Reference

Tektronix

TDS 520 & 540
Digitizing Oscilloscopes

070–8316–01

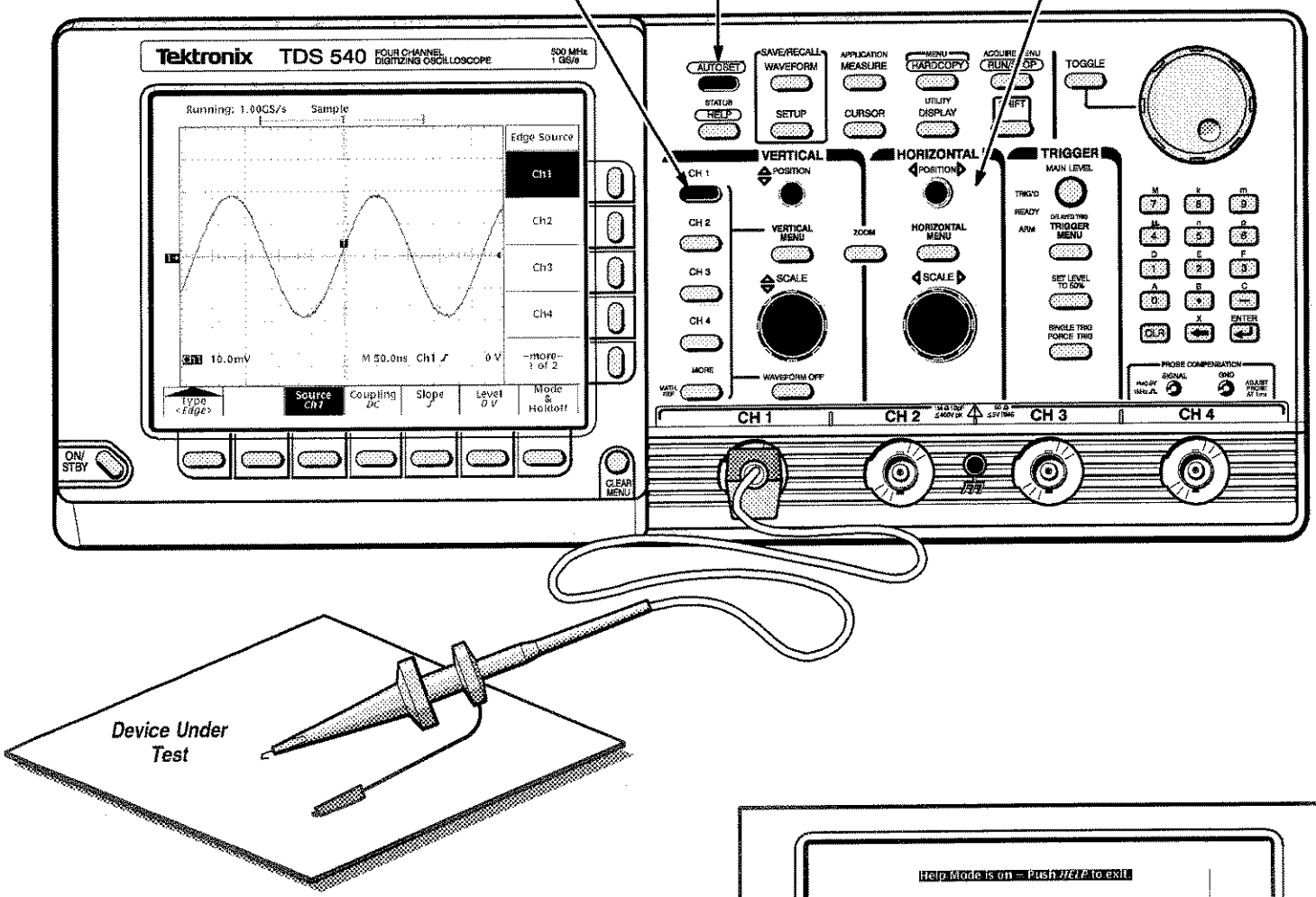
Displaying a Waveform

1 Attach a probe to **CH 1** and hook it up to your signal

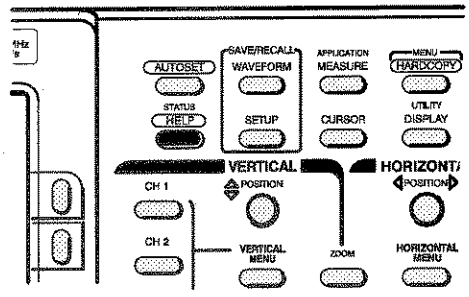
2 Press **CH 1** button

3 Press **AUTOSET**

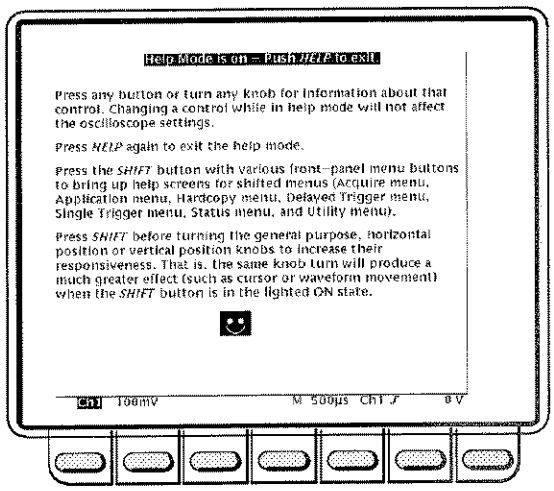
4 Adjust **VERTICAL** and **HORIZONTAL** **POSITION** and **SCALE** as desired



