# Keysight U1115A Remote Logging Display

# Operating Instructions

The Keysight U1115A Remote Logging display is designed to be used with the Keysight U1200 Series handheld meters, Keysight U1117A IR-to-**Bluetooth**®[1] Adapter, Keysight U1177A IR-to-**Bluetooth** Adapter and mobile/software[2] applications to provide you a total wireless remote connectivity solution. With the U1115A, you can view readings from up to four handheld meters simultaneously, from an extended distance of up to 100-metres (U1117A) within the line-of-sight.

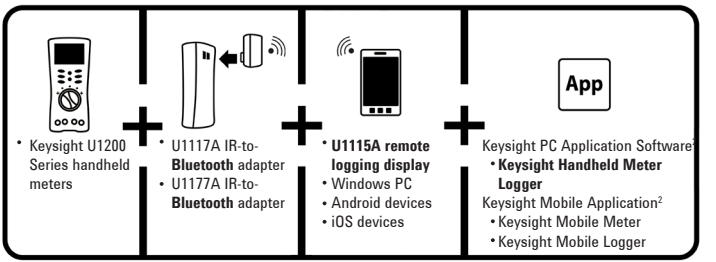



**Figure 1** Keysight wireless remote connectivity solution

# Standard Shipped Items Checklist

The following items are included with your purchase:

- U1115A Remote Logging Display.
- Three 1.5 V AA batteries.
- USB to micro USB cable (for external power only).
- Operating Instructions (this booklet).
- Soft Carrying Case.

[1] *The **Bluetooth**® word mark and logos are registered trademark owned by **Bluetooth** SIG, Inc and any use of such marks by Keysight is under license. Other trademark and trade names are those of their respective owners.*

[2] *The Keysight U1115A only supports Keysight Handheld Meter Logger software for downloading logged data to PC via **Bluetooth** connection.*

# Product Characteristics

| | |
|---|---|
| **Temperature** | **Operating condition:** –20 °C to 55 °C<br>**Storage condition:** –40 °C to 70 °C |
| **Relative Humidity (R.H)** | **Operating condition:** Up to 80 % at 40 °C (non-condensing)<br>**Storage condition:** Up to 95 % at 40 °C (non-condensing) |
| **Dimension (W x L x H)** | 92.0 mm × 107.9 mm × 33.5 mm |
| **Weight** | 238 g with batteries , 170 g without batteries. |
| **Battery Type** | • Carbon Zinc 15D (ANSI/NEDA) and R6 (IEC)<br>• Alkaline 15A (ANSI/NEDA) and LR6 (IEC)<br>• Lithium 15LF (ANSI/NEDA) and FR6 (IEC) |
| **Battery Lifespan** | • Lithium batteries: 30 hours<br>• Alkaline batteries: 20 hours |
| **Power Consumption** | Maximum 1 VA for 3 AA batteries<br>Maximum 5 V +10 %, 250 mA for external power<br>Auto Power Off mode, current consumption 3 mA |
| **Warranty** | One year (Does not cover normal wear and tear of mechanical parts and batteries) |
| **Bluetooth** | **Bluetooth** SPP profile, Class 1 device |
| **Compatibility** | **Keysight Handheld Meter/Display:**<br>• Keysight U1200 Series Handheld Meters<br>• Keysight U1117A IR-to-**Bluetooth** Adapter<br>• Keysight U1177A IR-to-**Bluetooth** Adapter<br><br>**Keysight Application Software:**<br>• Keysight Handheld Meter Logger<br><br>**Hardware Device:**<br>• Windows PC (with **Bluetooth**-enabled) |
| **Regulatory**<br><br>Complies with IDA Standards (DA 106994) | The U1115A complies with the requirements of the following product standards:<br>• EMC EN 301 489–1:V1.9.2<br>EN 301 489–17:V2.2.1<br>EN 55022:2010 (Group 1 Class A)<br>EN 55024:2010<br><br>• RF (**Bluetooth**) EN 300 328 V1.7.1<br><br>• RF (Health) EN 62311:2008<br><br>• Safety EN 60950–1:2006+A11:2009<br>+A1:2010+A12:2011 |

| | |
|---|---|
| **Regulatory** | • India Equipment Type Approval (ETA) Certificate No: NER-ETA/924<br><br>"This telecommunication equipment conforms to the NTC technical requirement" |

