

EXHIBIT 5

User's Manual

User's Manual



Spectrum Series

TF1560E

USER MANUAL

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Thank you very much for choosing the AOC TF1560E monitor.
 We recommend that you take a few minutes to go carefully through this
 brief but comprehensive manual before installing and switching on the
 monitor. Please keep this manual in a safe place for your future reference.

Plug & Play Drivers for the AOC Spectrum Series Monitors are available
 at AOC's Web Site: www.aoc.com

Before operating the monitor please read this manual thoroughly. This manual should be retained for future reference.

**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, 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:

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 radio/TV 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. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. 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.

As an ENERGY STAR® Partner, **AOC International, Ltd.** has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

WARNING :

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously 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, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable cart, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- 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 power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor 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. 3.5A

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.
- 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 is 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 10,000 hours. Contact your dealer or EPI service center for replacement when the screen is dark, flickering or not lighting up. Never attempt to replace it by yourself.

BEFORE YOU OPERATE THE MONITOR

FEATURES

- 38.1cm(15") TFT Color LCD Monitor
- Crisp, Clear Display for Windows
- Supports Resolutions up to 1024 × 768@75Hz
- Power Management
- Ergonomic Design (MPRII Approved)
- Space Saving, Compact Case Design

CHECKING THE CONTENTS OF THE PACKAGE

The product package should include the following items:

1. Monitor
2. Owner's Manual
3. Power Cord

INSTALLATION INSTRUCTIONS

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 power cord into your LCD monitor's power input socket, and then plug the other end into a 3-pin AC power outlet. The 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: the monitor comes with a built-in video cable. Plug the signal cable's 15-pin connector into the computer's video port and tighten the two screws on the cable connector.

Connecting the Power Cord: Plug the power cord into the monitor's AC power socket. Then plug the power cord into a grounded AC outlet or UL-approved power strip or the power output socket on your PC.

Caution: If the AC outlet is not grounded (with three holes), install the proper grounding adapter (not supplied).

OPERATING INSTRUCTIONS

GENERAL INSTRUCTIONS

Press the stand by power switch to turn the monitor on or off. The other control knobs are located at front panel of the monitor (See Figure 3). 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 stand by power switch to turn on the monitor position. The power indicator will light up.

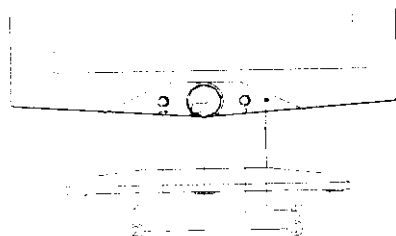


Figure 3 External Control Knob

EXTERNAL CONTROLS

1. Auto Config
2. Shuttle Knob
3. Standby Power ON/OFF Switch
4. Power Indicator

FRONT PANEL CONTROL

- **Standby power key :**
When pressed, the monitor enters the off mode, and the LED turns orange. Press again and hold to restore normal status.
- **Shuttle Knob :**
The Shuttle Knob is used to control the monitor functions. Rotate to switch functions or adjust settings. Press to select or execute a function .
- **Auto Adjust Key :**
The Auto Adjust Key is used to automatically set the H Pos, V Pos, Clock and Focus.
- **Power Indicator :**
Green — Power On mode.
Orange — Stand-by mode, Suspend mode, or Off 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 ship 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 SETTINGS

1. Press the Shuttle Knob to make the OSD window appear. See figure 4.
2. Rotate the Shuttle Knob to select the desired function. See figure 4.
3. Press the Shuttle Knob again to select the function that you want to adjust.
4. Rotate the Shuttle Knob to change the settings of the current function.
5. When the OSD window is active, it shows the input signal timing. The "H" stands for the horizontal frequency and "V" for the vertical frequency.
6. To exit and save, select the exit function, or leave the monitor alone for 10 seconds. If you want to adjust any other function, repeat steps 2-4.

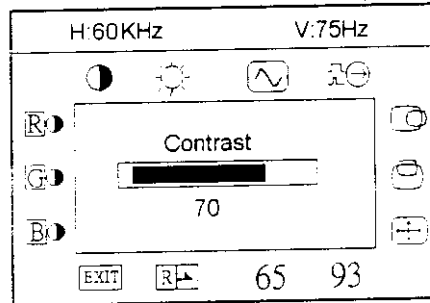








Figure 4 The OSD Message

ADJUSTING THE PICTURE

The description for function control LEDS

1		CONTRAST	Adjust the picture contrast.
2		BRIGHTNESS	Adjust the picture brightness.
3		FOCUS	Adjust picture Focus.
4		CLOCK	Adjust picture Clock.
5		H- Position	Adjust the horizontal position of the picture.
6		V- Position	Adjust the vertical position of the picture.