On-Line Help



1 Press **HELP** button



2 Now turn any knob or press any button and read a description of it on the display

Press **HELP** button again to exit help

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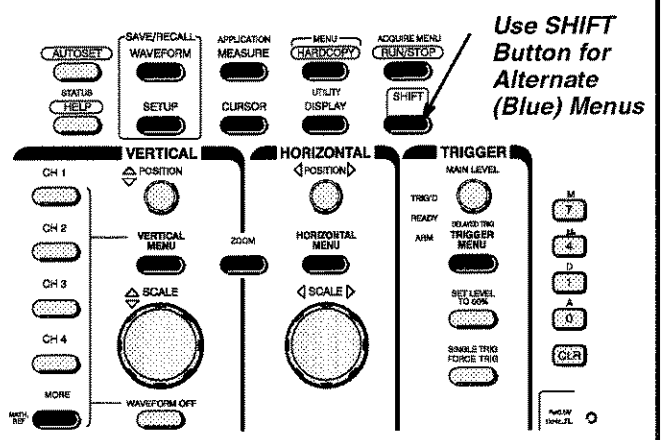
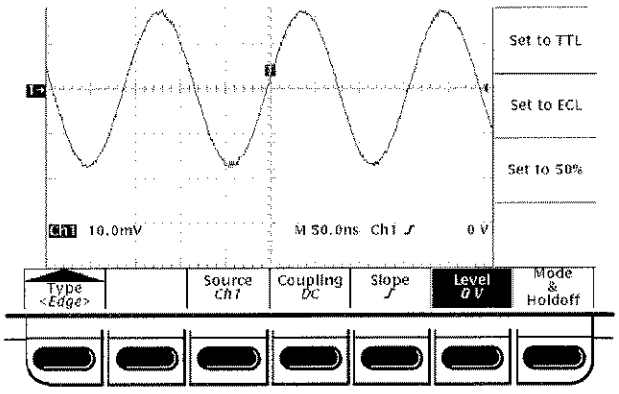
First Printing: March 1992

