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Before operating the monitor please read this manual thoroughly. This manual should be retained for future reference.
NOTE: This specification is subject to change without notices.

FOR YOUR SAFETY

FCC Class B Radio Frequency Interference Statement
WARNING:(FOR FCC CERTIFIED MODELS)
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 against harmful interference in a residential installation. This equipment generates, 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:

1.Reorient or relocate the receiving antenna.
2.Increase the separation between the equipment and receiver.
3.Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4.Consult the dealer or an experienced electric 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.
2.The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

WARNING:
To prevent fire or explode, do not expose the monitor to rain or moisture. Dangerous high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

- Do not use the monitor near water, or lay it at a dankish place.
- Openings in the back of the cabinet are provided for ventilation. To ensure persistent operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered.
- The monitor should be operated only from the range of power source indicated on the label. If you are not sure of the range of power supplied to your home, consult your dealer or local power company.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload the wall outlets and extend cords. Overloading can result in fire or electric shock
- Do not attempt to service the monitor by yourself, opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min, 1.2A.
- The wall socket should be installed near the equipment and shall be easily accessible.

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears. Or you can use AUTO function.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image has displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.
- The life of the fluorescent light used in the LCD monitor is approximately 30,000 hours. Contact your dealer for replacement when the screen is dark, flickering or not lighting. Never attempt to replace it by yourself.

BEFORE YOU OPERATE THE MONITOR

FEATURES

- 48.1cm(19″) TFT Color LCD Monitor
- Crisp, Clear Display for Windows
- Recommend Resolution: 1440×900@60Hz
- EPA ENERGY STAR
- Space Saving, Compact Case Design

POWERCORD

Power Source:

1. Make sure the power cord is the correct type that required in your area.
2. This LCD monitor has a universal power supply that allows operation in either 100/120V AC or 220/240V AC voltage area(No user adjustment is required.)
3. Connect the AC-power cord into your LCD monitor's External Adapter input socket, and then plug the other end of External adapter to LCD monitor's DC-power-input. The AC-power cord may be connected to either a wall power outlet or the power outlet socket on your PC, depending on the type of power cord supplied with your LCD monitor.

CONTROLS AND CONNECTORS

VIDEO CABLE

Connecting the Video Cable:

Plug one of the signal cable's 15-pin connector into the Computer's video port and tighten the two screws on the cable connector. Then plug the other 15-pin connector into the LCD's video port, and tighten the two screws on the cable connector.

Connecting the Audio Cable:

Plug one of the signal cable's 15-pin connector into the Computer's audio port and tighten the two screws on the cable connector. Then plug the other 15-pin connector into the Audio signal inlet.

Plug the AC-power cord into the External Adapter. Then plug the DC-jack power cable into DC-IN Inlet. According to the type of the power code which suit with the LCD monitor.

ADJUSTING THE VIEWING ANGLE

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.
- Hold the stand so you do not topple the monitor when you change the monitor's angle.
- You are able to adjust the monitor's angle from 5° to 15°

NOTES

- Do not touch the LCD screen when you change. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you change the angle.

OPERATING   INSTRUCTIONS
GENERAL   INSTRUCTIONS

Press the power switch to turn the monitor on or off. The other control knobs are located at front panel of the monitor. By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- Press the power switch to turn on the monitor position. The power indicator LED will light up.

FRONT PANEL CONTROL

- ⏻ **Power Key：**
  Press this button to switch ON/OFF of monitor's power
- **Auto Adjust Key:**
  When OSD menu is in off status, press this button direct to activate the Auto adjustment function.
  The Auto Adjustment function is used to set the Hpos, Vpos, Clock and Focus.
- **MENU ：**
  Activate the OSD menu or confirm the function adjusting.
- ＋:
  Mode choice Movie、Standard、Text、Photo
- －:
  Adjust volume
- **Power Indicator:**
  Blue   ----   Power On mode.
  Orange   ----   Off mode.
  Power down mode

NOTES

● Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.

● Save the original shipping carton and packing materials, as they will come in handy if you ever have to transport your monitor.

● For maximum protection, repackage your monitor as it was originally packed at the factory.

● To keep the monitor looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the monitor before cleaning it.

HOW TO ADJUST A SETTING

1.Press the MENU button to activate the OSD window.

2.Press ＋ or － to select the desired function, then press the MENU button again.

3.Press ＋ or － to change the settings of the current function ,press the MENU button to confirm it.

