Agilent U1251A and U1252A GUI Datalogger Software

Quick Start Guide

Agilent Technologies

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Agilent GUI Datalogger Software

Introduction

The meter has a bi-directional (full duplex) communication capability that eases data storing from the meter to PC. The required accessory for this communication capability is the IR-USB cable and the application software in the accompanying CD.

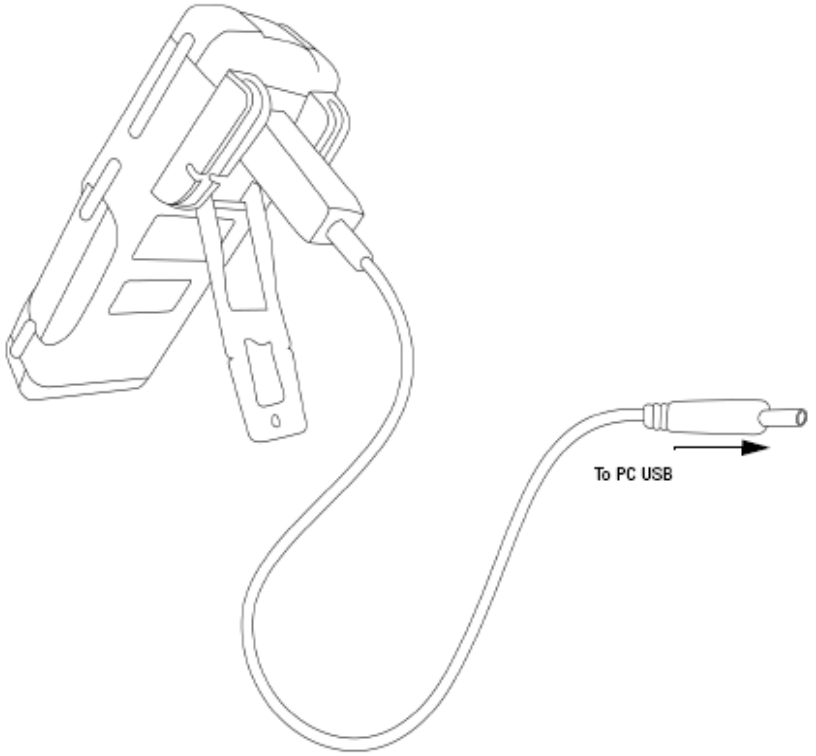

Figure 1 Cable connection for remote communication

NOTE The IR-USB cable functions as a serial RS-232 that connects the instrument to the USB port of the computer.

System Requirements

PC and Memory

Agilent GUI Datalogger Basic Edition will run using the same minimum PC and memory as required by the following operating system.

32-bit Platforms Window 2000 and above

Supported Model Agilent U1251A, U1252A

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A. Setting Communication with the Instrument

1 Run setup.exe in the accompanying CD to install the Agilent GUI Datalogger.

2 Go to **Start** > **All Programs** > **Agilent** > **Agilent GUI Datalogger**.

3 Below the Communication panel, set the communication port to the correct USB port of your PC and the baud rate to the SETUP settings of the meter.

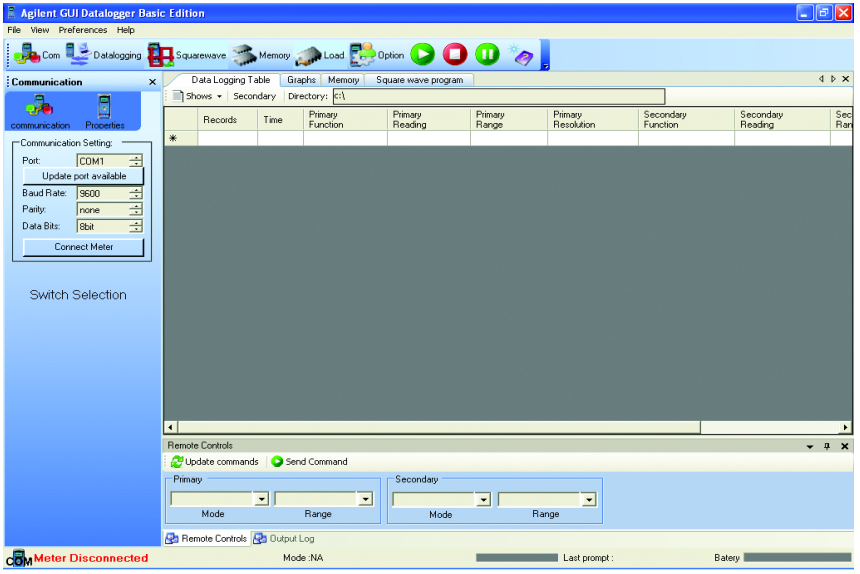


Figure A-1 Agilent GUI Datalogger Basic Edition

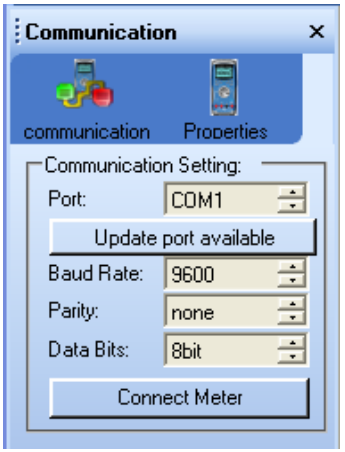


Figure A-2 Communication panel

4 Click on the Communication panel. Set the settings according to the meter's setup settings–Baud rate, Parity and Data bit. Then, select the Port (figure A-2) on your PC that the instrument is connected to.

