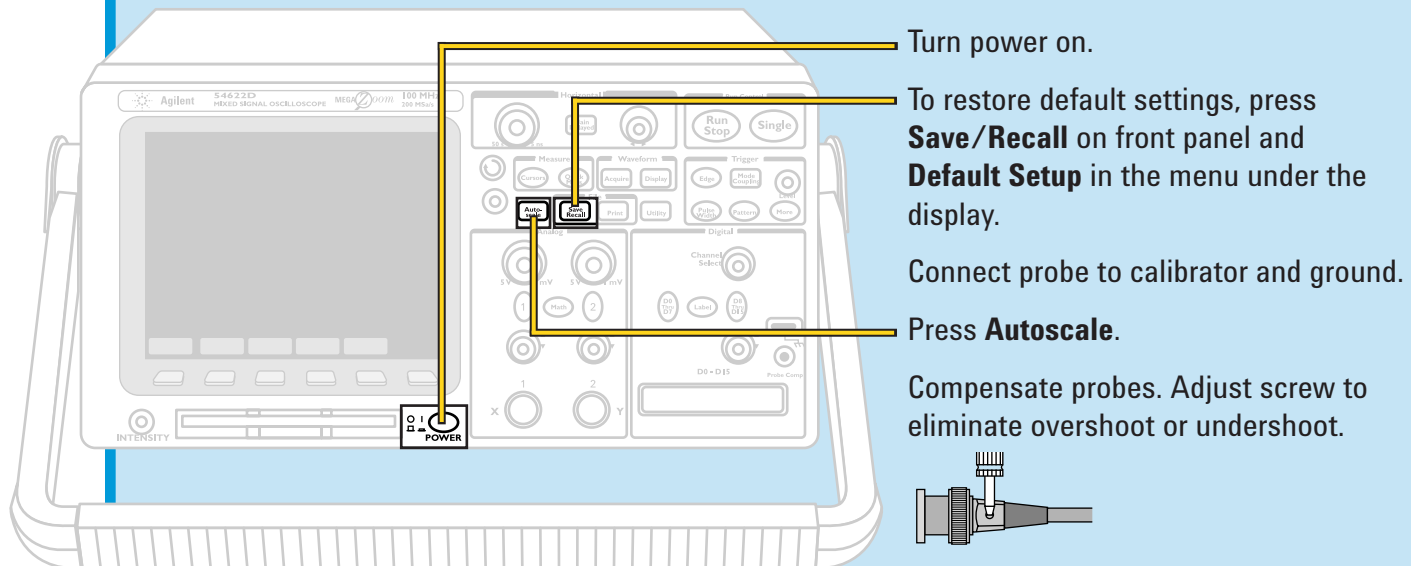


# Know Your Oscilloscope

## Getting Started



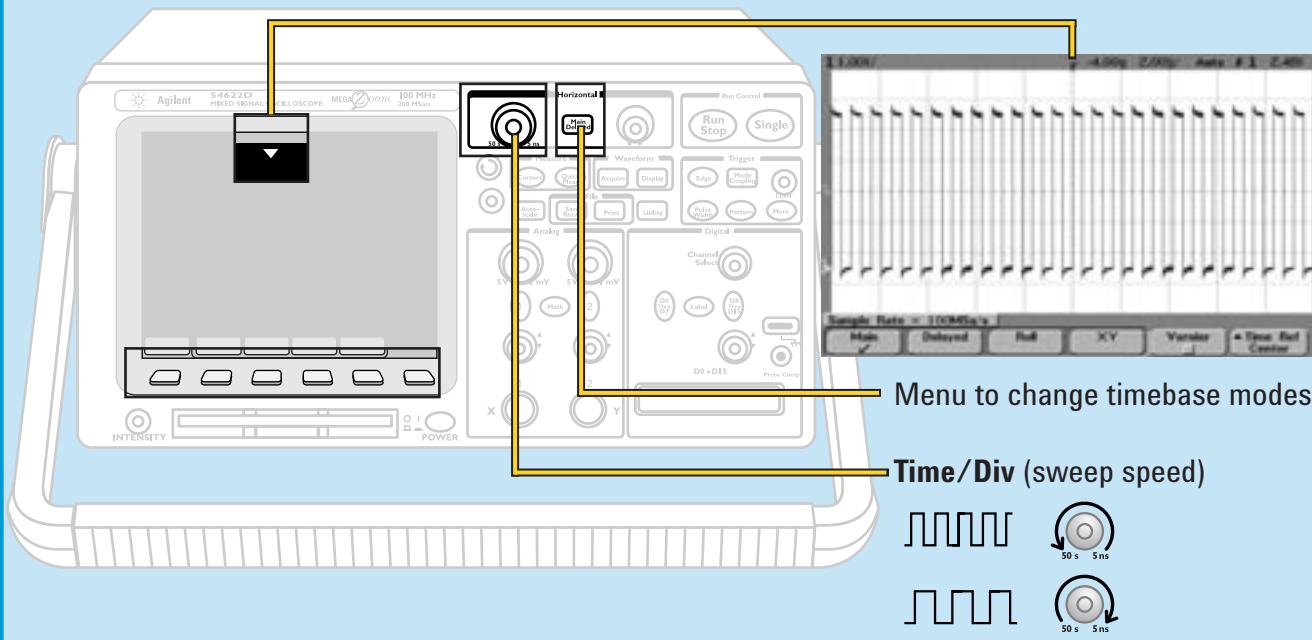
- Turn power on.
- To restore default settings, press **Save/Recall** on front panel and **Default Setup** in the menu under the display.
- Connect probe to calibrator and ground.
- Press **Autoscale**.
- Compensate probes. Adjust screw to eliminate overshoot or undershoot.

## Built-in Help

- Read the Help display when you turn the scope on for helpful hints.
- Press and hold any key to view built-in quick help in choice of 11 languages.
- For example, press and hold **Pattern** key to view explanation of pattern trigger mode.

