

ATTACHMENT E.

- USER'S MANUAL

U.S.A.

U.S.FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT INFORMATION TO THE USER

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:

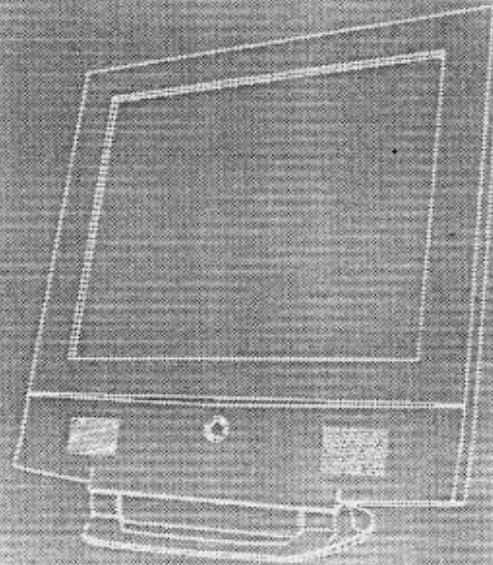
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for assistance.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connecting of peripherals requires the use of grounded shielded signal cables.

NIREN

**15.1" TFT LCD MONITOR/TV
NF-1500MAT
USER GUIDE**



This equipment has been designed for the normal use.
It is certified to comply with Electron Wave Suitable
Registration. The user can use this equipment in
everywhere including residential areas.

Before using this equipment, the user should read and follow
"Precaution on the Safety" it contains the Warranty Material for this equipment.

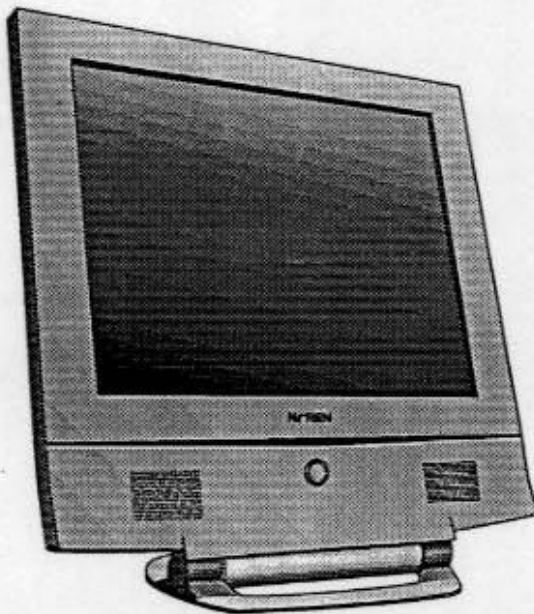
HYUNDAI CALIBRATION & CERTIFICATION TECHNOLOGIES CO., LTD.

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NIREN

15.1" TFT LCD MONITOR/TV
NF-1500MAT



•• Notice

This equipment is of first class quality. The LCD Panel is composed of more than 2 Million pixels and may have some faulty pixels. LCD panels with a maximum of 10 faulty pixels are classified as products of good quality. This standard is accepted by other manufacturers of LCD panels. An LCD panel without any faulty pixels is too expensive for the average customer. Our "A" class panels have the least 10 faulty pixels. We guarantee that our panels will provide the user with high quality performance. Therefore, no product exchanges or refunds will be made in regards to this matter.

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Safety Precautions

- Observe the following basic rules for installation, usage, and service in order not to defeat the safeguards incorporated into this monitor.

- Safety precautions are divided into Warning and Attention.



Warning : Breaking the basic rules can cause serious injury or death.



Attention : Breaking the basic rules can cause minor injury to yourself or damage to this equipment.

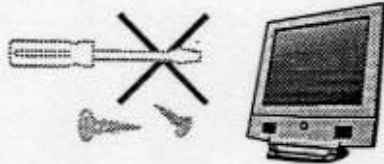
- ✱ Please keep this manual at the place where anyone who use this product can reach easily.



Warning

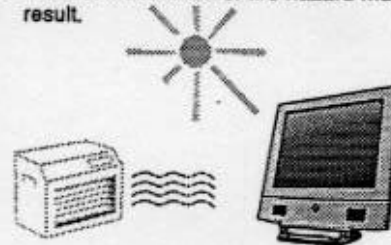


Do not open the monitor. Contact your dealer if the monitor is not operating properly.



Do not place the monitor in direct sunlight or close to heaters.

► Product malfunction or fire hazard may result.



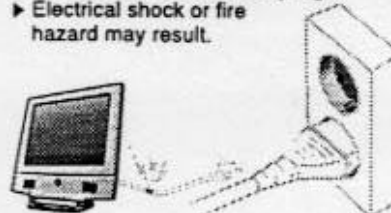
Do not drop metal objects like coins or hairpins into the monitor.

► Electrical shock or fire hazard may result.



Provide a secure connection to the power supply and do not use damaged power cords or plugs.

► Electrical shock or fire hazard may result.



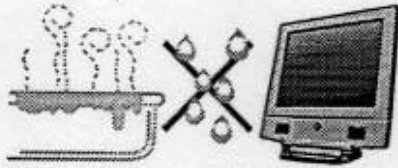
Safety Precautions



Warning



Do not place the monitor in exposed places and near water.
 ▶ Electrical shock, fire hazard, or malfunction may result.



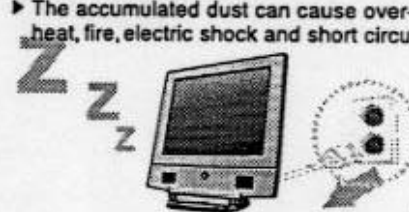
Do not clean the monitor with water or touch it with wet hands.
 ▶ Electrical shock or fire hazard may result.



During lightning storms, unplug the monitor from the wall outlet and do not touch it.
 ▶ Electrical shock or fire hazard may result.



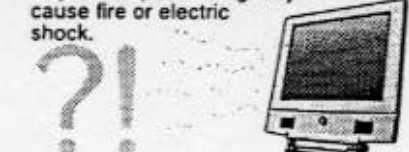
Please unplug the power cord when you do not use this product for an extended period.
 ▶ The accumulated dust can cause over-heat, fire, electric shock and short circuit.



If you use outdoor antenna, be sure to bend the antenna cable at the entry to indoors 'U' shape so that rain drops do not come inside the house.
 ▶ Any liquid spill in the TV may cause fire or electric shock.



In case of any smoke or noise, immediately stop using the product and pull the power cord from the wall outlet. Then call your local dealer or service representative for assistance.
 ▶ Any subsequent using may cause fire or electric shock.



Initial Preparations

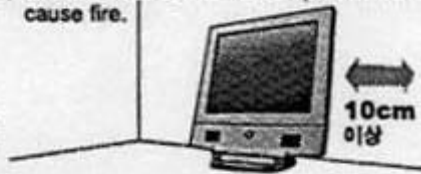
Safety Precautions



Attention



- Allow reasonable space between this product and the walls. Do not install it any place with limited ventilation.
- ▶ The increase of internal temperature may cause fire.



