

TM170 ... SXGA

Color TFT-LCD Monitor
User' s Manual

TM170

COLOR TFT-LCD Monitor

OPERATION MANUAL

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SAFETY PRECAUTIONS

Improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your color TFT-LCD monitor product, please read the following precautions carefully before using the product.

- * All operating instructions must be read and understood before the product is operated.
- * These safety and operating instructions must be kept in safe place for future reference.
- * All warnings on the product and in the instructions must be observed closely.
- * All operating instructions must be followed.
- * Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- * This product must be operated on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company. For units designed to operate on batteries or another power source, refer to the operating instructions.
- * The power cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
- * If you plan to use a 12V DC power supply unit other than the AC adapter supplied with the product, make sure the power supply unit provides stable voltage with minimum fluctuations.
- * Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
- * Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- * Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
- * If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
 - a. When the power cord or plug is damaged.
 - b. When a liquid was spilled on the product or when objects have fallen into the product.
 - c. When the product has been exposed to rain or water.
 - d. When the product does not operate properly as described in the operating instructions.
Do not touch the controls other than those described in the operating instructions.
Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
 - e. When the product has been dropped or damaged.
 - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
- * In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- * Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- * When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

SAFETY PRECAUTIONS (Continued)

- * Unplug the power cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
- * Unplug the power cord from the AC outlet if you do not use the product for considerably long time.
- * Do not use the product near water, such as bathtub, washbasin, kitchen sink and laundry tub, swimming pool and in a wet basement.
- * Keep the product away from direct rays of the Sun-light.
- * Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instruction. Use only the mounting hardware recommended by the manufacturer.
- * When relocating the product placed on a cart, it must be moved with the utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.
- * The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- * The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.
- * Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).
- * The LCD Panel is a very high technology product with 3,932,160 thin film transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

INTERNATIONAL STANDARDS

FCC

CAUTION : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE

EN55022 "Limits and methods of measurement of radio disturbance characteristics of information technology equipment (ITE)"

EN55024 "Information technology equipment - Immunity characteristics - Limits and methods of measurement"

EN61000-3-2 "Limits for harmonic current emissions (equipment input current \leq 16A per phase)"

EN61000-3-3 "Limitation of voltage fluctuations and flicker in low-voltage supply system for equipment with rated current \leq 16A"

MIC

"B" Device

This product has been passed EMI standard test therefore, it is available for official uses and all other areas (A Device is for official uses only and B Device has less).

SUPPLIED ACCESSORIES

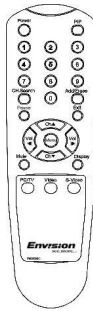
Make sure the following accessories are provided with the product.



Quick Install Guide (*1)



Operation Manual
Monitor Driver (CD*1)



Remote Control (*1)



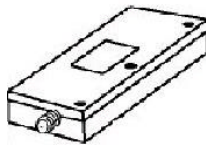
Size AAA Battery (*2)



AC Adapter (*1)



AC Cord (*1)



TV Tuner (*1)

PREPARATION - Remote Control

- * Use the remote control by pointing it towards the remote sensor window.
Objects between the remote control and sensor window may prevent proper operation.

Cautions regarding use of remote control

- * Do not expose the remote control to shock. In addition, do not expose the remote control to liquids, and do not place in an area with high humidity.
- * Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- * The remote control may not work properly if the remote sensor window of the main unit is under direct sunlight or strong lighting. In such case, change the angle of the lighting or LCD TV monitor set, or operate the remote control closer to the remote sensor window.

Batteries for Remote Control

If the remote control fails to operate LCD TV monitor functions, replace the batteries in the remote control.

- 1 Open the battery cover.
- 2 Insert batteries (two Size-AAA batteries, Supplied with product).
 - * Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.
- 3 Close the battery cover