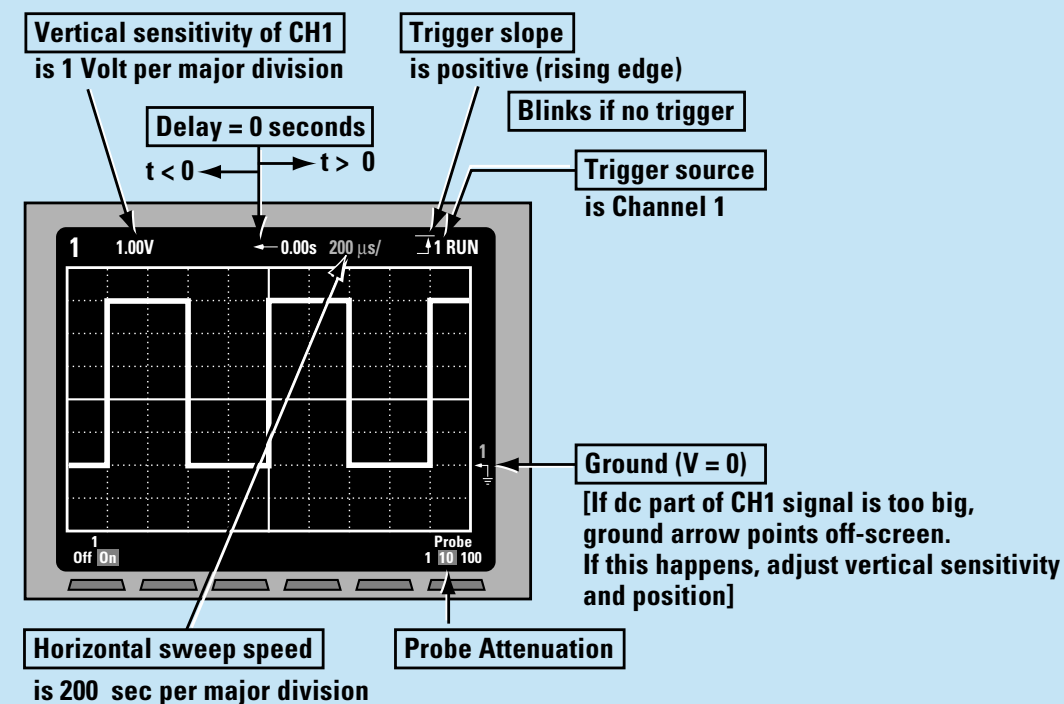
## Controls

### Horizontal - Time Controls

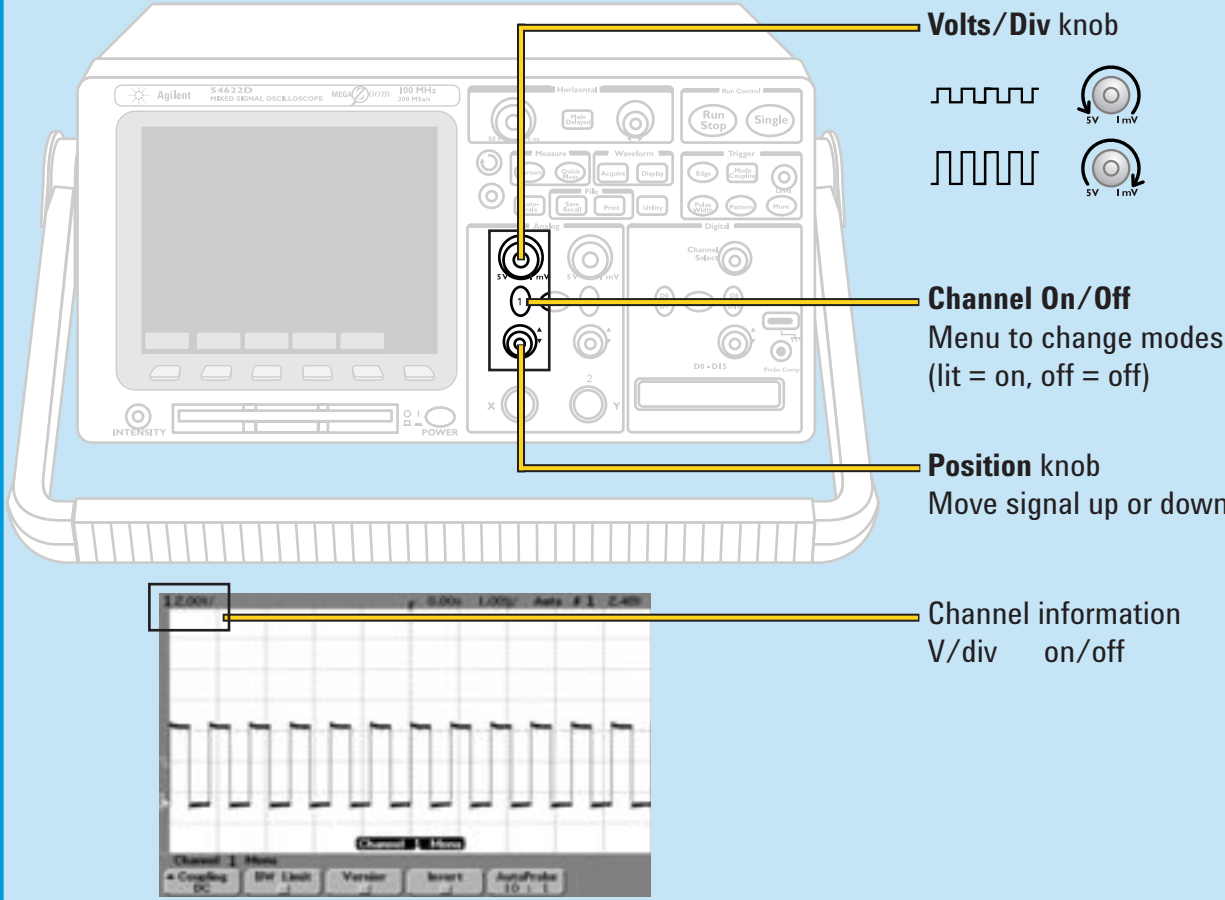


- Menu to change timebase modes
- Time/Div (sweep speed)

