

Installing and Using The VR315 Monochrome Monitor

Order Number EK-VR315-IN-001

Digital Equipment Corporation

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About This Manual

VR315 Video Monitor

The VR315 video monitor is a monochrome monitor with a direct-view antiglare screen and an auto-ranging power supply for worldwide operation. Its built-in tilt-swivel stand lets you adjust the screen for your viewing comfort. When connected to a host system, the VR315 can display information sent by the host.

Before You Start

This guide describes how to install, operate, and maintain your VR315 monitor. You do not have to know a lot about computers to install the monitor. Follow the steps in sequential order. No tools are required.

The kind of host system you have affects the way you prepare to operate your monitor. Check the host system package for the following:

- Video cable
- Keyboard
- Mouse (if ordered)
- Power cord

Conventions

This document uses the following conventions:

Convention	Meaning
CAUTION	Provides information to prevent damage to the equipment.
NOTE	Provides general information.
WARNING	Provides information that relates to personnel safety.
❶	Refers to a number in a black circle in an illustration.

1

Unpacking

Unpacking the Boxes

Identify each box.

If any box or item inside a box is missing or damaged, contact your salesperson and your delivery agent.

NOTE

The monitor power cord comes with the host system.

IMPORTANT: Save the opened boxes and the packing material in case you need to return the monitor for any reason.

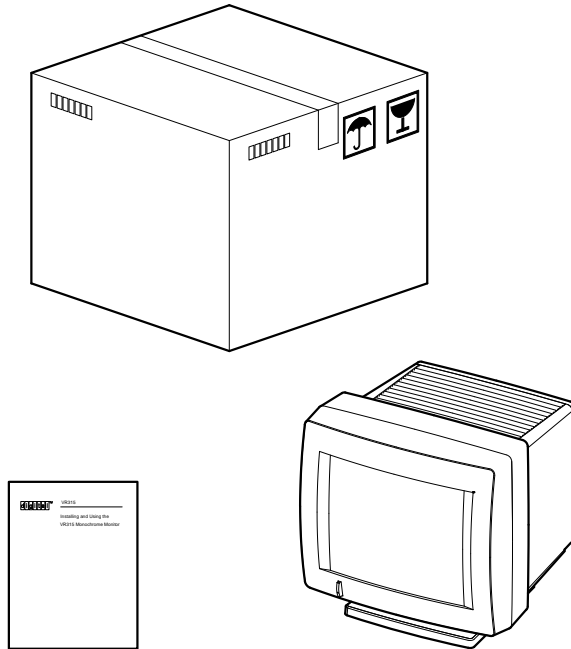
1-2 Unpacking

Unpack the monitor box.

The contents of the monitor box consists of the VR315 monochrome monitor and this manual. The VR315 monitor comes in two models:

Model Number	Applicable Area
VR315-DA	Northern Hemisphere
VR315-D4	Southern Hemisphere

Place the monitor on a level surface. The monitor weighs approximately 13 kg (29 lbs). If needed, use two people to lift the monitor.



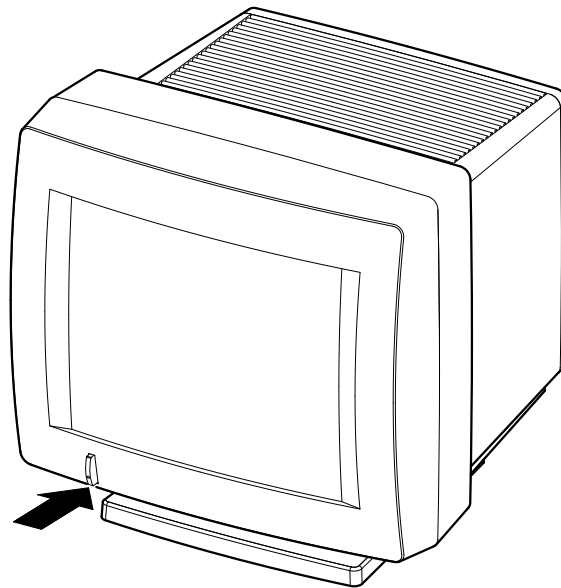
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2

Installation

Installing the Monitor

Make sure the power switch is in the out position (off).