5 The **Update port available** button will update the port that is available on your PC.

6 When all the settings are done, then click **Connect Meter** button.

Figure A-3 Meter connection success

7 When the settings matched with the meter settings, the software will return a message and status will change to “Meter Connected” as shown in figure A-3.

Figure A-4 Meter connection failed

8 If connection failed (figure A-4), click this  button or click on the area as shown on figure A-4 to open the communication setting panel. Ensure that IR-USB cable is connected to the meter and the meter is turned on.

9 Set the rotary switch of the instrument to the position of preferred measuring function. To view the functions at different rotary switch positions, refer to Selecting a Measuring Function in *Agilent U1251A & U1252A Handheld Digital Multimeter User's and Service Guide*.

10 You are now ready to use the Data Logging, Memory, Graphs or Square Wave function tabs.

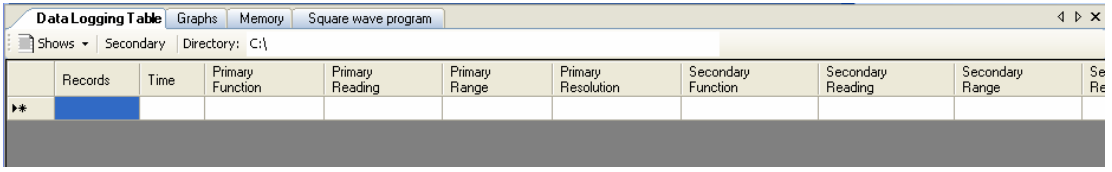


Figure A-5 Function tabs

11 You can check the meter properties by clicking and selecting **Properties** to view the meter properties panel (figure A-7).

