

EUT:Monitor

FCC ID:NPU15T

ARIESTEC, INC.

USER'S MANUAL

FEDERAL COMMUNICATIONS COMMISSION

NOTE

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. 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.

Shielded interface cables (except power cord) must be used in order to comply with emission limits.

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

Important Safety Instruction

Please read the following instructions carefully. This manual should be retained for future use.

1. Unplug the monitor from its power source before cleaning it. Do not spray liquid cleaners directly onto the unit. Stand away from the monitor and spray the cleaning solution onto a rag. Then clean the monitor with the slightly dampened rag.
2. Do not place your monitor near a window. Exposing the monitor to rain, water, moisture or sunlight can severely damage it.
3. The openings located on the monitor case are the needed ventilation slots. To protect the monitor from overheating, do not block these openings. For the same reason, this unit should not be placed near or over sources of heat. The unit should never be placed in a built-in installation unless adequate ventilation is provided.
4. This product is equipped with a three-prong grounding-style plug. It should only be inserted into a grounding-style power outlet. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug by bending the rounded grounding pin back and jamming it into a two-prong socket.
5. If you are using an extension cord with the monitor, make sure that the combined ampere ratings of all the products plugged into the extension cord do not exceed the extension cord maximum ampere rating. Also make sure that the total of all the products plugged into the wall outlet do not exceed 15 amperes.
6. Do not lay anything on top of the power cord. Furthermore, make sure the power cord is placed in an area where it will not be stepped on.
7. Do not push any object into the monitor's cabinet openings. They may come in contact with the monitor voltage points and short out parts which may cause a fire or give off electric shocks.

8. Do not remove the cover or attempt to service this unit by yourself. You may void your warranty. Servicing of any nature should be performed only by an authorized technician.
9. If any of the following occur, immediately unplug your monitor and call an authorized technician.
 - The power cord or plug is frayed or damaged.
 - Liquid has been spilled into the monitor, or it has been exposed to rain.
 - The monitor has been dropped or the case has been damaged.
10. Power source:
 - For 120V operation, use only a power cord which has a parallel blade plug, rated 125V/6A min.
 - For 240V operation, use only a power cord which has a tandem blade, rated 250V/6A min.

WARNING

Use only shielded cables to connect I/O devices to this equipment.

CAUTION:

- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Use only RF shielded cable to connect this monitor to a computer device.

Wichtige Sicherheitshinweise

Bitte lesen Sie diese Hinweise sorgfältig durch.

Heben Sie diese Anleitung für den späteren Gebrauch auf.

Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie keine Flüssigoder Aerosolreiniger. Am besten ein angefeuchtetes Tuch zur Reinigung.

Um eine Beschädigung des Gerätes zu vermeiden sollten Sie nur Zubehöerteile verwenden, die vom Hersteller zugelassen sind.

Das Gerät ist vor Feuchtigkeit zu schützen.

Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten, Ein Kippen oder Fallen könnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.

Die Belüftungsöffnungen dienen zur Luftzirkulation, die das Gerät vor Überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.

Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.

Die Netzanschlußsteckdose muß aus Gründen der elektrischen Sicherheit einen Schutzleiterkontakt haben.

Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann, Es sollte auch nichts auf der Leitung abgestellt werden.

1. Alle Hinweise und Warnungen die sich am Gerät befinden sind zu beachten.

2. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung des Geräts vermieden.

3. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrische Schläge zur Folge haben.

4. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.

15. Wenn folgende Situationen auftreten, ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:

a - Netzkabel oder Netzstecker sind beschädigt.

b - Flüssigkeit ist in das Gerät eingedrungen.

c - Das Gerät war Feuchtigkeit ausgesetzt.

d - Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.

e - Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.

f - Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.

16. Bei Reparaturen dürfen nur Originalersatzteile bzw. den Originalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Beschädigung hervorrufen.

17. Wenden Sie sich mit allen Fragen, die Service und Reparatur betreffen, an Ihren Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerätes sicher.

18. Der Arbeitsplatz bezogene Schalldruckpegel nach DIN 45 635 beträgt 70dB (A) oder weniger.

19. Die Steckdose muß nahe dem Gerät angebracht und leicht zugänglich sein.

20. Es wird aus ergonomischen Gründen empfohlen, die Grundfarbe blau nicht auf dunklem Untergrund zu verwenden (schlechte Lesbarkeit und erhöhte Augenbelastung bei zu geringem Zeichenkontrast sind die Folge).

