

# Quick Reference

**Tektronix**

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**2212**

**Digital Storage & Analog Oscilloscope**

**070-8592-00**

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# Displaying a Waveform

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

**2** Press the **Input Coupling** button till the desired Input Coupling LED is illuminated

**3** Press the **Vertical MODE** button till the CH 1 LED is illuminated

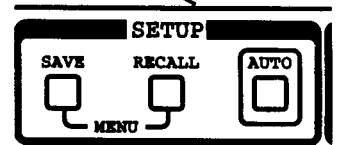
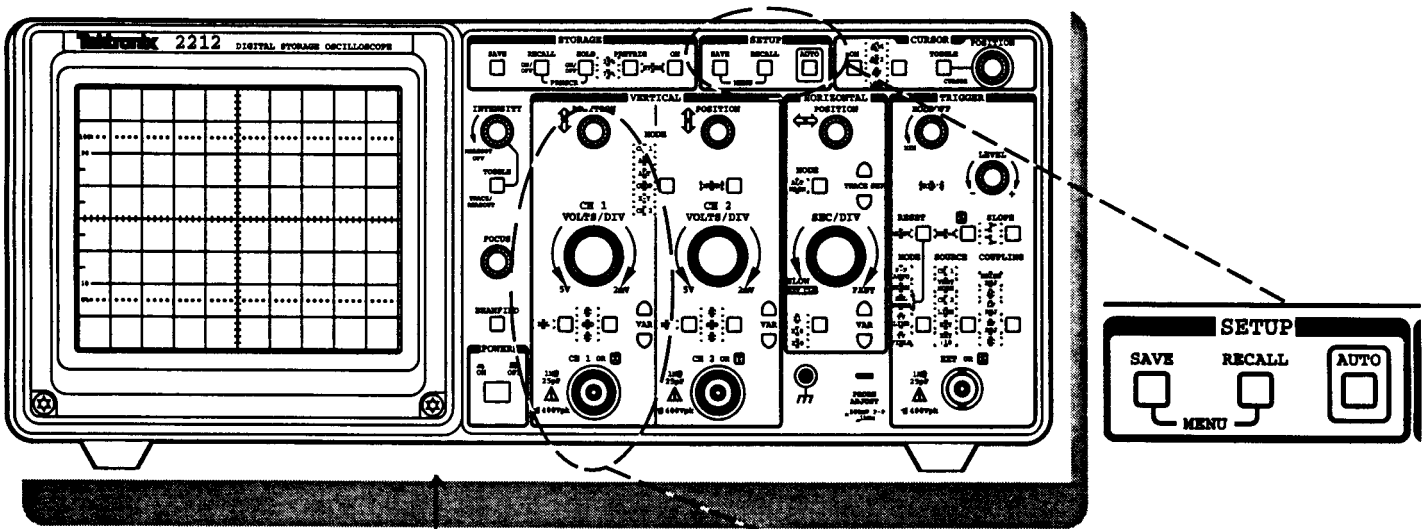
**4** Press the **AUTO Setup** button

**5** Adjust the **FOCUS** for a well defined trace.

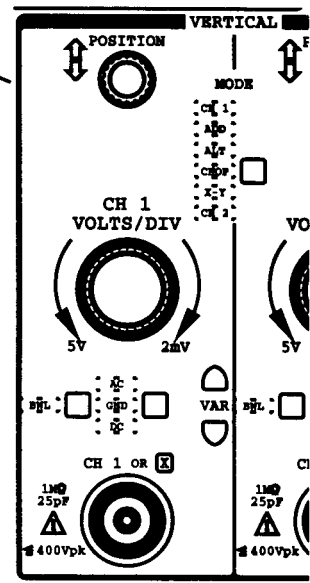
**6** Adjust the **INTENSITY** Control and/or the **READOUT** Intensity Control as needed

**7** Adjust the **TRACE ROTATION** control, located on the bottom side (see arrow), as needed

**8** Adjust the vertical **POSITION**, horizontal **POSITION**, **VOLTS/DIV** and **SEC/DIV** as needed



Trace Rotation Control



Setup Functions	Front Panel Action
AUTO Front-panel Setup	Press: <b>AUTO</b> button
Save Front-panel Setup ( <b>SAVE</b> )	Press: <b>SAVE</b> button
Recall a saved front-panel setup ( <b>RECALL</b> )	Press: <b>RECALL</b> button
Open/Close the Communications Interface <b>MENU</b>	Press: <b>SAVE</b> and <b>RECALL</b> simultaneously