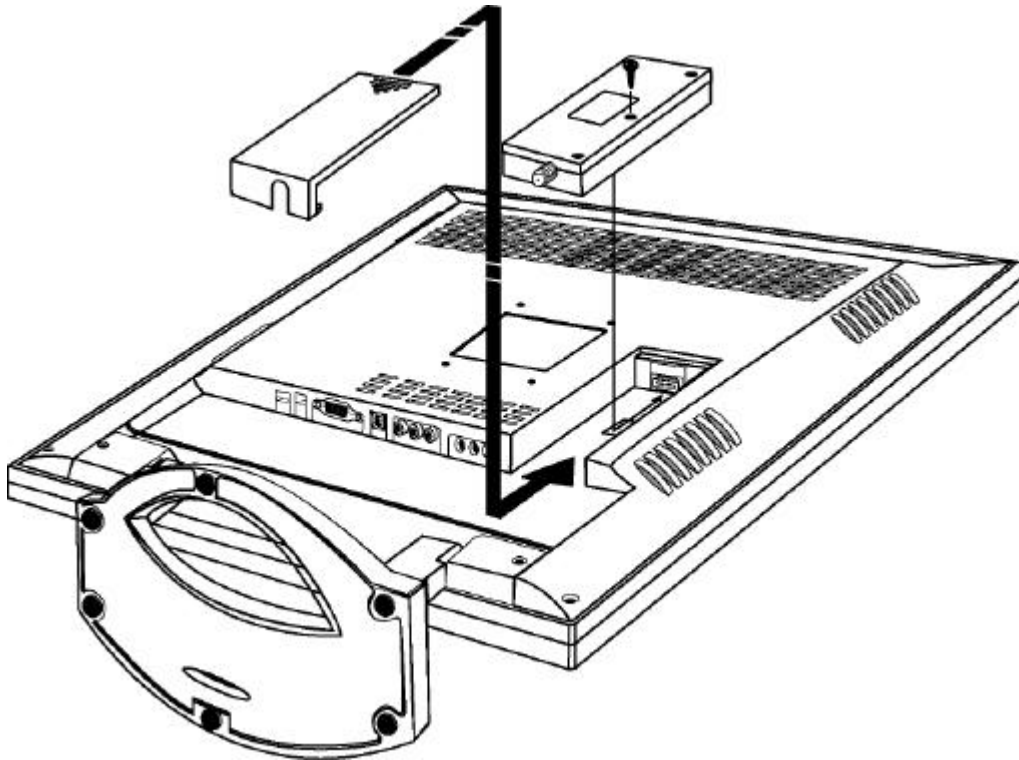
Cautions regarding batteries

Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are non-operable. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe with a cloth.
- The batteries supplied with the product may have a shorter life expectancy due to storage conditions.
- If the remote control is not used for an extended period of time remove batteries from the remote control

PREPARATION – TV Tuner(Optional)

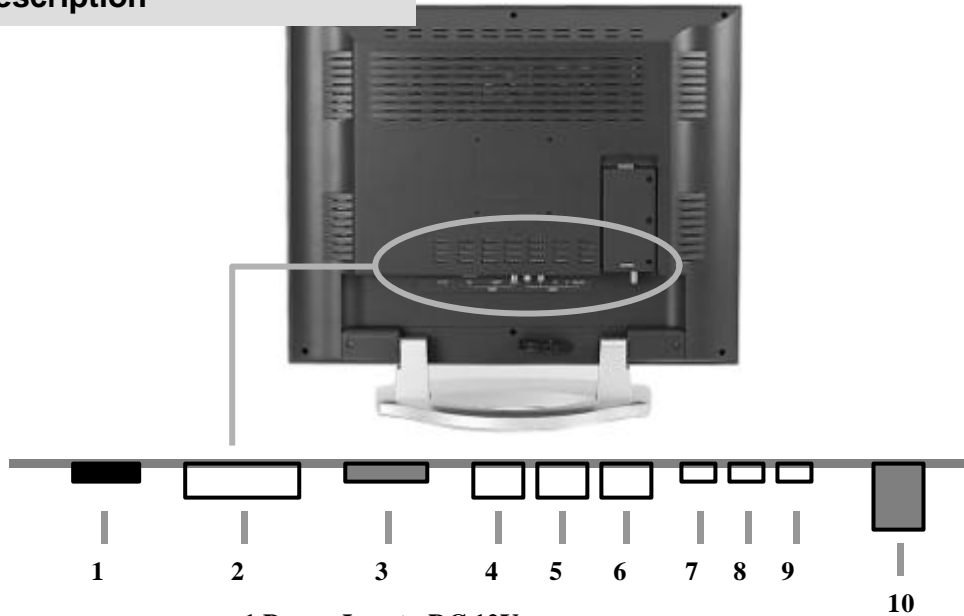
TV Tuner Installation



Note : The screw bolt is in the screw hole of TV tuner.
The figure is just to illustrate that there is a bolt to secure the tuner.

