



AT&T Color Monitor
CRT 318H

Operating Guide



AT&T Color Monitor
CRT 318H

Operating Guide

© 1985 AT&T
All Rights Reserved
Printed in JAPAN

NOTICE

The information in this document is subject to change without notice. AT&T assumes no responsibility for any errors that may appear in this document.

Interference Information: Part 15 of FCC Rules

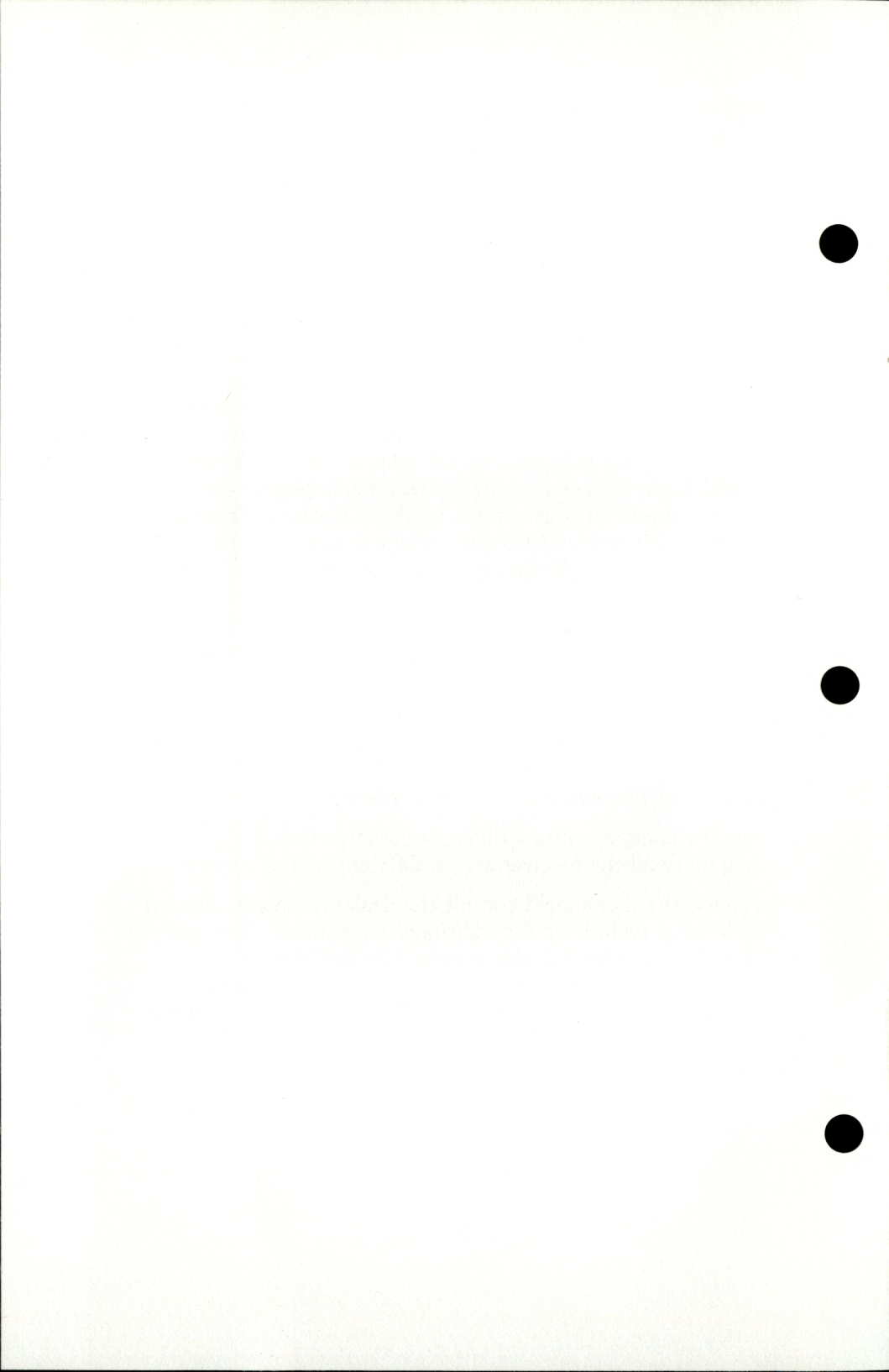
WARNING!

