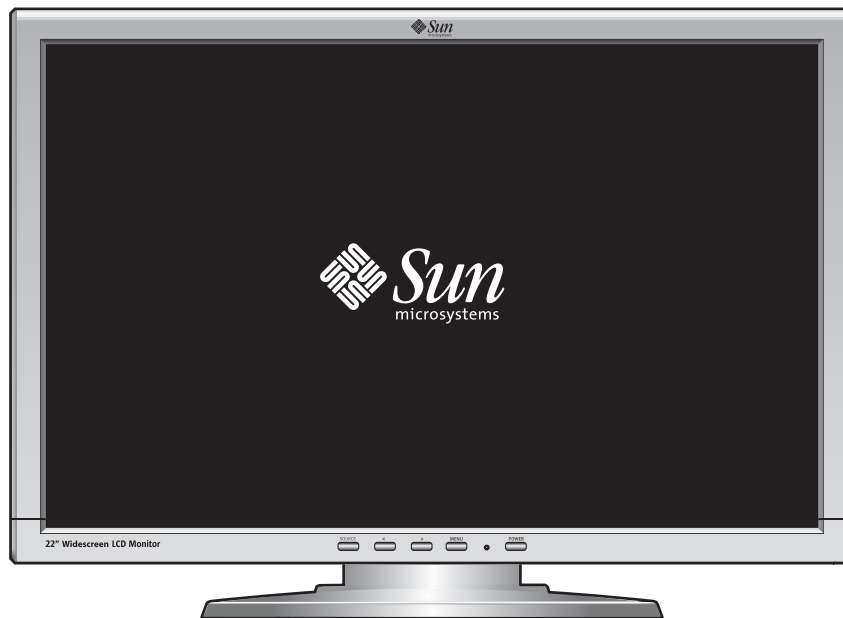# User's Guide

Sun Part No. 875-4235-10

22-inch Widescreen LCD Flat Panel Monitor

22" Widescreen LCD Monitor

22-inch Widescreen LCD Flat Panel Monitor
WBZF

Content

Safety Instructions

Notation

Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.

Warning / Caution

⚠️ Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

Notation Conventions

🚫 Prohibited

❗ Important to read and understand at all times

🚫 Do not disassemble

👉 Disconnect the plug from the outlet

🚫 Do not touch

Safety Instructions

Installation

- **Do not cover the vents on the monitor cabinet.**
  - Improper ventilation may cause overheating.

Cleaning

To clean the monitor case, wipe with a slightly moistened, soft fabric.

To clean the surface of the LCD, wipe either with a soft, dry cloth or a cloth slightly damped with water. No not use any chemicals.

Other

- **Do not remove cover (or back). No user serviceable parts inside.**
  - Refer servicing to qualified service personnel.

- **If your monitor does not operate normally or if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer.**

- **Never insert anything metallic into the monitor openings.**

Safety Instructions

China RoHS

液晶显示器 **LCD Monitor**						
零部件名稱 **Part Name**	有毒有害物质或元素 **Toxic or Hazardous Substances and Elements**					
	铅（Pb） Lead	汞（Hg） Mercury	镉（Cd） Cadmium	六价铬（Cr6+） Hexavalent Chromium	多溴联苯（PBB） Polybrominated biphenyls	多溴二苯醚（PBDE） Polybrominated diphenylethers
液晶显示屏 LCD DISPLAY	O	X	O	O	O	O
液晶显示屏灯管 *Backlight lamps*	O	X	O	O	O	O
电路板组件 *Circuit cards*	O	O	O	O	O	O
缆绳 *Cables*	O	O	O	O	O	O
外壳 *Enclosure*	O	O	O	O	O	O

O：表示该部件的所有均质材料中此有毒或有害物质的含量均低于 SJ/T 11363-2006 中的限制要求。
O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T 11363-2006.
X：表示该部件所使用的均质材料中至少有一种此有毒或有害物质的含量高于 SJ/T 11363-2006 中的限制要求。
X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T 11363-2006.
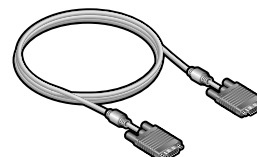
Introduction
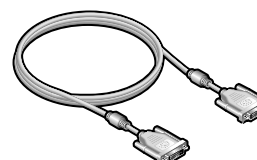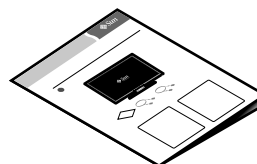
Unpacking

Monitor and Stand

22" Widescreen LCD Monitor
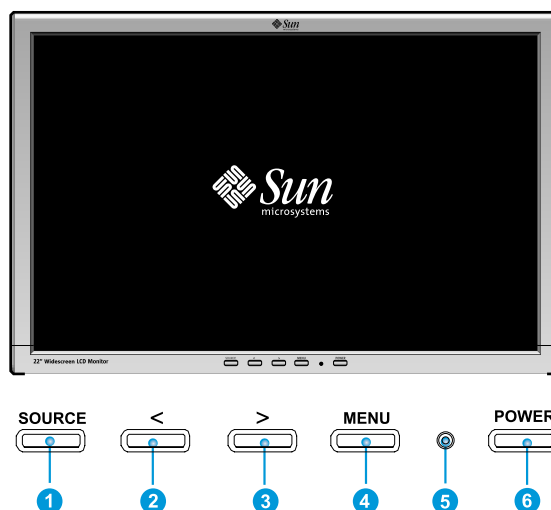
Please make sure the items shown are included with your monitor. If any items are missing, contact your dealer.

