Agilent GUI Data Logger Software for U1731C, U1732C, and U1733C Handheld LCR Meter

Quick Start Guide

Agilent Technologies

Notices

Manual Part Number

U1731-90089

Edition

Warranty

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CAUTION

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Table of Contents

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Introduction

The U1731C, U1732C, and U1733C handheld LCR meter models are equipped with a bi-directional (full duplex) communication capability that eases data storing from the LCR meter to your PC.

The required accessory for this communication capability is the U5481A IR-USB cable and the *Agilent GUI Data Logger for Agilent Handheld LCR Meter (U1730C)* application software, which is available for free on the Agilent website (www.agilent.com/find/hhTechLib).

NOTE The U5481A IR-USB cable functions as a serial RS-232 port that connects the LCR meter to the USB port of your PC.

System requirements

Before installing the Agilent GUI Data Logger application software, ensure that your PC meets the following minimum system requirements.

Processors	1.6 GHz Pentium$^{®}$ IV or higher
32-bit OS platforms	Windows$^{®}$ XP, Windows$^{®}$ Vista, or Windows$^{®}$ 7
Memory	512 MB or higher (recommended)
Hard disk space	1 GB free disk space at runtime
Supported models	Agilent U1731C, U1732C, and U1733C
Prerequisite	Microsoft .NET Framework version 3.5[1]
	PL-2303 USB-Serial Driver

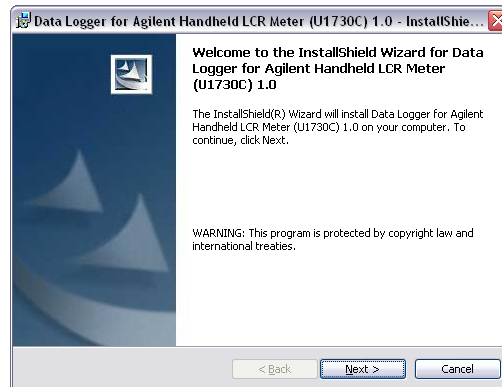[1] Available with any of the following redistributable packages on the Microsoft$^{®}$ website:

Microsoft$^{®}$ .NET Framework version 3.5 Redistributable Package, or
Microsoft$^{®}$ .NET Framework version 4.0 Redistributable Package.

Installing and Connecting the LCR Meter

You are recommended to disconnect the U5481A IR-USB cable before installing the software.

1 Download the *Agilent GUI Data Logger for Agilent Handheld LCR Meter (U1730C)* application software from www.agilent.com/find/hhTechLib.

2 Click ![setup] to begin the installation. The required drivers and Microsoft .NET Framework are automatically installed if they are not detected on your PC.
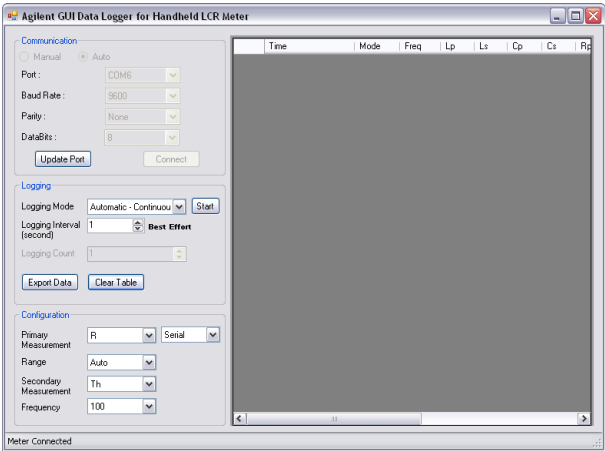