# Displaying a Waveform Using Cursors

**1** Attach probe(s) to **CH 1** and/or **CH 2** and hook it up to your signal

**2** Press the **Input Coupling** button(s) till the desired Input Coupling LED's become illuminated

**3** Press the **AUTO Setup** button

**4** Adjust the vertical **POSITION**, horizontal **POSITION**, **VOLTS/DIV** and **SEC/DIV** as needed

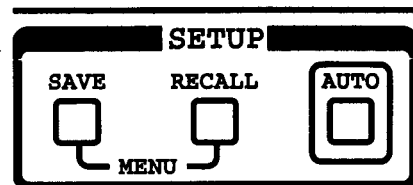
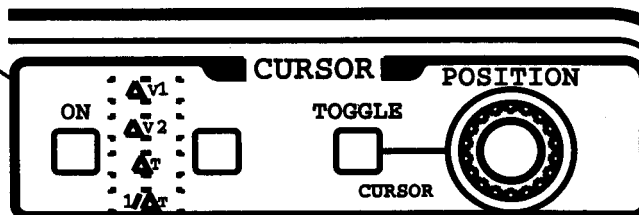
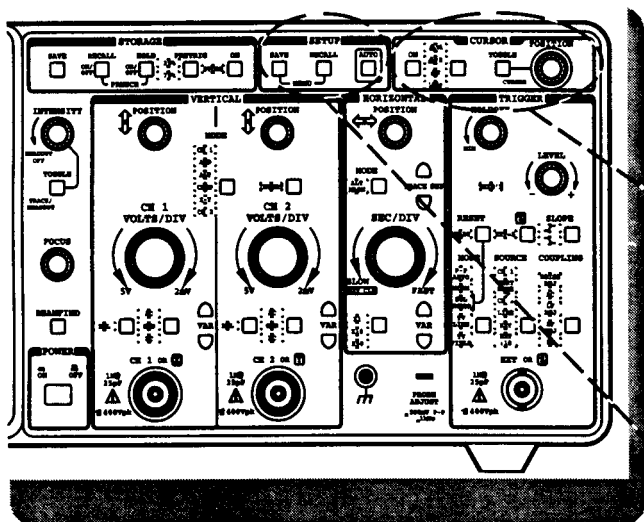
**5** Press the **Cursors ON** button ( $\Delta V1$  LED is illuminated)

**6** Press the **Cursor Mode** button to select the desired cursor mode

**7** Select the **Track** mode or **Delta** cursor mode with the **TOGGLE** cursor switch

**8** Adjust the cursor **POSITION** as needed for your measurement

**9** Read the cursor measurement value from the **CRT readout**



Cursor Functions	Front Panel Action
Cursors ON	Press: Cursors ON button
Cursor Mode selection	Press: Cursor Mode button to $\Delta V1$ , $\Delta V2$ , $\Delta T$ , or $\Delta 1/T$
Track mode or Delta cursor mode selection	Press: TOGGLE Cursor button to the desired cursor mode
Cursor(s) POSITION adjustment	Adjust: Cursor POSITION control.