- Install the monitor in stable place.
- ▶ When placing the monitor unstable, it may crash or fall.



- Do not block ventilation openings with any curtain or tablecloths.
- ▶ The increase of inside temperature may cause fire.



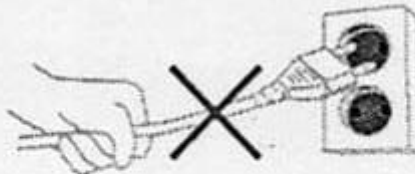
- Do not drop the unit or make any scratch on the panel when you move the product.
- ▶ Any scratch on the panel or drop of the product may cause functional failure.



- When moving the monitor, turn it off and disconnect all cables.
- ▶ Or, you may damage the monitor or its power cord, which may cause fire and electric shock.



- When disconnecting from the wall outlet, grab the plug.
- ▶ Grabbing the cord may result in heat generation or fire hazard.



Safety Precautions



Attention



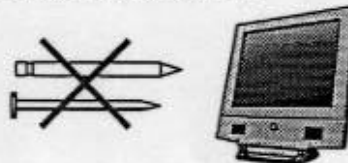
Keep your eyes 50 cm away from the screen and 0-15° down in relation to the screen.

► Viewing at too close a position and wrong posture can weaken your eyes.



Do not press hard with your finger or scratch with sharp object on the surface of the LCD.

► Any damage on the surface of the LCD may cause functional failure.



When you clean the monitor and the surface of LCD, be sure to pull the plug from wall outlet. Use soft cloth instead of using damp duster.



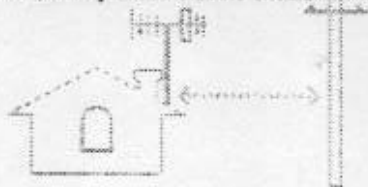
Do not use any chemicals such as industrial polisher, abrasive solution, wax, benzene, alcohol, or clearing detergents.

► Chemical cleaners may fade, dissolve, or crack the monitor surface.



If you install outdoors antenna, be sure to install it at the distance from power wire.

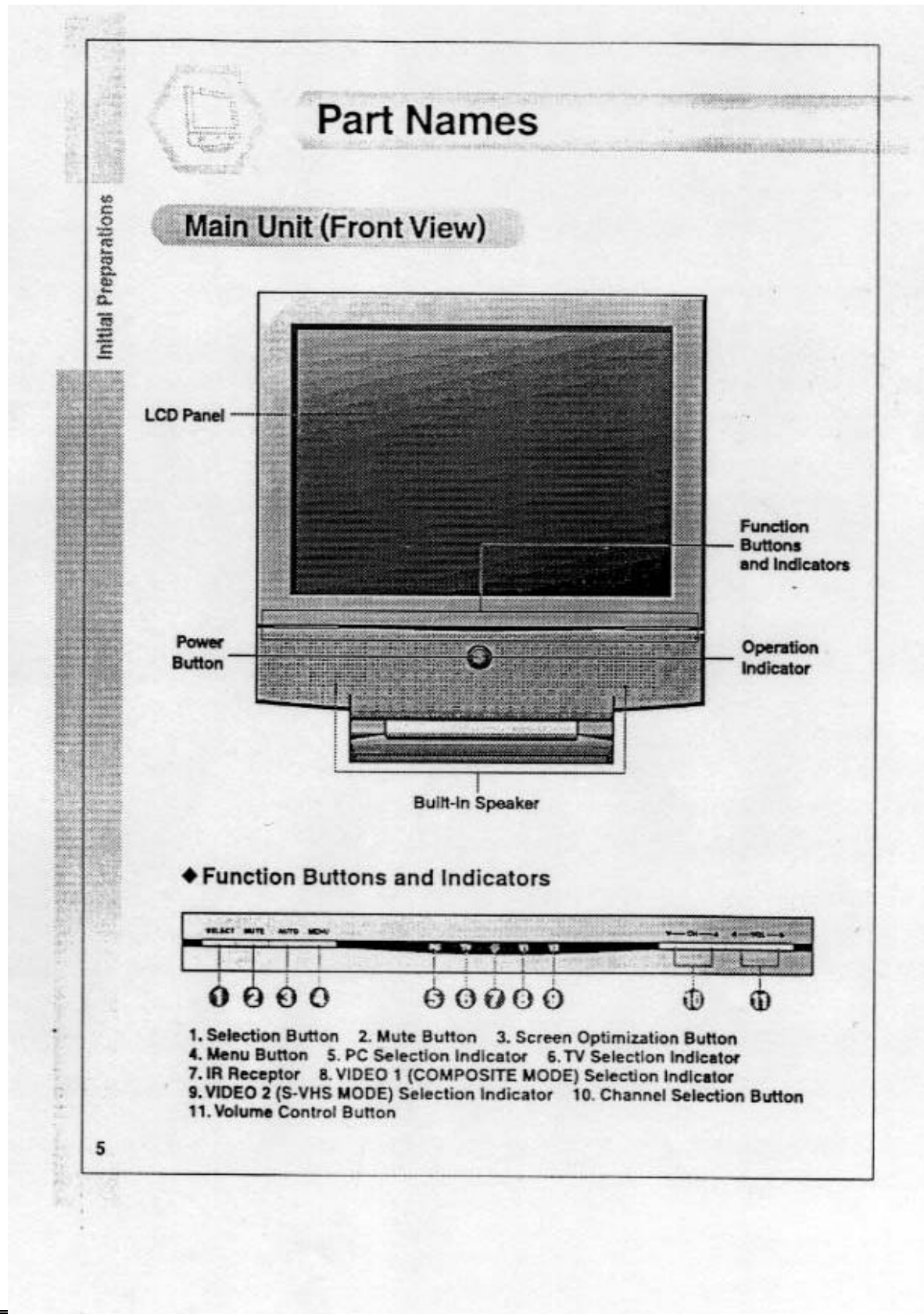
► If the antenna contacts with the power wire, it may cause electric shock.



Be sure to keep the distance of the outdoors antenna so that it would not touch electric wire in case it falls by heavy wind.

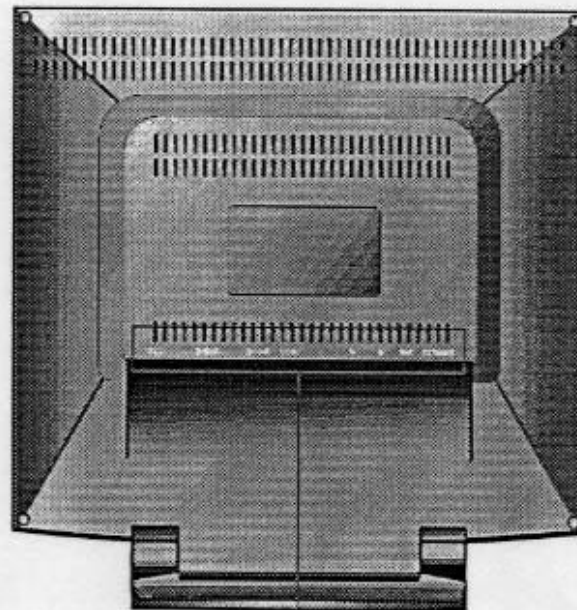
► If the antenna touches electric wire, it may cause injury and electric shock.





