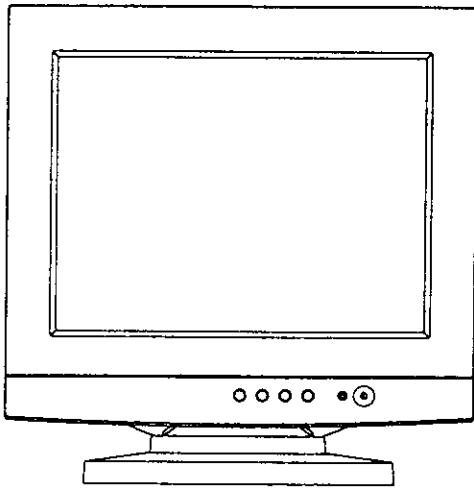# APPENDIX C:

USER'S MANUAL

Operation & Installation Guide

MODEL NO. : KD-1731

17" Multi-Scan Color Monitor
(15.8"diag. Viewing area)

Contents

FCC Compliance Statement

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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/television technician for help.

Notice 1:

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2:

Shielded interface cables, if any, must be used in order to comply with the emission limits.

DOC CLASS B NOTICE

This digital apparatus does not exceed Class B limits for radio noise emission for a digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

I

Safety Instructions

1. Read these instructions. Save these instructions for later use.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation;to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built in installation unless proper ventilation is provided.

7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

9. If an extension cord is used with this product, make sure that the total of the ampere ratings on the products plugged into the extension cord does not exceed the extension cord ampere rating. Also make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.

10. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

Safety Instructions

11. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.

12. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    a. When the power cord or plug is damaged or frayed.

    b. If liquid has been spilled into the product.

    c. If the product has been exposed to rain or water.

    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

    e. If the product has been dropped or the cabinet has been damaged.

13. Use only the proper type of power supply cord set (provided in your manual accessories box) for this unit. It should be a detachable type:UL listed/CSA certified, type SVT/SJT, rated as 10A 125V minimum, VDE approved or its equivalent.

14. The Socket-Outlet is to be installed near the equipment and is easily accessible.

This product is manufactured in accordance with quality assurance system approved by ISO 9001 certification process.

Introduction

1. General information

Congratulations on selecting this high resolution multi-scan color monitor.

This high performance display contains the latest technology of flat screen design and micro-processor control. This monitor has been equipped with both automatic and manual adjustments.

The automatic controls are factory preset and feature automatic factory frequency scanning.

The manual controls feature use digital adjustments to personalize the display in various applications.

The ergonomic characteristics of the antiglare flat screen, high refresh rates, and tilt swivel base allow comfortable usage when operating for a long period of time in high resolutions.

This operating manual describes the functions and features in more detail so that you may obtain the maximum performance of your monitor.

2. Features

- 17" antiglare, flat screen, high-contrast picture tube.
- 0.28mm dot pitch
- IBM compatible
- Multi-scan : horizontal frequencies 30-70khz, vertical frequencies 50-150hz.
- Universal auto-switching power supply.
- Power management
- Digital controls for sizing & distortion
- DDC 2B
  DDC STATEMENTS
  New DDC compatibility simplifies the installation and set-up process for users. By accessing the Plug & Play features of Windows® 95 operating software, the monitor automatically senses the optimal set-up specifications available on the host system. The monitor is configured with minimal need for interaction or expertise on the part of the user.

TÜV CERT DIN ISO 9001 Zertifikat: 09 100 3407	Korea Data System Co., Ltd. has established and applies a quality system for Design, Development, Production and Servicing for Monitors. Proof has been furnished that the requirements according to ISO 9001 are fulfilled.

Product Package

Determine the most convenient location for your monitor.
Make sure that you have enough room to install cables and
connect the monitor to the system and power supply.

Open the shipping carton and check the contents of the package.
The package should include the following items:

* 17" Color Monitor
* AC Power Cord
* Owner's Manual

Note : If any item(s) are missing or damaged, contact your dealer
immediately.

