

EN-8500

18" LCD Monitor With TV Tuner

User's Manual

By Envision Peripherals, Inc.

www.envisionmonitor.com



Before operating your monitor,
please read this manual
thoroughly.

TABLE OF CONTENTS

COVER	
TABLE OF CONTENTS	1
FOR YOUR SAFETY	2-3
SPECIAL NOTES ON LCD MONITOR	4
GENERAL NOTES	5
FEATURES	6
PACKAGE CONTENTS	7
INSTALLATION INSTRUCTIONS	
POWER CORD	8
BASIC CONNECTIONS	9
PREPARING TO INSTALL THE OPTIONAL WALL MOUNT ARM	10
ATTACHING THE OPTIONAL WALL MOUNT ARM	11
CONNECTING OTHER VIDEO & AUDIO SOURCES	12
ADJUSTING THE VIEWING ANGLE	13
OPERATING INSTRUCTIONS	
USER CONTROLS	14-15
REMOTE CONTROL	16
OSD FUNCTIONS	17-21
PLUG AND PLAY	22
TECHNICAL SUPPORT (FAQ)	23-24
ERROR MESSAGES	25
RESOLUTION TABLE	25
HOW TO INSTALL INF & ICM FILE	26
SPECIFICATIONS	27-28
FACTORY PRESET TIMING TABLE	29
D-SUB CONNECTOR PIN ASSIGNMENT	29
V-CHIP	30-31
WARRANTY STATEMENT	32-33

FOR YOUR SAFETY

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.
1. 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 Envision Peripherals, Inc. 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.

SAFETY 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.6A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

SPECIAL NOTES ON LCD MONITORS**NOTES**

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

- 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 panel used in this monitor is a very high technology product with 2,359,296 thin film transistors giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue, white or black. Please note that this does not indicate a defective panel.
- 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 been displayed for a long time. The monitor will slowly recover from this.
- The life of the fluorescent light used in the LCD monitor is approximately 30,000 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.

GENERAL NOTES

- Set your resolution to 1024 x 768 @ 60Hz refresh rate for optimum display quality.
- The screen surface is very soft. Do not rub, touch or tap the screen surface with sharp object such as pen or pencil. This contact may scratch or damage the screen. These damages are not covered under the warranty.
- Turn your computer OFF before installing your new monitor. Refer to your computer manual for the proper shut down procedure.
- This is a Plug & Play monitor. Microsoft Windows will automatically install a Plug & Play driver for it when you first install this monitor. It is not necessary to install the INF driver file included in the floppy diskette if Microsoft Windows successfully installed a Plug & Play driver.
- 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 the case & surface of the TFT-LCD panel with a soft fabric lightly dampened with a glass cleaner. Never spray the glass cleaner directly on the monitor. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the case & panel. As a safety precaution, always unplug the monitor before cleaning it.

BEFORE YOU OPERATE THE MONITOR**FEATURES**

- 18" TFT Color LCD Monitor with TV Tuner
- Composite & S-Video Inputs
- PIP (Picture-in-Picture)
- Crisp, Clear Display for Windows
- *Recommended Resolutions: 1024 X 768 @60Hz*
- EPA ENERGY STAR[®]
- Ergonomic Design
- Space Saving, Compact Case Design

CHECKING THE CONTENTS OF THE EN-8500 PACKAGE

The product package should include the following items:

1. EN-8500 LCD Monitor with TV Tuner
2. Quick Start Guide
3. Remote Control with Batteries
3. Power adaptor & Power Cord
4. Driver Disk Containing Windows 95/98/ME/2000/XP INF & ICM Files
5. PC Stereo Cable
6. D-Sub Cable