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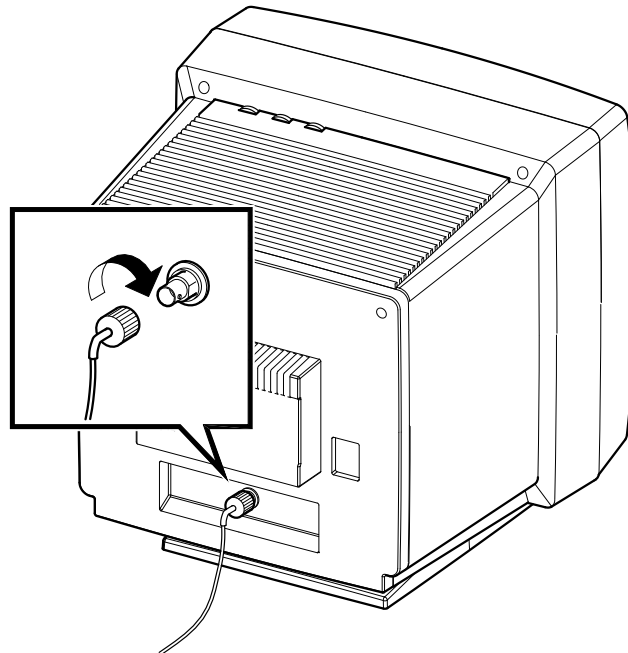
2-2 Installation

Connect the video cable to the monitor.

NOTE

**The video cable is shipped with your host system.
(A sample video cable is shown below.)**

1. Push the video cable into the connector on the monitor and turn right until it clicks and locks in place.
2. Connect the other end of the cable to the system.



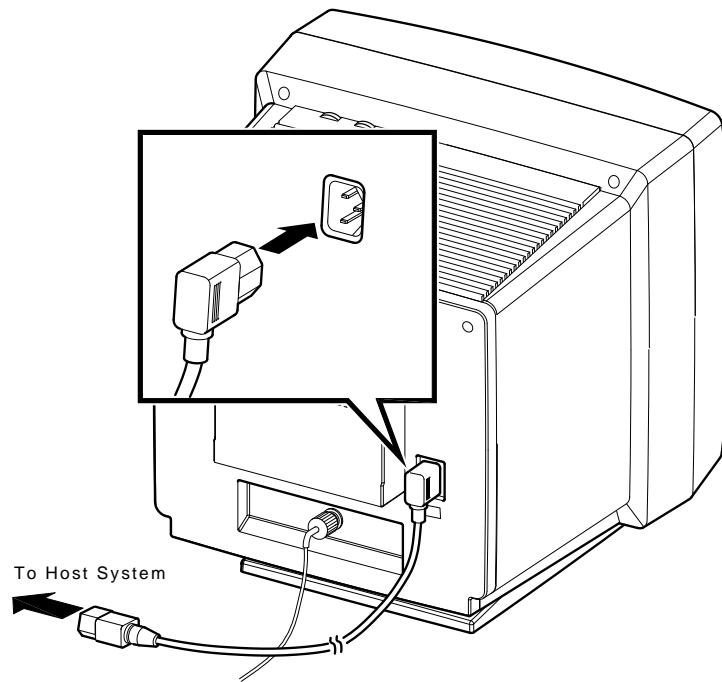
MA-1293-89.DG

Connect the power cord.

NOTE

The power supply automatically selects the correct voltage.

1. Plug the power cord **firmly** into the power connector on the back of the monitor.
2. Connect the other end of the power cord to the power source, such as the host system.



3

Operation

Controls and Indicators

CAUTION

To avoid damage to the monitor, allow a cold monitor to warm to room temperature before turning it on.