21. ZH1/618/10.80 für Ergonomie

22. Zum Netzanschluß dieses Geräts ist eine geprüfte Leitung zu verwenden. Für einen Nennstrom bis 6A und einem Gerätegewicht von über 3 kg ist eine Leitung nicht leichter als H05VV-F mit einem Leitungsquerschnitt von 0.75mm² einzusetzen.

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1 INTRODUCTION

Congratulations on the purchase of your new 15.1" LCD Monitor. Your new Monitor features the latest advances in personal computing technology. Its state of the art design combines ergonomics with high performance circuitry to provide a monitor with unequalled viewing quality and that is easy-to-use.

The LCD Monitor is Plug & Play compliant and when attached to a Plug and Play supported video adapter, the LCD monitor is automatically detected by your system. The monitor supports 10 factory preset viewing modes and up to 8 user defined modes giving greater flexibility and control over viewing conditions. The unit also features OSD (On Screen Display) which allows you to adjust the screen parameters to your viewing comfort. Upon exiting the OSD, the display changes are automatically saved to memory. Other ergonomic features include a wide viewing angle and tilt & swivel adjustment.

Features are also available to maximize productivity and expandability. The USB (Universal Serial Bus) Hub provides four USB connectors that can be attached to a vast array of USB supported peripherals such as keyboards, scanners, and printers. The 1-watt speakers are mounted on the bottom of monitor to conserve workspace.

The LCD Monitor complies with MPRII radiation emission, EPA power saving and VESA Display Power Management Signaling (DPMS) specifications. With the built-in power management features, the monitor can automatically reduce power consumption to less than 8 watts.

Plug & Play

This monitor complies with the DDC1 and DDC2B (Display Data Channel) specifications. These standards, set by the VESA (Video Electronics Standards Association), specify how a monitor must communicate with the video adapter to transfer preset information such as resolutions and refresh rates. Once transferred, the information is then matched with the video adapter's supported resolutions and refresh rates. This matching allows the monitor to run at the highest refresh rate possible for the selected resolution.

Note! As described above, both the monitor and video adapter must adhere to the DDC scheme for Plug & Play to be supported.

The USB (Universal Serial Bus) Option

The USB (Universal Serial Bus) Hub ease. It features one upstream port, to be connected to a host, and four downstream ports that can be connected to a vast array of USB supported peripherals including keyboards, personal printers, scanners, and modems. Furthermore, each port can support numerous daisy chained devices.

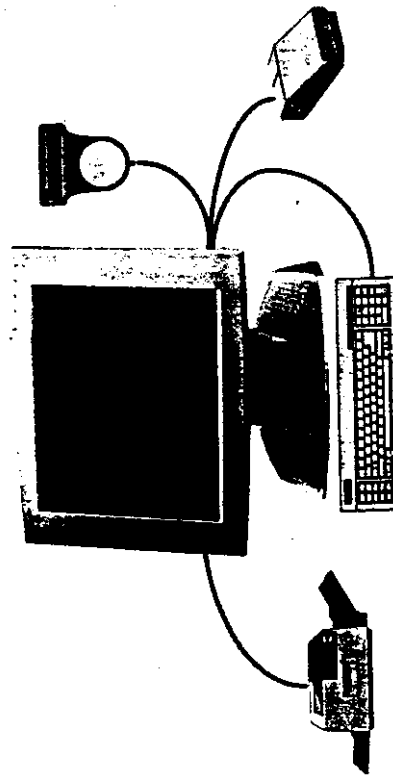


Figure 1 : USB Expandability

Unpacking

Please make sure the following items are in the shipping package and found in good condition :

- 15.1" LCD Monitor
- Power Cord
- Signal Cable
- This Manual
- Adapter
- One USB Cable
- Speaker Cable

If any of the above is missing or appears damaged, please contact your dealer immediately.

2 INSTALLATION

Choosing A Workstation

When choosing an appropriate workspace, keep these few things in mind:

- A sturdy, level surface.
- An electrical wall outlet and a telephone wall jack near the computer.
- At least 3-inch clearance at the back of the computer to allow for the required airflow.
- Do not place near a window. Exposing the Monitor to direct sunlight for extended periods may damage the unit.
- You may want to use a desk lamp to adjust the ambient lighting for your viewing comfort.