PREPARATION – Cable Connection

Cable Connector Description



1 Power Input : DC 12V

2 Analog RGB : PC VGA Cable

3 S-Video

4 Composite Video : Yellow

5 Video Sound (L) : White

6 Video Sound (R) : Red

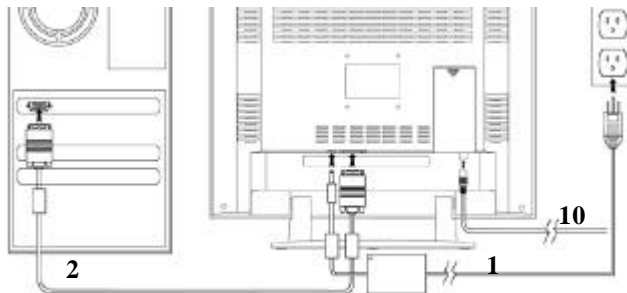
7 PC Stereo Input

8 Headphone Output

9 Line Out : Connect to another speaker set

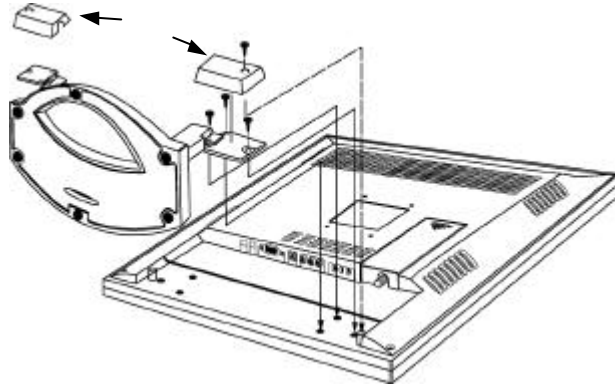
10 Antenna

VGA, Power & Antenna Cable Connection

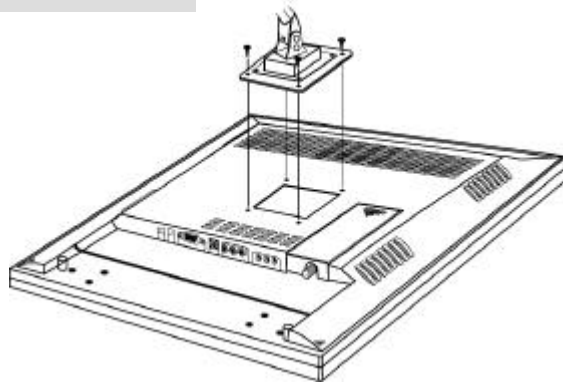


PREPARATION- Stand, Arm, Wall Mount

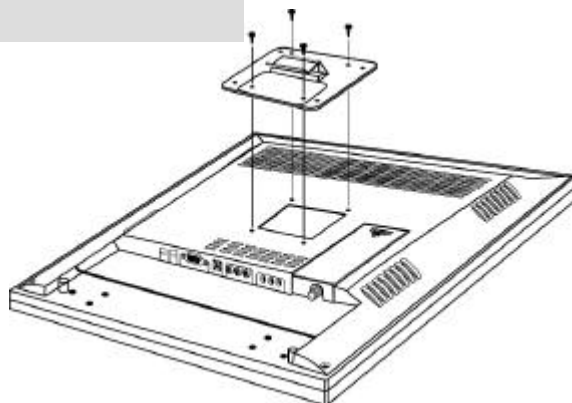
Stand Installation (Standard)



Arm Installation



Wall Mount Bracket Installation



Note : Arm and wall mount bracket are not supplied with the product

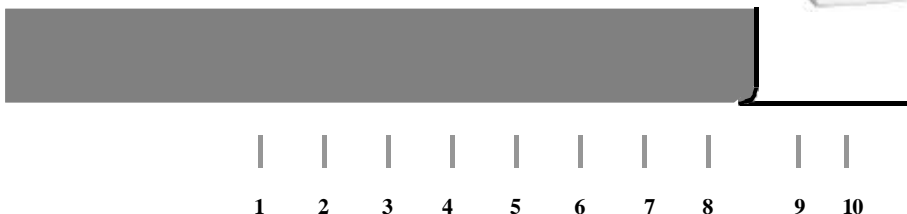
LOCATION OF USERS CONTROL

Control Panel on the front of main unit

1 PIP On / PIP Source Switch : PIP will be on when pressed once. Signal source of PIP will be changed in sequence as the button is pressed. PIP will be off when Exit key is pressed.

