**37**"

# EMPRE

37" LCD TV OWNER'S MANUAL

Model Number: HD-3701P

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## **Preface**

#### **About This Manual**

This manual is designed to make operating your 37" LCD TV as easy as possible. Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. Due to continuing system improvements, these changes will be incorporated in newer editions.

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## **Communication Regulation**

#### **FCC Compliance**

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.

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.

#### Canada Class B Statement

This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

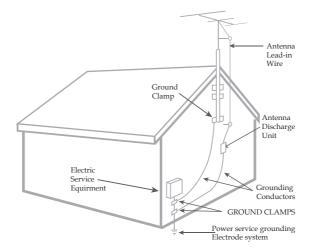
Cet appareil numérique de la Class B respecte toutes les exigencies du Réglemensur le materiel brouilleur du Canada.

## **Important Safety Instructions**

- **1. Read these instructions.** All the safety and operating instructions should be read before the product is operated.
- Keep these Instructions. The safety and operating instructions should be retained for future reference.
- **3. Heed all Warnings.** All warnings on the product and in the operating instructions should be adhered to.
- **4. Follow all Instructions.** All operating and using instructions should be followed.
- **5. Cleaning.** Unplug this product from the power outlet before cleaning. Clean only with dry cloth.
- 6. Do not use this apparatus near water and moisture.
- Ventilation. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- **8.** Do not install the product near any heat sources such as radiators, heat registers, stoves, or other apparatuses (including amplifiers) that produce heat.
- 9. Grounding or Polarization. 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 is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the outlet.
- 10. Power-Cord Protection. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and points that exit from the apparatus.

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- 11. Only use attachments/accessories specified by the manufacturer.
- **12.** Only use the cart, stand, tripod, bracket, or table specified by the manufacturer, or provided with the apparatus. When a cart is used, use caution when moving the cart/apparatus to avoid injury.
- 13. Unplug this apparatus during lightning storms or during long unused periods.
- **14. Outdoor Antenna Grounding.** If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded to provide protection against voltage surges and built-up static charges.



- **15. Power Lines.** An outside antenna system should not be located in the vicinity of overhead power lines, electric lights, power circuits, or other areas where the antenna can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to prevent contact with power lines or circuits as contact with them might be fatal.
- **16. Overloading.** Do not overload power outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 17. Servicing. Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to a qualified service personnel.
- **18. Damage Requiring Service.** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - If the power-supply cord or plug is damaged,
  - If liquid has been spilled, or objects have fallen into the product,
  - If the product has been exposed to rain or water,
  - If the product does not operate normally,
  - If the product has been dropped or damaged in any way, and
  - If the product exhibits a distinct change in performance.
- **19. Wall or Ceiling Mounting.** The product should be mounted to a wall or ceiling only by manufacturer's recommendation.

## **Safety Information**

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 or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and 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 from that to which the receiver is connected.

#### Caution

To prevent fire, shock hazard, or interference, only use the recommended accessories. To prevent electric shock, do not use the plug with an extension cord, receptacle, or other outlet unless the blades can be fully inserted to prevent blade exposure. To reduce the risk of electric shock, do not remove the unit cover or back. There are no serviceable parts inside. Refer servicing to a qualified personnel only.





This symbol 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 risk of fire or electric shock.

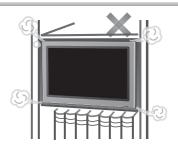


This symbol is intended to alert the user to the presence of important operating and maintence instructions in the literature accompanying this product.

## **Maintenance and Precaution**



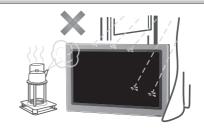
• Do not remove the cover or back of the TV. Any unauthorized changes or modification to the product will void the user's warranty.



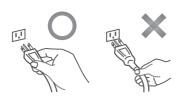
• Do not place the TV in a closed compartment. This will overheat the TV.



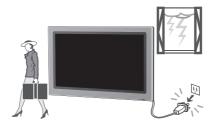
Turn off the product if liquid is accidentally spilled into the TV. Contact your local dealer for assistance.



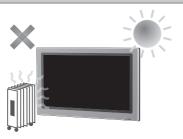
• Do not expose the TV to rain or moisture.



 According to the industrial standards, when pulling the power cord from the outlet, hold the power plug instead of the cord.