### What the display says:

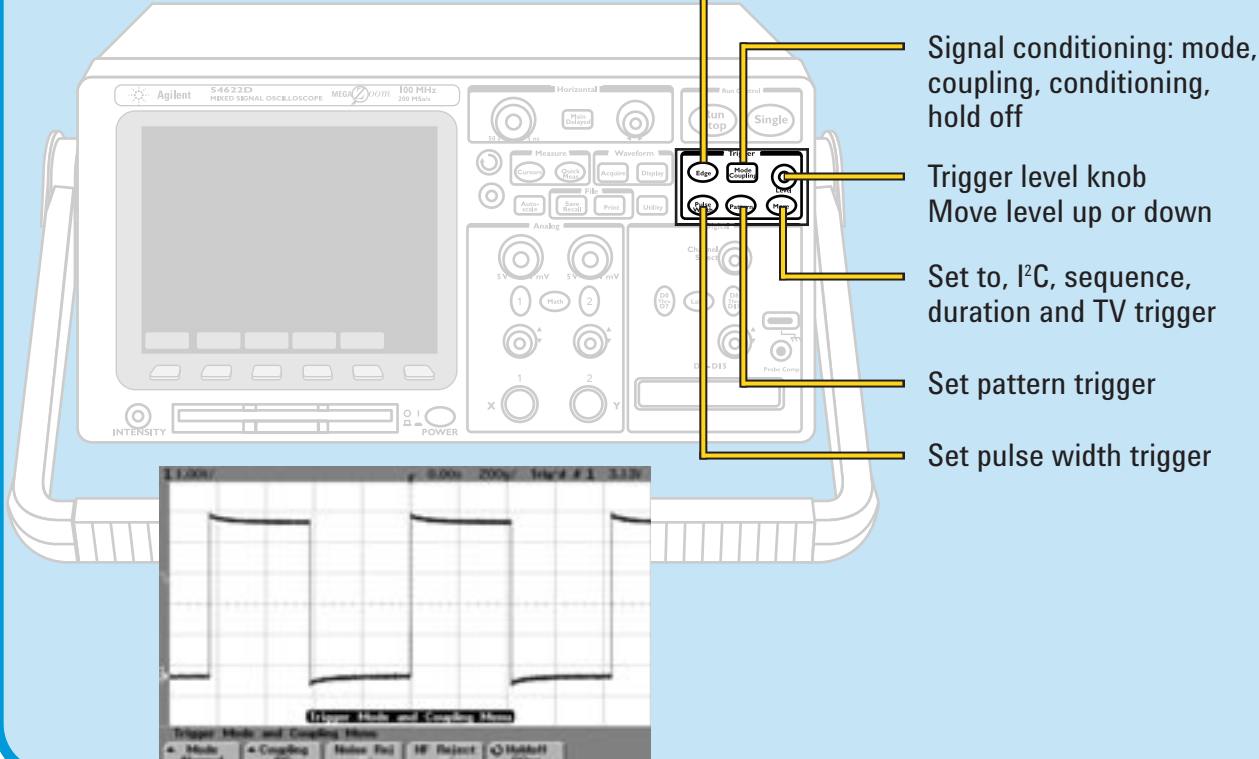


### Voltage Controls

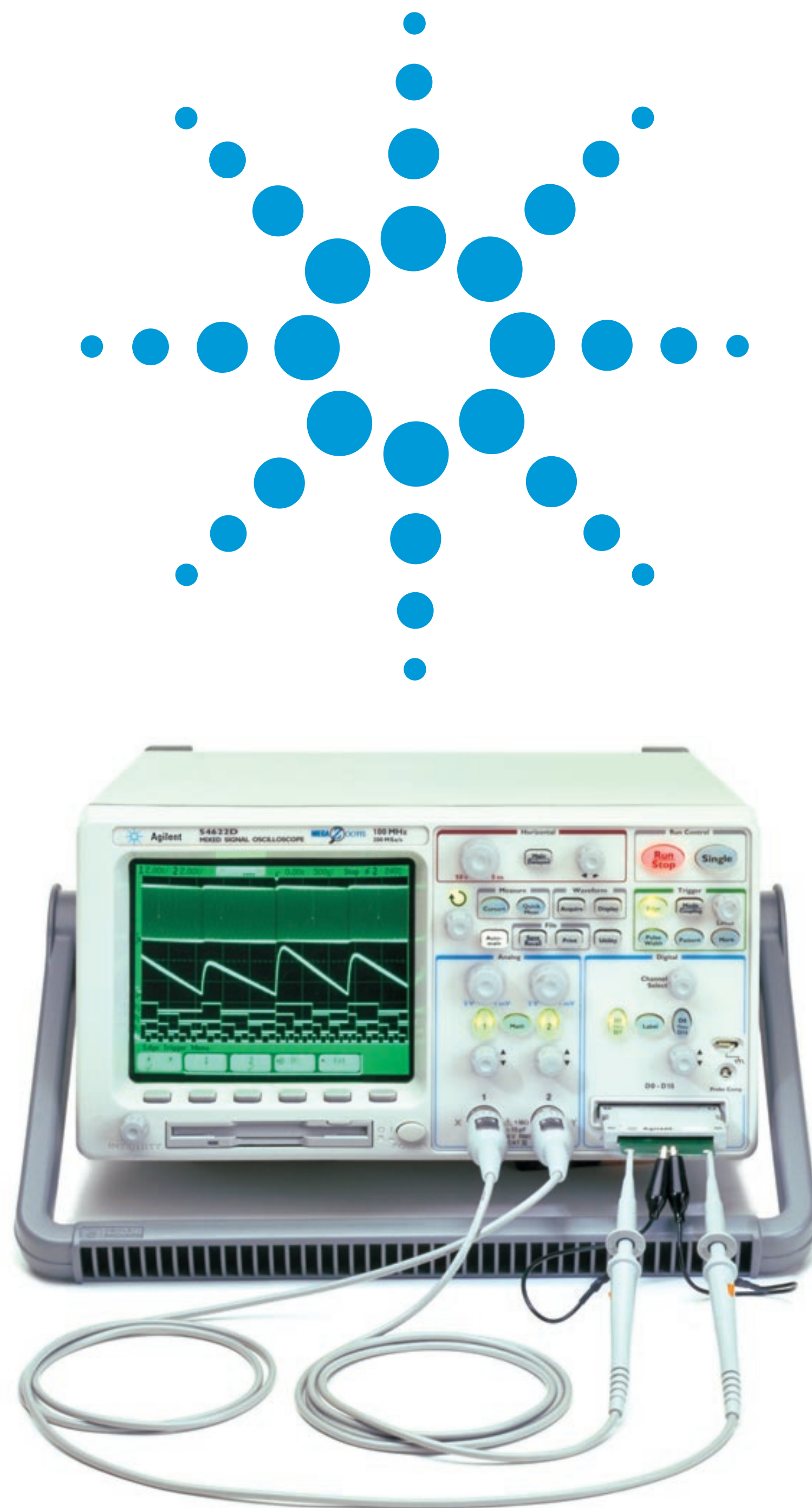


- Volts/Div knob
- Channel On/Off Menu to change modes (lit = on, off = off)
- Position knob Move signal up or down
- Channel information V/div on/off

