



Apple Multiple Scan 15 Display





Basics

Apple Multiple Scan 15 Display





Overview

The Apple Multiple Scan 15 Display is a color monitor that supports a variety of resolutions, and has a flat, square screen for clear, sharp images.

The Apple Multiple Scan 15 Display has a diagonal viewable image size of 13.3 inches.





The Apple Multiple Scan 15 Display features

- Optimized screen resolutions (640x480, 800x600, 832x624)
- A tilt-swivel base that allows the monitor to be positioned for optimal viewing comfort
- MPR II compliance for low electrical and magnetic emissions
- Energy Star power conservation compliance





Specifications

Apple Multiple Scan 15 Display





Characteristics

Picture Tube

15-in. diagonal flat square shadow mask (13.3-in. viewable image)

Multiple scan

Polished surface treatment

Screen Resolution

640x480, 800x600, or 832x624

1024x768 (only PC and PC-compatibles with a Mac/PC adapter)

0.28-mm dot pitch

Scan Rates

Vertical refresh rate: 60–75 Hz

Horizontal scan rate: 31.77–56.5 kHz

Macintosh, VGA, and SVGA compatible



**Cable Connector**

15-pin miniature D-type

Input Signals

Video: red, green, and blue analog signals; RS-343A standard;
.714 V peak to peak; positive-going

Sync on green: RS-343A compatible level; $.286 \text{ V} \pm 10\%$
negative-going during blanking intervals

Separate Sync: 1 to 5 V peak to peak; negative- or positive-going

Composite Sync: 1 to 5 V peak to peak; negative- or positive-going





System Requirements

Power Macintosh, Macintosh Centris, Macintosh Quadra, some Macintosh Performas, or any NuBus compatible Macintosh with a Macintosh Display Card 24AC.

Macintosh II family, PowerBooks, Duo and Mini Dock, some Macintosh Performa, Macintosh LC, LC II, LC III, and Macintosh computers with Display Cards 4•8, 8•24, or 8•24GC installed work in 640x480 mode. Other modes possible with additional adapters.

System software version 7.1 or later





Controls and Ports

User Controls

Front panel: power, brightness and contrast controls

Additional controls available using the command button: horizontal and vertical shift, horizontal and vertical size, zoom and reset

Automatic degauss at power on; manual degauss by turning power switch off, then on (capable of full degauss after monitor is turned off for 20 minutes or more)

I/O Ports

Headphone/Speaker: One input and one pass-through port





Physical and Electrical

Power Supply

Voltage: 90–134 and 198–260 VAC, self-configuring

Frequency: 47–63 Hz

Power: 90 W maximum

Size and Weight

Height: 16.5 in. (424 mm)

Width: 15.8 in. (405 mm)

Depth: 17.6 in. (452.3 mm)

Weight: 31 lb. (14 kg)

Monitor Stand

Built-in, tilt-and-swivel stand





Environmental

Temperature

Operating: 50°F–104°F (10°C–40°C)

Storage: 32°F–140°F (0°C–60°C)

Shipping: -4°F to 151°F (-40°C to 65°C)

Altitude

Operating: to 10,000 ft. (3,000 m)

Shipping: to 15,000 ft. (4,500 m)

Humidity

Operating: 20–95% maximum, noncondensing

Storage: 5–90% maximum, noncondensing

Shipping: 5–95% maximum, noncondensing

Power Savings Feature

Conforms to the Energy Star Program of the United States
Environmental Protection Agency





Troubleshooting

Apple Multiple Scan 15 Display





General

The Symptom Charts included in this chapter will help you diagnose specific symptoms related to your product. Because cures are listed on the charts in the order of most likely solution, try the first cure first. Verify whether or not the product continues to exhibit the symptom. If the symptom persists, try the next cure. (Note: If you have replaced a module, reinstall the original module before you proceed to the next cure.)

If you are not sure what the problem is, or if the Symptom Charts do not resolve the problem, refer to the Flowchart for the product family.

For additional assistance, contact Apple Technical Support.





