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Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

Emissions

- Electromagnetic fields
- Noise emissions

Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001
- Restrictions on
 - chlorinated and brominated flame retardants and polymers
 - heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in co-operation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.

For more information, please visit
www.tcodevelopment.com

IT Equipment Recycling Information

IT Equipment Recycling Information:

Acer is strongly committed to environmental protection and views recycling, in the form of salvaging and disposal, of used equipment as one of the company's top priorities in minimizing the burden placed on the environment.

We at Acer are very conscious of the environmental forces that impose on our business and strive to identify and provide the best working products to reduce the environmental impact of our products.

For more information and help in recycling, please visit the following websites:

Worldwide:

<http://global.acer.com/about/sustainability.htm>

Visit www.global.acer.com for further information on our other products and its features and benefits.

Lamp Disposal



LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. FOR MORE INFORMATION, CONTACT THE ELECTRONIC INDUSTRIES ALLIANCE AT WWW.EIAE.ORG. FOR LAMP SPECIFIC DISPOSAL INFORMATION CHECK WWW.LAMPRECYCLE.ORG.

Waste Electrical and Electronic Equipment (WEEE) Directive



Do not throw this electronic device into the municipal trash bin when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle it. For more information about the collection of WEEE welcome to visit our homepage at www.acer.com under environment.

NOTE

A shielded-type signal cord is required in order to meet the FCC emission limits and also to prevent interference to the radio and television reception. It is essential that only the supplied signal cord be used.

Canadian DOC Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



Preface

This manual is designed to assist users in setting up and using the LCD Monitor. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic or other means, in any form, without prior written permission of the manufacturer.

Important Safety Instructions

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



1. To clean LCD Monitor screen; Power off LCD Monitor and unplug the AC Cord. Spray a non-solvent cleaning solution onto a rag and clean the screen gently.
2. Do not place the LCD Monitor near a window. Exposing the monitor to rain water, moisture or sunlight can severely damage it. Excess moisture or sunlight can severely damage it.
3. Do not apply pressure to the LCD screen. Excess pressure may cause permanent damage to the display.
4. Do not remove the cover or attempt to service this unit by yourself. Servicing of any nature should be performed by an authorized technician.
5. Operate LCD Monitor in a room with a room temperature of 5°C ~ 40°C (or 41°F ~ 104°F). Operating the LCD Monitor outside this range could result in permanent damage.
6. If any of the following occurs, immediately unplug your monitor and call an authorized technician.
 - * Monitor to PC signal cable is frayed or damaged.
 - * Liquid spilled into LCD Monitor or the monitor has been exposed to rain.
 - * LCD Monitor or the case is damaged.

Package Contents



LCD Monitor



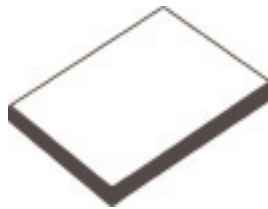
Power Cord



VGA cable



User manual (CD)

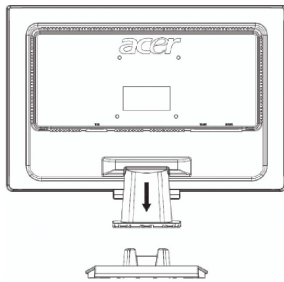


Quick start Guide



DVI Cable (option)

Assembling the Monitor



1. Position the monitor on top of the stand.

2. Connect the stand into the neck of monitor along the track.

Detaching the Monitor

Important

First, find a clean, flat surface to place the monitor after removing it from the stand. Place a clean dry cloth under the monitor to protect it further. Pull the monitor slightly up and away from the stand.

Adjusting the Viewing Angle

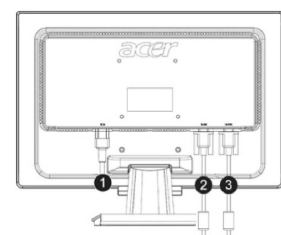
The viewing angle of the monitor ranges from forward 5° to backward 15°.