PIP Sequence

TV Video S-Video



2 Signal Source Select : Signal source will be selected in sequence as the button is pressed.

PC TV Video S-Video

3 Menu : Display the menu window and used as Select button.

4 Exit : Return to previous OSD menu or exit from OSD menu window.

5 Channel down / Move down : Channel down or move downward in OSD menu.

6 Channel up / Move up : Channel up or move upward in OSD menu.

7 Decrease volume / Move left : Volume down or move leftward in OSD menu.

8 Increase volume / Move right : Volume up or move rightward in OSD menu.

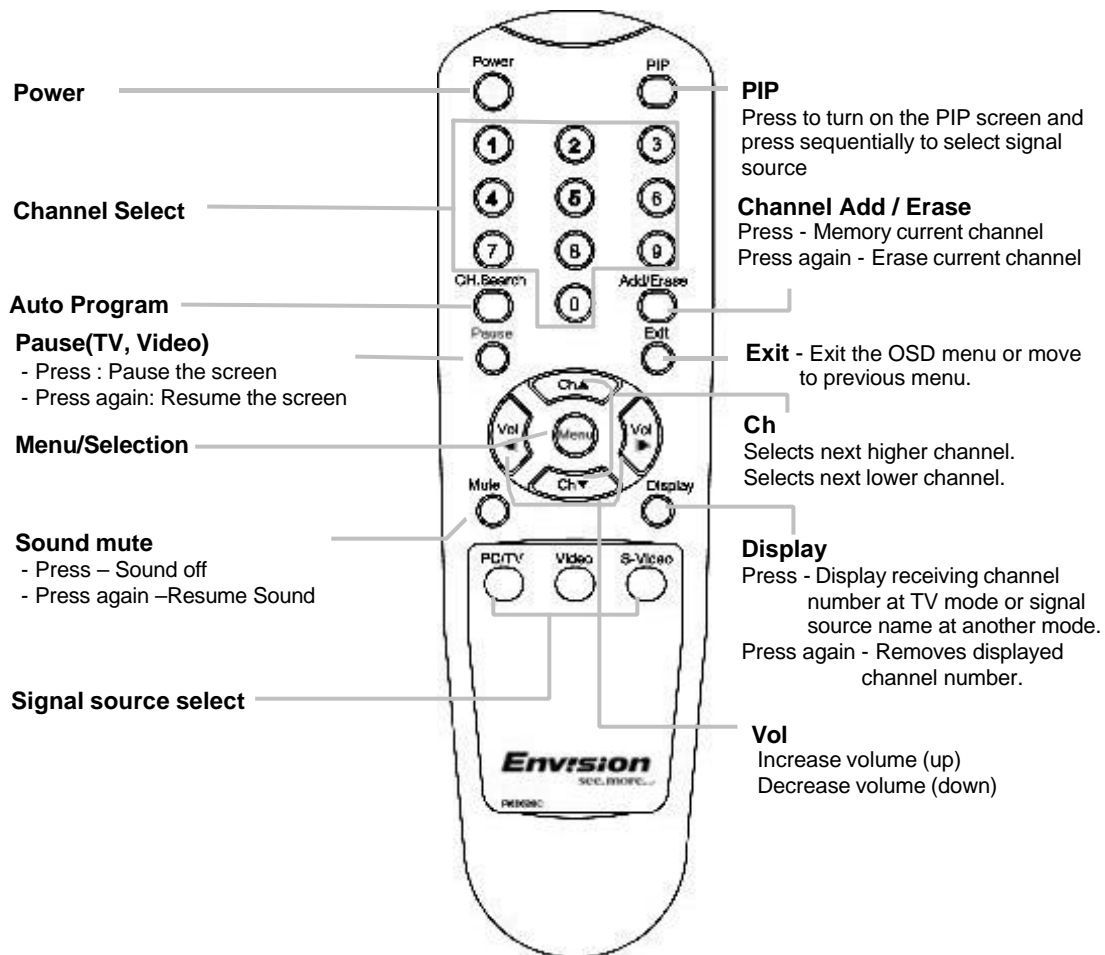
9 Power Indicator :

Mode	LED Display	Remark
Power on	Green LED	-
Power off	Orange LED	No Signal (PC mode)
Switch Off	Dark LED	-

