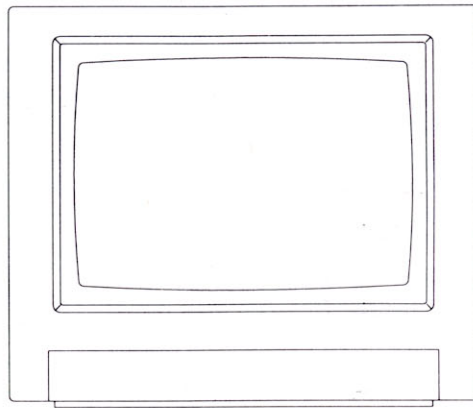


# 1084 S

High Resolution Monitor



 **Commodore**

## Radio and Television Interference

This device complies with Part 15 of the FCC Rules and Standard C108.8-M1983 of the Canadian Standards Associations Regulations. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. If you suspect this device is causing interference, you can test this device by turning it off and on. If this device does cause interference, the user is encouraged to correct the interference by one of the following means:

- Reorient the receiving antenna or AC plug.
- Change the relative positions of the computer with respect to the receiver.
- Plug the computer into a different outlet so the computer and receiver are in different branch circuits.

**CAUTION:** Only peripherals with shielded-ground cables (computer input-output devices, terminals, printers, etc) certified to comply with Class B limits can result in communications interference. Changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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## 1. Introducing your Monitor

The Commodore 1084S is a full-color, 13 inch monitor for use with the Commodore 64, Commodore 128, Commodore PC and the Amiga family of computers. The monitor provides audio output in stereo for use with computer systems with stereo capabilities (like the Amiga computers). Your 1084S operates on the National Television System Committee Standard (NTSC). This manual explains how to connect the 1084S monitor to your computer and how to use the various operating modes and picture controls.

The 1084S works in four different operating modes: Composite (NTSC standard), Separated LCA (Luma-Chroma-Audio), Digital RGBI (Red/Green/Blue Intensity), and Analog RGB. It also allows both a 40-column screen display, for use in Composite and Separated modes, and an 80-column display for Digital and Analog RGB modes. The mode you choose will depend on the type of computer you are using.

Before you proceed any further, check to make sure you have received everything:

- One 1084S monitor
- Cables:
  - For connecting an Amiga Computer -- one cable with a 23-pin D (rectangular) connector on the computer end and a 9-pin D (rectangular) connector on the monitor end (provides an Analog RGB display).
  - For connecting an Amiga's audio capabilities -- one cable with two RCA plugs on each end.
  - For connecting a Commodore PC or Commodore 128 -- one cable with a 9-pin D connector on the computer end and a 9-pin D connector on the monitor end (provides RGBI display).
  - Power cable for connecting the 1084S to an AC power source.
- Warranty card

**NOTE:** The following monitor cable is also available for use with the 1084S. This cable can be purchased from your Commodore dealer separately.

- For connecting a Commodore 128 or Commodore 64 -- one cable with an 8-pin DIN connector on the computer end and 3 phono plugs on the monitor end (provides Separated LCA display).

Except for the power supply cable, the cables included with your 1084S monitor are RF shielded cables. Be sure to use only RF shielded cables when connecting this monitor to a computer.

The chart below indicates the operating modes suitable to the type of computer you are using:

<b>Recommended Operating Mode by Computer Model</b>				
	40-Column display		80-column display	
	Composite	Separated LCA	Digital RGBI	Analog RGB
Amiga				X
Commodore PC			X	
Commodore 128		X	X	
Commodore 64	X	X		