Caution:

Do not force the LCD Monitor over its maximum viewing angle settings as stated above. Attempting this will result in damaging the Monitor and Monitor stand.

Connecting the Devices

Please shut down the power of computer and monitor before you do the connection.

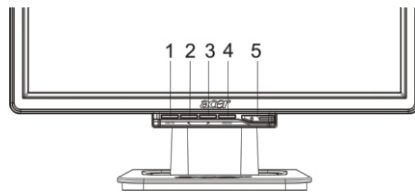


(1)	Power Cord	Attach the monitor to the power cord which should then be inserted into a properly grounded electric socket.
(2)	DVI Cable (option)	Connect the signal cable to the DVI output socket of the graphics card on the computer. Then tighten the thumbscrews on the connector
(3)	VGA Cable	Connect the signal cable to the VGA output socket of the graphics card on the computer. Then tighten the thumbscrews on the connector

WARNING: The D-Sub 15 pin plug of the VGA cable is trapezoid in shape. Make sure the shape of the plug matches the shape of the socket it is inserted into, and that none of the pins are bent or otherwise damaged.

Operating Your Monitor

First, switch the power on to the monitor, then switch the power on to the computer. When you see the LED on the power button go green, this indicates the computer is ready for use. Allow about 10 seconds for the video signal to appear. If you do not see the green light on the power button or a video signal, check the connections .



1	AUTO	Auto configuration	If OSD is active, press to exit. If OSD is inactive, press and the monitor will automatically optimize the display position, clock and phase of your display.
2	<	Minus	If OSD is active, press to select or adjust OSD options.
3	>	Plus	If OSD is active, press to select or adjust OSD options.
4	MENU	OSD Menu	Press to view OSD. Press AUTO to exit.
5		power	Power on/off Green: power on Orange: in sleep mode

OSD Options

Please refer to "External Controls " on Page 5. To adjust the OSD settings :

1. Press the MENU button to open the OSD menu
2. Use the buttons marked < or >, to highlight a control, then press the MENU button to enter
3. Use the buttons marked < or >, to adjust the control to the desired level.
4. When you have finished making all selections, press the MENU button to exit the OSD. (Or the adjustment will auto-save after 45 seconds.)

OSD Menu

Brightness & Contrast



BRIGHTNESS:

This adjusts the brightness of the picture on the screen. Adjustable range from the value of 0 to 100.

CONTRAST:

This adjusts dark and light shades of color relative to each other to achieve a comfortable contrast. Adjustable range from the value of 0 to 100.

Tracking



FOCUS:

This removes any horizontal distortion and makes the picture clear and sharp.

CLOCK:

If there are any vertical stripes seen on the background of the screen this renders them less noticeable by minimizing their size. It also changes the size of horizontal screen.

Position



V-Position:

This removes any horizontal distortion and makes the picture clear and sharp.

H-Position:

This adjusts the horizontal.

Color Temperature



There are three ways of adjusting color temperature:

WARM:

Set the color temperature as CIE coordinate 6500°K.

COOL:

Set the color temperature as CIE coordinate 9300°K.

User defined:

You can adjust the colors red, green and blue to the intensity you desire.



Language



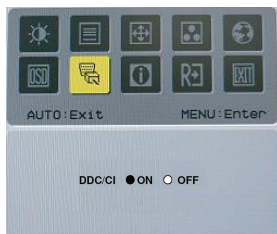
Select the OSD menu language.

OSD Position



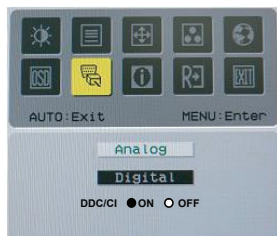
This changes the position of the OSD window on the screen.
TIMEOUT function allow user define the OSD appearing period from 10 seconds to 120 seconds.

Source Change (for analog only model)



Select turn on or turn off DDC / CI function.

Source Change (for dual input model)



Analog and Digital source change .
Select turn on or turn off DDC / CI function.

Information



This shows brief information on the screen.