● **Signal cable - HD - 15**

● **Signal cable - DVI**

● **Getting Started Guide**
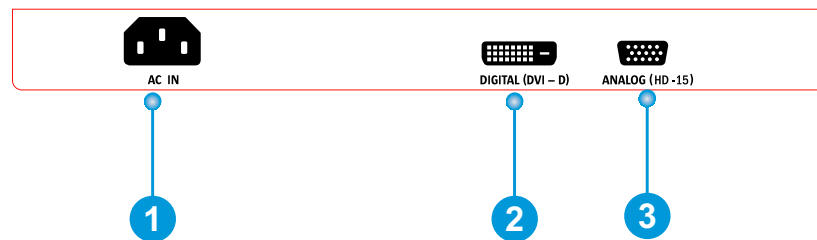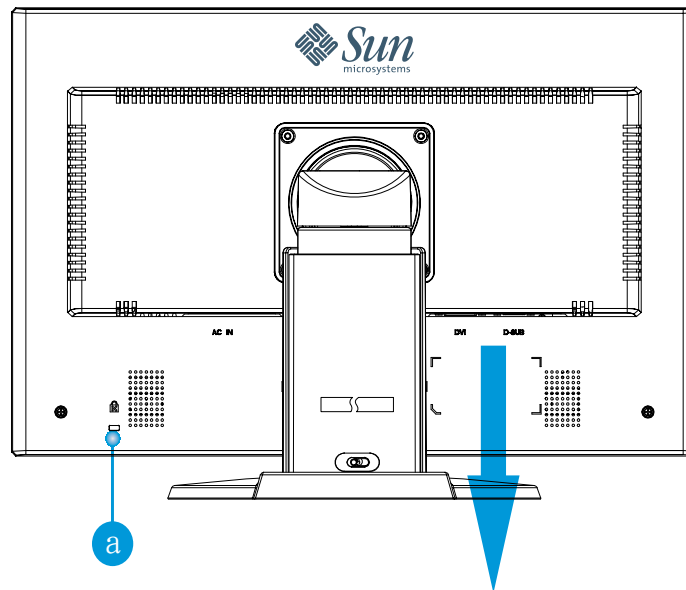
Introduction

Front

Press the MENU button (4) to display the OSD (On Screen Display) menu on the screen.

1.   There are a total of 7 OSD submenus divided by categories. Select the desired submenu by pressing the OSD button < or > (2 and 3).

2.   Press the OSD button MENU (4) to activate the selected function or associated submenu.

3.   If you have selected a submenu, you may select its sub function by using < or > (2 and 3).

4. Set the desired value using the OSD button < or > (2 and 3).

5. Direct luminance (Brightness) adjustment by use of the < and > (2 and 3).

6.   The current settings are automatically saved when you return to the previous level or exit the OSD menu. Repeat steps 2–5 to make further adjustments as needed.

7.   The OSD menu automatically disappears if no changes are made for more than 45 seconds (default setting). The current settings will be saved. You can close it manually by pressing the button SOURCE (1).

8.   Use this button to turn the monitor on and off (6).

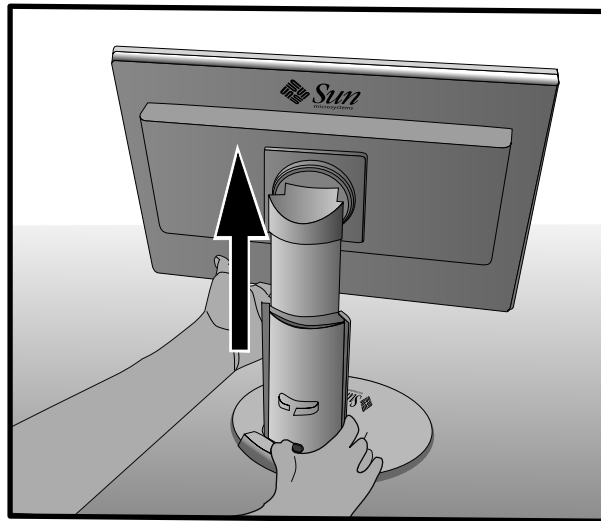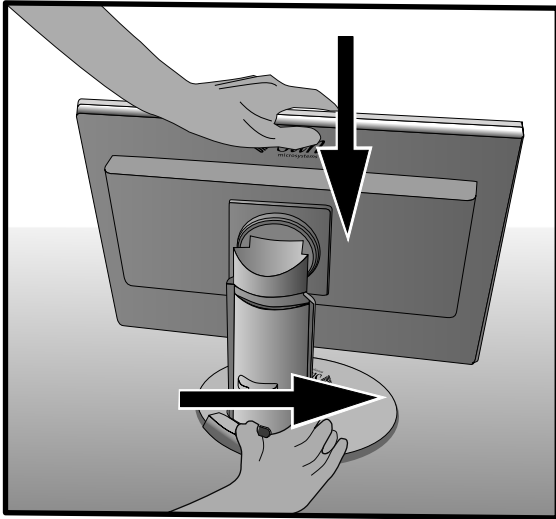9.   This light glows green during normal operation and goes amber during power saving (5).