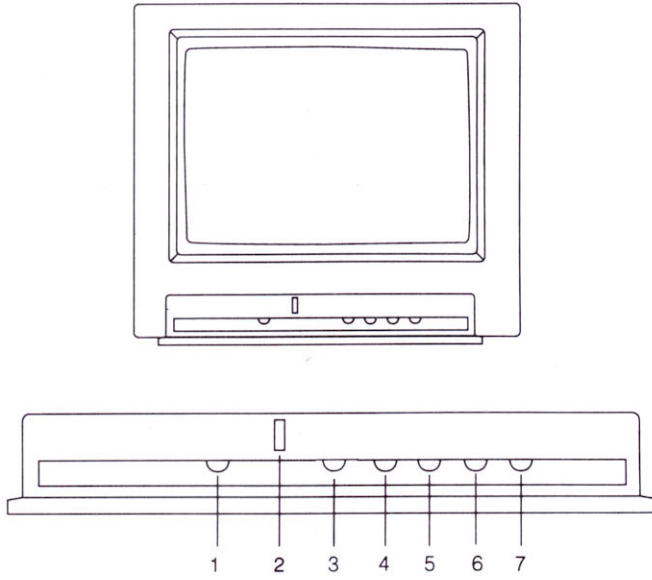
## 2. Control Locations and Functions

Before you connect your monitor to your computer, you should familiarize yourself with the location and function of the various control knobs, switches, and ports on both the front and rear of the 1084S. Because the 1084S is a universal monitor and can accommodate several types of computers, there are several ports and connectors on the monitor's cabinet. However, if you are only using your monitor with one type of computer, you will only need to use a few of the ports. (See diagram on next page.)

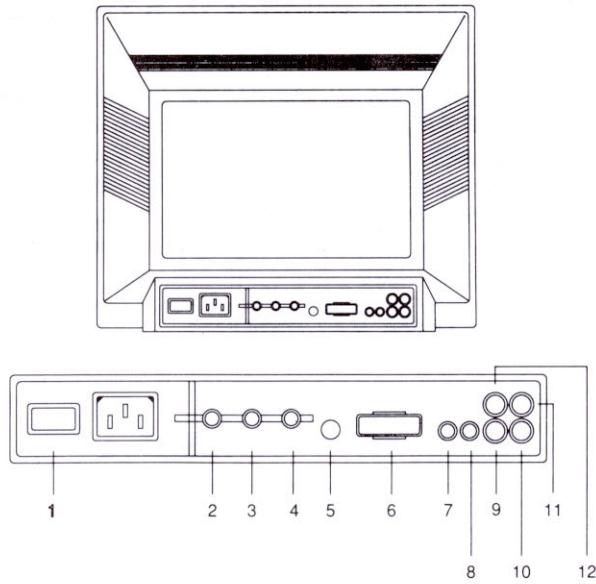
### Front View

1. VOLUME -- Adjusts the speaker's loudness.
2. GREEN -- Toggles between color display and monochrome green display (for text processing).
3. TINT -- Adjusts the red and green tints in the display.
4. COLOR -- Adjusts the color levels of the display.
5. CONTRAST -- Adjusts the display's contrast.
6. BRIGHTNESS -- Adjusts the brightness of the screen.
7. H. PHASE -- Adjusts the horizontal position of the screen.

**NOTE:** The Color Control is inactive when the 1084S is configured either for Analog RGB or Digital RGBI display.



Front view



Rear view



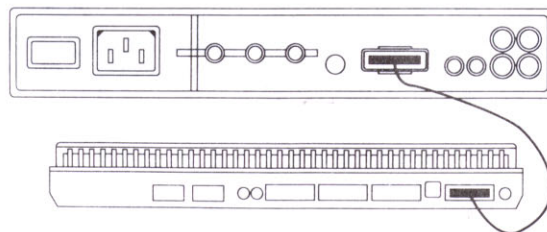
### Rear View

1. POWER Switch
2. HORIZON. SIZE -- Adjusts the image width on the screen.
3. VERTICAL SIZE -- Adjusts the image height on the screen.
4. VERTICAL SHIFT -- Centers the image vertically, from top to bottom.
5. ANALOGUE/TTL -- A switch used to alternate between an RGB analog and a Digital RGBI TTL type signal.
6. RGB -- 9-pin D connector for video/sync input signals.
7. CVBS/RGB -- A switch used to alternate between an RGB (Red-Green-Blue) and CVBS (Composite Video Signal).
8. CVBS/LCA -- A switch used to alternate between LCA (Luminance, Chroma, Audio) input and CVBS input.
9. CVBS/L -- A yellow phono jack used in two different ways. For a computer with CVBS output or other CVBS source, connect the computer to this jack with a phono plug cable. For a computer with LCA output (Commodore 64 and 128) connect to this jack for luminance signal input.
10. AUDIO-L -- A white phono jack used for connecting the left audio signal input.
11. AUDIO-R -- A black phono jack used for connecting the right audio signal input for stereo sound reproduction (Amiga computers).
12. CHROMA -- A red phono jack used for a computer with LCA output (Commodore 64 and 128) to connect for chroma signal input.