2. Remove the monitor from its shipping carton(see figure 1).
   Save the carton and packaging materials in case you need to
   relocate the monitor.
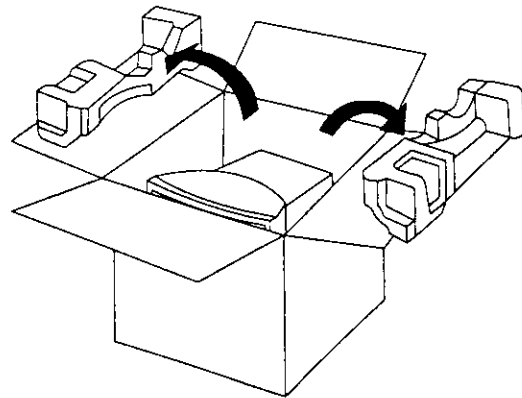
Figure 1

Setup

Setting up your monitor is easy. All you have to do is make a
few simple connections and adjustments. The procedure is as
follows:

1. Start up

Switch the power off to both your monitor and computer. The
location of the power switch is on the lower right hand corner
of the monitor.

2. Power cable Connection.

Connect the female end of the power cable to the power
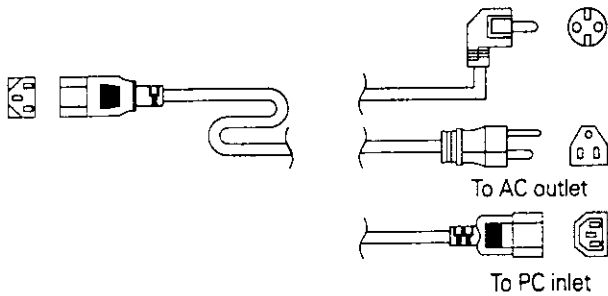input on the back of the monitor. Next, plug the male cable to
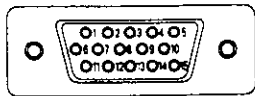the wall outlet for power.

To power input of monitor.

To AC outlet

To PC inlet

Figure 2

3. Signal cable connection

Connect the 15 pin signal cable to the your computer.
Lock both screws to ensure grounding.

D type 15pin connector

Figure 3

PIN NO. DESCRIPTION	PIN NO. DESCRIPTION
1. Video red	9. N. C
2. Video green	10. Ground
3. Video blue	11. Ground
4. N. C	12. SDA
5. DDC Return	13. Hor-Sync
6. Video red ground	14. Ver-Sync
7. Video green ground	15. SCL
8. Video blue ground	

3

Setup

4. Power on

Switch on the power to both your monitor and computer.

5. Adjusting the Picture

Adjust the controls, if necessary, to get the best picture.

A description of the functions of the controls may be found in the next section.

6. Adjusting the Tilt-Swivel Base

The tilt-swivel base can be adjusted for your maximum viewing comfort, it can be adjusted through angles of 90° horizontally and 16° vertically.
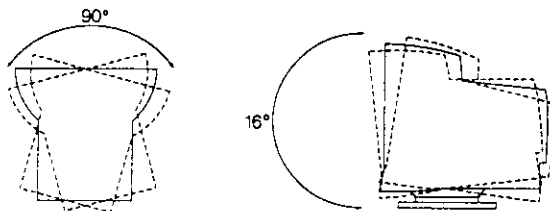
Note:

Due to the sensitivity of this monitor to earth's magnetic field, you may experience minor irregularities in the display if you swivel the monitor through more than 90° while the monitor is ON. If such behavior occurs, please turn the monitor OFF and ON again. The display should return to normal.

7. Setup of the Video Circuitry

To use the full potential of this product, it is necessary to first set the video circuitry of the computer according to the maximum capabilities of this monitor.
This can be expressed in any of the following ways:

- 1280 × 1024 60Hz
- 1024 × 768 85Hz

Controls and Adjustments

There are a few switches that are located on your monitor.
The power indicator and adjustable controls allows the user to
maximize the display for individual preferences.
The description of these functions are as follows :
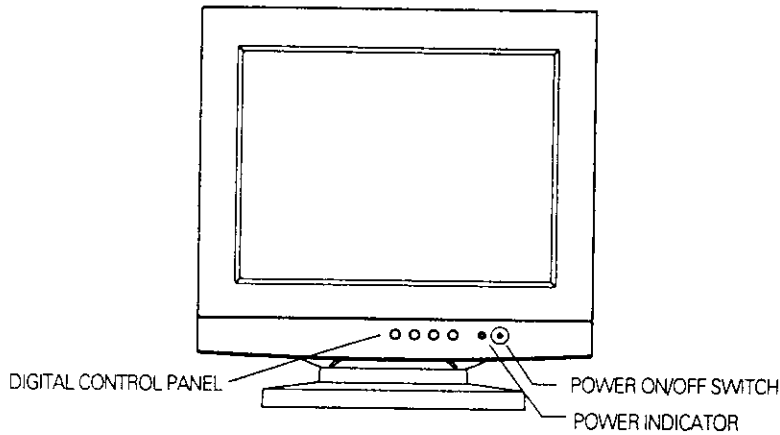
Front Panel Controls

DIGITAL CONTROL PANEL — POWER ON/OFF SWITCH
— POWER INDICATOR

Figure 5

1. Power ON/OFF Switch

Press this button to turn the power ON or OFF. There will be
a short delay before the display appears.