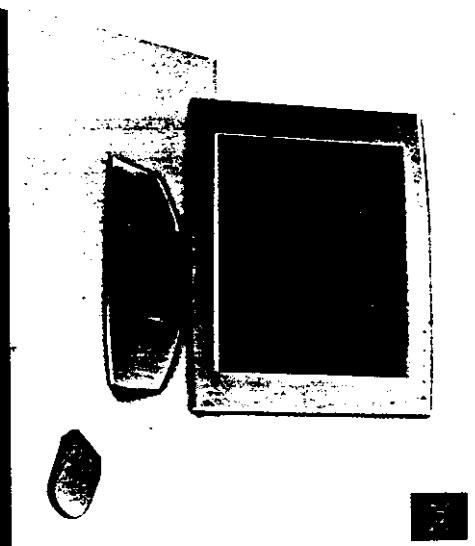


Figure 2 : The Workstation

The Signal Cable Connection

- Locate the VGA port on the rear of the PC. The signal cable has a standard 15-pin mini D-sub (VGA) connector. If you are having trouble locating the VGA port, please refer to the documentation which came with your PC.
- Connect the signal cable to the PC's VGA port.
- Connect the other end of the signal cable to your LCD Monitor as shown in Figure 3.

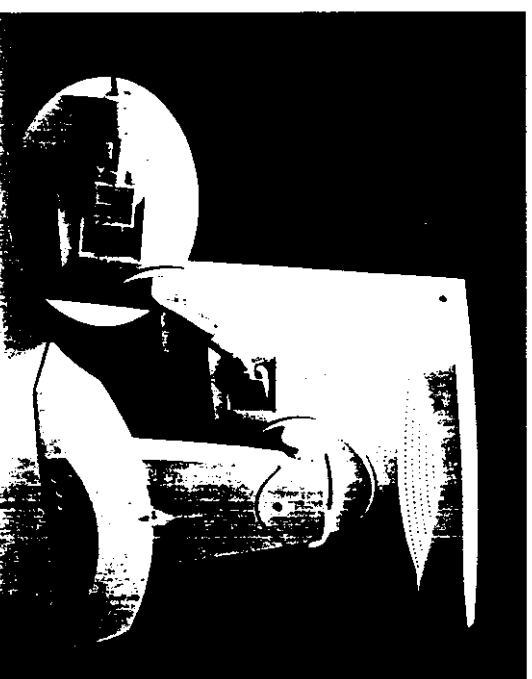


Figure 3 : Connecting the Signal Cable

The AC Connection

- Locate the DC port on the rear of the monitor.
- Plug the adapter into the DC port.
- Plug the male end into the outlet of wall.

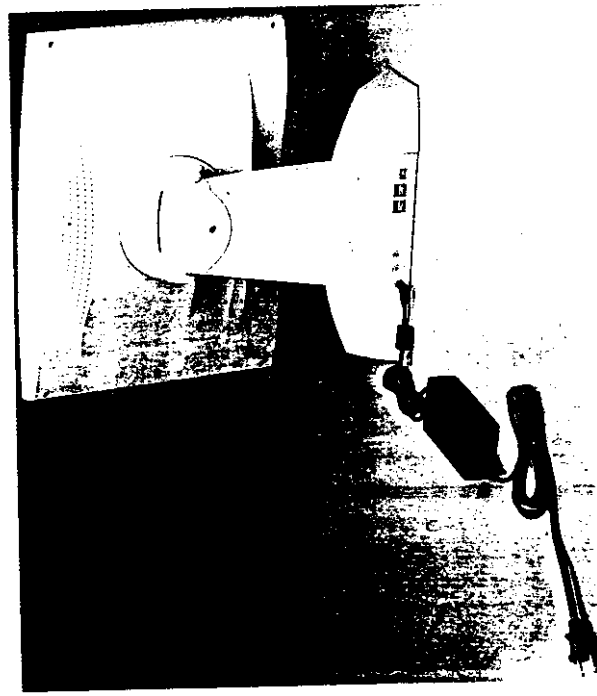


Figure 4 : Connecting the Power Cord

Hub Features

The USB features A and B type ports. The four type A downstream ports can be attached to any USB supported peripheral. The B type upstream port is a dedicated host port. In most cases, this port will be connected to your PC.