Introduction

Rear

AC IN   DVI   D-SUB

a

AC IN   DIGITAL (DVI – D)   ANALOG (HD -15)

1   **2**   **3**

1. Power Port   Connect the power cord (purchased separately) for your monitor to the power connector on the back of the monitor.

2. DVI Port   Connect the DVI cable to the DVI port on the back of your monitor.

3. HD-15 Port   Connect the signal cable to the 15-pin, HD-15 connector on the back of your monitor.

a. Locking Port   For connecting Kensington© compatible security devices.

Note: See the section "Connecting Your Monitor" for further information regarding cable connections.
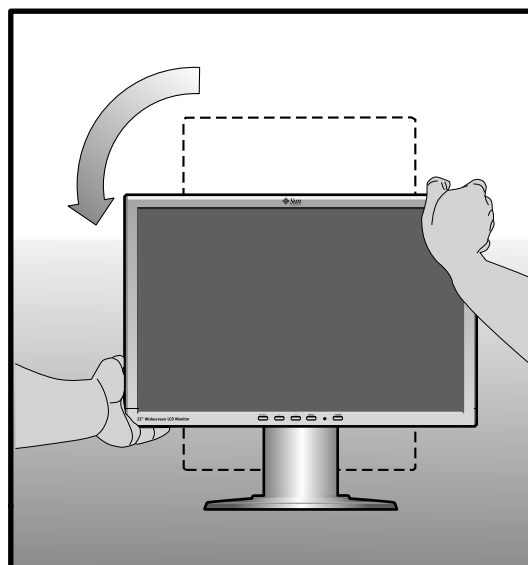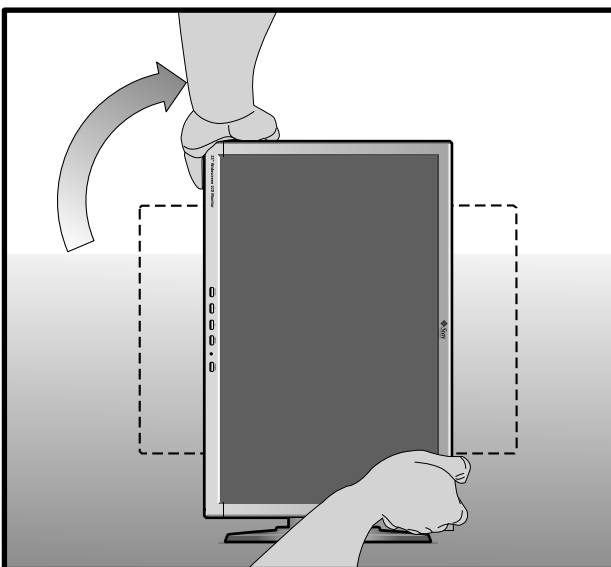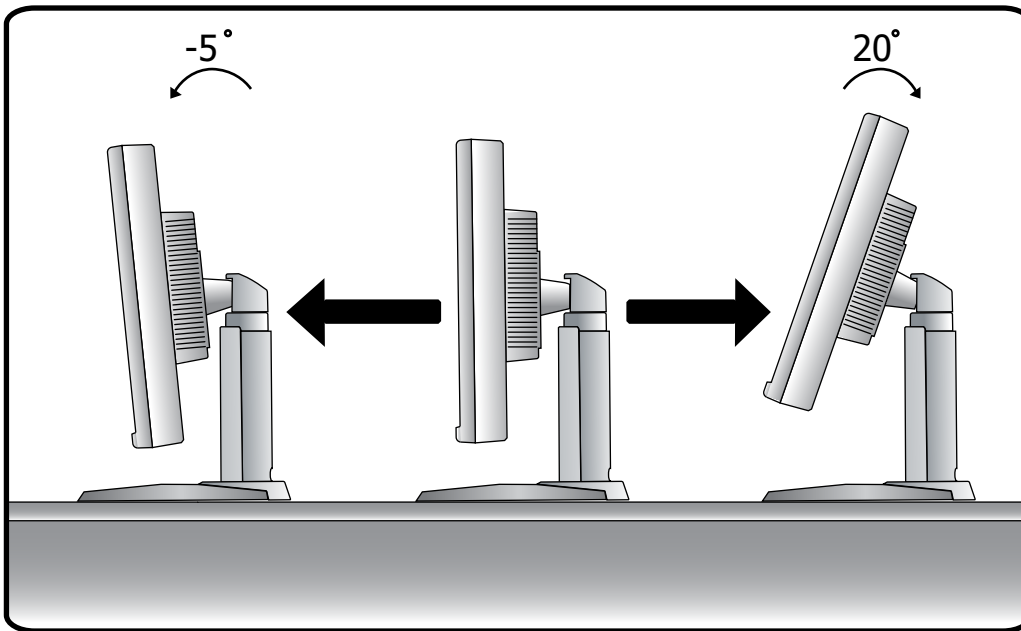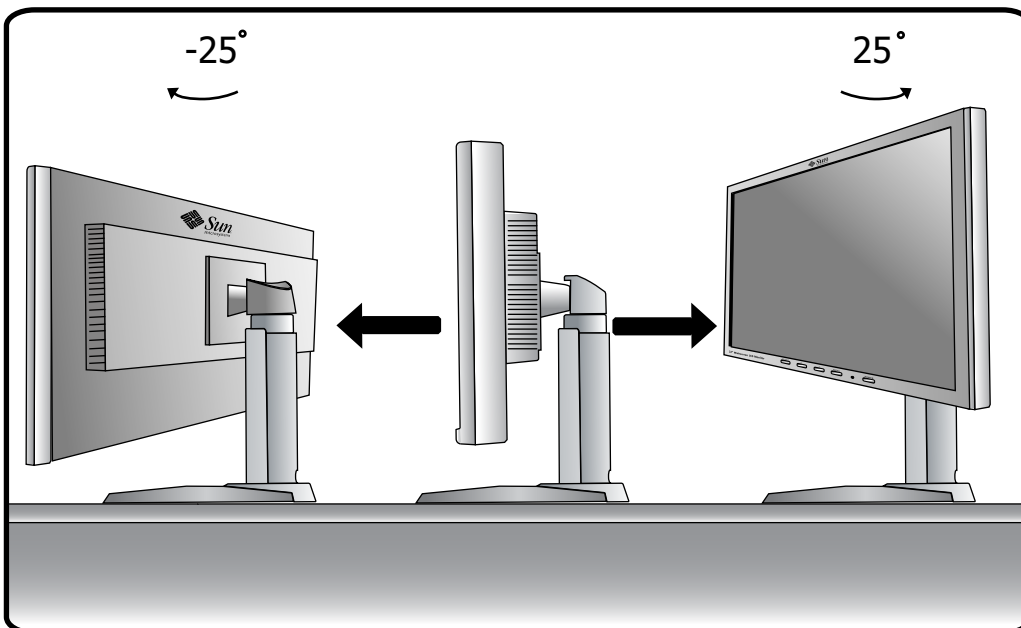
Setup