		
<p>Monitor</p>	<p>Quick Start Guide (QSG)</p>	<p>Remote Control w/batteries</p>
		
<p>Power Adapter</p>	<p>Power Cord</p>	<p>Driver Disk</p>
		
<p>PC Stereo Cable</p>	<p>D-Sub Cable</p>	

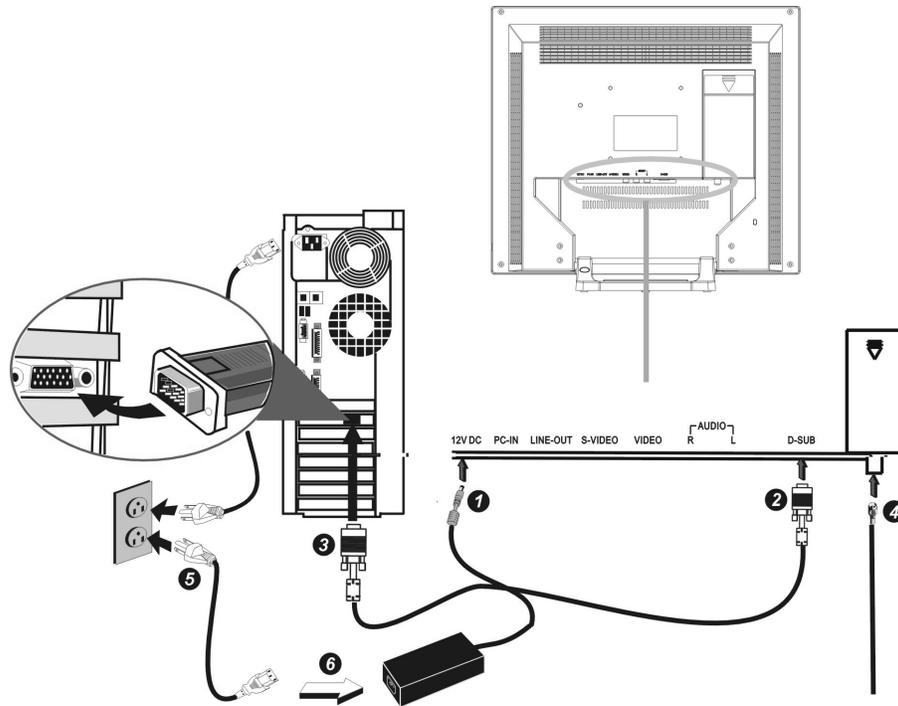
INSTALLATION INSTRUCTIONS**POWER CORD****Power Source:**

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 from 100 - 240V AC voltage area (No user adjustment is required.)
3. Connect the Power Adapter's DC cord into your LCD monitor's power input socket. Then connect the male side of the power cord into a 3-pin AC power outlet. Connect the other end of the power cord to the Power Adapter. 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.

A certified power supply cord has to be used with this equipment. The relevant national installation and/or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H05VV-F 3G 0.75mm² or H05VVH2-F2 3G 0.75mm²) shall be used. Alternative a flexible cord be of synthetic rubber according to IEC 60245 (designation H05RR-F 3G 0.75mm²) shall be used.

INSTALLATION INSTRUCTIONS (cont)

BASIC CONNECTIONS



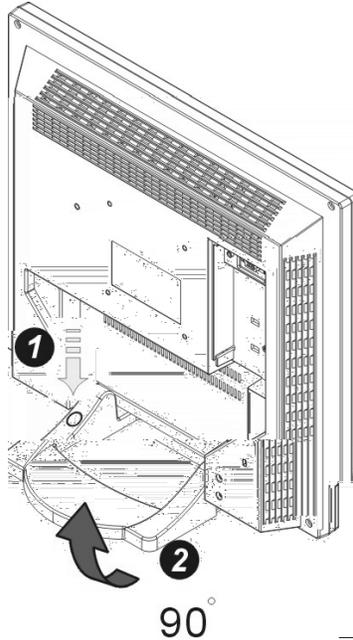
NOTE:

1. Connect the Power Adapter DC Cord to the monitor's 12VDC Input.
2. Connect one end of the D-Sub cable to the monitor's D-Sub Input.
3. Connect the other end of the D-Sub cable to the computer's VGA video output port.
4. Connect the antenna or Cable TV to the monitor's TV input port.
5. Connect the power cord to the AC power outlet.
6. Connect the other end to the monitor's power adapter.

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

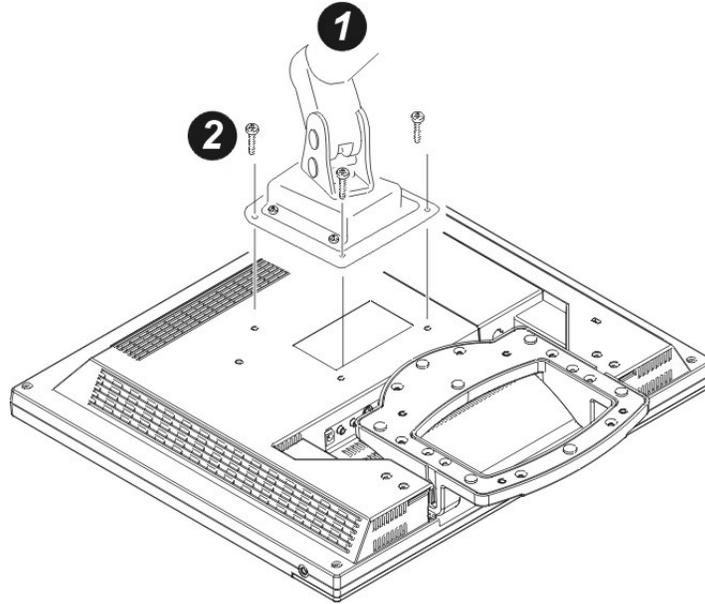
INSTALLATION INSTRUCTIONS (cont)