7		Auto Center	Used to center the picture automatically.
8		Color Temperature	Adjusts Red intensity.
9		Color Temperature	Adjusts Green intensity.
10		Color Temperature	Adjusts Blue intensity.
11	65	Color Temperature	The color temperature for 6500°K is $x=0.313$, $y=0.329$.
12	93	Color Temperature	The color temperature for 9300°K is $x=0.281$, $y=0.311$.
13		RECALL	Reload all the factory default parameters and set the color temperature to 9300°K.
14		EXIT	Save user adjustment and OSD disappear.

POWER MANAGEMENT FEATURE

The power management feature of this product complies with every power saving requirements of ENERGY STAR® and VESA DPMS when activated, it automatically reduces unnecessary power consumption of the monitor when your computer is not in use.

To use the feature, the monitor needs to be connected to a VESA DPMS computer. There are three power management modes available, these are described below. The required settings, including the timer setting, should be made by the computer.

Stand-by Mode

When the H-sync signal from the computer is off, the monitor enters into Stand-by Mode which reduces the power consumption to less than 5W. The screen becomes dark, and the power indicator turns to orange. From Stand-by Mode, the screen reappears instantaneously when the keyboard or the mouse is touched again.

- **Suspend Mode**

When the V-sync signal from the computer is off, the monitor enters into Suspend Mode which reduces the power consumption to less than 5W. The screen becomes dark, and the power indicator turns to orange. From Suspend Mode, the screen reappears instantaneously when the keyboard or the mouse is touched again.

- **Active-off Mode**

When both the H and V sync signals from the computer are off, the monitor enters into Active-off Mode which reduces the power consumption to less than 5W. The screen becomes dark, and the power indicator turns to orange. From Active-off Mode, the screen reappears instantaneously when the keyboard or the mouse is touched again.

- The power-saving mode can be indicated by the light-emitting diode (LED) on the front panel:

Mode	Signal					Indicator	Consumption
	Cable	H-Sync	V-Sync	Video	Audio		
On*	Attached	Yes	Yes	Active	Green	≤ 37 W	
Stand-by	Attached	No	Yes	Blank	Orange	≤ 5 W	
Suspend	Attached	Yes	No	Blank	Orange	≤ 5 W	
Off	Attached	No	No	Blank	Orange	≤ 5 W	

Note: The power consumption is calculated without audio power consumption at power saving status.

FEATURES

Green monitor

- The monitor has a power saving function that conforms to the VESA DPMS standard. This feature will only work if your PC is a green PC. This feature is similar to a screen saver, except that your monitor will turn it off instead of activating the screen saver.

To activate this feature in Windows® 98 :

In Windows® 98, this feature can be activated and customized under the screen saver setting of the display properties.

1. Right click on the desktop and choose Properties.
2. Click on the tab that says Screen Saver. If your system supports Green PC, there will be a section entitled "Energy Saving Features of Monitor." If there isn't a section like that, then your PC does not support Green Monitor. The monitor will behave just like a normal monitor, so you will have to turn it off manually to save energy.
3. In the "Energy Saving Features of Monitor" sections are two boxes, Standby and Shut off. To activate either one, click the box next to each one.
4. You can specify the amount of inactive time before your monitor enters standby mode or shuts off.

Plug & Play DDC1/2B Feature

This monitor is equipped with VESA DDC1/2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities. The communication channel is defined in two levels, DDC1 and DDC2B.

The DDC1 is a unidirectional data channel from the display to the host that continuously transmits EDID information. The DDC2B is a bidirectional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.

This monitor meets the Power Management standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

USING THE RIGHT POWER CORD :

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volts AC.

Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V, CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.

