

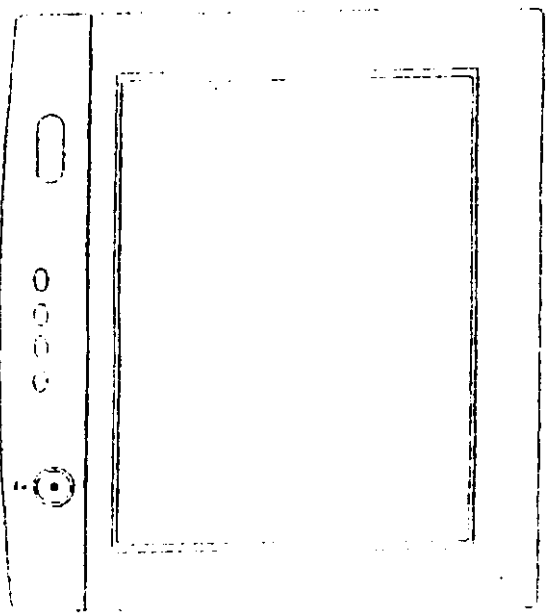
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15" Color Monitor

OSD CONTROL
 NON-INTERLACED
 HIGH RESOLUTION



USER'S MANUAL

1. Instruction

1.1 General information

Welcome to the exciting world of high resolution graphics with your purchase this 15" flat screen color display monitor. It was designed to meet the screen performance requirements of today demanding business. It delivers a flat screen area, higher resolution, and greater color accuracy.

This monitor is designed to operate under a multitude of hardware platforms, video standards, including (BM) from VGA to 1280x1024 non-interlaced and most workstation modes. Its multi-sync function automatically adjust the monitor to the scanning frequency of your video card.

This powerful and intelligent 15" color monitor can provide more active display area, auto-sizing, auto-centering and perfect geometry.

Its non-interlaced and higher refresh rate offers flicker-free screen images, which reduces eye-strain and fatigue, so you can feel more comfortable with the screen even longer.

The microprocessor of the control system enhances and improves your ability to control your display on screen, so it's easier for the user to adjust the preferred screen which is automatically stored in the memory.

The tilt swivel base allows you to adjust the monitor to a comfortable angle of vision.

It supports universal power supply which allows you to use the monitor anywhere in the world.

1.2 Important safety instructions

1. Read all of these instructions.
2. Save these instruction for later use.
3. Follow all warnings and instructions marked on the product.
4. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use product near water.
6. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
7. 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 from overheating, these openings must not be blocked or covered.
8. This product should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
9. This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
10. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
11. 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 risk of fire or electric shock. Never spill liquid of any kind on the product.

12. Except as explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing those covers that are marked "do not remove" may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to service personnel.

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

- When the power cord or plug is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to the rain or water.
 - 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.
 - If the product has been dropped or the cabinet has been damaged.
 - If the product exhibits a distinct change in performance, indicating a need for service.
14. Replace parts with the same type as those which come with the product. Unauthorized may present a risk of fire or explosion.

Der arbeitsplatzbezogene Schalldruckpegel gemäß DIN 45 635 Absatz 1000 beträgt 70dB (A) oder weniger.*

(The sound pressure level at the operators position according to IEC 704 - 1, 1982 is equal or less than 70dB (A).)

1.3 FCC Information

Note:

This equipment has been tested and found to comply with the limits for a class B 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.

Notice:

- (1) The changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- (2) Shielded interface cables and AC power cords, if any, must be used in order to comply with the emission limits.