Federal Communications Commission (FCC) Rules require that you be notified of the following:

This equipment penetrates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, it may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. There is no guarantee, however, that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that the computer and the receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: *How to Identify and Resolve Radio/TV Interference Problems*. This booklet is available from the US Government Printing Office, Washington, DC 20042; Stock No. 004-000-00345-4.



Color Monitor CRT 318H Operating Guide

Features

The following features are provided with the AT&T Color Monitor CRT 318H:

- High resolution text and graphics
- Noninterlaced operation for flicker-free picture
- Antiglare screen for eye comfort
- Tilt and swivel base for ease of use
- Bright, 16-color display
 - The 318H has unusually fine display capabilities with a resolution of 640 x 400 picture elements (pixels), compared to the industry standard of 640 x 200. Without the use of the AT&T Display Enhancement Board (DEB), however, it will only display in four colors. The 318H **must** be connected to the DEB to display in 16 colors and produce images of near photographic quality.

Power Source

The 318H is designed to operate on 100/120V, 60 Hz ac power. Do not connect the display to other than the specified voltage. The monitor is equipped with a 3-prong grounding-type plug. This plug will accommodate a grounding-type power outlet only, which is a safety feature.

The power cable may be plugged into the power outlet on the back of the system module of the AT&T PC 6300 or compatible workstations.

Caution

Never remove the back cover of the 318H because this can expose you to very high voltages and other hazards. If the monitor does not operate properly, unplug the power cord and call your dealer.

WARNING

As conditions of compliance to FCC rules part-15, subpart J, the following installation conditions must be observed.

1. Use only the shielded AC power cable supplied with the monitor.
2. Connect the shielded AC power cable to the monitor only to the AC power outlet supplied on the back of the CPU.
3. Use only the shielded video cable supplied (permanently attached) with the monitor to connect to the video connector of the CPU.

Safety Precautions

The following precautions should be kept in mind when using or maintaining the Color Monitor CRT 318H:

- Do not store the power cord under the monitor or it may become damaged. Be sure to pull the power cord out by holding the plug without holding the power cord.
- When the power voltage is outside the design value, it may cause trouble or it may not allow optimal performance.
- When water or any other liquid enters the monitor, it becomes dangerous to use. Pull the power cord out immediately and contact your dealer.
- Ventilation holes are provided in the cabinet of the monitor to prevent the internal temperature from rising. Do not use the monitor in a poorly ventilated room, cover it with a cloth, or place it on carpeting, which clogs some of the ventilation holes.
- Do not place the monitor in direct sunlight or near heat-producing appliances.
- The picture tube is made of glass and can be broken by dropping or crushing the monitor.
- When the monitor emits any abnormal sound, odor, or smoke, turn the power switch off, pull the power cord from its socket, and contact your dealer.
- Any item dropped through one of the ventilation holes may cause damage such as an electric shock or fire.
- Do not place the monitor in a room where there is high humidity or a great deal of dust.
- Be sure to remove the power cord from its socket if you will not be using the monitor for a few days.
- Do not wipe the surface of the monitor with such chemicals as benzine or thinner or with any chemically treated cloths; this will cause the paint to peel. Stains may occur if any vinyl product is kept in contact with the surface of the monitor for an extended period.

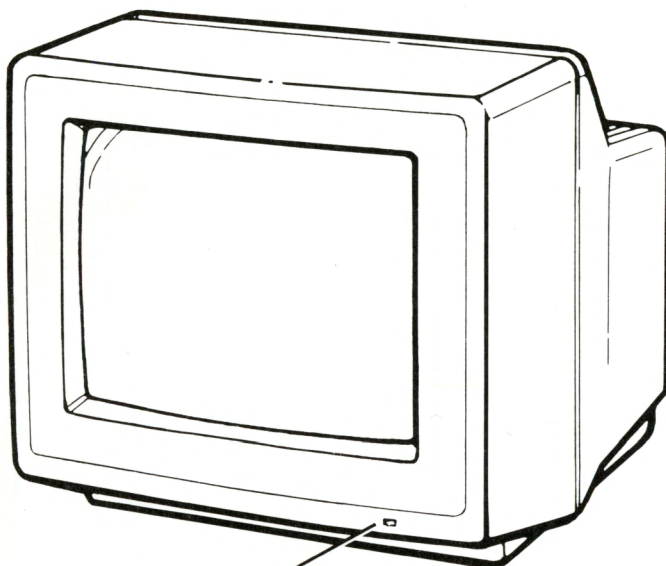
- You may feel electricity when you touch the picture tube. It is static-electrified but is not harmful.