4. If you want to adjust any other function, repeat steps 2-3.

5.If you want to exit the OSD image, select the "exit function/EXIT OSD", or leave the monitor alone for 20 seconds (Windows default), the OSD window will close and sure automatically.

6. When the OSD window is active, it shows the input signal timing.

ADJUSTING THE PICTURE

1. BRIGHTNESS

    1.1 Auto gain control

       Adjust the gain automatically.

    1.2 Brightness

       Adjust the brightness automatically.

    1.3 Contrast

       Adjust the contrast automatically.

    1.4 Exit

2.COLOR (In the state of DVI without this item)

    2.1 Auto color

    Adjust the color automatically.

2.2 Exit

3.IMAGE (In the state of DVI without this item)

3.1 Auto configuration

Adjust the image position automatically

3.2 Clock

Adjust the image clock.

3.3 Phase

Adjust the image focus

3.4 H-Position

Adjust the image horizontal position

3.5 V-Position

Adjust the image vertical position.

3.6 Exit

4.TOOLS

4.1 OSD Timeout

Control the quit time of quit the OSD menu automatically.

4.2OSD H-Position

Adjust the horizontal position of OSD menu.

4.3 OSD V.-Position

Adjust the vertical position of OSD menu.

4.4 Volume(with the function of audio frequency)

Adjust the volume of the speaker.

4.5 Factory reset

Recall to factory setting

4.6 Image H-1440（H-1280）.

Adjust the image horizontal position

4.7Exit

5.COLOR TEMP

selection 5000k warm

6500k standard

9300k cool

If 5000k,6500k,9300k can't meet your need, you can use USER-DEFINED

menu to adjust the red ,green and blue to gain the color which you like.

6. LANGUAGE

Choose the language of OSD menu, you can choose English 、Russia etc.

7. ANALOG/DIGITAL (with the function of DVI)

8. EXIT

Exit OSD menu.

HOW TO OPTIMIZE THE DOS-MODE

1. Get the full screen pattern at MS-DOS mode, type in C:\>EDIT [press enter] You will be in the Dos-Editor screen

2. Press"AUTO" button(at the front pane) about 2 seconds, the monitor will do all the adjustment automatically. You can adjust the image manually, If the screen has a flicker or blur, or not fit in the display

3. press ALT-F, and then X to exit from the Dos-Editor screen

If the DOS-MODE characters still have distortion

Example:

- The picture can't go to full screen
- The background of white pattern has vertical stripe noise
- The character twisted

That means your monitor parameter was in wrong resolution, please check if your VGA-CARD supports 720x400@70Hz

Generally speaking, most of the Dos mode was set by VGA-CARD in resolution 720x400@70Hz, but minor was set in 640x400@70Hz

ECHNICAL SUPPORT(FAQ)

Problem & Question	Possible Solution
Power LED is not on	Check if the Power Switch is in the ON position Power Cord should be connected
No Plug & Play	Check if the PC system is Plug & Play compatible Check if the Video Card is Plug & Play compatible Check if the D-15 plug pin of Video Cable is bent
Picture is fuzzy	Adjust the Contrast and Brightness Controls.
Picture bounces or a wave pattern is present in the picture	Move electrical devices that may cause electrical interference.
The power LED is ON(Red) but there' s no video or no picture.	Computer Power Switch should be in the ON position. Computer Video Card should be snugly seated in its slot Make sure monitor' s video cable is properly connected to the computer. Inspect monitor' s video cable and rnake sure none of the pins are bent. Make sure computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.
Missing one of the primary colors(RED,GREEN,or BLUE)	Inspect the monitor' s video cable and make sure that none of the pins are bent.
Screen image is not centered or sized properly.	Adjust pixel frequency(CLOCK) and PHASE or press hot-key (AUTO)
Picture has color defects (white does not look white)	Adjust RGB color or select color temperature
Poor brightness or contrast	The life time of the back-light is limited. In 30000 Hours the luminance of the light has been reduced to half of its original value. Please send the monitor to an authorized service Agent for service.
Horizontal or vertical disturbances on the screen	Use win 95/98/2000/XP shut-down mode Adjust CLOCK and PHASE or perform hot-key(AUTO-key).

CLOCK(pixel frequency) controls the number of pixels scaned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the picture has not correct width.

PHASE adjusts the phase of the pixel clock signal. With a wrong phase adjustment the picture has horizontal disturbances in light picture.

For PHASE and CLOCK adjustment use "dot-pattern"or win 95/98/2000/XP shut-down mode pattern.