Stand operation

Height Adjustment

Pivot

Setup

Stand operation
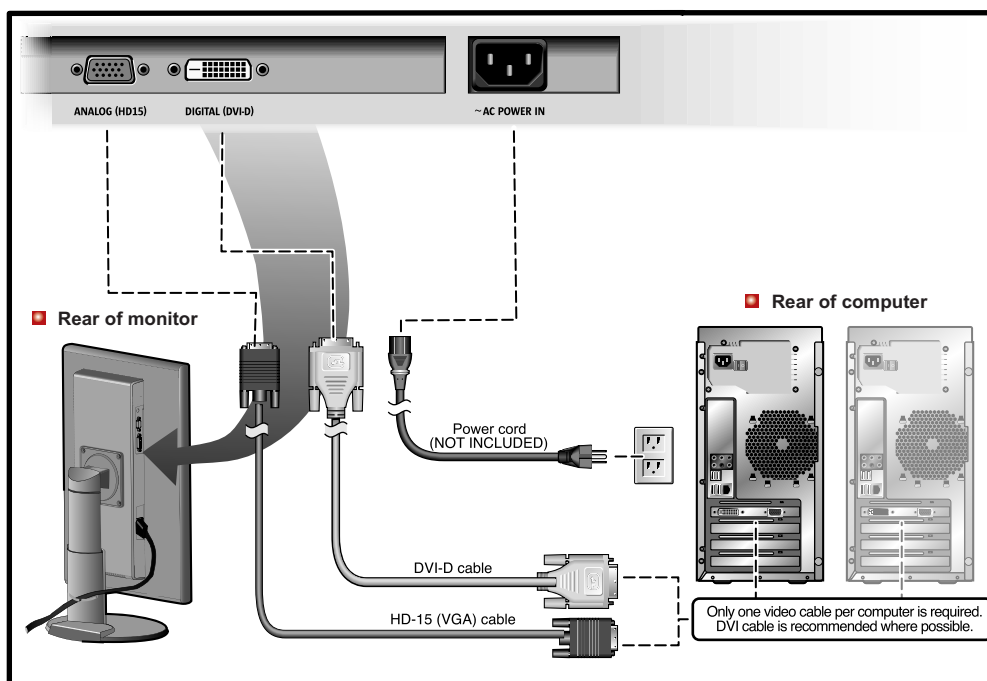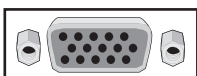
Tilt