Figure 1   Agilent GUI Data Logger InstallShield Wizard

3 Click **Start > All Programs > Agilent > Data Logger for Agilent Handheld LCR Meter (U1730C)** to run the Agilent GUI Data Logger. Or alternatively, you can click the Agilent GUI Data Logger shortcut icon on your desktop.
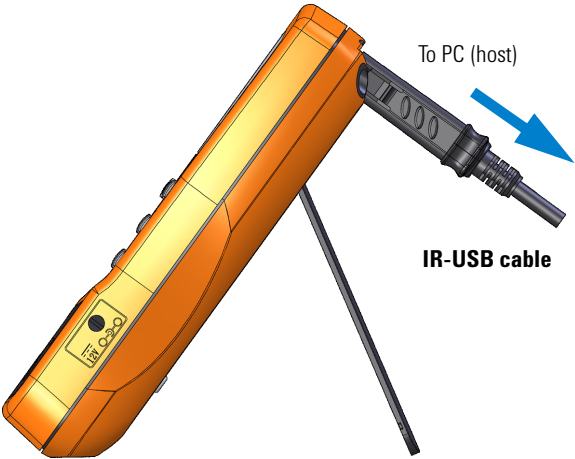

Figure 2   Agilent GUI Data Logger shortcut icon

Figure 3   Agilent GUI Data Logger for Handheld LCR Meter

4 Connect the LCR meter to your PC via the U5481A IR-USB cable (Figure 4) and turn on the LCR meter.

To PC (host)

IR-USB cable

Figure 4   Cable connection for remote communication

| NOTE | The U5481A IR-USB cable is an optional accessory. You can purchase the cable at your nearest Agilent Sales Office. |

5 In the **Communication** panel, configure the LCR meter's communication settings.

  i Select **Auto** (Figure 5) to allow the Agilent GUI Data Logger to automatically search for a connected LCR meter.

  ii Select **Manual** (Figure 5) to manually update the Agilent GUI Data Logger's communication settings.

    Select the communication Port that your LCR meter is connected to. Clicking **Update port** will update the port selections that are available on your PC.

    Match the Baud Rate, Parity, and Data Bits settings (Figure 5) to the settings of the connected LCR meter.

Figure 5   Communication panel

6 Click **Connect**. If the Agilent GUI Data Logger's communication settings matches with the LCR meter's communication settings, the **Meter Connected** notification will be shown in the status bar.

7 If the connection fails (**Meter Disconnected** notification), check that the U5481A IR-USB cable is connected securely to the LCR meter and that the LCR meter is turned on.

NOTE   The RS232 port is not meant for hot plugging or hot swapping. Disconnecting the U5481A IR-USB cable when it is in use will crash the Agilent GUI Data Logger.
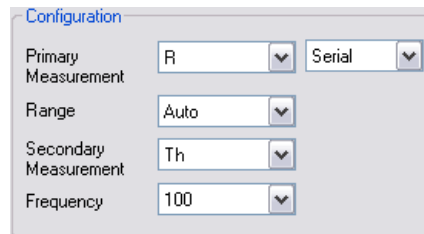
Using the Agilent GUI Data Logger

The Agilent GUI Data Logger software is a simple graphical user interface (GUI) that allows you to perform basic controls and measurements through a PC.

The Agilent GUI Data Logger allows data to be transferred from the LCR meter to a PC via the U5481A IR-USB cable cable with data storing options. Three types of logging mode are available in the Agilent GUI Data Logger software:

- Automatic - Continuous
- Automatic - Up to x count
- Manual

Prior to selecting a logging mode, select the measurement configuration options from the Configuration panel.
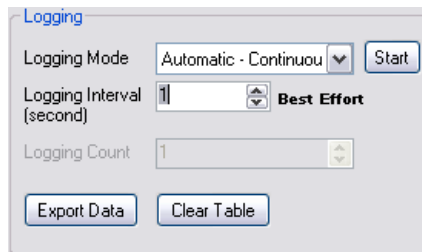

Figure 6   Configuration panel

For further explanation of the measurement configuration options, refer to the *U1731C/U1732C/U1733C User's Guide*.

Automatic - Continuous mode

The Automatic - Continuos mode allows the data to be transferred to the PC automatically and continuously with a specific log interval.

