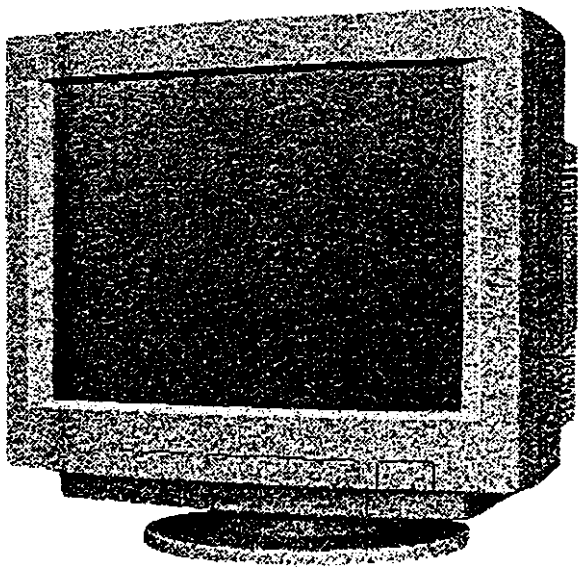
FCC ID : BGBTFV6708K

MITSUBISHI

AUTO-SCANNING WITH DIGITAL CONTROL
COLOR DISPLAY MONITOR

Diamond Plus 71

MODEL **TFV6708SKHKW**
USER'S GUIDE



For future reference, record the serial number of your display monitor in the space below:
SERIAL No. [ ]
The serial number is located on the rear cover of the monitor.

RADIO INTERFERENCE REGULATIONS STATEMENT FOR U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

THIS PRODUCT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS WITH SIGNAL CABLE. USE IT TO REDUCE THE POSSIBILITY OF CAUSING INTERFERENCE TO RADIO, TELEVISION, AND OTHER ELECTRIC DEVICES.

NO USER SERVICEABLE PARTS INSIDE. DO NOT ATTEMPT TO MODIFY THIS EQUIPMENT. IF MODIFIED, YOUR AUTHORITY TO OPERATE THIS EQUIPMENT MIGHT BE VOIDED BY FCC.

WARNING!

This product is not designed for use in life support devices and Mitsubishi Electric corporation makes no representations to the contrary. Life support devices are those devices which are used to measure, diagnose, or evaluate the tissue, systems or functions of the human body; or other devices employed to support or sustain life or good health.

MANUFACTURER DECLARATION FOR CE-MARKING:

We, Mitsubishi Electric Corp., declare under our sole responsibillity, that this product is in conformity with the following standards:

EN60950
EN55022 Class B
EN50082-1
EN61000-3-2

following the provisions of:

73/23/EEC Low Voltage Directive
89/336/EEC EMC Directive

As an ENERGY STAR Partner, Mitsubishi Electric Corporation has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

1 INTRODUCTION

Congratulations on your purchase of the Diamond Plus 71 high resolution color monitor. Mitsubishi designed this monitor to provide you with years of reliable trouble-free operation. Once again, thank you for selecting our product and welcome to Mitsubishi!
This guide tells you how to connect, adjust and care for your Diamond Plus 71 monitor. This guide also provides technical specifications and instructions for troubleshooting any basic problems you may experience with your monitor.

1.1 Features

The monitor is 45cm/17"(40cm/16" Diagonal Viewable Image) intelligent, microprocessor based monitor compatible with most analog RGB (Red, Green, Blue) display standards, including PS/V®, PS/2®, Apple® Macintosh® Centris, Quadra, Apple Macintosh II and Power Macintosh family signals. It provides crisp text and vivid color graphics with VGA, SVGA, XGA (non-interlaced), and most Macintosh compatible color video cards.

- The monitor's wide auto-scanning compatibility range makes it possible to upgrade video cards or software without purchasing a new monitor.

- Digitally controlled auto-scanning is done using an internal microprocessor, for horizontal scan frequencies between 30kHz and 69kHz, and vertical scan frequencies between 50Hz and 130Hz. The microprocessor-based intelligence allows the monitor to operate in each frequency mode with the precision of a fixed frequency monitor.

- The monitor contains resident memory for pre-programmed screen display standards and is also capable of storing additional user adjustment parameters.

- The monitor is capable of producing a maximum horizontal resolution of 1280 dots and a maximum vertical resolution of 1024 lines typically. This display is well suited for windowing environments.

- Because of the analog signal inputs, the monitor can display an unlimited palette of colors that can be manually adjusted to suit your specific needs.

- The monitor has a power management function accorded to VESA DPMS-standard. To save energy, the monitor must be connected to a system compliant with the VESA DPMS-standard. (Refer to your computer and/or video card instructions for proper operation.)

- To ensure ease of installation and ongoing use, the monitor features On-Screen Display (OSD) of all monitor set-up and adjustment functions.

- For use in a variety of applications, the monitor complies with UL1950 and CSA C22.2 No. 950 for safety, FCC Class-B for EMI, MPR-II and ISO9241-3 (TÜV-ERGO) for ergonomics. The monitor also complies with TCO '95 guideline for environmentally safe use.

- DIAMONDTRON CRT with 0.25mm pitch aperture-grille mask, advanced-focus P-NX-DBF (Dynamic Beam Forming) electron gun and high contrast optical quality coating.

- The monitor complies with Video Electronics Standards Association (VESA™) DDC1/2B(EDID) specification. If your computer provides DDC1/2B(EDID) function, setup will be done automatically.

1.3 Power Management Function

The monitor has the power management function which reduces the power consumption of the monitor when not in use. There are three reduced power level modes.

■ **Stand-by mode**

When the horizontal sync signal is off, after around 40 seconds the monitor is switched to a stand-by mode. When the monitor is in stand-by mode, the screen is off and the power on indicator will blink for 0.5 seconds of On-time and 0.5 seconds of Off-time.

After the horizontal sync signal is restored, the picture will be displayed immediately.

■ **Suspend mode**

When the vertical sync signal is off, after about 40 seconds the monitor is switched to a suspend mode which reduces the monitor power consumption to less than 15W. When the monitor is in suspend mode, the screen is off and the power indicator will blink for 2 seconds of On-time and 2 seconds of Off time.

After the vertical sync signal is restored, the picture will be displayed within a few seconds.

■ **Power-off mode**

When the horizontal sync signal and vertical sync signal are off, after about 40 seconds the monitor is switched to a power-off mode which reduces the monitor power consumption to less than the power consumed at suspend mode above. When the monitor is in power-off mode, the screen is off, and the power indicator will blink for 3 seconds of On-time and 1 second of Off-time.