Symptom Charts

No Raster

No raster, LED off

- 1 Check power cord connection.
- 2 Replace power cord.
- 3 Return monitor to Apple.

No raster, LED on

- 1 Adjust contrast and brightness controls. See Adjustments chapter.
- 2 Verify that video card in computer is working properly.
- 3 Return monitor to Apple.





Geometry

Raster too short, tall,
narrow, or wide

- 1 Adjust vertical and horizontal size. See Adjustments chapter.
- 2 Reset controls to factory settings. See Adjustments chapter.
- 3 Turn off Zoom feature. See Adjustments chapter.
- 4 Return monitor to Apple.

Raster not centered

- 1 Check that distortion is not due to environmental conditions.
Move monitor.
- 2 Adjust vertical and horizontal center controls. See
Adjustments chapter.
- 3 Return monitor to Apple.





Video

Screen dark or appears dim

- 1 Adjust brightness. See Adjustments chapter.
- 2 Energy Saver option may be activated. Move mouse or press any key to reactivate monitor.
- 3 Return monitor to Apple.

Screen flickers

- 1 Check that distortion is not due to environmental conditions. Move monitor.
- 2 Move monitors at least 16 inches apart if using more than one monitor on computer.
- 3 Return monitor to Apple.

No colors appear on screen

- 1 Check to make sure that number of colors is set correctly on Monitors control panel.
- 2 Return monitor to Apple.





Miscellaneous

Indicator light goes out before adjustments are finished

Do not pause for more than 10 seconds while adjusting controls. If you pause for 10 seconds, monitor assumes you are finished.

No sound from the computer

- 1 Disconnect sound output cable or headphones from sound output port.
- 2 Replace sound cable.
- 3 Return monitor to Apple.