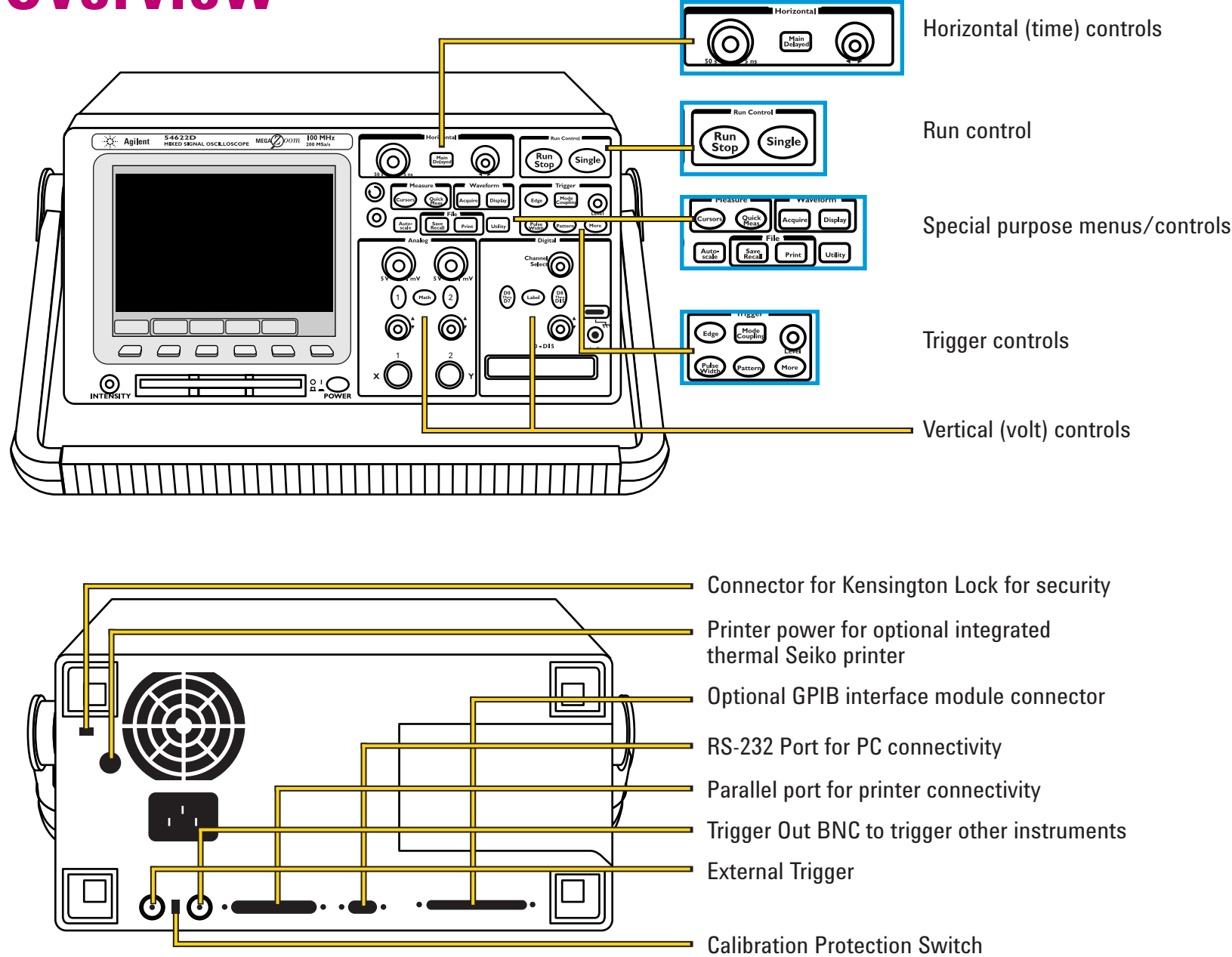
### Trigger Controls



- Set edge source and slope
- Signal conditioning: mode, coupling, conditioning, hold off
- Trigger level knob Move level up or down
- Set to, F.C. sequence, duration and TV trigger
- Set pattern trigger
- Set pulse width trigger