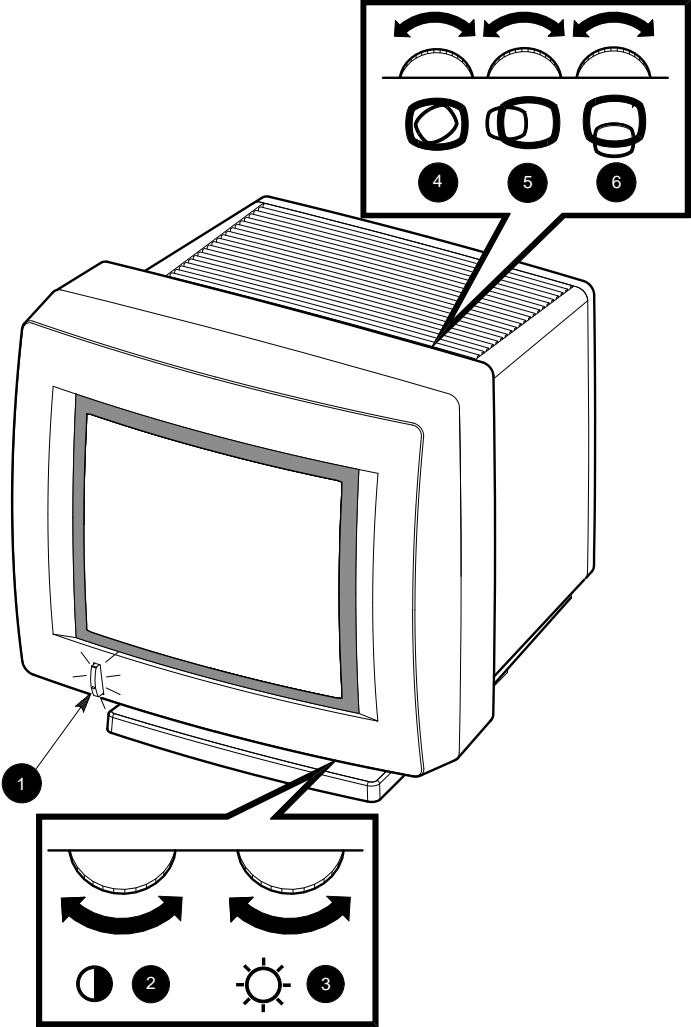
Identify monitor controls and power indicator.

Use Table 3–1 and the next illustration to identify the monitor controls and power indicator.

Table 3–1 Monitor Controls and Indicators

Item	Control/Indicator	Function
①	Power switch/ indicator	Turns the power on and off. When the power is on, the switch is lit up. For extended monitor life, switch the power off when not in use.
②	Contrast	Adjusts the video display intensity.
③	Brightness	Adjusts the video background intensity.
④	Rotation	Rotates the video display area.
⑤	Horizontal centering	Adjusts the horizontal position of the active area with respect to the bezel.
⑥	Vertical centering	Adjusts the vertical position of the active area with respect to the bezel.

3-2 Operation



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Monitor Controls and Indicator

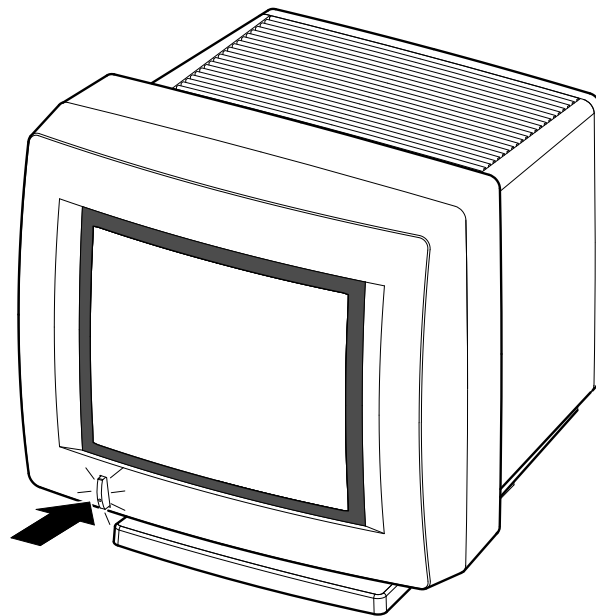
Turn the system power on.

Make sure your host system is on; then, push in the video monitor power switch.

The power switch should light up. Wait about 20 seconds for a video display.