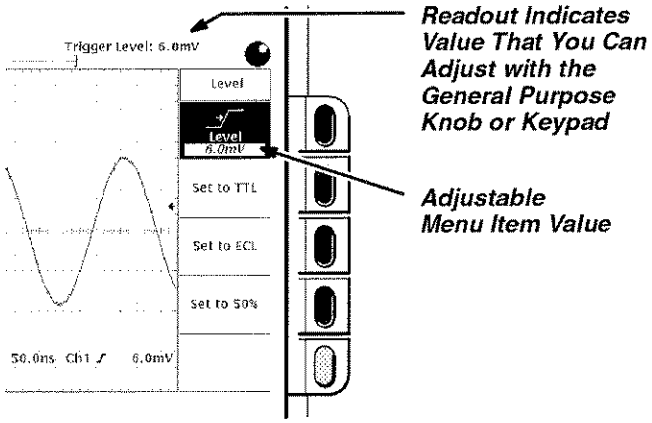
Operating a Menu



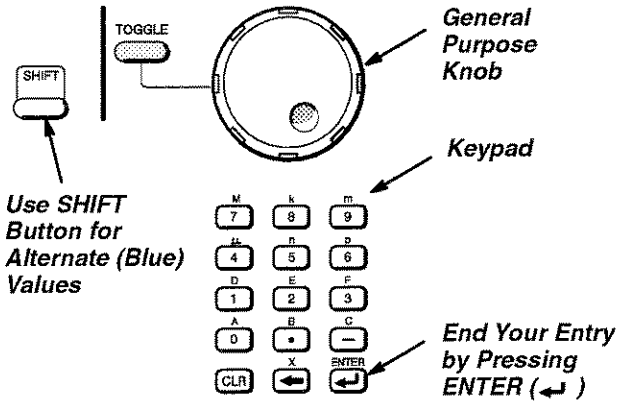
1 Press any of the front panel menu buttons



2 Select an item from the main (bottom) menu

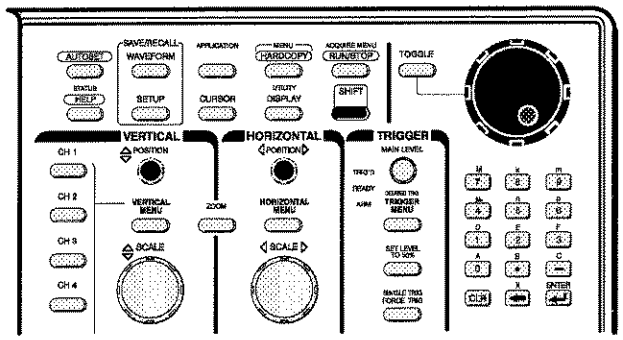


3 Select an item from the side menu, if displayed



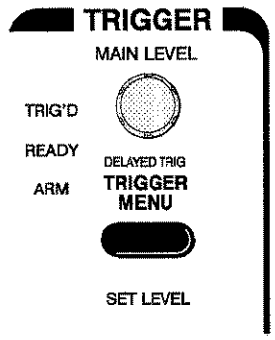
4 Adjust menu item values with general purpose knob or by entering numbers on the keypad.

Quicker Adjustments

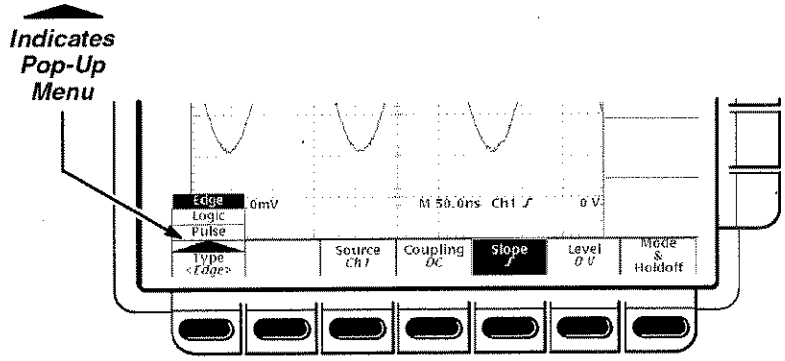


Press **SHIFT** button to change rate of **VERTICAL** and **HORIZONTAL POSITION** knobs, and general purpose knob