Preparing To Install The Optional Wall Mount Arm (not supplied):



This monitor can be attached to a wall mounting arm you can purchase separately. Turn the power OFF then dis-connect the cables from the monitor before performing the procedure below. Lay the monitor face down on a soft surface.

1. Press the “FOLD” button on the base of the monitor.
2. Fold the base so it is flush against the back of the monitor.

INSTALLATION INSTRUCTIONS (cont)**Attaching The Optional Wall Mount Arm (not supplied):**

Follow these steps to finish installing the wall mounting arm:

1. Place the wall mounting arm onto the back of the monitor. Line up the holes of the arm with the holes in the back of the monitor.
2. Insert the 4 screws into the holes and tighten.
3. Insert the cables into the slot on the back of the monitor.

NOTE:

The Envision EN-8500 is in compliance with the most current revision of the VESA 100mm Flat Panel Monitor Physical Mounting Interface Standard, "FPMPMI Standard". It is also compatible with the Ergotron line of mounting and arm solutions. Visit their website at www.ergotron.com for more information on the many ways on which you can mount this monitor.

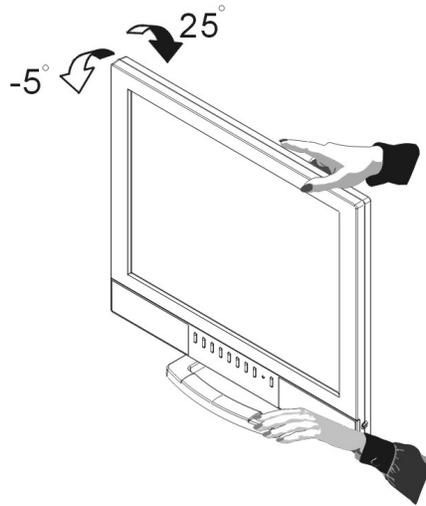
Video to Source

Video & Audio Input: In addition to VGA & TV inputs, this device also provides VIDEO & AUDIO inputs as well as L/R RCA & PC inputs.

2002

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 tilt angle.
- You are able to adjust the monitor's tilt angle from -5° to 25° .



NOTES

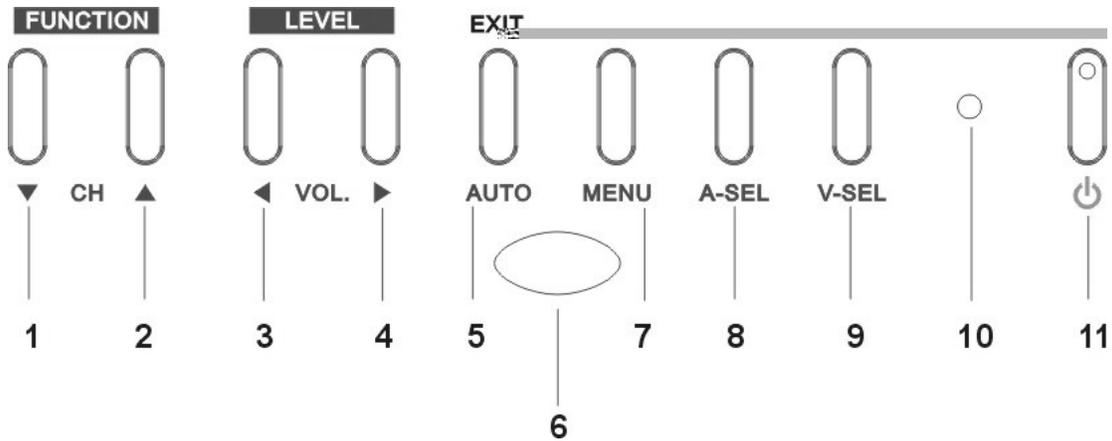
- Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you change the angle.
- The "FOLD" button on the base is for shipping or wall mount use, pls don't press the button when adjusting the tilt angle.