Swivel

Setup

Connecting Your Monitor

ANALOG (HD15)   **DIGITAL (DVI-D)**   **~ AC POWER IN**

◼ **Rear of computer**

◼ **Rear of monitor**

Power cord
(NOT INCLUDED)

DVI-D cable

HD-15 (VGA) cable

Only one video cable per computer is required.
DVI cable is recommended where possible.

1. Connect the power cord for your monitor to the power port on the back of the monitor. Plug the power cord for the monitor into a nearby outlet.

2. Using the HD-15 (Analog) connector on the video card.
   Connect the signal cable to the 15-pin, HD-15 connector on the back of your monitor.

3. Using the DVI (Digital) connector on the video card.
   Connect the DVI cable to the DVI port on the back of your Monitor.
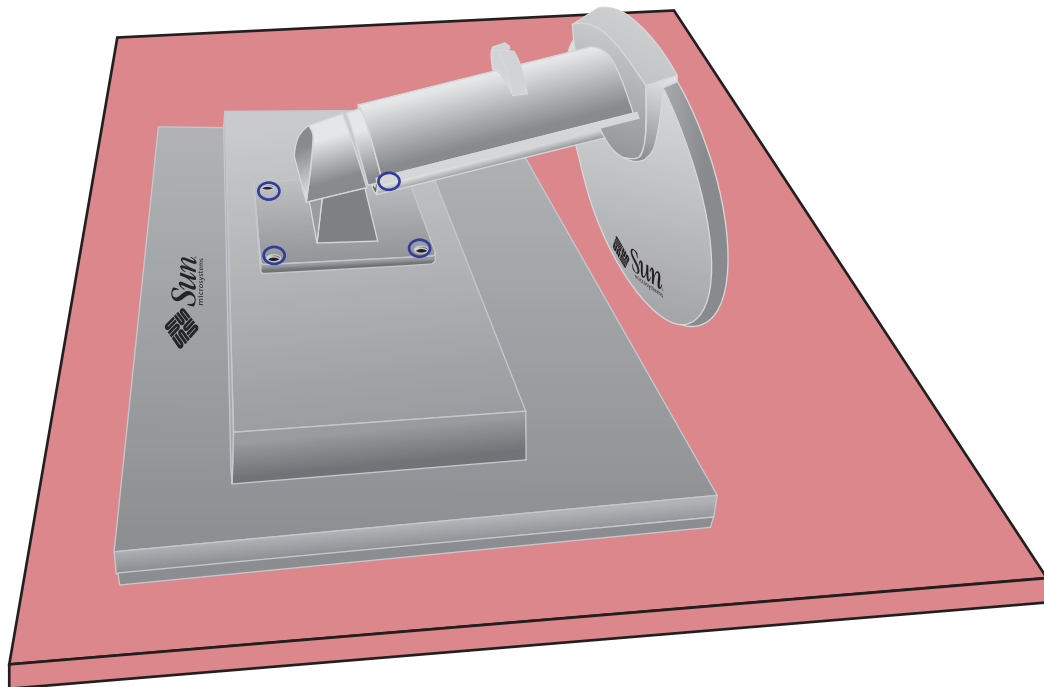

◆ If you properly connect your monitor using the DVI connector but get a blank screen, push the SOURCE button to see if the monitor status is set to analog.

   Note. Only one cable is needed to provide the source to the monitor. DVI is recommended whenever possible. The second signal cable can be used for an alternate source, where the "Source" button controls which source is selected.

Setup

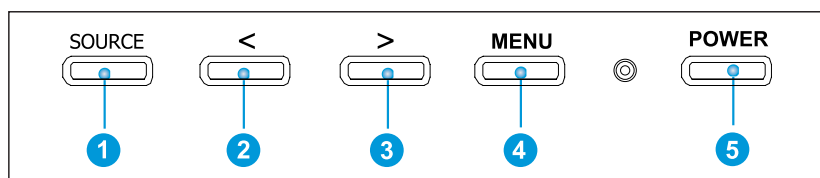Installing alternate mounts for the monitor

(3rd party mounts are available for this monitor via the VESA-compliant 4-hole, 100mm spacing mounting configuration.)