Adjustments

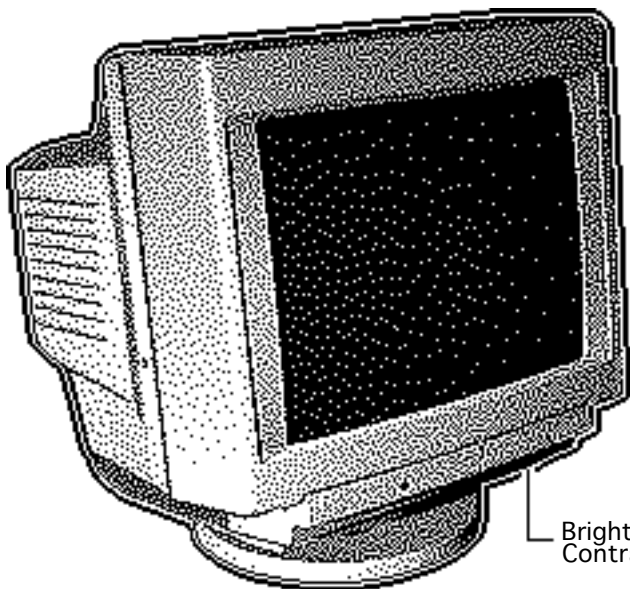
Apple Multiple Scan 15 Display





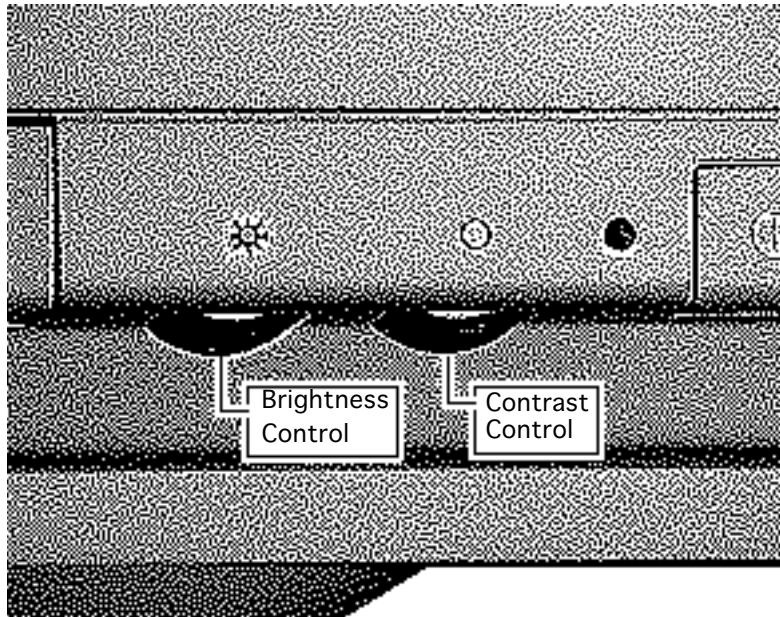
Brightness and Contrast

No preliminary steps are required before you begin this procedure.



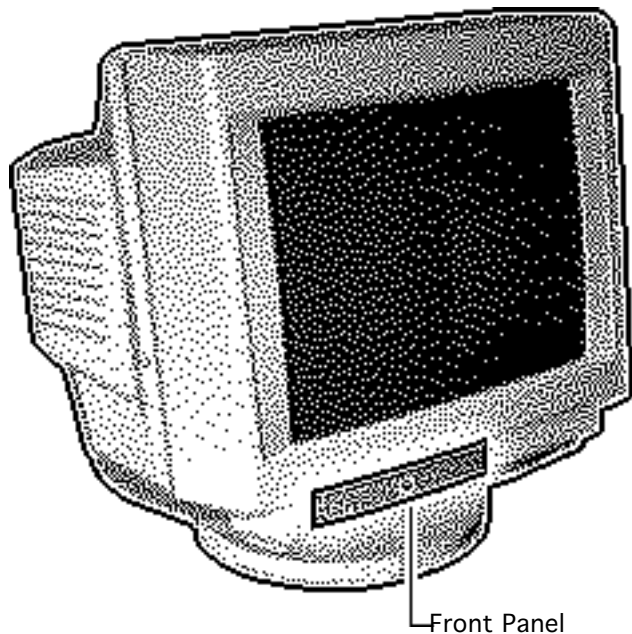
Brightness and Contrast Controls





- 1 Move the brightness control to increase or decrease brightness.
- 2 Move the contrast control to increase or decrease contrast.





Geometry

No preliminary steps are required before you begin this procedure.

Note: Monitor controls are set at the factory. You can fine-tune the picture and make adjustments by using the front panel controls. The monitor will use your settings at each power on. (See “Factory Settings” in this chapter to recall factory settings).

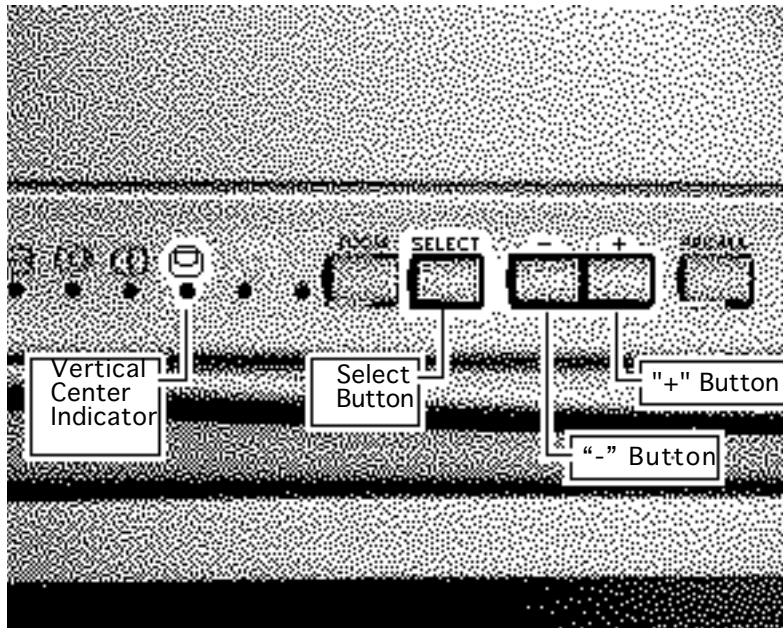
Open the front panel.