OPERATING INSTRUCTIONS

Press the Power Switch to turn the monitor ON or OFF. The other control knobs are located at the 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. The power indicator will light up.

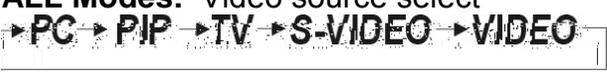
USER CONTROLS



No.	Name	Description
1.	CH ▼	TV or PIP Mode: Change channel down. OSD Mode: Move down between OSD functions.
2.	CH ▲	TV or PIP Mode: Change channel up. OSD Mode: Move up between OSD functions.
3.	VOL ◀	All Modes: Adjust volume down. OSD Mode: Decrease value of selected OSD function.
4.	VOL ▶	All Modes: Adjust volume up. OSD Mode: Increase value of selected OSD function.
5.	AUTO/EXIT	PC & PIP Modes: Automatically adjust the H/V POSITION, CLOCK & FOCUS to optimal value. OSD Mode: EXIT from OSD menu. Or return to previous menu when an OSD sub-menu is active.
6.	REMOTE SENSOR	Sensor for the remote control.

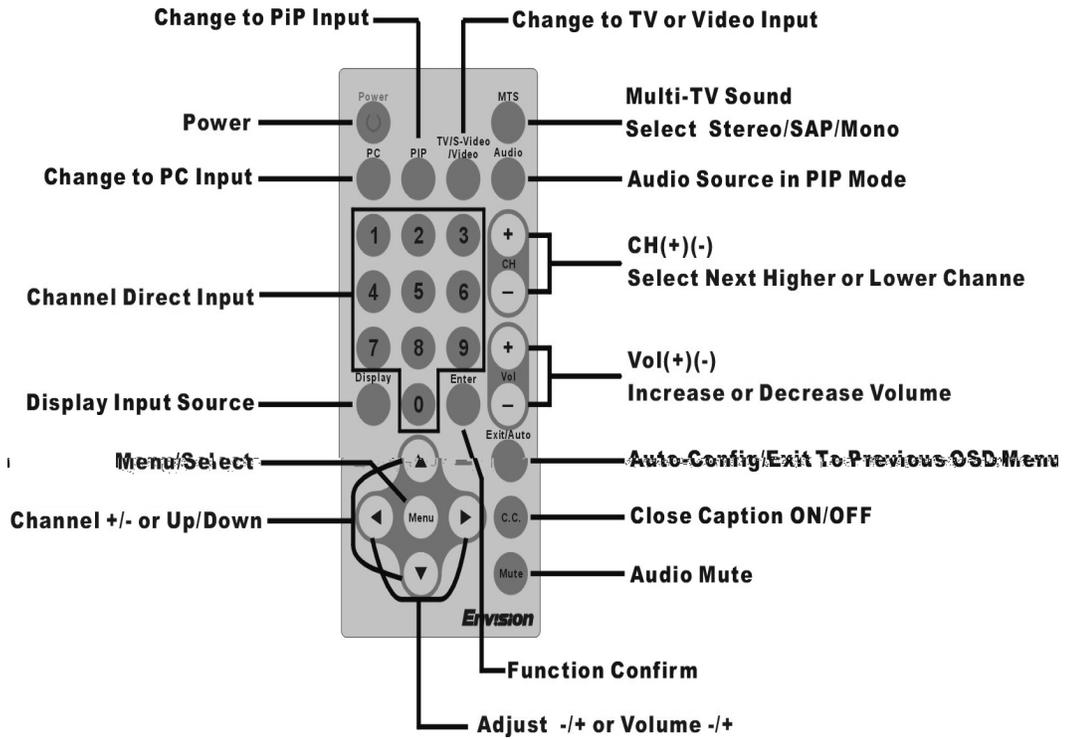
OPERATING INSTRUCTIONS (cont)

USER CONTROLS (cont)