1. Turn off your monitor and unplug its power cord.
2. Lay the LCD monitor face-down on a flat surface with a cushion beneath it to protect the screen.
3. Remove the four screws circled in blue in the above diagram and then remove the cover plate.

On-Screen Display

22" Widescreen LCD Monitor

SOURCE	<	>	MENU		POWER
1	2	3	4		5

a. These buttons allow you to highlight and adjust items in the menu. **2** **3**

b. Use this button to exit the active menu or the OSD (On-Screen Display) and have direct select input source function. **1**

c. Use this button to open the OSD and activate a highlighted menu item. **4**

d. Use this button to select either the HD-15 (Analog) or DVI-D (Digital) inputs when the menu system is not active. **1**

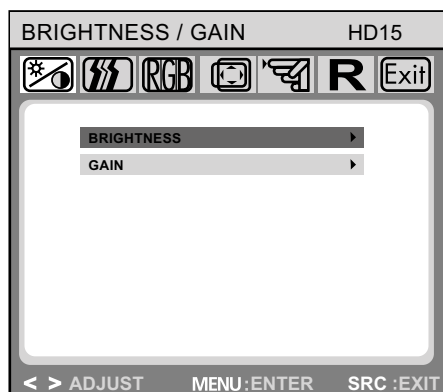**e.** Use these buttons to directly adjust the Luminance (brightness adjustment) when the menu system is not active. **2** **3**

On-Screen Display

Brightness/Gain (Gain not available in DVI digital mode)

OSD **How to adjust**

```
BRIGHTNESS / GAIN          HD15
[icons] R Exit
   BRIGHTNESS              ▶
   GAIN                    ▶




< > ADJUST    MENU:ENTER   SRC:EXIT
```
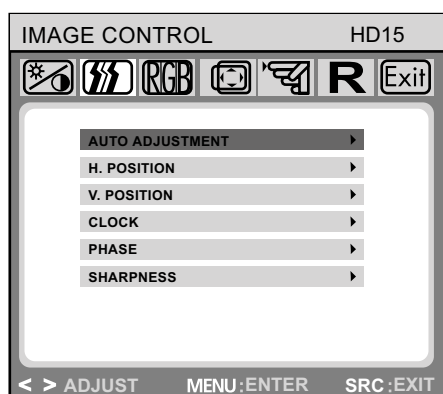
● Brightness/Gain

Brightness: Adjusts luminance (brightness) by using the buttons < or > (❷ and ❸).

Gain:　　　Adjusts screen gain by using the buttons < or > (❷ and ❸).

Image Control (not available in DVI digital mode)

```
IMAGE CONTROL              HD15
[icons] R Exit
   AUTO ADJUSTMENT         ▶
   H. POSITION             ▶
   V. POSITION             ▶
   CLOCK                   ▶
   PHASE                   ▶
   SHARPNESS               ▶


< > ADJUST    MENU:ENTER   SRC:EXIT
```

● Image Control

Auto Adjustment: Automatically selects the optimal settings for image parameters (image position, phase, etc.) by using the button MENU (❹).

H. Position:　　　Controls the picture's horizontal position.

V. Position:　　　Controls the picture's vertical position.

Clock:　　　Adjusts the internal clock frequency for the analog video input.

Phase:　　　Adjusts the internal clock phase for fine-tuning the displayed image to the analog video input.

Sharpness:　　　Controls image sharpness (only for resolutions less than 1680 × 1050 pixels).
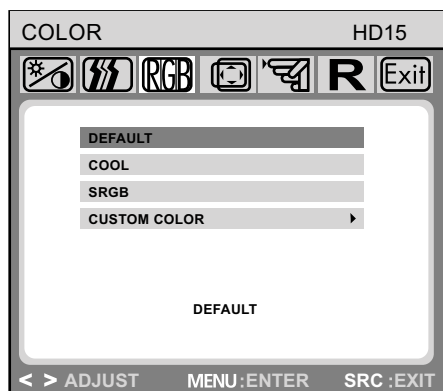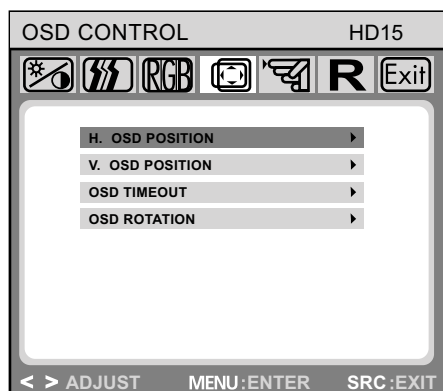
On-Screen Display

Color

OSD   **How to adjust**

```
COLOR                          HD15
 ▨  ⚡ RGB ▢ ⚐ R Exit

      DEFAULT
      COOL
      SRGB
      CUSTOM COLOR          ▶


            DEFAULT


 <  >  ADJUST    MENU:ENTER    SRC:EXIT
```

⚫ Color

This menu lets you select a preset color temperature (Default, COOL, sRGB, and CUSTOM COLOR) by pressing the OSD buttons< or > (❷ and ❸). Changes to the color temperature take immediate effect on screen. If you wish to set individual color values, select the Custom Color option. Then press the MENU button (❹) to select the red, green and blue settings and set the desired value using the OSD buttons < or > (❷ and ❸). The current settings are automatically saved when you return to the previous level or exit the OSD menu.