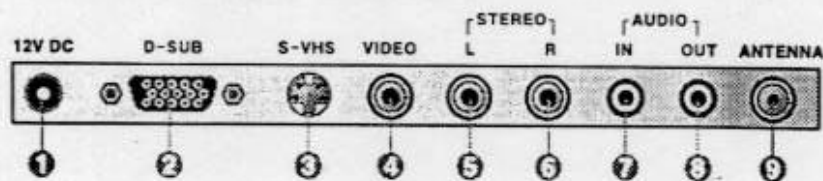
Part Names

Main Unit (Rear View)



Connectors

◆Function Buttons and Indicators



1. Power Connector 2. D-SUB Terminal 3. S-VHS Terminal
 4. Video Input Terminal 5. Sound Input Terminal (Left)
 6. Sound Input Terminal (Right) 7. Audio Input Terminal
 8. Audio Output Terminal 9. Antenna Terminal



Basic Accessories

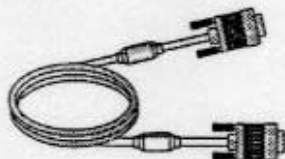
- Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.



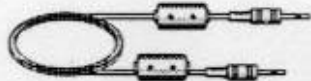
Remote controller



User Guide



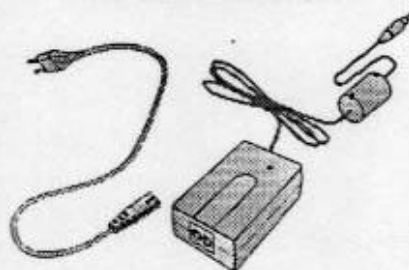
D-SUB Signal Cable



Audio Cable



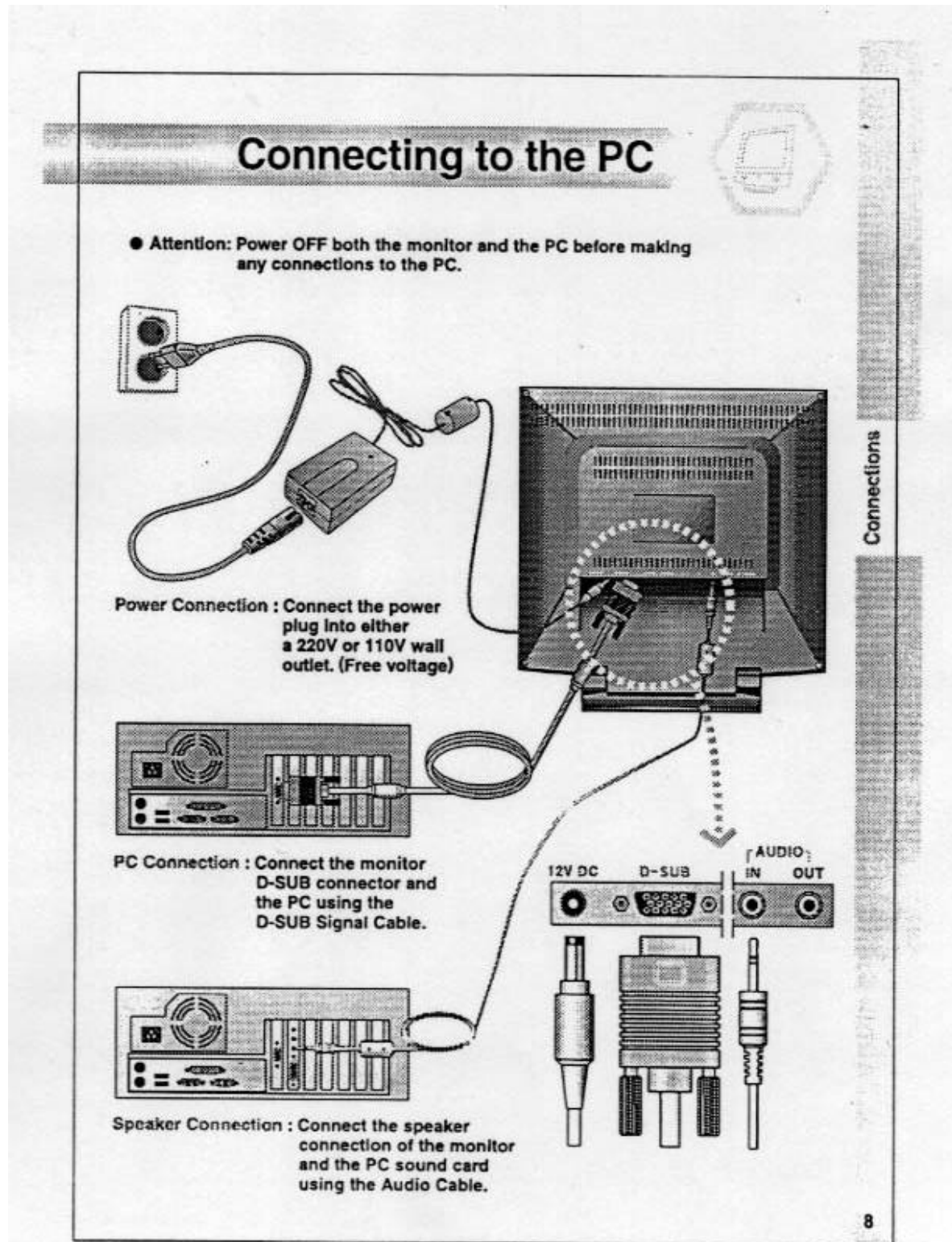
LCD Monitor

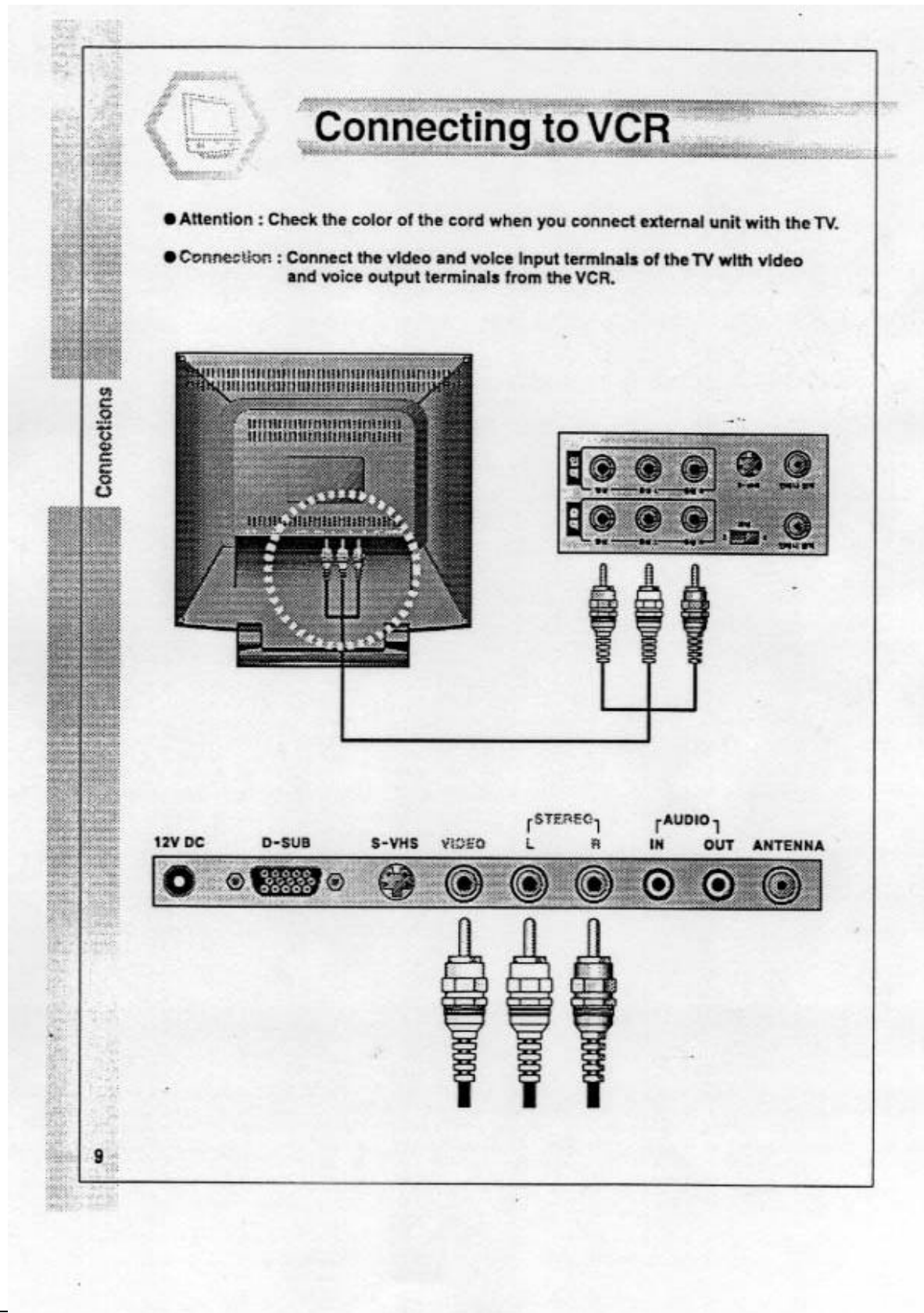


Adaptor



RCA Cable(Option)

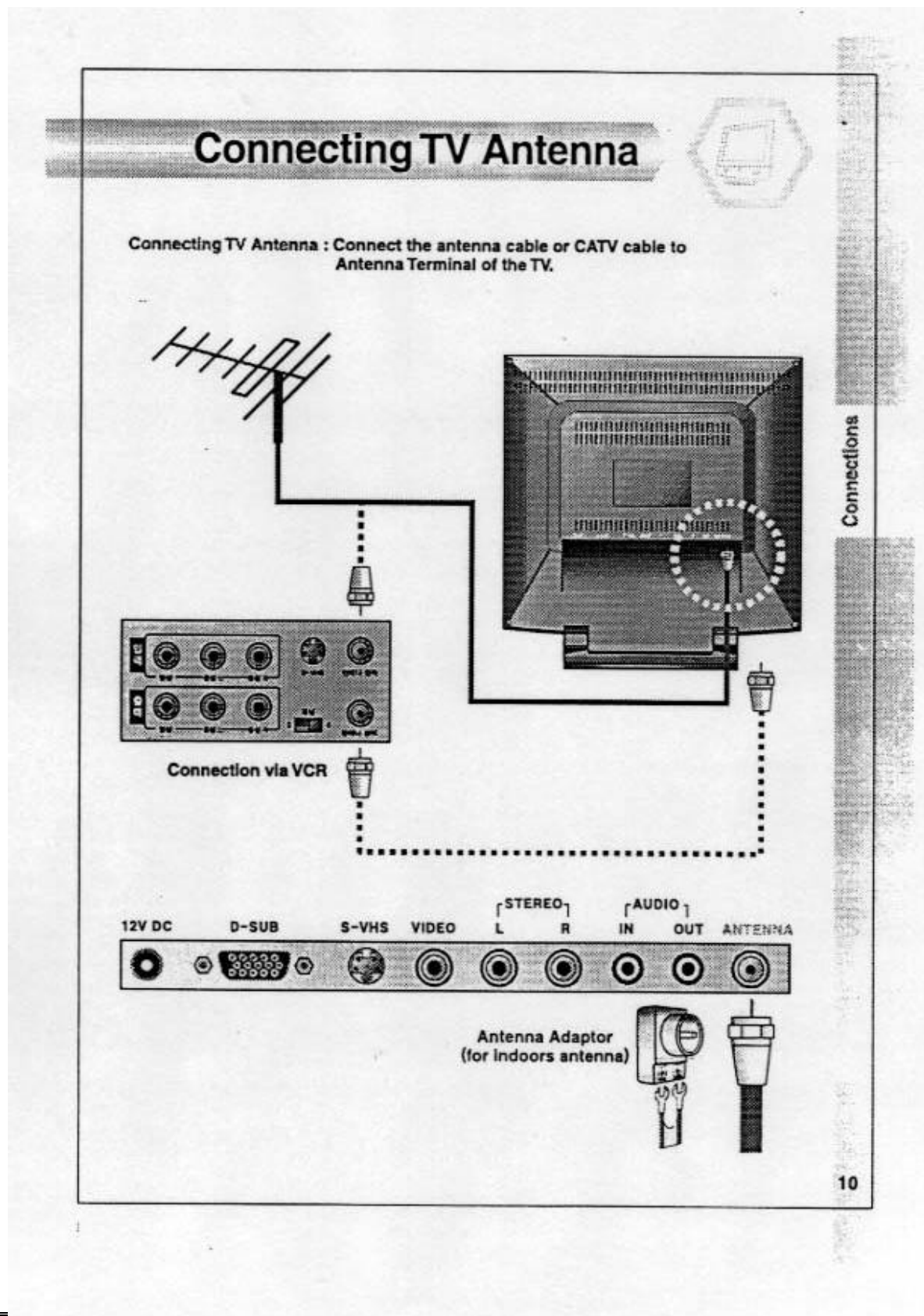




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Product Description

NF-1500MAT - 15.1" TFT LCD Monitor with T.V.