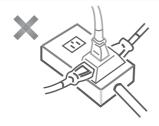
 Make sure the power cord from the AC outlet is unplugged, and disconnect from the antenna if the TV is left unattended and unused for a long period. This will prevent damages to the TV lighting and power-line surge.



• Do not expose the TV to heat sources such as radiators, heaters, stoves and other heat-generating products (including audio amplifiers).



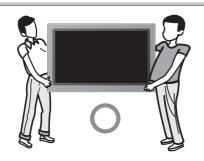
• Unplug the power cord from the AC outlet before cleaning the TV. Use specific screen cleaner kit for LCD screens. Do not use liquid cleaners or aerosol cleaners.



• Do not use this TV with an extension cord or power bar; this can cause a fire or an electric shock.



• Do not place heavy items or belongings on the top of the TV.

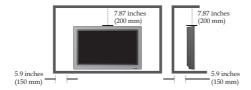


• Hand carry the TV with at least another person.

## **Getting Started (Preparation)**

#### Distance recommendations:

Avoid improper installation and never position the unit where ventilation is impossible. When installing this TV, distance recommendations must be maintained between the set and the wall, as well as inside a tightly enclosed area or piece of furniture. Refer to the minimum distance guidelines shown for a safe operation.



#### Cleaning the screen:

The screen is coated with a special thin film to reduce reflection. If this film is damaged, uneven colors, discoloration, scratches, and other problems that cannot be repaired may occur. Pay attention to the following when handling the screen.

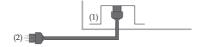
- Do not use glue or adhesive tape on the screen.
- Do not write on the screen.
- Do not allow the screen to come in contact with any hard objects.
- Do not allow condensation to form on the screen.
- Do not use alcohol, thinner, benzene or other solvents on the screen.
- Do not rub the screen forcefully.

#### **CAUTION:**

- Operate only from the power source specified (AC 120V, 60 Hz) on the unit.
- Avoid damaging the AC plug and cord.
- When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from the main outlet.

#### POWER CORD CONNECTION:

Connect the power cord, after completing all other connections.



- 1. Connect the power cord to this device.
- 2. Connect the power cord to the power outlet.

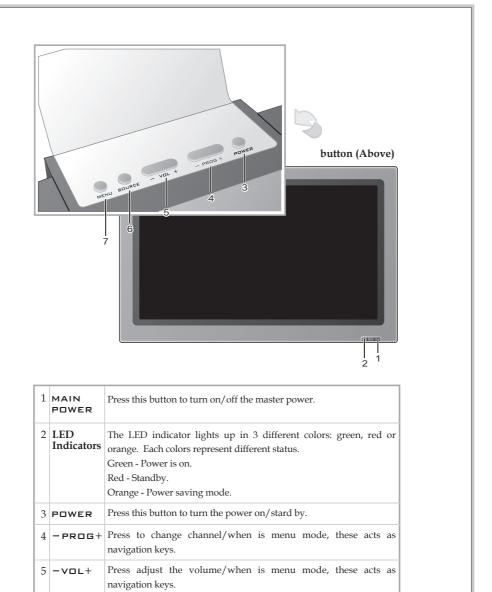
# Supplied Accessories

The following items come along with your LCD TV:

10 00 00 0 0 1 10 00 0 1 10 00 0 1 10 00 0	Remote control
11	Two AAA batteries
	Power Cord
Rest Handra	User Manual
Warranty Card	Warranty Card

6 SOURCE

7 MENU



input selection mode.

to configure your TV's settings.

Video input selection. Press this button to display the menu for

Press this button to display the OSD menu. It contains all the options

# **Setting Up the Remote Control**

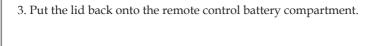
1. Open the lid of your remote control battery compartment on the back of the remote control.



2. Insert two AAA batteries. Use the (+) and (-) marks to guide you. The (+) marks on your batteries correspond to the (+) marks on the compartment. The (-) marks on your battery correspond to the (-) marks on the compartment.



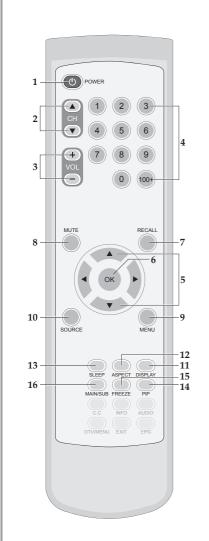
Note: Do not mix new and old or different brands of batteries.





