User's Guide

M2900S M3800S

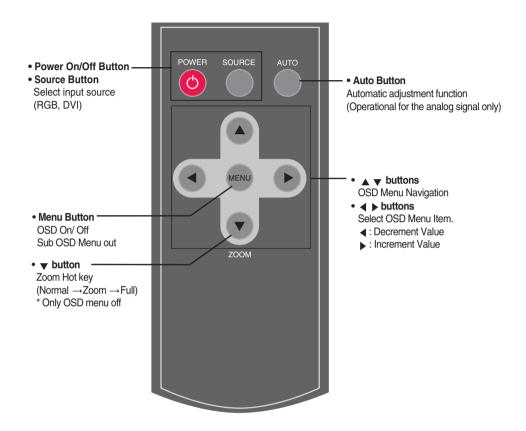
Make sure to read the **Safety Precautions** before using the product. Keep the User's Guide(CD) in an accessible place for future reference.

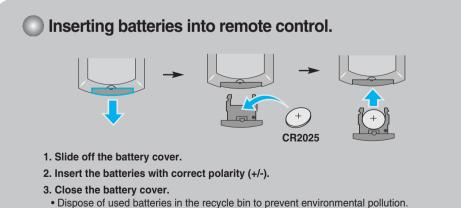
See the label attached on the product and give the information to your dealer when you ask for service.



Using the Remote Control

Name of the Remote Control Buttons

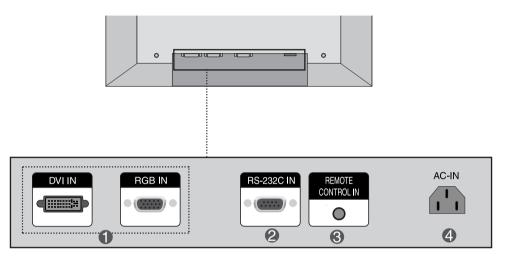




Name and Function of the Parts

* The product image in the user's guide could be different from the actual image.





- DVI, RGB Ports
- RS-232C Serial Port
- **Wired Remote Control Port**
- 4 Power Connector: Connect the power cord

Connecting to External Devices

■■■ When Connecting to your PC

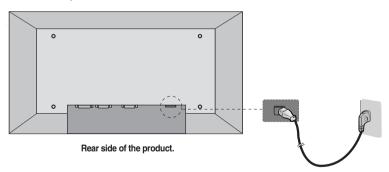
- First of all, see if the computer, product and the peripherals are turned off. Then, connect the signal input cable.
 - (A) When connecting with the D-Sub signal input cable. (RGB)



(B) When connecting with the DVI signal input cable.



2 Connect the power cord.



Connecting to External Devices

(1) Turn on power by pressing the power button on the product.

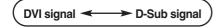


Power button

2 Turn on the PC.

To change input source

Press the SOURCE button on the remote control to select the input signal. Or, press the SOURCE button on the bottom of the product.



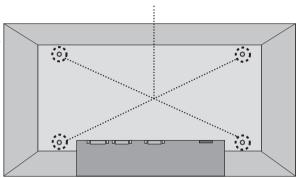


- How to connect to two computers.
 Connect the signal cables (DVI and D-Sub) to each computer.
 Press the SOURCE button on the remote control to select the computer to use.
- Directly connect to a grounded power outlet or power strip (three prong connector.)

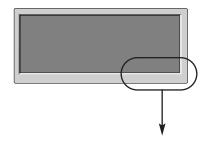
Connecting to External Devices

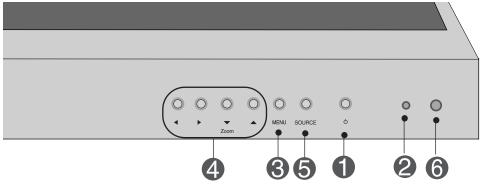
VESA FDMI wall Mounting

This product supports a VESA FDMI compliant mounting interface. These mounts are purchaed separately and not available from LG. Refer to the instructions included with hte mount for more info.



