



TTM194™

**High Resolution
Monochrome Monitor**

For use with all Atari TT
computers

Owner's Manual

IMPORTANT INFORMATION

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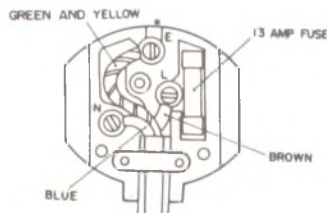
INTRODUCTION

Your new TTM194 is a fixed frequency, ECL high resolution monochrome monitor designed to display the video signal from your Atari TT computer. To obtain optimum results, spend a few minutes reading this manual carefully before you operate the monitor.

POWER CONNECTION

The monitor operates on $\approx 240V$, 50 Hz mains supply. Plug the mains to a specified outlet.

The wires in this mains lead are coloured in accordance with the following code:



If the colours of the wires in the mains lead of the monitor do not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire coloured GREEN/YELLOW must be connected to the terminal in the plug marked by the letter E or by the safety earth symbol ⏏ , or coloured GREEN, or GREEN/YELLOW.

The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured RED.

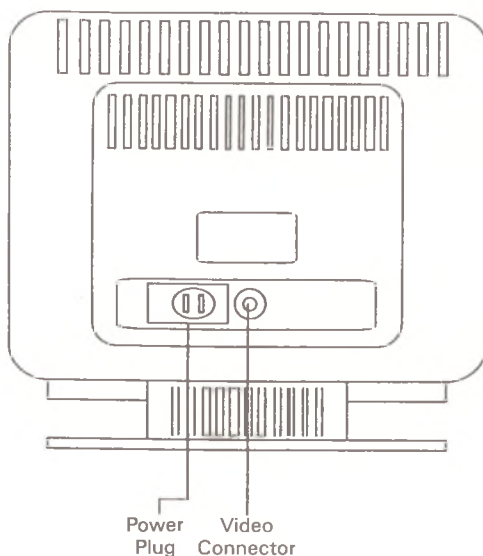
If a 13 Amp (BS1363) plug is used, a 3 Amp fuse must be fitted, or if any other type of plug is used, a 3 or 5 Amp fuse must be fitted either in the plug, adaptor, or on the distribution board.

Warning: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

CONNECTING AND OPERATING THE MONITOR

To connect the monitor to your TT, use the following procedure:

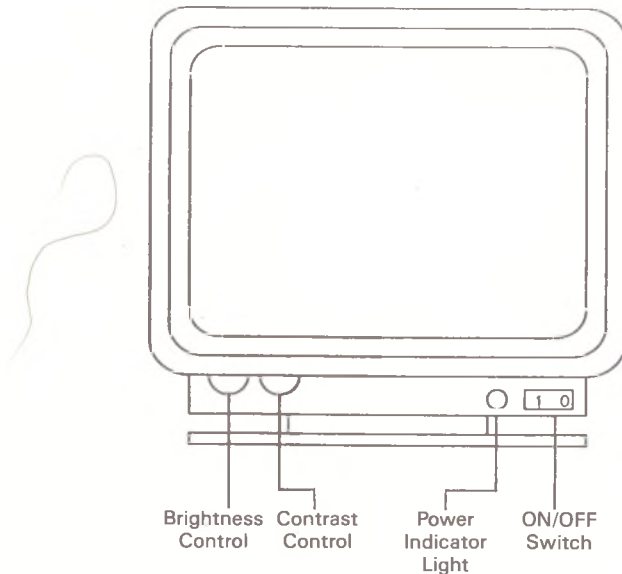
1. Before connecting the monitor to the TT, turn off all power to the equipment.
2. Connect the signal cable on the monitor (use the 9-pin D-sub type), then connect the cable to the connector on the back of your TT (a 15-pin D-sub type connector) as described in your Atari TT owner's manual.



3. Plug the mains into the monitor. Then plug the other end of the mains into a properly grounded power outlet.
4. Press the power switch to 1 (ON). The power indicator lights. Always switch the monitor on first, then switch on the TT.
5. Use the Brightness and Contrast controls to adjust the screen image.

Contrast Control - To increase the contrast, turn clockwise.

Brightness Control - To increase the brightness, turn clockwise.



IMPORTANT SAFEGUARDS

This unit has been engineered and manufactured to assure your personal safety. Improper use can result in potential electrical shock or fire hazards.

Observe the following basic rules for installation, use, and servicing. Follow all warnings and instructions marked directly on the colour monitor.