# **Remote Control Functions**

The table below explains each button's function.



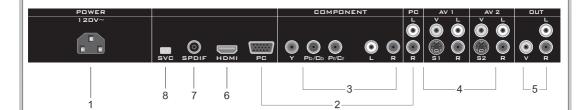
Ф	Power on/off.	
CH▲/CH▼	Press these keys to change the channels.	
VOL +/VOL -	Press these keys to adjust volume.	
0~9/100+	Numerical keys to select desired channel.	
<b>▲▼</b>	Navigation keys in Source and Setup menu.	
<b>()</b>	$\label{eq:Adjusting keys} Adjusting keys in Source and Setup menu when in PIP mode.$	
OK	Press this key to confirm selection.	
RECALL	Recall last channel.	
MUTE	Press this key to turn off the sound.  Press the "MUTE" button again or press "VOL+/ VOL-" to enable sound.	
MENU	Press this key to display the OSD menu. In the OSD menu, press this key to exit the menu.	
SOURCE	Press this key to display the video source selection menu. If you have a DVD player connected to the component input 2, then select "COMPONENT 2" from source menu.	
DISPLAY	On screen display on/off. (Shows channel and other details)	
ASPECT	Choose from widescreen, panoramic, 4: 3 video, 16: 9 zoom. (More details on Page 30)	
SLEEP	Activates the sleep timer.	
PIP	Switches among PIP (Picture In Picture) mode, PAP (Picture And Picture) mode, and MAIN (Main Picture Only) mode.	
FREEZE	Press this key to freeze current frame from the screen.	
MAIN/SUB	Switches controlling between the PIP or PAP and the MAIN.	
	CH▲/CH▼  VOL +/VOL -  0~9/100+  ▲▼	

## **Inputs and Outputs**

Your LCD TV has five types of video connections. You should capitalize on the best connection available from your LCD TV to get the best display quality. For example, if you have a progressive DVD player that supports a component video connection, you should connect the DVD player to your LCD TV using component video connections instead of composite video or S-video connections.

_	~	-	-	

- 1. RCA composite video cable
- 2. S-video cable
- 3. RCA component video cable
- 4. RGB (VGA) video cable
- 5. HDMI A/V Cable



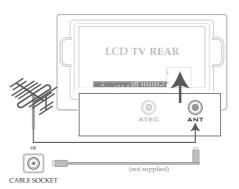
	Available Interface	Description	Recommended Devices
1	POWER INPUT	AC 120V~.	
2	PC INPUT	RGB input (PC Input) and a pair of R/L audio inputs.	PC.
3	COMPONENT INPUTS	Component support both High Definition programs (720p/1080i) and standard definition programs (480i/480p).	
4	AV INPUTS (AV1, AV2)	Contains two S-video, two composite video, two pair of R/L audio inputs.	Camcorder, non-progressive DVD player, digital camera, VCR.
5	AUDIO/VIDEO OUTPUTS	Contains, one composite video and one pair of $R/L$ audio outputs.	
6	НОМІ	HDMI input.	HDTV, Set-top Box, Progressive HD DVD Player.
7	COAXIAL (SPDIF)	Digital audio output.	Any amplifiers with SPDIF input.
8	SVC	Service connector.	Maintenance use only.

# Connecting the Antenna or Analog Cable TV (CATV)

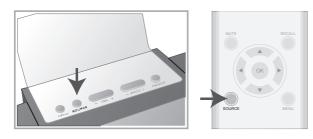
- 1. Disconnect the TV from all power sources before making any connections.
- 2. Use the coaxial cable (75 ohms) usually provided by your antenna or cable provider.



3. Hook up the cable to the ANT input in the rear of the LCD TV.



- 4. Connect the power cord of the LCD TV to a power outlet.
- 5. Press the "SOURCE" button on either the remote control or the TV controls and select TV on the source menu. (Changing the source, refer to Page 24)





6. Press the "MENU" button on the remote control to display the OSD menu use ▲ or ▼ to navigate through the icons. In the first option (TV/CATV), press "OK". Use ◀▶ to set the option to TV or CATV. If your TV is connected to the antenna, choose TV. If your TV is connected to the cable television outlet, choose CATV. (For more information on the TV menu, refer to Page 32~33.)