Screen Adjustment options





- Power Button
- Press this button to turn on the power. Press this button again to turn it off.
- Power Indicator
- This Indicator lights up green when the display operates normally(on mode). If the display is in sleep (Energy Saving) mode, this indicator color changes to amber.
- MENU Button
- Use this button to show/hide the OSD (On Screen Display) menu screen.

4 (

OSD Select / Adjust Button

- Use this button to select an icon or adjust the setting in the OSD screen.
- ▼ ▲ OSD Menu Navigation up and down
 - \P : Zoom Hot key (Normal \rightarrow Zoom \rightarrow Full) Zoom
- **∢** ▶
- ■: Select Menu Item, Decrement Value
- ▶ : Select Menu Item, Increment Value

Screen Adjustment options



SOURCE Button

To change input source depending on connected signal.

Press the SOURCE button on the remote control to select the input signal.

Or, press the SOURCE button on the bottom of the product.





IR Receiver

• This is where the unit receives signals from the remote control.

OSD Menu

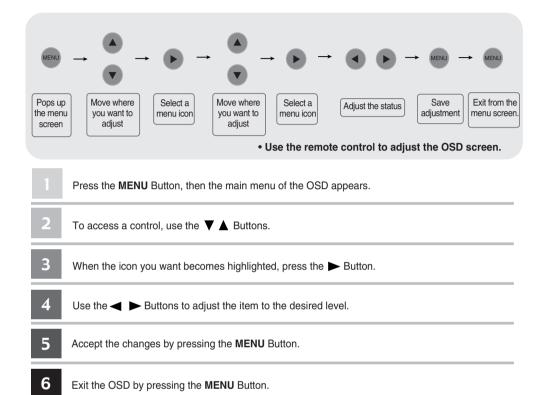
Icon	Function Description
PICTURE	Adjusts screen brightness, contrast and color that you prefer.
ZOOM	Adjusts the screen size.
TIMER	Adjusts the timer options.
OSD	Adjusts the OSD image.



OSD(On Screen Display)

The OSD function enables you to adjust the screen status conveniently since it provides graphical presentation.

How to adjust the OSD (On Screen Display) screen



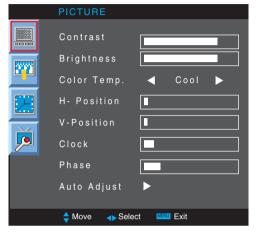
How to adjust the screen automatically

Press the AUTO button on a remote Control in the PC analog signal. Then optimal screen settings will be selected that fit into the current mode. If adjustment is not satisfactory, you can adjust the screen manually.

Auto-Adiust



Adjusting Screen Color



Contrast **Brightness** Adjust the difference between the light and dark levels in the picture.

To adjust the brightness of the screen.

Color Temp Color Settings

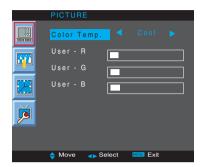


• Cool : Slightly purplish white. • Normal : Slightly bluish white.

Warm : Slightly reddish white.
 User : Select this option to use the user-defined settings.



Adjusting Screen Color



Red / Green / Blue

Set your own color levels.

H-Position: Moving the screen position horizontally. **V-Position:** Moving the screen position vertically.

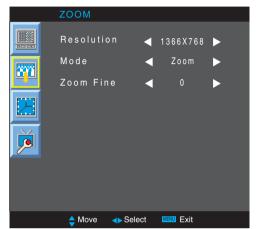
Clock: To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change. This function is available for analog signals only. **Phase:** To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters. This function is available for analog signals only.

Auto Adjust (RGB PC input only): This button is for the automatic adjustment of the screen position, clock and phase. This function is available for analog signals only.

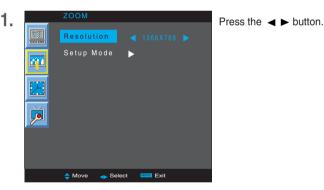


Adjusting Screen size

Resolution



For more improved or better picture quality, select the same mode corresponding to computer resolution.



Press the ▼ button.

3. Accept the changes by pressing the ▶ Button.



Adjusting Screen size

Mode To select the image size of the screen.

