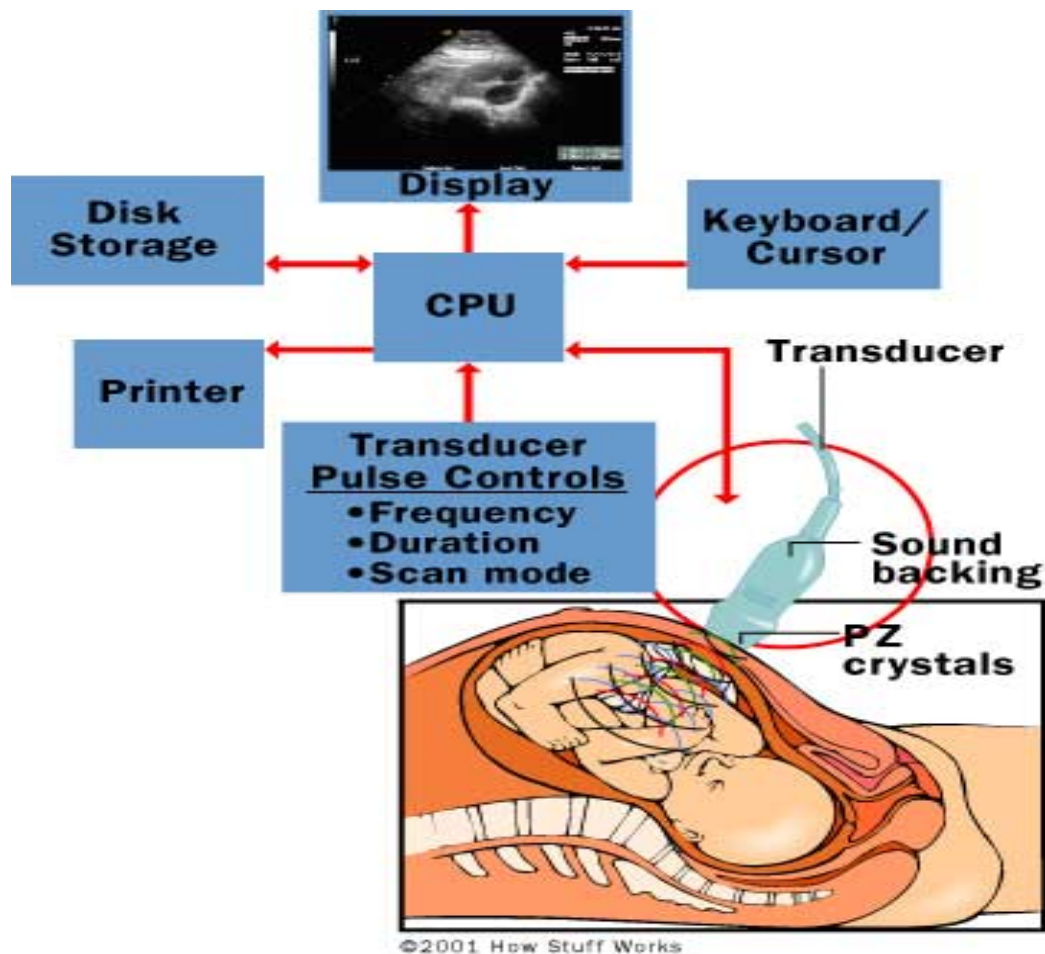


# ultrasound machine

A basic ultrasound machine has the following parts:

- **Transducer probe** - probe that sends and receives the sound waves.
- **Central processing unit (CPU)** - computer that does all of the calculations and contains the electrical power supplies for itself and the transducer probe.
- **Transducer pulse controls** - changes the amplitude, frequency and duration of the pulses emitted from the transducer probe.
- **Display** - displays the image from the ultrasound data processed by the CPU.
- **Keyboard/cursor** - inputs data and takes measurements from the display
- **Disk storage device** (hard, floppy, CD) - stores the acquired images.
- **Printer** - prints the image from the displayed data.
- **Monitor** - The monitor is where the ultrasound technician views the results of the scan and it generally looks similar to a home computer monitor or television.
- **Control Panel** - The control panel is connected to the computer and allows the sonographer to alter aspects of the scan.



The system control panel contains the following keys, rotary controls, and slide controls:

## **2D**

Press the **2D** key to exit the current imaging mode or application and return to 2D Mode.