ERROR MESSAGE AND POSSIBLE SOLUTION

CABLE NOT CONNECTED :
1.Check that the signal-cable is properly connected , If the connector is loose, tighten the connector's screws.
2.Check the signal-cable's connection pins for damage.
INPUT NOT SUPPORT:
Your computer has been set to unsuitable display mode, Set the computer to display mode given in the following table.
UNSUPPORTED MODE TRY DIFFERENT VIDEO CARD SETTING:
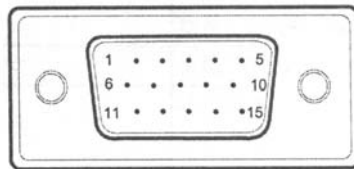Your computer resolution is out of VESA-SPEC

APPENDIX:

RESOLUTION:

ADVANCE Model	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
1440*900 (WXGA)	55.5	60
1280*720	44.7	60
1024*768 (XGA)	48.4	60
	56.5	70
	60.0	75
800*600 (SVGA)	37.9	60
	48.1	72
	46.9	75
640*480 (VGA)	31.5	60
	37.9	72
	37.5	75
720*400 (IBM)	31.5	70

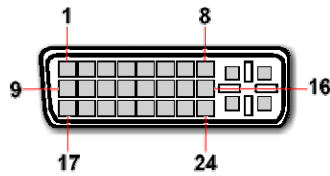**CONNECTOR PIN ASSIGNMENT FOR SIGNAL INPUT**

CONNECTOR PIN ASSIGNMENT FOR VGA SIGNAL INPUT

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	Red	9.	+5V
2.	Green	10.	Ground
3.	Blue	11.	Ground
4.	Ground	12.	DDC-Serial Data
5.	Ground	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		

CONNECTOR PIN ASSIGNMENT FOR DVI-I SIGNAL INPUT

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	T.M.D.S Data 2-	13	T.M.D.S Data 3+
2	T.M.D.S Data 2+	14	+5V
3	T.M.D.S Data 2/4 Screen Ground	15	GND
4	T.M.D.S Data 4-	16	Hot Plug Detect
5	T.M.D.S Data 4+	17	T.M.D.S Data 0-
6	DDC Clock	18	T.M.D.S Data 0+
7	DDC Data	19	T.M.D.S Data 0/5 Screen Ground
8 ✱	Analog Vertical Sync Signal	20	T.M.D.S Data 5-
9	T.M.D.S Data1-	21	T.M.D.S Data 5+
10	T.M.D.S Data 1+	22	T.M.D.S Clock Screen Ground
11	T.M.D.S Data 1/3 Screen Ground	23	T.M.D.S Clock +
12	T.M.D.S Data 3-	24	T.M.D.S Clock -
C1 ✱	Analog Red	C4 ✱	Analog Horizontal Sync Signal
C2 ✱	Analog Green	C5 ✱	Analog Ground（R、G、B）
C3 ✱	Analog Blue		

BASIC PARAMETER

LCD Panel	Driving system	TFT Color LCD
	Size	48.1cm(19")
	Pixel pitch	0.285mm(H)×0.285mm(V)
	Display Colors	16.2M
	Max .Resolution	1440×900@60Hz
Plug & Play		VESA DDC1/2B^{TM}
Maximum Screen Size		Horizontal: 16.2'(410.4mm) Vertical:10.1'(256.5mm)
Environmental Considerations		Operating Temp:0°C to 40°C Storage Temp:-20°C to 60°C Operating Humidity: 10% to 80%.
External Controls	Switch	● Auto Adjust/Exit ● Menu/Choice ● Model change ● Volume Adjust ● Power on/off
	Functions	● Brightness ● Color ● Image ● Tool ● Color temperature ● language ● Analog/Digital ● Exit
EPA Energy Star	ON Mode	≤40W
	OFF Mode	≤2.8W
Regulatory Compliance		CE、CCC、RoHS

Chief Parameter

Viewable angle (Horizontal/Vertical)	**150˚ /130˚**
Response time	**8ms**
Contrast	**500：1**
Brightness	**300 cd/m^2**

CHECKING THE CONTENTS OF THE PACKAGE

1. LCD Monitor   1 set
2. Owner's Manual   1 pcs
3. Power Cord   1 pcs
4. VGA signal cable   1pcs
5. Audio cable   1 pcs
6. Adapter   1 pcs
7. DVI-D signal cable   1 pcs