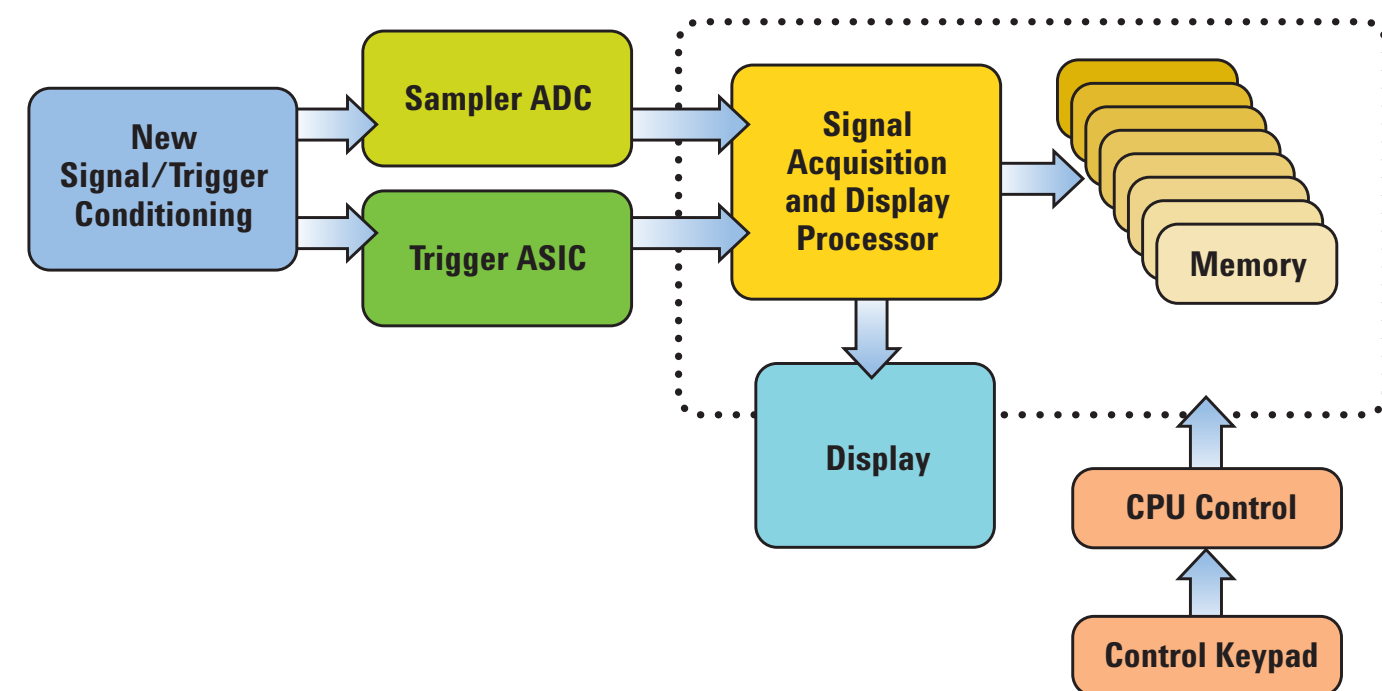
## Overview



## Hints

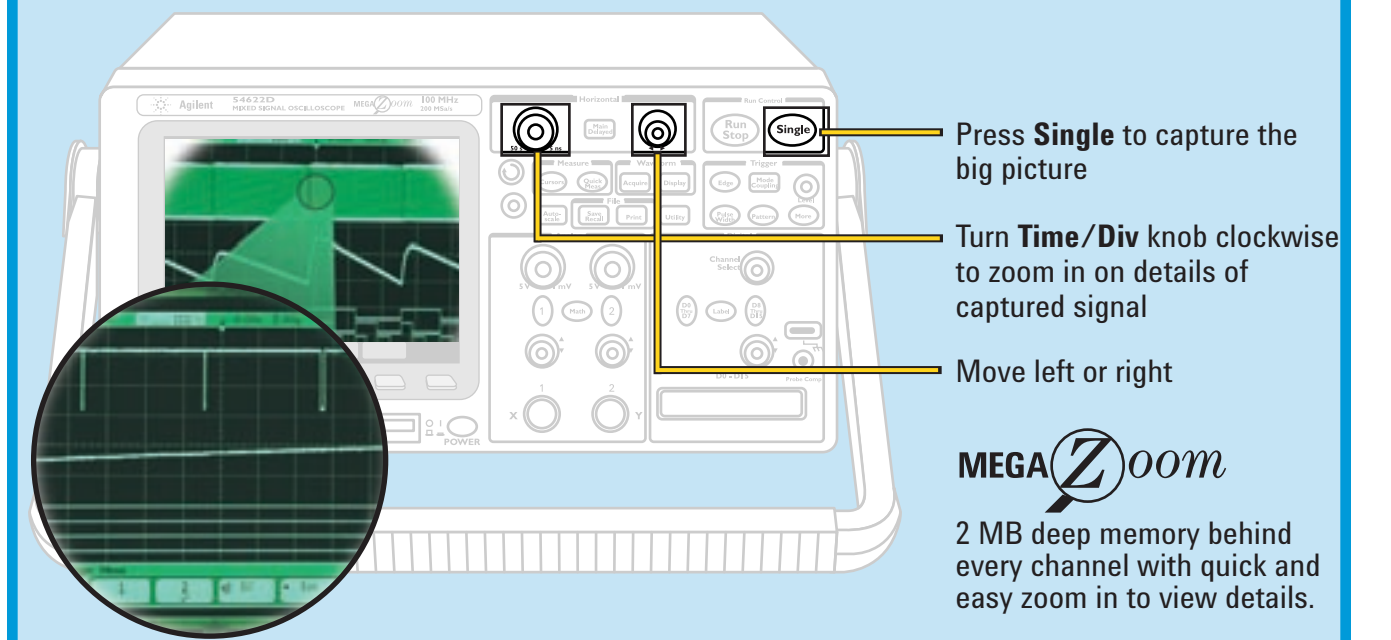
- The Digitizing Oscilloscope
- The BNC shield is at earth ground. Use only the probe TIP for measuring high voltages. "Floating" the BNC shield or connecting it to a high voltage could cause a safety hazard.
  - Make sure probes are compensated.
  - If you can't get the signal on screen:
    - Check probe connection
    - Touch: **SETUP**, Default Setup
    - Touch: **AUTOSCALE**
    - Check for offset (ground symbol). If offscale, adjust vertical sensitivity and position
    - Turn up signal brightness with intensity control