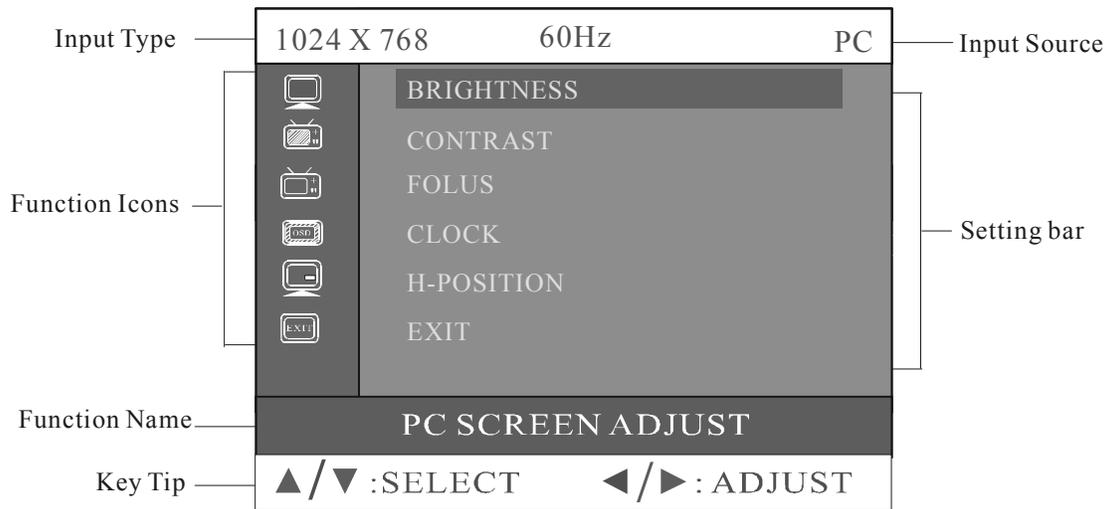
7.	MENU	ALL Modes: Open OSD menu or select the highlighted FUNCTION when OSD menu is already active.
8.	A-SEL	PIP Mode: Audio source select (PIP audio or PC audio)
9.	V-SEL	ALL Modes: Video source select 
10.	Power Indicator	Green: Power ON AMBER: OFF Mode
11.	Power Switch	All Modes: Switch monitor ON/OFF.

OPERATING INSTRUCTIONS (cont)

REMOTE CONTROL



- Press the **Menu** key to call up the OSD. The OSD shown below is from **PC Mode**. The detailed adjustment instructions for each mode is described below.



- Use the **CH▲ & 2** to select **0 11.9 104.730 1387.72230215.3825.08 13f43185.32 943185.**

SELECT THE DIFFERENT INPUT SOURCE

There are seven display modes that you can choose by V-SEL key.

PC Mode : Display the video signal from the PC.

PC+TV Mode (PIP mode): Display the TV signal in PIP and the background is PC video signal.

PC+S-VIDEO Mode (PIP mode): Display the S-VIDEO signal in PIP and the background is PC video signal.

PC+VIDEO Mode (PIP mode): Display the VIDEO signal in PIP and the background is PC video signal.

TV Mode : Display the signal from the TV to full screen.

S-VIDEO Mode : Display the signal from the S-VIDEO to full screen.

VIDEO Mode : Display the signal from the VIDEO to full screen.

SCREEN CONTROLS

PC SCREEN ADJUST Menus – Available in PC & PIP mode.

Icon	Menus and Sub-menus	Function Descriptions	
	BRIGHTNESS	Adjust the picture brightness.	
	CONTRAST	Adjust the picture contrast.	
	FOCUS	Adjust the horizontal noise	
	TRACK	Fine tune the horizontal noise	
	CLOCK	Adjust the vertical noise	
	H.POSITION	Adjust the horizontal position of the picture.	
	V.POSITION	Adjust the vertical position of the picture.	
	COLOR	Adjust the color from redish white to bluish white.	
	7-1.	(7800°K)	Bluish white color.
	7-2.	(6500°K)	Redish white.color
	7-3.	RED	Adjusts Red intensity.
	7-4.	GREEN	Adjusts Green intensity.
	7-5.	BLUE	Adjusts Blue intensity.
	7-6.	Return	EXIT
	RECALL		Replace all the item in OSD menu with the Factory default value. And re-do auto-configuration.
	RETURN		EXIT

OSD ADJUST menu – Available in ALL modes

Icon	Menus and Sub-menus	Function Descriptions
	H.POSITION	Adjust the OSD H.POSITION
	V.POSITION	Adjust the OSD V.POSITION
	OFF TIME	Setting the duaration time of OSD menu.
	RECALL	Replace the OSD H./V.POSITION ,OFF TIME with the factory default value.
	RETURN	EXIT

