

Keysight U1610/20A Handheld Digital Oscilloscope

Quick Start Guide

NOTICE: This document contains references to Agilent Technologies. Agilent's former Test and Measurement business has become Keysight Technologies. For more information, go to **www.keysight.com**.



U1610/20A Handheld Digital Oscilloscope



Verify that you received the following items in the shipment of your handheld scope:

- ✓ 1 x Power cable
- ✓ 1 x Li-Ion battery pack, 10.8 V (included in the handheld scope)
- ✓ 1 x AC/DC adapter
- ✓ 2 x 10:1 CAT III 600 V scope probe
- ✓ 1 x BNC-to-probe adapter
- ✓ 1 x DMM (digital multimeter) test lead kit
- ✓ 1 x USB cable
- ✓ 1 x Hand strap (attached on the handheld scope)
- ✓ 1 x Neck strap
- ✓ Printed Quick Start Guide
- ✓ Certificate of Calibration


If anything is missing or damaged, contact the nearest Keysight Sales Office.

NOTE

All related documents and software are available for download at www.keysight.com/find/hhTechLib.

Charge the Battery

Before using the handheld scope for the first time or after a prolonged storage period, fully charge the battery for at least 3 hours, with the handheld scope turned off, using the AC/DC adapter provided. If the battery is fully discharged after subsequent use, charge the battery with the handheld scope turned on.


The power key  will turn constant yellow when the battery is fully charged.



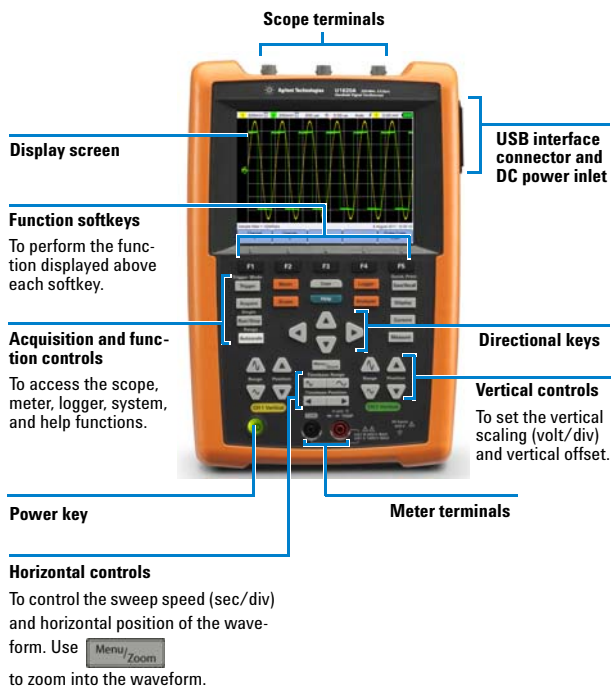
Power On the Handheld Scope

NOTE

Hook up all cables and accessories before applying power. You can connect/disconnect probes while the handheld scope is turned on.

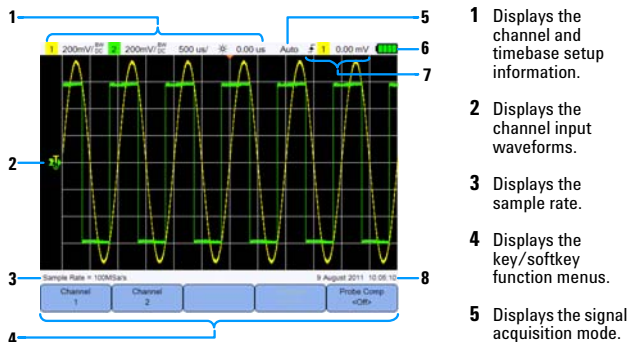
Press and hold  for approximately 3 seconds. When the handheld scope display appears, the handheld scope is ready for use.

Product Outlook

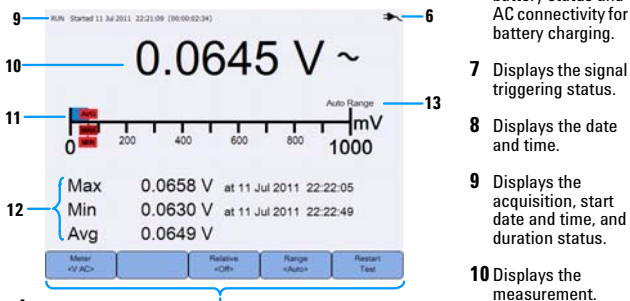


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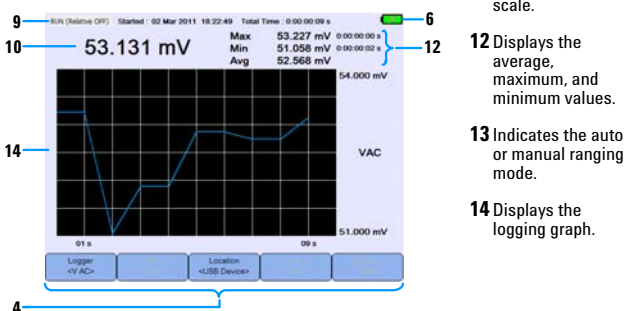
Oscilloscope Display



Multimeter Display




Logger Display




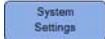
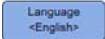
Set the Date and Time

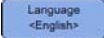
Press  >  > . Press any softkey and use the ▲ or ▼ key to change the values.