**Table 1** Connectivity distance (approximate) within the line-of-sight

| | **U1177A** | **U1117A** | **U1115A** |
|---|---|---|---|
| **U1177A** | – | – | 10 m |
| **U1117A** | – | – | 100 m |
| **U1115A** | 10 m | 100 m | – |
| **Other Class 1 devices** | 10 m | 100 m | 100 m |
| **Other Class 2 devices** | 10 m | 10 m | 10 m |

**NOTE**

- Canada IC: The device contains transmitter IC: 5123A–BGTWT11IA
- To comply with FCC and Industry Canada RF radiation exposure limits for general population, the antenna(s) used for this transmitter must be installed such that a minimum separation distance of 20 cm is maintained between the radiator (antenna) and all persons at all times and must not be colocated or operating in conjunction with any other antenna or transmitter.
- "La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

**WARNING**

- The radio module certified by Japanese Radio Law is integrated inside.
- NCC Warning Statement:
  - Article 12

    Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristics and functions of the original design of the certified lower power frequency electric machinery.
  - Article 14

    The application of low power frequency electric machineries shall not affect the navigation safety nor interfere a legal communication, if an interference is found, the service will be suspended until improvement is made and the interference no longer exists.

**CAUTION**

- According to FCC part 15.21:

Changes or modifications not expressly approved by the manufacturer for compliance may void the user's authority to operate the equipment.

- According to FCC part 15.105(b):

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accoradance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

- According to FCC 15.19:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

  - This device may not cause harmful interference.
  - This device must accept any interference received, including interference that may cause undesired operation.

## Front View

**Figure 2** Front view of the U1115A Remote Logging Display

## Side View

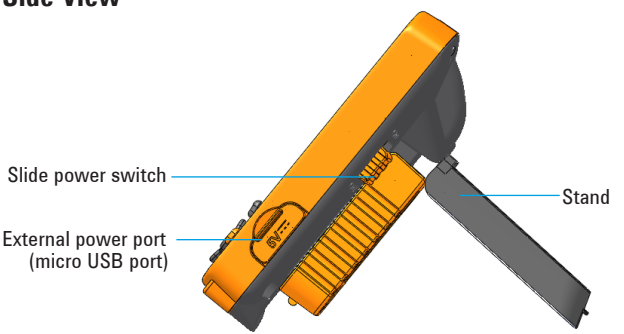



**Figure 3** Side view of the U1115A Remote Logging Display (standing position)

## Back View

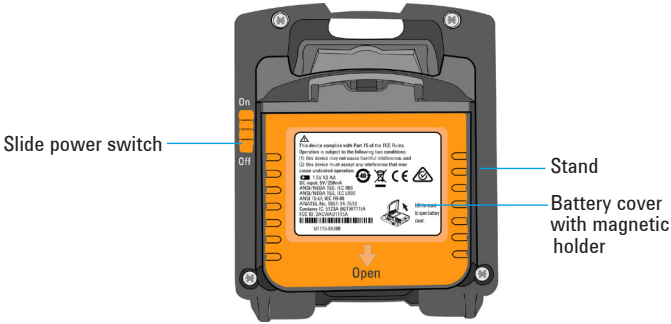



**Figure 4** Back view of the U1115A Remote Logging Display

## Turning On the U1115A

To turn on the U1115A , set the slide power switch to **On.** *(as shown in figure 4)*

**NOTE**

- Once a connected IR-to-**Bluetooth** Adapter is turned off, below scenarios will occur :
  1. The **Not Connected** annunciator will appear on the display.
  2. Subsequently, the annunciator will appear after 15 s-20 s.