# Displaying a Waveform Using Storage Mode

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

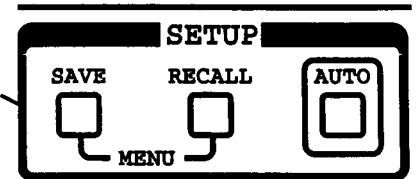
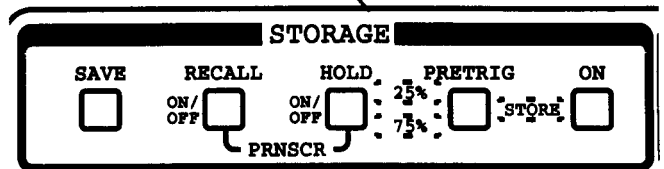
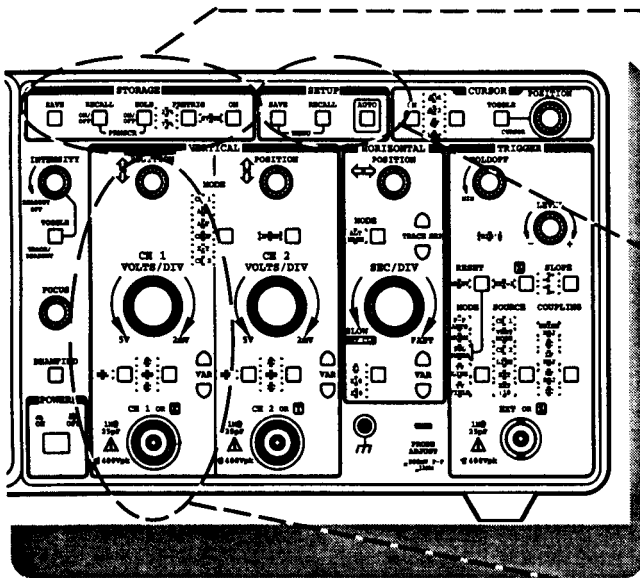
2 Press the **Input Coupling** button till the desired Input Coupling LED is illuminated

3 Press the **Vertical MODE** button till the CH 1 LED is illuminated

4 Press the **AUTO Setup** button

5 Adjust the vertical **POSITION**, horizontal **POSITION**, **VOLTS/DIV** and **SEC/DIV** as needed

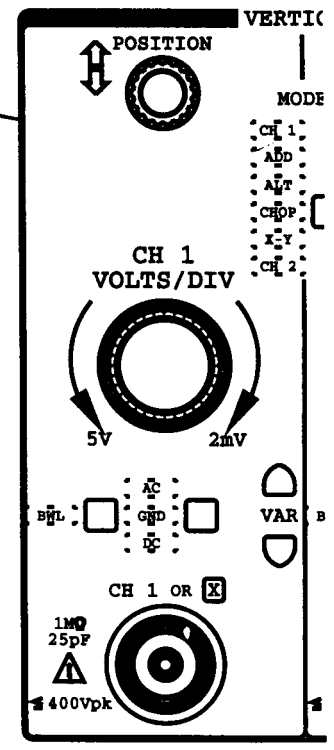
6 Press the **Storage ON** button (STORE LED is illuminated)