Procedures:

1 In the Logging panel, select **Automatic - Continuous** in the Logging Mode drop down list.

2 Set the desired Logging Interval in seconds by clicking on the up/down button or by keying in the required value.

Figure 7   Logging panel with Automatic - Continuous selected

NOTE	• The Logging Interval is defined as the delay within the PC when it is sending a command to fetch the latest reading.

• The Logging Interval's best effort for communication between the PC and the LCR meter is subjected to the following conditions:

  • It is dependant on PC activity for USB communications.
  • It is not a true realtime-stamp.
  • It is subjected to software delays when sending commands to obtain readings.
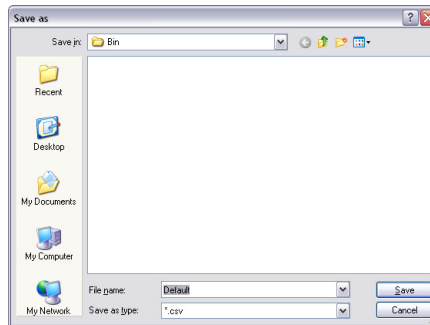
• In this mode, the Logging Count option is disabled.

3 Click **Start** to start the data logging. The logged data will be displayed in the measurements table.

Figure 8   Logged data

4 Click **Stop** to stop the data logging.

5 Click **Export Data** to store the logged data in the PC. All the logged data shown in the measurements table will be saved as a *.csv* file.
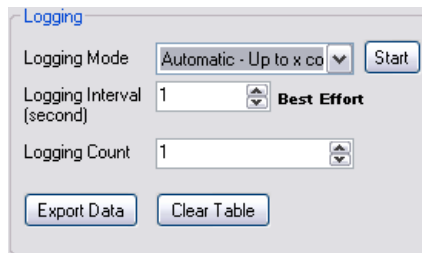

Figure 9   Storing the logged data in the PC

6 Click **Clear Table** to clear all the previously logged data shown in the measurements table.

Automatic - Up to x count mode

The Automatic-Up to x count mode allows the data to be transferred to the PC at a specific logging count and log interval set by you.
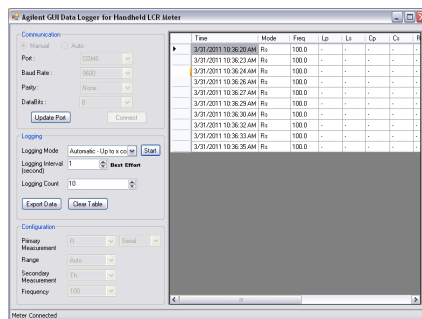
Procedures:

1 In the Logging panel, select **Automatic - Up to x count mode** in the Logging Mode drop down list.

2 Set the desired Logging Interval in seconds and Logging Count by clicking on the up/down button or by keying in the required value.
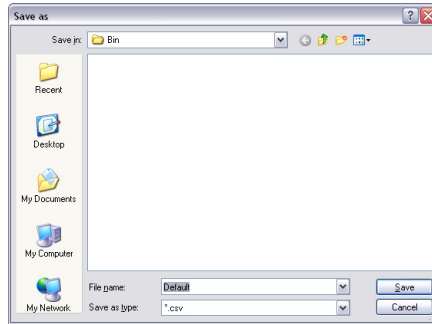

Figure 10 Logging panel with Automatic - Up to x count selected

3 Click **Start** to start the data logging. The logged data will be displayed in the measurements table.

Figure 11 Logged data

4 Click **Stop** to stop the data logging.

5 Click **Export Data** to store the logged data in the PC. All the logged data shown in the measurements table will be saved as a *.csv* file.

Figure 12   Storing the logged data in the PC

6 Click **Clear Table** to clear all the previously logged data shown in the measurements table.

Manual mode

The Manual mode allows the data to be transferred to the PC manually.