2. Power Indicator

This power indicator illuminates when the power is switched ON
and the power cord is properly attached.

MODE	ON	STAND BY	SUSPEND	OFF
Power Indicator	Green	Amber	Green/Amber Blink 1.0 sec	Green/Amber Blink 2.0 sec

Controls and Adjustments

4. Digital Control Panel

The digital control panel is located at the bottom of your color monitor. If you are not satisfied with the factory settings, use these controls to program those you prefer in each resolution.

Then, these adjusted settings are kept in memory even if you change resolution or turn off the monitor.

EXIT/   DOWN   UP   ENTER
DEGAUSS
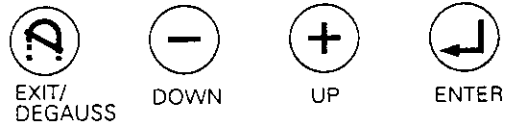
KEY FUNCTION

1. ENTER

   Call Main Menu and sub - menu.
   Call the Sub-Menu in state that the OSD is displayed.

2. UP/DOWN

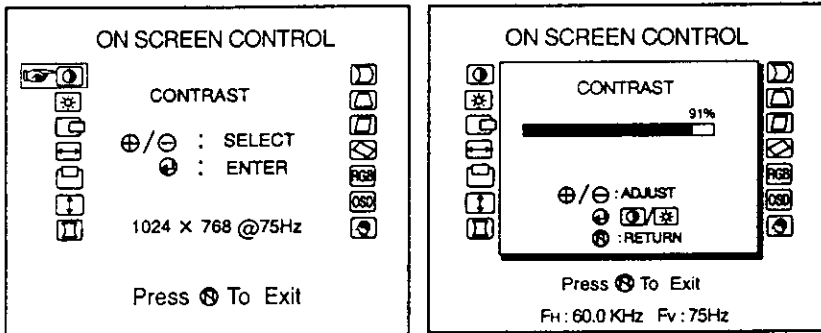   Vary the value for each functions.

3. EXIT/DEGAUSS

   Disable the OSD and degaussing

state key	In state of No OSD	Main Menu	Sub Menu
Enter	Call Main Menu	Call Sub-Menu	Switched each menu
Up	Contrast Control Enable	Before item	Optimize the screen
Down	Contrast Control Enable	Next item	Optimize the screen
Exit	Degaussing	Exit	Return to the main menu

Controls and Adjustments

ON SCREEN CONTROL	ON SCREEN CONTROL
CONTRAST ⊕/⊝ : SELECT ⊕ : ENTER 1024 × 768 @75Hz Press ⊗ To Exit	CONTRAST 91% ⊕/⊝ : ADJUST ⊕ ⊙/※ ⊗ : RETURN Press ⊗ To Exit FH : 60.0 KHz Fv : 75Hz

Menu Descriptions

CONTRAST ◑
Adjustments the black level of the display.

BRIGHTNESS ☼
Adjustments the luminosity level of the display.

H - POSITION(HORIZONTAL POSITION) ⊡
Select this control then use the + and - buttons to center the image horizontally on the display screen.

H - SIZE(HORIZONTAL SIZE) ⊟
Select this control, then use the + and - buttons to expand or decrease the image width to horizontally fill the display screen.

V-POSITION(VERTICAL POSITION) ⊟
Select this control, then use the + and - buttons to center the image vertically on the display screen.

V-SIZE(VERTICAL SIZE) ⊞
Select this control, then use the + and - buttons to expand or decrease the image height to vertically fill the disply screen.

SIDE - PIN(PINCUSHION) ⊠
Select this control, then use the + and - buttons to straighten the sides of the image by pulling them in opposing directions.

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Controls and Adjustments

PIN BALANCE ▯
Select this control, then use the + and - buttons to straighten the sides of the image by pulling them in the corresponding direction

TRAPEZOID ▱
Select this control, then use + and - buttons to even the widths of the top and bottom of the display (pulling the sides in opposing directions)

PARALLELOGRAM ▱
Select this control, then use the + and - buttons to center the top and bottom of the display (pulling the sides in the corresponding direction)

ROTATION ▨
Select this control, then use the + and - buttons to rotate the image until sides of the image are parallel to the edge of the bezel.