Specifications

Resolution	1024 * 768 (XGA)	
Display Colors	16,777,216 colors Max.: True Color	
Pixel Type	RGB stripe arrangement	
Pixel Pitch	0.3mm(H) x 0.3mm(V)	
Viewable Screen Size	15.1"	
Viewing Angle	120 / 90°	
Video Input	Analog R.G.B., 0.7Vp-p	
Contrast Ratio	250 : 1	
Brightness	200 cd/m²	
AC/DC Adaptor	Adaptor 100-240V, 60 / 50Hz, DC 12V / 3.3A	
Plug & Play Level	VESA DDC 1/ 2B Compatible	
Built - In Speakers	1W x 2 Stereo Type	
Power Requirements	DC 12V, 3.3A	
Power Management	VESA DPMS Standard	
Power Consumption	30W Saving Mode : 5W	
Video / T.V.	Video Signalling	NTSC, PAL, Composite, S-Video
	T.V. Signalling	NTSC/PAL
User Control Method	Remote Controller	PC/TV/Video/SVHS mode select, Power etc. In each mode, All function can be controlled.
	Keypad	Power, TV Channel Up/Down, Volume Up/Down,
Dimensions(WxLxH)	370mmx190mmx400mm	
Weight (Kg)	4.35Kg(Net) / 6.9Kg(Packaged)	
Agency Approval	FCC, CE, VCCI, MIC(EMI)	

Product's Display Specification



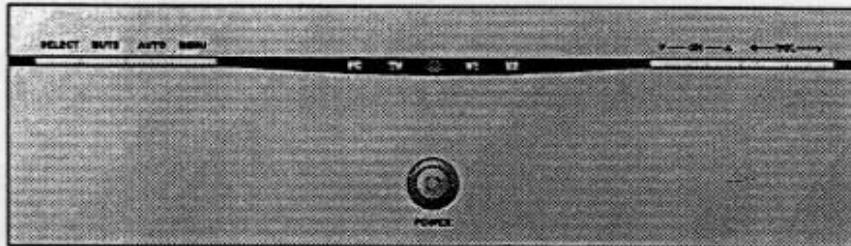
RESOLUTION	REFRESH RATE	HORIZONTAL FREQUENCY	PIXEL FREQUENCY	STANDARD TYPE
640 x 350	70 Hz	31.5 KHz	25.175 MHz	VESA Standard
640 x 400	70 Hz	31.5 KHz	25.175 MHz	VESA Standard
720 x 350	70 Hz	31.5 KHz	28.35 MHz	VESA Standard
640 x 480	60 Hz	31.5 KHz	25.175 MHz	Industry Standard
	72 Hz	37.9 KHz	31.500 MHz	VESA Standard
	75 Hz	37.5 KHz	31.500 MHz	VESA Standard
800 x 600	56 Hz	35.1 KHz	36.600 MHz	VESA Guidelines
	60 Hz	37.9 KHz	40.000 MHz	VESA Guidelines
	72 Hz	48.1 KHz	50.000 MHz	VESA Standard
	75 Hz	46.9 KHz	49.500 MHz	VESA Standard
1024 x 768	43 Hz	35.5 KHz	44.900 MHz	Industry Standard
	60 Hz	48.4 KHz	65.000 MHz	VESA Guidelines
	70 Hz	56.5 KHz	75.000 MHz	VESA Standard
	75 Hz	60.0 KHz	78.750 MHz	VESA Standard
1152 x 864	75 Hz	67.5 KHz	108.000 MHz	VESA Standard
1280 x 960	60 Hz	60.0 KHz	108.000 MHz	VESA Standard
1280 x 1024	60 Hz	64.0 KHz	108.000 MHz	VESA Standard
	75 Hz	80.0 KHz	135.000 MHz	VESA Standard

Product Description



Basics

The front panel of NF-1500MAT model has the following function buttons and indicators.



각각의 기능버튼과 LED지시등에 대한 설명은 다음과 같습니다.

● SELECT BUTTON

Use this button to select TV/PC/VIDEO 1 (COMPOSITE MODE)/VIDEO 2 (S-VHA MODE).

● MUTE BUTTON

Press this button once to mute the built-in speakers. To hear the sound again, press this button again.

● AUTO BUTTON

Use this button to reset the screen to its optimal state automatically.

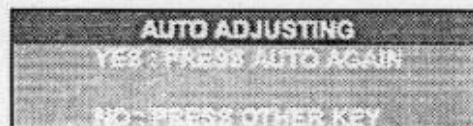


Figure 2. 'AUTO' adjustment screen

When you press 'AUTO' button, you will see a small box on the screen as shown in the Figure 2. Press 'AUTO' button again to find the optimal screen automatically.

Basics

● MENU Button

Press this button to bring up screen adjustment menu on the screen.

● POWER Button

Use this button to switch the power ON or OFF.

The light green indicator around the button turns on when the power is ON.

● CH ▼, CH ▲ Button

Use these buttons to change channels when you use this product in TV mode.

Also, you can use this button to move selection bar while adjustment menu is on the screen.

● ◀VOL, VOL▶ Button

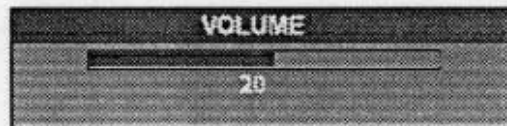


Figure 3. Volume Control

Use these buttons to adjust the volume (mid range).

(A control box as shown in the Figure 3 appears.)

You can also use these buttons to change the value while adjustment menu is on the screen. In case of On/OFF selection menus, you can use these buttons as 'Enter.'

● Descriptions for Indicators

'PC', 'TV', 'V1', or 'V2' indicator LED will turn on depending on the mode you select.

The light green indicator will turn on around the 'POWER' button when the power is ON, as explained above.

The light green indicator will flicker in a certain interval when VGA-CABLE is disconnected or when SUSPENDED-MODE is on.



Basic operation

1. Do you want to bring up 'MENU' on the screen?
In any mode such as PC monitor/TV/VIDEO 1/VIDEO 2, press 'MENU' button to bring up the initial menu for the selected mode in the center of the screen.

2. Do you want to make 'MENU' disappear from the screen?
The menu will automatically disappear if you do not press any button for a predefined time (default is 10 seconds).
If you want to make the menu disappear manually, press 'VOL' or 'VOL' button.
The screen will return to the previous state.

3. Do you want to move to an item on the menu?
While initial menu is on the screen, press 'CH' or 'CH' button.
The red selection bar will move through the 'adjustment group' and the submenu of the selected group will appear on the screen.
Move the selection bar to the adjustment group you want and press 'MENU' button again.
The selection bar will move to the submenu, which indicates that you can adjust the item.
Use 'CH' or 'CH' button to move the selection bar in the submenu.

4. Do you want to change the setting?
If you have selected the submenu you want, press 'VOL' or 'VOL' button to change the setting of the menu.

5. An Example
To help you understand how to use the menu, let's change the setting of 'OFF TIME' item in 'OSD ADJUST' menu.
 - 1) In PC monitor mode, press 'MENU' button to bring up the initial menu as shown in the Figure 4.