Figure 5 USB hub.

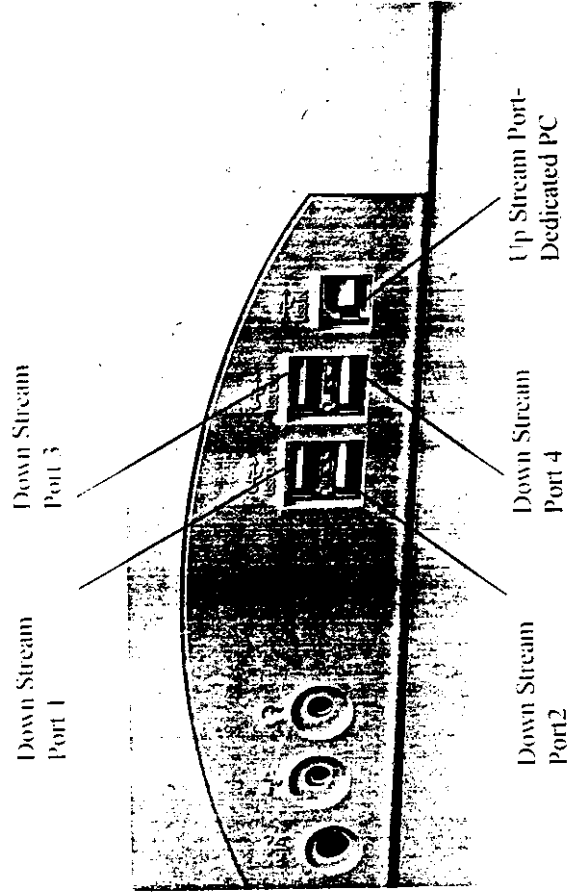


Figure 5: USB Upstream and Downstream Ports

3 OPERATION

Tilt & Swivel Adjustments

The monitor is capable of both tilt and swivel adjustments.

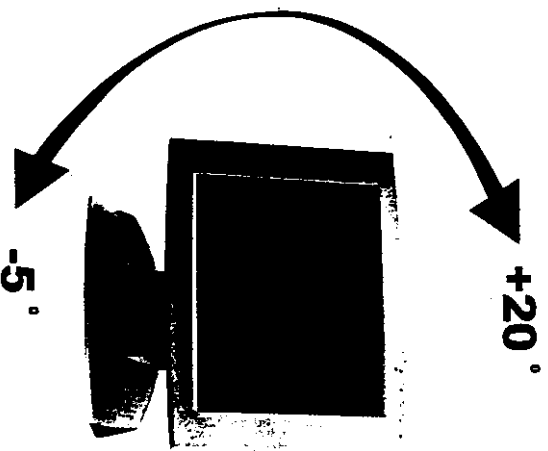


Figure 6: Tilt Adjustment

- With the tilt feature, the monitor is capable of vertical adjustments of +20° to -5°.
- The swivel feature allows for upright position.

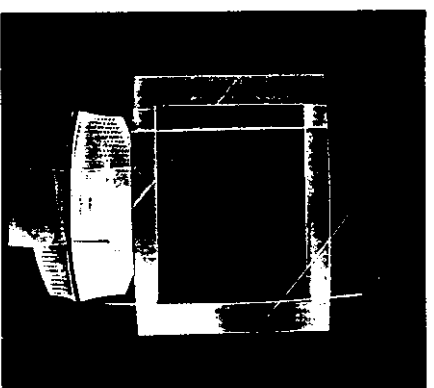
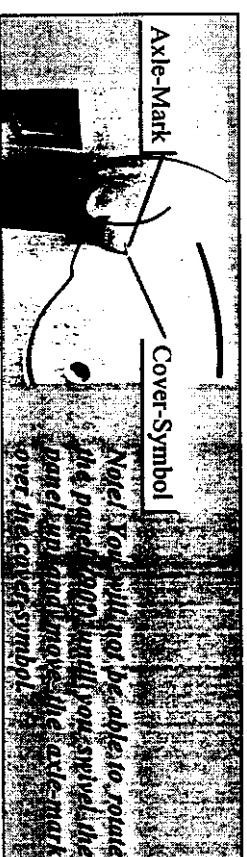


Figure 7 Swivel Adjustment



Power Controls

The power controls are located on the top side of the monitor's front panel.

