

Getting Acquainted with the Oscilloscope

Front-Panel Menus and Controls

The front panel has buttons and controls for the functions that you use most often. Use the menu buttons to access more specialized functions.

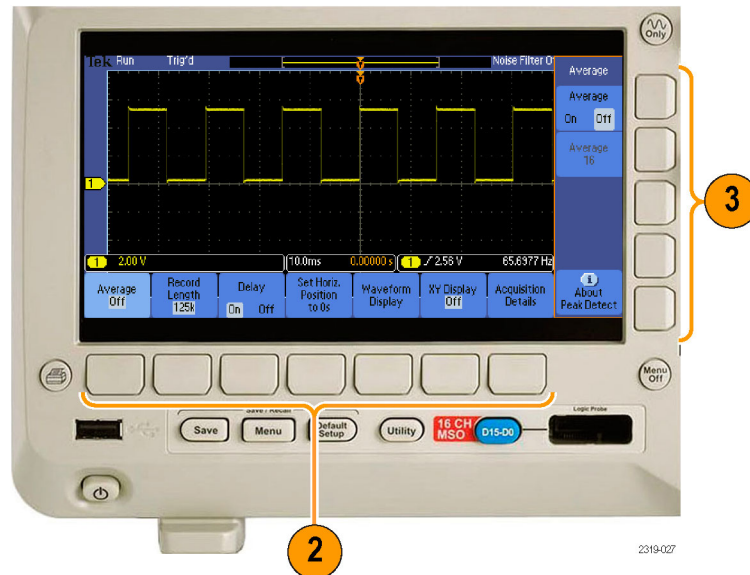
Using the Menu System

To use the menu system:

1. Push a front-panel menu button to display the menu that you want to use.



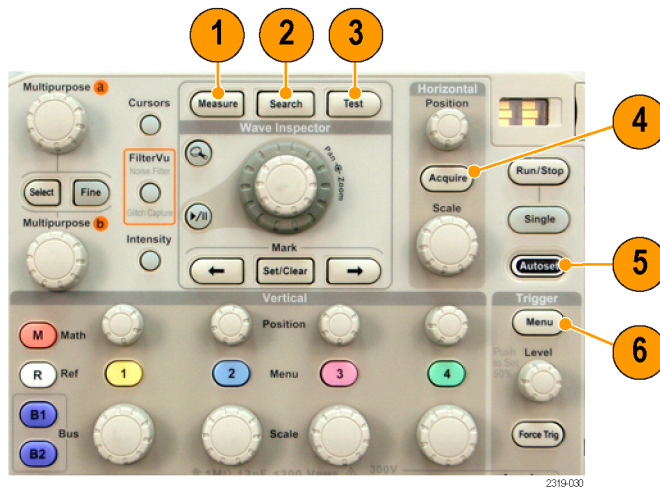
2. Push a lower-bezel button to select a menu item. If a pop-out menu appears, turn multipurpose knob **a** to select the desired choice. If a pop-up menu appears, press the button again to select the desired choice.



3. Push a side-bezel button to choose a side-bezel menu item.
 If the menu item contains more than one choice, push the side-bezel button repeatedly to cycle through the choices.
 If a pop-out menu appears, turn multipurpose knob **a** to select the desired choice.

Using the Menu Buttons

Use the menu buttons to perform many functions in the oscilloscope.



1. **Measure.** Push to perform automated measurements on waveforms or to configure cursors.
2. **Search.** Push to search through an acquisition for user-defined events/criteria.
3. **Test.** Push to activate advanced or application-specific testing features.
4. **Acquire.** Push to set the acquisition mode and adjust the record length.
5. **Autoset.** Push to perform an automatic setup of oscilloscope settings.
6. **Trigger Menu.** Push to specify trigger settings.
7. **Utility.** Push to activate the system utility functions, such as selecting a language or setting the date/time.
8. **Save / Recall Menu.** Push to save and recall setups, waveforms, and screen images to internal memory, or a USB flash drive.
9. **Channel 1, 2, 3, or 4 Menu.** Push to set vertical parameters for input waveforms and to display or remove the corresponding waveform from the display.
10. **B1 or B2.** Push to define and display a serial bus if you have the appropriate module application keys. The DPO2AUTO module supports CAN and LIN buses. The DPO2EMBD module supports I²C and SPI. The DPO2COMP module supports RS-232, RS-422, RS-485, and UART buses.

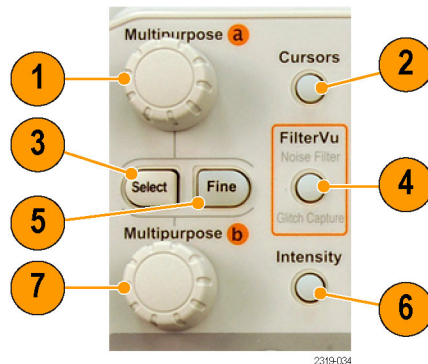
Parallel bus support is available on MSO2000B products.

Also, push the **B1** or **B2** button to display or remove the corresponding bus from the display.

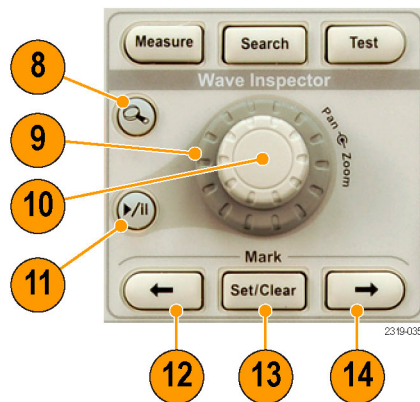
11. **R.** Push to manage reference waveforms, including the display or removal of each reference waveform from the display.
12. **M.** Push to manage the math waveform, including the display or removal of the math waveform from the display.

Using Other Controls

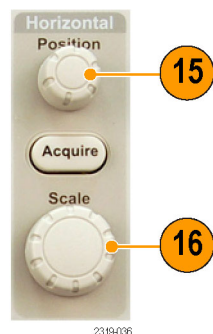
These buttons and knobs control waveforms, cursors, and other data input.



1. Turn the upper multipurpose knob **a**, when activated, to move a cursor, to set a numerical parameter value for a menu item, or to select from a pop-out list of choices. Push the **Fine** button to toggle between coarse and fine adjustment.
Screen icons tell you when **a** or **b** are active.
2. **Cursors.** Push once to activate the two vertical cursors. Push again to turn on the two vertical and two horizontal cursors. Push again to turn off all cursors.
When the cursors are on, you can turn the multipurpose knobs to control their position.
3. **Select.** Push to activate special functions.
For example, when using the two vertical cursors (and no horizontal ones are visible), you can push this button to link or unlink the cursors. When the two vertical and two horizontal cursors are both visible, you can push this button to make either the vertical cursors or the horizontal cursors active.
4. **FilterVu.** Push to filter unwanted noise from your signal and still capture glitches.
5. **Fine.** Push to toggle between making coarse and fine adjustments with the vertical and horizontal position knobs, the trigger level knob, and many operations of multipurpose knobs **a** and **b**.
6. **Intensity.** Push to enable multipurpose knob **a** to control waveform display intensity and knob **b** to control graticule intensity.
7. Turn the lower multipurpose knob **b**, when activated, to move a cursor or set a numerical parameter value for a menu item. Push **Fine** to make adjustments more slowly.



8. **Zoom** button. Push to activate zoom mode.
9. **Pan** (outer knob). Turn to scroll the zoom window through the acquired waveform.
10. **Zoom** (inner knob). Turn to control the zoom factor. Turning it clockwise zooms in further. Turning it counterclockwise zooms out.
11. **Play-pause** button. Push to start or stop the automatic panning of a waveform. Control the speed and direction with the pan knob.
12. ← **Prev**. Push to jump to the previous waveform mark.
13. **Set/Clear Mark**. Push to establish or delete a waveform mark.
14. → **Next**. Push to jump to the next waveform mark.

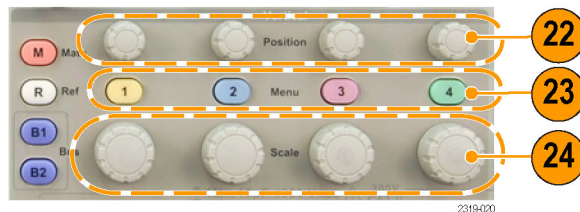


15. **Horizontal Position**. Turn to adjust the trigger point location relative to the acquired waveforms. Push **Fine** to make smaller adjustments.
16. **Horizontal Scale**. Turn to adjust the horizontal scale (time/division).



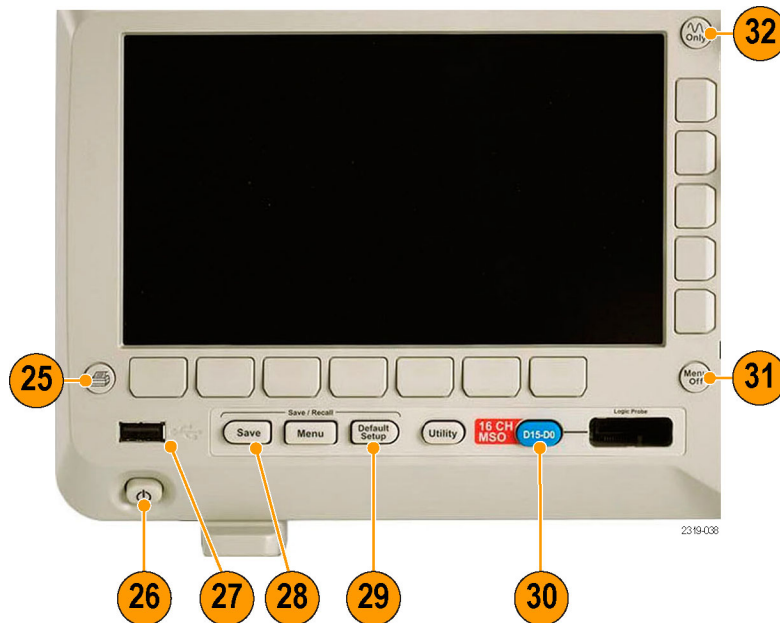
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17. **Run/Stop.** Push to start or stop acquisitions.
18. **Single.** Push to make a single acquisition.
19. **Autoset.** Push to automatically set the vertical, horizontal, and trigger controls for a usable, stable display.
20. **Trigger Level.** Turn to adjust the trigger level.
Push Level to Set 50%. Push the Trigger level knob to set the trigger level to the midpoint of the waveform.
21. **Force Trig.** Push to force an immediate trigger event.



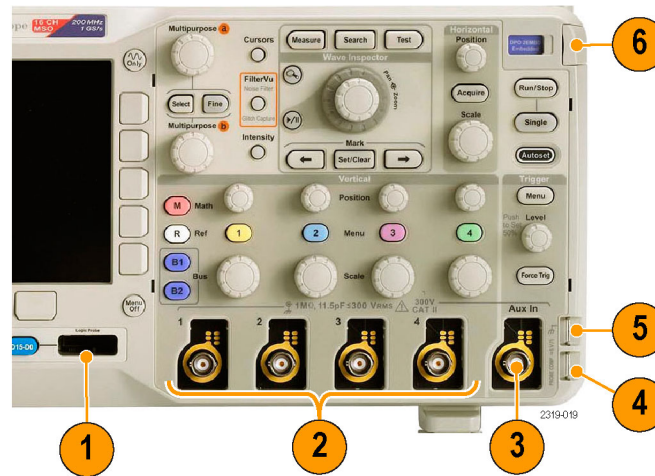
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22. **Vertical Position.** Turn to adjust the vertical position of the corresponding waveform. Push **Fine** to make smaller adjustments.
23. **1, 2, 3, 4 Menu.** Push to display or remove the corresponding waveform from the display and access the vertical menu.
24. **Vertical Scale.** Turn to adjust the vertical scale factor of the corresponding waveform (volts/division).



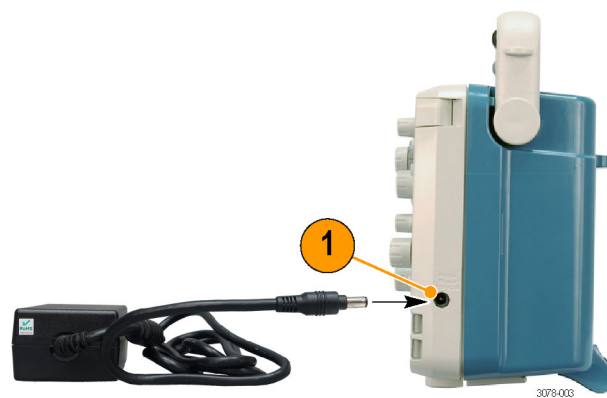
- 25. **Print.** Push to print to a PictBridge printer.
- 26. **Power switch.** Push to power on or off the oscilloscope.
- 27. **USB 2.0 Host port.** Insert a USB peripheral to the oscilloscope, such as a keyboard or a flash drive.
- 28. **Save.** Push to perform an immediate save operation. The save operation uses the current save parameters, as defined in the Save / Recall menu.
- 29. **Default Setup.** Push to perform an immediate restore of the oscilloscope to the default settings.
- 30. **D15 - D0.** Push to display or remove the digital channels from the display, and to access the digital channel setup menu (MSO2000B series only).
- 31. **Menu Off.** Push to clear a displayed menu from the screen.
- 32. **Waveform Only.** Push to remove menu and readout information from the screen so the oscilloscope only displays the waveform or bus. Push a second time to recall the previous menu and readout information.

Front-Panel Connectors



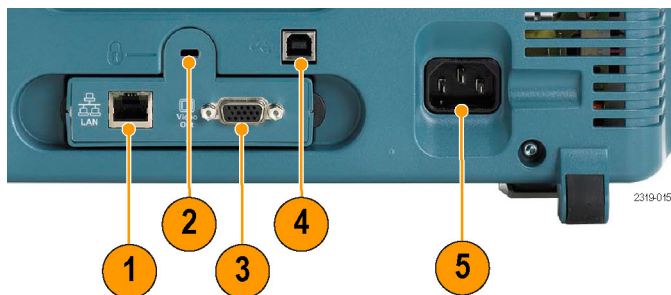
1. Digital Probe Connector (MSO2000B series only).
2. Channel 1, 2, (3, 4). Channel inputs with TekVPI Versatile Probe Interface.
3. **Aux In**. Trigger level range is adjustable from +12.5 V to -12.5 V.
4. **PROBE COMP**. Square wave signal source to compensate probes
Output voltage: 0 V to 5 V, Frequency: 1 kHz
5. Ground.
6. Application Module Slots.

Side-Panel Connector



1. TekVPI external power supply connector. Use the connector for the TekVPI external power supply (Tektronix part number 119-7465-XX) when additional power is needed for TekVPI probes.

Rear-Panel Connectors



1. **LAN.** Use the LAN (Ethernet) port (RJ-45 connector) to connect the oscilloscope to a 10/100 Base-T local area network. The port is available on the optional connectivity module (DPO2CONN).
2. **Lock.** Use to secure the oscilloscope and optional connectivity module.
3. **Video Out.** Use the Video Out port (DB-15 female connector) to show the oscilloscope display on an external monitor or projector. The port is available on the optional connectivity module (DPO2CONN).
4. **USB 2.0 Device port.** Use the USB 2.0 Full Speed Device port to connect a PictBridge compatible printer, or for direct PC control of the oscilloscope using USBTMC protocol.

NOTE. The cable connected from the USB 2.0 Device port to the host computer must meet the USB2.0 specification for high speed operation when connected to a high speed host controller.

5. **Power input.** Attach to an AC power line with integral safety ground.