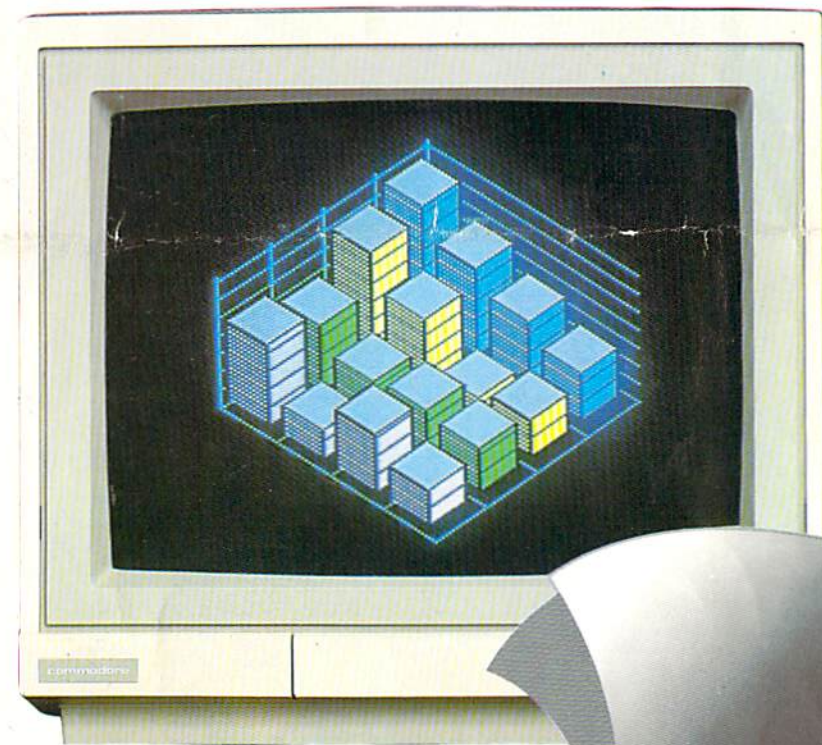


COMMODORE 1902A

COLOR MONITOR
user's guide



COMMODORE

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INTRODUCING YOUR MONITOR

Please read this brief guide carefully before you try to use your monitor. This manual shows you how to connect the monitor and use it in various operating modes. It also explains the picture controls and gives instructions for the installation, use and service of the 1902A.

The Commodore 1902A is a full-color **dual** monitor, meaning it can display computer output in either 40- or 80-column screen widths. Some computers, like the Commodore 64, display screen output in a 40-column format. Others, like the Commodore PC, require an 80-column screen. The Commodore 128 can display on both screen widths. You can select the operating mode you want with the flick of a switch. The switch setting depends on the computer you have connected to the 1902A monitor.

The 1902A can be used in three operating modes: two 40-column and one 80-column. The two 40-column modes are **Composite Video (CVBS)** and **Separated (LCA) Video**. The one 80-column mode is **digital RGBI**. The following chart shows recommended monitor operating modes by computer. Depending on your computer, you'll find that certain operating modes give better displays while other modes may not even produce a picture.

Monitor Operating Mode by Computer Model

	40 - Column		80 - Column
	Composite Video (CVBS)/Separated (LCA)	Digital RGBI	Digital RGBI
Commodore 128	.	.	.
@ Commodore 64	.	.	.
@ Plus/4	.	.	.
@ Commodore 16	.	.	.
Commodore PC	.	.	.

@ = The 40 column composite video and separated (LCA) output capabilities depend on the audio/video port female pin connections. If the A/V port has eight female pin connections, use the separated (LCA) video output and corresponding cable supplied with the monitor. This cable has an eight pin din male connector on the computer connection end and a six pin din male connector on the monitor connection end.

If the computer's audio/video port has five female pin connections, use the composite video output and a corresponding cable not supplied with the monitor. This cable has a five pin din male connector on the computer connection end and two male phone plug connectors on the monitor connection end. See the page three for a connecting diagram.

Important Note for Separated (LCA) Video Users:

To enhance the Picture quality to its fullest potential, make sure that the Comb Filter Defeat Switch is pressed IN when utilizing the monitor in separated (LCA) video output. This is the leftmost switch on the back of the monitor as you look at it from the rear view.

Additional Note:

The Composite Video (CVBS) and Separated (LCA) video signals CANNOT BE USED AT THE SAME TIME. The monitor is designed in such a way that a video cassette recorder (VCR) or video disc player can be connected to the Composite video (CVBS) monitor port while a computer is connected to the Separated Video (LCA) monitor port. Both devices CANNOT be powered on at the same time. If you do, you will see either a scrambled picture or no picture at all. Either the VCR (or video disc player) OR the computer can be turned on at any one particular time, but not both.