Normal The aspect ratio is not adjusted from the original. It is set by the

program being watched.

Full When your AV receives the wide screen signal, it will lead you to

adjust the picture horizontally or vertically, in a linear proportion,

to fill the entire screen fully.

Zoom When an image created based on M2900S model resolution (1366 X 480)

and an image based on M3800S model resolution (1366 X 398) are used in different models, this function adjusts an image to fit to the screen size

without cutting it or leaving any empty space on screen.

Zoom Fine To adjust the enlarged or reduced areas on the screen when the product is in Zoom mode.



Adjusting the timer function



Clock

If the current time is incorrect, reset the clock manually.

- 1) Press the **MENU** button and then use ▼ ▲ button to select the **TIMER** menu.
- 2) Press the ▶ button and then use ▼ ▲ button to select the Clock menu.
- 3) Press the ▶ button and then use ◀ ▶ button to set the hour(00~23).
- 4) Press the ▼ button and then use ◀ ▶ button to set the minutes(00~59).
- 5) Press the MENU button.

On/ Off Time

The off time automatically switches the set to standby at the pre-set time.

- 1) Press the **MENU** button and then use **▼** ▲ button to select the **TIMER** menu.
- 2) Press the ▶ button and then use ▼ ▲ button to select Off Time or On Time.
- 3) Press the ▶ button and then use ◀ ▶ button to set the hour(00~23).
- 4) Press the ▼ button and then use ◀ ▶ button to set the minutes(00~59).
- 5) Press the **MENU** button.

Function

To set automatic On/Off.

On: Automatically turn the product On/Off at preset times.

Off: Disable the On/Off Time function.

Note

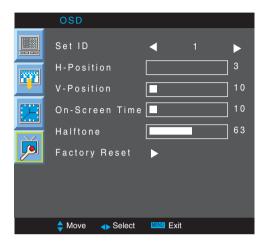


- In the event of power interruption (disconnection or power failure), the clock must be reset.
- Once the on or off time is set, these functions operate daily at the preset time.
- Off time function overrides On time function if they are set to the same time.
- When On time is operated, input screen is turned on as it was turned off.



Adjusting OSD image

OSD



Set ID You can assign a unique Set ID NO (name assignment) to each

product when several products are connected for display. Specify the number (1~99) using the \blacktriangleleft , \blacktriangleright button and exit. Use the assigned **Set ID** to individually control each product using the Product Control

Program.

H-Position Moving the OSD screen position horizontally.

V-Position Moving the OSD screen position vertically.

On-Screen Time To set the period of time that the OSD is displayed on the screen.

(Available times: 3 to 24 second.)

Halftone To adjust the transparency of the OSD menu screen.

Factory Reset Select this option to return to the default factory settings.

Troubleshooting

No image is displayed

- Is the product power cord connected?
- Is the power indicator light on?
- Power is on, power indicator is green but the screen appears extremely dark.
- the power indicator amber?
- Does the 'Out of range' message appear?
- Does the 'no signal' message appear?

- See if the power cord is properly connected to the outlet.
- See if the power switch is turned on.
- May need service.
- · Adjust brightness and contrast again.
- Backlight may need repair.
- If the product is in power saving mode, move the mouse or press any key.
- Turn both devices off and then back on.
- The signal from the PC (video card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual.
 - * Maximum resolution

RGB : 1280 x 1024 @60Hz DVI : 1280 x 1024 @60Hz

- The signal cable between PC and product is not connected. Check the signal cable.
- Press the 'SOURCE' menu in the remote Control to check the input signal.



^{*} Vertical frequency: To enable the user to watch the product display, screen image should be changed tens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the times of image display per second. The unit is Hz

^{*} Horizontal frequency: The horizontal interval is the time to display one vertical line. When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.

Troubleshooting

The screen image looks abnormal.