Power Switch



When the power switch is pressed, the monitor will be turned on. When the power switch is pressed once more, the monitor will be turned off.

Power LED

The power LED is located just to the left of the power switch. Two different colors are used to indicate the monitor's power saving status.

- Yellow indicates the Monitor is in the ON mode.
- Amber indicates the Monitor is in the power saving mode.

On-Screen Display Controls

The monitor features an intuitive on-screen-display, making adjustments to display settings simple. By using four OSD (on-screen display) control buttons, the user can adjust the viewing environment. A description for each of the monitor's controls follows. *Figure 8* depicts the four function controls as seen on the top panel of the monitor.

① + - ← MENU

Figure 8: OSD Control

Function ① + - ← MENU

The four buttons allow you to display the OSD menu and select the display fields. After selecting a particular display field, it can be adjusted.

- Press one of four buttons one time to activate the OSD.
- Once the OSD is active, pressing + or - button will cause the next field to be selected.
- Pressing the ← button to confirm the item that you want to adjust. Then the bar will change color from yellow to red.
- Press the "MENU" button to switch off the OSD.

Note! Refer the Chapter 4 Icon Description for more detailed information concerning the display settings.

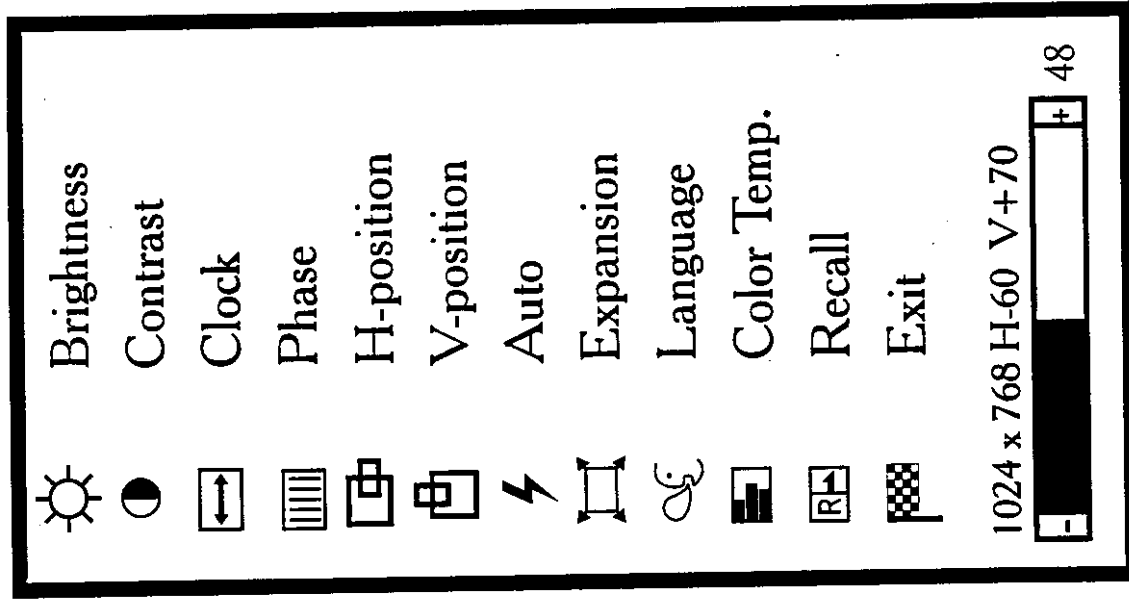


Figure 8: On-Screen-Display

4 ICON DESCRIPTIONS

Adjustment + - ↵

The Adjustment controls allow you to change the value of the selected display field.

- **+** Adjustment increases the value of the selected display field.
- **-** Adjustment decreases the value of the selected display field.
- **↵** Confirm the value and return to function selection.

Turning Off OSD

Once all your settings have been made, the OSD will automatically turn off after 10 seconds of inactivity. To manually turn off the OSD, simply press the "MENU" button.