## 3. Connecting the Monitor to a Computer

Turn off the power to both the monitor and the computer to prevent damage by shorting. Unplug the Computer and the 1084S monitor before installation. Installing the 1084S with the power on could cause injury to the installer and damage to the equipment. Commodore will not be responsible for any damages caused by improper installation of the 1084S. Such improper installation will void the warranties on both the Computer and the 1084S.

### 3.1. Connecting the Analog RGB display (Amiga Computers)



Amiga 500



Locate the video cable with a 23-pin D connector on one end and a 9-pin D connector on the other end. To connect the video cable, insert the 9-pin D connector into the port labeled **RGB** on the back of your 1084S. Then insert the other end of the cable with the large, 23-pin D connector into the video port on the back of your Amiga. Tighten the screws on each side of the connector.

Set the **ANALOG/TTL** switch to analog mode. Set the **CVBS/RGB** switch to RGB mode.

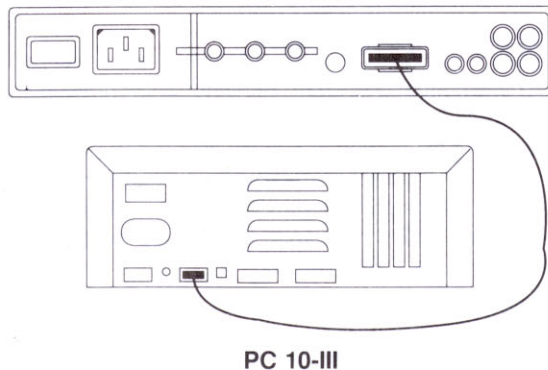
To connect the audio, locate the audio cable with one pair of phono plugs at each end of the cable. One pair of phono plugs are plugged into the **AUDIO R** and **AUDIO L** jacks on the back of your monitor, and the other pair of plugs are inserted into the Amiga's left and right audio jacks.

### 3.1.1. Using Headphones

You can connect headphones to your 1084S so that the stereo sounds generated by your Amiga computer can only be heard through the headset. To do this, simply insert the plug on the end of a standard headphone cable into the small, silver port on the left side (as you face the front) of the monitor's cabinet. The port is towards the front of the monitor. A headphone cable is not included with your monitor but should be readily available at most computer and electronics stores.

### 3.2. Connecting the Digital RGBI Display

**With a Commodore PC or Commodore 128** -- Take a video cable with a 9-pin D connector on one end and a 9-pin D connector on the other end. To connect the video cable, insert the 9-pin D connector into the port labeled **RGB** on the back of your 1084S. Then insert the other end of the cable into the video port on the back of your Commodore PC or 128. Tighten the screws on each side of the connector.

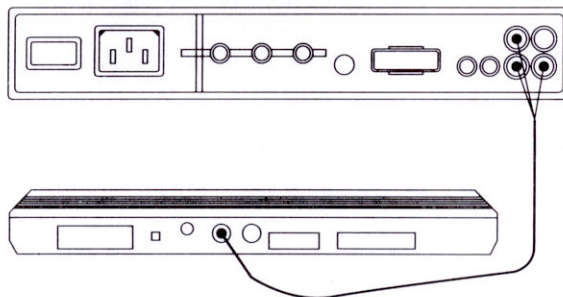


Set the **ANALOG/TTL** switch to TTL mode. Set the **CVBS/RGB** switch to RGB mode.

**WARNING:** When connecting the 1084S monitor to a PC please note that the PC must be set to provide CGA video output. Such setting is possible with PC10/20-II, PC10/20-III, PC30-III, PC40-40 and PC60-40. It is not possible with PC40-III, PC50-III or PC60-III. Any other video output settings like Hercules, EGA or VGA may result in damage of your 1084S monitor. In order to select CGA please check the appropriate user documentation.

### 3.3. Connecting the Separated Luma-Chroma-Audio Display (C128, C64)

**With a Commodore 128 or Commodore 64** -- Take a video cable with three phono plugs on one end and an 8-pin DIN connector on the other end. To connect the video cable, insert the yellow phono plug into the jack labeled **CVBS/L**, the red phono plug into the jack labelled **CHROMA**, and the white phono plug into the jack labelled **AUDIO/L** on the back of your 1084S. Then insert the other end of the cable with the 8-pin DIN connector into the video port on the back of your Commodore 128 or 64. Set the **CVBS/LCA** switch to LCA mode.