## Supplying External Power to the U1115A

1. Plug the micro USB head to the micro USB port on the side of the U1115A. *(refer to figure 3)*
2. Plug the USB connector to a USB power source to supply external power to the U1115A.

**NOTE**

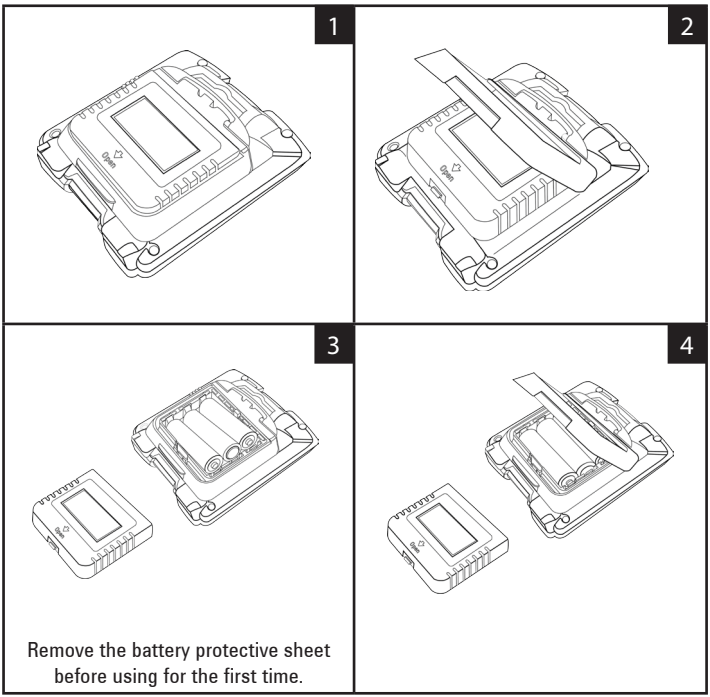
- The micro USB port on the U1115A serves as an external power port and not for data transfer or battery charger.
- Batteries can be left in the U1115A when operating from external power.

# Installing and Replacing the Batteries

**NOTE** Make sure you turn off the U1115A before installing or replacing the batteries.

**CAUTION** To avoid the U1115A being damaged from battery leakage:

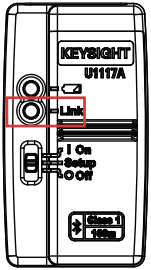
- Always remove dead batteries immediately.
- Always remove the batteries and store them separately if the U1115A is not going to be used for a long period of time.




Remove the battery protective sheet before using for the first time.

# Connecting to Devices

1




Ensure that the Link LED at the IR-to-**Bluetooth** adapter is blinking before establishing a connection.

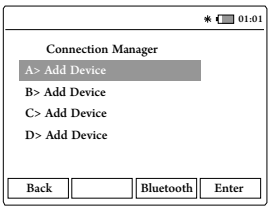
Power cycle if necessary.

Front view of the U1117A IR-to-**Bluetooth** adapter

2

Press to enter Connection Manager. (U1115A)

3




Typical Connection Manager display.

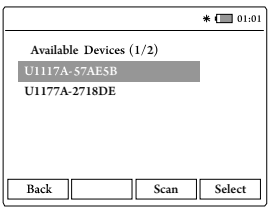
4

Press to add devices.

5

Press to scan for devices.

6




Typical Available Devices display.

7

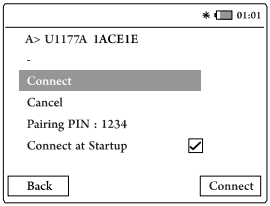
Press to navigate to desired device.

# **Connecting to Devices** (continued)

**8**

Press to select the desired device.

**9**




Typical connection menu display.

**10**

Press to navigate to desired function.

