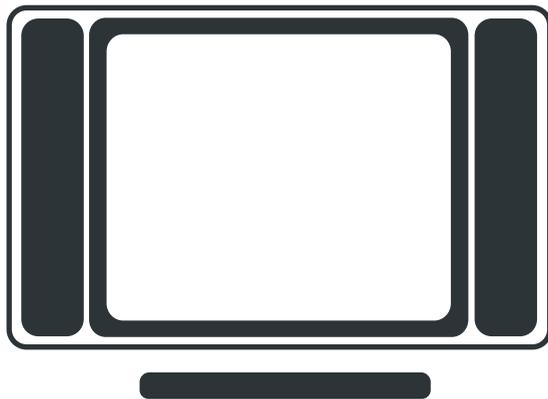




LC2000
20" LCD Display
USER MANUAL



Preface

About this Manual

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

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FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

Caution: To comply with the limits for an FCC Class B computing device, always use the signal cord and power cord supplied with this unit. The Federal Communications Commission warns that changes or modifications to the unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Important Safety Instructions

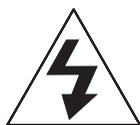
Read the following instructions carefully. Follow all instructions and heed all warnings to prevent personal injury or damage to the product. Keep these instructions in a safe place for future reference.

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Do not place your LCD display near water. Exposing the apparatus to rain, water, moisture or sunlight can severely damage it.
- Clean only with a dry cloth.
- Do not block ventilation openings. Increased temperature may cause fire or device failure.
- Install in accordance with the manufacturer's instructions.
- Do not place the apparatus near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use the attachments and accessories that were included with the apparatus.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug the apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- When unplugging the power cord, do not pull on the cable. Grasp the plug to safely unplug the apparatus.
- If you notice smoke or any other odor or noise coming from the apparatus, stop using the product immediately and unplug the power cord. Contact a qualified service technician.
- Keep the apparatus at least four (4) inches away from the wall. Make sure there is sufficient air-flow to ventilate the unit.
- Hold the apparatus with two hands at the base of the panel when moving it.
- Apparatus shall not be exposed to dripping or splashing and no object filled with liquids shall be placed on the apparatus.





CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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1 Introduction

Congratulations on your purchase of the 20-inch LCD display.

Your LCD display is designed to be versatile, ergonomic, and easy to use. The display is capable of displaying most standard video signals, with VGA resolution supported up to 1024x768 with a native resolution of 640x480.

A convenient control panel located on the top of the front panel and a handy remote control allow you to easily adjust display parameters, change channels, and adjust the volume. The LCD display's stereo speakers provide full rich sound and a convenient audio output port lets you connect to an external audio system.

The LCD display supports VGA, TV (NTSC, PAL, and SECAM), S-Video, AV, Component, and YPbPr (480i/p & 576i/p) input devices. The Picture in Picture (PIP) function lets you view two video sources at the same time while an integrated V-chip allows you to block selected broadcasts.

1.1 Unpacking

After unpacking your LCD display, make sure the following items are included in the box and are in good condition:

- LCD display (LCD panel and display base)
- AC power cord and 100-240 VAC/60W power adapter
- Remote control (3-volt lithium battery included) (Optional purchasing)
- Cables:
 - 15-pin D-sub VGA cable
 - RCA video cable (Optional purchasing)
 - RCA stereo audio cable (Optional purchasing)
 - 3.5 mm stereo audio cable
 - AC power cord
- Warranty Card
- Quick Installation Guide

If you find that any of these items are missing or appear damaged, contact your dealer immediately. Do not throw away the packing materials or shipping carton in case you need to ship or store the LCD display in the future.

2 Getting to Know Your LCD Display

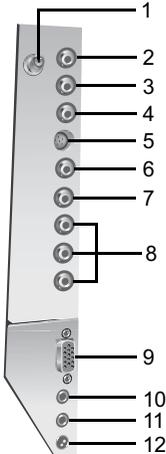
The LCD display is designed to provide easy access to all controls and connections. The following figures identify the LCD display's components, controls, and ports.

2.1 Views

Please refer to Quick Start Guide. (Front View, Side View and Rear View)

2.2 Cables and Connectors

The LCD display is equipped with the following types of connectors that are used to connect to external devices including VCRs, DVD players, camcorders, and computers.