Vertical Center

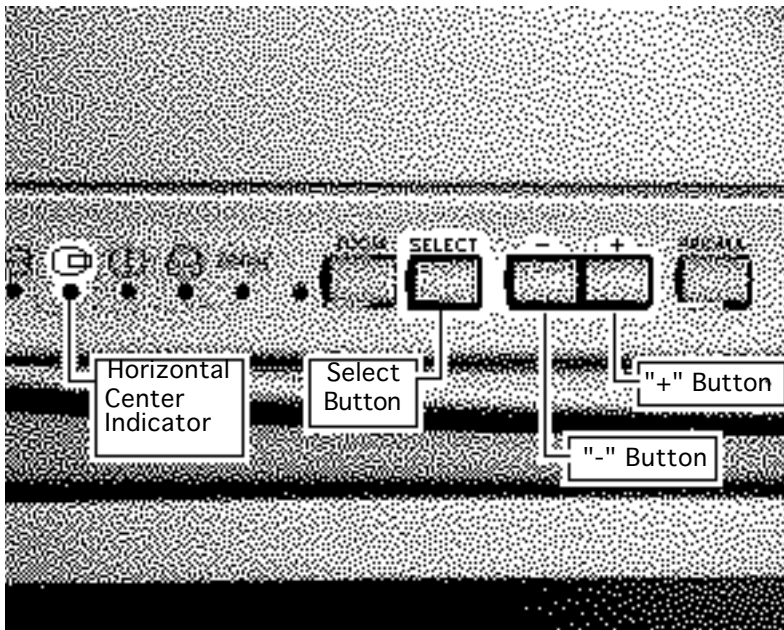
- 1 Press and hold down the select button until the vertical center indicator light goes on; then release the button.
- 2 Press the “-” button to move the center of the picture down.
- 3 Press the “+” button to move the center of the picture up.





Horizontal Center

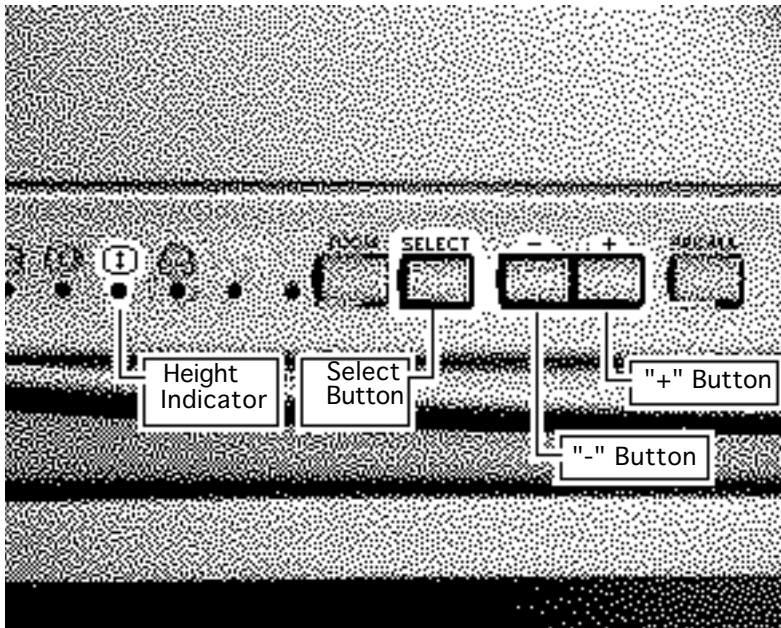
- 1 Press and hold down the select button until the horizontal center indicator light goes on; then release the button.
- 2 Press the “-” button to move the center of the picture to the left.
- 3 Press the “+” button to move the center of the picture to the right.