**11**

- Select **Connect** to make a connection.
- Select **Cancel** to cancel a connection.
- Select **Pairing PIN : 1234** to change PIN number. Ensure that the U1115A and the IR-to-**Bluetooth** adapter(s) have matching PIN number(s).
- Select **Connect at Startup** to set the device to connect on startup. By selecting this option, it will determine the number of views as shown in Table 2 below.

**NOTE**

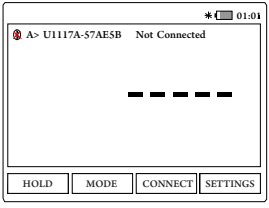
Connection Manager can add up to 4 devices at any one time. Meter view is automatically selected based on the table below :

**Table 2** Meter view selection

| Connected devices | Connect At Startup | Meter view |
|---|---|---|
| 1 | ✓ | 1-meter view |
| 2 | ✓ | 2-meter view |
| 3 or 4 | ✓ | 4-meter view |

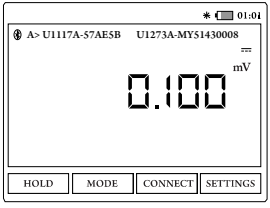
# Meter View

1



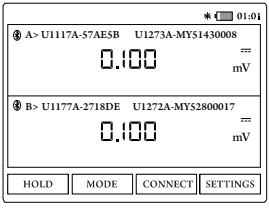

Typical screen display when no meter is connected to the U1115A.

2



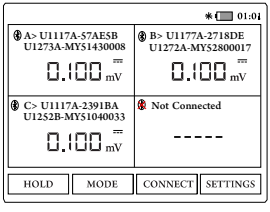

Typical screen display when one meter is connected to the U1115A.

3




Typical screen display when two meters are connected to the U1115A.

4




Typical screen display when three or four meters are connected to the U1115A.

**NOTE**

The U1115A screen display will show ----- when:

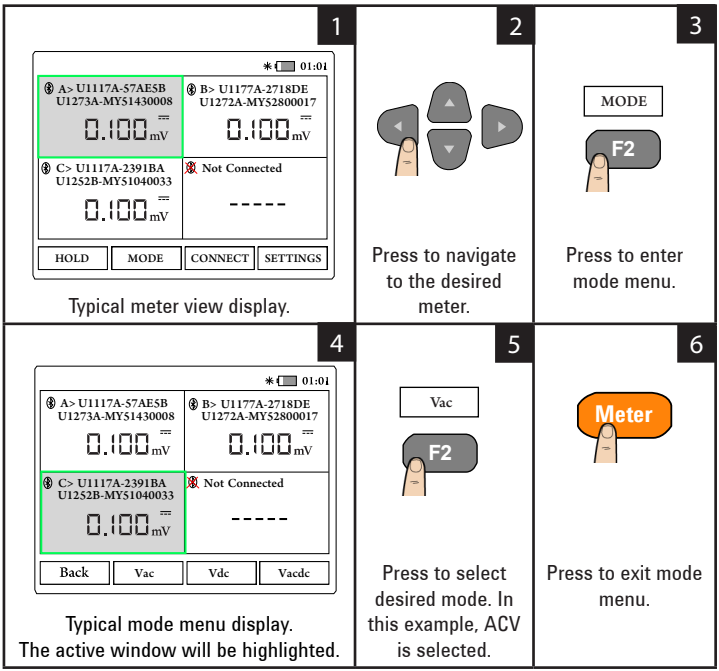
1. No meter is connected.
2. Meter(s) function/mode is not supported by the U1115A.
3. When the user changes the meter's function. Typical wait time is 5s.

## Identifying a Connected Meter

The identify meter function allows you to easily identify your connected meter(s).
To identify the connected meter, follow the steps below :

1 In the meter view, select the desired meter and press **CONNECT.**
2 Then, navigate to the desired connected device and press **Identify.**
3 The meter corresponds to the selected device will beep and flash it's backlight.

## Selecting Measurement Mode



# Performing Data Logging

The data logging function provides you the convenience of recording test data for future review or analysis.