Figure A-6 Properties panel

12 The meter settings will be shown in figure A-8. No amendments is allowed on the setting properties.

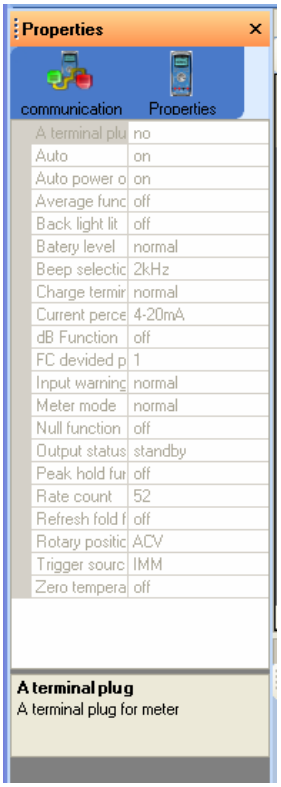


Figure A-7 Meter settings properties

13 Check the switch settings options shown in figure A-9. Each setting has its specific functions.

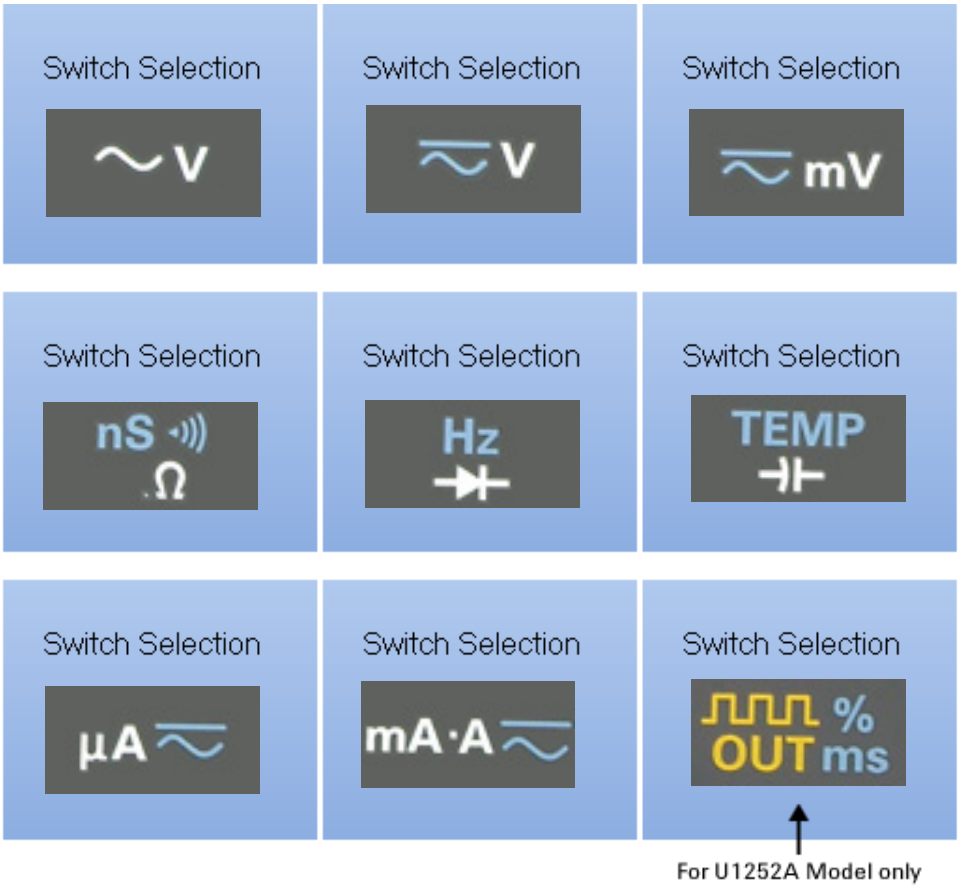


Figure A-8 Switch positions with specific functions

B. Software Operations

✔ There are three meter operation modes available, as shown in figure B-1.

- Memories Loading Mode
- Data Logging Mode
- Square Wave Mode

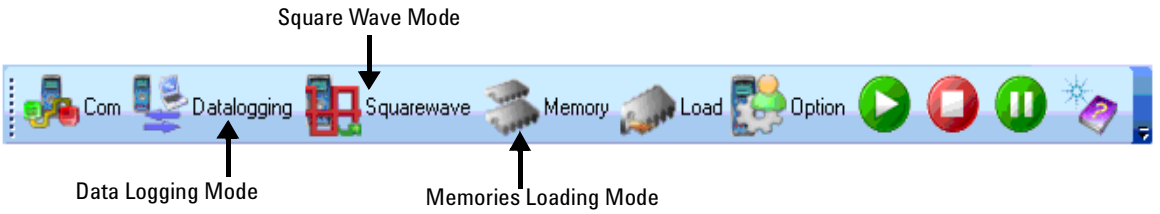


Figure B-1 Software modes

✔ The program can only execute a mode at a time. To activate operation mode, click on the icon on the mode panel.

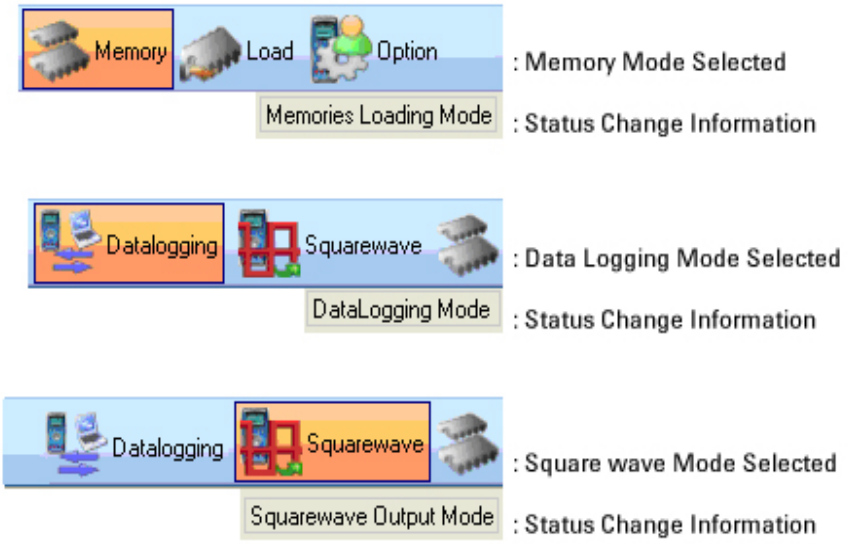


Figure B-2 Different mode selection

✔ When you click 

icon, the program will operate as data logging mode. Data logging table tab will be activated. Data from meter will be captured and sorted in the table as shown in figure B-3.

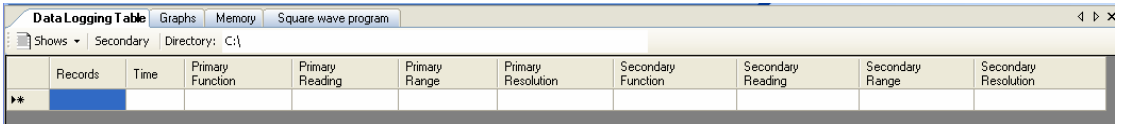


Figure B-3 Data logging table

✔ Press  to acquire the data manually and press  to pause the acquisition process. When  is pressed, the acquisition will stop and this dialog 

will appear. This option allows users to save the current data in view or clear the data without saving. The location of saved information will be shown in the directory text box, figure B-4. (To manually setup the save directory, click **here**)

Figure B-4 Directory text box

✔ The table also gives an option to log secondary display data. Click the **Secondary** button (

to log the data in the secondary display.