NOTE

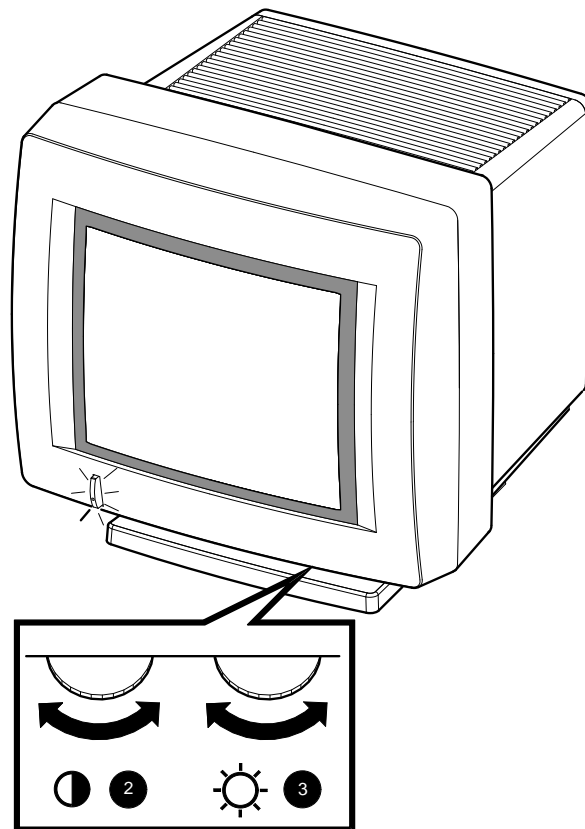
If the video display is not visible within 20 seconds, or if the switch does not light up, refer to Chapter 4 of this manual.



Adjustments

Adjust the contrast and brightness controls.

1. Set the contrast ② and brightness ③ controls to the right to their maximum level.
2. Decrease the brightness just until the background intensity or raster disappears.
3. Adjust the contrast to your viewing preference.



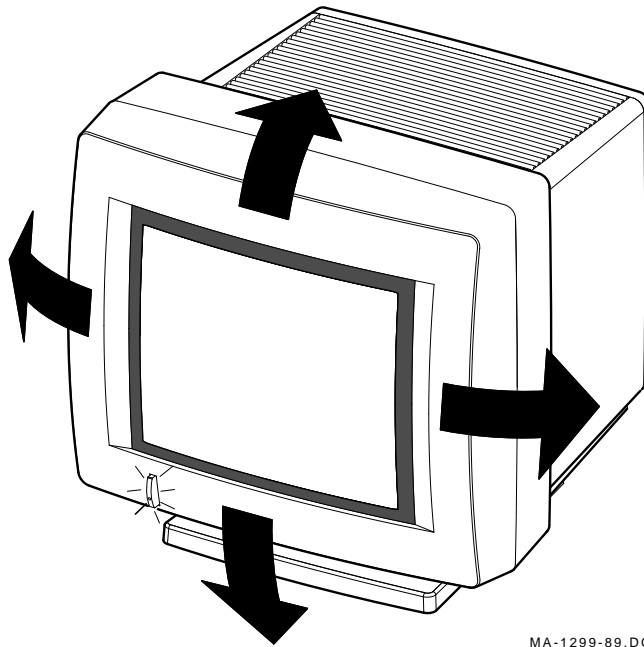
Adjust the tilt-swivel stand.

CAUTION

The monitor does not swivel in a complete circle. If you try to swivel the monitor in a complete circle, you could damage the base.

You can swivel the monitor about its base and still maintain the tilt angle.

While holding the monitor base, pull up or push down on the bottom of the bezel to adjust the tilt angle, using a side-to-side swivel motion to aid the tilting effort.