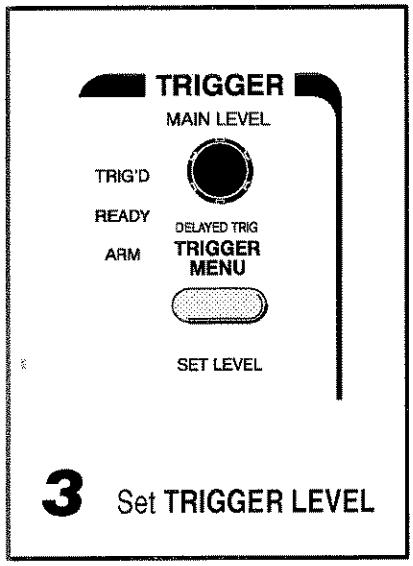
Selecting a Trigger



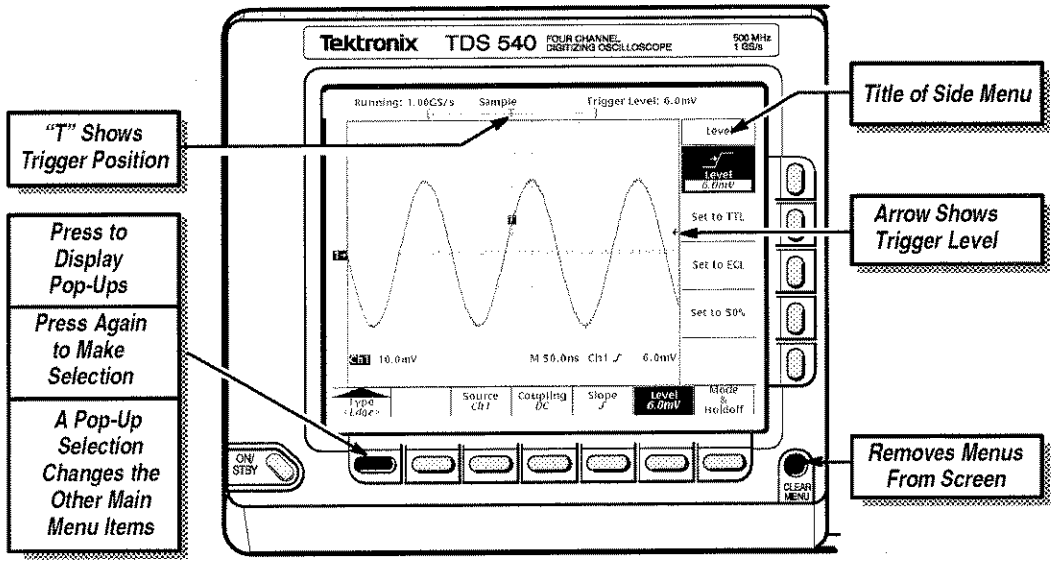
1 Press **TRIGGER MENU** button



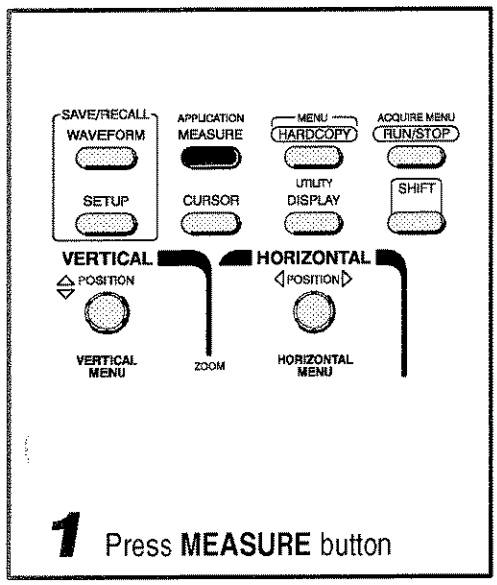
2 Select trigger type or parameter from main menu



