end points of the plot can be changed by manipulating the **Set Range** panel.



2. Click in the **Start Point** text box and enter the START point (you may need to delete it first).

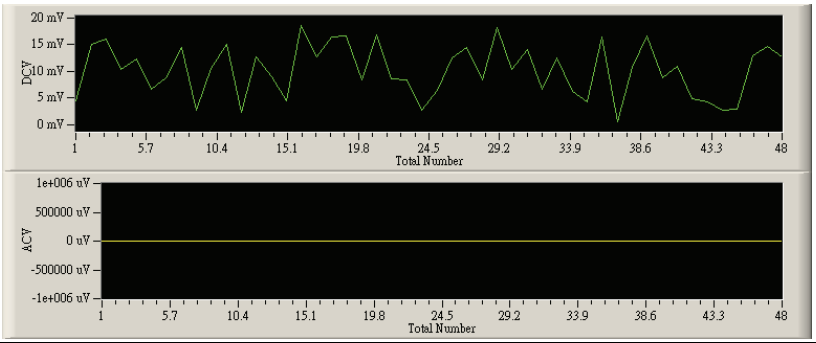


3. Click in the **End Point** text box and enter the END point (you may need to delete it first).



4. Press the **Plot Range** button to plot the new range.

The graph will now display a new plotted range.



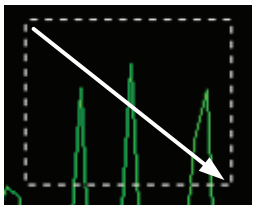
Reset Plotted Range

Click the **Plot Graph** Icon to display the default ranges.

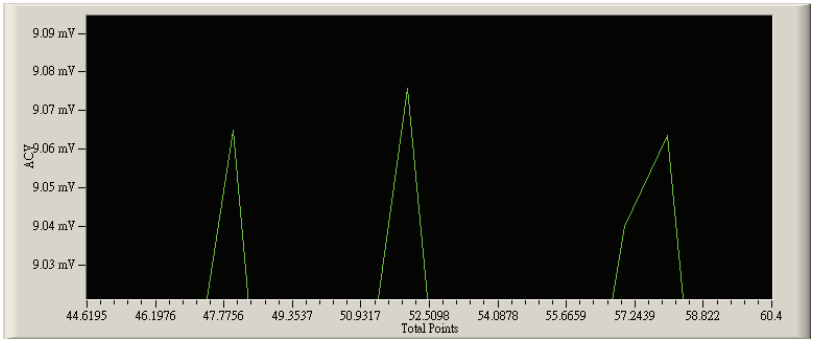
Zoom In

1. To zoom into any part of any graph just select an area with the mouse

2. **Left click and hold** the top left most corner of the area you want to select



3. **Drag down** to the bottom right most corner and **release** the left mouse button



Zooming can be performed multiple times within a zoomed window.

⚠ Note: This will only zoom the display and not change the current range settings.

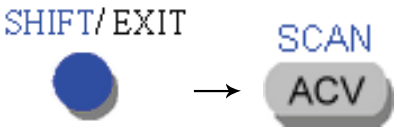
Cancel Zoom

Press the **Plot Graph** or **Plot Range** buttons to zoom back out to the default ranges

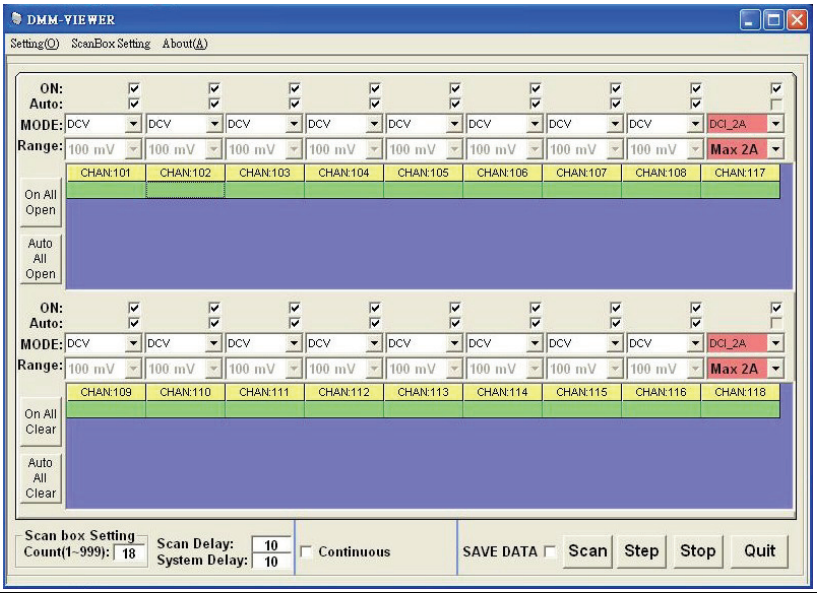
Return to the main Display Window

Click **Return to Main** to go back to the main display panel.