1.4 Wichtige sicherheitshinweise

1. Lesen Sie diese Hinweise bis zum Ende.
2. Bewahren Sie diese Hinweise auf für einen späteren Gebrauch.
3. Folgen Sie allen Warnungen und Hinweisen, die auf dem Produkt gekennzeichnet sind.
4. Ziehen Sie den Stecker bevor Sie das Gerät reinigen.
5. Stellen Sie ihr Gerät nicht in der Nähe von Wasser auf.
6. Stellen Sie dieses Produkt nicht auf eine unsichere Unterlage, es kann herunterfallen und beträchtlich beschädigt werden.
7. Schutze und Öffnungen im Gehäuse, an der Vorder- und Rückseite dienen der Belüftung. Vermeiden Sie eine Blockierung oder Abdeckung dieser Öffnung, um das Gehäuse vor Überhitzung zu schützen und einen optimalen Betrieb zu gewährleisten.
8. Dieses Gerät sollte nur in Verbindung mit den auf dem entsprechenden Etikett geschriebenen Energiequellen betrieben werden.
Wenn Sie über die verfügbaren Energiequellen unsicher sind, fragen Sie Ihren Händler oder die örtlichen Energiewerke.
9. Dieses Produkt ist ausgestattet mit einem drei-poligen Erdungsstecker, einem Stecker mit einem dritten (Erdungs-) Pol. Dieser Stecker paßt ausschließlich in eine geerdete Steckdose. Dies ist eine Sicherheitsmaßnahme. Sollte der Stecker nicht in die Steckdose passen, bitten Sie Ihren Elektriker, die entsprechende Steckdose zu installieren. Versuchen Sie nicht, den Stecker eigenhändig umzubauen.
10. Stellen Sie keine Gegenstände auf das Stromkabel ab. Vermeiden Sie es, das Stromkabel dort zu platzieren, wo andere Personen darüber gehen können.

1.1 Strecken Sie niemals Dinge irgendwelcher Art durch

Gehäusesöffnung des Monitors. Sie könnten Teile berühren, die unter elektrischer Hochspannung stehen und Kurzschlüsse verursachen, die ein Feuer oder einen Elektroschock verursachen können.

Schalten Sie niemals Flüssigkeit irgendwelcher Art auch immer über das Gerät.

12. Abgesehen von entsprechenden Hinweisen in diesem Handbuch versuchen Sie niemals, dieses Produkt eigenhändig zu reparieren. Das Öffnen oder Entfernen solcher Abdeckungen, die mit "do not remove" gekennzeichnet sind, können Sie einer gefährlichen Hochspannung oder anderen Risiken aussetzen.
(Überlassen Sie alle Reparaturarbeiten diesen Teilen geschultem Wartungspersonal)

ziehen Sie den Stecker aus der Steckdose und warten Sie sich an den Wartungsservice, wenn folgende Umstände gegeben sind

- a) Das Stromkabel ist beschädigt
- b) Flüssigkeit ist in das Gerät gelangt
- c) Das Gerät wurde Regen oder Wasser ausgesetzt
- d) Das Gerät arbeitet trotz Befolgung der Gebrauchsanweisung nicht fehlerfrei.

Stellen Sie nur einen Schalter ein, deren Funktion in der Gebrauchsanweisung genannt wird. Die entsprechende Bedienung anderer Schalter kann ihr Gerät beschädigen und umfassende Reparaturarbeiten nach sich ziehen, um ihr Gerät wieder funktionsfähig zu machen.

- e) Das Gerät wurde fallengelassen oder das Gehäuse beschädigt.
- f) Das Gerät zeigt deutliche Leistungsschwächen, die eine Reparatur nötig macht.

14. Verwenden Sie nur Originalersatzteile.
Jede andere Teile setzen ihr Gerät der Feuer- oder Explosionsgefahr aus.

Technical service warning for X-ray radiation protection:

This product contains electrical and mechanical parts essential for X-ray protection.

For replacement purposes, use only part types shown in the parts list.

2. Installation

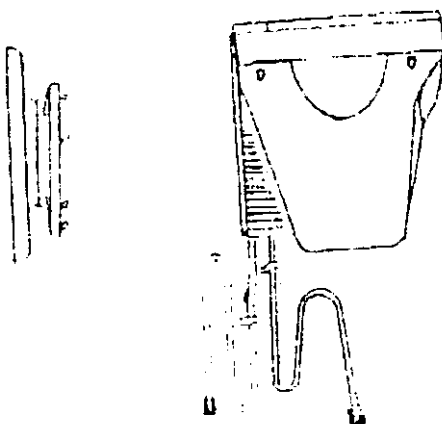
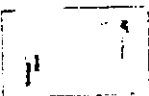
2.1 The product

Before using this monitor, please make sure that all the items listed below are presented in your package:

- 15" Digital color monitor

- 1kg/5.5lbs base to enable you to position the monitor at the most comfortable viewing angle.