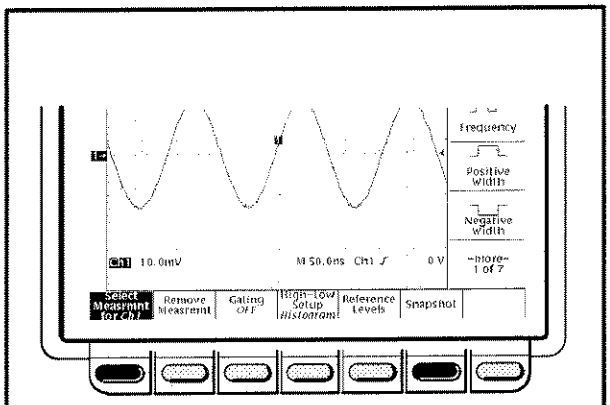
3 Set **TRIGGER LEVEL**



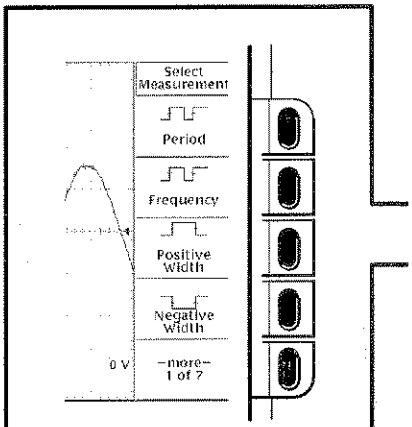
Automated Measurements



1 Press **MEASURE** button



2 Press **Select Measrmnt** or **Snapshot** in main menu



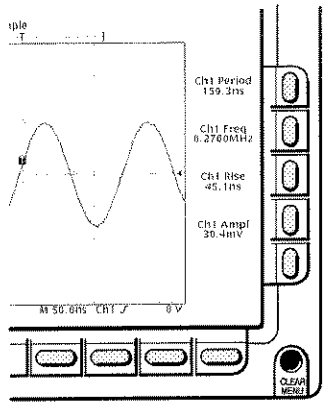
3 Select up to 4 measurements

TRIGGER SELECTIONS

TYPE <Edge>		TYPE <Logic>				TYPE <Pulse>					
		CLASS <Pattern>		CLASS <State>		CLASS <Glitch>		CLASS <Runt>		CLASS <Width>	
Coupling	DC	Define Logic	AND	Define Logic	AND	Polarity/Width	Positive	Polarity	Positive	Polarity	Positive
	AC		OR		OR		Negative		Negative		Negative
	HF Reject		NAND		NAND		Either		Either		
	LF Reject		NOR		NOR		Width			Trig When	Within Limits
	Noise Rej (DC Low Sensitivity)										Out of Limits
Slope	Positive	Define High, Low, and Don't Care states for channels 1, 2, 3, and 4 Qualify condition by time		Define High, Low, and Don't Care states for channels 1, 2, and 3 Clock on channel 4		Filter	OFF Accept Glitch	Thresholds	Runt Upper		Upper Limits
	Negative						ON Reject Glitch		Runt Lower		Lower Limits

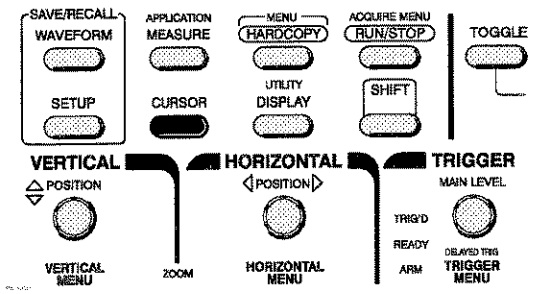
AUTOMATED MEASUREMENT SELECTIONS

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	—more— 7 of 7
Negative Width	Negative Duty Cycle		Min	Negative Overshoot	Cycle RMS	To 1 of 7
—more— 1 of 7	—more— 2 of 7	—more— 3 of 7	—more— 4 of 7	—more— 5 of 7	—more— 6 of 7	