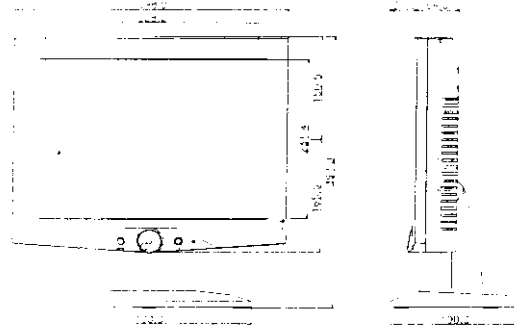
TECHNICAL SUPPORT (FAQ)

Problem & Question	Possible Solution
Power LED is not on	<ul style="list-style-type: none"> *Check if the Power Switch is in the ON position *Power Cord should be connected
No Plug & Play	<ul style="list-style-type: none"> *Check if the Video Card 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 *Make sure the AOC Monitor Drivers are installed (AOC Monitor Drivers are available at: www.aoc.com/usa)
No picture	<ul style="list-style-type: none"> *Computer Power Switch should be in the ON position *Computer Video Card should be snugly seated in its slot *The Signal Cable should be completely connected to the computer *Check the color of the Power LED indicator. If it is orange, then the monitor and the PC system are in power-saving mode. You need press your keyboard or move the mouse to reactivate the system.
Picture is fuzzy	<ul style="list-style-type: none"> *Adjust the Contrast and Brightness Controls.
Picture bounces or a wave pattern is present in the picture	<ul style="list-style-type: none"> *Move electrical devices that may cause electrical interference.
Monitor is stuck in "Power Saving Mode"	<ul style="list-style-type: none"> *Make sure monitor's video cable is properly connected to the computer. *Inspect monitor's video cable and make 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)	<ul style="list-style-type: none"> *Inspect the monitor's video cable and make sure that none of the pins are bent.

APPENDIX

SPECIFICATIONS

Panel	Driving system	TFT Color LCD
	Size	38.1cm(15.0")
	Pixel pitch	0.297mmH x 0.297mmV
	Viewable angle	100° (H) 80° (V)
	Response time	40 ms
Input	Video	R,G,B Analog Interface
	Separate Sync	H/V TTL
	H-Frequency	30kHz – 60kHz
	V-Frequency	50-75Hz
Display Colors		262K Colors
Dot Clock		100MHz
Max. Resolution		1024 x 768
Plug & Play		VESA DDC1/2B™
Input Connector		D-Sub 15pin
Input Video Signal		Analog:0.7Vp-p(standard),75Ω,Positive
Maximum Screen Size		Horizontal : 12.0"(304.1mm)
		Vertical : 9.0"(228.1mm)
Power Source		100~264VAC.47~63HZ
Environmental Considerations		Operating Temp. : 32°to 122°F(0°to 50°C)
		Storage Temp. : 13° to 140°F(-25°to 60°C)
		Operating Humidity : 10% to 90%
Weight (N. W.)		4.5kgs

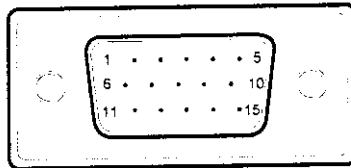


	Switch	<ul style="list-style-type: none"> • Shuttle Knob • Standby Power Switch • Auto Adjust Key
External Controls:	Function	<ul style="list-style-type: none"> • Contrast • Brightness • Focus • Clock • H-Position • V-Position • Auto-Center • 6500°K • 9300°K • RGB Color temperature • Recall • Exit
Power Management		VESA DPMS
Power Consumption	(Maximum)	37 Watts
Regulatory Compliance		UL, CSA, FDA, FCC, TÜVGS, CE, MPR II

FACTORY PRESET TIMING TABLE

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
VGA	720 x 400	31.47kHz	70Hz
	640 x 480	31.47kHz	60Hz
	640 x 480	35.0kHz	66.6Hz
	640 x 480	37.5kHz	75Hz
XGA	800 x 600	37.879kHz	60Hz
	800 x 600	46.875kHz	75Hz
	832 x 624	49.725kHz	75Hz
UXGA	1024 x 768	48.363kHz	60Hz
	1024 x 768	56.476kHz	70Hz
	1024 x 768	60.02kHz	75Hz
	1024 x 768	60.241kHz	74.9Hz