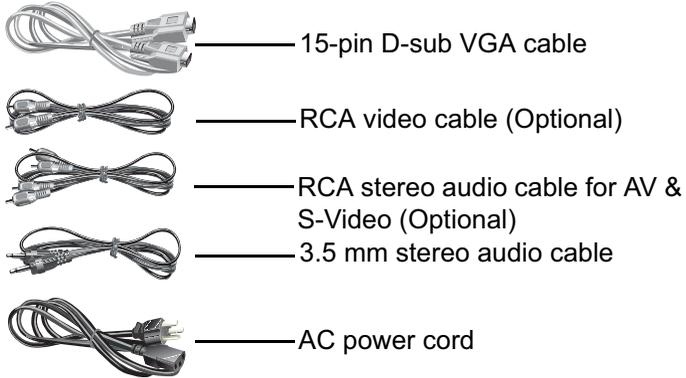


No.	Function	Type
1	Cable TV/Antenna	75Ω F-Connector
2	AV Audio In (Right)	RCA (red)
3	AV Audio In (Left)	RCA (white)
4	Composite Video In	RCA (yellow)
5	S-Video In	4-pin Mini-DIN
6	Audio In Left (Component Video)	RCA (white)
7	Audio In Right (Component Video)	RCA (red)
8	Component Video In	RCA (Red, Green, Blue)
9	VGA In (RGB)	15-pin D-Sub
10	Audio Line In	3.5 mm stereo
11	Audio Line Out	3.5 mm stereo
12	DC Power In	2-pin DC plug

Note: Item 1~8 are by optional.

Note: The AV Audio In is designed for share with both of AV & S-Video resource.

The LCD display comes with the following cables:

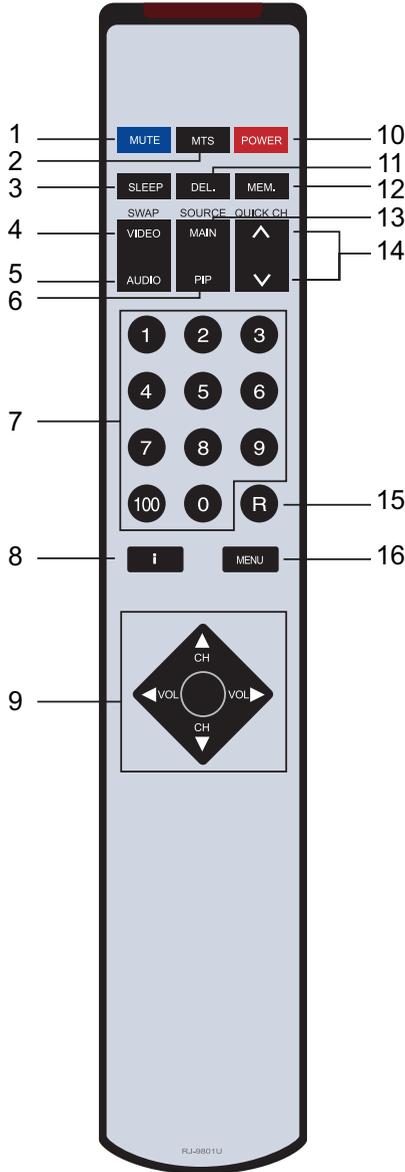


2.3 Control Panel Keys

The control panel keys located at the top of the LCD display can be used to adjust all available settings. The remote control keys (see “Remote Control (Optional)” on page 4) have the same functionality.

Display Mode					
Key	TV	VGA	AV S-Video YPbPr	OSD	
1	Power	Turns the power on or off.			
2	Source	Selects the source signal to display on the main screen.			
3	Menu	Turns the on screen display (OSD) menus on or off.		Turns the OSD off.	
4	Program Up	Increases the channel number.	N/A	N/A	Moves to the previous sub menu item.
5	Program Down	Decreases the channel number.	N/A	N/A	Moves to the next sub menu item.
6	Volume Decrease	Decreases the volume.		Moves to the previous menu item or decreases the value of the selected setting.	
7	Volume Increase	Increases the volume.		Moves to the next menu item or increases the value of the selected setting.	