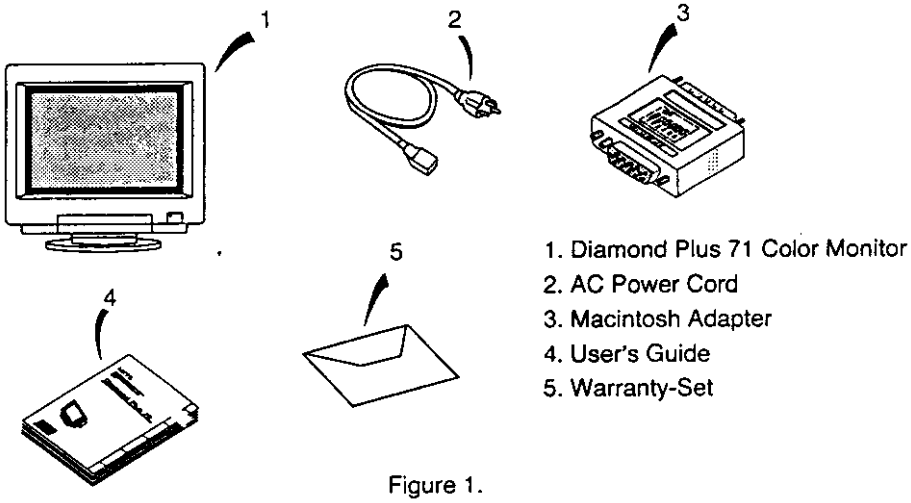
After both the sync signals are restored, the picture will be displayed within several seconds.

1.4 DDC

The monitor includes the DDC1 and DDC2B feature. DDC(Display Data Channel) is a communication channel over which the monitor automatically informs the host system about its capabilities (e.g. each supported resolution with its corresponding timing). DDC is routed through previously unused pins of the 15-pin VGA connector. The system will perform "Plug & Play" feature if both, monitor and host, implements the DDC protocol.

1.7 Unpacking

After unpacking you should have all of the items indicated in Figure 1 as listed below. Save the box and packing materials in case you ship or transport the monitor.



1. Diamond Plus 71 Color Monitor
2. AC Power Cord
3. Macintosh Adapter
4. User's Guide
5. Warranty-Set

Figure 1.

1.8 Tilt/Swivel Base

The monitor comes with a tilt/swivel base. This enables you to position the monitor to the best angle and tilt for maximum viewing comfort.

Screen Position Adjustment

Adjust the tilt and rotation of the monitor by placing your hands at opposite sides of the case, as shown in Figure 2. You can adjust the monitor 90 degrees right or left, 15 degrees up or 5 degrees down, as shown below.

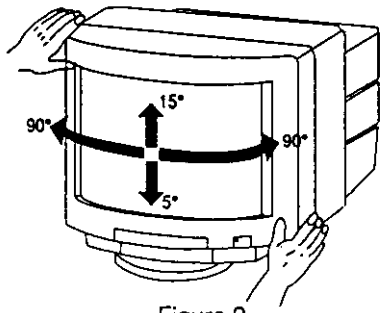


Figure 2.

2 CONNECTING THE MONITOR

A plug-in connector for the AC power cord and DB9-15P pig tail type cable, at the back of the monitor.

2.1 AC Power Connection

One end of the AC power cord is connected into the AC power connector at the back of the monitor. The other end is plugged into a properly grounded three-prong AC outlet. The monitor's auto-sensing power supply can automatically detect 100-120V AC or 200-240V AC and 50 or 60Hz.

2.2 Signal Cable Connection

The Video Signal cable provides a DB9-15P connector for the VGA compatible analog RGB outputs on your computer. The RGB signal may be derived from an IBM® PS/2, or compatible, Apple Macintosh built-in video or most third party color cards can be interfaced using the adapter.

2.2.1 Connecting to Any IBM VGA Compatible System

Figure 3 shows the Video Signal cable connection to the Video Graphics Array (VGA) port in an IBM Personal System/2® Model 50, 60, 70 and 80, or any VGA compatible system.

1. Power off, both the monitor and the computer.
2. Connect the Video Signal cable to the 15-pin connector on the VGA controller card.
3. Power on the computer, then the monitor.
4. After using the system, power off the monitor, then the computer.

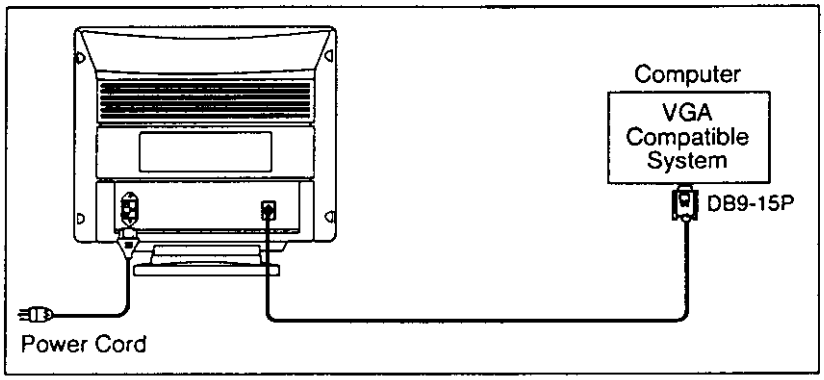


Figure 3.

CAUTION

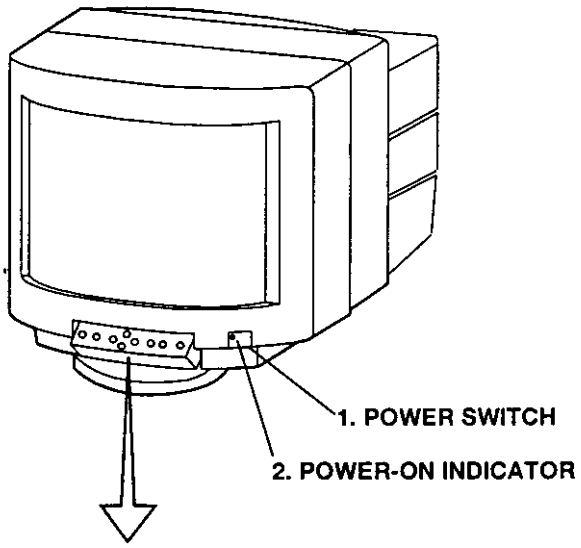
The socket-outlet shall be installed near the equipment and shall be easily accessible. During servicing, disconnect the plug from the socket-outlet.

Méme si le moniteur est mis hors tension il reste toujours alimenté. La prise secteur devrait ainsi être facilement accssible en cas d'urgence.

3 USER CONTROLS

See Figure 5 and 6 for the location of the following user controls and indicators.
Each control is identified by number and is described individually.