OSD Control

```
OSD CONTROL                    HD15
 ▨  ⚡ RGB ▢ ⚐ R Exit

   H.  OSD POSITION          ▶
   V.  OSD POSITION          ▶
   OSD TIMEOUT               ▶
   OSD ROTATION              ▶




 <  >  ADJUST    MENU:ENTER    SRC:EXIT
```

⚫ OSD Control

H. OSD Position: Controls the OSD menu's horizontal position.
V. OSD Position: Controls the OSD menu's vertical position.
OSD Timeout: Determines how long (in seconds) the OSD menu waits before closing automatically after no action has been performed.
OSD Rotation: Controls the OSD menu's rotation (0 and 90 degrees).
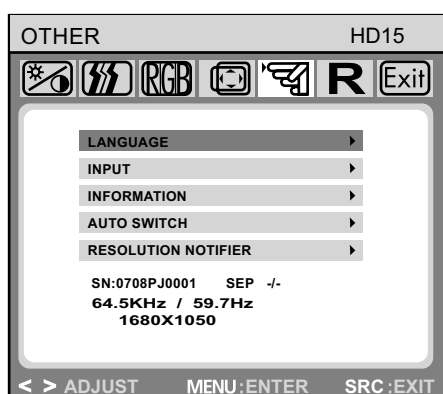
On-Screen Display

Other

OSD	How to adjust

```
OTHER                    HD15
[icons] R [Exit]
    LANGUAGE              ▶
    INPUT                ▶
    INFORMATION          ▶
    AUTO SWITCH          ▶
    RESOLUTION NOTIFIER  ▶

    SN:0708PJ0001   SEP  -/-
    64.5KHz / 59.7Hz
       1680X1050

< > ADJUST    MENU:ENTER   SRC:EXIT
```

● Other

Language: English, German, French, Italian, Spanish, Russian, Traditional Chinese, Japanese .

Input: Controls the selection of the input signal. The monitor allows you to make the following connections: analog graphics card via the 15-pin mini HD-15 interface, digital graphics card via the 24-pin DVI-D interface.
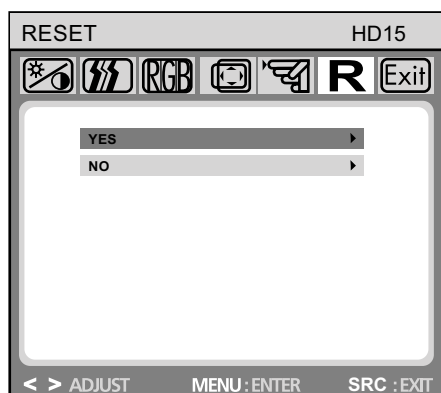
Information: There is an optional OSD window (on/off) that displays the newly adjusted screen resolution settings.

Autoswitch: This option allows you to decide if the auto adjustment function should take effect after each change to the monitor's resolution.

Resolution Notifier: When input timing isn't 1680X1050, the screen should show "Timing Error   Reset >> 1680X1050".

Serial Number and Timing: The monitor's serial number and timing information are shown. Timing details consist of clock frequency, horizontal frequency, vertical frequency, resolution, and sync type and polarity. These are estimates, not precise values. (Numbers shown are examples only.)

Reset

```
RESET                    HD15
[icons] R [Exit]
    YES                  ▶
    NO                   ▶




< > ADJUST    MENU:ENTER   SRC:EXIT
```

● Reset

Yes: Resets the monitor to original factory settings.

No: Exits the reset function without changing the settings.

<div style="border:1px solid">

Sun microsystems

Troubleshooting

</div>

Check List

Note   Before calling for service, you should check the information in this section to see if these tips will remedy the problem.