Installation

1. Use only the mains supplied with the unit.
2. Operate the monitor only from a power source indicated in the specifications of this manual or listed on the monitor. If you are not sure what type of power supply you have in your home, consult your Atari dealer or local power company.
3. Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your Atari dealer for replacement.
4. Do not allow anything to rest upon or roll over the power cord. Do not place the monitor where the power cord is subject to damage. This may result in a shock or fire hazard.
5. Do not use this monitor near water such as a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
6. Ventilation openings in the monitor's cabinet allow the release of heat generated during operation. If these openings are blocked, built up heat can cause failures which may result in a fire hazard. Therefore, never:
 - Block the bottom ventilation slots by placing the monitor on a bed, sofa, or rug
 - Place the monitor in a built-in enclosure without proper ventilation
 - Cover the ventilation openings with cloth or other material
 - Place the monitor near or over a radiator or heat source

7. To avoid personal injury:

- Do not place the monitor on a sloping shelf unless properly secured
- Use only a stand recommended by the manufacturer
- Do not try to roll a stand with small casters across thresholds or deep pile carpets

8. To prevent fire or shock hazards:

- Always turn the monitor off if you leave the room for more than a short period of time. Never leave the monitor on when leaving the building
- Caution children about dropping or pushing objects into the monitor's cabinet openings. Some internal parts carry hazardous voltages
- Unplug the monitor before cleaning the face of the picture tube. Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the picture tube because overspray may cause electrical shock
- Do not add accessories that have not been designed for this monitor
- During a lightning storm or when the monitor is to be left unattended for an extended period of time, unplug it from the wall outlet
- Do not bring magnetic devices such as magnets or motors near the picture tube

Warning: To reduce the risk of fire or electric shock, do not expose this application to rain or moisture.

Service

1. Unplug the monitor from the electrical outlet and call your Atari dealer when:
 - The power cord or plug is damaged or frayed
 - Liquid has been spilled into the monitor
 - The monitor has been exposed to rain or water
 - The monitor does not operate normally per the operating instructions. Adjust only those controls that are covered in the operating instructions. An improper adjustment of other controls may result in damage and often requires extensive work by your Atari dealer to restore the monitor to normal operation.
 - The monitor has been dropped or the cabinet has been damaged
 - The monitor exhibits a distinct change in performance
 - Snapping or popping from the monitor is continuous or frequent while the monitor is operating. It is normal for some monitors to make occasional sounds when being turned on or off.
2. Do not attempt to service the monitor yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to your Atari dealer.
3. When replacement parts are required, have your Atari dealer verify in writing that the replacements used have the same safety characteristics as the original parts. Use of manufacturer's specified replacements can prevent fire, shock, and other hazards.
4. Upon completion of any service or repairs to the monitor, ask your Atari dealer to perform the safety check described in the manufacturer's service manual.
5. When a video monitor reaches the end of its useful life, improper disposal could result in a picture tube implosion.

SPECIFICATIONS

Power Source:

Input Voltage	220 - 240 VAC
Power Frequency	50 Hz
Power	64 Watts
Inrush Current	40 Amps peak at 240 VAC

Picture Tube

19 inch, black and white, 114° deflection

Resolution

1280 x 960 lines minute at 10 Ft-L
(P104 phophor and standard 48% anti-glare face plate)

Active Display Area

14 1/6 x 10 2/3 inches, ± 0.08
360 x 270 mm, ± 2 mm

Video:

Rise/Fall Times 3.5 nsec max. (10 - 90%)

Horizontal:

Video Blanking 3.98 μ sec Horizontal (min.)
Horizontal Scan Delay 0 - 4 μ sec Adjustable Phase Control

Vertical:

Video Blanking 55.62 μ sec Vertical (min.)

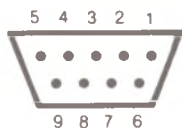
Dimension:

(H x W x D) 14.5 x 17.8 x 15 inches
(368 x 452 x 381 mm)

Weight

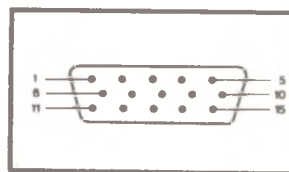
36 pounds (16.4 kilograms)

9-Pin (Female) D-Subminiature Pinout to a 15-pin (Male) High Density D-Subminiature Pinout.



**9-Pin (Female)
D-Sub**

<u>Pin #</u>	<u>Signal</u>
1	ECL Video
2	ECL Video Return (GND)
3	H Sync
4	V Sync
5	N/C (Unused)
6	XECL (Not) Video
7	XECL (Not) Video Return (GND)
8	Sync Return (GND)
9	Monitor Detect (GND)



**15-Pin (Male)
High Density
D-Sub**

<u>Pin #</u>
4
5
13
14
15
10
10
9

The twisted pairs should be as follows:

1-2 ECL Video and ECL Video Return	28AWG, 75 ohms
6-7 XECL Video and XECL Video Return	28AMP, 75 ohms
3-8 HSync and Ground	100 ohms
4-9 VSync and Monitor Detect	100 ohms

CUSTOMER SUPPORT

Atari Corporation welcomes questions about your Atari computer products. Write to:

Atari Corporation
Customer Relations
Post Office Box 555
Slough
Berkshire SL2 5BZ

Please write the subject of your letter on the outside of the envelope.

Atari User Groups are outstanding sources of information on how to get the most from your Atari computer. To receive a list of Atari User Groups in your area, send a self-addressed, stamped envelope to:

Atari Corporation
User Group List
Post Office Box 555
Slough
Berkshire SL2 5BZ

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