2.4 Remote Control (Optional)



ENGLISH

2.4.1 Remote Control Key Index

	Key	Description
1	Mute	Turns the volume off completely.
2	MTS Selector	Multi-channel Television Sound for full stereo and bilingual broadcasts.
3	Sleep	Automatically turns off the LCD display after a preset period of time (30, 60, or 90 minutes).
4	Video	Exchanges the Main and PIP video screens (PIP appears on Main, Main appears in PIP).
5	Audio	Exchanges the Main and PIP audio (listen to either the Main or PIP sources).
6	Picture-in-Picture (PIP) Source	Selects the picture-in-picture video source. Audio source remains with the main source.
7	Numeric Keys (0 to 9, and 100)	Used to directly key in channel numbers.
8	Information	Turns the on screen information display on or off.
9	OSD Navigation	Navigates through the on screen display (OSD) menus (up, down, left, right).
	Channel Up/Down	Increases or decreases the channel number.
	Volume Increase/Decrease	Increases or decreases the volume.
10	Power	Turns the LCD display on and off.
11	Quick Channel Memory Delete	Deletes the selected quick channel number.
12	Quick Channel Memory Set	Sets the quick channel number (between 0 and 9).
13	Main Source	Selects the video source for the main screen.
14	Quick Channel Memory Up/Down	Increases or decreases the favorite channel number.
15	Return	Switches to the previous channel.
16	Menu	Turns the screen display menu on.

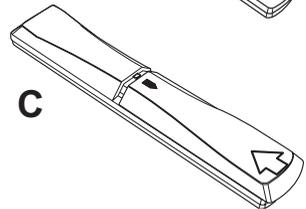
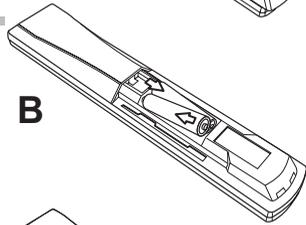
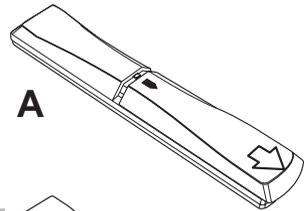
**Note:**

- Using the remote control in direct sunlight reduces the functional distance at which it can be used.
- Aim the remote control at the IR receiver on the LCD display and ensure there are no object in the line of sight.

2.4.2 Replacing the Remote Control Battery

Refer to the following illustration for instructions on replacing the remote control battery (CR2025 3V).

- 1 Slide the battery tray out (A).
- 2 Place the battery into the tray with the positive polarity as shown (B).
- 3 Push the battery tray in (C).

**Caution:**

- Remove and store the battery in a cool dry place if the remote control is not used for long periods of time.
- Handle damaged or leaking batteries with care. Wash hands with soap if they come in contact with leaked chemical fluids.
- Refer to your local recycling or waste disposal guidelines for information on disposing of used batteries.

2.5 Adjusting the Viewing Angle

When used on a desktop or other flat surface, you can tilt the LCD display back to achieve a more comfortable viewing angle.

You can adjust the LCD display viewing angle from an upright position to a back-tilted angle of up to 7 degrees and a forward-tilted angle of 4 degrees.



Warning:

Forcing the LCD display past its maximum extension point will damage the unit.

When tilting the screen, hold the base firmly and adjust the viewing angle by moving the top of the display forward or backward. Do not press the LCD panel when tilting the display.



2.6 Setting Up the Optional Wall Mount

Purchase a standard wall mount kit (100 mm x 100 mm screw mount area, minimum 35 kg load-carrying weight) from a third-party vendor if you want to attach the LCD display to a wall or other fixed surface.

- 1 Prepare a flat, stable working area with a soft cloth or foam pad to place the LCD display on.
- 2 Turn the LCD display power off, disconnect it from the power adapter, and gently lay the display on its front.
- 3 Remove the four screws located at the rear of the LCD display as illustrated. Remove the LCD display stand.
- 4 Refer to and follow the instructions included with the wall mount kit that you purchased.



2.7 Built-in Speakers

The LCD display comes with a pair of built-in stereo speakers located at the front of the unit.

2.8 Connecting the AC Power Adapter

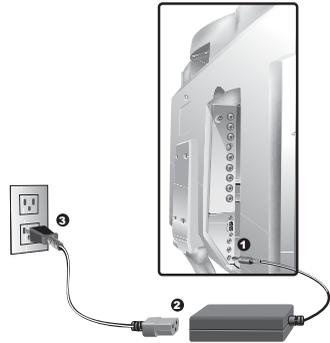
You must use the 100-240 VAC/60W power adapter that is included with the LCD display.