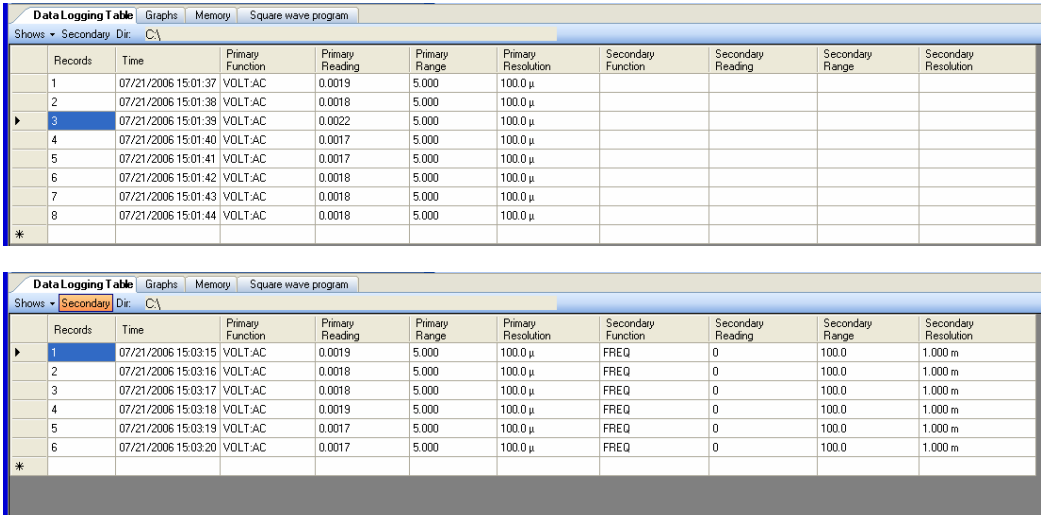


Figure B-5 Agilent GUI Datalogger software allows data logging into the data logging table. This table can be set with any preferred number of rows. To setup the table properties, refer to section C. Option.

✔ To customize the column for display, go to **Show** menu as shown in figure B-6 to adjust display preference.

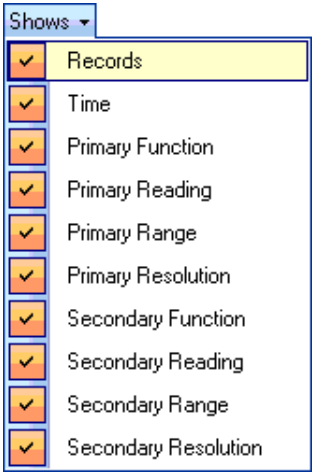


Figure B-6 Column display customization

✔ To manage the save directory of the logged data, click on directory text box on the directory panel (figure B-7)and **Browse For Folder** dialog (figure B-8) will appear. Choose the save directory preferred and click **OK**.

Figure B-7 Directory panel

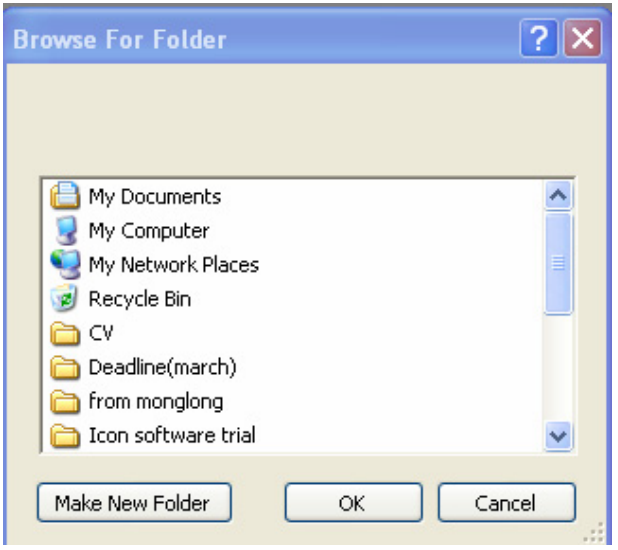


Figure B-8 Browse for folder

✔ This GUI software also provides two strip graphs to display the logged data. These graphs are meant for displaying purpose only.