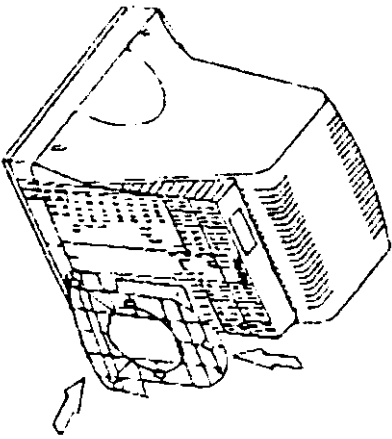
Also see Manual



2.2 Swivel base assembly

There are six mounting tabs on the swivel base and six matching insertion slots on the underside of the monitor case.

Assembly is extremely easy. First, align the mounting tabs on the swivel base with the insertion slots on the underside of the monitor case. Then, slide the swivel base towards the front of the monitor until the mounting tabs are firmly interlocked in the insertion slots.



2.3 Connecting

The procedure for setting up your 15" digital monitor is as follows:

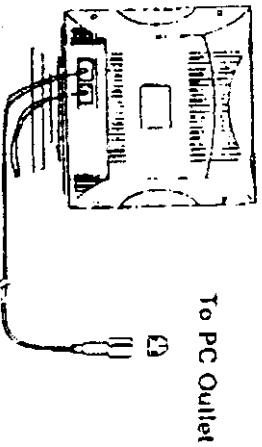
1. Power of

Switch off the power to both your monitor and your computer.

The location of the power switch is on the lower right hand corner of the monitor.

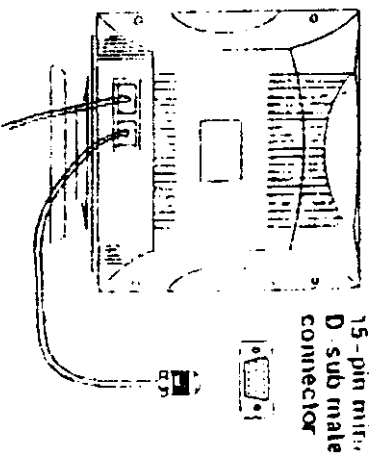
2. Power cable connection

Connect one end of the main power cord to main power socket at the rear of the monitor, and connect the other end of the cord to the main power supply.



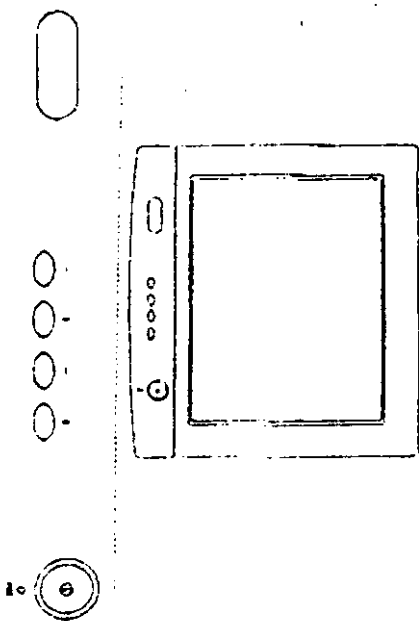
3. Signal cable connection

The monitor has a built-in signal cable with a male 15-pins mini D-sub connector. Simply attach this connector to the female 15-pins receptacle of your video adapter. Secure the connection with screws on the connector.



3. Using your monitor

3.1 The controls of microprocessor control system Control locations and functions.



- Select "+" or "-" Use the select buttons to choose the function that you wish to adjust.

Press "+" key, the selector will search from left to right.
Press "-" key, the selector will search from right to left.

The selector will search continuously in green when the "select" button is pressed and stop at the point (function) when the button is released. The LED stays green on the selected function indicator.