Caution:

- Make sure you have read and understood the safety notes before connecting the LCD display to the power adapter and electrical outlet.
- Do not use any other AC power adapter except the adapter that was included with your LCD display.
- Contact your dealer if you need a replacement adapter.

- 1 Connect the power cord to the AC adapter.
- 2 Plug the power cord into an electrical outlet. Contact your dealer or a qualified service technician if the plug does not fit into the outlet.
- 3 Insert the small end of the adapter cord into the DC-in connector at the back of the LCD display. The power LED on the front panel glows orange.



2.9 Turning On the LCD Display

- 1 Press the Power key on the LCD display control panel or remote control to turn the LCD display on. The power LED on the front panel glows green.
- 2 Press either Power key again to turn the LCD display off. The power LED on the front panel glows orange.

3 Adjusting Settings

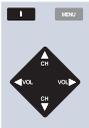
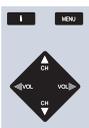
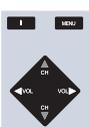
This chapter explains the LCD display's On-Screen Display (OSD) menus. These are used to adjust settings related to picture and audio quality, as well as other features.

Using the OSD you can adjust the contrast, brightness, OSD position, color temperature, stereo speaker volume, and other settings.

The OSD Menus can be accessed using either the remote control or the display control panel located on the top of the LCD display.

3.1 Controlling the OSD

Press the MENU button to turn the OSD on or off.

LCD Control Panel	Remote Control	Description
MENU 		MENU <ul style="list-style-type: none"> turns the OSD menu on and off confirms a selection
— VOL + 		◀/▶ arrow keys <ul style="list-style-type: none"> navigates through the OSD menus adjusts value
^ PRG v 		▲/▼ arrow keys <ul style="list-style-type: none"> navigates through the second level of the OSD menus

3.2 Setting the Main Display Mode

You can switch between input sources and display them on the main screen in sequence by repeatedly pressing either:

- the MAIN key on the remote control
- the SOURCE key on the LCD control panel

The Main display mode rotates between:

- TV
- AV
- S-Video
- YPbPr
- VGA



Main display mode indicator

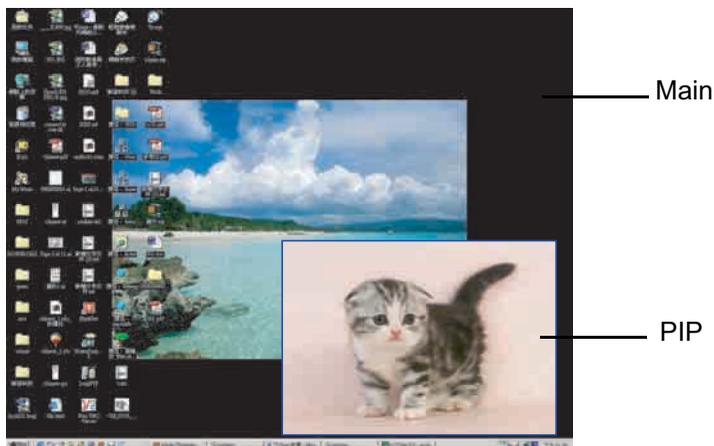
The OSD menus for each display mode allow you to set options that are specific to the selected video signal format. Refer to “Adjusting Settings” on page 9 for information on adjusting settings for each display mode.

3.3 Setting the Picture-in-Picture Display Mode

The LCD display is capable of displaying a second video input signal on the LCD screen at the same time as the main signal. This second signal, or source, is shown on the LCD screen in a box over top of the main image - this is referred to as “Picture-in-Picture” (PIP).



PIP display mode indicator



Select the PIP source by pressing the PIP key on the remote control.
There is no equivalent key on the LCD control panel.

Sub signal options vary according to the selected Main signal as shown in the following table.

PIP (Picture-in-Picture)

Main	OFF	TV	AV	S-Video	YPbPr	VGA
TV	√	–	–	–	√	√
AV	√	–	–	–	√	√
S-Video	√	–	–	–	√	√
YPbPr	√	√	√	√	–	–
VGA	√	√	√	√	–	–

3.4 Adjusting the Display

The following table indicates the display settings that are available for each Main display mode.

Setting	TV	AV	S-Video	YPbPr	VGA
Contrast	√	√	√	√	√
Brightness	√	√	√	√	√
Color	√	√	√	√	–
Hue	√	√	√	√	–
Sharpness	√	√	√	√	–
Focus	–	–	–	√	–
Auto	–	–	–	–	√
Color-Temp	–	–	–	–	√
Red	–	–	–	–	√
Green	–	–	–	–	√
Blue	–	–	–	–	√
White Balance	–	–	–	–	√



NOTE:

To return all DISPLAY settings to their factory defaults, select “Recall” from the menu and press the ► key.