Recall



Recall to factory default settings

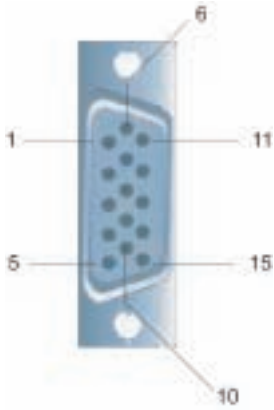
General Specification

AL2216W B

Item	Specification
Panel	
Display	22-inch Flat panel active-matrix TFT LCD
Max resolution	1680 x 1050 @60Hz
Pixel Pitch	0.282 mm X 0.282 mm
Color	16.2M
Brightness	300nits (Typical)
Contrast Ratio	2500:1 (ACM)
Response Time	5ms (Typical)
View Angle of Horizontal	170°
View Angle of Vertical	160°
External Controls Power Button	ON/ OFF
Control Buttons	AUTO, MENU, <, >
Video In	VGA or VGA+DVI-D w/ HDCP (option)
Video	Analog 0.7V
Sync	TTL (+/-)
Plug & Play	DDC / CI
Power	
Power Source	100-240V AC, 50/60 Hz, 1.5A
Power consumption during normal operation	< 45W
Power consumption during active off operation	< 1W
Dimension and weight	
Dimension (W_H_D)	512.6mm x 423.1mm x 184.6mm(base included)
Weight (Net/ Gross)	4.6 Kg/ 6.3Kg

Technical Information

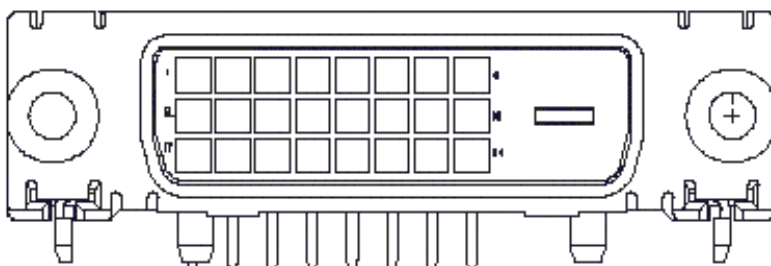
Pin Assignment



Signal		Signal	
PIN	Description	PIN	Description
1	Red	9	+5V
2	Green	10	N.C.
3	Blue	11	N.C.
4	N.C.	12	DDC_SDA
5	GND	13	HSYNC
6	Red_GND	14	VSYNC.
7	Green_GND	15	DDC_SCL
8	Blue_GND		

Digital Video Input Connector : DVI – D (option)

1	TX2-	9	TX1-	17	TX0-
2	TX2+	10	TX1+	18	TX0+
3	Shield (TX2 / TX4)	11	Shield (TX1 / TX3)	19	Shield (TX0 / TX5)
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC-Serial Clock	14	+5V power	22	Shield (TXC)
7	DDC-Serial Data	15	Ground (+5V)	23	TXC+
8	NC	16	Hot plug detect	24	TXC-



Standard Timing Table

If the selected timing is NO T included in table below, this LCD monitor will go into the sleep mode.

