

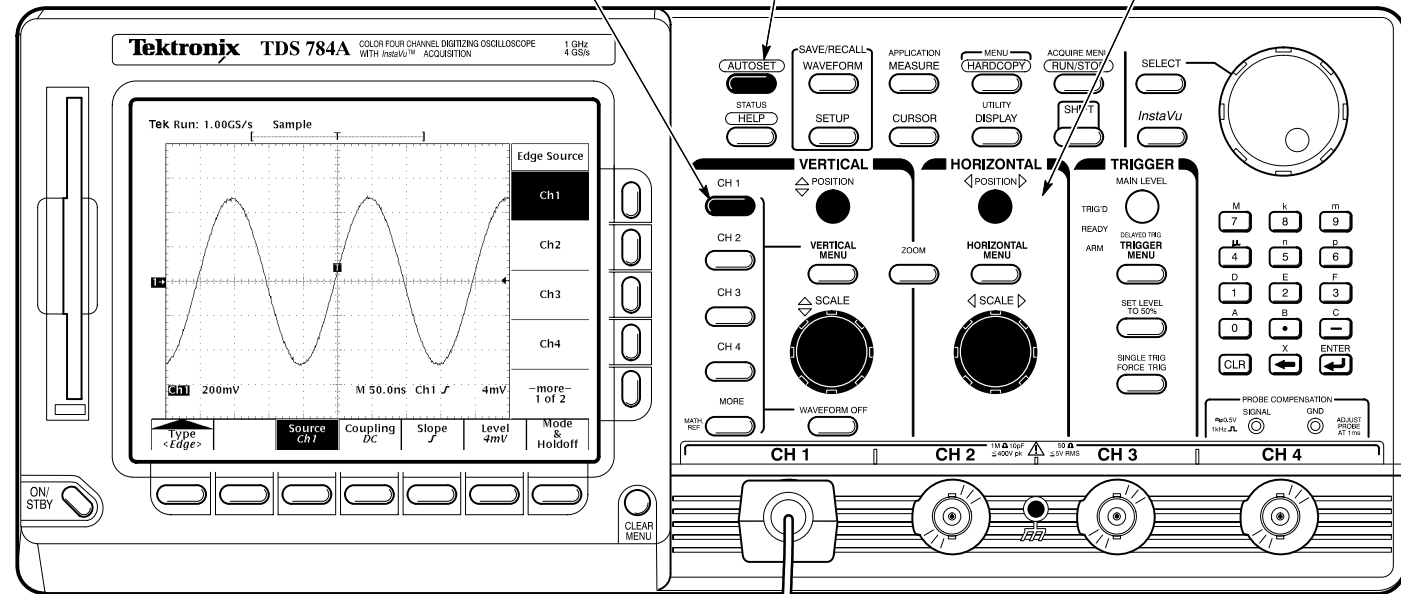
## **Reference**

**TDS 500B, TDS 600B & TDS 700A  
Digitizing Oscilloscopes**

**070-9382-01**

## To Display a Waveform:

- 1 Attach a probe to CH 1 and hook the probe to your signal.
- 2 Press CH 1.
- 3 Press AUTOSET.
- 4 Adjust VERTICAL and HORIZONTAL POSITION and SCALE.



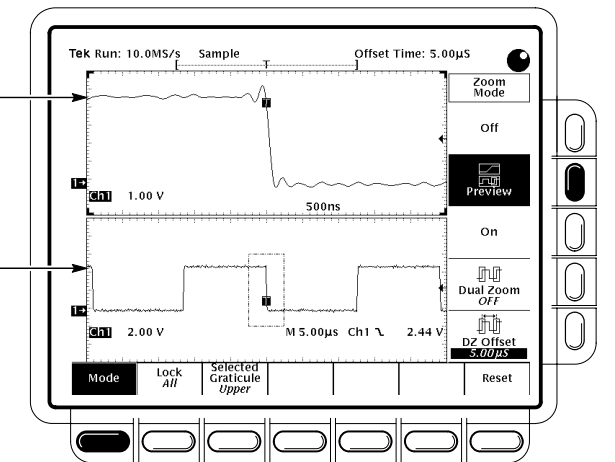
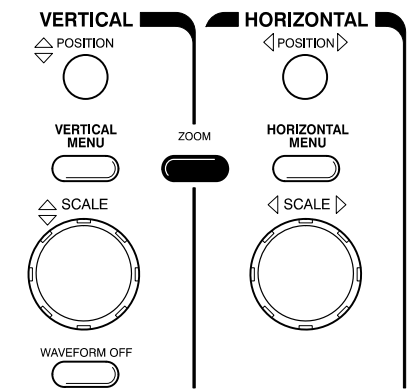
## To Preview a Waveform:

- 1 Press ZOOM.
- 2 Press Mode in the main menu. Then press Preview in the side menu to turn on Dual Window Zoom.