**Table 3** Data logging maximum capacity

| Data logging option | Maximum storage capacity |
|---|---|
| Manual log | 500 pts |
| Interval log | 60 000 pts/100 sessions[1] |

[1] *For interval log, a maximum of 60 000 points or 100 sessions can be stored, whichever occurs first. Session ends when the U1115A powers off, count mode ends, restarts new logging or all connected meter(s) disconnect*

## Performing Manual Logging

**1**

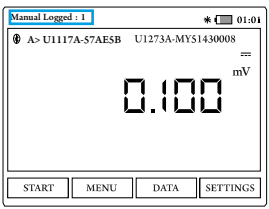
Press to enter data log mode.[1]

[1] *Proceed to Step 2 if the U1115A is already in meter view.*

**2**

Press for >1 s to store the present value.

**3**




Typical manual log display. Manual Logged : x[1] is displayed at the top left of the display once a value is logged.

[1] *X denotes 1,2,3,4,...which represents the current log count.*

**4**

Press to exit data log mode.

## Performing Interval Logging

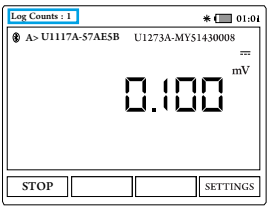
**1**

Press to enter data log menu.

**2**

Press to start interval log mode. Subsequent readings are automatically recorded into the multimeter's memory at the interval specified in the setup menu.

**3**




Typical interval log display. Log Counts : x[1] is displayed at the top left of the display once a value is logged.

[1] *X denotes 1,2,3,4,...which represents the current log count.*

**4**

Press to exit interval log mode.

**Table 4** Datalogger Setup options

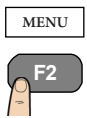
| Option | Available settings | Description |
|---|---|---|
| Interval | 1 s-10 mins | Delay time between subsequent readings. By default it is set at 2 s. |
| Count Mode | On/Off (default) | Enable or disable the interval data log process to stop when the logged data have reached count settings. |
| Count | 1 - 60 000 | Total readings that need to be logged. |

## Changing Datalogger Setup Options

**1**

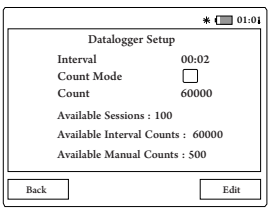
Press to enter data log mode.

**2**




Press to enter Datalogger Setup menu.

**3**

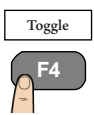



Typical Datalogger Setup menu display.

**4**

Press to navigate to desired function.

Press to edit the selected value.




Press to toggle the selected check box.

### Reviewing Previously Recorded Data

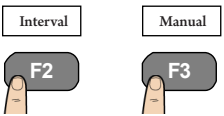
**1**

Press to enter data log mode.

**2**

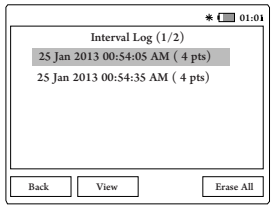
Press to enter data menu.

**3**



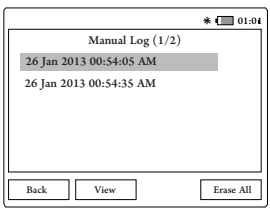

Press to view the interval or manual previously stored records.

**4**




Typical Interval Log data display.

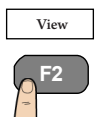
**5**




Typical Manual Log data display.

**6**

Press to navigate to desired logged data.




Press to view the selected data.

