

OWNER'S GUIDE R.G.B. COLOUR MONITOR DISPLAY

Recommended by SINCLAIR Research Ltd. for use with the SINCLAIR QL computer. Manufactured for and sold, guaranteed and serviced by MBS Data Efficiency Ltd.

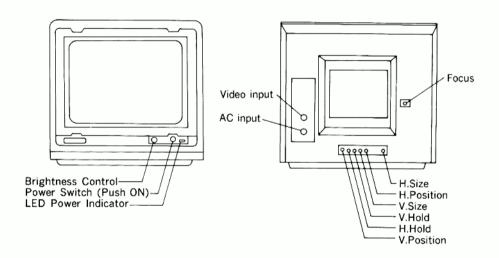
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INTRODUCTION

Congratulation on your purchase of the VISION QL MONITOR Full Colour Computer Monitor. We know you will be pleased with its performance.

Please take this time to CAREFULLY READ the following instructions, operating procedures and information. Your new monitor is a well crafted, precision instrument that will provide long use, if properly interfaced to the computer, and regularly maintained.

This monitor feature the latest types of 12inch (30.5cm), 90° deflection colour tubes, for a bright and clear display. The video circuitry is designed with Linear Amplifieres to allow virtually unlimited colour rendition from one end of the spectrum to the other.



CONNECTIONS AND CONTROLS

<u>CAUTION!</u> DISCONNECT BOTH THE MONITOR AND THE COMPUTER FROM THE AC POWER SOURCE WHILE INTERCONNECTING THE TWO UNITS.

INPUT SIGNAL

Signal Types

: Separate R,G,B, H/V Composite sync.

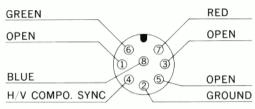
Signal Levels

: All TTL

Signal Polarity

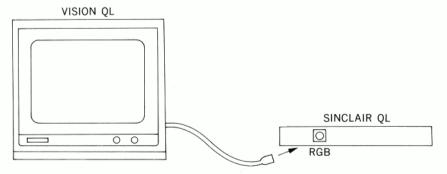
: VIDEO Positive

H/V Composite Sync Negative



OPERATION

- 1. Connect the 8-way DIN connector cable of the monitor to the mating computer connector.
- 2. Plug both the monitor and the computer into the AC power source.
- 3. Turn on the monitor and computer power switches.
- After a brief warm-up period, adjust the front panel BRIGHTNESS control for comfortable viewing. Lower levels will increase tube life and lessen screen burn.
- 5. Video stability, focus, width and height have been preset at the factory and should not require further attention. However if you cannot obtain a satisfactory display, return your monitor to the SINCLAIR dealer for readjustment.



WARNING! After periods of extended operation at high temperature, turning off the computer will activate an X-ray protection circuit in the monitor cutting off its raster. To restore the raster for maintenance or adjustment of the monitor, turn off the monitor AC power switch and wait for a while before again turning it on.

PLEASE OBSERVE THESE PRECAUTIONS WHILE YOU ARE OPERATING YOUR SINCLAIR MONITOR!

1. DO NOT PLACE OBJECTS ON TOP OF THE MONITOR CABINET WHICH WILL FALL INTO THE VENTS OR WHICH WILL COVER THEM AND PREVENT PROPER COOLING OF THE ELECTRONICS.



2. NEVER PLACE ANY LIQUIDS ON TOP OF THE CABINET.



3. DO NOT USE OR STORE THE MONITOR IN DIRECT SUNLIGHT, OR IN EXCESSIVELY



4. BE CERTAIN THAT THE MONITOR IS FIRMLY POSITIONED ON ITS SUPPORTING SURFACE, AND THAT IT CAN NOT BE EASILY BUMPED OR VIBRATED OUT OF





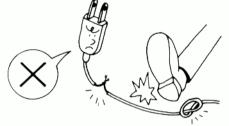
5. KEEP MONITOR AWAY FROM SPEAKER SYSTEMS OR OTHER STRONG MAGNETIC

FIELDS.