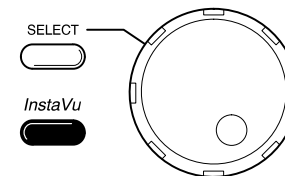
Upper graticule zooms the boxed area on the selected waveform.

Lower graticule displays the selected waveform unzoomed with the zoomed area in box.

- 3 Use the Selected Graticule menu to select the upper or lower waveform. Use the vertical and horizontal knobs to adjust the waveform in the graticule you select.



## To Capture Infrequent Events (TDS 500B & 700A Models):



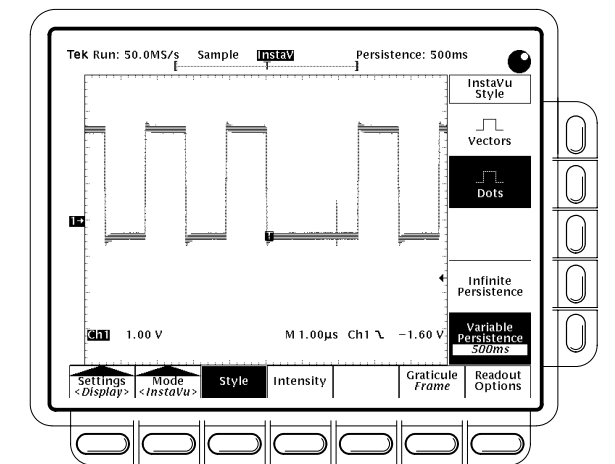
Press InstaVu to toggle between InstaVu and Normal waveform capture rates.

When in InstaVu mode:

Waveforms displayed are updated thousands of times faster than normal.

Very brief changes in waveforms are captured.

Certain features, such as Limit Testing, Math Waveforms, Zoom, and record lengths longer than 500 points, are not available.



## To Save a Hardcopy to the File System:

**1** Press **SHIFT**, and then press **HARDCOPY**.

**2** Press **Format** in the main menu, and select a hardcopy format from the side menu.

**3** Press **Port** in the main menu, press **File** in the side menu, and then press **CLEAR MENU**.

**4** Press **HARDCOPY** anytime to save a copy of the current screen to a unique file in the oscilloscope file system.

## To Perform Other File System Operations:

- Press **SAVE/RECALL WAVEFORM**, and use the menu buttons to save a waveform to a file or recall it from a file.
- Press **SAVE/RECALL SETUP**, and use the menu buttons to save a setup to a file or recall it from a file.
- Press **File Utilities** in the Save/Recall Waveform, Save/Recall Setup, or Hardcopy menus to access utilities that create directories, copy files, and do other operations in the oscilloscope file system.

## To Set Up Using a Menu:

**1** Press any of the front panel menu buttons.

Use **SHIFT** for the Alternate (Blue) Menus

**2** Select an item from the main (bottom) menu.

**3** Select an item from the side menu, if displayed.

The Readout Indicates The Value That You Can Adjust with the General Purpose Knob or Keypad

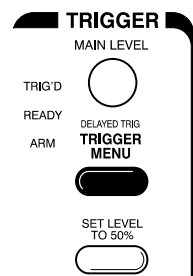
Adjustable Menu Item Value

**4** Adjust menu item values using the general purpose knob or by entering numbers on the keypad.

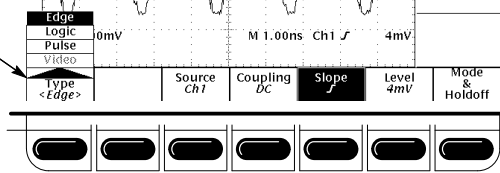
End Your Entry by Pressing **ENTER** (↵)

# To Select a Trigger:

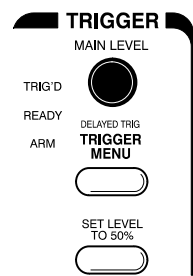
1 Press TRIGGER MENU.