FRONT



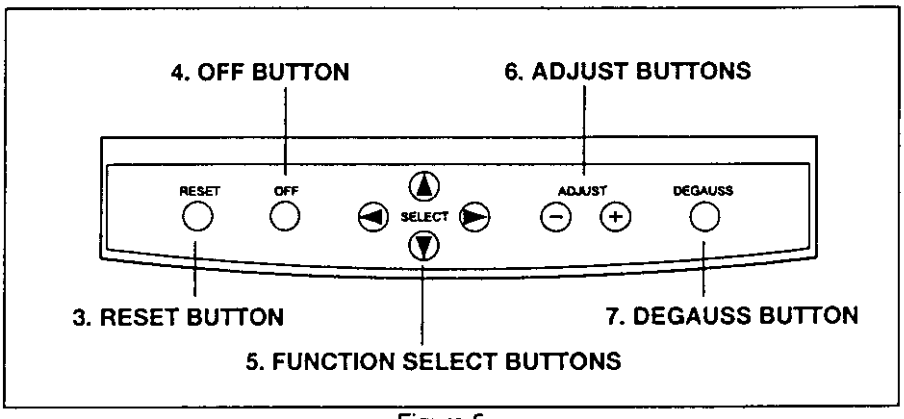
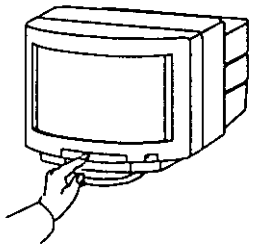


Figure 5

[How to use the front control panel]
Press the button marked " ::: " on the control panel to open.
To close, press it again.



4 FUNCTION CONTROLS

The following screen adjustments and monitor settings are available at the front control panel. For details of adjustment method, see sub-clauses 4.1.

(1) **CONTRAST**
Adjusts to the desired contrast level.

(2) **BRIGHTNESS**
Adjusts the black level of the screen.

(3) **H-POSITION (Horizontal Position)**
Controls the horizontal position of the image on the screen.

(4) **H-SIZE (Horizontal Size)**
Controls the horizontal size of the image on the screen.

(5) **V-POSITION (Vertical Position)**
Controls the vertical position of the image on the screen.

(6) **V-SIZE (Vertical Size)**
Controls the vertical size of the image on the screen.

(7) **SIDE-BOW**
Straightens the left and right sides of the screen image.

(8) **KEYSTONE**
Adjusts the trapezoidal of the left and right sides of the screen image.

(9) **TOP-PCC (Top of Corner Pincushion or Bow Amplitude)**
Adjusts the pincushioning at the top corners of the screen.

(10) **BOTTOM-PCC (Top of Corner Pincushion or Bow Amplitude)**
Adjusts the pincushioning at the bottom corners of the screen.

(11) **PIN-BALANCE**
Adjusts the curvature of the left and right sides of the screen image.

(12) **KEY-BALANCE**
Adjusts the vertical slant or tilt of the screen image.

(13) **ROTATION**
Adjusts the rotation or twist of the picture.

(14) **MOIRE CANCEL**
Adjusts the moire level on the screen.

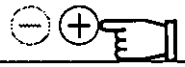
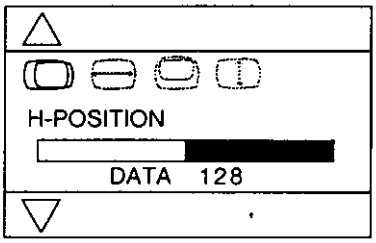
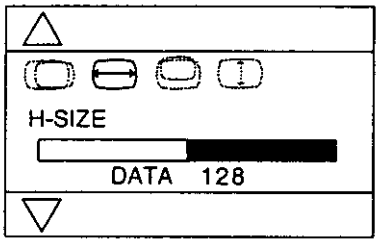
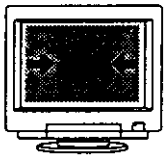
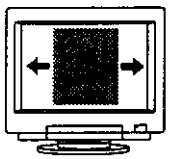
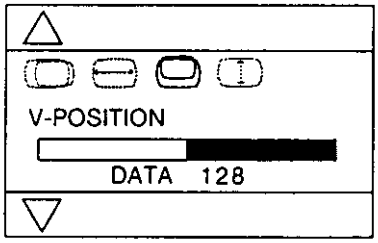
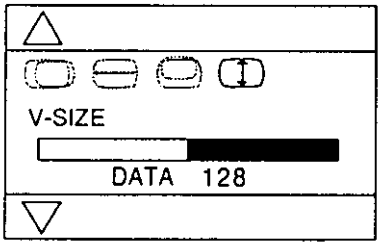
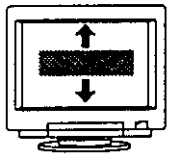
(15) **COLOR TEMP**
Adjusts the color temperature to provide the color balances for the display.

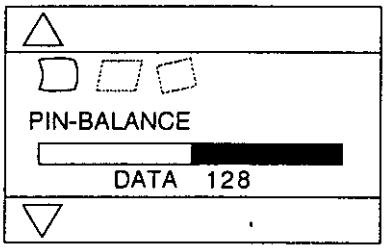
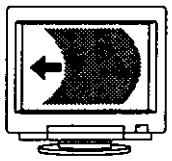
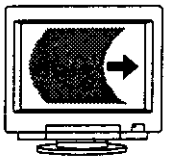
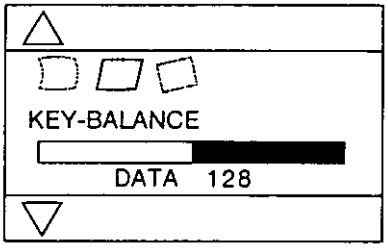
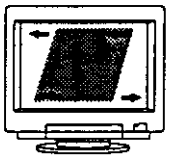
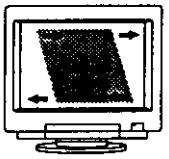
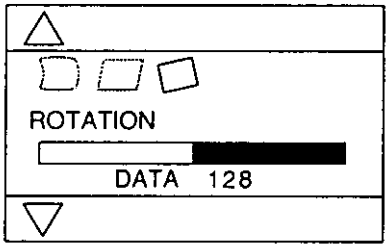
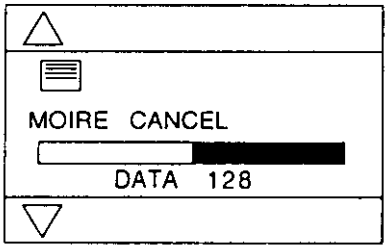
(16) **POWER-SAVE (ON/OFF)**
When selecting ON, the power management function is activated.

(17) **CLAMP POSITION**
Use this function to eliminate excessive green or white background that may occur .

(18) **HELP**
Information menu of operation frequency, product year, week, and operation hour.

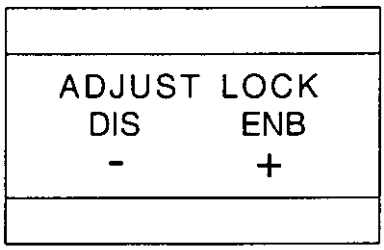
(19) **ADJUST LOCK MENU**
To lock on and lock off the OSD.