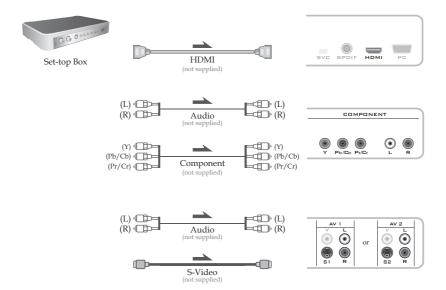


7. In order for the LCD TV to detect available channels, press "MENU" and press ▲ ▼ to the TV menu and press "OK". Scroll down to AUTO PROGRAM by using ▲ ▼ keys and then press ◆▶. The television will automatically scan the available channels for you. (For more information on the TV menu, refer to Page 32~33)



## Connecting the Digital Set-Top Box (Commonly Used For HDTVs, Satellite TVs, etc.)

- 1. Disconnect the TV and set-top box from all power sources before making any connections.
- 2. Use a HDMI cable, component video cable, or S-video cable to connect the HDMI, COM-PONENT, or S-VIDEO output jacks of your digital set-top box to the HDMI, COMPONENT, or S-VIDEO input jacks in the rear of the LCD TV.



- 3. Use the AUDIO cables to connect the AUDIO (L/R) output jacks of your digital set-top box to the AUDIO (L/R) input jacks in the rear of the LCD TV. If you use the HDMI cable, you don't need to connect the audio cable between the two equipments. The HDMI cable transmits both digital video and audio signals.
- 4. Connect the power cords of your digital set-top box and LCD TV to the power outlets.

5. Press the "SOURCE" button on either the remote control or the TV controls. Select HDMI/COMPONENT 1/COMPONENT 2/S1/S2, depending on which input is the digital set-top box connected to. (Changing the source, refer to Page 24)

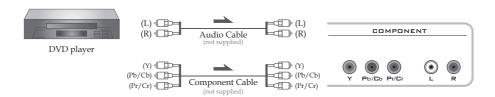


#### Note:

- 1. It is strongly recommended that the user connects Digital Set-Top Box via HDMI connection if provided. HDMI signal is pure digital signal; therefore, it gives the best performance for HD programs.
- 2. If your digital set-top box doesn't provide HDMI jacks, use the component cables for better picture quality or S-video cable for standard picture quality.

## **Connecting the Component Video**

To connect your progressive DVD player or HD DVD Player via component video:

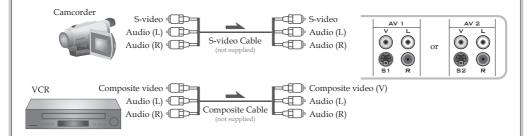


- 1. Connect the green Y jack on the back of your DVD player to the green component Y jack on the rear of the LCD TV.
- 2. Connect the red Pr/Cr jack on the back of your DVD player to the red Pr/Cr jack on the rear of the LCD TV.
- 3. Connect the blue Pb/Cb jack on the back of your DVD player to the blue Pb/Cb jack on the rear of the LCD TV.
- 4. Use the AUDIO Cable to connect the AUDIO (L/R) output jacks of your DVD Player with the AUDIO (L/R) input jacks in the rear of the LCD TV.
- Press the "Source" button of the remote control to select "COMPONENT 1"/ "COMPONENT 2", depending on which component input you used.



## Connecting the S-Video or Composite Video

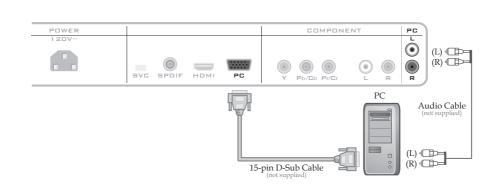
This section shows you how to connect devices to the S-video and composite video inputs of your LCD TV. Most devices like VCRs, camcorders, non-progressive scan DVD players, etc only provide composite video output or S-video output. The steps below are to show you how to connect two devices simultaneously.