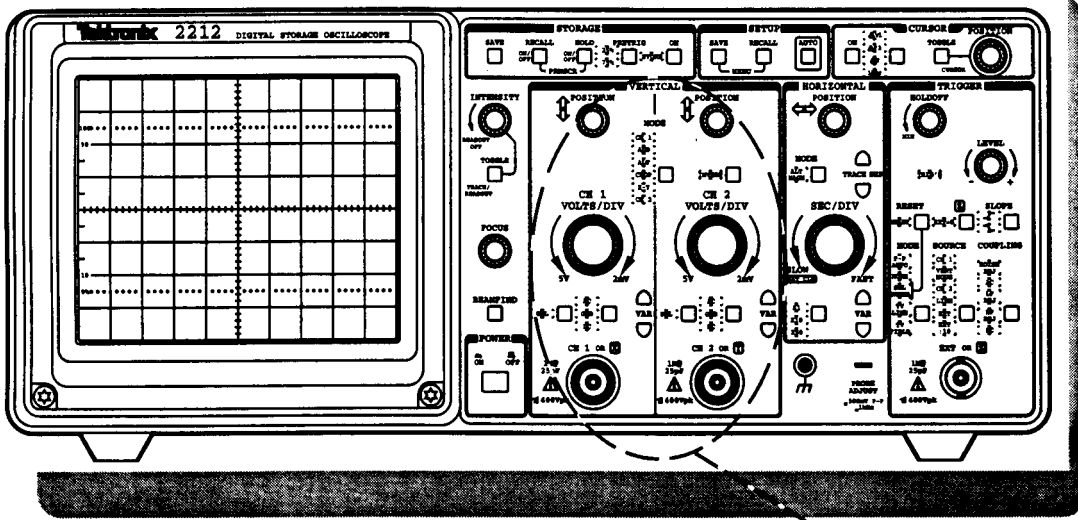
## Storage Functions

## Front Panel Action

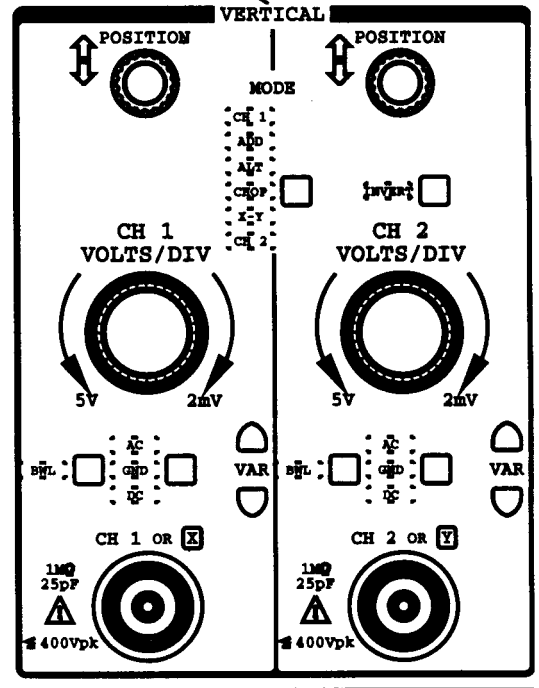
Storage mode ON	Press: Storage ON button
Select the Pretrigger position ( <b>PRETRIG</b> )	Press: <b>PRETRIG</b> button for 25% or 75 %
Save the displayed waveform as a Reference ( <b>SAVE</b> )	Press: <b>SAVE</b> button
Recall a saved reference waveform from the memory ( <b>RECALL</b> )	Press: <b>RECALL</b> button
Stop acquiring new data ( <b>HOLD</b> )	Press: <b>HOLD</b> button
Print the CRT display ( <b>PRNSCR</b> ) on a printer/plotter	Press: <b>HOLD</b> and <b>RECALL</b> simultaneously
External Clock ( <b>EXT CLK</b> ) input (located on the rear panel)	With the <b>SEC/DIV</b> switch set to <b>EXT CLK</b> in storage mode, the external clock signal applied to the <b>EXT CLK</b> input replaces the internal acquisition clock.