SCANNER FUNCTION

1. Establish remote connection	Follow the procedures for connection and configuration on page 7 and page 14.
⚠ Note	The Scanner Function is only applicable when the GDS-8261(A) has the optional scanner installed.
2. Select scanner mode	Click the SHIFT key followed by the ACV/SCAN key. 
3. Scan box setting screen appears	The scan box setting screen appears. The scan box screen can configure the scan box channels, settings and mode.

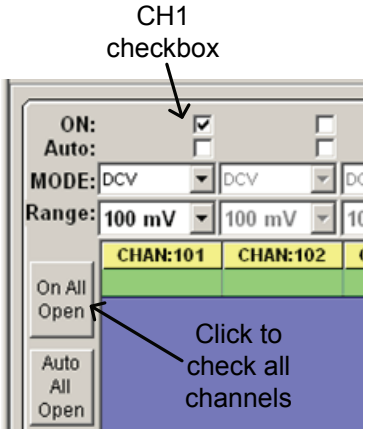
Scan Box



4. Chanel selection configuration

1. Check the **ON: checkbox** above a channel to activate that channel in the scan box.

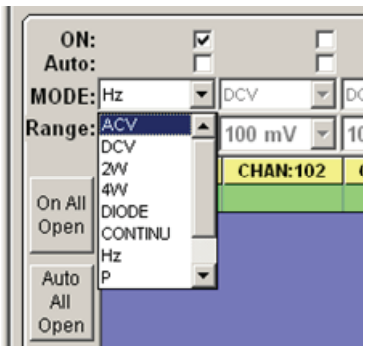
   Alternatively the click on the **On All Open** button to check all the scanner channels.



2. To unselect a channel, uncheck the checkbox or click the **On All Clear** button

5. Channel mode configuration

1. For each activated channel, select a mode from the **MODE:** drop down list.



Channel 1~16 Mode: ACV, DCV, 2W, 4W, DIODE, CONTINU, Hz, P

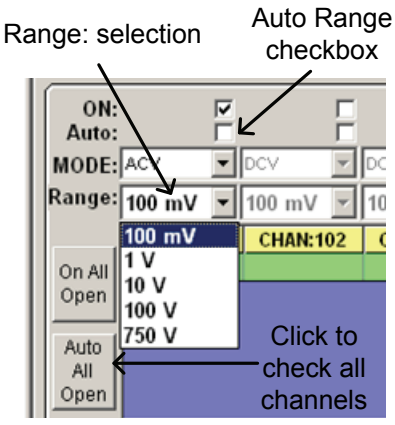
Channel 17, 18 Mode: ACI, DCI

6. Channel range configuration

1. For each activated channel, select a range from the **Range:** drop down list.

   Alternatively the **Auto:** check box can be checked to select Auto Range for the channel.

   To select Auto Range for all channels, click **Auto All Open**.



2. To unselect Auto Range, uncheck the checkbox or click the **Auto All Clear** button

7. Scan configuration

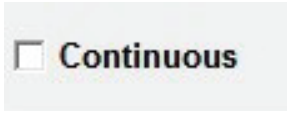
Scan count	Set the scan count from the **Scan Box Setting** area.	
Scan delay	Sets the Scan Delay Time between the first and second active channel of each successive scan loop *after* the initial scan loop in Scan Mode or between each channel in Step Mode.	
System delay	Set the System Delay Time between each channel in Scan Mode. System Delay Time is not used in Step Mode.	
Continuous scanning	Check on the **Continuous** option for continuous scanning.	

Illustration of Scan Mode

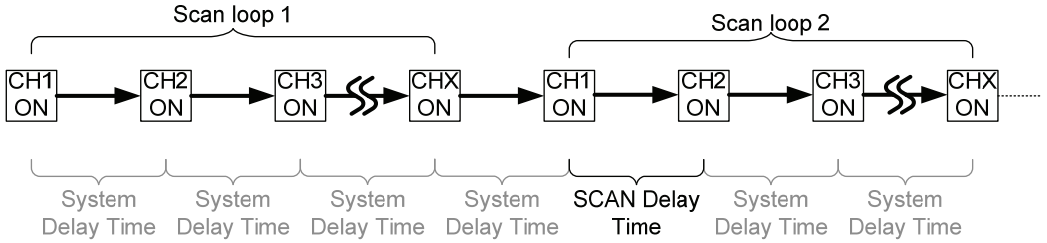
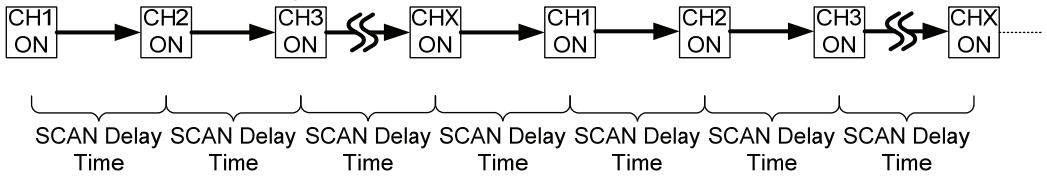


Illustration of Step Mode



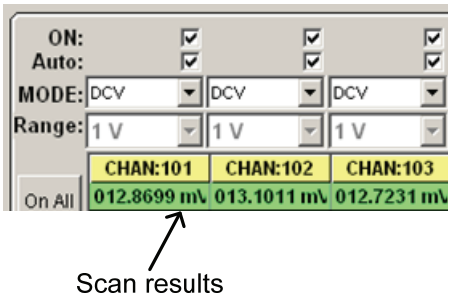
8. Run a scan

After all the settings have been configured a scan can be started.