FUNCTION AND OSD	Press the Minus Adjust Button: 	Press the Plus Adjust Button: 
(3) H-POSITION (Horizontal Position) 	 To move the image to the left.	 To move the image to the right.
(4) H-SIZE (Horizontal Size) 	 To narrow the width of the image on the screen.	 To expand the width of the image on the screen.
(5) V-POSITION (Vertical Position) 	 To move the image down.	 To move the image up.
(6) V-SIZE(Vertical Size) 	 To narrow the height of the image on the screen.	 To expand the height of the image on the screen.

FUNCTION AND OSD	Press the Minus Adjust Button: 	Press the Plus Adjust Button: 
(11) PIN-BALANCE 	 To move the center of the screen image to the left.	 To move the center of the screen image to the right.
(12) KEY-BALANCE 	 To make the screen slant to the left.	 To make the screen slant to the right.
(13) ROTATION 	 To rotate to the left.	 To rotate to the right.
(14) MOIRE CANCEL 	Press the plus or minus button to decrease the level of the moire wave. The over adjustment might degrade picture quality.	

(19) ADJUST LOCK MENU

1. Press the minus button and select right button together, the "ADJUST LOCK" Menu appears.



2. Press the plus button to lock on the OSD and only "LUMINANCE" and "HELP" Menu can be selected.

3. Follow item 1 operation and press the minus button to lock off the OSD and all menu can be selected.

5 TROUBLESHOOTING

Before calling MITSUBISHI Product Support, please check that the items below are properly connected or set.
In case of using a non-standard signal, please check the pin assignments and the signal timing of your computer with the specification outlined in Chapter 6 and 7.

PROBLEM		ITEMS TO CHECK	LOCATION
No picture	LED On	• Contrast and brightness controls.	• Front (Adjust to the maximum brightness)
	LED Off	• Power switch. • AC power cord disconnected.	• Front • Rear
	LED Blinking	• Signal cable disconected. • Computer power switch. • Power management function is active.	• Rear • Computer • Check the power management function.(see P21)
Abnormal picture	Un-stable picture	• Input signal frequency range in disagreement. CGA MODE is not available. MDA MODE is not available. EGA MODE is not available.	• Check the specification of graphics adapter and monitor
	Display is missing, center shifts, or too small or too large of a display size	• Push the RESET for a standard signal. • Adjust H-SIZE, V-SIZE, H-POSITION, and V-POSITION with non-standard signals. • Make sure you wait a few second after adjusting the size of the image before changing or disconnecting the signal or powering OFF the monitor.	• Front (OSD) • Front (OSD)
	Greenish color picture at all of screen	• Set CLAMP POSITION to "BACK".	• Front (OSD)
	Dim picture at left edge	• Set CLAMP POSITION to "FRONT".	• Front (OSD)

6 SPECIFICATIONS

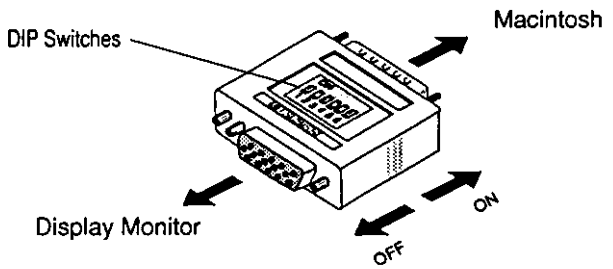
CRT	Size, Mask	45cm/17"(40cm/16"Diagonal Viewable Image),Tension mask
	Gun	In-line
	Deflection angle	90°
	Phosphors	Red, Green, Blue EBU (medium short persistence)
	Aperture Grille pitch	0.25mm
	Face Plate	Anti-glare, Anti-reflection and Anti-static coating
	Focusing method	Dynamic Beam Forming (P-NX-DBF)
INPUT SIGNAL	Video	0.7V analog RGB
	Sync	separated H, V sync. or Composite sync
INTERFACE	Input Connector	DB9-15P Undetachable
	Input Impedance	75Ω(video) 1kΩ(sync)
SCANNING FREQUENCY	Horizontal	30-69kHz
	Vertical	50-130Hz
RESOLUTION (HxV)	1280dots x 1024lines Non-Interlaced maximum addressable resolution format	
WARM-UP TIME	30 minutes to reach optimum performance level	
BRIGHTNESS	100cd/m^2, standard full white video signal	
VIDEO AMPLIFIER	50Hz - 100MHz (typ.)	
BLANKING TIME	Horizontal	< 2.9 µsec (typ.)
	Vertical	< 500 µsec(typ.)
DISPLAY SIZE	300mm x 225mm (typ.)	ratio 4:3, e.g. 1024dot x 768line
COLOR	9950K-5000K	
POWER SOURCE	100-120V~/220-240V~±10% 50/60Hz 105W (nominal)	
OPERATING ENVIRONMENT	Temperature	5-35°C
	Humidity	10- 90%RH (without condensation)
CABINET	(W)16.1inch x (H)16.0inch x (D)16.7inch (W)410mm x (H)406mm x (D)425 mm	
WEIGHT	22kg	
TILT/SWIVEL BASE	Tilt Angle	-5°-+15°
	Swivel Angle	±90°
REGULATIONS	Safety	UL1950 (UL), CSA C22.2 No.950 (C-UL) EN60950 (TÜV-GS)
	EMC	FCC Class-B, DOC Class-B EN55022 Class-B, VCCI Class-II EN50082-1, EN61000-3-2
	X-Ray	DHHS, HWC Röv vom 8.1, 1987
	Other	CE-Marking MPR-II ISO 9241-3 (TÜV-ERGO) TCO '95 ZH1/618 (TÜV-GS) International Energy Star Program NUTEK Spec. 803299/94

7.2 Macintosh Adapter settings

The Macintosh Adapter allows you to take advantage of the built-in video capabilities of your Macintosh computer with the monitor.
With it, you may select any available video mode via the DIP Switches.

Using the following chart, find the computer/resolution combination you wish to configure. There are alternate settings available for most computer / resolution combinations, but we recommend you to set the factory preset timing. (see 1.2 Internal Preset Memory Capability)

The chart shows all available modes for Macintosh systems plus all possible combinations with monitor. Please be aware that not all Macintosh modes are capable of driving all Macintosh video modes.



In case of computer corresponding to Multimode, you can select the resolution on your computer by setting the following switch.
Please refer to instruction book of your computer about resolution setting.