Procedures:

1 In the Logging panel, select **Manual** in the Logging Mode drop down list.

NOTE   In this mode, the Logging Interval and Logging Count option are disabled.
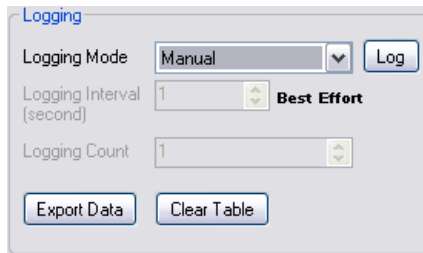
Figure 13   Logging panel with Manual selected

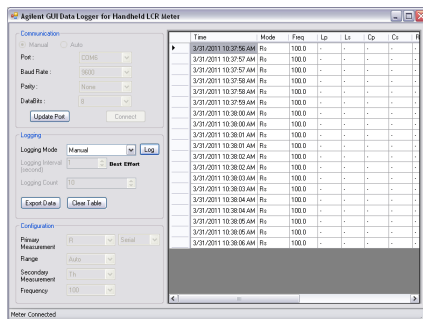**2** Click **Start** to log a single measurement. The logged data will be displayed in the measurements table.
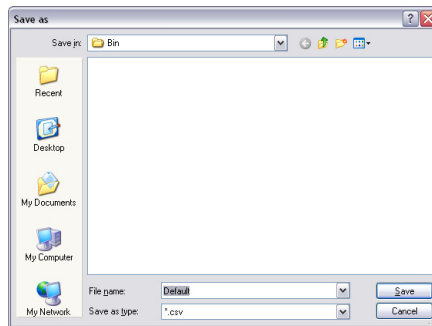

Figure 14   Logged data

3 Click **Export Data** to store the logged data in the PC. All the logged data shown in the measurements table will be saved as a *.csv* file.

Figure 15   Storing the logged data in the PC

4 Click **Clear Table** to clear all the previously logged data shown in the measurements table.

Removing the Agilent GUI Data Logger

The software can be removed either from the Windows Start menu or by using the Windows Add/Remove Programs.

Uninstalling from the Windows Start menu

To remove the software from the Windows Start menu, proceed as follows:

1 Select **Start (Windows taskbar) > All Programs > Agilent > Uninstall Data Logger for Agilent Handheld LCR Meter (U1730C)**.

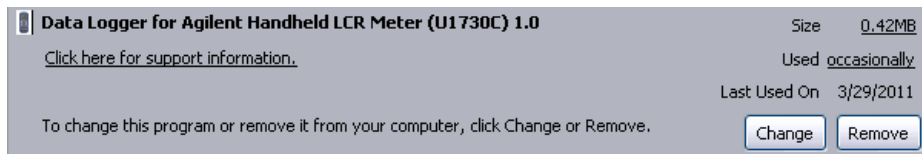**Figure 16**   Uninstall Data Logger for Agilent Handheld LCR Meter

2 The Windows Installer dialog box will appear and prompt you to confirm the complete removal of the application.

3 Click **Yes** to proceed. To cancel the uninstallation, click **No**.

4 Follow the instructions on the screen to complete the removal process.

Uninstalling from the Windows Add/Remove Programs

To remove the software by the Windows Add/Remove Programs, proceed as follows:

1 Select **Start (Windows taskbar) > Control Panel** to open the Control Panel window.

2 Double-click **Add or Remove Programs**. The Add or Remove Programs window will appear containing a list of currently installed programs.

3 Browse the list of currently installed programs to search for the **Data Logger for Agilent Handheld LCR Meter (U1730C)** as shown below.

Figure 17   Remove Data Logger for Agilent Handheld LCR Meter

4 Click **Remove** to uninstall the selected application.

5 The **Add or Remove Programs** dialog box will appear and prompt you to confirm the complete removal of the application. Click **Yes** to proceed. To cancel the uninstallation, click **No**.

6 Follow the instructions on the screen to complete the removal process.

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