CONNECTOR PIN ASSIGNMENT



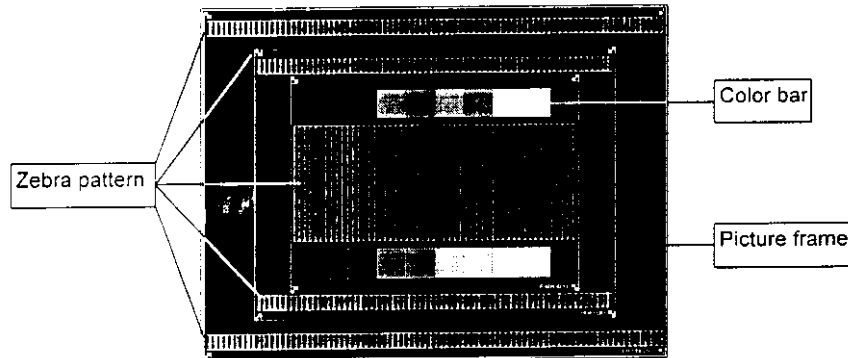
15 - Pin Color Display Signal Cable

PIN NO.	DÉSCRIPTION	PIN NO.	DESCRIPTION
1	Red	1	+5V
2	Green	2	Detect Cable
3	Blue	3	NC
4	Ground	4	DDC-Serial Data
5	Ground	5	H-Sync
6	R-Ground	6	V-Sync
7	G-Ground	7	DDC-Serial Clock
8	B-Ground	8	

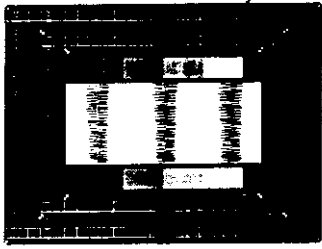
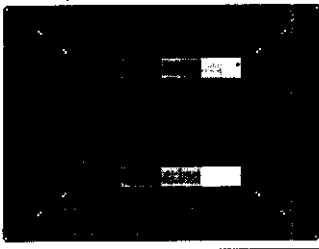
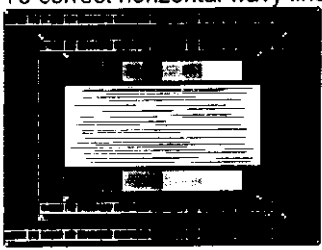
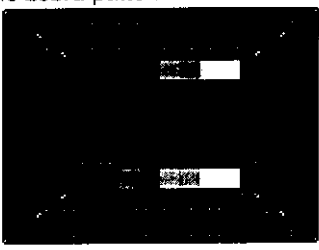
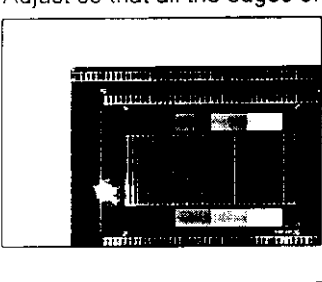
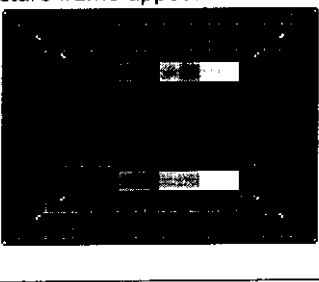
ENTRY OF SCREEN ADJUSTMENT PATTERN

This manual explains adjustment under Windows 95.

1. Copy the file "Test.bmp" on Display Utility Disk to "Wallpaper". Consult the appropriate documentation for doing this.
2. Set the display position to center in the wallpaper setting dialogue box. If you use Microsoft® PLUS!, cancel the setting of "Stretch desktop wallpaper to fit the screen".
3. The following adjustment pattern appears when "Test.bmp" is saved in the wallpaper. You can adjust the image smoothly by using the adjustment pattern.
4. Put back your favorite wallpaper after the adjustment is completed.

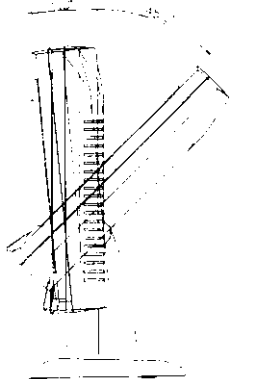


This pattern is displayed at 1024x768

Menu	Present Display Conditions/Adjustment	
CLOCK	To correct vertical wavy lines in the zebra pattern	
		
PHASE	To correct horizontal wavy lines in the zebra pattern	
		
H-POSI V-POSI	Adjust so that all the edges of the picture frame appear	
		

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 45° .



NOTES

- Do not touch the LCD screen when you change the angle. 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.