The 1902A monitor features a 13" screen (measured diagonally) and operates on the North American Television Standard (NTSC).

If you have problems with you monitor that are not covered in this manual, see your Commodore dealer or a qualified technician.



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point with an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING
TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR EXCESSIVE MOISTURE.

TECHNICAL SPECIFICATIONS

Picture Tube Type	: 13" diagonally measured
Deflection Angle	: 90°
Video Input signal	: Composite Video, 1Vp-p, negative sync, phono connection type. : TTL level digital video, separate horizontal and vertical syncs. : Separated (L.C.A.) Luminance/Chroma/Audio
Horizontal Resolution	: 640 dots (RGB)
Character Field	: 25 Lines of 80 characters (2000 total) for 80 column output. : 25 Lines of 40 characters (1000 total) for composite and separated output.
Audio Input Level	: Up to 150mV, phono connector type.
Audio Output Level	: Up to 1W @5% distortion.
Power Supply	: 120Vac \pm 10%, 50-60Hz
Power Consumption	: 75 Watts Maximum
Dimensions (H x W x D)	: 320 x 350 x 387mm

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

SAFETY PRECAUTIONS

- Do not place objects on top of the monitor cabinet which could fall into vents or which could cover them and prevent proper cooling of the monitor's electronics.
- To reduce the risk of fire or shock, never expose the monitor to rain or excessive moisture.
- Do not place your monitor where sunlight or bright room light will fall directly on the screen.
- When necessary clean the cabinet with a damp cloth. use only mild detergents. Do not use alcohol or ammonia based products.
- Unplug the AC cord from the outlet if the monitor is not to be used for an extended period of time.

User Maintenance Caution

There are no user serviceable parts inside the monitor's cabinet. Do not attempt to remove the cabinet back, as you will be exposed to a shock hazard.

8 AND 6 Pin DIN Sockets

PIN ASSIGNMENTS

PIN NO.	DIGITAL RGBI INPUT	SEPARATE (LCA)
	8 PIN SIGNAL	6 PIN SIGNAL
1	Not connected	Not used
2	Red	Audio
3	Green	Ground
4	Blue	Chroma
5	Intensity	Not used
6	Ground	Luminance
7	Horiz. Sync	
8	Vert. Sync	



When using these sockets before connecting the equipment, place the RGB/Composite switch in the relevant position.

CAUTION:

This monitor generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, 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 or part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If it 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 to correct the interference by one or more of the following measures:

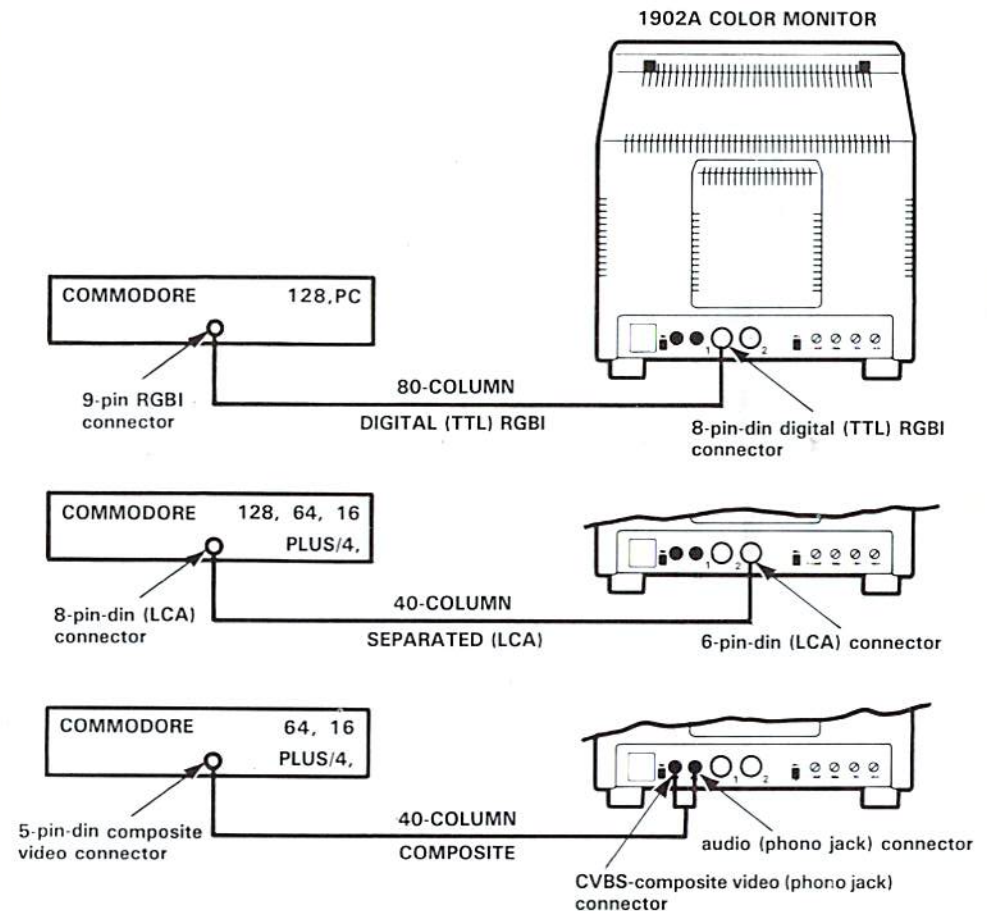
- ...reorient the receiving antenna
- ...relocate the computer with respect to the receiver
- ...move the computer away from the receiver
- ...plug the computer into a different outlet so that the computer and receiver are on different circuits.