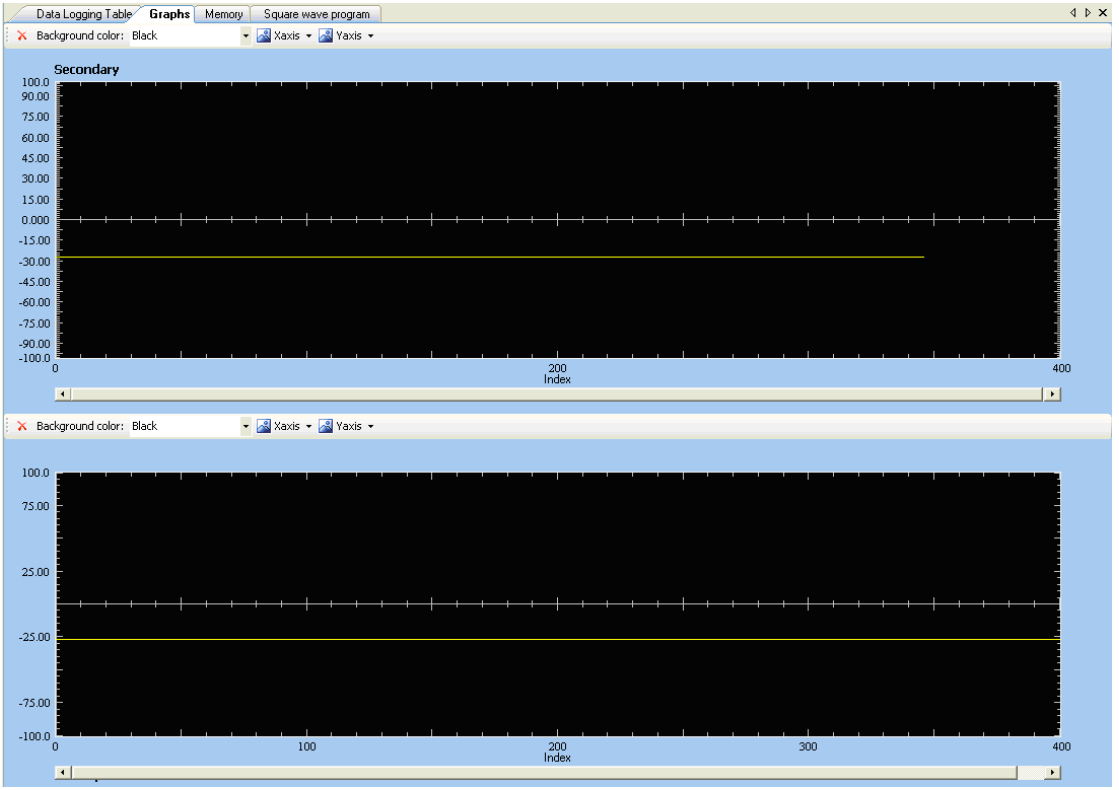


Figure B-9 Graph function

✔ All information of the data logging or program message will be viewed in **Output Log** menu.

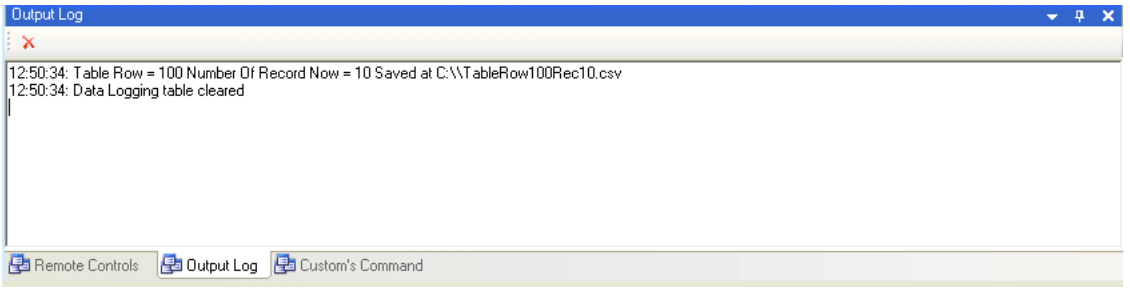
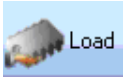


Figure B-10 Output log menu

Memory Options

✔ Click 

to select memory loading mode.

✔ Click 

to load logged data.

✔ Meter contains two types of memory modes with different maximum storage size.