Vertical Size

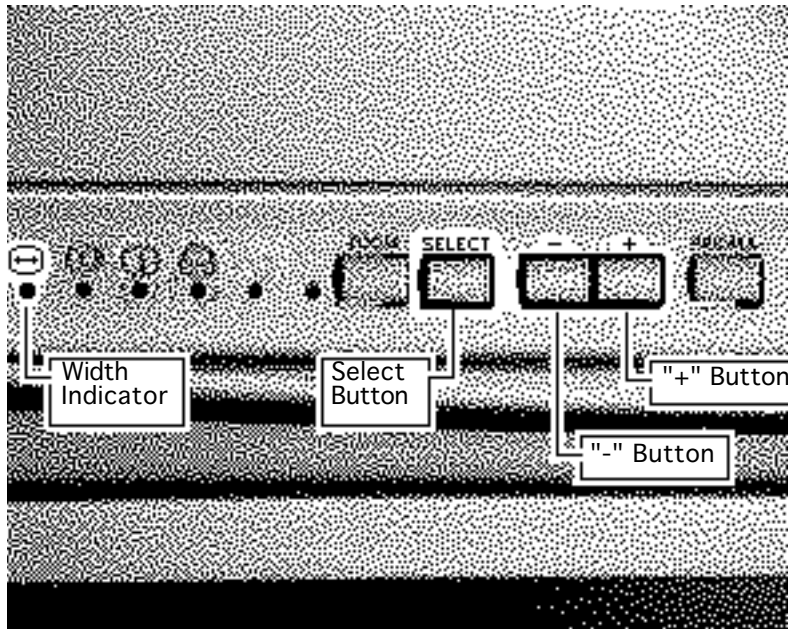
- 1 Press and hold down the select button until the height indicator light goes on; then release the button.
- 2 Press the “-” button to reduce the height of the picture.
- 3 Press the “+” button to increase the height of the picture.

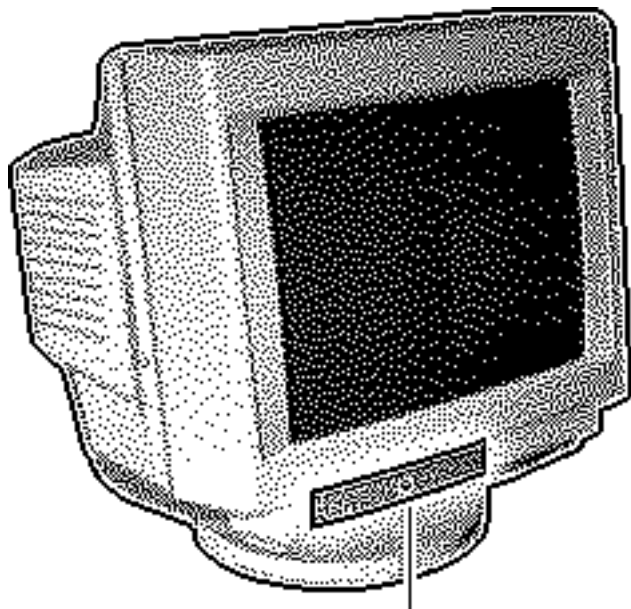




Horizontal Size

- 1 Press and hold down the select button until the width indicator light goes on; then release the button.
- 2 Press the “-” button to reduce the width of the picture.
- 3 Press the “+” button to increase the width of the picture.





Front Panel

Zooming

No preliminary steps are required before you begin this procedure.