Controls	Icon	Function
Contrast		This field allows you to adjust the display contrast level to accommodate the ambient lighting conditions of your working environment.
Brightness		This field allows you to fine-tune the display brightness level.
Clock		This field allows you to stretch or squeeze the display area horizontally.
Phase		This field allows you to fine-tune the display quality
H-Position		This field allows you to adjust the display to the right or to the left.
V-Position		This field allows you to adjust the display up or down on the screen.
Auto		This field allows you to adjust H-phase & H-position & V-position clock automatically.
Expansion		This field allows you to expand display to full screen.
Language		This field allows you to choose five different language:

5 TECHNICAL SPECIFICATIONS

Specifications

Model	15TM
Screen	15LCD
Dot Pitch (mm)	
Horizontal	0.30
Vertical	0.30
Display Size	15.1"
Viewing Angle	
Right	50°
Left	50°
Top	35°
Bottom	45°
Scanning Frequency	
Horizontal (KHz)	30 ~ 61
Vertical (Hz)	50 ~ 75
Max. Resolution	1024 x 768
Band Width	78MHz
Plug & Play	DDC1 & DDC2B
Display Colors	262,144
Signal Cable	Captive 15 pin, mini D-sub
Power	
Consumption	35W
Supply	100-250V AC 50/60Hz Adapter
Power Management	Complied with EPA & VESA DPMS

Model		15TM
On Screen Display	Yes	
Digital Controls		
Brightness	Yes	
Contrast	Yes	
Clock	Yes	
H-Position	Yes	
V-Position	Yes	
Phase	Yes	
Language	Yes	
Auto	Yes	
Expansion	Yes	
Color Temp.	Yes	
Display Modes		
Preset	10	
User	8	
Low Radiation	MPR II TCO95 (Option)	
USB Hub (Optional)		
Upstream Ports	1	
Downstream Ports	4	
Audio (Optional)		
Output	1W (x2) RMS	
Controls	Volume	
Response	30Hz ~ 30KHz	
Earphone Jack	Yes	
Operating		
Temperature	0 ~ 40°C	
Relative Humidity	10 ~ 90% non-condensing	
Dimension	402mm(W) x 397mm(H) x 172mm(D)	
Net Weight	6.2KGS (13.7LBS)	

Preset Timing

Mode	F. Horizontal	F. Vertical	Dot Clock
640 x 400	37.9KHz	70Hz	31.50MHz
640 x 480	37.9KHz	60Hz	31.75MHz
640 x 480	37.9KHz	72Hz	31.50MHz
640 x 480	37.9KHz	75Hz	31.50MHz
800 x 600	35.1KHz	56Hz	36.00MHz
800 x 600	35.9KHz	60Hz	40.00MHz
800 x 600	46.9KHz	75Hz	49.50MHz
1024 x 768	48.4KHz	60Hz	65.00MHz
1024 x 768	56.5KHz	70Hz	75.00MHz
1024 x 768	60.0KHz	75Hz	78.75MHz

6 TROUBLE SHOOTING

This section will try to anticipate potential problems that you may encounter in the day-to-day use of your monitor. Included in this section is information which should help solve these problems for you. If after trying the suggested solutions, your monitor still does not function properly, please contact your authorized service center.

Power

Symptom : The monitor is switched On, but the power LED is not lit.

Solution : Switch the monitor Off. Then if the power cord and signal cable are properly connected. If the monitor is plugged into a powered extension cord or a surge protector, make sure that extension cord or the surge protector is turned on.

Display

Symptom : The display image is either not centered, too small, or too large.

Solution : Adjust the Auto control.

Symptom : The display image is either dangling or unstable.

Solution : Make sure that the signal cable's D-shaped connector is properly connected to the video adapter port on the back of the PC.

Symptom : The picture is bouncing or a wave pattern is present in the display.

Solution : Move any electrical devices away from the monitor, which may cause display interference. Please refer to the FCC statement at the beginning of the manual for more details on display interference.

7 PANEL CRITERIA

Conditions

Item	Conditions
Lighting	Fluorescent light (Day-Light Type) Display Surface illumination to be 500-1000 Lux.
Temperature	25°C ± 5°C
Driving Condition	Equipment
	Customer CPU or PC AT Compatible CPU with Chips VGA Controller 655xx
	Supply voltage
	DC 5.0V
	Display pattern
Backlight	Black, White, Gray #31 R, G, B
	If = 5mA
	Supply current
CCFL Driving	Frequency
	35KHz

Remarks: Inspect at 20 inches from display.

Defects not appear within 1 minute shall be ignored.

Standard viewing angle of the inspection shall be 0° to the display surface.