- manual meter logging memory mode
- auto meter logging memory mode

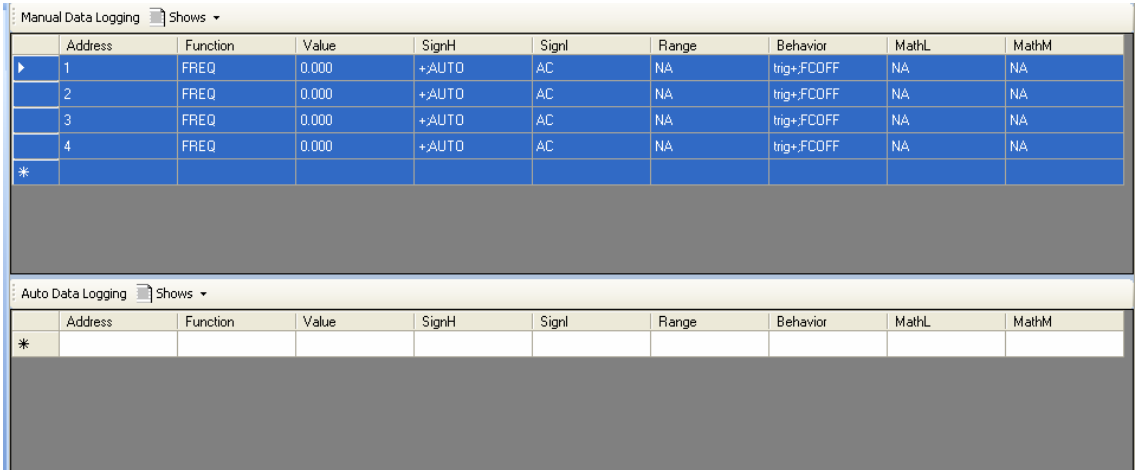


Figure B-11 Memory mode

✔ To clear the table or export the data contained in the table, select the options in the context menu (figure B-12). To activate the context menu, right click on any area outside the table.

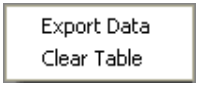


Figure B-12 Table options context menu

Square Wave Program Mode

1 Turn rotary switch of the instrument to OUT .

2 Click  icon to activate square wave mode. (This function is only available for U1252A model)

✔ There are two types of operations as shown in figure B-13:

- Manual
- Use Pre-programmed Table

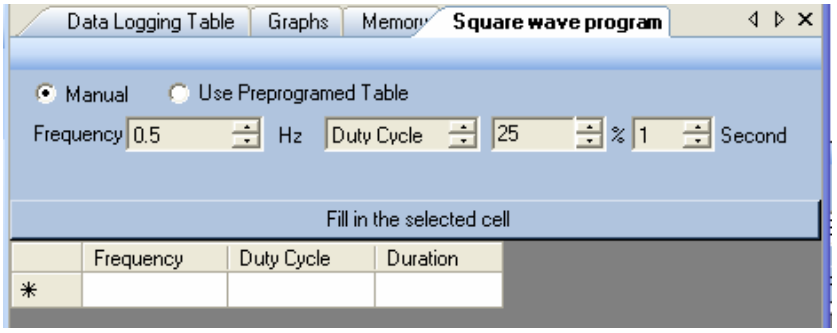


Figure B-13 Square wave program operations

✔ The frequency and duty cycle/pulse width can be remotely set via PC.

✔ When selecting Use Pre-programmed Table, use  to start, stop or pause the data logging operation.

✔ To input data into the square wave pre-programmable table, follow the instructions below:

1. Set the frequency, duty cycle/pulse width and duration accordingly (figure B-13).
2. Drag and drop the frequency value into the Frequency column cell in the table.
3. Select the respective Duty Cycle and Duration column cell, then click **Fill in the selected cell** button to input the parameters (figure B-14).

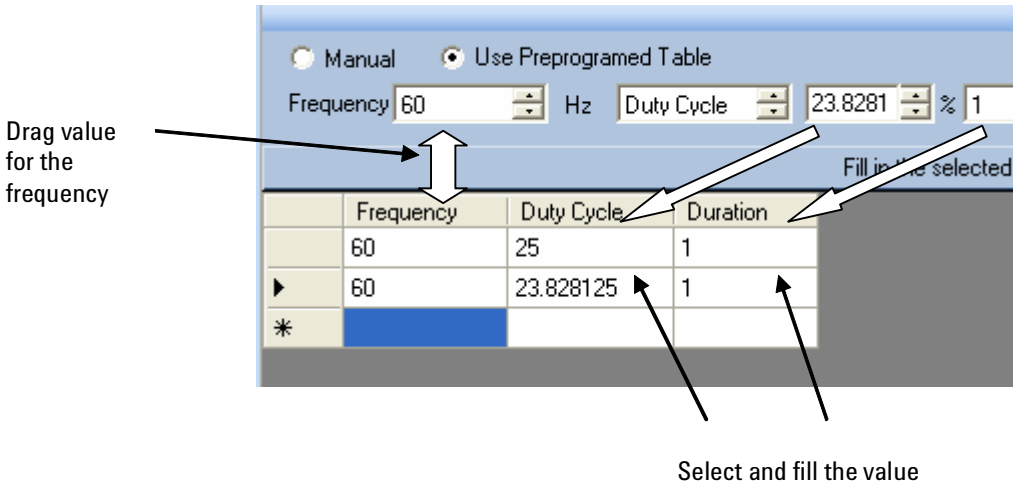


Figure B-14 Square wave program settings

Remote Control Operation

- ✔ Instrument can be controlled remotely according to the switch functions selected.
- ✔ Click on **Update Commands,** to update the lists of command available for different rotary switch functions selected. The list of command can be view through the drop-down combo box menu (figure B-15).
- ✔ Click on **Send Commands** to send command parameters to the instrument.