- 2 Adjustment (+/-) Use the +/- keys to increase and decrease each adjustment

3 LED and POWER SAVE indicator:

- a. The green LED indicator lights when the main power on.
- b. The LED will continuously flash in green on the selected function indicator when the monitor switches from "power on" mode to "suspend" or "stand-by" mode.
- c. No LED are lit when the monitor enters the power off mode.

- 4 Main power switch : To be used to turn main power on or off.

3.2 Function adjustment

 **BRIGHTNESS:** The press adjustment "+" or "-" to adjust brightness.

 **CONTRAST :** To press adjustment "+" or "-" to adjust contrast.

 **H-SIZE :** The horizontal size will be increased or decreased by pressing the adjustment "+" or "-".

 **H-CENTER :** The picture will move to right or left by pressing the adjustment "+" or "-".

 **V-SIZE :** The vertical size will be increased or decreased by pressing the adjustment "+" or "-".

 **V-CENTER :** The picture will move up or down by pressing the adjustment "+" or "-".

 **PINCUSHION :** The picture will go barrel or pin by pressing the adjustment "+" or "-".

 **TRAPEZOID :** The upper part of the screen will be wider the lower part by pressing adjustment "+", and vice versa by pressing adjustment "-".

RECALL : The "RECALL" button will reset the original factory settings.

3.3 Clock Setting

The clock has 5 Functions which is to set months, date, hour, minute and second. There are two buttons Button "S1" and Button "S2" "S1" Button is to set the mode while "S2" Button is to set digits.

3.4 Power management control

The power saving functions of the monitor are based on VESA and Hotek requirements. Power consumption specifications are listed below:

Mode	Specifications
POWER ON	When the Green LED indicator lights, the maximum power consumption is less than 90 watts.
SUSPEND & STAND-BY	When the monitor switches from POWER ON mode to SUSPEND mode or STAND-BY mode, the LED will continuously flash in green on the selected function indicator. The maximum power consumption is less than 25 watts.
POWER OFF	No LED are lit when the monitor enters the POWER OFF mode from the SUSPEND mode or STAND-BY mode. The maximum power consumption is less than 8 watts.

Note:

The transition from POWER ON to SUSPEND mode or STAND-BY mode is instantaneous.

Approximately 2-3 seconds are required to enter the POWER ON mode from the POWER OFF mode.

4. Display data channel

DDC

DDC will allow the display to inform the host system about its identity and depending on the level of DDC is used, communicate additional levels of display capabilities.

The communication channel is defined in two levels by VESA.

DDC1:

An uni-directional data channel from Display to Host. It uses the vertical sync as a clock and continuously transmits EXTENDED DISPLAY IDENTIFICATION (EDID) information.

DDC2:

A bi-directional data channel based on I²C protocol. The host computer can request EDID from monitor. The host must output an extra clock and data stream. It is a DDC2B compatible device if it can transmit or receive in any way.

The DDC2 device must include all of the function of DDC1

Once the monitor switches from DDC1 mode to DDC2 mode, it will remain in DDC2 mode for the duration of that power-on period

The host type could be:

1. OLD
2. DDC1
3. DDC2B

The monitor type could be:

1. OLD
2. DDC1
3. DDC2B

DDC1/2B

This monitor offers DDC1 and DDC2 LEVEL B. It can transmit continuously its EXTENDED DISPLAY IDENTIFICATION (EDID) using the DDC1 channel. If it senses a clock signal at pin 15, it will switch from DDC1 mode to DDC2 mode. That is to say, the monitor will not send the data to host on the V-sync, it will stay in the DDC2 mode until the power is turned off.

Because the 5V power supplied by the host computer on pin 9 is optional, the monitor must be powered on when the host computer sends a DDC2 command, otherwise, the host will assume it to be an old monitor or a communication error for NO RESPONSE will occur.