- Is the screen position wrong?
- D-Sub analog signal Press the "AUTO" button in the remote control to automatically select the optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Position OSD menu.
- See if the video card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the Control Panel – Display – Setting menu.
- Do thin lines appear on the background screen?
- D-Sub analog signal Press the "AUTO" button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Clock OSD menu.
- Horizontal noise appears or the characters look blurred.
- D-Sub analog signal Press the "AUTO" button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, use the Phase OSD menu.
- The screen is displayed abnormally.
- The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.

After-image appears on the product.

- After-image appears when the product is turned off.
- If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screen-saver function.

Troubleshooting

Screen color is abnormal.

- Screen has poor color resolution (16 colors).
- Set the number of colors to more than 24 bits (true color)
- Select Control Panel Display Settings Color Table menu in Windows.
- Screen color is unstable or monocolored.
- Check the connection status of the signal cable. Or, re-insert the PC video card.
- Do black spots appear on the screen?
- Several pixels (red, green, white or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD.

The product specifications can change without prior notice for product improvement.

M2900S

LCD Panel	29.1 inches Visible diagonal (73.95 cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel 0.17025 mm X RGB X 0.51075 mm (Pixel Pitch)							
Power	Rated Voltage	AC 100-240V~	- 50/60Hz 1.1A					
	Power Consumption	On Mode	: 65W Typ.					
	•	Sleep Mode						
		Off Mode	: ≤ 1W					
Dimensions &Weight	- w	H *D*						
	Width x Height x Depth 76.58 cm (30.15 inches) x		3 inches) x 9.8 cm (3.86 inches)					
	Net 13 kg (28.66 lbs)							

NOTE

■ Information in this document is subject to change without notice.

The product specifications can change without prior notice for product improvement.

M3800S

LCD Panel	38.1 inches Visible diagonal (96.89 cm) TFT (Thin Film Transistor) LCD (Liquid Crystal Display) Panel 0.227 mm X RGB X 0.681 mm (Pixel Pitch)							
Power	Rated Voltage Power Consumption	AC 100-240V~ On Mode Sleep Mode Off Mode	: ≤ 2W					
Dimensions &Weight	Width x Height x Depth		6 inches) x 9.2 cm (3.62 inches)					

NOTE

■ Information in this document is subject to change without notice.

The product specifications can change without prior notice for product improvement.

Video Signal	Max. Resolution	RGB: 1366 X 768 @60Hz (1280 X 1024@60Hz) DVI: 1366 X 768 @60Hz (1280 X 1024@60Hz) – It may not be supported depending on the OS or video card type.
	Recommended Resolution	RGB: 1360 X 768 @60Hz DVI: 1360 X 768 @60Hz – It may not be supported depending on the OS or video card type.
	Horizontal Frequency	RGB : 28 - 70 kHz DVI : 28 - 70 kHz
	Vertical Frequency	57 - 63 Hz
	Synchronization Type	Separate/Digital
Input Connector		15-pin D-Sub type, DVI (digital), RS-232C
Environmental Conditions	Operational Condition Storage Condition	Temperature: 5° C ~ 35° C , Humidity: 10% ~ 80% Temperature: -20° C ~ 60° C , Humidity: 5% ~ 90%

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE

■ Information in this document is subject to change without notice.

PC Mode – Preset Mode

	Preset mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)		Preset mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
1 2 3 4 5 6 7 8	640 x 480 720 x 400 720 x 400 800 x 600 800 x 600 1024 x 768 1024 x 768 1360 x 768	31.469 31.468 31.5 37.354 37.879 47.816 48.363 47.72	59.94 70.08 70.156 59.861 60.317 59.92 60.004 59.799	9 10 11 12 13 14	1360 x 768 1360 x 768 1366 x 768 1366 x 768 1280 x 1024 1280 x 1024	47.72 47.712 47.713 49.02 63.668 63.981	59.799 60.015 59.65 60.0 59.895 60.02

^{* 6~12} Select Resolution In OSD Zoom Menu

Power Indicator

Mode	Product
On Mode	Green
Sleep Mode	Amber
Off Mode	Red

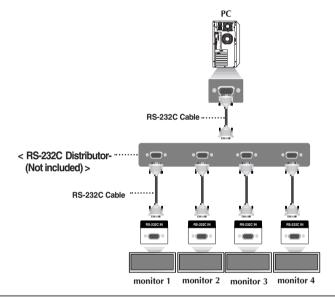
Controlling the Multiple Product

Use this method to connect several products to a single PC. You can control several products at a time by connecting them to a single PC.