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, D.C., 20402, Stock No. 004-000-00345-4.

CONNECTION TO THE COMPUTER

Your monitor is equipped with phono connectors for input of "composite" video and audio signals, a six pin din connector for "separated" (LCA) video signal and a eight pin din connector for digital (TTL) RGBI.

The illustrations below demonstrate the different types of computer connections that can be made to your monitor.



CONTROL LOCATIONS AND FUNCTIONS

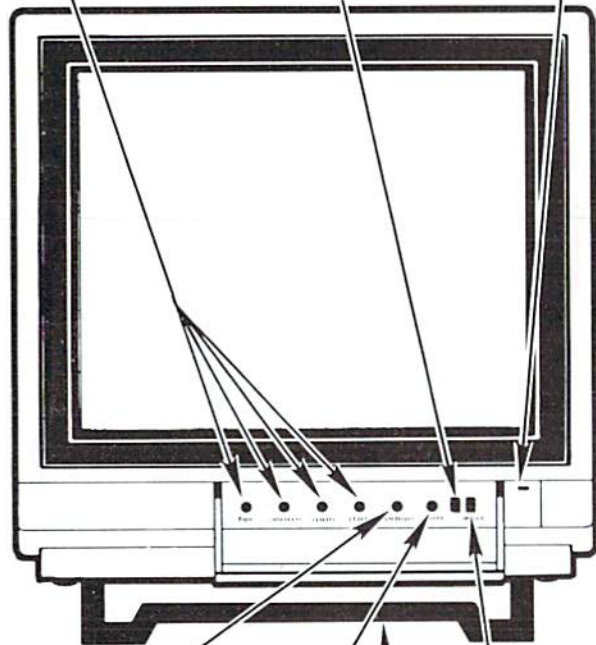
Front View

RGB/Composite or Separate (LCA) switch to select the RGBI or the Separate/composite inputs.

COMPOSITE RGB BUTTON

Adjust the (1) Hue, (2) Brightness, (3) contrast and (4) color controls to the desired color levels

Press (9) Power Switch — turns monitor on/off. When the power is on the LED will light.



The (5) Sharpness control is used to adjust picture detail to suit individual preferences.

(6) Volume control adjusts speaker volume.

Your monitor is equipped with a (8) Green Switch that can be used to produce a screen that imitates a green monochrome monitor. Typically used to improve the legibility of text in word processing applications.

Convenient tilt base folds out of the bottom allowing you to adjust the monitor's viewing angle.

Rear View

(6) VCR Button — If you use your monitor as a display for your VCR, VLP or Video Camera press this button to adjust the monitor's circuitry to those devices.

(3) Audio Input—For connecting a source with an audio signal output.

(10) H-Width Control—Used to adjust the image width on the screen.

(1) Comb Filter Defeat Switch—IN for separate (LCA) OUT for composite video.

(2) CVBS (Composite video Signal) Input—For connecting a computer with composite video output. having a 5 pin DIN audio/video port. this input cannot be used simultaneously with input (5)

(4) 8 Pin DIN Socket—Digital RGBI input used to connect a computer requiring this type of interface terminal for display of 80-columns

(5) 6 Pin DIN Socket—"Separate" (LCA) input used to connect all 40 column COMMODORE computers having an 8 pin DIN audio/video port such as the C 128. This input cannot be used simultaneously with the CVBS input.

(7) V-Height Control—Used to adjust the image height on the screen

Optional Equipment—A VCR, Video Disc Player, Video Camera, or component TV tuner can be connected to the CVBS Input and Audio Input socket. These devices cannot be operating and turned on while using a computer connected to the 6 pin DIN Socket (input).