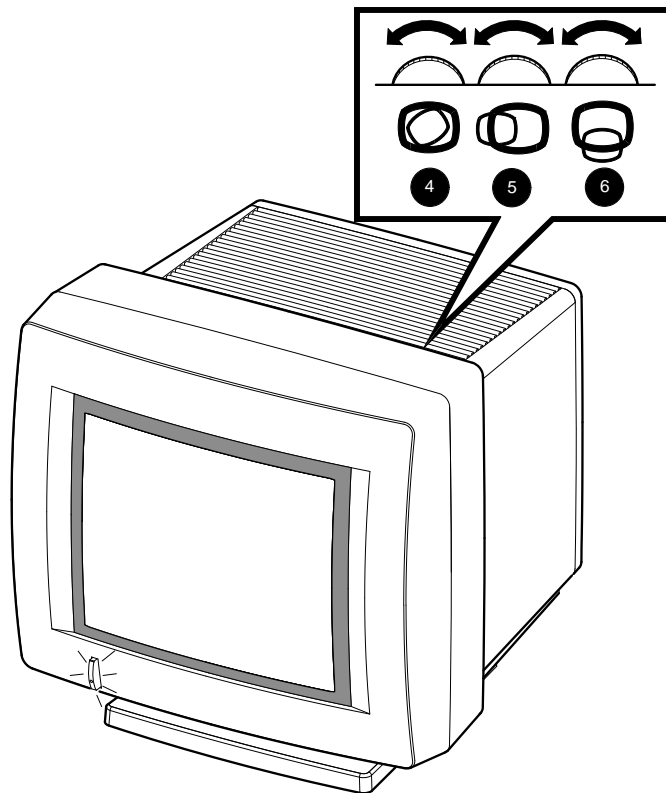
MA-1299-89.DG

Adjust the rotation and centering controls.

NOTE

Due to the earth's magnetic field, the active area of the video display may shift slightly when the monitor is rotated or moved from one place to another.

- If necessary, adjust the rotation control **4** for a level display.
- If necessary, adjust the horizontal centering **5** and vertical centering **6** controls for a centered display.



4

Maintenance

Cleaning the Screen

Before cleaning the screen, turn the monitor power switch off and wait 20 seconds to let static electricity dissipate.

Clean the screen with a good quality, nonabrasive, nonflammable glass cleaner, or a video screen cleaner (Digital part number VT3XX-SC).

Identifying and Correcting Problems

Table 4–1 will help you determine if the problem is in the monitor or in a source external to the monitor. The following devices can be sources of problems:

- Host video cable
- Host system
- Nearby power or electrical sources

If you have a problem with the monitor, follow these steps:

1. Note the symptoms of the problem.
2. Check your symptoms against the Symptom column in Table 4–1.
3. Check the cause(s) for that symptom in the Possible Cause column. If the column contains more than one possible cause, check the possible causes and their suggested solutions in the order listed.
4. Follow the steps in the Suggested Solution column.

Table 4-1 Identifying and Correcting Problems

Symptom	Possible Cause	Suggested Solution
Power indicator does not light up when you turn the monitor on.	Power cord is not connected to the power source or the monitor.	Turn the monitor power switch off. Reconnect the power cord to the power source and the monitor. Turn the monitor power switch on.
	There is no power at the wall outlet.	Use a functional outlet.
	Monitor is faulty.	Turn the monitor power switch off. Contact Customer Services.
Screen is blank, but power indicator is on.	Host system screen saver feature is activated.	Press any key to reactivate the display.
	Brightness and contrast controls are set too low.	Increase the brightness and contrast control settings. A raster should be displayed.
	Host system power switch is not on.	Turn the host system power switch on.
	Signal cable is not connected to the monitor or the host system.	Refer to Chapter 2 of this manual and the host system documentation to reconnect the cable.
	Monitor or host system is faulty.	Turn the monitor power switch off. Contact Customer Services.
Raster can be displayed using the brightness control, but no video or cursor can be seen using the contrast control.	Screen saver is activated.	Press any key on the keyboard to reactivate the display.
	Monitor or host system is faulty.	Turn the monitor power switch off. Contact Customer Services.