21"Multimode

1,2,6 = Set DIP switches 1,2 and 6 "ON" (Supports 640X480@67Hz; 832X624@75Hz; 1024X768@75Hz;1152X870@75Hz)

17"Multimode

1,2,5 = Set DIP switches 1,2 and 5 "ON" (Supports 640X480@67Hz; 832X624@75Hz; 1024X768@75Hz)

13"Multimode

1,2,5,6 = Set DIP switches 1,2,5 and 6 "ON" (Supports 640X480@67Hz; 832X624@75Hz)

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: MITSUBISHI DENKI BLD, MARUNOUCHI, TOKYO 100.
TELEX J24532 CABLE MELCO TOKYO

Mac Adapter settings Chart

Macintosh COMPUTER / RESOLUTION	Macintosh IIci IIsi	Macintosh LC,LC II -or- Performa 400,405, 410,430	Macintosh LC III, LC 475 -or- Performa 450,460, 466,467, 475,476	Macintosh IIvi,IIvx -or- Performa 600, 600 CD	Macintosh LC 630, Performa 630 -or- Quadra 630	Macintosh Quadra 700,900	Macintosh Quadra 605,610, 650,800, 950 -or- Centris 610,650	Macintosh Quadra 840AV, 660AV -or- Centris 600AV	Apple display Card 4-8,8-24, 8-24GC (revision B)	Apple display Card 24AC	Power Macintosh Workgroup Server 9150
640X480@60Hz		3,4	3,4	3,4	3,4	3,4	3,4	3,4		3,4	3,4
640X480@67Hz	—	1,2	1,2	—	1,2	1,2	1,2	1,2	1,2	1,2,6	1,2,5,6
800X600@56Hz						—	—	—			
800X600@60Hz					3,4					1,2,6	
800X600@72Hz					3,4			3,4			
800X600@75Hz											
832X624@75Hz			2,4		2,4	2,4	2,4	2,4	2,4#	1,2,6	1,2,5,6
1024X768@60Hz								3,4		1,2,6	
1024X768@70Hz								3,4			
1024X768@72Hz											
1024X768@75Hz											
1024X768@75Hz							2,3	2,3		1,2,6	
1152X870@75Hz						1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,6	
1280X960@75Hz											
1280X1024@75Hz											

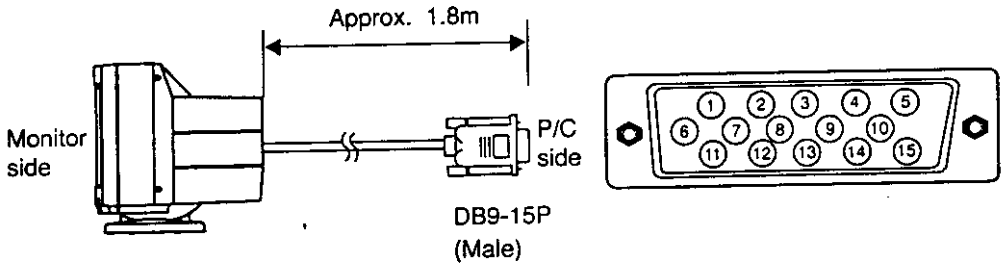
Macintosh COMPUTER / RESOLUTION	Power Macintosh 6100,6100AV, 7100,7100AV, 8100,8100AV -with- DRAM Video Port (HDI-45)	Power Macintosh 7100, 8100, -with- DRAM Video Card (DB-15)	Power Macintosh 6100AV, 7100AV, 8100AV -with- AV Video Card (DB-15)	Power Macintosh 6200	Power Macintosh 7200	Power Macintosh 7500, 8500	Power Macintosh 9500 -with- ATI Video Card	Macintosh PowerBook 160, 165,165C 180,180C	Macintosh PowerBook 520,520C, 540,540C	Macintosh PowerBook Duo 210,230, 250,270C -with- Duo Dock -or- Duo MiniDock	Macintosh PowerBook Duo 210,230, 250,270C -with- Duo DockII
640X480@60Hz	3,4	3,4	3,4	1,2,5,6	3,4	3,4	3,4	3,4	3,4	3,4	3,4
640X480@67Hz	1,2,5,6	1,2,6	1,2,6	1,2,5,6	1,2,6	1,2,6	1,2,6	1,2	**1,2,5,6**	1,2	1,2
800X600@56Hz		—	—				—	—	—	—	—
800X600@60Hz				1,2,5,6	3,4	3,4	3,4				
800X600@72Hz		3,4	3,4	1,2,5,6	3,4	3,4	3,4				
800X600@75Hz					3,4	3,4	3,4				
832X624@75Hz	1,2,5,6	1,2,6	1,2,6	1,2,5,6	1,2,6	1,2,6	1,2,6	2,4	1,2,5,6	2,4	2,4
1024X768@60Hz		3,4	3,4		3,4	3,4	3,4				
1024X768@70Hz		3,4	3,4				3,4				
1024X768@72Hz					3,4	3,4					
1024X768@75Hz					3,4	3,4	3,4				2,3
1024X768@75Hz		1,2,6	1,2,6		1,2,6	1,2,6	1,2,6				1,2,3,4
1152X870@75Hz		1,2,6	1,2,6		1,2,6	1,2,6	1,2,6				
1280X960@75Hz											
1280X1024@75Hz											

= Must have revision B of ROM on video board

— = Not working combination.

7 APPENDIX

7.1 Connector Pin Assignment



DB9-15P
(Male)

PIN ASSIGNMENTS

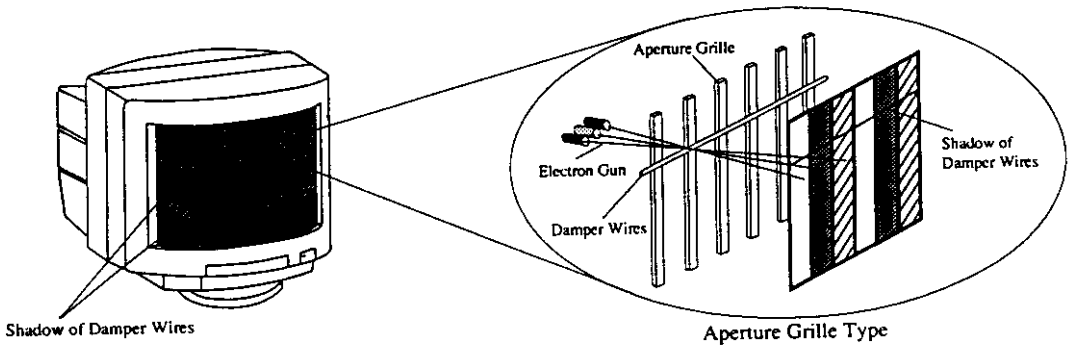
Pin No.	Signal
1	RED VIDEO
2	GREEN VIDEO
3	BLUE VIDEO
4	GROUND
5	DDC GROUND
6	RED GROUND
7	GREEN GROUND
8	BLUE GROUND
9	NC
10	SYNC GROUND
11	GROUND
12	SDA
13	HORIZONTAL SYNC or COMPOSITE SYNC
14	VERTICAL SYNC(VCLK)
15	SCL

DDC ..... DISPLAY DATA CHANNEL
SDA ..... SERIAL DATA
SCL ..... SERIAL CLOCK
NC ..... NO-CONNECTION

NOTE:

Two fine horizontal lines may be visible on the screen. This is not a fault or defect of the monitor and is normal for all aperture grille type displays.

The fine lines are the shadows of *Damper Wires* which are used to reduce the susceptability of the DIAMONDTRON CRT's aperture grille to shock or vibration.