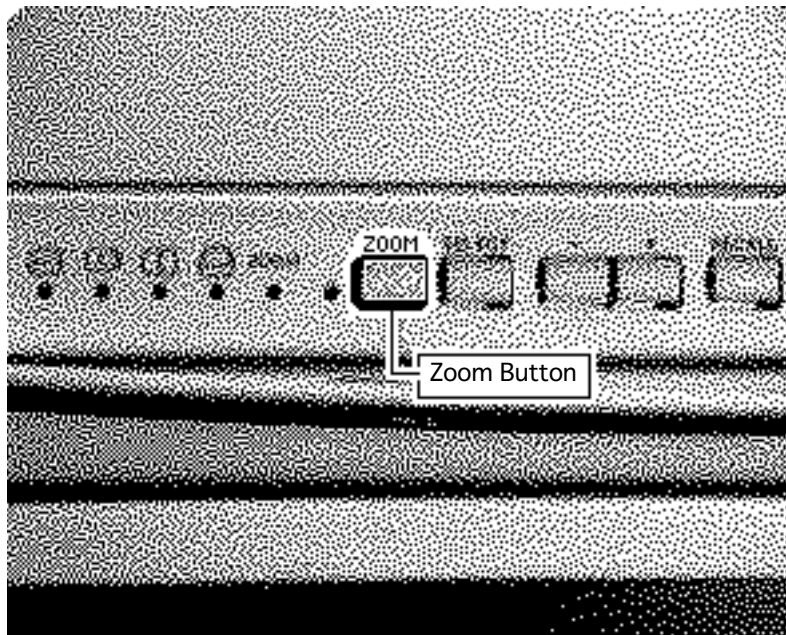
Note: Zooming adjusts the picture so that it fills the entire screen. The process removes any black borders around the picture.

- 1 Open the front panel.





- 2 Press the zoom button.
- 3 To return to normal size, press the zoom button again.



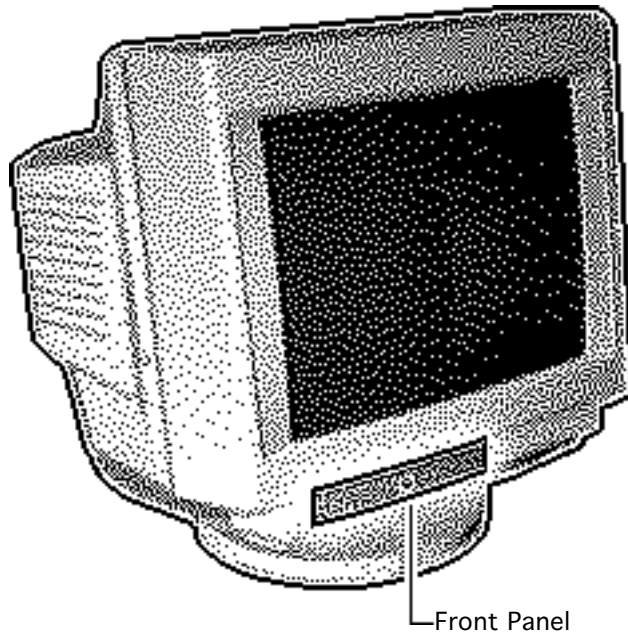


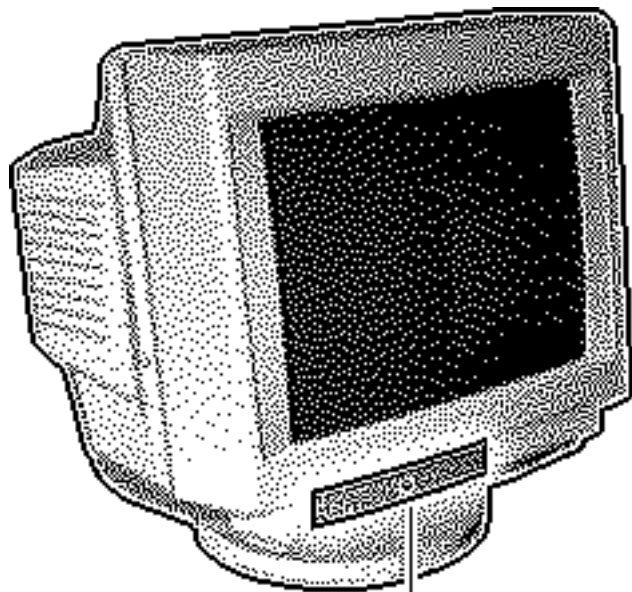
Factory Settings

No preliminary steps are required before you begin this procedure.

Note: The controls for the monitor are set at the factory. You can fine-tune the picture and make adjustments to the settings using the front panel controls. The monitor will use your settings each time the computer is turned on.