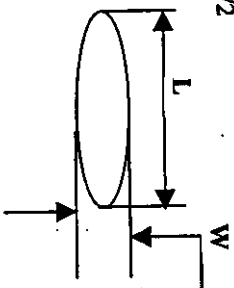
Variation of viewing angle to the display shall not exceed the range of specified viewing angle.

Cosmetic Anomalies Inspection Specifications

Cosmetic defect

Note: 1) All criteria shall be $L \geq W$

$$2) D = (L + W) / 2$$



Unit: mm

Defect (type)	Count	Reject
Black Spot / White Spot ($W > 1/4L$) (Foreign Circular Matter)	$0.15 < D \leq 0.4$	$D > 0.4$
Scratch on polarizer	$0.01 < W \leq 0.1$ and $1.0 < L \leq 10.0$	$W > 0.1$ or $L > 10.0$
Polarizer bubbles	$0.1 < W \leq 0.5$ and $L \leq 1.0$	$W > 0.5$ or $L > 1.0$
Dent on polarizer	$0.1 < W \leq 0.5$ and $L \leq 1.0$	$W > 0.5$ or $L > 1.0$
Black line / White line (Streak, Lint, Hair)	$0.05 < W \leq 0.10$ and $0.3 < L \leq 2.1$	$W > 0.10$ or $L > 2.1$

Dirt: Product passes if dirt can be wiped off easily

Following defect to be judged by Limit Samples when it is necessary

- Rainbow color (Newton ring)
- Rubbing mark
- Mottling (Uniformity)
- Dim line (Vth shift line)

Total number of cosmetic defect with the countable range

Accept	Reject
$N \leq 10$	$N > 10$

Functional Anomalies Inspection Specification

There should be no displays that are unable to show any image.

Functional defect of pixels

Definition

- Each RGB element of a pixel is called subpixel.
- Subpixel that contains larger than 1/2 defective area is called defective subpixel.
- Brightness of a subpixel > 16 levels out of 64 gray levels shall be counted as a Bright subpixel or a Dark subpixel.
- One block of adjacent defective subpixel whose contents are one or two defective subpixels shall be counted as a block of defects.

Distribution of defective subpixel

- 1) ≤ 2 defective subpixels for all types of combinations shall be allowed as adjacent defective subpixel.
- 2) Distance between two blocks of defects shall be $\geq 4\text{mm}$
- 3) Distance between two blocks of defects both of which include a bright green subpixel shall be $\geq 8\text{mm}$
- 4) Blocks of defects within a $\phi 20\text{mm}$ circle shall be ≤ 4
- 5) Blocks of defects both of which include a bright subpixel within a $\phi 20\text{mm}$ circle shall be ≤ 3

Number of defective subpixels

Defect type	Accept	Reject
Bright subpixels	$N \leq 10$	$N > 10$
Bright Green subpixels	$N \leq 4$	$N > 4$
Dark subpixels	$N \leq 10$	$N > 10$
Total number of defective subpixels	$N \leq 10$	$N > 10$

ARISTEC, INC.

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FEDERAL COMMUNICATIONS COMMISSION
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046
U.S.A.

FCC ID:NPU15T

Re: About the modification of MONITOR

Gentlemen:

I, hereby, declare that all modification on the E.U.T.,
FCC ID: NPU15T, will be added or layout on the mass production
products. Modifications are shown as below:

1. Two ferrite cores are added on the VGA cable.
(As the photo No.2)
2. A ferrite core is added on the adapter cable.
(As the photo No.2)
3. A ferrite core is added on the P1 cable.
(As the photo No.3)
4. A ferrite core is added on the USB board.
(As the photo No.3)
5. A ferrite core is added on the P1 cable.
(As the photo No.12)
6. A ferrite core is added on the data cable of J2 and J3.
(As the photo No.12)
7. A ferrite core is added on the cable of J6.
(As the photo No.12)
8. A ferrite core is added on the VGA cable.
(As the photo No.12)
9. A grounding line is added on the panel control board and A/D board.
(As the photo No.15)
10. Four ferrite cores are added on the panel.
(As the photo No.24)
11. One piece of iron is added on the USB board.
(As the photo No.8)
12. Two piece of copper plate are added on the panel.
(As the photo No.23)

Sincerely yours

Frank Lin

Frank Lin
Superrisor

EXHIBIT E