## **2D GAIN**

Turn the 2D **GAIN** rotary control to adjust the gain, or overall brightness, of a 2D or MMode image.

## **Acquire**

key to start and stop the acquisition of a loop. key to acquire a frame.

## **Angio**

Press the **Angio** key to enter Color Power Angio or to add angio information to the reference image in PW Doppler or CW Doppler.

## **Angle**

Use the **Angle** rotary control to position.

## **Baseline**

In PW and CW Doppler, turn the **Baseline** rotary control to adjust the zero baseline position in the Doppler spectral trace.

## **Body Mark**

Press the **Body Mark** key to display the body marker soft keys and choose a body marker to place on the imaging screen.

## **Color**

Press the **Color** key to enter Color Mode or to add color information to the reference.

## **CW**

In a cardiac preset, press the **CW** key to display the CW spectral trace.

## **Del (Label)**

Press the **Del** key above the **Label** key to delete a selected label. If no label is selected, all of the labels are deleted.

## **Del (Measure)**

Press the **Del** key above the **Measure** key to delete a selected measurement. If no measurement is selected, all of the measurements are deleted.

## **Depth**

Press the up or the down arrow on the **Depth** key to increase or decrease the distance.

## **Doppler Gain**

In PW and CW Doppler, turn the Doppler **Gain** rotary control to adjust the brightness of the spectral display.

## **Enter**

Use the **Enter** key in conjunction with the trackball to click an item or choose a menu option.

### **Focus**

Press the up or the down arrow on the **Focus** key to move the location of the focal zone or focal zones, the area or areas where the image is most clearly focused.

### **Freeze**

Press the **Freeze** key to freeze a live image and initiate Quick Review, which allows you to scroll through the frames using the trackball.

### **Fusion**

Press the **Fusion** key to cycle through fusion frequency settings available for the selected transducer and the mode.

### **Help**

Press the **Help** key at any time to open or close the EnVisor series online Help.

### **Keyboard**

Use the keyboard to type information into fields and to type labels, titles, and Quick Text onto the imaging screen.

### **Label**

Press the **Label** key to display the Label soft keys and choose a label to place on the imaging screen.

### **Left**

In live imaging, press the **Left** key to enter Dual Imaging. The live image is on the left, and the frozen image appears on the right.

### **LGCs**

Move the **LGC** (Lateral Gain Control) slide controls up or down to adjust the amplification of a returning 2D signal. Use the left **LGC**

### **Measure**

Press the **Measure** key to display the measurement soft keys and to start an unlabeled measurement.

### **Menu (Label)**

Press the **Menu** key above the **Label** key to display the Label soft keys and choose a label to place on the imaging screen.

**Menu (Measure)**

Press the **Menu** key above the **Measure** key to display the Measurement soft keys and to choose whether the **Calculations** menu or the **Measurements** menu is displayed.

**Mic**

Press the **Mic** key to turn the microphone on and off

**MMode**

In a cardiac preset, press the **MMode** key to display the MMode trace.

**Option Keys (1, 2, 3, 4)**

The option keys are labeled **1**, **2**, **3**, and **4**.

**Patient**

Press the **Patient** key to open the **Patient Identification** window in which you can create a new patient study, edit information about the current patient, or restart a patient study that was started earlier the same day.

**Plex**

In 2D Mode, CW Doppler, or PW Doppler, press the **Plex** key to enter Duplex.

**Power**

Turn the **Power** rotary control to vary the acoustic power transmitted for the current mode.

**Preset**

Press the **Preset** key to display the Preset soft keys and the **Preset** menu.

**Probe**

Press the **Probe** key to activate the next connected transducer going from top to bottom.

**Report**

Press the **Report** key to open the report for the current study.

## **Review**

Press the **Review** key to open Image Review for the current study.

## **Right**

In live imaging, press the **Right** key to enter Dual Imaging.

## **Scale**

In Color Power Angio, Color Mode, or CW or PW Spectral Doppler, turn the **Scale** rotary control clockwise to display higher velocities and frequencies.

## **Volume**

Turn the **Volume** rotary control to adjust the volume of the speaker for CW and PW Doppler and for VCR playback.

## **Zoom**

Press the **Zoom** key to place a zoom box on an image.



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