C 64

### 3.4. Connecting the Composite Display

Some older C64's have a 5-pin DIN video connector which outputs composite video. To attach your 1084S to this older style C64, a 5-pin DIN video cable is required (not included, but commonly available at many stores that carry the C64 line). Set the **CVBS/RGB** switch on the rear of the monitor to CVBS mode. Insert the 5-pin DIN connector into the Video port on your Commodore 64, and insert the phono jack into the port labeled **CVBS/L** on your 1084S. Set the **CVBS/LCA** switch on the rear of the monitor to the **CVBS** position.

### 3.5. Connecting the Monitor to the Mains

Your 1084S monitor is designed to operate from an a.c. mains supply of 120 volts, 60 Hz. If the mains voltage in your home is different from this, consult your dealer. Stabilising circuits ensure satisfactory performance within normal supply variations.

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## 4. Safety Precautions

This monitor has been engineered and manufactured to assure your personal safety. However, improper use can result in potential electrical shock or fire hazards. Please observe the following basic rules when using your monitor. Also, heed all warnings and instructions marked on the monitor's cabinet.

**DO NOT ATTEMPT TO SERVICE THE MONITOR YOURSELF. OPENING OR REMOVING COVERS MAY EXPOSE YOU TO DANGEROUS VOLTAGES OR OTHER HAZARDS. DANGEROUS HIGH VOLTAGE IS PRESENT EVEN WHEN THE MONITOR IS UNPLUGGED. REFER ALL SERVICING TO QUALIFIED PERSONNEL.**

**Do Not** overload AC outlets or extension cords. This may result in a shock or fire hazard.

**Do Not** use more than one plug adaptor in one power outlet.

**Do Not** use the monitor near water or excessive moisture.

**Do Not** block the monitor's ventilation slots by placing objects on top or underneath the monitor.

**Do Not** place the monitor

- in a "built-in" enclosure unless proper ventilation is provided
- near or over a radiator or heat register
- where sunlight or bright room light will fall directly on the screen
- on a sloping shelf or try to mount it on a wall.

**Do Not** use alcohol, ammonia-based products, or an aerosol spray to clean the monitor screen. To clean the screen, unplug the monitor and wipe with a slightly damp cloth.

**Do Not** bring magnetic devices near the screen. They may damage the color purity of the picture.

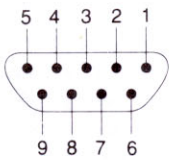
Unplug the Monitor

- if you will not be using it for an extended period.
- during an electrical storm.
- before cleaning it.

## 5. Technical Specifications

Picture Tube:	14 inch (13 inch viewing area) slotted triplet pitch .42mm
Deflection:	90 degrees
Resolution:	640 x 256, 640 x 512 (interlaced)
Raster frequency:	60 Hz
Line frequency:	15750 Hz
Character field:	RGB, RGBI mode -- 2,000 characters 80 x 25 rows Composite, Separated LCA -- 1000 characters 40 x 25 rows
VIDEO (Composite Video):	0.7V P-P, 75 ohm plus sync. 0.3V P
VIDEO (Luminance Signal):	1.0V P-P, 75 ohm
CHROMA (Chroma Signal):	1.0V P-P, 75 ohm
9-pin D -- RGB Analog	0.7V P-P, 75 ohm
	RGBI Digital TTL levels, positive or negative sync.

Pin No.	PIN ASSIGNMENT	
	TTL RGB	Analog RGB
1	Ground	Ground
2	Ground	Ground
3	Red	Red
4	Green	Green
5	Blue	Blue
6	Intensity	Not used
7	Not used	Composite Sync.
8	H.Sync.	H.Sync.
9	V.Sync.	V.Sync.



The diagram shows a 9-pin D connector with pins numbered 1 through 9. Pins 1, 2, 3, 4, and 5 are in the top row, and pins 9, 8, 7, and 6 are in the bottom row. Pin 6 is the central pin in the bottom row.

Sound output:	1.0 W RMS/channel, 5% distortion
Audio input signal:	177 mV, 10K ohm
Mains voltage:	120V AC $\pm$ 10%, 60Hz
Power consumption:	75W typical
Dimensions:	(H x W x D) 326 x 352 x 376 mm
Weight:	11 Kgs

\* In support of our policy of continuous product improvement, the above specifications are subject to change without notice.





P/N 363299-02

Printed in Korea  
S/N: 9978600042-01