Contrast: enables you to adjust the difference between the lightest and darkest areas of the LCD display screen. Contrast should be adjusted in conjunction with the brightness item.

Brightness: enables you to adjust the light level of the LCD display’s screen. It should be adjusted in conjunction with the contrast setting.

Color: lets you make changes to the LCD display’s color display. The available options are User, Low, Middle and High. Select “User” to set a custom color temperature.

Hue: allows you to adjust the display hue. Hue is a measure of the saturation of a color.

Sharpness: enables you to adjust the sharpness of the image.

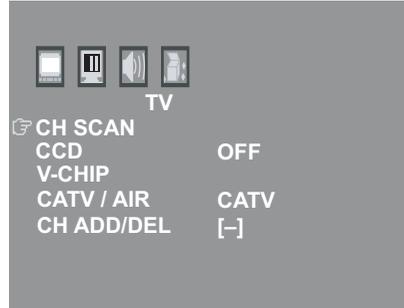
Focus: allows you to adjust the focus of the image.

Recall: returns all display settings to their factory-set default values.

3.5 Television Settings (Optional)

3.5.1 Setting Channels

When connected to a television antenna or CATV cable, the LCD display can automatically scan for available channels. Before scanning, make sure you have selected the correct TV signal source: air (broadcast) or CATV (cable TV).



To scan for channels:

- 1 Press **MENU** to turn the OSD on.
- 2 Press **VOL+** to switch to the TV menu.
- 3 Press **PRG/CH ▼** to select CH-Scan.
- 4 Press **VOL +** to begin scanning channels.
- 5 The screen displays a number incrementing from 1 to 125 (for NTSC systems in the USA and other countries) as the LCD display scans for available channels.
- 6 Scanning is complete when the channel number stops incrementing (125 for NTSC systems). The channel switches back to the first available channel found.



NOTE:

Several minutes are required for channel scanning to complete.

3.5.2 Using Quick Channels

The quick channel function lets you assign ten channels that can be accessed by the quick channel keys on the remote control.

Press **PRG/CH** ▲/▼ in the **QUICK CH** block on the remote control to switch between assigned quick channels.



Quick Channel Block

Assigning Quick Channels

- 1 First choose a channel you want to add to the quick channels by using the normal **PRG/CH** ▲/▼ keys or by entering a channel number directly with the number keys on the remote control.
- 2 Press the **MEM** key in the quick channel block on the remote control.
- 3 Use the number keys to assign a number between 0 and 9 to the current channel.
- 4 Wait five seconds. The quick channel screen disappears and the new quick channel assignment is complete.

Deleting Quick Channels

- 1 First press the **DEL** key in the **QUICK CH** block on the remote control.
- 2 The quick channel settings appear on the screen. Press the number key (0 to 9) of the channel you want to delete. The setting for this quick channel changes to “OFF”.
- 3 Wait five seconds. The quick channel screen disappears and the quick channel is deleted.

3.5.3 Closed Captioning (North America Only)

Closed captioning allows you to view subtitles on your LCD display if your broadcast or cable TV provider supports this feature.

3.5.4 Using the V-Chip (North America only)

The V-Chip function reads information encoded in rated programs and blocks programs from being viewed based on the rating selected by the parent.

The LCD display allows you to use both “MPAA Ratings” and “TV Parental Guidelines” to manage the ratings that are blocked or unblocked on your TV. For information on the V-Chip, refer to the FCC’s website at: <http://www.fcc.gov/vchip/>.

A list of the MPAA and TV ratings and their meanings is given in the following tables.

MPAA Rating	
Rating	Description
G	All ages admitted.
PG	Some material may not be suitable for children.
PG-13	Some material may be inappropriate for children under 13.
R	For those under the age of 17 require accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED.
X	X is an older rating that unified with NC-17 but may be encoded in the data of older movies.