NOTE


 is only accessible when in the Scope mode.

Set the Language


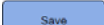
Press  >  >  and use the ◀▶ keys to select the language.

Press  again to exit the selection menu.

Reset the Oscilloscope

Press  > .

NOTE


Before resetting to factory default settings, you may want to save the current handheld scope configuration for later use by pressing  > .

NOTE

For details on using the oscilloscope functions, see the *User's Guide*.

Data Logging

The data logger acts as a recorder to log and plot input signal trends for both scope and meter measurements.

To access the logger mode, press .

NOTE

For details on using the logger functions, see the *User's Guide*.

Connect Probes to Oscilloscope Terminals



Connect Test Leads to Meter Terminals



Meter Measurements

To access the multimeter mode, press .

Measurement functions

Function	Relative	Range	Restart Test	MaxMinAvg
V AC	✓	✓	✓	✓
V DC	✓	✓	✓	✓
V AC+DC	✓	✓	✓	✓
Resistance	✓	✓	✓	✓
Capacitance	✓	✓	✓	✓
Diode Test	✓	-	✓	✓
Continuity	✓	-	✓	✓
Frequency	✓	✓ ^[1]	✓	✓
°C	✓	-	✓	✓
°F	✓	-	✓	✓

[1] Frequency measurement works in the autorange mode, and the range that you select applies for V AC.


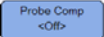
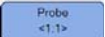
NOTE

For details on using the meter functions, see the *User's Guide*.

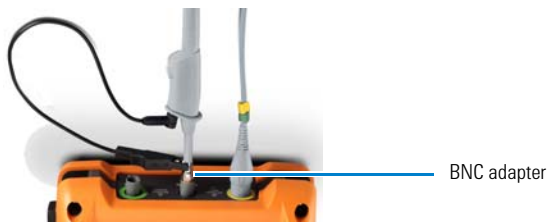
Compensate the Scope Probe

Perform scope probe compensation whenever you attach a passive scope probe to any input channel for the first time. This is important to match the probe characteristic to the handheld scope. A poorly compensated probe can introduce significant measurement errors.

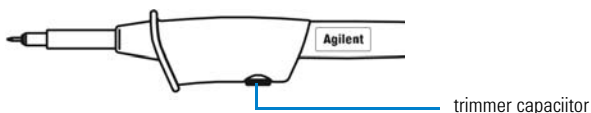
A BNC adapter is needed to connect the probe contact to the external trigger terminal.

Press  >  >  to turn on the compensation signal and set the probe attenuation factor.

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Use a nonmetallic tool to adjust the trimmer capacitor on the probe for the flattest pulse possible.



NOTE

For details on adjusting the probe compensation for a channel, see the *User's Guide*.

Access the Quick Help

Press any function key/softkey followed by **Help** to display its respective Help information. Use the **◀▶** keys to navigate within Help.

NOTE

To view Help in another language, press **User** >



Press **Language <English>** again to exit the selection menu.

NOTE

To access information on using Help, press and hold



Contacting Keysight

To obtain service, warranty, or technical assistance, contact us at the following phone numbers:

- United States Call Center: 800-829-4444
- Canada Call Center: 877-894-4414
- China Call Center: 800-810-0189
- Europe Call Center: 31-20-547-2111
- Japan Call Center: (81) 426-56-7832

For other countries, contact your country's Keysight support organization. A list of contact information for other countries is available on the Keysight Web site:

www.keysight.com/find/assist

Safety Notices

CAUTION

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a **CAUTION** notice until the indicated conditions are fully understood and met.

WARNING

A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

Safety Information

This handheld scope is certified to the following safety and EMC requirements.

- IEC 61010-1:2001/EN 61010-1:2001
- Canada: CAN/CSA-C22.2 No. 61010-1-04
- USA: ANSI/UL 61010-1:2004
- IEC 61326-1:2005/EN 61326-1:2006
- Australia/New Zealand: AS/NZS CISPR 11:2004
- Canada: ICES/NMB-001: ISSUE 4, June 2006

Use with compatible test probe/leads.

Safety Symbols

	Direct current (DC)		Alternating current (AC)
	Both direct and alternating current		Earth (ground) terminal
	Caution, risk of danger (refer to the instrument manual for specific Warning or Caution information)		Equipment protected throughout by double insulation or reinforced insulation
	Caution, risk of electric shock	CAT II	Category II overvoltage protection
CAT III	Category III overvoltage protection		

**For further safety information details, refer to the
Keysight U1610/20A Handheld Digital Oscilloscope User's Guide.**

This information is subject to change without notice.
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