VIDEO ADJUST menu – Available in TV, Video & S-Video modes

Icon	Menus and Sub-menus	Function Descriptions
	BRIGHTNESS	Adjust the VIDEO brightness.
	CONTRAST	Adjust the VIDEO contrast.
	TINT	Adjust VIDEO color from green to purple
	COLOR	Adjust the richness of color
	SHARPNESS	Adjust VIDEO sharpness.
	RECALL	Replace all the item in VIDEO adjust menu with the Factory default value. Activating this in TV Mode will also set the V-Chip pin number to the default value of “0000”.
	RETURN	EXIT

TV SETUP menu – Available in TV mode

Icon	Menus and Sub-menus	Function Descriptions
	CHANNEL ADD/DEL	To add/delete the selected TV Channel .
	CHANNEL SCAN	TV Channel Auto Search .
	FREQUENCY TYPE	Select a TV system , cable / antenna Cable : STD IRC(For USA) HRC(For USA) Antenna : air
	MTS SETUP	Select STEREO/SAP/MONO MTS: Multi.channel TV sound SAP: Second audio program
	V-CHIP SETUP	Setting the rating limitation of TV or movie Initial pin setting is “0000”. If you block a level,then all the higher evel will also be blocked. (ref. to appendix)
	C.C SETUP	Enable or disable closed caption feature and set the appearance of closed caption text. <ul style="list-style-type: none">· on/off· caption/text· channel 1/2· field 1/2· box/shadow
	RETURN	EXIT

PIP ADJUST menu – Available in PIP mode

Icon	Menus and Sub-menus	Function Descriptions
	H.POSITION	Adjust the PIP H.POSITION
	V.POSITION	Adjust the PIP V.POSITION
	PIP SIZE	Adjust PIP Size SMALL/STANDARD/LARGE
	BORDER COLOR	Adjust the PIP Border COLOR
	AUDIO SELECT	PIP Audio Source Select – PC, TV, S-VIDEO or VIDEO
	RETURN	EXIT

PLUG AND PLAY**Plug & Play DDC1/2B Feature**

This monitor is equipped with VESA DDC1/2B(Display Data Channel) 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(Extended Display Identification Data) 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 Green monitor 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.

Please note that power supply cord needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

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 PC system is Plug & Play compatible *Check if the Video Card is Plug & Play compatible *Check if the D_sub 15 plug pin of Video Cable is bent *Make sure the LCD Monitor Drivers are installed (The Monitor Drivers are available at: www.envisionmonitor.com)
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.
The power LED is ON (orange) but there's no video or 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 *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.

Screen image is not centered or sized properly.	*Adjust pixel frequency (CLOCK) and FOCUS 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 shut-down mode Adjust CLOCK and FOCUS or perform Auto config. (AUTO-key).
Screen is wavy or jittery and pressing the AUTO button cannot correct it.	*Adjust TRACK. Press the MENU key twice, then press CH-down to select TRACK. Press VOL-down or VOL-up to adjust it until the screen is clear.

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

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

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

ERROR MESSAGE & 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.

VIDEO/TV NO SIGNAL :

You set the monitor to the VIDEO /TV mode but there is no video/TV signal input. Check to make sure that the video/TV signal cable is properly connected and make sure the video player is working.

If the monitor is stuck in “Power Saving” mode:

1. Make sure monitor’s signal-cable is properly connected to the computer.
2. The computer has switched the monitor into power save mode. Press any key on the computer keyboard to wake up the monitor.
3. Check that the computer is switched on.
4. Check the computer resolution, rate may be too high and out of the LCD-MONITOR’s display mode range.

RESOLUTION :

RESOLUTION	VERTICAL FREQUENCY	RESOLUTION	VERTICAL FREQUENCY
640 × 480	60Hz	800 × 600	60.3Hz
640 × 350	70Hz	800 × 600	72.2Hz
720 × 400	70Hz	800 × 600	75Hz
640 × 480	72.8Hz	832 × 624	74.5Hz
640 × 480	75Hz	1024 × 768	60Hz
640 × 480	66.67Hz	1024 × 768	70Hz
800 × 600	56.3Hz	1024 × 768	75Hz
		1024 × 768	74.92Hz

HOW TO INSTALL INF & ICM FILE**FOR FIRST TIME INSTALLATION :**

This is a Plug & Play LCD monitor. Turn off the PC then connect the cables. Power on the PC and it will automatically detect your new monitor. The Windows Operating system will automatically install a plug & play driver for it. If you would still like to install the driver included in the diskette that came with the monitor, log-on to our website at www.envisionmonitor.com/support/faq.asp. Then look for “Installing the Driver” section.