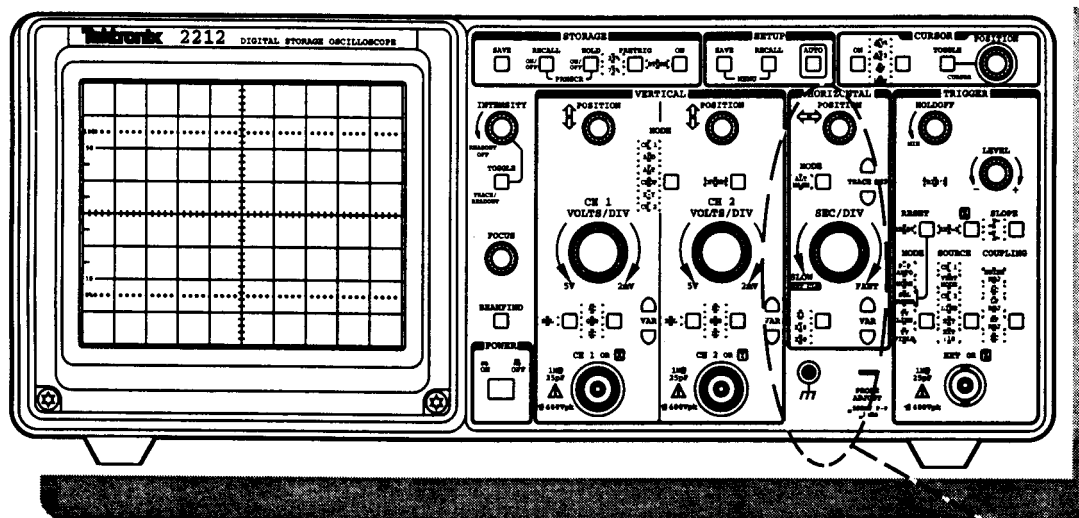
# Vertical Controls and Connectors



Vertical Functions	Front Panel Action
Vertical deflection <b>MODE</b>	Press: <b>MODE</b> button to select CH1, CH2, ALT, CHOP, ADD, or X-Y
Input signal Coupling	Press: <b>Input Coupling</b> button to AC, DC or GND
Vertical positioning	Adjust: <b>POSITION</b> control of the channel display concerned
Vertical Scaling ( <b>VOLTS/DIV</b> )	Rotate: <b>VOLTS/DIV</b> switch of the channel concerned to the desired scaling.
Variable Scaling ( <b>VAR</b> )	Press: Lower part of <b>VAR</b> control entering the uncal status and reducing the vertical sensitivity. Press: Upper part of <b>VAR</b> control to increase the vertical sensitivity to maximum the calibrated value. Restore the calibrated situation by pressing the upper and lower part of the <b>VAR</b> control simultaneously.
<b>CH 1 OR X</b> input connector	Connects the input signal to the vertical deflection system or to the X-Axis in X-Y mode.
<b>CH 2 OR Y</b> input connector	Connects the input signal to the vertical deflection system or to the Y-Axis in X-Y mode.
Bandwidth Limit ( <b>BWL</b> )	Press: <b>BWL</b> button to limit the bandwidth to $\pm 10$ MHz
CH 2 display inversion	Press: <b>INVERT</b> button to invert the CH 2 signal $180^\circ$



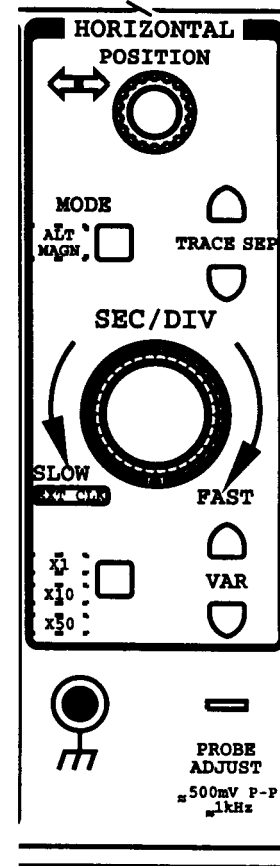
# Horizontal Controls and Connectors



## Horizontal Functions

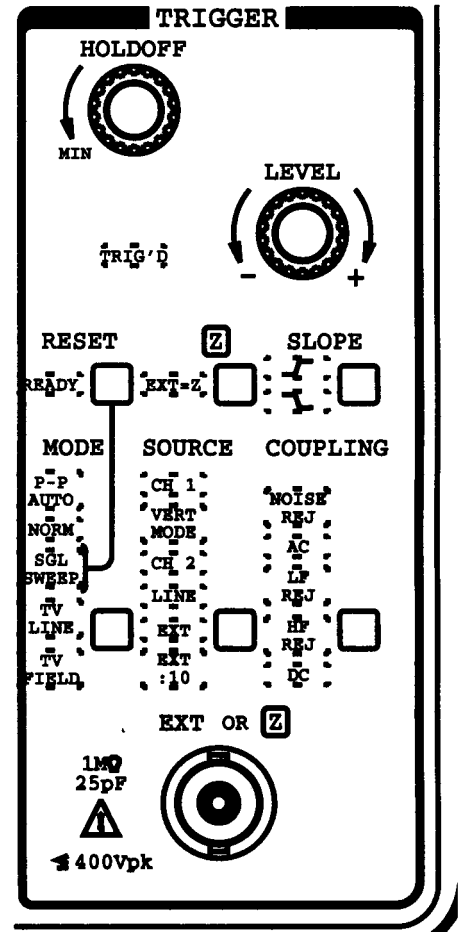
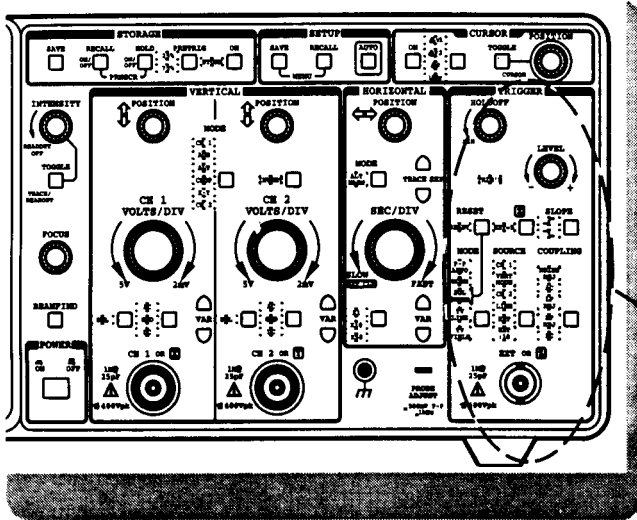
## Front Panel Action