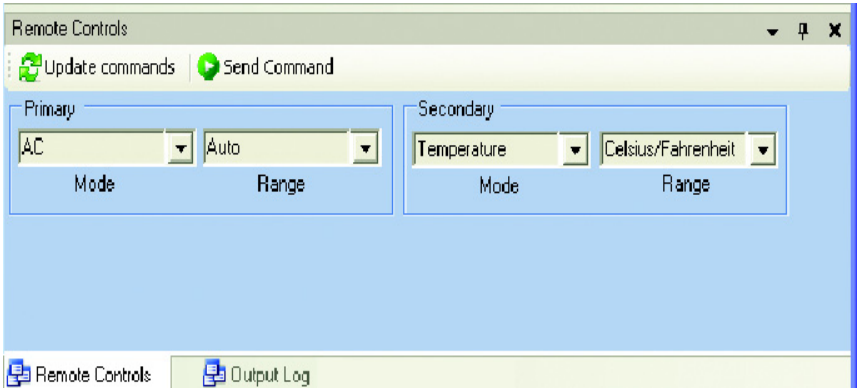


Figure B-15 Remote controls

C. Option

✔ To customize user setting, press  icon or go **Menu** → **Preference** → **Option**.

✔ There are three tab controls

- Setup (figure C-1)
- Schedule (figure C-2)

✔ In **Setup** tab, there are three sections (figure C-1)

- data logger interval
- records
- meter setup

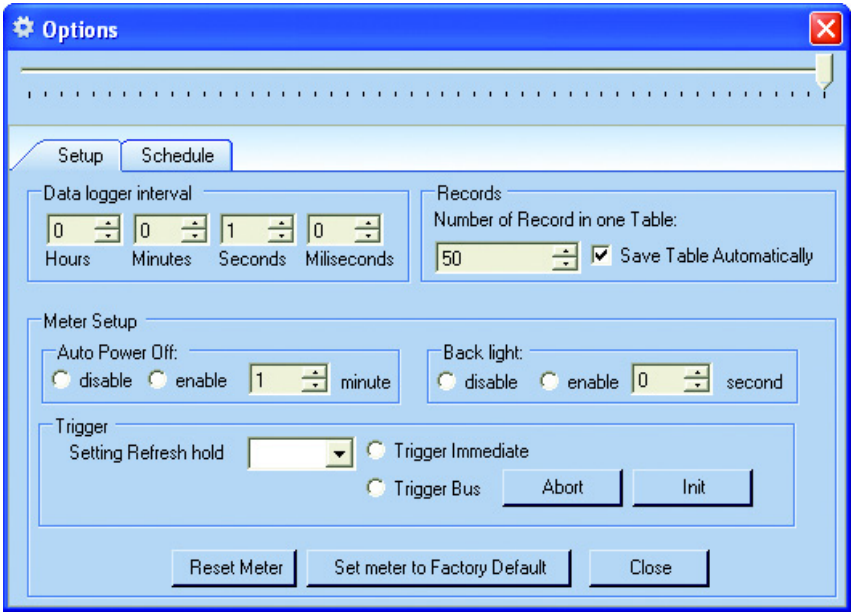


Figure C-1 User setting **Setup** tab

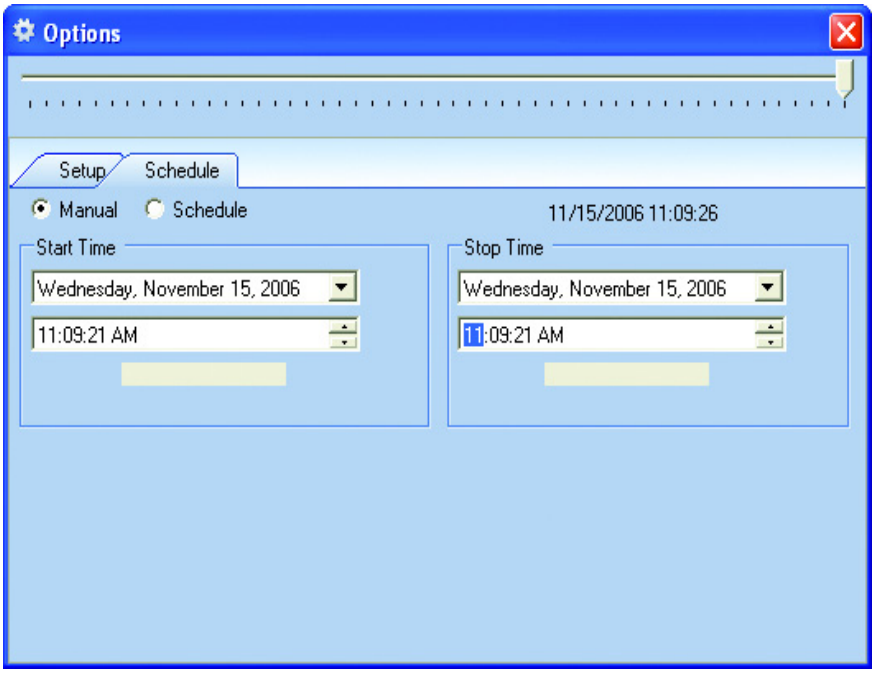


Figure C-2 User setting **Schedule** tab

✔ To set the interval of data logging, set up the time interval in the data logger interval section (figure C-3) by **Hours**, **Minutes**, **Seconds**, or **Milliseconds.**