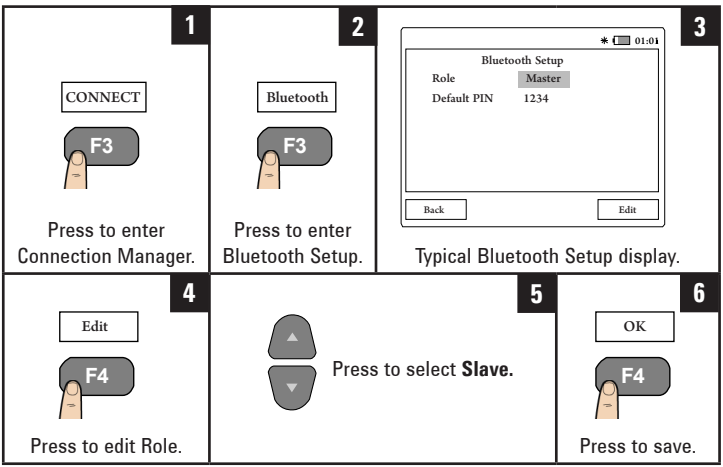
## Freezing the Display (Hold)

To freeze the meters' display(s), press **HOLD**. Press again to unhold.

# Connect the U1115A to PC via Bluetooth

**NOTE** Before you begin, make sure the **Bluetooth** connection to your PC is enabled.

**1** First, follow the steps below to set the U1115A to slave mode :




**2** From your PC (Windows 7), go to **start > Devices and Printers.**
**3** Click **Add a device.**
**4** Select **U1115A-XXXXXX**[1] and click **Next.**
**5** Type the default **Bluetooth** pairing code "1234" (default) and click **Next.**
**6** Once pairing is successful, a notification window will appear. Click **Close.**
**7** The **U1115A-XXXXXX** is now added and successfully connected to your PC.
**8** Then, you can connect the U1115A to the Keysight Handheld Meter Logger software which is available at www.keysight.com/find/hhmeterlogger

[1] *XXXXXX denotes the U1115A device name and can be obtained from the U1115A System Info (for more information, refer to page 19).*

# Changing the Display Settings

1

SETTINGS

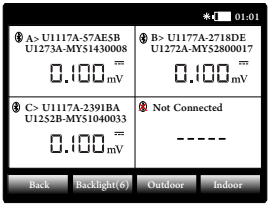
Press to enter settings menu.

2

Display

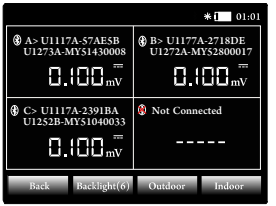
Press to enter display menu.

3



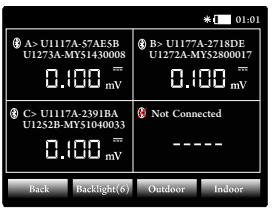
Press to select Outdoor display.
(Typical Outdoor display as shown here)

4



Press to select Indoor display.
(Typical Indoor display as shown here)

5



Press to increase or decrease the display brightness from lowest [Backlight (1)] to highest [Backlight (7)].
The default is Backlight (3).

# Changing the Power Options

1

SETTINGS

Press to enter settings menu.

2

More

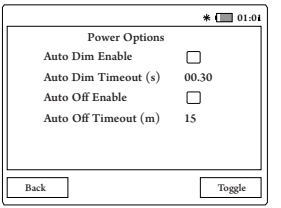
Press to enter next page.

3

Power

Press to enter Power Options.

4




Typical Power Options display.

5

Press to navigate to desired function.

Edit

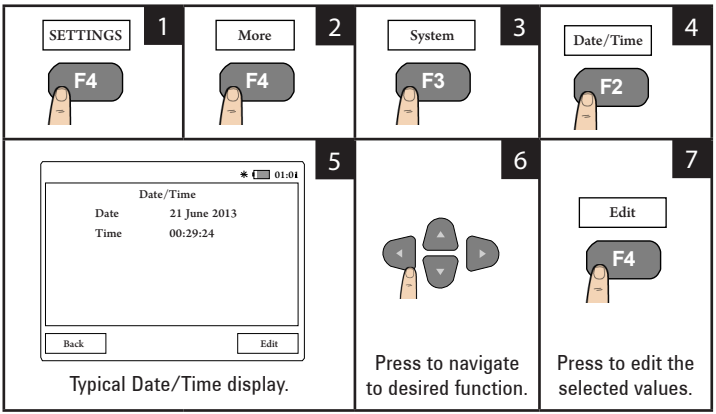
Press to toggle the selected check box.