Basic operation

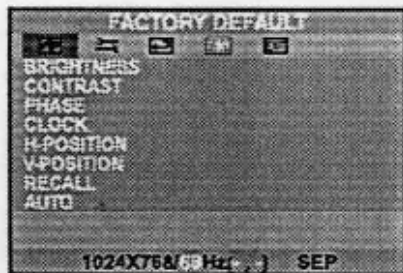


Figure 4. Basic menu screen in PC monitor mode

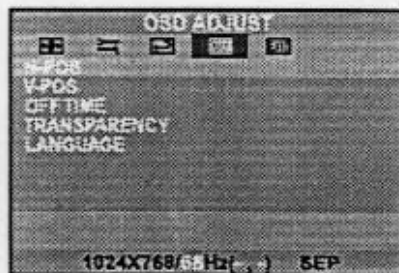


Figure 5. Adjust menu is selected from 'OSD ADJUST'

- 2) Press 'CH' button in the screen as shown in the Figure 4 to move the cursor bar. Press 'MENU' button when the cursor bar is on 'OSD ADJUST' item to select the submenu as shown in the Figure 5.
- 3) Press 'CH' button in the screen as shown in the Figure 5 to move down to 'OFF TIME' menu. You can use this menu to adjust the time as shown in the Figure 6. 'OFF TIME' is the time for the menu to disappear if there is no button operation after predefined time. Therefore, if you set this value to '20', the menu will automatically disappear after 20 seconds unless you press any key.

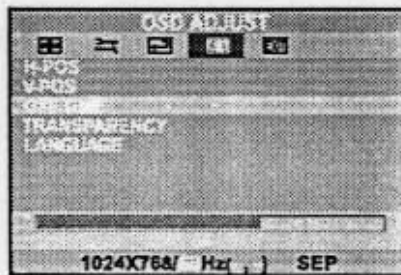


Figure 6. 'OFF TIME' is selected from 'OSD ADJUST' menu

About Adjustment Items and Menus

1. Adjustment Items on Top of 'OSD' screen

-  (DISPLAY ADJUST) : This adjustment items are related to view of the screen that you can adjust brightness, contrast, time, and position.
-  (MISC ADJUST) : This stands for Miscellaneous-Adjust. You can make fine adjustment for each colors such as red, green, and blue (RGB) as well as color temperature and white balance.
-  (INPUT) : You can adjust PC Monitor/TV/Video 1/Video 2 functions on the screen without using remote controller.
-  (OSD ADJUST) : This stands for ON-SCREEN DISPLAY ADJUST. You can use this menu group to adjust items on the screen such as position of menu screen, transparency, and language.
-  (CHANNEL) : Use this menu group to adjust channels when you use TV functions.
-  (EXIT OSD) : Use this item to exit from menu screen after you complete a djustment.

2. Basic Menu Screen for Each Mode

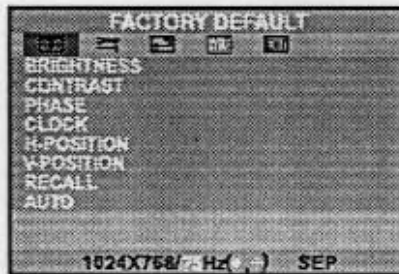


Figure 7. Basic Menu Screen for PC Monitor Mode

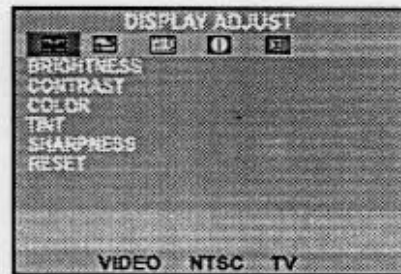


Figure 8. Basic Menu Screen for TV Mode

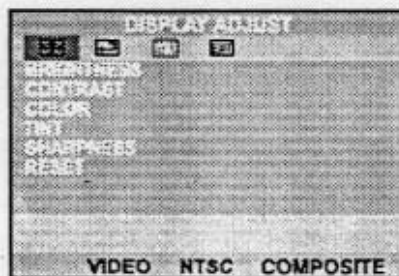


Figure 9. Basic Menu Screen for VIDEO 1 Mode (COMPOSITE-MODE)

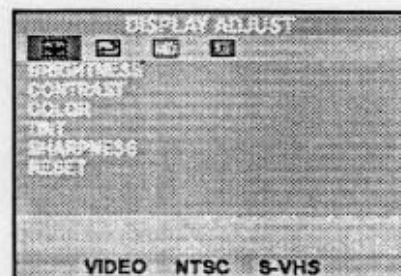


Figure 10. Basic Menu Screen for VIDEO 2 (S-VHS) Mode

About All Menus and Locations



1. Menus in PC Mode

1) DISPLAY ADJUST

- BRIGHTNESS : Use this menu to adjust brightness of the screen. You can set the value between 1 ~ 100.
- CONTRAST : Use this menu to adjust contrast of the screen. You can set the value between 0 ~ 100.
- PHASE : Use this menu to make fine adjustment that you may not recognize with your naked eyes. You can set the value between 0 ~ 31.
- CLOCK : Use this menu to adjust horizontal size of the whole screen. You can set the value between 1212 ~ 1412.
- H-POSITION : Use this menu to move the whole screen to the left or right.
- V-POSITION : Use this menu to move the whole screen up or down.
- FACTORY DEFAULT : Use this menu to revert any changes of the screen to the factory default settings.
- AUTO : Use this menu to reset to screen to the optimal state automatically.

2) MISC ADJUST

- DOS MODE: Use this menu to select either TEXT or GRPHIC when you use DOS mode.
- DITHERING: Use this menu to adjust the color of the screen more natural. You can select either ON or OFF.
- COLOR TEMPERATURE : Use this menu to adjust color temperature. The change many not be recognizable with your naked eyes. You can select one of 9500, 8000, 6500 or 5000.
- WHITE BALANCE : Select this menu to use automatic color balance function.

3) INPUT

- ANALOGUE RGB : The mode will change to PC Monitor Mode when you select this menu.
- VIDEO TV : The mode will change to TV mode when you select this menu.
- VIDEO COMPOSITE : The mode will change to VIDEO 1 mode (COMPOSITE-MODE) when you select this menu.
- VIDEO S-VHS : The mode will change to S-VHS mode when you select this menu.

4) OSD ADJUST

- H-POS : Use this menu to move OSD menu at the center to the left or right.
- V-POS : Use this menu to move OSD menu at the center up or down.
- OFF TIME : OFF TIME is the time for the menu to disappear when there is no menu selection after predefined time. You can adjust by 1 second between 0~100 seconds.
- TRANSPARENCY : Use this menu to make OSD menu transparent. You can set the value between 0~7. The bigger the value, the more transparent is the OSD menu.
- LANGUAGE : Use this menu to select one of six languages, such as English, Japanese, French, German, Italian, and Spanish.

- 5) EXIT-EXIT OSD : Use this menu to exit from OSD menu screen.