Horizontal <b>MODE</b> Magnifier ( <b>ALT MAG</b> )	Press: <b>MODE</b> button to select Alternate or to revert to single operation
Trace Separation ( <b>TRACE SEP</b> )	In Non-storage and Storage mode display: press the upper part of the <b>TRACE SEP</b> to move the magnified trace upwards or the lower part to move the magnified trace downwards. In Storage mode with Reference waveform(s) recalled and displayed: press the upper part of the <b>TRACE SEP</b> to move the magnified trace and the recalled Reference waveform upwards or the lower part to move the magnified trace and the recalled Reference waveform downwards.
Horizontal positioning of the display ( <b>POSITION</b> )	Adjust: Horizontal <b>POSITION</b> control
Horizontal Scaling ( <b>SEC/DIV</b> )	Rotate: <b>SEC/DIV</b> switch to the desired scaling
<b>RECORD</b> Mode <b>ROLL</b> Mode	<b>SEC/DIV</b> faster than 0.1 s/DIV in Storage mode. <b>SEC/DIV</b> slower than 0.1 s/DIV in Storage mode.
Variable Scaling ( <b>VAR</b> )	Press: The lower part of the <b>VAR</b> control entering the uncalibrated status and reducing the horizontal scaling. Press: The upper part of the <b>VAR</b> control to increase the horizontal scaling to a maximum of the calibrated value. To restore the calibrated value, press the upper and lower part of the <b>VAR</b> control simultaneously.
X1, X10, X50 Magnifier ( <b>X1, X10, X50</b> )	Press: The <b>X1, X10, X50</b> button to the desired magnification
Probe compensation	Attach a probe-tip to the <b>PROBE ADJUST</b> connector, press <b>AUTO Setup</b> and compensate the probe (for more details: see your Probe manual).





# Triggering Controls and Connectors



Trigger Functions	Front Panel Action
Trigger Mode (MODE)	Press: Trigger <b>MODE</b> button to select the desired trigger mode.
Trigger Source (SOURCE)	Press: Trigger <b>SOURCE</b> button to select the desired signal source.
Trigger Coupling (COUPLING)	Press: Trigger <b>COUPLING</b> button to select the desired trigger signal coupling.
Trigger Slope (SLOPE)	Press: Trigger <b>SLOPE</b> button to select the desired trigger slope
Trigger Level (LEVEL)	Rotate: Trigger <b>LEVEL</b> control to select the amplitude point on the signal that produces triggering.
EXT=Z input connector	Connects an external signal to the trigger circuit and/or the Z-axis circuit, depending on the setting of the Z-switch and the trigger SOURCE.
Z-Axis switch (Z)	Press: <b>Z</b> -button to apply the signal at the EXT =Z input connector also to the Z-axis circuit.
Holdoff time adjustment (HOLDOFF)	Adjust: <b>HOLDOFF</b> control to ensure stable triggering in storage mode and non-storage mode.
Single sweep reset switch (RESET)	Press: <b>RESET</b> button while in single sweep mode (SGL SWP) to arm the trigger circuit for one single sweep in non-storage, or one single acquisition in storage mode.

Trigger Indicators	Front Panel Action:
Trigger indicator (TRIG'D)	The <b>TRIG'D</b> LED turns on when triggering occurs.
Sweep is ready to be triggered indicator (READY)	The <b>READY</b> LED turns on in single sweep (SGL SWP) when the trigger is armed by pressing the <b>RESET</b> switch awaiting a triggering event.