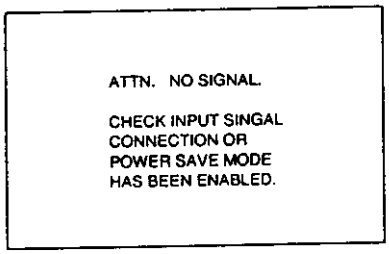
Aperture Grille Type

NOTE

When the monitor has no sync signal, incorrect connection or signal frequency is out of range, the following CAUTION comes on the screen. Check input signal, signal cable connection and signal frequency.

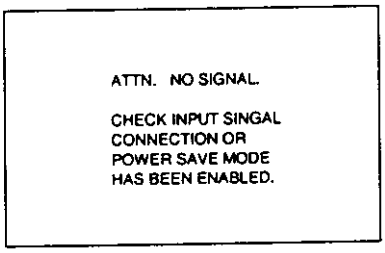
1. POWER SAVE IS OFF

When POWER SAVE is OFF and there is no sync signal, the following screen is displayed on yellow back ground.

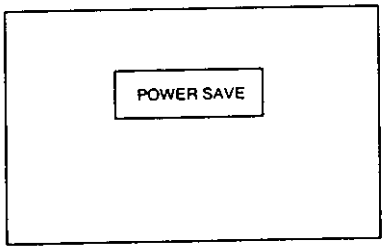


2. POWER SAVE IS ON

(1) When POWER SAVE is ON and there is no sync signal, the following screen is displayed on yellow back ground for 30 seconds.

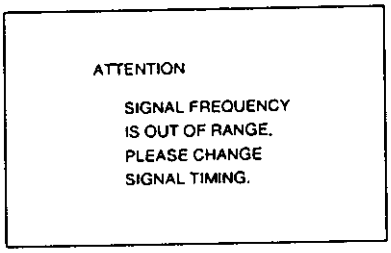


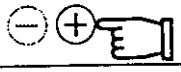
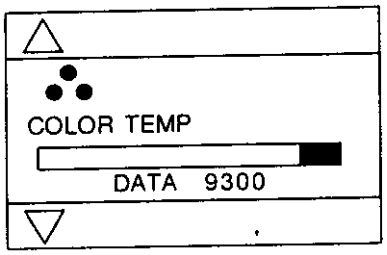
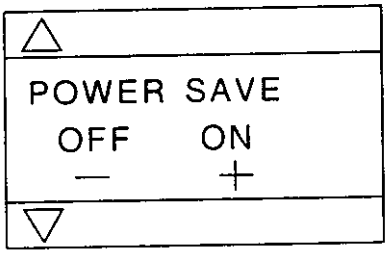
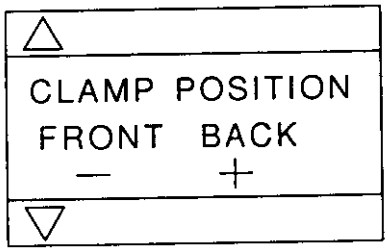
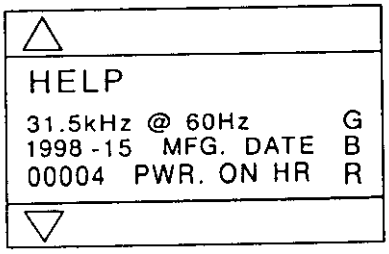
(2) Before 10 seconds POWER SAVE function works, the following screen is displayed.

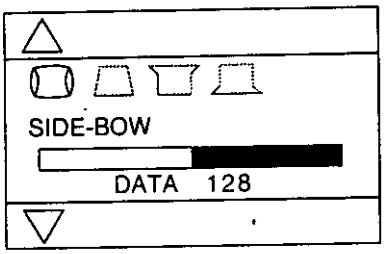
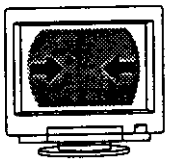
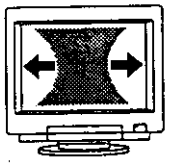
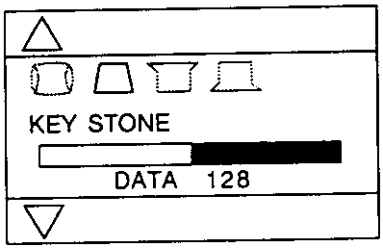
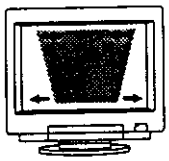
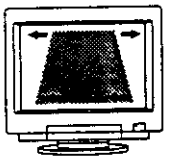
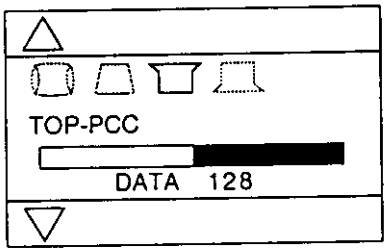
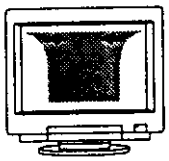
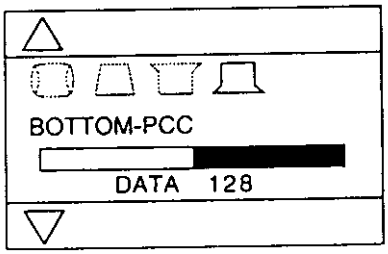


3. POWER SAVE IS ON OR OFF

When signal frequency is out of range, the following screen is displayed on red back ground.



FUNCTION AND OSD	Press the Minus Adjust Button: 	Press the Plus Adjust Button: 
(15) COLOR TEMP 	To increase the red color level.	To increase the blue color level.
	DATA indicates color temperature (K: Kelvin)	
(16) POWER SAVE (ON/OFF) 	To select the constant power-on mode.	To select the power-save mode.
(17) CLAMP POSITION 	Press the plus or minus adjust buttons to get pure color of back ground for the screen.	
(18) HELP 	Indicate the horizontal frequency and the vertical frequency of input signal. Indicate Product year and week. Indicate accumulated operation hours.	

FUNCTION AND OSD	Press the Minus Adjust Button: 	Press the Plus Adjust Button: 
(7) SIDE-BOW 	 To collapse the center of the image.	 To expand the center of the image.
(8) KEY STONE 	 To decrease the width at the top of the screen image and to increase the width at the bottom.	 To increase the width at the top of the screen image and to decrease the width at the bottom.
(9) TOP-PCC(Top of Corner Pincushion or Bow Amplitude) 	 To expand the width of the screen image near the corners of top.	 To narrow the width of the screen image near the corners of top.
(10) BOTTOM-PCC(Bottom of Corner Pincushion or Bow Amplitude) 	 To expand the width of the screen image near the corners of bottom.	 To narrow the width of the screen image near the corners of bottom.