About All Menus and Locations

2. Menus in TV Mode

1) DISPLAY ADJUST

- **BRIGHTNESS** : Use this menu to adjust the brightness of the screen.
You can adjust by value of 1.
- **CONTRAST** : Use this menu to adjust the contrast of the screen.
You can adjust by value of 1.
- **COLOR** : Use this menu to adjust the saturation of colors.
You can set the value between 0~100. 0 means the black and white while 100 means the fully saturated colors.
- **SHARPNESS** : Use this menu to make pixels smoother or sharper, even though it is not easily recognizable with your naked eyes. You can adjust by value of 1 between 1~100.
- **RESET** : Use this menu to revert any changes to the factory default value.
You can use 'VOL+' button or 'VOL-' button.

2) INPUT - Same as those in PC monitor mode

- **ANALOG RGB** : The mode will change to PC Monitor Mode when you select this menu.
- **VIDEO TV** : The mode will change to TV mode when you select this menu.
- **VIDEO COMPOSITE** : The mode will change to VIDEO 1 mode (COMPOSITE-MODE) when you select this menu.
- **VIDEO S-VHS** : The mode will change to S-VHS mode when you select this menu.

3) OSD ADJUST - Same as those in PC monitor mode

- **H-POS** : Use this menu to move OSD menu at the center to the left or right.
- **V-POS** : Use this menu to move OSD menu at the center up or down.
- **OFF TIME** : OFF TIME is the time for the menu to disappear when there is no menu selection after predefined time. You can adjust by 1 second between 0~100 seconds.
- **TRANSPARENCY** : Use this menu to make OSD menu transparent.
You can set the value between 0~7. The bigger the value, the more transparent is the OSD menu.
- **LANGUAGE** : Use this menu to select one of six languages, such as English, Japanese, French, German, Italian, and Spanish.

4) CHANNEL

- **CHANNEL SCAN** : Use this menu to let this product scan and memorize the available channels automatically.
- **CHANNEL ADD** : Use this menu to add a channel.
- **CHANNEL DEL** : Use this menu to delete a channel.

5) EXIT-EXIT OSD : Use this menu to exit from OSD menu screen.

About All Menus and Locations

3. Menus in VIDEO 1 (CVBS) Mode

1) DISPLAY ADJUST

- **BRIGHTNESS** : Use this menu to adjust the brightness of the screen.
You can adjust by value of 1.
- **CONTRAST** : Use this menu to adjust the contrast of the screen.
You can adjust by value of 1.
- **COLOR** : Use this menu to adjust the saturation of colors.
You can set the value between 0~100. 0 means the black and white while 100 means the fully saturated colors.
- **TINT** : Use this menu to adjust tint of the color. The change in this menu may not be recognizable with your naked eyes. You can set the value between 0~100.
- **SHARPNESS** : Use this menu to make pixels smoother or sharper, even though it is not easily recognizable with your naked eyes. You can adjust by value of 1 between 1~100.
- **RESET** : Use this menu to revert any changes to the factory default value
You can use Vol button or Vol button.

2) INPUT - Same as those in PC monitor mode

- **ANALOG RGB** : The mode will change to PC Monitor Mode when you select this menu.
- **VIDEO TV** : The mode will change to TV mode when you select this menu.
- **VIDEO COMPOSITE** : The mode will change to VIDEO 1 mode (COMPOSITE-MODE) when you select this menu.
- **VIDEO S-VHS** : The mode will change to S-VHS mode when you select this menu.

3) OSD ADJUST - Same as those in PC monitor mode

- **H-POS** : Use this menu to move OSD menu at the center to the left or right.
- **V-POS** : Use this menu to move OSD menu at the center up or down.
- **OFF TIME** : OFF TIME is the time for the menu to disappear when there is no menu selection after predefined time. You can adjust by 5 seconds between 0~100 seconds.
- **TRANSPARENCY** : Use this menu to make OSD menu transparent.
You can set the value between 0~7. The bigger the value, the more transparent is the OSD menu.
- **LANGUAGE** : Use this menu to select one of six languages, such as English, Japanese, French, German, Italian, and Spanish.

4) EXIT-EXIT OSD : Use this menu to exit from OSD menu screen.



About All Menus and Locations

4. Menus in VIDEO 2 (S-VHS) Mode

1) DISPLAY ADJUST

- **BRIGHTNESS** : Use this menu to adjust the brightness of the screen.
You can set the value between 0~100
- **CONTRAST** : Use this menu to adjust the contrast of the screen.
You can set the value between 0~100.
- **COLOR** : Use this menu to adjust the saturation of colors.
You can set the value between 0~100. 0 means the black and white while 100 means the fully saturated colors.
- **TINT** : Use this menu to adjust tint of the color. The change in this menu may not be recognizable with your naked eyes. You can adjust by the value of 1 between 0~100.
- **SHARPNESS** : Use this menu to make pixels smoother or sharper, even though it is not easily recognizable with your naked eyes. You can adjust by value of 1 between 1~100.
- **RESET** : Use this menu to revert any changes to the factory default value.
You can use Vol button or Vol button.

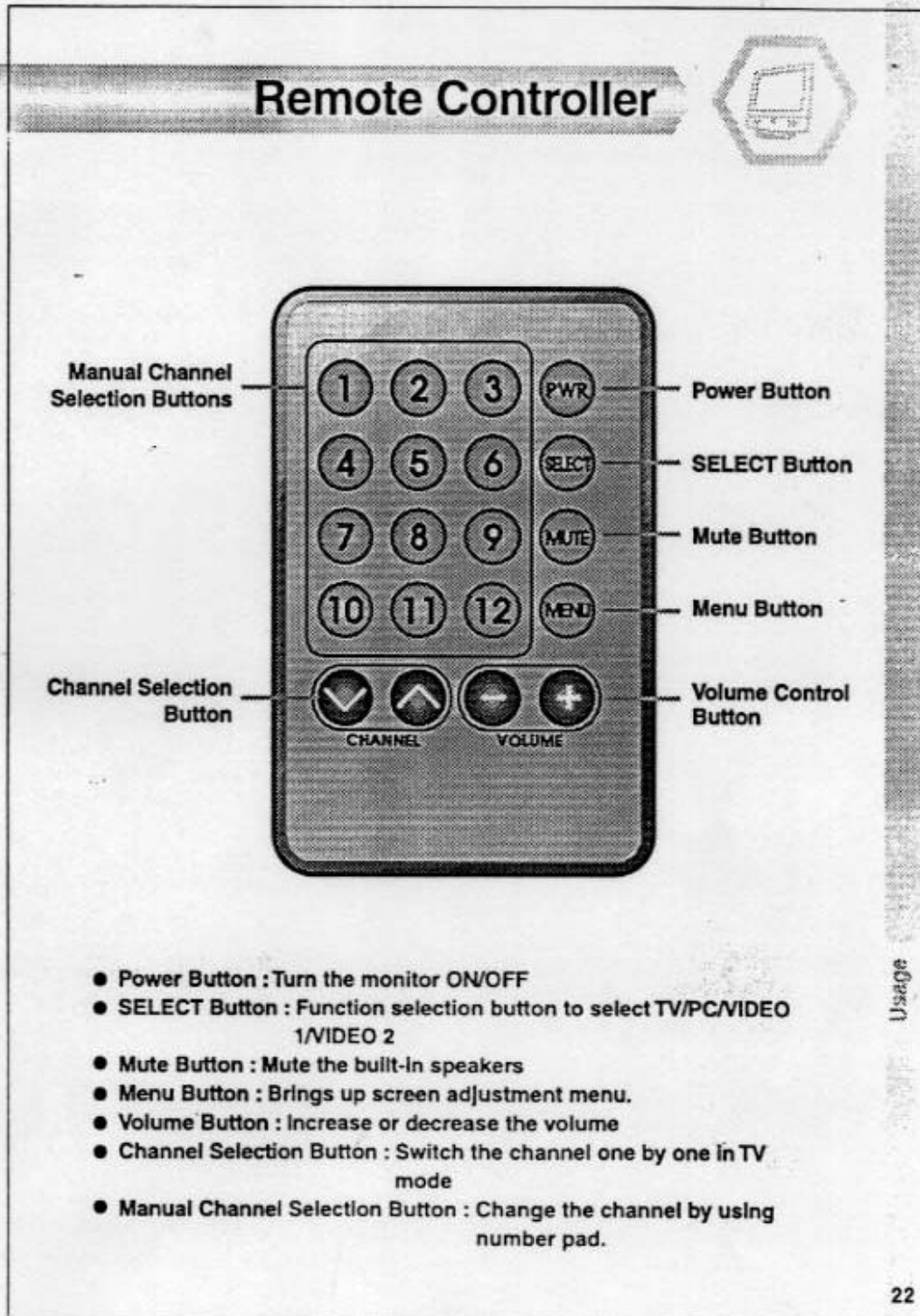
2) INPUT - Same as those in PC monitor mode