## Digital Oscilloscope Block Diagram



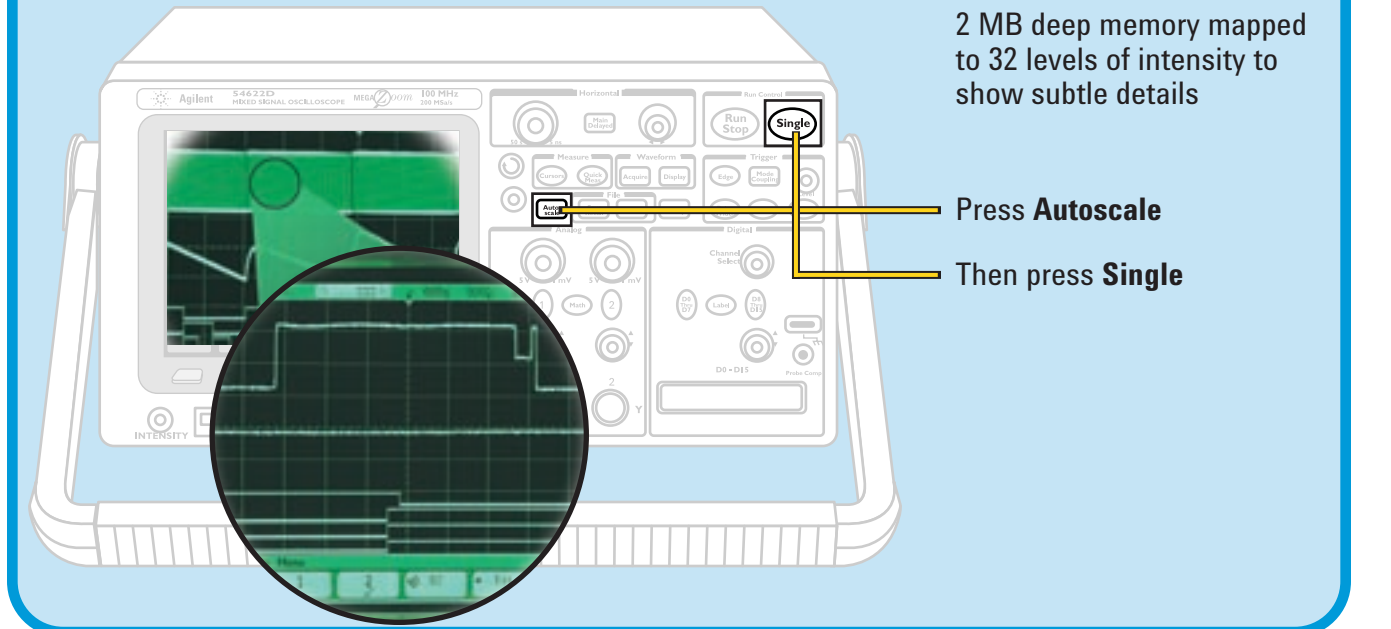
## Display

### MegaZoom - the deep memory advantage



- Press **Single** to capture the big picture
- Turn **Time/Div** knob clockwise to zoom in on details of captured signal
- Move left or right
- MEGAZOOM**  
2 MB deep memory behind every channel with quick and easy zoom in to view details.

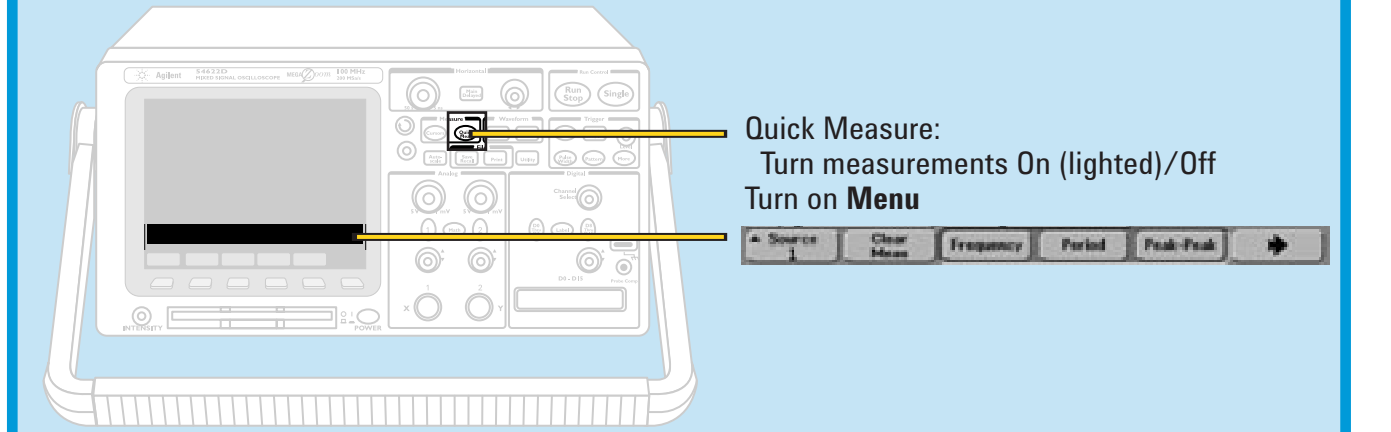
### High definition Display



- 2 MB deep memory mapped to 32 levels of intensity to show subtle details
- Press **Autoscale**
- Then press **Single**