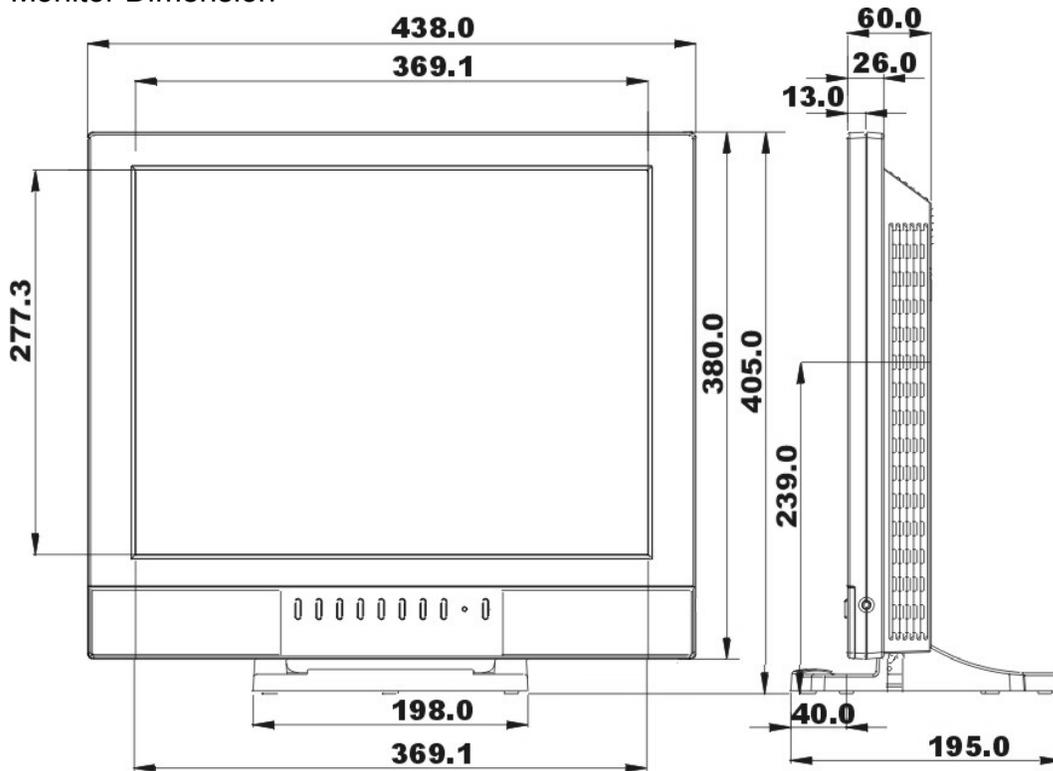
APPENDIX

SPECIFICATIONS

LCD Panel	Driving system	TFT Color LCD
	Size	(18")
	Pixel pitch	0.3585mm(H)x 0.3585mm(V)
	Viewable angle	-80~80° (H) -60~70° (V)
	Response time	35 ms(tr+tf)
Input	Contrast ratio	350(typ.)
	Brightness	340(typ.)
	Video	R,G,B Analog Interface
	Separate Sync.	H/V TTL
	H-Frequency	30kHz – 63kHz
	V-Frequency	55-75Hz
Display Colors		16.7 million Colors
Dot Clock		80MHz
Max. Resolution		1024 x 768
Plug & Play		VESA DDC1/2B™
EPA ENERGY STAR®	ON Mode	≤55W(For 4 CCFL)
	OFF Mode	≤3W
Input Connector		D_sub 15pin
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive
Maximum Screen Size		Horizontal : 367.2mm Vertical : 275.4mm (18-inch diagonal)
Power Source		100~240VAC,50~60Hz
Environmental Considerations		Operating Temp: 0° to 40°C Storage Temp.: -20° to 60°C Operating Humidity : 10% to 90%
Remote Controller	Power	DC2.2V~DC3.2V
	Battery	CD2025
	Distance	6M(Typ.)
	Angle	+/-25 °
TV,Video	Color system	NTSC
	Sound system	M/N
	Video format	CVBS,S-VHS

	Switch	<ul style="list-style-type: none"> • Standby Power button • Input Video Source selected button • Input Audio Source selected button • Menu button • Auto Adjust/exit button • Volume up / down button • up/down button
Power Management		VESA DPMS
Power Consumption	(Maximum)	55 Watts
Regulatory Compliance		UL, CSA, FCC, TÜV/GS, CE