Table 4-1 (Cont.) Identifying and Correcting Problems

Symptom	Possible Cause	Suggested Solution
Screen display is distorted or rolling.	Electromagnetic interference is coming from other appliances.	Move any electromechanical device, such as a fan, a motor, or an electric pencil sharpener, away from the monitor or move the monitor.
CAUTION		
Before moving the monitor, turn the monitor off and wait 20 seconds to let static electricity dissipate.		
	Monitor is faulty.	Turn the monitor power switch off. Contact Customer Services.
Display area is not centered on the screen.	An improper rotation or centering adjustment is made, or there is magnetic interference.	Use the horizontal, vertical, and rotational adjustments to adjust the display area.
	The monitor is faulty.	Turn the monitor power switch off. Contact Customer Services.

NOTE

If you perform all the suggested solutions and the problem still exists, refer to the "Service" section in your host system owner's manual. If that does not work, refer to Chapter 5 of this manual for service options.

5

Service

Digital provides a wide range of maintenance programs that cover small systems and terminals. You can use these programs to select a plan that suits your service needs.

On-Site Repair

Digital offers fast, low-cost, quality maintenance performed at your site by Digital-trained Service Specialists. There are several on-site services available which are described next.

DECservice

DECservice provides on-site service with a guaranteed response time when equipment is located within a specified distance of the service facility. DECservice guarantees a continuous repair effort until service is restored. You can choose the hours of coverage, up to 24 hours a day, 7 days a week.

BASIC Service

BASIC service provides on-site service during regular business hours, Monday through Friday.

Site Servicenter

The Site Servicenter repair service provides an on-site technician for a predetermined, periodic time interval, if you have at least 50 terminals or small systems and can provide workspace at your site. This repair service is provided for a variety of models.

Per Call

The Per Call service is a noncontractual offering that provides on-site repair based on time and materials. Per Call service is available during regular business hours, Monday through Friday.

5-2 Service

DECall

DECall provides similar service to Per Call service; however, you pay a fixed fee per call with an annual retainer fee.

Off-Site Service

Digital also provides several options for off-site service which are described next.

Carry-In Servicenters

Digital Carry-In Servicenters are located in major cities around the world. They offer convenient, cost-effective repair service with a 48-hour turnaround time. Both contract and Per Call coverage is offered.

DECmailer

DECmailer provides mail-in service for module and subassembly repairs. DECmailer provides a five-day turnaround time.

How To Get Service

Digital has a central service center in your area to help you keep your system running efficiently. To find out more about Digital's hardware and software service offerings:

In the United States

Call 1-800-554-3333

Worldwide

Contact your local Digital Customer Services office.

6

Specifications

Dimensions

Height	38 cm (15 in)
Width	38 cm (15 in)
Depth	39.6 cm (15.58 in)

Weight 13 kg (29 lb)

Tilt Range 20° (5° forward, 15° backward)

Swivel Range ± 90° (left and right)

Display

Cathode ray tube (CRT) 38 cm (15 in) diagonal

Display Area

1024 pixels horizontal x 864 lines vertical.
Approximate picture size = 199 mm (7.8 in)
x 236 mm (9.3 in) with a 6:5 aspect ratio.

Faceplate Transmissivity

30% nominal

Video Input

Composite video, ac coupled

Video Timing

See Table 6-1.

Electrical Requirements

AC input voltage	88 to 132 Vac or 176 to 264 Vac, auto-ranging, single phase, 3-wire
Line frequency	47 to 63 Hz
Power consumption	60 watts typical

6-2 Specifications

Operating Temperature	10° to 40° C (50° to 104° F)
Humidity	10% to 95% relative humidity Maximum wet bulb = 32° C Minimum dew point = 2° C (noncondensing)

Table 6-1 Video Timing—1024 x 864 Resolution

Specification	Timing	
Horizontal frequency	64.542 kHz	
Vertical frequency	72.033 Hz	
Pixel frequency	80.290 MHz	
Pixel period	12.455 ns	

Horizontal Timing	no. pixels	µs
Entire line	1244	15.49
Active visible line	1024	12.75
Blanking interval	220	2.74
Sync front porch	12	0.1495
Sync pulse	104	1.295
Sync back porch	104	1.295

Vertical Timing	no. lines	ms
Vertical period (Entire frame)	896	13.8825
Visible raster	864	13.3867
Blanking interval	32	0.4958
Sync front porch	1	0.0155
Sync pulse	3	0.0465
Sync back porch	28	0.4338