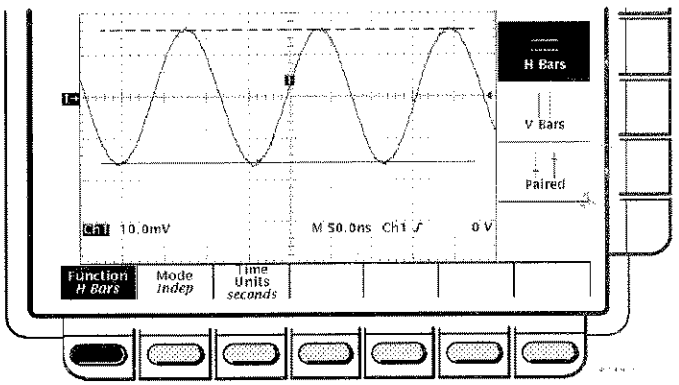


4 Press **CLEAR MENU** button to move measurement readouts away from graticule

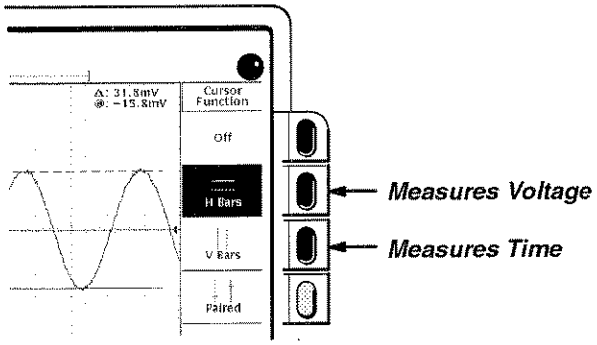
Cursor Measurements



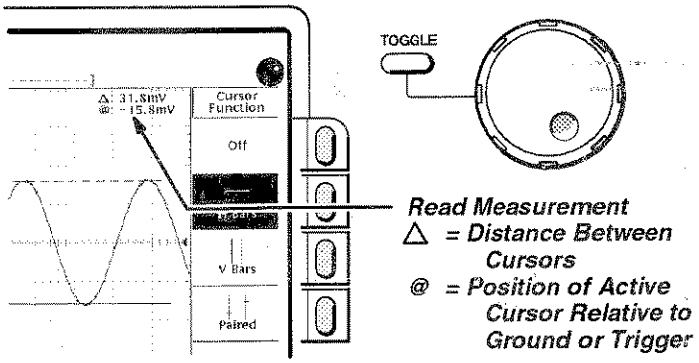
1 Press **CURSOR** button



2 Press **FUNCTION** in main menu

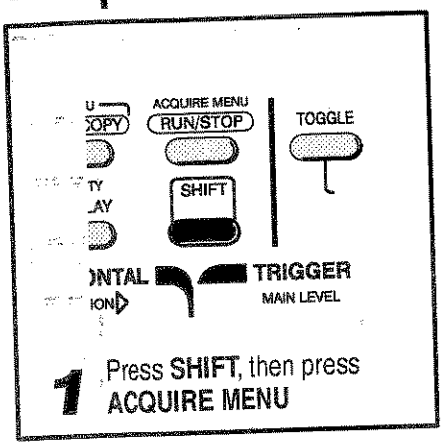


3 Select from side menu

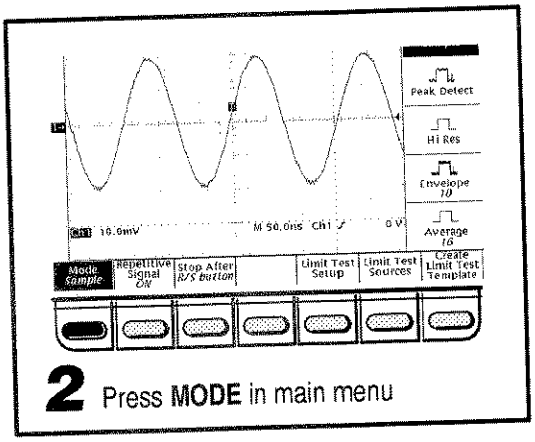


4 Move cursor with general purpose knob
Press **TOGGLE** to switch between cursors

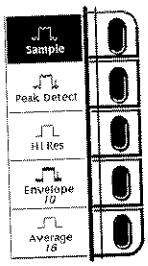
Acquisition Mode



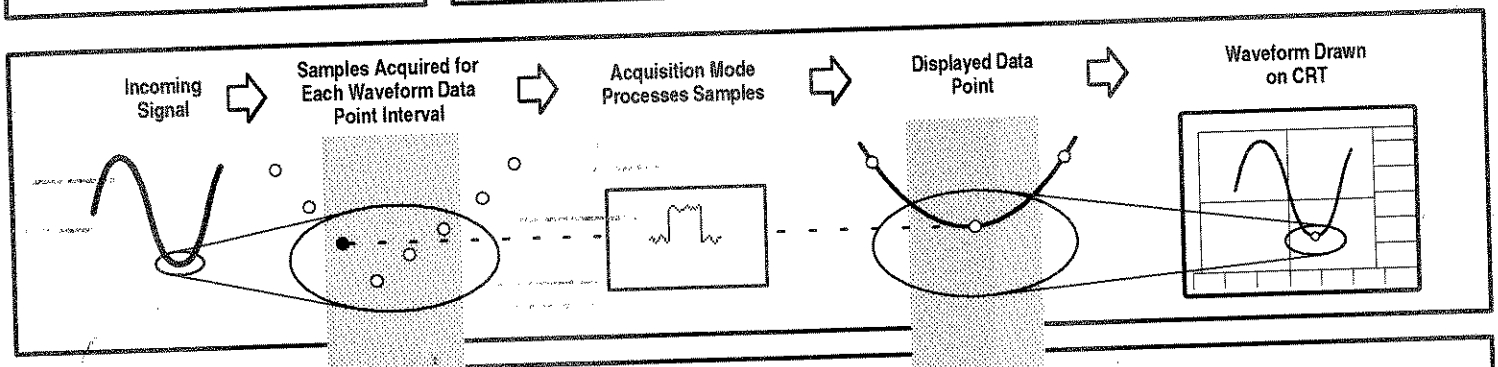
1 Press **SHIFT**, then press **ACQUIRE MENU**

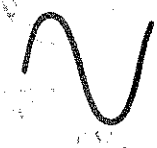


2 Press **MODE** in main menu



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



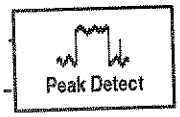


Single Waveform Acquisition

Uses first sample in interval

Use for fastest acquisition rate.

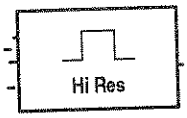
This is the default mode.



Uses highest and lowest samples in interval

Use to reveal aliasing and for glitch detection.

Provides the benefits of enveloping with speed of single acquisition.

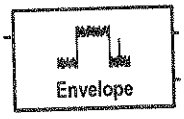


Calculates average of samples in interval

Use to reduce apparent noise.

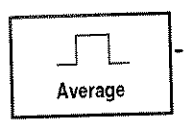
Provides the benefits of averaging with the speed of single acquisition.

Multiple Waveform Acquisitions



Uses the highest and lowest samples over many acquisitions

Use to reveal the noise band around the signal.



Calculates average value over many acquisitions

Use to reduce apparent noise in a repetitive signal.

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