- **ANALOG RGB** : The mode will change to PC Monitor Mode when you select this menu.
- **VIDEO TV** : The mode will change to TV mode when you select this menu.
- **VIDEO COMPOSITE** : The mode will change to VIDEO 1 mode (COMPOSITE-MODE) when you select this menu.
- **VIDEO S-VHS** : The mode will change to S-VHS mode when you select this menu.

3) OSD ADJUST - Same as those in PC monitor mode

- **H-POS** : Use this menu to move OSD menu at the center to the left or right.
- **V-POS** : Use this menu to move OSD menu at the center up or down.
- **OFF TIME** : OFF TIME is the time for the menu to disappear when there is no menu selection after predefined time. You can adjust by 5 seconds between 0~100 seconds.
- **TRANSPARENCY** : Use this menu to make OSD menu transparent.
You can set the value between 0~7. The bigger the value, the more transparent is the OSD menu.
- **LANGUAGE** : Use this menu to select one of six languages, such as English, Japanese, French, German, Italian, and Spanish.

4) EXIT-EXIT OSD : Use this menu to exit from OSD menu screen.



Troubleshooting

Please check the followings when you have trouble using this product

Trouble	Suggested Action	Remedy
Screen is blank and power indicator is off.	▶ Check power cable connection. ▶ Check power button.	▶ Secure the connection. ▶ Push the power button.
Screen is blank but power indicator is in green mode.	▶ Check the monitor signal cable (D-SUB) connection.	▶ Secure the connection of monitor signal cable (D-SUB)
Display position and size is incorrect.	▶ Check for correct adjustment of display position and size.	▶ Start Auto adjustment in main menu.
Screen color isn't uniform and stable.	▶ Check video card resolution.	▶ Change the video card settings or resolution. ▶ Adjust color in SUB menu.
Display is too bright or too dark.	▶ Check monitor brightness.	▶ Adjust the brightness and contrast in SUB menu.
Any noise appearing in images or characters are not clearly portrayed.	▶ Check PHASE Icon	▶ Decrease the noise using the PHASE icon in main menu.
Do you see video but no sound?	▶ Is the voice signal from the broadcasting station normal? ▶ Is volume set correct?	▶ Check another channel. ▶ Press volume up button.
Do you see the shadow or lines on the screen?	▶ Is antenna direction correct?	▶ Buildings or terrain surrounding your antenna may cause echos. ▶ Change the direction of the antenna.

Terminology



- **Resolution**

The accuracy of the devices, such as graphic screen, TV, camera, and plotter, to display graphics. Normally, the resolution is determined by the number of pixels in the vertical and horizontal points that consists of the screen.
The higher resolution can display more information and allows you to do more work in the same screen.

- **Horizontal Frequency**

The number of horizontal lines displayed in a second. The unit is Khz.

- **Vertical Frequency**

The number of screen refresh per a second. The unit is Hz.

- **OSD (On Screen Display)**

This function displays adjustment functions on the screen so that you can use adjustment buttons to adjust screen display.

- **Plug and Play**

This function allows user to configure a new hardware without any particular installation procedure.

Warranty Materials

BTC Korea warrants to customers that this product is free from defects in workmanship and materials according to Compensatory Regulations for Consumers.
This warranty is required for product service.

Product Name		Model	
Date of Purchase (yy/mm/dd)		Serial No.	
Consumer	Address		
	Name	Phone No.	
Dealer Purchased from		Dealer Phone No.	Dealer Name

Warranty benefit is only in accordance with this material.
The user should immediately write down the date of purchase as the warranty period starts from the date of purchase. In cases where we cannot check the exact date, the date of purchase is calculated as 6 months from the manufacturing date.

This material is for domestic use only.

The user should keep this material because it may not be published again.

Service

● FREE SERVICE

The user can get servicing from qualified service personnel within the warranty period.

※ Warranty period is six months in cases where the user uses the product for business or unusual circumstances or the product is industrial product.(including key component)

Warranty Type of Service		Warranty Details	
		Within the warranty period	After the warranty period
In usual circumstances where troubles appear within 10 days after product purchase.		Product Replacement	
Repair	Product does not operate due to the same trouble up to three times	Free Repair	Repair Charges
	Product does not operate due to the same trouble up to four times	Product Replacement	Repair Charges
No Repair	Product can't be repaired even though there are repair parts	Product Replacement	Product replacement after deducting Depreciation Cost
	Product can't be repaired because there aren't any repair parts	Product Replacement	Product replacement after adding 10% of Depreciation Cost

● SERVICE CHARGES

For the following, the user should pay for services within the warranty period :

- ▶ When the product does not operate because of consumer fault.
 - Product does not operate because the user attempted service by someone other than qualified service personnel.
- ▶ In case of trouble caused by modification by anyone other than qualified service personnel such as :
 - Using the wrong voltage or a damaged power cord or plug.
 - Monitor has been dropped.
 - Improper adjustment of monitor options
 - Liquid has been spilled on or into the monitor housing.
 - Unauthorized product modification
- ▶ For simple problems
 - Where the service personnel can repair the product without opening the covers.
 - Where the outside cables or option cards are reset.
 - Where software is reinstalled.
 - Where network or another company's product usage is explained.
- ▶ Others
 - Where troubles are caused by accident, fire, lightening, other hazards, or acts of God.
 - Where expendable supplies (like lamps) are used up.

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