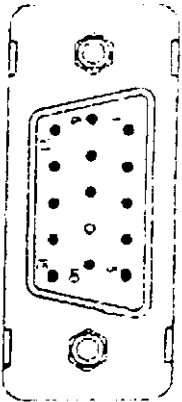
APPENDIX A : Specification

Picture Tube	: 15 inches, 90 degree deflection, 0.28 dot-pitch, non-glare, B22 (medium short persistence).
Input Signal	: VIDEO : Analog 0.7 Vpp/75 ohm positive. : SYNC : Separate sync, TTL Level, Positive/Negative.
Display Color	: Analog Input, unlimited colors.
Resolution	: 1280x1024 Non-interlaced.
Synchronization	Horizontal : 30KHz ~ 69KHz (Automatic) Vertical : 50Hz ~ 120Hz (Automatic)
Video Bandwidth	: 100MHz at - 3dB
Display Size	Horizontal : 265mm (Over screen adjustment) Vertical : 198mm (Over screen adjustment)
Power Supply	: 100Vac ~ 240Vac 60/50Hz
Current Rating	: 1.5A (MAX)
Power Consumption	: 40W (MAX)
Dimension	: 365 (W) x 390 (L) x 180 (H) mm
Weight	Net Weight : 12.5 kgs Gross Weight : 14.5 kgs
Regulations	: UL, CUL, FCC-B, DHS, US, MPRII, CE
Power Saving	: EPA, VESA, Nulek
Low Radiation	: Meet MPRII STANDARD.
Environmental Consideration:	
Operating Temperature	: 0°C ~ 40°C (32°F ~ 104°F)
Humidity	: 20% ~ 90% RH
Altitude	: 3000 feet
Storage Temperature	: -20°C ~ 60°C (-4°F ~ 140°F)
Humidity	: 20% ~ 90% RH
Altitude	: 12000 feet

APPENDIX B : Pin assignment

Pin	Description	Pin	Description
1	Red	9	No-Connection
2	Green	10	Ground
3	Blue	11	Ground
4	Ground	12	Bi-Directional Data (SDA)
5	Ground	13	H. Sync.
6	Red Pin	14	V. Sync.
7	Green Pin	15	Data Clock (SCL)
8	Blue Pin		

0-SUB TYPE ISP



Note : Pin 12 & Pin 15 are for DDC USE ONLY.

APPENDIX C : Resolution

	RESOLUTION	H-FRE.	V-FRE.	OPTION
MODE 1	VGA 640 X 400	31.6KHz	70.0Hz	
MODE 2	VGA 640 X 480	31.4KHz	60.0Hz	
MODE 3	8514A 1024 X 768	35.5KHz	87.0Hz	
MODE 4	VESA 640 X 480	37.9KHz	73.0Hz	
MODE 5	VESA 800 X 600	37.9KHz	60.0Hz	
MODE 6	VESA 800 X 600	48.0KHz	72.0Hz	
MODE 7	VESA 1024 X 768	48.4KHz	60.0Hz	
MODE 8	VESA 1024 X 768	56.5KHz	70.0Hz	OPTION
MODE 9	VESA 1280 X 1024	64.3KHz	60.0Hz	OPTION
MODE 10	VESA 1024 X 768	68.6KHz	85.0Hz	OPTION

Trouble shooting

If your monitor fails to operate correctly, refer to the following check point for possible solutions before calling for repairs.

Condition

1 The picture does not appear.

Check Point

Check to make sure the signal cable is firmly seated in the socket. Check to see that the computer is turned on. Check that the brightness & contrast controls are at the appropriate position, not at the minimum.

2 The screen is not synchronized. Check to make sure the signal cable is firmly seated in the socket. Check that your video card provides separate SYNC signals. Make sure the signal timings of the computer system are within the specification of the monitor.

3 The position of the screen is not in the center.

Adjusts the H-SIZE, H PHASE or V-SIZE, V-CENTER controls.

4 The screen is too bright (too dark).

Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum). Check if the specified voltage is applied. Check if the signal timing of the computer system is within the specification of the monitor. Especially, check the horizontal frequency.

5 The screen is swaying.

Move all objects which emit a magnetic field such as a motor or transformer, away from the monitor. Check if the specified voltage is applied. Check if the signal timing of the computer system is within the specification of the monitor.

If you are unable to correct the fault by using this chart, discontinue using your monitor and contact your distributor or dealer for further assistance.