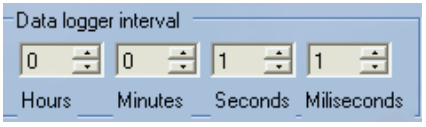


Figure C-3 Data logger interval settings

- ✔ Records section allows users to set the number of rows in the table (figure C-4).
- ✔ Check option for **Save Table Automatically** to enable or disable auto saving of data in the table (Figure C-4).

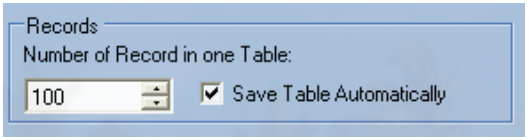


Figure C-4 Records option

- ✔ Meter setup (figure C-5) allows users to control the instrument with controlling options–auto power off function, backlight, triggering instrument.
- ✔ To reset instrument, click **Reset Meter** button.
- ✔ To set instrument to default setting, click **Set meter to Factory Default** button.

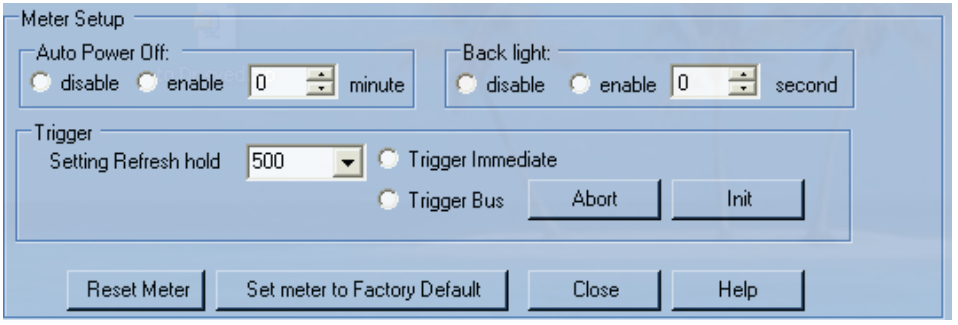


Figure C-5 Meter setup

✔ Besides manual log data, this GUI also provides scheduling mechanism. To activate auto scheduling, choose **Schedule** (figure C-6). Then, set the start and stop time preferred. When the scheduling mechanism activated, the manual data logging functions icon () will be disabled.

✔ The default setting for data logging is manual logging.

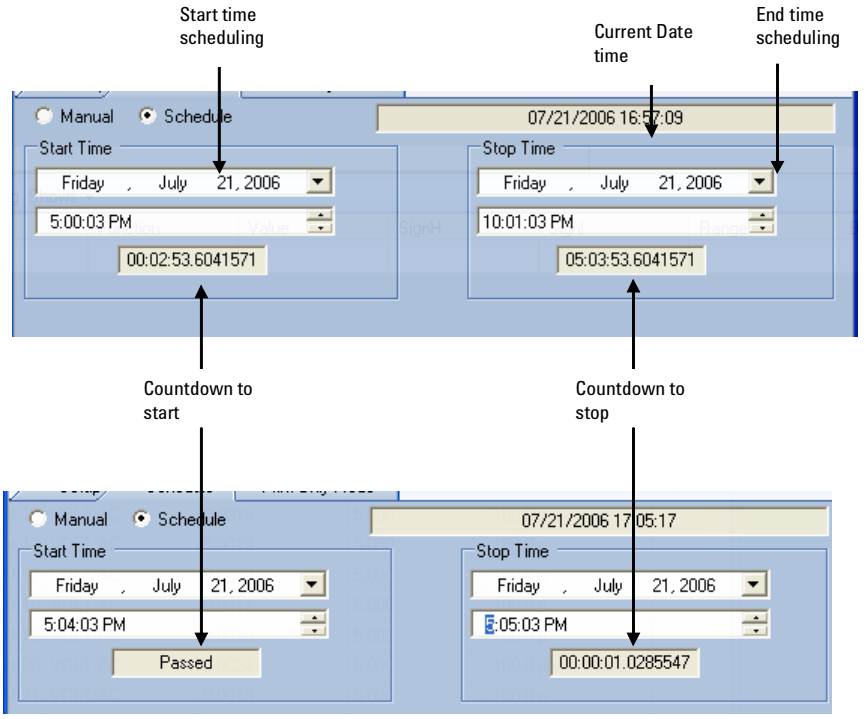


Figure C-6 Scheduling mechanism

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