TV Parental Guidelines	
Rating	Description
TV-Y	ALL CHILDREN. This program is designed to be appropriate for all children.
TV-Y7	DIRECT TO OLDER CHILDREN. This program is designed for children age 7 and above.
TV-G	GENERAL AUDIENCE. Most parents would find this program suitable for all ages.
TV-PG	PARENTAL GUIDANCE SUGGESTED. This program contains some material that parents may find unsuitable for younger children.
TV-14	PARENTS STRONGLY WARNED. This program contains some material that many parents would find unsuitable for children under 14 years of age.
TV-MA	MATURE AUDIENCE ONLY. This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.

Follow these steps to set up the ratings system on your LCD display.

- 1 Select the V-Chip option in the TV menu on the OSD and press **VOL+**.
- 2 You are prompted for the password. The default password is four zeros (0000). Enter the password using the numeric keys on the remote control, then press the Return key.
- 3 To block a particular program rating from being viewed, select the field using the **PRG/CH** ▲/▼ keys. Press **VOL+/-** to change the values:

V-CHIP					
MPAA-RATING					
G	PG	PG-13	R	NC-17	X
U	U	U	U	U	U
		TV-RATING			
	FV	V	S	L	D
TV-Y7	U				
TV-PG		U	U	U	U
TV-14		U	U	U	U
TV-MA		U	U	U	

U: UNBLOCK / B: BLOCK

B: blocked (this type of programming cannot be viewed)

U: unblocked (this type of programming can be viewed)

To **reset the password**, press the **VOL+** and the **PRG ▲** key on the control panel simultaneously. Enter your new password at the prompt and wait five seconds. The new password will be saved.

3.6 VGA (PC) Settings

The LCD display supports standard RGB VGA connections from a PC using the included 15-pin D-sub cable.



Note:

For optimum results, set your PC's video resolution to 640x480 pixels. If the resolution is set higher than this, the picture may be unclear or not visible.

3.6.1 Adjusting the VGA Display Automatically

For most users, allowing the LCD display to automatically adjust VGA display settings using the AUTO function in the OSD under VGA mode gives the best results.

3.6.2 Adjusting the VGA Display Manually

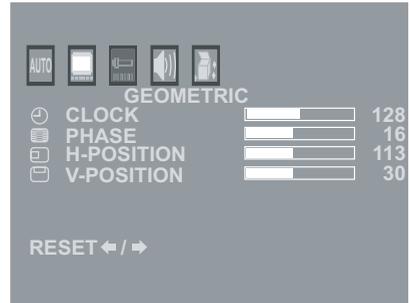
You can adjust the various VGA display settings manually to suit your personal preferences. Available settings include contrast, brightness, color temperature, and white balance. Change the settings by navigating through the OSD menu system to the Display menu. Use **VOL+/-** to adjust values.

White Balance

The LCD display provides automatic white balance adjustment. Make sure the display is showing a white square (at least 4 cm x 4 cm) in the center of the screen and select "White Balance" in the Display menu. Press **VOL+** to activate the white balance self-adjustment. The screen flickers for a few moments and the brightness and contrast settings are returned to default values. The color temperature is also reset to the User setting. The screen displays "OK" when adjustment is complete.

3.6.3 Adjusting Geometric Settings

There are four settings related to VGA signal and screen positioning that can be adjusted when the LCD display is in VGA mode: clock, phase, h-position, and v-position. Each of these can be adjusted on the “Geometric” page of the OSD menu system when the LCD display is in VGA display mode.



Setting	Description
Clock	Adjusts pixel alignment to help stabilize the VGA display.
Phase	Adjusts the focus and clarity of the VGA display.
H-Position (Horizontal Position)	Centers the image on the display horizontally.
V-Position (Vertical Position)	Centers the image on the display vertically.

3.7 Adjusting Volume

Use **VOL+/-** to increase or decrease the volume.

Press **MUTE** to turn the sound off completely. The mute function is released automatically by pressing **MUTE** again, by changing the volume or main display source, or by turning the power on or off.





NOTE:

To return all audio settings to their factory defaults, select “Recall” from the menu and press **VOL+**.

3.8 Miscellaneous Settings

3.8.1 Setting the OSD Timer

You can change the length of time the OSD will remain on the screen after the last key has been pressed. Available options are: 5, 10, 15, 20, 25 or 30 seconds.

3.8.2 Setting the OSD Language

You can change the language in which the OSD menus appear. Available languages are: English, Deutsch (German), Français (French), Italiano (Italian), Español (Spanish), Japanese, Simplified Chinese and Traditional Chinese.

3.8.3 Changing the PIP Size

When two or more video sources are connected to the LCD display, you can set one to appear on the full screen (Main) and one to appear in the Picture-in-Picture screen (PIP or Sub).