Note

When any trouble occurs, immediately contact the dealer from whom you purchased the monitor.

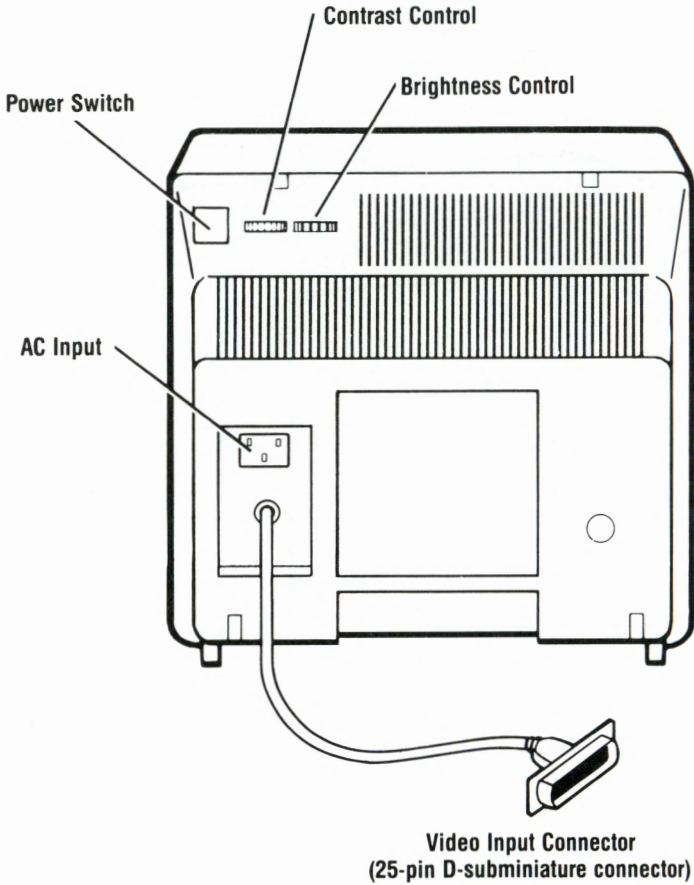
Location of User Controls

FIGURE 1 Front View of the Color Monitor CRT 318H



Power Indicator
(This lights when the power is ON.)

FIGURE 2 Back View of the Color Monitor CRT 318H



Operation

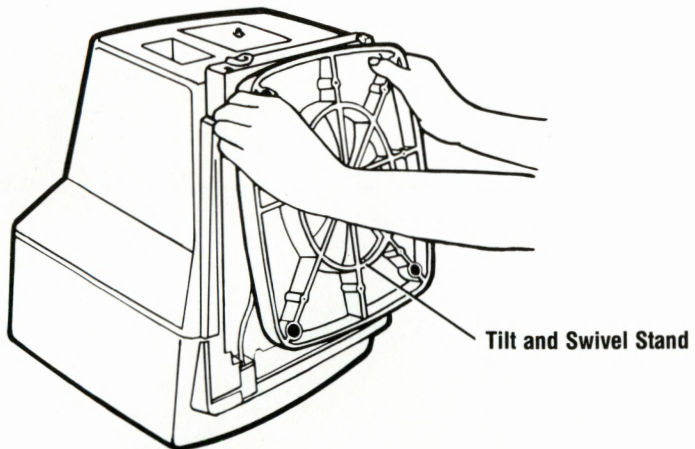
The steps below describe the general operation of the Color Monitor CRT 318H.

- 1 Turn the power on.
 - Press the power switch on the back of the 318H to turn the power on. To turn the power off, press this switch again. If your monitor is plugged into the back panel of the system module of a PC 6300, the computer must be turned on to power the monitor.
- 2 Adjust the contrast and brightness.
 - The contrast and brightness should be adjusted according to the brightness of the room. Rotate the control knobs clockwise to increase contrast and brightness.

Tilt and Swivel Stand

The 318H comes equipped with a tilt and swivel stand that allows you to set it at any desired angle.

FIGURE 3 Tilt and Swivel Stand



Video Input Signal

Recommended signals are shown below.