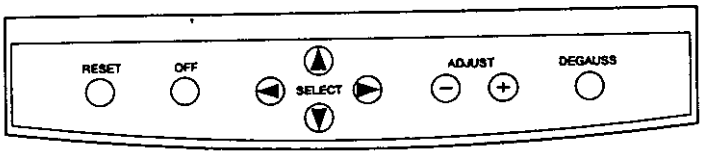
4.1 OSD Function

Press any select button, and control indicators will be superimposed on the display screen.

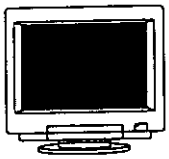
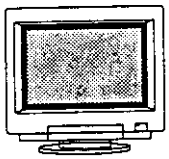
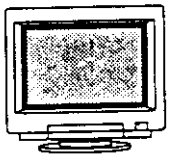
Refer to Figure 5 for the location of the monitor function (◀ ▶ ▲ ▼ ⊕ ⊖) controls. Press the select buttons to choose one of the following controls.

When the indicator of a function symbol comes on the screen and changes to blue, that control is active and can be adjusted by the adjust buttons. The monitor automatically memorizes all adjustments.

If left untouched for approx. ten seconds, the OSD screen will disappear.



▲ Button: select up
▼ Button: select down
▶ Button: select right
◀ Button: select left

FUNCTION AND OSD	Press the Minus Adjust Button: ⊖ ⊕	Press the Plus Adjust Button: ⊖ ⊕
(1) CONTRAST △ ◑ ☼ CONTRAST DATA 128 ▽	 To decrease the contrast.	 To increase the contrast.
	Press plus and minus buttons together, to restore to factory preset level.	
(2) BRIGHTNESS △ ◑ ☼ BRIGHTNESS DATA 128 ▽	 To decrease the brightness.	 To increase the brightness.
	Press plus and minus buttons together, to restore to factory preset level.	

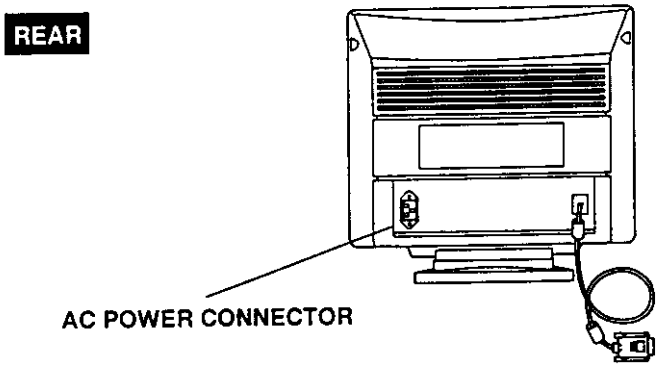


Figure 6.

3.1 Control Names

1. **POWER SWITCH:** A push-on push-off switch for AC power.

2. **POWER-ON INDICATOR:** This indicator illuminates when AC power is on.

3. **RESET BUTTON:** Push the RESET button to restore factory preset that has been modified by the user. This button performs 3 functions under different conditions. To avoid mis-operation, once pushed the button OSD appears as "MEMORY RESET" and hold approximately 3 sec then reset is activated.

   (1) After adjusting H-POSITION, H-SIZE, V-POSITION, V-SIZE, SIDE-BOW, KEYSTONE, TOP-PCC, BOTTOM-PCC, PIN-BALANCE, and KEY-BALANCE, pressing the RESET button will restore the factory adjusted screen geometry and size settings, if the current video signal timing corresponds to factory preset timing.
   If press this button at user timing, OSD appear as "USER TIMING CAN NOT RESET."

   (2) After adjusting COLOR TEMP, pressing the RESET button in "COLOR TEMP" menu will restore the factory adjusted COLOR TEMP (9300°K).

   (3) After adjusting MOIRE CANCEL, pressing the RESET button in "MOIRE CANCEL" menu will restore to minimum.

4. **OFF BUTTON:** A push type button that is used to turn off the OSD.

5. **FUNCTION SELECT BUTTONS:** Push the four directional (Up,Down,Left,Right) buttons to select one of the functions that is superimposed on the display screen.

6. **ADJUST BUTTONS:** Push the buttons to adjust the image on the screen that is selected via the function select buttons.

7. **DEGAUSS BUTTON:** A push type button that is used to eliminate possible color shading or impurity.

2.2.2 Connecting to An Apple Macintosh Centris, Quadra, Apple Macintosh II and Power Macintosh Family

Figure 4 shows the Video Signal cable and Adapter to the video port in an Apple Macintosh.

1. Power off, both the monitor and the computer.
2. Set the DIP switches of Macintosh Adapter according to the setting chart. (See 7.2 Macintosh Adapter settings.)
3. Connect the 15-pin (DB9-15P) end of the Adapter to the straight 15-pin connector on the Macintosh video port.
4. Connect the sub-miniature 15-pin (DB9-15P) end of Adapter to the Video Signal cable.
5. Power on the Macintosh, then the monitor.
6. After using the system, power off the monitor, then the Macintosh.