10 Power On / Off

REMOTE CONTROL

Remote Control



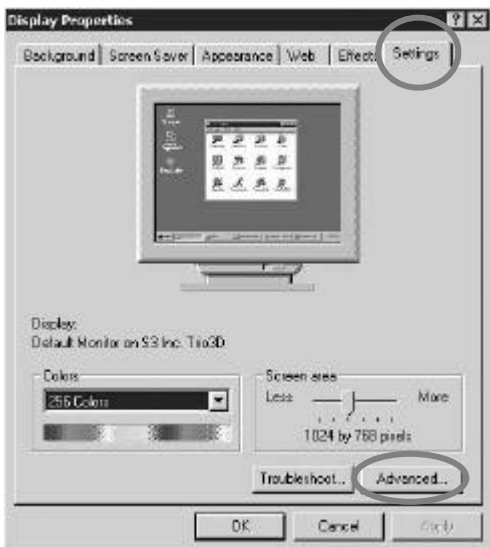
MONITOR INSTALLATION



1 Double click **[Control Panel]** icon from **[My Computer]** folder.

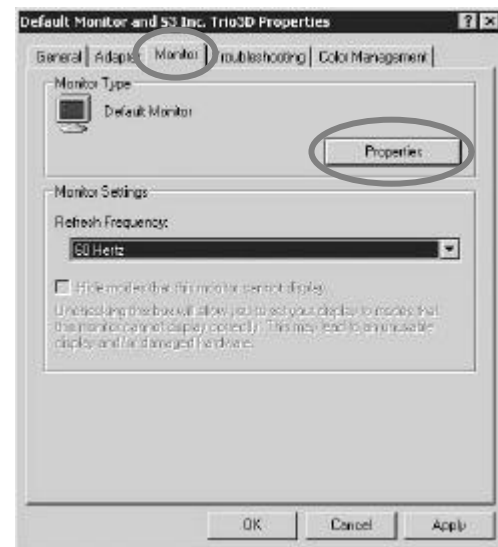


2 Double click **[Display]** icon from **[Control Panel]** folder.



3 Select **[Settings]** in [Display Properties] window.

4 Click **[Advanced...]**.



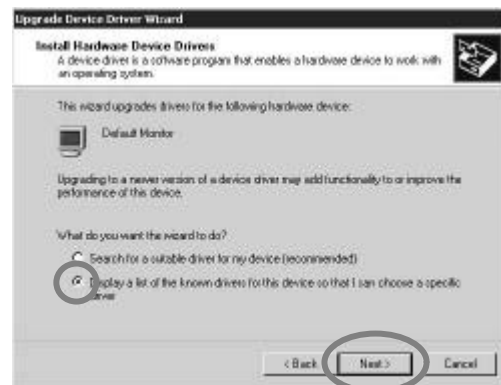
5 Select **[Monitor]** in the window shown above.

6 Click **[Properties]**.

MONITOR INSTALLATION(Continued)



7 Select **[Driver]** and then click **[Update Driver...]**.



8 **[Upgrade Device Driver Wizard]** will be appeared. Select the **second list** and then click **[Next>]**.



9 Click **[Have Disk...]**.



10 When drive **[A:]** appears in default, click **[Browse ..]** to select CD-ROM drive.

MONITOR INSTALLATION(Continued)



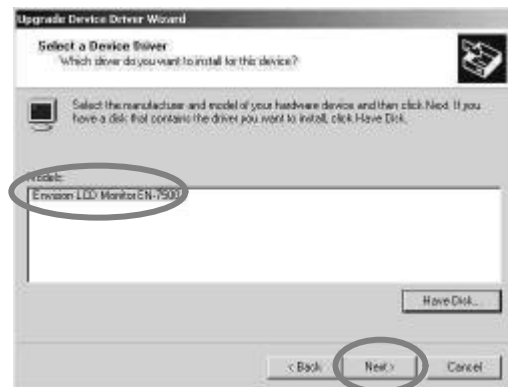
11 Double click the **[Driver]** folder.