- 1. Connect the S-video on the back of your camcorder to the S-video (S 1) under AV 1 Input jack.
- 2. Connect the audio red (R) and white (L) on the back of camcorder to the audio red (R) and white (L) jacks on the rear of your LCD TV.
- 3. Connect the yellow video jack on the back of your VCR to the yellow composite video input jack on the rear of your LCD TV under AV 2 Input.
- 4. Connect the red (R) and white (L) audio jacks on the back of your VCR to the secondary audio red and white (L) jacks on the rear of your LCD TV.
- 5. Press the "Source" button on the remote control to display the OSD setup menu and choose AV 2 to display video from the VCR or choose S 1 to display video from the camcorder.



# Connecting the PC



- 1. If you wish to connect a PC to the LCD TV, connect the 15-pin D sub RGB connector on your PC to the PC connector on the rear of the LCD TV.
- 2. Connect the audio output on your PC to the PC audio input (L/R) on the rear of the LCD TV.
- 3. Press the "Source" button on the remote control to select PC.
- 4. You may configure your PC's VGA resolution to optimized resolution on the LCD TV. The recommended resolution of the LCD TV is  $1024 \times 768$ .



# **Connecting the HDMI**

1.Use a HDMI cable to connect the HDMI output jack of your external device to the HDMI input jack in the rear of the LCD TV.



2.Press the "SOURCE" button on either the remote control or the TV controls. Select HDMI. (Changing the source, refer to Page 24)



Note: HDMI connection includes both digital audio and video signals.

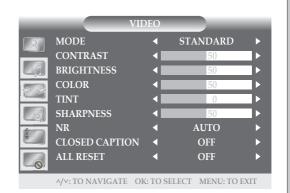
# **Changing the Source**

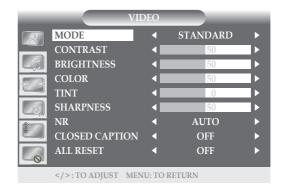
- 1. Press the "SOURCE" button on either the remote control or TV controls.
- 2. Scroll using ▲ or  $\blacktriangledown$  on the remote control or "– CH +" on TV controls.
- 3. Select your choice by using "OK" on the remote control or "- VOL +" on TV controls.



# Accessing the OSD (On Screen Display) Menu

- Press "MENU" on the remote control or TV controls to start the OSD menu.
- Use ▲ ▼ to navigate through the main function.
- 3. Press ▶ or "OK" to enter the high-lighted category.
- 4. Use ▲ ▼ to navigate.
- 5. Press "OK" or ◀▶ to change the selected settings.
- 6. Press "MENU" to exit the OSD menu.





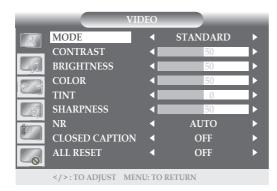
# **Icon Description**

There are six main functions (Video, Audio, Screen, TV, Options and V-Chip) in the OSD menu. Before you start using the OSD menu, it is recommended that you read through the following icon descriptions.

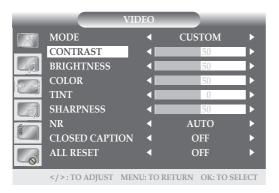
VIDEO	<ul> <li>MODE</li> <li>CONTRAST</li> <li>BRIGHTNESS</li> <li>COLOR</li> <li>TINT</li> <li>SHARPNESS</li> <li>NR</li> <li>CLOSED CAPTION</li> <li>ALL RESET</li> </ul>
AUDIO	<ul><li>TREBLE</li><li>BASS</li><li>BALANCE</li><li>SOUND MODE</li><li>SPEAKER</li><li>ALL RESET</li></ul>
SCREEN	<ul> <li>DISPLAY MODE</li> <li>H SIZE</li> <li>H POSITION</li> <li>V POSITION</li> <li>FINE TUNE</li> <li>DEFAULT</li> <li>AUTO</li> </ul>
TV	<ul><li>TV/CATV</li><li>MTS</li><li>AUTO PROGRAM</li><li>CHANNEL</li><li>ADD/ERASE</li><li>SKIP</li></ul>
OPTIONS	COLOR TEMPERATURE OSD TIMEOUT MENU BACKGROUND BLUE SCREEN AUTO POWER OFF BACKLIGHT PIP POSITION
V-CHIP	V-CHIP     UNRATED PROGRAM     TV RATING LIMIT     MOVIE RATING LIMIT     CHANGE PASSWORD

Adjusting contrast, brightness, color, tint, or sharpness requires the user to switch the mode to custom. While adjusting customized selections, only the selection and its status bar will be shown on the screen.