# Making a Hardcopy

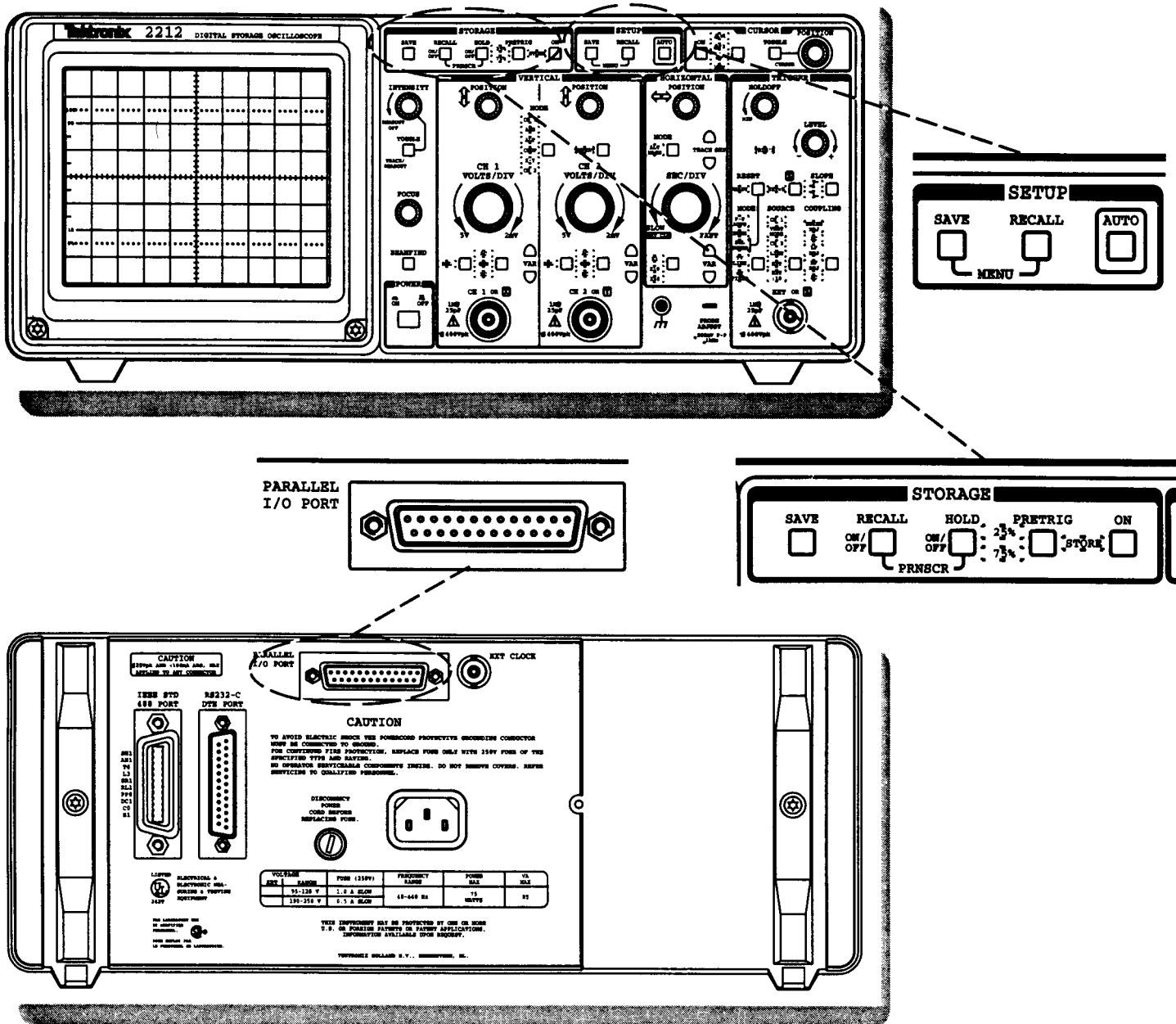
**1** Connect Printer/Plotter to the **Parallel I/O Port** on the rear panel

**2** Select **MENU** by pressing **SAVE** and **RECALL** buttons in the **SETUP** section simultaneously

**3** Make selections in the **MENU**. Menu lines can be selected with **TOGGLE** Cursor and parameters with **Cursor POSITION**

**4** Press **SAVE** and **RECALL** buttons simultaneously to leave the **MENU**

**5** Press **HOLD** and **RECALL** buttons in the **Storage** section simultaneously to start dumping display data to the printer/plotter



# CRT Readout Display Fields