Click **SCAN** to scan all the active channels.

Click **STEP** to scan each active channel one at a time.

The data field below the each channel will display the scan results after each scan.



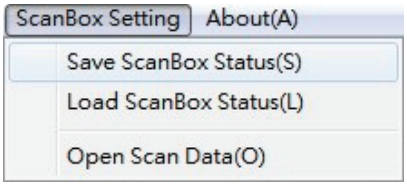
10. Stop Scanning

Press **STOP** to stop scanning during a scan.

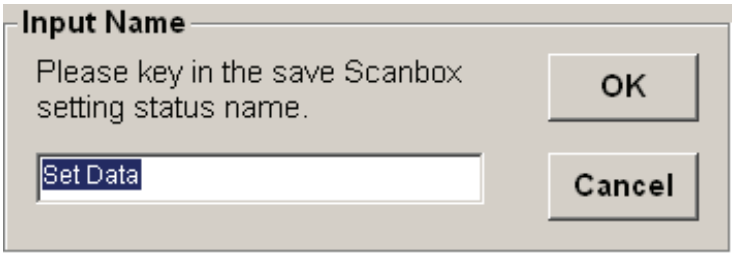
11. Save settings

All the channel, scan and count settings can be saved and restored for later use.

1. Click the **ScanBox Setting** button at the top of the screen.
2. Select **Save ScanBox Status(S)**.



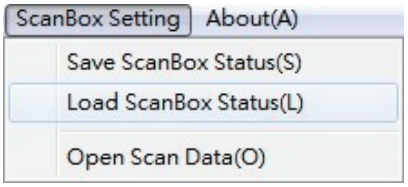
3. A pop-up window will appear. Enter a filename for the **ScanBox Status** and click **OK**.



4. The filename will be saved as a *.ini file.

12. Load settings

1. Click the **ScanBox Setting** button at the top of the screen.

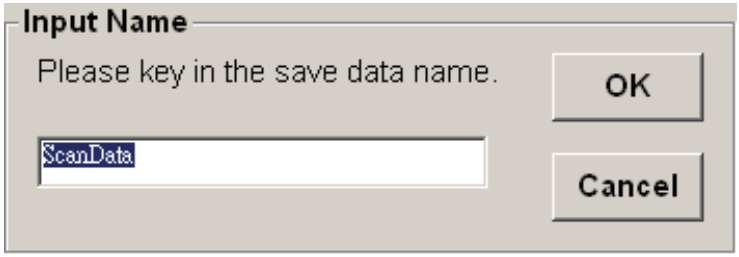


2. Select **Load ScanBox Status(S)**.
3. A pop-up window will appear. Select a *.ini file to load.

13. Save scan results

1. Click the **SAVE DATA** check box at the top of the screen.

2. A pop-up window will appear. Enter a filename for the **Save Data name** and click **OK**.

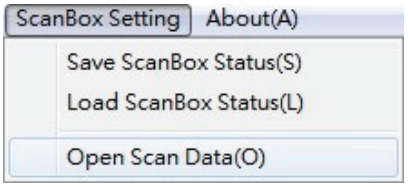


⚠Note

The SAVE DATA check box must be checked *before* a scan is run.

14. Open scan results

1. Click the **ScanBox Setting** button at the top of the screen.



2. Select **Open Scan Data (D)**.

FIRMWARE/ VERSION

This section describes how to access the firmware file and the Firmware Update Manual included in the CD-ROM. Contact your local distributor for the latest firmware.

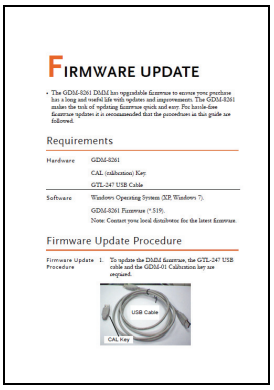
Firmware Update Procedure

1. Open the CD-ROM menu. For details, see page 5.

2. Click on the **Firmware Update Procedure** button.

3. The Firmware File and Firmware Update Manual buttons appear.

4. To see how to update the firmware, click on the **Firmware Update Manual** button. A PDF file automatically opens. Follow the instructions in the manual.


FIRMWARE UPDATE

Requirements

Hardware GDM-8261
CAL (calibration) Key
GTL-247 USB Cable

Software Windows Operating System (XP, Windows 7).
GDM-8261 Firmware (*.519).
Note: Contact your local distributor for the latest firmware.

Firmware Update Procedure

Firmware Update Procedure 1. To update the DMM firmware, the GTL-247 USB cable and the GDM-01 Calibration key are required.

USB Cable
CAL Key

5. To access a copy of the firmware, click the **Firmware File** button.

View Software Version

You may need to check the version of the software to see if you have the latest version.

1. Start DMM Viewer.

2. On the main display window click the **About(A)** menu tab to show the version number