If you do not permanently overwrite the factory





Front Panel

settings (as shown in “Replacing Factory Settings” in this chapter), you can use the recall function to return to factory settings.

Open the front panel.

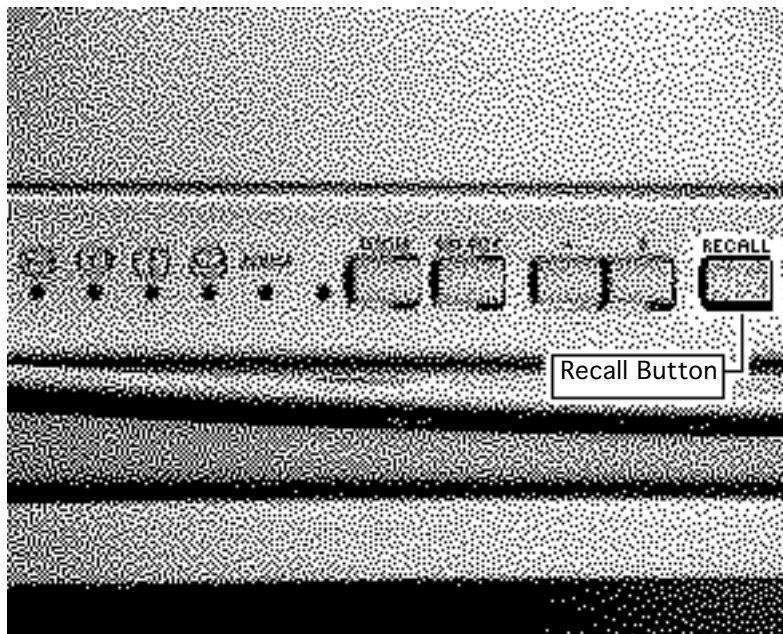




Recall

Note: Turn off zooming before pressing the recall button.

Press the recall button to return to the factory settings.

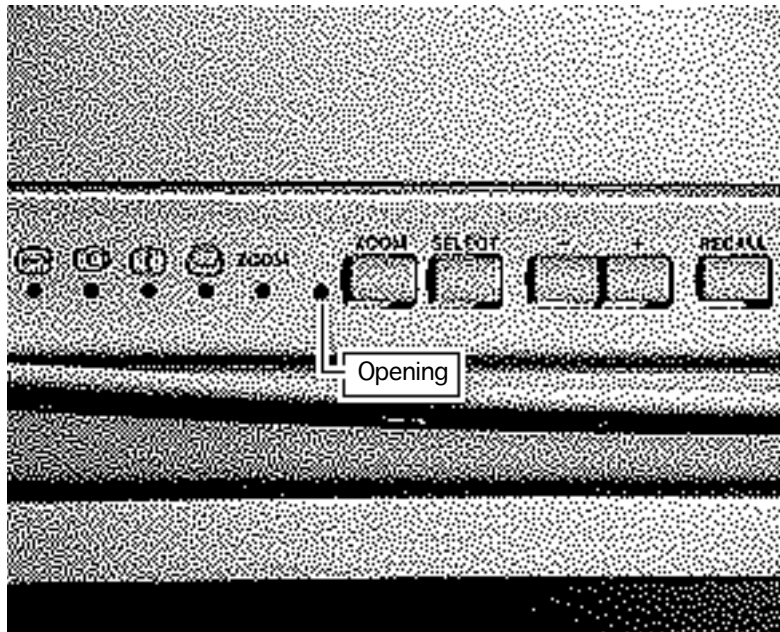




Replacing Factory Settings

Note: After changing the settings of the monitor, you can permanently replace the original factory settings with your own.

- 1 Set the controls on the monitor to the desired settings.
- 2 Insert a pen or straightened paperclip into the opening to the left of the zoom button. The new settings are now





stored permanently in the monitor's memory.

Important: The original factory settings are now permanently replaced with the current settings. You cannot recall the original factory settings. Pressing the recall button only restores the last settings you stored.