Connecting the cable

Connect the RS-232C cable as shown in the picture.

* The RS-232C protocol is used for communication between the PC and product. You can turn the product on/off, select an input source or adjust the OSD menu from your PC.



RS-232C Configurations

7-Wire Co	nfigurations	(Standard RS-23	32C cable)
	PC	Monitor	
RXD TXD GND DTR DSR RTS CTS	2	2 3 5 4 6 7	TXD RXD GND DSR DTR CTS RTS
	D-Sub 9 (Female)	D-Sub 9 (Male)	

3-Wi	re Configura	tions (Not Stand	ard)
	PC	Monitor	
RXD TXD GND DTR DSR RTS CTS	2	2 3 5 4 6 7 8	TXD RXD GND DSR DTR CTS RTS
	D-Sub 9 (Female)	D-Sub 9 (Male)	

Communication Parameter

► Baud Rate: 9600buadRate (UART)

Data Length: 8bits
Parity Bit: None
Stop Bit: 1bit
Flow Control: None

▶ Communication Code : ASCII code

▶ Use a straight cable

Controlling the Multiple Product

Command Reference List

	COMMAND1	COMMAND2	DATA(ASCII)
01. Power	j	k	000 - 001
02. Source	j	1	000 - 001
03. Brightness	j j	m	000 - 100
04. Contrast	j j	n	000 - 100
05. Color Temperature	j	р	000 - 003
06. Resolution	j	q	000 - 002
07. Zoom	į	r	000 - 002
08. Auto Adjust	J	S	000

Controlling the Multiple Product



Transmission / Receiving Protocol

Transmission

[Command1][Set ID][Command2][Data][Cr]

- * [Command 1]: First command. (i)
- * [Command 2]: Second command.
- * [Set ID]: Set up the Set ID number of product.

range: 00~99. by setting '0', server can control all products.

* In case of operating with more than 2 sets using set ID as '0' at the same time, it should not be checked the ack message.

Because all sets will send the ack message, so it's impossible the check the whole ack messages.

- * [DATA]: To transmit command data.
- * [Cr]: Carriage Return

ASCII code '0x0D'

OK Acknowledgement

[OK]

* The Product transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[NG]

* If there is error, it returns NG.

Controlling the Multiple Product



01. Power(Command: k)

► To control Power On/Off of the Set.

Transmission

[j][Set ID][k][Data][Cr]

Data(ASCII) 000 : Power Off 001 : Power On

Acknowledgement

[OK]

02. Source (Command: I)

▶ To select input source for the Set.

You can also select an input source using the SOURCE button on the remote control.

Transmission

[j][Set ID][l][Data][Cr]

Data(ASCII) 000 : RGB 001 : DVI

Acknowledgement

Controlling the Multiple Product

Transmission / Receiving Protocol

03. Brightness(Command: m)

▶ To adjust screen brightness.

You can also adjust the brightness in the Picture menu.

Transmission

[j][Set ID][m][Data][Cr]

Data(ASCII) Min: 000 ~ Max: 100

Acknowledgement

[OK]

04. Contrast(Command: n)

► To adjust screen contrast.

You can also adjust the contrast in the Picture menu.

Transmission

[j][Set ID][n][Data][Cr]

Data(ASCII) Min: 000 ~ Max: 100

<u>Acknowledgement</u>

Controlling the Multiple Product



Transmission / Receiving Protocol

05. Color Temperature (Command : p)

▶ To adjust the screen color temperature.

Transmission

[j][Set ID][p][Data][Cr]

Data (ASCII)

000: Normal

001 : Cool

002 : Warm

003 : User

Acknowledgement

[OK]

06. Resolution (Command: q)

▶To adjust the screen format.