Signal Level

Video Input R, G, B, I
TTL Level

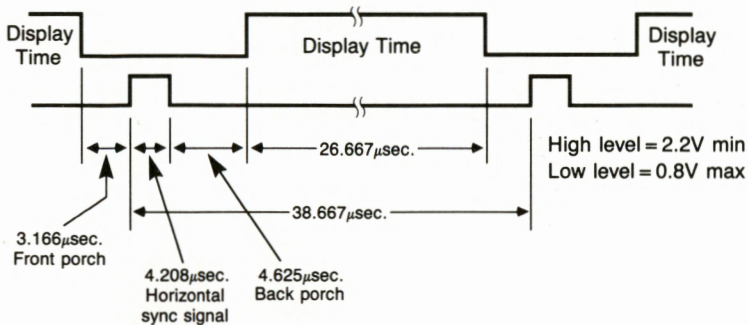
Sync Input Horizontal Sync,
Vertical Sync,
TTL Level

Wave Form

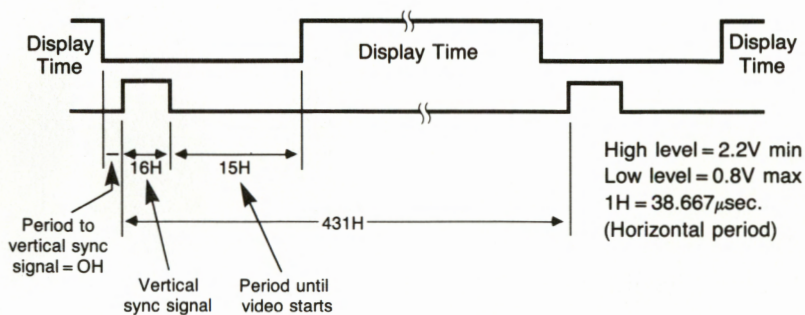
Video Input (R, G, B, Intensity)



Horizontal Sync



Vertical Sync

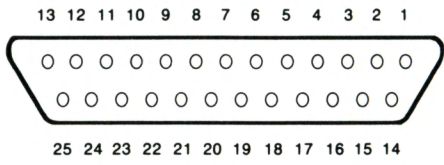


Video Input Connector

TABLE 1 25-Pin D-Subminiature Connector

<u>Pin Number</u>	<u>Connection</u>
1	Horizontal Sync
2	SG*
3	Vertical Sync
4	Red
5	Green
6	Blue
7	Intensity
8	NC*
9	NC
10	NC
11	NC
12	NC
13	Degauss
14	SG
15	SG
16	SG
17	SG
18	SG
19	SG
20	NC
21	NC
22	NC
23	NC
24	NC
25	NC

*SG = Signal Ground; NC = Nonconnection



When signals other than the recommended ones are received, their causes are listed in the table below.

TABLE 2 Problem Chart

Problem	Cause
Picture is too wide	Data display period is more than 26.666 usec
Picture is too narrow	Data display period is 26.666 usec or less
Picture is too far to the right	Value reduction of front porch from back porch is 1.5 usec or more
Picture is too far to the left	Value reduction of front porch from back porch is 1.5 usec or less
Picture is too short	Vertical flyback period is 31H or more
Picture is too high	Vertical flyback period is 31H or less
Picture is too far to the top	Value reduction of front porch from back porch is 15H or less
Picture is too far to the bottom	Value reduction of front porch from back porch is 15H or more
Picture flows horizontally	Horizontal sync frequency is not set to 25.862 kHz
Picture flows vertically	Vertical sync frequency is not set to 60 Hz

Specifications

- Input Signal
 - Video signal: Red, Green, Blue, Intensity channels; TTL level
 - Sync signal: Horizontal and Vertical Sync; TTL level
 - Retrace time: 10 usec max. horizontal, 1.0 msec max. vertical
 - Resolution: 640 dots max. horizontal, 400 lines (noninterlaced) vertical
 - Recommended display characters: 3960 characters (90 columns x 44 rows)
 - Display time: 26.662 usec horizontal, 15.467 msec vertical
 - Sweep frequency: 25.862 kHz horizontal, 60 Hz vertical
 - Display color: 16 colors
- Power Input: 100/120 Vac \pm 10%, 60 Hz
- Power Consumption: 80W
- Convergence: Selfconvergence
- Focus: Electrostatic
- Picture Tube: M29JHN80X (12 inch, 90 degrees)
- Input Connector: 25-pin D-subminiature connector
- Weight: 12.0 kg (approximate)
- Dimensions: 33.2 cm (width) x 29.0 cm (height) x 38.4 cm (depth)



4689323