## Example:



1. Use ◀or ▶ to "CUSTOM".



Press ▼ to contrast and press
 "OK" or ◀▶ to select.

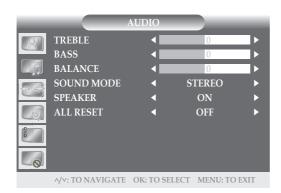


3. Press **♦** to adjust the contrast.

How to set the parameters in the video mode menu.

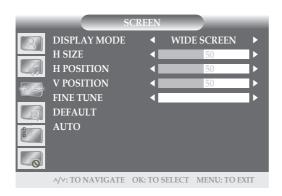
Function	Description	Options
MODE	Mode is the selection that allow the user to choose among default video settings and customizable video settings.	STANDARD- Use this selection for balanced settings.  VIVID- Use this selection to increase color differences.  CUSTOM- Customizable Selection.
CONTRAST	Contrast adjusts the brightness differences (custom mode must be on).	0-100
BRIGHTNESS	Brightness adjusts the color differences (custom mode must be on).	0-100
COLOR	Color adjusts the intensity of color (custom mode must be on).	0-100
TINT	Tint adjusts the natural aspect of a color (custom mode must be on).	(-25) - (+25)
SHARPNESS	Sharpness adjusts the sharpness, the fuzziness of the image (custom mode must be on).	0-100
NR (Noise Reduction)	This is used to reduce image noise.	AUTO- the television will control NR automatically (recommended for TV/Cable TV).  OFF- the television will not use NR.  WEAK- recommended use for high quality videos.  MEDIUM- recommended use for medium quality videos (VCR movies/tapes).
CLOSED CAPTION	If this option is turned on, text of the program's dialogue will be shown.	OFF CC1, CC2, CC3, CC4, Text 1, Text 2, Text 3, Text 4 XDS (XDS shows the title of the program, network name, start time, length of the program and audio settings of the program)
ALL RESET	This option will reset the contrast, brightness, color, tint, and sharpness options to default. (Custom Mode only)	ON/OFF

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## How to set the parameters in the audio menu.

Function	Description	Options
TREBLE	Adjusts the higher pitched sounds.	(-12) - (+12)
BASS	Adjusts the lower pitched sounds.	(-12) - (+12)
BALANCE	Adjusts the "position" of the sound. The negative end represents that the sound will lean towards the left and the positive end represents that the sound will lean towards the right.	(-32) - (+32)
SOUND MODE	This option lets the user choose between mono and stereo.	MONO/STEREO
SPEAKER	This option lets the user turn off or on your TV speakers.	ON/OFF
ALL RESET	All reset will revert the treble, bass, and balance back to default.	ON/OFF



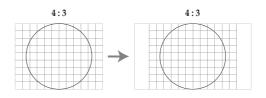
How to set the parameters in the screen menu.

Function	Description	Options
DISPLAY MODE	Display mode lets the user to choose among four choices that will change the viewing area on the screen.  (please see Page 30 for more details)	WIDE SCREEN PANORAMIC 4:3 VIDEO 16:9 ZOOM
H SIZE	Adjusts the horizontal size. (PC source only)	0-100
H POSITION	Adjusts the horizontal position. (PC source only)	0-100
V POSITION	Adjusts the vertical position. (PC source only)	0-100
FINE TUNE	Adjust the quality of the image by eliminating distortion. (PC source only)	0-63
DEFAULT	Resets H size, H position, V position, and fine tune to default.	ON/OFF
AUTO	This option will allow auto positioning for your screen (PC source only).	ON/OFF

Note: Panoramic is disabled under HDMI, component, VGA input jack.

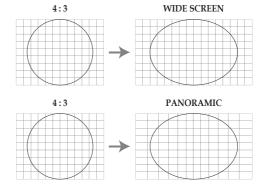
## **Display Modes**

When the input is 4:3 (the image dimension usually used by cable television, television, and video cassettes), the user might want to eliminate the "black spots" on the left and the right of the screen.

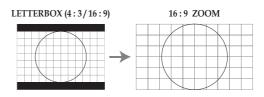


By doing this, the user might choose widescreen, which distorts image by stretching the whole image horizontally.