Transmission

[j][Set ID][q][Data][Cr]

Data (ASCII)

000 : 1366 X 768 001 : 1360 X 768 002 : 1024 X 768

<u>Acknowledgement</u>

Controlling the Multiple Product

Transmission / Receiving Protocol

07. Zoom (Command: r)

▶ To adjust the enlarged or reduced areas on the screen when the product is in Zoom mode.

Transmission

[j][Set ID][r][Data][Cr]

Data (ASCII) 000 : Normal 001 : Zoom 002 : Full

Acknowledgement

[OK]

08. Auto adjust (Command: s)

▶ To adjust picture position and minimize image shaking automatically. it works only in RGB mode.

Transmission

[j][Set ID][s][Data][Cr]

Data (ASCII) 000 : To set

<u>Acknowledgement</u>

IR Codes

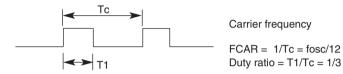
How to connect

▶ Connect your wired remote control to Remote Control port on the Product.

Remote Control IR Code

▶ Output waveform

single pulse, modulated with 37.917KHz signal at 455KHz

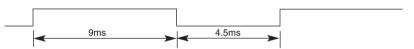


▶ Configuration of frame

• 1st frame

	Lead		Lov		n co	ode						High cust		СО	de					Dat	a c	ode						Dat	ас	ode)			ĺ
ľ		C0	C1	C2	СЗ	C4	C5	C6	C7	C0	C1	C2	СЗ	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7	

▶ Lead code

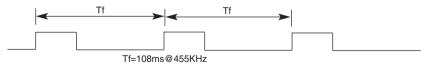


▶ Bit description



Frame interval : Tf

• The waveform is transmitted as long as a key is depressed.



Remote Control

IR Codes

Code(Hexa)	Function	Note
0FH	A	R/C Button (Menu Navigation, Zoom Hot key)
16H	▼	R/C Button (Menu Navigation)
17H	•	R/C Button (Increment Value, Select menu item)
12H	▲	R/C Button (Decrement Value, Select menu item)
03H	POWER ON/OFF	R/C Button (Power On/Off)
07H	SOURCE	R/C Button (D-Sub, DVI)
11H	MENU	R/C Button (Menu On/Off)
0CH	AUTO ADJUST	Discrete IR Code (D-Sub Only)

CHILD SAFETY:

It Makes A Difference How and Where You Use Your Flat Panel Display

Congratulations on your purchase! As you enjoy your new product, please keep these safety tips in mind:



THE ISSUE

- The home theater entertainment experience is a growing trend and larger flat panel displays are popular purchases. However, flat panel displays are not always supported on the proper stands or installed according to the manufacturer's recommendations.
- Flat panel displays that are inappropriately situated on dressers, bookcases, shelves, desks, speakers, chests or carts may fall over and cause injury.

THIS MANUFACTURER CARES!

• The consumer electronics industry is committed to making home entertainment enjoyable and safe.

TUNE INTO SAFETY

- One size does NOT fit all. Follow the manufacturer's recommendations for the safe installation and use of your flat panel display.
- Carefully read and understand all enclosed instructions for proper use of this product.
- Don't allow children to climb on or play with furniture and television sets.
- Don't place flat panel displays on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on a "larger than life" flat panel display. Care should be taken to place or install the display where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the flat panel display so that they cannot be pulled or grabbed by curious children.

WALL MOUNTING: IF YOU DECIDE TO WALL MOUNT YOUR FLAT PANEL DISPLAY, ALWAYS:

- Use a mount that has been recommended by the display manufacturer and/or listed by an independent laboratory (such as UL, CSA, ETL).
- Follow all instructions supplied by the display and wall mount manufacturers.
- If you have any doubts about your ability to safely install your flat panel display, contact your retailer about professional installation.
- Make sure that the wall where you are mounting the display is appropriate.
 Some wall mounts are not designed to be mounted to walls with steel studs or old cinder block construction. If you are unsure, contact a professional installer.
- A minimum of two people are required for installation. Flat panel displays can be heavy.





P/NO: 3840TRL098E (0801-REV00)