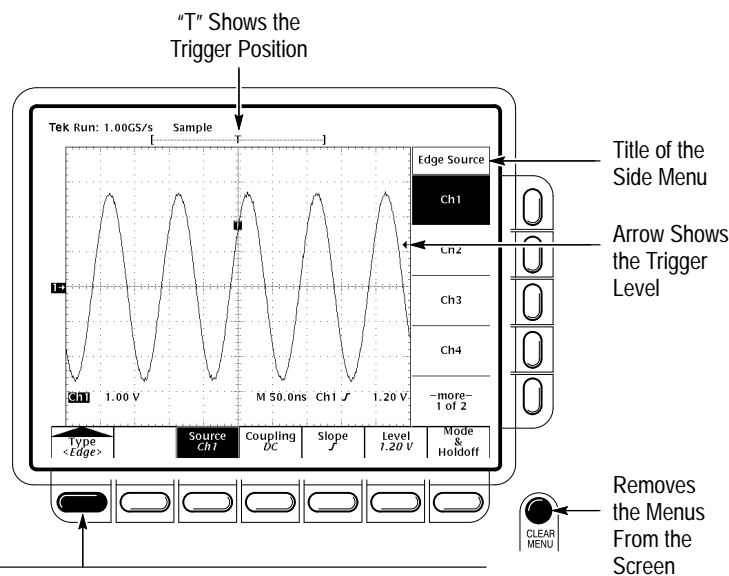
This Symbol  
Indicates a  
Pop-Up Menu



2 Select a trigger type or parameter from the main menu.



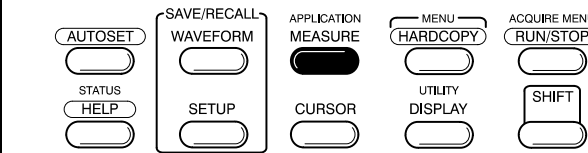
3 Set TRIGGER MAIN LEVEL.



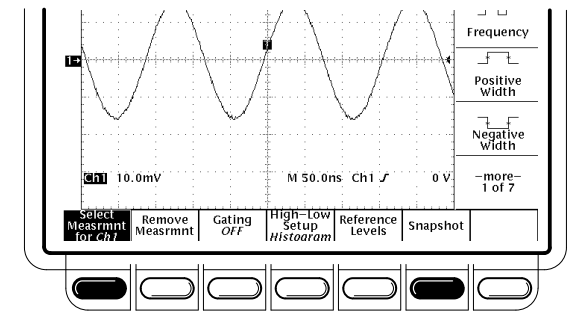
Press to Display the Pop-Up Menus  
Press Again to Make a Selection  
A Pop-Up Selection Changes the Other Main Menu Items

Trigger Selections		(On some models, Ax 1 & Ax 2)	
TYPE <Edge>	TYPE <Logic>		TYPE <State>
	CLASS <Pattern>	CLASS <State>	
Source	Define Inputs	Define Inputs	Define Inputs
Slope	Define Logic	Define Logic	Define Logic
Level	Set Thresholds	Set Thresholds	Set Thresholds
Coupling	Trigger When	Trigger When	Trigger When

# To Take Measurements Automatically:



1 Press MEASURE.



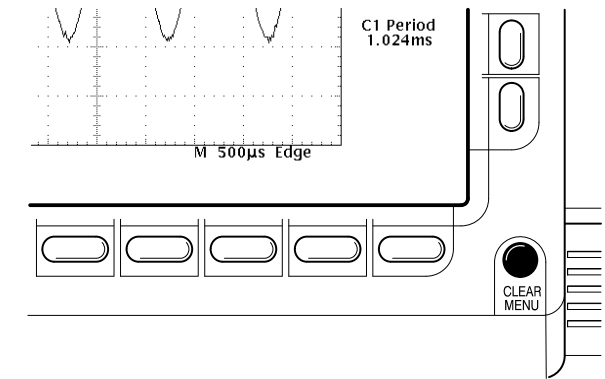
2 Press Select Measrmt or Snapshot in the main menu.

3 Select up to four measurements.

**Automated Measurement Selections**

Select Measurement						
Period	Rise Time	Delay	High	Pk-Pk	Mean	Area
Frequency	Fall Time	Phase	Low	Amplitude	Cycle Mean	Cycle Area
Positive Width	Positive Duty Cycle	Burst Width	Max	Positive Overshoot	RMS	To 1 of 7
Negative Width	Negative Duty Cycle		Min	Negative Overshoot	Cycle RMS	
—more— 1 of 7	—more— 2 of 7	—more— 3 of 7	—more— 4 of 7	—more— 5 of 7	—more— 6 of 7	

4 Press CLEAR MENU to move the measurement readouts away from the graticule.



# To Take Measurements With Cursors:

**1** Press **CURSOR**.

**2** Press **Function** in the main menu.

**3** Select from the side menu.

**4** Move the cursor with the general purpose knob. Press **SELECT** to switch between the cursors. Press **SHIFT** to speed up/slow down the cursor movement.