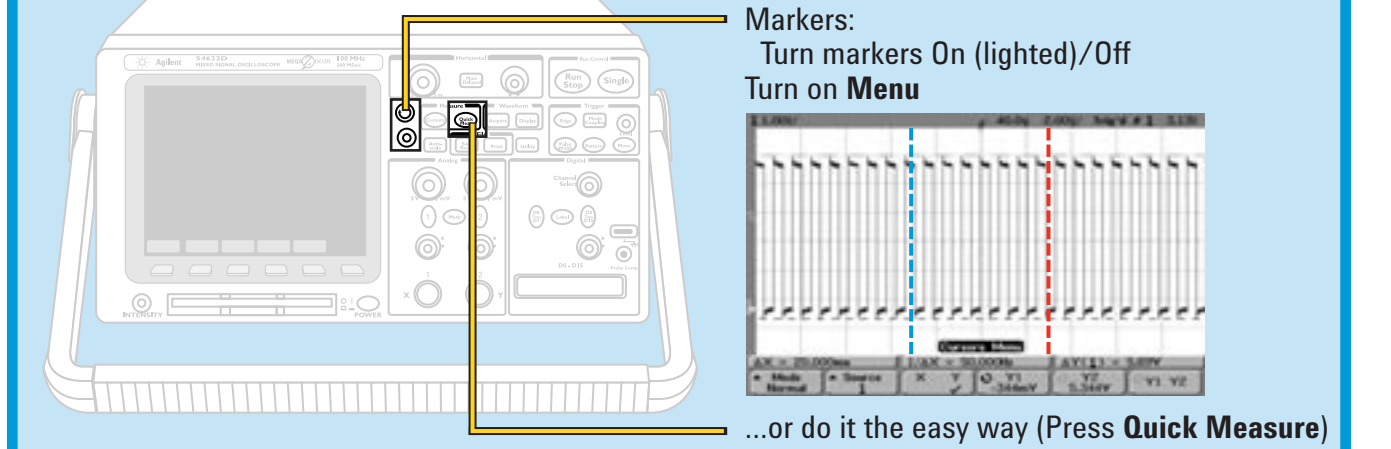
## Other Functions

### Making Automatic Measurements (Vpp, frequency, etc.)



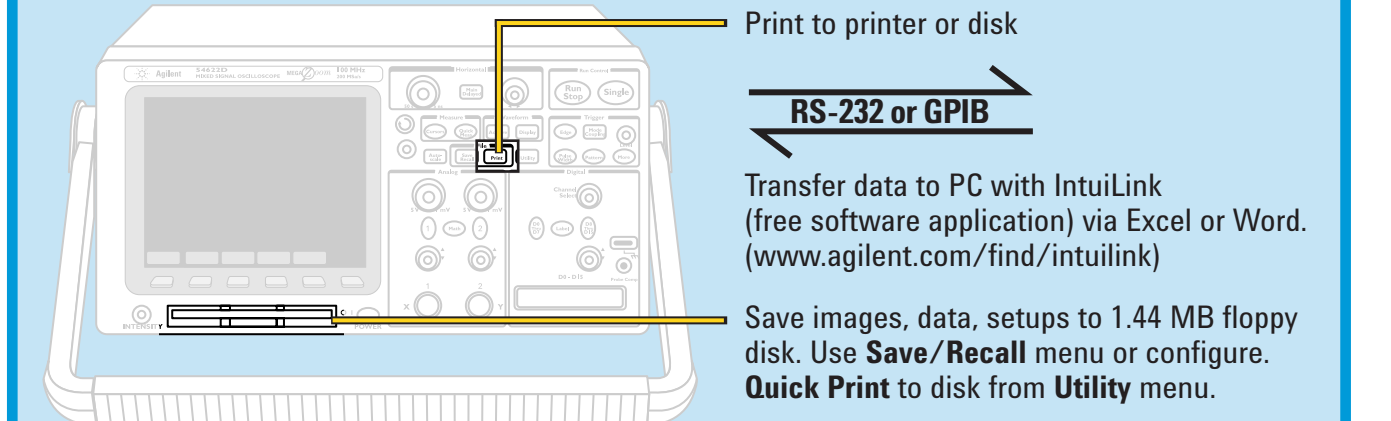
- Quick Measure: Turn measurements On (lighted)/Off Turn on **Menu**

### Manual Marker Control



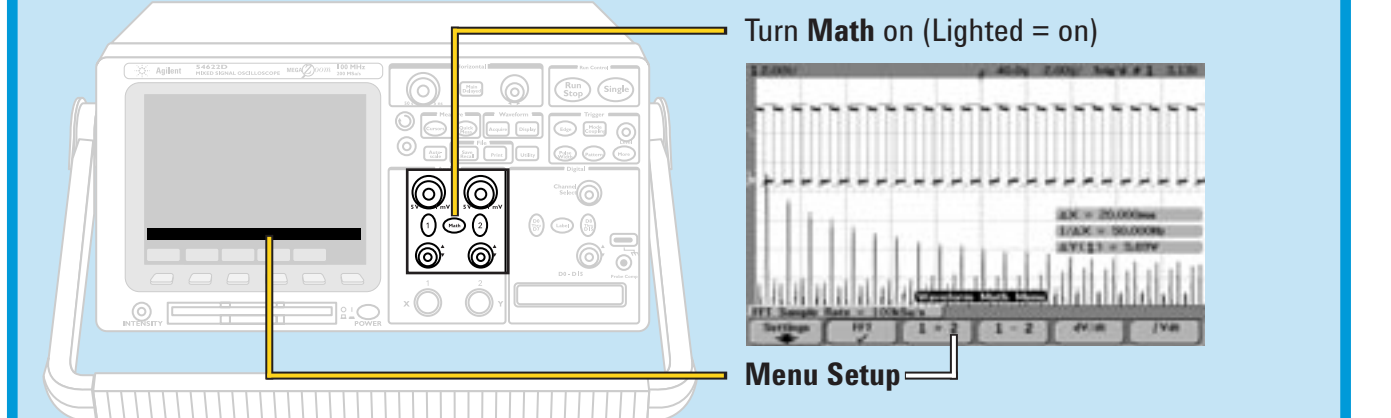
- Markers: Turn markers On (lighted)/Off Turn on **Menu**
- ...or do it the easy way (Press **Quick Measure**)