12 Choose **TM170.inf** file then click **[Open]**.



13 Click **[OK]** to proceed to the next step.



14 Choose **Envision LCD Monitor TM170**, then click **[Next>]** to proceed to the next step.



15 Click **[Next>]** to start installation.

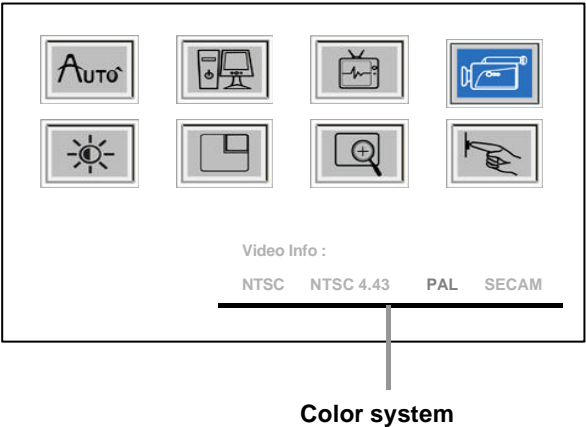


16 Click **[Finish]**.
(Be sure the screen shows correct model name.)

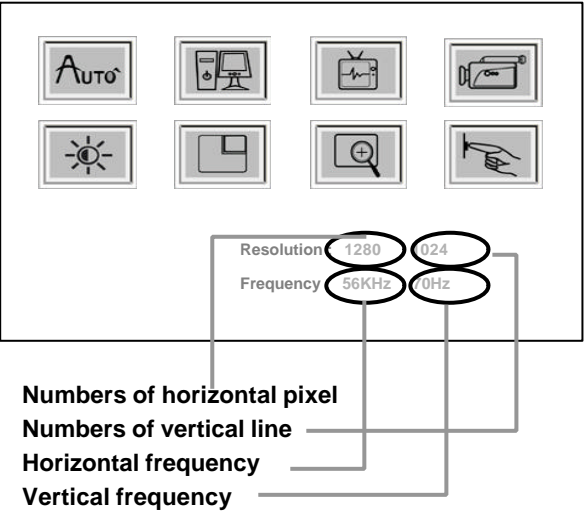
STATUS INFORMATION

Status Information



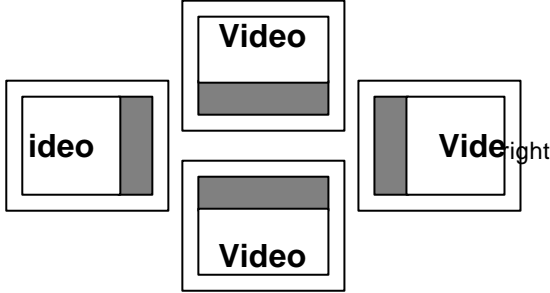


In case of **TV / Video / S-Video Mode**







In case of **PC Mode**





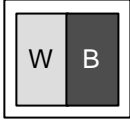
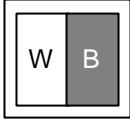

OSD USAGE

Main Menu	Sub Menu	Operation	
Auto  <u>Available Mode</u> * PC	-	* Perform automatic adjustment * Automatically adjusted items are bellow 1) Frequency 2) Phase 3) Position is centered 4) Turning a zoomed picture into its normal shape (100%)	
PC Setup  <u>Available Mode</u> * PC	Clock	* Button: Decrease horizontal size Button: Increase horizontal size. Perform this adjustment just in the case of having horizontally unmatched picture after operating the "Auto".	
	Phase	* When noise remains on the screen after operating the "Auto", adjust it by selecting or button. Do not make manual adjustment when the picture is in its normal shape or you will create problem on it..	
	Position	Button : Move up  Button : Move left Button : Move right Button : Move down	
	Image Effect	Fill	Display the image in full
		Aspect Ratio	Display in original aspect ratio of resolution. For example, XGA(4:3) will be displayed like the figure.(TM170 is SXGA product with 5:4 aspect ratio.) 
		Original	Display in original number of pixel. For example, XGA(1024x768 pixels) will be displayed like the figure.(TM170 is SXGA product with 1280x1024 pixels.) 