Symptom	Check List	Solutions
No image on the screen. The monitor will not turn on.	Is the power cord connected properly?	Check the power cord connection.
	Can you see "**No Signal, Check Signal Cable**" on the screen?	Check the signal cable connection.
	Can you see "**Timing Error**"?	Adjust the timing/resolution to be 1680x1050x60Hz.
	Can you see "**OUT OF Range**" on the screen?	You may see this message when the signal from the video card exceeds the maximum resolution and frequency that the monitor can properly handle. Adjust the timing/resolution to be 1680x1050x60Hz.
	There is no image on the screen. Is the power indicator on the monitor AMBER?	The monitor is in PowerSaver mode. Press a key on the keyboard to activate the monitor and restore the image on the screen. If there is still no image, check input source Then press any key on the keyboard again to activate the monitor and restore the image on the screen.
	Connected using the DVI cable?	You may get a blank screen if you boot the system before you connect the DVI cable, or disconnect and then reconnect the DVI cable while the system is running, as certain graphic cards may not send out video signals with no monitor attached. Connect the DVI cable and then reset the video.

Troubleshooting

Check List

Symptom	Check List	Solutions
The screen shows strange colors or just black and white.	Does the screen display improper colors?	Check the signal cable connection. Make sure the computer's video card is fully inserted in its slot.
	Has the computer's video card been set properly?	Set the video card to the correct resolution.

Check the following items if there is trouble with the monitor.

1. Check if the power cord and the video cable(s) are properly connected to the computer.

2. For analog video, do not exceed 75Hz when using the maximum resolution.
For digital video, do not exceed 60Hz for any resolution over 1680x1050.
Any resolution higher than that is limited to 60Hz refresh frequency.

Note: If problems repeatedly occur, contact an authorized service center.

Troubleshooting

Self-Test Feature Check

Your monitor provides a self test feature via a status light and on-screen warning message that allows you to check whether your monitor is functioning properly.

Blank Screen

1. Power indicator is off
Make sure the power cable is connected properly (see the section "Connecting Your Monitor").
Make sure that the monitor was turned on using the power switch.

2. Power indicator lights amber
Perhaps a power saving mode is active. Press any key on your keyboard or click the mouse button.

3. Power indicator lights green
Indicates normal operation of the monitor.

4. "No Signal!" message
Is the signal cable connected to the monitor and the computer's graphics port?
(see the section "Connecting Your Monitor")

Display Problems

Image is displaced to the left/right or to the top/bottom
If the image appears normal but off-center for the analog video input, you can adjust it using the OSD function under "Image Control" called "Auto Adjustment". There are no such adjustments for digital video (DVI-D) as they are not needed.

Specification

General

General	
Model Name	WBZF

LCD Panel	
Size	22 inch diagonal
Display area	473.8mm (18.7 inch) (H) x 296.1mm (11.7 inch) (V)
Pixel Pitch	0.282mm (0.01111 inch) (H) x 0.282mm (0.01111 inch) (V)
Type	TFT-LCD

Synchronization	
Horizontal	30 – 83 kHz (Analog), 30 ~ 82kHz (Digital)
Vertical	56 - 76 Hz

Display Colors

262,144 total colors with 2-bit/color enhancements to simulate 16,777,216 colors.

Resolution	
Optimum resolution	1680 x 1050@60Hz
Maximum resolution	1680 x 1050@75Hz (Analog Only)

Input Signal, Terminated

RGB Analog , DVI Compliant Digital RGB.
Separate H/V sync,TTL level positive or negative

Maximum Pixel Clock

203 MHz (Analog), 160 MHz (Digital)

Power Supply

100–240 V AC, 50–60 Hz

Signal Cable

15pin to 15pin HD-15 cable, detachable, 1.8m
DVI-D to DVI-D connector, detachable, 3.0m

Power Consumption

55 Watts maximum

Dimensions (WxDxH) / Weight

513.8 x 230.5 x 369.8 mm / 6.9kg
513.8 x 67.4 x 336.1 mm (without stand)

Specification

General

VESA Mounting Interface
100mm x 100mm 4-hole pattern (for use with specialty mounting hardware.)

Environmental considerations	
Operating	Temperature: 50°F ~ 104°F (10°C ~ 40°C) Humidity: 10% ~ 80%, non-condensing
Storage	Temperature: -4°F ~ 113°F (-20°C ~ 45°C) Humidity: 5% ~ 95%, non-condensing

 Specification

Preset Timing Modes

If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 1920 x 1200	73.541	59.596	151.2	+/+
VESA, 1920 x 1080	66.975	60.669	137.7	+/+
VESA, 1280 x 1024	63.981	60.020	108.0	-/-
VESA, 1600 x 1200	74.493	60.026	132.3	+/+
VESA, 1152 x 900	61.845	66.000	94.5	
VESA, 1280 x1024	81.129	76.000	135.0	
VESA, 1152 x 900	71.809	76.149	108.0	+
VESA, 1280 x 1024	79.976	75.000	135.0	+/+
VESA, 1600 x 1200	75.000	60.000	162.0	+/+

The optimal resolution and only resolution recommended for this monitor is 1680x1050@60Hz. These preset timing modes are offerred only to help assure that video will be displayed under most boot or hot-plug conditions. It is recommended to change to 1680x1050@60Hz once video from the computer system is seen on the display.

Information

Authority