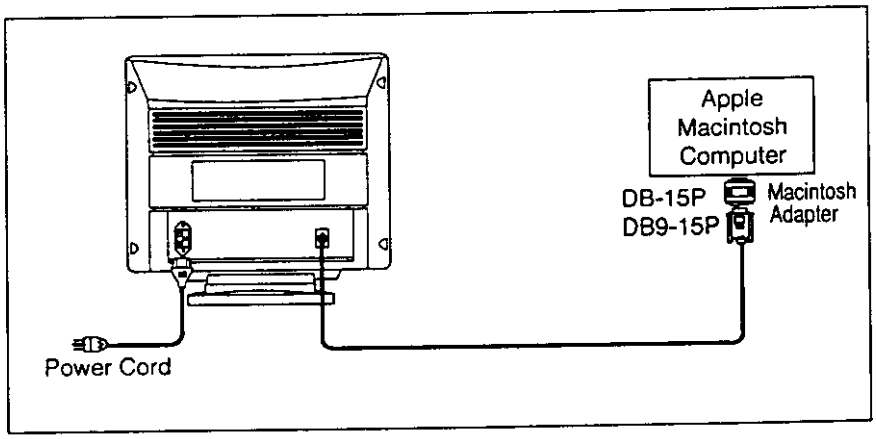
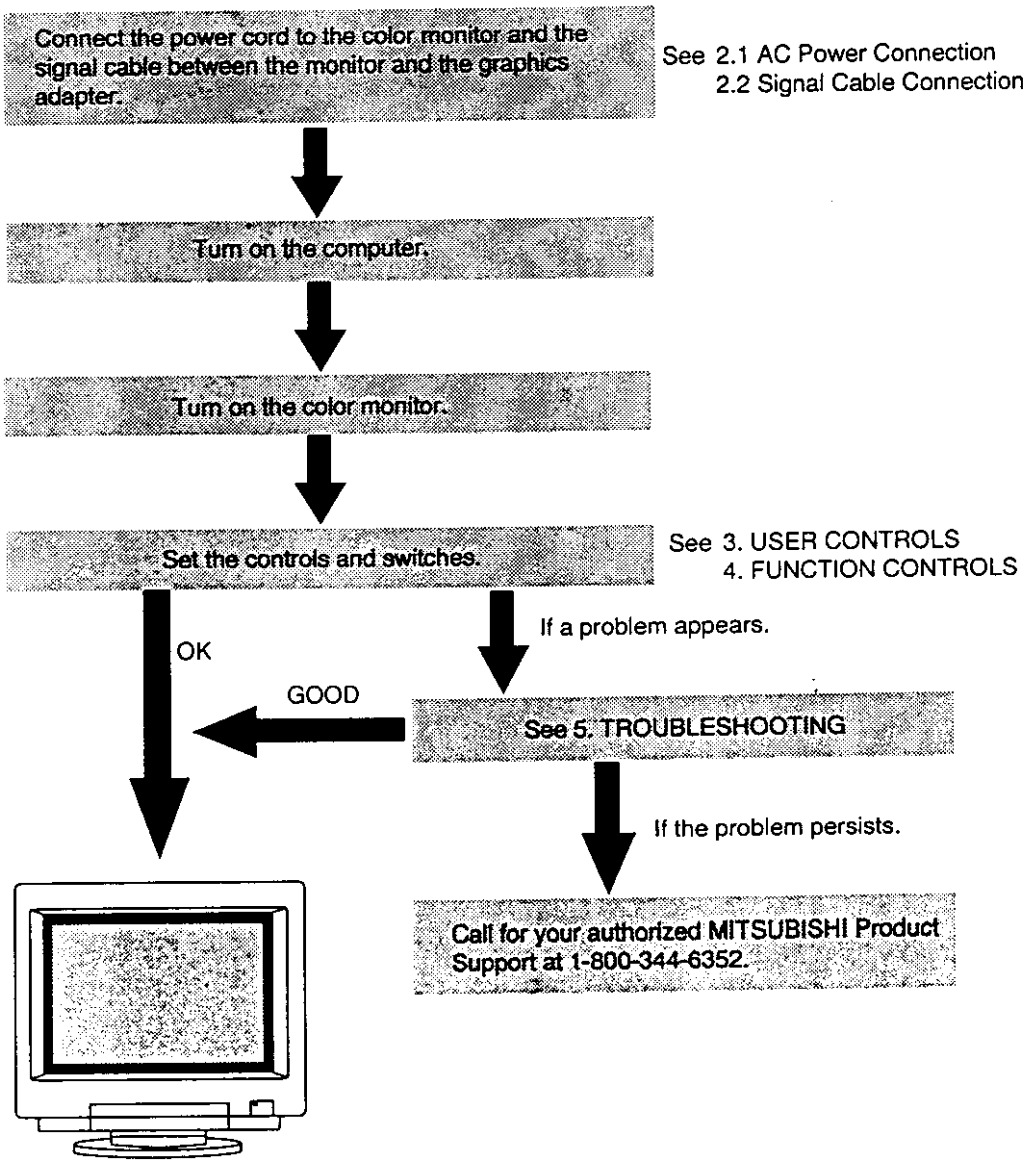


Figure 4.

1.9 Quick Operation Chart

To summarize the steps in connecting your computer and adapter with the color monitor and setting the necessary controls and switches, refer to the chart below.



1.5 Location Considerations

When setting up and using the monitor, keep the following in mind:

- For optimum viewing, avoid placing the monitor against a bright background or where sunlight or other light sources may reflect on the display area of the monitor; Place the monitor just below eye level.
- Place the monitor away from strong magnetic or electromagnetic fields, such as high capacity transformers, electric motors, large current power lines, steel pillars, etc.... Magnetism can cause distortion in the picture and/or color purity.
- Avoid covering the slots or openings of the monitor. Allow adequate ventilation around the monitor so the heat from the monitor can properly dissipate. Avoid putting the monitor into any enclosure that does not have adequate ventilation.
- Avoid exposing the monitor to rain, excessive moisture, or dust, as this can cause a fire or shock hazard.
- Avoid placing the monitor, or any other heavy object, on the power cord. Damage to the power cord can cause a fire or electrical shock.
- When transporting the monitor, handle it with care.

CAUTION

Keep your fingers away from the pivot area of the tilt/swivel base.

1.6 Cleaning Your Monitor

When cleaning the monitor, please follow these guidelines:

- Always unplug the monitor before cleaning.
- Wipe the screen and cabinet front and sides with a soft cloth.
- If the screen requires more than dusting, apply household window cleaner to a soft cloth to clean the monitor screen.

CAUTION

Do not use benzene, thinner or any volatile substances to clean the unit as the finish may be permanently marked. Never leave the monitor in contact with rubber or vinyl for an extended period.

1.2 Internal Preset Memory Capability

To minimize adjustment needs, the factory has preset popular display standards into the monitor, as shown in Table 1. If any of these display standards are detected, the picture size and centering are automatically adjusted. All of the factory presets may be over-written by adjusting the user controls. The monitor is capable of automatically storing up to 6 additional display standards. The new display information must differ from any of the existing display standards by at least 1kHz for the horizontal scan frequency or 5Hz for the vertical scan frequency or the sync signal polarities must be different.

Table 1. Memory Buffer Factory Presets

Resolution	Fh(kHz)	Fv(Hz)	Polarity	
			H	V
640 x 480 N.I.	31.5	60.0	-	-
832 x 624 N.I.	49.7	74.5	-	-
1024 x 768 N.I.	60.0	75.0	+	+

Diamond Plus 71
User's Guide

CONTENTS

Note : This manual is designed for use with color display monitor.

CAUTION

The power cord provided with this monitor is designed for safety and must be used with a properly grounded outlet to avoid possible electrical shock.

Do not remove the monitor cabinet as this can expose you to very high voltages and other hazards.

ANMERKUNG:
Dieser Monitor erfüllt die Anforderungen der deutschen Ergonomie-Norm ZH1/ 618/10.80 bei Verwendung der beiden folgenden Timing:

Auflösung	Videoeingang	fH(kHz)	fv(Hz)	Interlace/Non-Interlace
1024x768	Analog RGB, 0.7Vs-s	60	75	Non-Interlaced

Aus ergonomischen Gründen wird empfohlen, die Grundfarbe Blau nicht auf dunklerem Untergrund zu verwenden (schlechte Erkennbarkeit, Augenbelastung bei zu geringem Zeichenkontrast).

Bei hellem Hintergrund empfehlen wir aus ergonomischen Gründen nur Vertikalfrequenzen größer oder gleich 70Hz zu verwenden.

Zur Trennung vom Netz ist der Netzstecker aus der Steckdose zu ziehen, welche sich in der Nähe des Gerätes befinden muß und leicht zugänglich sein soll.

Das Gerät stellt sich automatisch auf die zutreffende Nennspannung ein.

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