There are five different PIP sizes to choose from in the OSD menu: 1/2, 1/4, 1/8, 1/16, and 1/32.

3.8.4 Setting the PIP Position

The position of the picture-in-picture window on the screen can be adjusted to suit your preferences. Each position is numbered from upper-left (0) to lower-right (3). The center position is number 4.

3.8.5 Setting the Sleep Timer

The sleep timer turns the LCD display off after a preset period of time. Press the SLEEP button on the remote control to select the length of time from the available settings: 30 minutes, 60 minutes, or 90 minutes. Select “Off” if you do not want the LCD display to shut off automatically.

4 Troubleshooting

Q: Why doesn't the LCD display turn on?

A1: Check the AC power adapter to make sure it is securely connected to the DC-in power jack at the rear of the LCD display. Make sure the power cord is plugged into a functioning electrical outlet.

Q: Why is the power LED on but the screen is blank?

A1: Make sure the video cable is securely connected to both the LCD display and the device you have attached.

A2: Make sure you have correctly connected all of the cables required for your device. Refer to the user's manual that came with your equipment for further information.

Q: Why is my display too dark or too bright?

A: You can adjust the brightness of the LCD screen. Refer to "Adjusting the Display" on page 12.

Q: Why is there no sound coming from the built-in speakers?

A1: Check your audio cables to make sure they are connected properly.

A2: Make sure the mute is turned off. Refer to "Adjusting Volume" on page 18.

A3: Check the sound mode by press the MTS or Sound key on the remote control to switch between SAP, Mono and Stereo. Press the Display key to view the setting on the screen.

Q: Why is the display blurred when I connect the LCD display to my computer?

A1: The LCD display supports VGA (640x480) video mode. Make sure the display settings of your computer are adjusted to this setting. Setting your computer's display resolution to a higher resolution will result in a poor quality image or no picture at all.

Q: Why can't I view any TV channels?

A: You must scan for channels before you can view TV channels. See "Setting Channels" on page 13

Q: Why is my reception bad when watching TV?

A: Use a coaxial cable for TV input. Reception is best from cable TV or from a high-powered rooftop antenna.

Q: Why is the screen too light or too dark when in VGA mode?

A1: Adjust the white balance. See "White Balance" on page 17.

A2: Adjust the brightness. See "Adjusting the Display" on page 12.

5 Specifications

Pixel Pitch	0.6375 mm (H) x 0.6375 mm (W)
Max. Display Area	408 mm (H) x 306 mm (V) (16.063 in. x 12.047 in.) 20.1-inches diagonally
Aspect Ratio	4:3
Native Resolution	VGA (640 x 480)
Display Colors	16.7 million colors (RGB 8-bit color)
Contrast Ratio	500:1
Brightness	450 cd/m ² (typical)
Response Time	16 ms typical (Tr + Tf)
View Angle (CRS10)	Horizontal: 80°/80°, Vertical: 75°/65° (typ.)
Horizontal Frequency	31 KHz ~ 65 KHz
Vertical Frequency	56 Hz ~ 75 Hz
Signal Input/Output Ports	Standard VGA 15-pin D-Sub Composite Video (RCA x 1) (optional) Audio for Composite & S-Video (RCA x 2) (optional) S-Video (optional) Component Audio (RCA x 2) (optional) Tuner (optional) Component Video (YPbPr RCA x 3) (optional)
TV Systems	NTSC PAL (B/G, D/K, I) or SECAM (D/K, L) (not available for US region) 480i/p & 576i/p SDTV support PIP function De-interlace support 3D noise reduction filter NTSC: BTSC support (USA only) EIAJ support (Japan only) SAP/MTS V-Chip & Closed Captioning (North America Only) PAL: (not available for US region) A2 and NICAM support Teletext
Plug and Play	Supports VESA DDC1 and DDC2B functions
Lock	Kensington
Power Consumption	Power off: < 8W
Power Source	12 VDC/5A (60W)
Speakers	5W (max.) x 2
Dimensions	600 mm x 446 mm x 174 mm (W x H x D) 23.6 in. x 17.6 in. x 6.9 in.
Wall Mount Area	100 mm x 100 mm (3.9 in. x 3.9 in.)
Net Weight	8 kg (17.64 lbs)
Operating Temperature	0°C ~ 40°C (10% to 90% RH)

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