Toggle

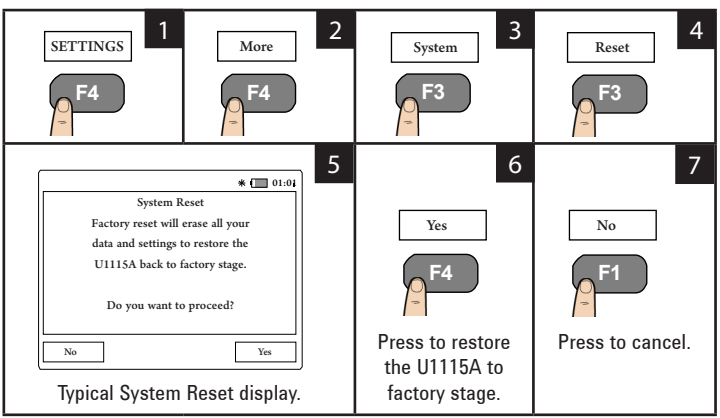
Press to edit the selected value.

- Enable or disable (default) auto dim by toggling the check box next to the Auto Dim Enable function.
- You may change the timeout period by editing the time stated next to the Auto Dim Timeout function. By default it is set at 30 s.
- Enable or disable (default) auto off by toggling the check box next to the Auto Off Enable function.
- You may change the timeout period by editing the time stated next to the Auto Off Timeout function. By default it is set at 15 mins.

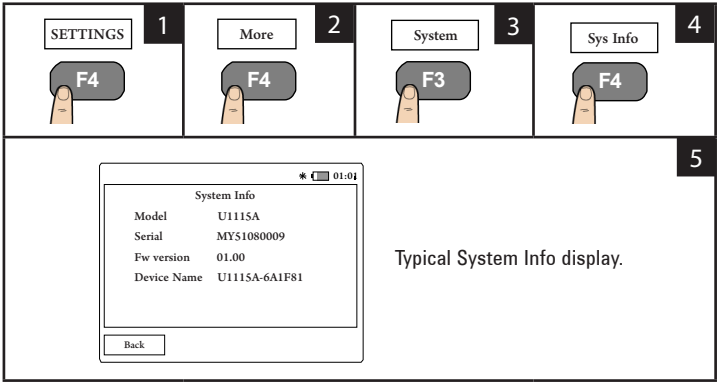
# Changing the Date and Time



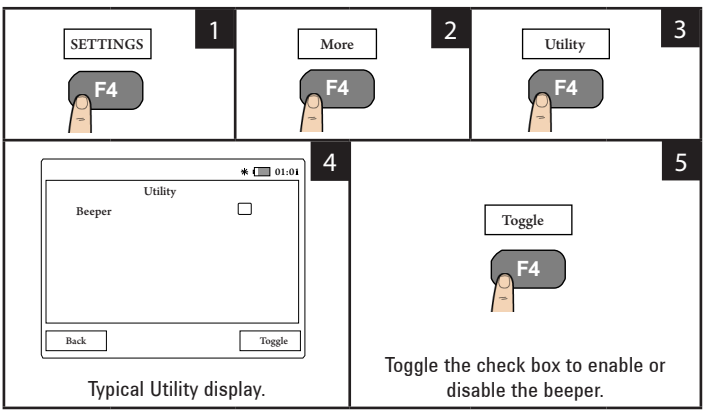

# Resetting the U1115A



# Viewing the System Info




# Enabling/Disabling the Beeper



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# Assistance

For technical assistance, contact your nearest Keysight Sales Office or visit the Keysight website at www.keysight.com/find/assist for further information.

Modelo U1115A

ANATEL
Agência Nacional de Telecomunicações

1851-14-7510

(01) 07898956006039

"Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."

U1115-90103
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