### Saving Information



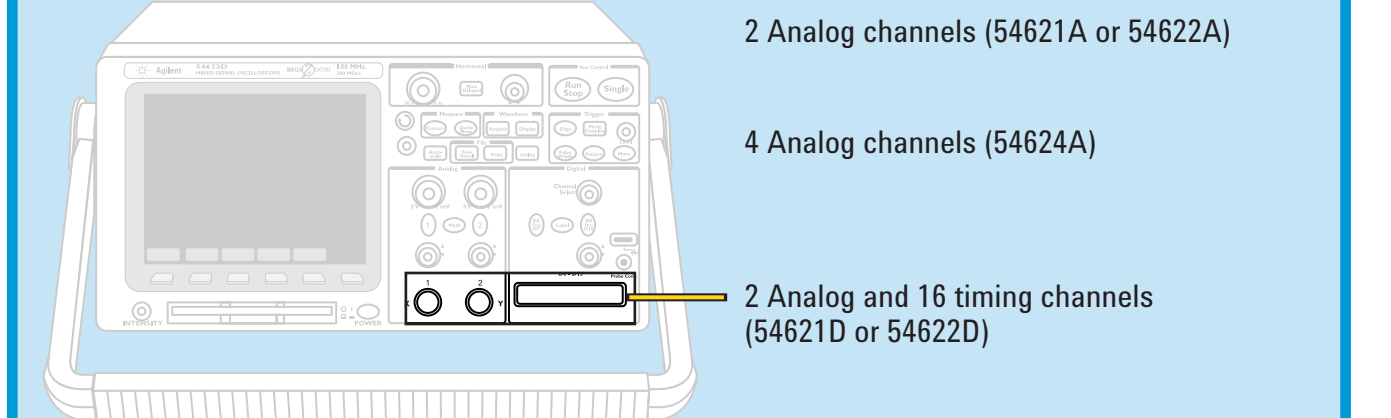
- Print to printer or disk
- RS-232 or GPIB
- Transfer data to PC with IntuLink (free software application) via Excel or Word. ([www.agilent.com/find/intuLink](http://www.agilent.com/find/intuLink))
- Save images, data, setups to 1.44 MB floppy disk. Use **Save/Recall** menu or configure. **Quick Print** to disk from **Utility** menu.

### Math Functions (\*, -, FFT, etc.)



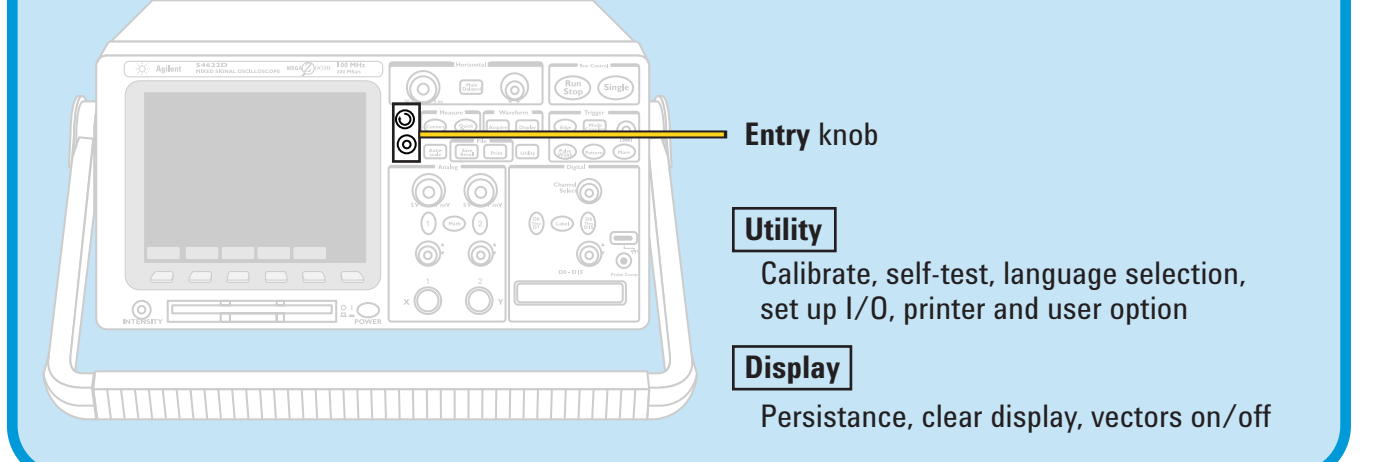
- Turn **Math** on (Lighted = on)
- Menu Setup

### Channel Configurations



- 2 Analog channels (54621A or 54622A)
- 4 Analog channels (54624A)
- 2 Analog and 16 timing channels (54621D or 54622D)

### Menus - Advanced Controls



- Entry knob
- Utility**  
Calibrate, self-test, language selection, set up I/O, printer and user option
- Display**  
Persistence, clear display, vectors on/off

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