OSD USAGE (Continued)

Main Menu	Sub Menu	Operation	
TV Setup  <u>Available Mode</u> * TV	Channel System	<p>1. Display the sub menu by pressing "Menu" button and press or button to select a channel.</p> <p>* Sub Menu : US Air / US Cable</p> <p>Notice : The same menu appears when press "CH. Search" of the R/C.</p> <p>2. Fig. 1 will appear when "Channel System" is selected. When you select "Yes" by pressing or button, auto search starts. You can return to previous menu by selecting "No"</p> <div data-bbox="1005 660 1316 840"> <p>Fig. 1</p> <p>AUTO PROGRAM</p> <p>NO YES</p> <p>Please select "YES" for Auto Program</p> </div> <p>Note:1) To stop Auto Program, please press Exit key. Only the channels that are already scanned will be in memory.</p>	
	Fine Tuning	* An auto programmed channel can be tuned finely if it's not clearly displayed.	
	Channel Edit	<p>* Select "Add Channel" to add current channel to channel table, and select "Delete Channel" to delete current channel from channel table.</p> <p>Note: Press Add/Erase of remote control, Channel Add and Channel Erase will be constantly functioned.</p>	
Video Setup  <u>Available Mode</u> * TV * Video * S-Video	Saturation	Button : Lower color intensity	Button : Higher color intensity
	Hue	Button : Toward green	Button : Toward purple
	Image Effect	<p>* If the original image is 4:3 aspect ratio, the image of "Fill" and "Aspect Ratio" will be displayed as below.</p> <div data-bbox="574 1299 1268 1467"> <div> <p>Fill (5:4)</p>  </div> <div> <p>Aspect Ratio (4:3)</p>  </div> </div>	
	Color System	<p>* Automatically or manually selecting input video signal type.</p> <p>Auto : Selecting a signal source automatically.</p> <p>NTSC / PAL : Selecting a signal source manually when a signal source is not selected automatically.</p>	

OSD USAGE (Continued)

Main Menu	Sub Menu	Operation
Basic Setup  <u>Available Mode</u> * PC * TV * Video * S-Video	Brightness	Button : Decrease Brightness Button : Increase Brightness
	Contrast	* Contrast is ratio of luminance between black and white. * When contrast is reduced(button), the luminance of white is reduced and the display becomes darker. * When contrast is increased(button), the luminance of black is increased and the display becomes hazy. <div> <div>Button : Decrease Contrast</div> <div>Normal</div> <div>Button : Increase Contrast</div> </div> <div>    </div>
	Color	* Cold : Greenish white. Felt cold. * Medium : Normal white * Warm : Reddish white. Felt warm. * User Mode : Able to adjust the color by controlling Red, Green, and Blue
	Sharpness	* Able to adjust the clearness of image by controlling its sharpness.
	Preset	* Resetting user customized value to default value.
PIP  <u>Available Mode</u> * PC	Size	* Turning off PIP or adjusting its size. Note: The channel(TV mode) and volume of PIP signal source can be controlled without OSD menu on.
	Position	* Adjust the location of PIP window with buttons.

OSD USAGE (Continued)

Main Menu	Sub Menu	Operation
Zoom  <u>Available Mode</u> * PC * TV * Video * S-Video	Zoom	* Able to zoom the screen by up to 64 times.
	Pan	* Move zoomed window with buttons. Not possible to move normal screen. Note: 1) Screen itself cannot be “moved”. It’s window screen that is “moving” It’s like inspecting something with a magnifier. 2) Zoom window returns to normal size when “Auto Adjust” is execute. It will return to the setting which is set up in “PC”, “Video”, or “Image Effect”.
OSD Setup  <u>Available Mode</u> * PC * TV * Video * S-Video	Language	* Able to select English, French, Spanish or German.
	Position	* Able to adjust the location of OSD menu with buttons
	Back-ground	* Select the OSD background to be opaque or translucent
	Timer	* The range of controlling the duration time of the OSD menu is from 5 sec. up to 60 sec.(Vary by 5 sec)

BEFORE CALLING FOR REPAIR SERVICE ...

* Before calling for repair service, check the following items for possible remedies to the encountered symptoms.