COLOR CONTROL(TEMPERATURE) ▨
Select this control, then use the + and - buttons to scroll to the desired temperature. Use the ⊕ button to select either the 9300° K, 6500° K , 5500° K or user for a custom RGB setting

COLOR CONTROL	
☞ 9300 K	5500 K
6500 K	USER
R : ▰▰▰▰▱	85 %
G : ▰▰▰▰▱	85 %
B : ▰▰▰▰▱	85 %
⊕/⊖ : SELECT	
⊕ : ENTER	
⊗ : RETURN	

Controls and Adjustments

R - GAIN(RED) [R]
Select "User" then use the ⊕ button to scroll up and down the RGB meun to R(Red). Use the + and - buttons to adjust the red level of the display

G-GAIN(GREEN) [G]
Select "User" then use the ⊕ button to scroll up and down the RGB menu to G(Green). Use the+ and - buttons to adjust the green level of the display

B-GAIN(BLUE) [B]
Select "User" then use the ⊕ button to scroll up and down the RGB menu to B(Blue). Use the+ and - buttons to adjust the blue level of the display

OSD POSITION [OSD]
Select this control, then use the ⊕ button to select in which direction to move the OSD menu. Use the + and - buttons to move the OSD menu.

RECALL [⊕]
Resets the display settings to the original factory preset values. Press and hold down the ⊕ button until the progress bar disappears.

SIGNAL CABLE
POWER CORD
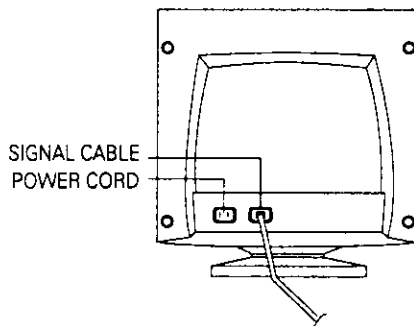
Timing Guide

The 17" color monitor is an Digital multi-scan monitor. It operates
at horizontal frequencies of anywhere between 30 KHz and 70 KHz.
Because of its microprocessor-based design, it offers
auto-synchronization and auto-sizing capabilities. At the preset
status, this monitor offers 11 pre-programmed settings for more
common graphics standards. They are listed in the table below.

Preset	Resolution	Frequency H (KHz)	Frequency V (Hz)	Polarity	Interlaced
M1	640×480/VESA	31.5	60	-/-	N
M2	720×400/VGA	31.5	70	-/+	N
M3	640×480/VESA	37.5	75	-/-	N
M4	640×480/VESA	43.3	85	-/-	N
M5	800×600/VESA	46.9	75	+/+	N
M6	800×600/VESA	53.7	85	+/+	N
M7	832×624/MAC	49.7	75	-/-	N
M8	1024×768/VESA	60.0	75	+/+	N
M9	1024×768/VESA	68.7	85	+/+	N
M10	1152×864/VESA	67.5	75	+/+	N
M11	1280×1024/VESA	64.0	60	+/+	N

* In addition to 11 factory modes, there are 6 additional user modes.

If more than 6 modes are inputted, it will be overrided in accordance with saving
order of additional modes.

Specifications

Picture tube	17" diagonal, 0.28mm dot pitch, 90 degree deflection, non-glare etched screen, tinted glass, medium-short persistence phosphor.
Resolution	1280 × 1024 addressable 1024 × 768 physical
Band width	100MHz
Video input	Analog, positive going signal(0.7V p-p)
Horizontal input	TTL, positive or negative going pulse(2.4~5V p-p)
Vertical input	TTL, positive or negative going pulse(2.4~5V p-p)
Scan frequency	Horizontal: 30~70KHz Vertical: 50~150Hz
Standard display area	300mm(H) × 225mm(V) / 11.8"(H) × 8.8"(V)
Display color	Unlimited
Power input	100~240V AC, 50/60Hz
Fuse rating	250V, S 3.0A(UL, CSA, TÜV) or T 3.15A(TÜV)
Power consumption	On : Less than 100W Stand by : Less than 15W Suspend : Less than 15W Off : Less than 8W
Operating temperature	0 To 40 Degree C.
Dimensions	411mm(W) × 424mm(H) × 440mm(D)/ 16.2"(W) × 16.69"(H) × 17.32"(D)
Weight	19.7Kg(net)/43.43 lbs