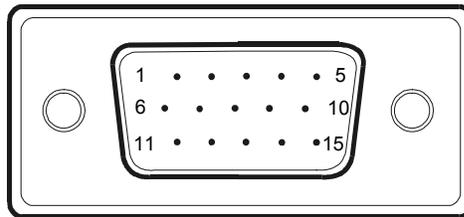
Monitor Dimension



FACTORY PRESET TIMING TABLE

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
VGA	720 × 400	31.47kHz	70Hz
	640 × 480	31.47kHz	60Hz
	640 × 480	35.00kHz	66.6Hz
	640 × 480	37.50kHz	75Hz
SVGA	800 × 600	37.879kHz	60Hz
	800 × 600	46.875kHz	75Hz
	832 × 624	49.725kHz	75Hz
XGA	1024 × 768	48.363kHz	60Hz
	1024 × 768	56.476kHz	70Hz
	1024 × 768	60.02kHz	75Hz
	1024 × 768	60.241kHz	74.9Hz

CONNECTOR PIN ASSIGNMENT



15 - Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	Red	9.	+5V
2.	Green	10.	Detect Cable
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		

V-Chip(USA only)

This Telecommunications Act of 1996 in USA requires that every television made, starting in 1998, must be equipped with the technological device named V-Chip. The V-Chip can block certain rated television shows off television (if chosen) so children cannot watch programs that their parents do not approve. With this device, program-rating information will be transmitted along with the television signal, and be decoded by the chip in each television. The chip will then compare the rating codes to values preset by the viewer, which is meant to be the parents. If the rating codes are higher than the preset values, the television signal will be blocked, and a blank screen will be displayed.

EN-8500 have this feature and you can adjust the V-Chip setting via OSD. Use arrow keys on the remote controller or control buttons on the front cabinet of the monitor to change the setting.

1. Select V-Chip on OSD, Then enter the 4-digit pin number.
 - Initial pin number is “0000”. You can change this later. See section 5 below.
 - If you enter an incorrect pin number “Incorrect” message will be displayed and you have to re-enter the correct pin number.
2. Use arrow keys to change or to activate the highlighted function.
3. Setting up TV Guidelines – Select **TV GUIDELINES** from V-Chip Setup menu.
 - Use Up/Down/Left/Right arrow buttons to move around the matrix and press **Menu** button to change the value from “U” to “B” or “B” to “U”
 - **U** : Unblock **B** : Block

	All	FV	V	S	L	D
TV-Y	B					
TV-Y7	B	B				
TV-G	U					
TV-PG	U		U	U	U	U
TV-14	U		U	U	U	
TV-MA	U		U	U	U	
TV-Y : Young Children TV-Y7 : Children 7 and over TV-G : General Audience TV-PG : Parent Guidance TV-14 :Viewers 14 and over TV-MA :Mature audience				FV : fantasy Violence V : Violence S : Sexual Situation L : Coarse language D: Suggestive Dialog		

4. Setting up MPAA rating Mode – Select **MOVIE GUIDELINES** from the V-Chip menu.
 - Use Up/Down/Left/Right arrow buttons to move around the matrix and press **Menu** button to change the value from “U” to ‘B” or “B” to “U”
 - MPAA : Motion Picture Association of America [movie rating organization]

G	U	General Guidance
PG	U	Parental Guidance Suggested
PG-13	U	Parents Strongly Cautioned
R	U	Restricted Under 17 Requires
NC-17	U	No Children Under 17 Admitted
X	U	Adult
NR	U	Not Rated

5. Entering a new pin number - Select **CHANGE PIN NUMBER** from the V-Chip menu.
 - Use numeric keys enter a new pin number. Pin number confirm menu appears.
 - Again, use numeric keys to enter the pin number you entered at the previous step. If the two pin numbers do not match, “ Incorrect “ message will be displayed.
 - If you forget your pin number, you can reset it to the default “0000” by following the procedure below.
 - Press Menu (VIDEO ADJUST will be selected by default).
 - Press Menu. Then press CH-down to highlight RECALL.
 - Press Menu to execute RECALL.

6. Blocking Screen
 - If the incoming signal’s rating is higher than the one specified, the screen will be blanked and the excessive rating message will be appeared.

*NOTE: When the screen is blocked by V-Chip, and if you want to change V-Chip setting, press **Exit** button on the remote control or auto/exit key on the front cabinet of the monitor to bring up OSD Menu.*