Problem	Check below	Reference Pages
There is no picture or sound (TV, Video, PC).	<ul style="list-style-type: none"> • Make sure the AC adapter is properly inserted in the power outlet. • Make sure the main power button of the main unit is on. • Make sure the signal cable is free of connections. • Make sure whether the power of an external input device is on. • Make sure the input mode is set to proper mode. • Fluorescent lamp may have reached the end of service life. 	8 10 8 - 10 21
There is no sound (TV, Video PC).	<ul style="list-style-type: none"> • Make sure the volume is not set to minimum. • Make sure the sound is not set to mute. • Make sure the sound cable is free of connections. 	10 11 8
There is no picture or sound, just noise(TV).	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception can be considered. 	8 -
Picture is not clear (TV).	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception can be considered. 	8 -
Picture is not clear (PC).	<ul style="list-style-type: none"> • Operate the "Auto". • Reset the Frequency and the Phase. 	16 16
The picture is not sharp (TV).	<ul style="list-style-type: none"> • The reception may be weak. • The state of broadcast may also be bad. • Make sure the outside antenna is not connected. 	
The picture is doubled or tripled (TV).	<ul style="list-style-type: none"> • Make sure the antenna is facing the right direction. • There may be reflected electric waves from mountains or buildings. 	
There are stripes on the screen or color fade.	<ul style="list-style-type: none"> • Check this unit receiving interference from other devices. Transmission antennas of radio broadcasting stations and transmission antennas of amateur radios and cellular phones may also cause interference. • Use the unit as far apart as possible from devices that may cause possible interference. 	

SPECIFICATIONS

Color TFT-LCD Monitor with TV

Resolution		1280 * 1024, SXGA
Color		16,777,216 Colors (Full Color)
Brightness		250 cd/m ² (nit)
Lamp life		20,000 hours
Contrast Ratio		450 : 1
Viewing Angle		H : 140 V : 110
Panel	Type	Amorphous Si TFT-LCD
	Actual Display Size	337.92(H) x 270.336(V) mm
	Diagonal Length	17.0", 431.8mm
PC Signal (Analog RGB)	H-Frequency	30~80 KHz
	V-Frequency	43~75 Hz
	Signal Level	0.7Vp-p
Video	Input Signal	CVBS / S-VIDEO
	Color Signal Type	PAL / NTSC /SECAM
	Sound Signal Type	Stereo
TV	Channel System	NTSC M
	Sound Signal Type	Mono
Power Voltage	Input	AC100~240V, 50/60Hz
	Output	DC12V
Power Consumption	On	Typ. 54Watt
	Off- Mode	Max. 5 Watt
Speaker		Max. 2 Watt x 2
Size	W*H*D mm	480(W) x 425(H) x 62(D) mm, 180 (Stand Depth) mm
Weight		Max 6.8Kg w/o accessories

SPECIFICATIONS

Available PC VGA Mode

Resolution	Vertical		Horizontal		Pixel Rate (MHz)	Standard Type	Remark
	Frequency (Hz)	Polarity	Frequency (KHz)	Polarity			
640 x 350	70.09	N	31.47	N	25.175	IBM	DOS
640 x 400	85.08	P	37.86	N	31.500	IBM	
720 x 400	70.09	P	31.47	N	28.322	IBM	
640 x 480	59.94	N	31.47	N	25.175	VESA	VGA
	66.67	N	35.00	N	30.240	MAC	
	72.81	N	37.86	N	31.500	VESA	
	75.00	N	37.50	N	31.500	VESA	
	85.00	N	43.27	N	36.000	VESA	
800 x 600	56.25	N/P	35.16	N/P	36.000	VESA	SVGA
	60.32	P	37.88	P	40.000	VESA	
	72.19	P	48.08	P	50.000	VESA	
	75.00	P	46.88	P	49.500	VESA	
	85.06	P	53.67	P	56.250	VESA	
832 x 624	74.55	N	49.73	N	57.283	MAC	XGA
1024 x 768	60.00	N	48.36	N	65.000	VESA	
	60.00	N	48.78	N	64.000	MAC	
	70.07	N	56.48	N	75.000	VESA	
	72.10	P	57.52	P	75.000	IBM	
	74.93	N	60.24	N	80.000	MAC	
	75.03	P	60.02	P	78.750	VESA	
	85.00	P	68.68	P	94.500	VESA	
1280 x 1024	60.02	P	63.98	P	108.000	VESA	SXGA
	75.03	P	79.98	P	135.000	VESA	

HDTV Input (From Set Top Box)

Mode	Vertical		Horizontal		Pixel Rate (MHz)	Standard Type	Remark
	Frequency (Hz)	Polarity	Frequency (KHz)	Polarity			
720p	60	P	31.47	N	25.175	ATSC	Progressive
1080i	60	N	37.86	P	31.500	ATSC	Interlace

HOW TO CONTACT US

Website

www.newcommworld.co.kr

Email

webmaster@newcommworld.co.kr

Toll Free Phone

82-32-652-8782

Fax

82-32-652-8785

Mail

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Puchon-shi, Kyonggi-do,
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