6. ROUTE THE AC POWER CORD SO THAT IT CAN NOT BE STEPPED ON OR

TRIPPED OVER.



7. ALWAYS REMOVE THE POWER CORD AND INTERFACE CABLES BY GRASPING THE PLUGS AND PULLING, NEVER PULL ON THE CORDS OR CABLES.



USER MAINTENANCE

<u>WARNING!</u> THERE ARE NO USER SERVICEABLE COMPONENTS LOCATED INSIDE THE MONITOR CABINET. DO NOT REMOVE THE MONITOR COVERS, AS YOU MAY BE



EXCEPT AS NOTED BELOW, REFER ALL MAINTENANCE TO AUTHORIZED REPAIR FACILITIES.

1. Keep the outer surfaces of the cabinet free of dust and dirt by periodically wiping with a soft, dry cloth.

DO NOT USE ANY CLEANER, WAXES OR SOLVENTS OF ANYKIND!

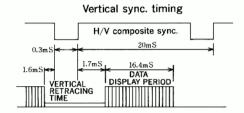
- 2. On extremely stubborn dirt or stains, disconnect all power from the monitor and allow it to cool. Then wipe with a soft cloth dampened with mild detergent, wipe off any remaining detergent with a cloth dampened with clean water.
- 3. The DISPLAY TUBE face can be wiped with a damp cloth to remove any accumulation of dirt.

TURN OFF THE MONITOR FIRST! DO NOT USE SPRAY CLEANERS!

- 4. You may see the following pictures on the display when signals other than recommended signal are received. Adjust the rear controls of monitor to set the proper picture accordingly by using plastic tuning tool provided.
- 5. Instability of the display is usually caused by a failure or misadjustment of the video circuitry in the computer, since it generates all of the sync signals used by the monitor for picture stability. We suggest you take both the monitor and the computer to your dealer if this trouble occurs.

RECOMMENDED SIGNAL

Horizontal sync. timing H/V composite sync. 4.8µS 2.7µS FRONT S BACK PORCH DISPLAY PERIOD HORIZONTAL SYNC. 64µS 5.3µS 51.2µS BACK DISPLAY PERIOD



PHENOMENA AND HOW TO ADJUST

PHENOMENA			CONTROLS
PICTURE WIDTH	TOO WIDE	TOO NARROW	H. SIZE NARROWER WIDER
PICTURE DEVIATION	TOO RIGHT	TOO LEFT	H. POSITION GO RIGHT GO LEFT
	TOO UPWARD	TOO DOWNWARD	V. POSITION DOWNWARD UPWARD
PICTURE HEIGHT	TOO SHORT	TOO HIGH	v. size NARROWER WIDER
LATERAL STRIPES			H. HOLD
VERTICAL FLOWS			V. HOLD

SPECIFICATIONS

CRT 12" Diag. 90° Def. Self Convergence

0.38 Pitch

IC

2 pcs

Transistor

30 pcs

Diode

29 pcs

Input Signal

Separate RGB

H/V Composite sync

Cable Connector

8-way DIN connector cable

Scanning Frequency

Horizontal 15.625 kHz Vertical

50 Hz

Characters (Example) 2000 Chrs. (5×7 dots. 80 char. ×25 lines)

Display Colour

8 colours

Display Area

238(W)×176(H) mm:Max.

 $(9.4(W)\times6.9(W) \text{ inches :Max.})$

Power Input

AC 240V 50 Hz

Power Consumption

69W

Dimensions (SET)

 $320(W) \times 303(H) \times 393(D) \text{ mm}$

 $(12.6(W) \times 11.9(H) \times 15.5(D) \text{ inches})$

Weight (SET)

12 kg (26.5 lbs)

Due to constant research, specifications are subject to change without notice.

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