VESA MODES							
Mode	Resolution	Total	Horizontal		Vertical		
			Nominal Frequency +/-0.5KHz	Sync Polarity	Nominal Frequency +/-1Hz	Sync Polarity	Nominal Pixel Clock (MHz)
VGA	640*480@60Hz	800*525	31.469	N	59.941	N	25.175
	640*480@72Hz	832*520	37.861	N	72.809	N	31.500
	640*480@75Hz	840*500	37.500	N	75.000	N	31.500
SVGA	800*600@56Hz	1024*625	35.156	P	56.250	P	36.000
	800*600@60Hz	1056*628	37.879	P	60.317	P	40.000
	800*600@72Hz	1040*666	48.077	P	72.188	P	50.000
	800*600@75Hz	1056*625	46.875	P	75.000	P	49.500
XGA	1024*768@60Hz	1344*806	48.363	N	60.004	N	65.000
	1024*768@70Hz	1328*806	56.476	N	70.069	N	75.000
	1024*768@75Hz	1312*800	60.023	P	75.029	P	78.750
	1152*864@75Hz	1600*900	67.500	P	75.000	P	108.000
	1152*720@60Hz	1488*748	44.859	N	59.972	P	66.750
	1280*960@60Hz	1800*1000	60.000	P	60.000	P	108.000
SXGA	1280*1024@60Hz	1688*1066	63.981	P	60.020	P	108.000
	1280*1024@75Hz	1688*1066	79.976	P	75.025	P	135.000
SXGA+	1400x1050@60Hz	1864*1089	65.317	N	59.978	N	121.75
UXGA	1600*1200@60Hz	2160*1250	75.000	P	60.000	P	162.000
WXGA	1360*768@60Hz	1792*795	47.712	P	60.015	P	85.5
WXGA+	1440*900@60Hz	1600*926	55.469	P	59.901	N	88.75
	1440*900@75Hz	1936*942	70.635	N	74.984	P	136.75
WSXGA+	1680*1050@60Hz	2240*1089	65.290	N	59.954	N	146.250
IBM MODES							
EGA	640*350@70Hz	800*449	31.469	P	70.087	N	25.175
	720x400@70Hz	900*449	31.469	N	70.087	P	28.322
MAC MODES							
VGA	640*480@66.7Hz	864*525	35.000	P	66.667	P	30.240
SVGA	832*624@75Hz	1152*667	49.725	N	74.550	N	57.283
XGA	1024*768@75Hz	1328*804	60.241	N	74.927	N	80.000
	1152*870@75Hz	1456*915	68.681	N	75.062	N	100.00
Other MODES							
XGA	1024*768@72Hz	1360*800	57.669	N	72.086	N	78.434
SXGA	1280*1024@70Hz	1696*1072	74.882	P	69.853	P	127.000

Troubleshooting

This LCD Monitor has pre-adjusted using factory standard VGA timings. Due to the output timing differences among various VGA cards in the market, users may initially experience an unstable or unclear display whenever a new display mode or new VGA card is selected.

Attention

This LCD Monitor Supports Multiple VGA Modes. Refer to the Standard Timing Table for a listing of modes supported by this LCD Monitor.

PROBLEM Picture is unclear and unstable

The picture is unclear and unstable, please perform the following steps :

1. Enter PC to "Shut Down Windows" status while you're in MS-Windows environment.
2. Check the screen to see if there's any black vertical stripes appear. If there are, take advantage of the "Clock" function in OSD menu and adjust (by increment or decrement numbers) until those bars disappear.
3. Move to "FOCUS" function in OSD menu again and adjust the monitor screen to its most clear display.
4. Click "No" on "Shut Down Windows" and back to the normal PC operating environment.

PROBLEM There is no picture on LCD Monitor

If there's no picture on the LCD Monitor, please perform the following steps:

1. Make sure the power indicator on the LCD Monitor is ON, all connections are secured, and the system is running on the correct timing. Refer to Chapter 3 for information on timing.
2. Turn off the LCD Monitor and then turn it back on again. If there is still no picture, press the Adjustment Control button several times.
3. If step 2 doesn't work, connect your PC system to another external CRT. If your PC system functions properly with a CRT Monitor but it does not function with the LCD Monitor, the output timing of the VGA card may be out of the LCD's synchronous range.
Please change to an alternative mode listed in the Standard Timing Table or replace the VGA card, and then repeat steps 1 and 2.

PROBLEM There is no picture on LCD Monitor

If you have chosen an output timing that is outside of the LCD Monitor's synchronous range (Horizontal: 31.5 ~ 80 KHz and Vertical: 56 ~ 75 Hz), the OSD will display a "Out of Range" message. Choose a mode that is supported by your LCD Monitor. Also, if the signal cable is not connected to LCD monitor at all or properly, the monitor screen will display a message "No Input Signal".

Caution: Do not attempt to service the monitor yourself or open the computer yourself.

Please refer all servicing to qualified service personnel if the problems cannot be solved in "Troubleshooting" section.