# To Display Help On Screen:

**1** Press **HELP**.

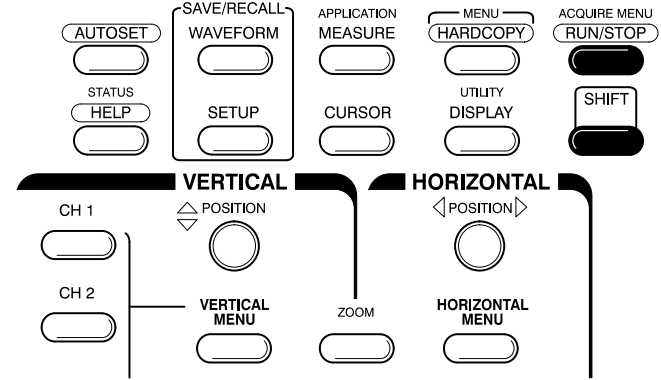
**2** Now turn any knob or press any button and read a description of it on the display. Press **HELP** again to exit help.

replace Ch 3 & Ch 4)

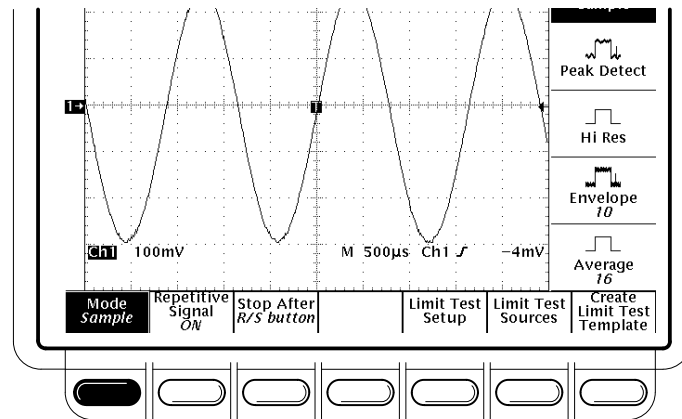
	TYPE <Pulse>						TYPE <Video> (Optional)
	CLASS <Setup/Hold>	CLASS <Glitch>	CLASS <Runt>	CLASS <Width>	CLASS <Slew Rate>	CLASS <Time Out>	
<b>Data Source</b>	Select one of Ch 1 thru Ch 4 as the data source Do not select the same channel used as the clock source	<b>Source</b> Select any one of Ch 1 thru Ch 4	<b>Source</b> Select any one of Ch 1 thru Ch 4	<b>Source</b> Select any one of Ch 1 thru Ch 4	<b>Source</b> Select any one of Ch 1 thru Ch 4	<b>Source</b> Select any one of Ch 1 thru Ch 4	<b>Source</b> Select any one of Ch 1 thru Ch 4
<b>Clock Source</b>	Select one of Ch 1 thru Ch 4 as the clock edge Do not select the same channel used as the data source	<b>Polarity &amp; Width</b> Positive Negative Either Width	<b>Polarity</b> Positive Negative Either	<b>Polarity</b> Positive Negative Either	<b>Polarity</b> Positive Negative Either	<b>Polarity</b> Stays High Stays Low Either	<b>Sync Polarity</b> Negative Sync Positive Sync
<b>Levels</b>	Clock Data	<b>Level</b> Level	<b>Thresholds</b> Runt Upper Runt Lower	<b>Level</b> Level	<b>Thresholds</b> High Low	<b>Level</b> Level	<b>Field/Line</b> Set video field and line number
<b>Setup/Hold Times</b>	Select and set the Setup Time Select and set the Hold Time	<b>Glitch (Filter)</b> OFF Accept Glitch ON Reject Glitch	<b>Trigger When</b> Select trigger when any runt occurs or ... Select triggering when a runt wider than specified occurs <sup>2</sup>	<b>Trigger When</b> Within Limits Out of Limits Set Lower and Upper Limits	<b>Trigger When</b> Faster Slower Delta Time	<b>Time</b> Select and set the Timeout Time	<b>Standard</b> NTSC PAL HDTV FlexFmt

<sup>2</sup>Qualification by width

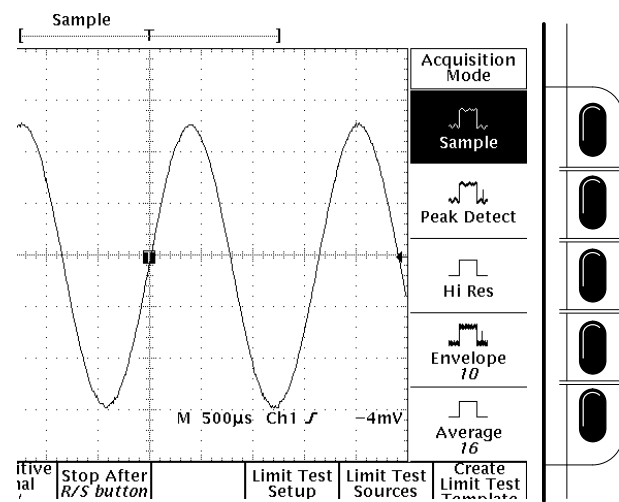
# To Choose an Acquisition Mode:



**1** Press **SHIFT**, and then press **ACQUIRE MENU**.



**2** Press **Mode** in the main menu.



**3** From the side menu, select an acquisition mode that will serve your application.

# How the Acquisition Modes Work:

