



Front Panel Controls

#### FRONT PANEL CONTROLS

1. Turns the oscilloscope functions On and Off; turns off automatically when not being used.

**2.** Selects from displayed menus. Button four is the INIT button for SSEQ trigger mode.

3. Clears menus and stored waveform displays.

4. Selects CH 1 to respond to control changes. Calls up the CH 1 input coupling menu (DC, GND, AC, CH 1 OFF) on the second press. CH 1 OFF may only be selected using the menu select button.

5. Same as the CH 1 button but for CH 2.

6. Outer knob sets VOLTS/DIV on selected channel (50V to 5 mV). Inner knob positions active channel vertically and is the VAR knob when held in and rotated.

7. Select Trig SLOPE (+ or -).

8. Calls up the Trig MODE menu (NORM, AUTO LVL, AUTO BL, SSEQ).

9. Calls up the Trig SOURCE menu (VERT, CH 1, CH 2, EXT).

10. Trigger indicator; triggered when on.

**11.** Outer knob sets Trig LEVEL. Inner button auto levels on the trigger signal when pressed.

**12.** Autoranges on the active channel signal(s) when pressed. VOLTS/DIV, SEC/DIV, vertical position, and Trigger LEVEL are set.

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**13.** Outer knob sets SEC/DIV (20s to 50 ns). Inner knob positions horizontally; it turns X10 MAG on and off when pressed.

**NOTE:** Menu callup buttons also scroll through the menu selections when pressed repeatedly.

#### TOP PANEL KEYS

1. Halts the acquisition and calls up the SAVE CH1 WV, SAVE CH2 WV, or SAVE XY WV menu to save waveforms in nonvolatile memory.

2. Calls up the RECALL WVFRM menu to select saved waveforms from nonvolatile memory for display.

3. Calls up the setup SAVE/RECALL menu (SAVE, RECALL, ERASE, ERASE ALL). Up to four front-panel setups may be saved for later recall. Stored setups may be erased singly or all at once.

**4.** Calls up the TRIG POS menu (PRE, MID, POST) for STORE MODE trigger position.

**5.** Calls up the Acquisition Mode menu (NORM, ENV, AVG, and CONT ENV).

**6.** Switches between STORE (display frozen between triggers) and NONSTORE (display blanks between triggers).

**7.** Calls up the Display Mode menu (INV1, INV2, X-Y, RO OFF).

8. Calls up the Auxiliary Functions menu. See the Operators Manual for details.



## SELECTING THE ACTIVE CHANNEL

Press CH1 or CH2 to select the channel that responds to the front panel control changes. The VOLTS/DIV readout of the active channel is boxed. A second press selects the input coupling menu for that channel.

### SELECTING STORE/NONSTORE MODE

1. Press **STORE** to switch between STORE and NONSTORE mode. "ST" is displayed in the readout when STORE mode is on.

2. In STORE mode, the acquired waveform is displayed between triggers. In NONSTORE mode, a waveform is held only to the first display update after being acquired unless triggered.

## SELECTING TRIG POSITION

Press Tigger position "+" to POST, MID, or PRE in STORE mode. The "+" is displayed at the Trigger LEVEL setting and is seen on the trigger channel if displayed.

### SELECTING ACQUISITION MODE

1. Press ACO to select NORM, ENV, AVG, or CONT ENV acquisition mode.

2. ENV acquisition is valid for SEC/DIV settings from 20 s to 20 µs. Signal peaks in each sampling interval are displayed. AVG mode gives a moving average of the last four acquisitions. CONT ENV accumulates peak variations of the input signal.

# SAVING A WAVEFORM TO MEMORY

Acquire the waveform you want to save.



- 4. SEC/DIV of acquisition.
- 5. X10 MAG indicator.
- 6. Recalled waveform number.
- 7. VAR symbol of recalled waveform.
- 8. VOLTS/DIV of recalled waveform.
- 9. SLOPE indicator of recalled waveform.
- 10. Channel coupling of recalled waveform.
- 11. SEC/DIV of recalled waveform.
- 12. CH1 INVERT symbol.
- 13. CH1 VAR symbol.
- 14. CH1 VOLTS/DIV.
- 15. CH1 coupling symbol.
- Menu name.
- 17. Trigger position indicator on the waveform.
- 18. CH2 INVERT symbol.
- 19. CH2 VAR symbol.
- 20. CH2 VOLTŠ/DIV.
- 21. CH 2 coupling symbol.
- 22. External charge and battery indicator.
- 23. Menu selects.

3. Acquisition stops when stops is pressed, and the waveform is displayed when saved. If both channels are displayed, choose the one to save using the channel select buttons before saving.

## **RECALLING A WAVEFORM FROM MEMORY**

1.	PRESS	SELECT
	RCL	1
		2-0
		3-0
		4-0

NOTE: Selecting an empty memory will sound a beep and leave the menu displayed.

NOTE: A box around the menu choice indicates that the waveform is being displayed.

#### **USING FRONT-PANEL STORE/RECALL**

1. To save a setup, set all the controls to make your measurement, select STORE in the SETUP menu, then a memory location. To recall a stored setup, select RECALL, then a memory location.

2.	PRESS	SELECT	SELECT
	SETUP	STORE	1 -
		RECALL	2
		ERASE	3-0
		ERASE ALL	4

**NOTE:** A memory with data stored is boxed. It will be overwritten with new data if stored to.

**NOTE:** Selecting an empty memory will sound a beep and leave the menu displayed.

3. Select ERASE to clear a stored memory. Press

CLR to remove the menu display after you finish erasing.

4. Selecting ERASE ALL, erases all four memory locations and exits the menu.