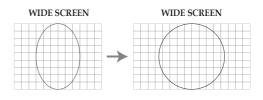
The user might also choose panoramic, which distorts the image only by its sides by stretching horizontally. The center portion of the image is undistorted.



In most cases, widescreen videos (such as DVD movies' widescreen modes) will have "black spots" on the top and the bottom of the screen (this is called letterbox). To eliminate this, the user may select 16:9 zoom.



Sometimes the television might receive widescreen signals. If the user sets the mode on 4:3, the image might be distorted into a thin image. By fixing this, the user may switch to widescreen mode.



## **Adding and Erasing Channels**





1. Select the channel you wish to add/erase in the CHANNEL selection by using the ◀ or ▶ buttons.



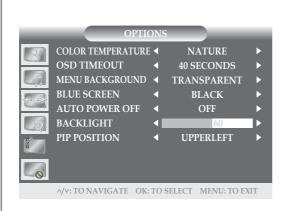
- 2. When you are on the channel you wish to add/erase, scroll down to the ADD/ERASE.
- 3. If you wish to add the channel, use the ◀ and ▶ buttons to change from erase to add. If you wish to erase the channel, use the ◀ and ▶ buttons to change from add to erase.

4. If you need to add/erase another channel, scroll up to CHANNEL and redo the process.

How to set the parameters in the TV menu.

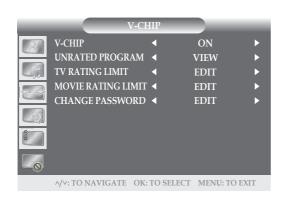
Function	Description	Options
TV/CATV	This allows the user to switch between analog antenna and cable TV.	TV(Analog antenna)/CATV(Cable TV)
MTS (Multichannel Television Sound)	MTS is the option that allows the user to change the sound options between main TV audio and SAP (Second Audio Program). Many channels have this option to allow the viewer to switch between different languages.	MAIN, SAP (Second Audio Program)
AUTO PROGRAM	The auto program helps the user to search for available channels on television.	ON/OFF
CHANNEL	This option selects the channel you want to view, add, or erase. Use the ∢ and ▶ buttons.	(Channel #)
ADD/ERASE	This option allows the user to add/delete recognized channels that can be reached by using the channel up and down buttons. Use the ◀ and ▶ buttons to switch between add and erase. (refer to the example above)	ADD/ERASE
SKIP	This option allows the user to use the channel up and down buttons and not encounter invalid or dead channels.	ON/OFF

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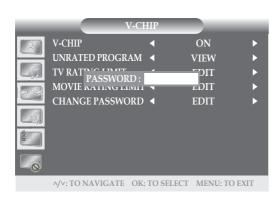


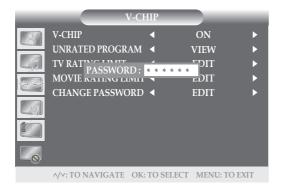
How to set the parameters in the options menu.

Function	Description	Options
COLOR TEMPERATURE	This option allows the user choose among three styles of displaying colors.	COOL- The colors of the television will shift towards the blue end of the spectrum.  NATURE- The colors of the television will be natural (unaltered).  WARM- The colors of the television will shift towards the red end of the spectrum.
OSD TIMEOUT	This is an adjustment of how much time of idle is allowed before the menu screen exits.	10, 15, 20, 25, 30, 35, 40 seconds.
MENU BACKGROUND	This changes the background's transparency.	Transparent- the background will be see-through.  Opaque- the background will be solid or unable to be seen through.
BLUE SCREEN	The blue screen occurs when the channel is either dead or invalid. The user may chose the color of the "Blue Screen".	, ,
AUTO POWER OFF	When this option is turned on, if the user is in idle for more than five minutes on a dead or invalid, the TV will turn off automatically.	ON/OFF
BACKLIGHT	This adjusts the brightness of the backlights of the LCD screen. (You use this option to adjust the backlights without affecting the contrast, brightness, color, tint, and sharpness.)	0-100
PIP POSITION	Press "OK" on this option to adjust the position of the PIP screen. (Make sure the PIP screen is on) Use ◀ or ▶ to change positions.	Select Position (The PIP screen will position itself in a different location [goes clockwise]: UPPERLEFT, UPPERRIGHT, LOWERRIGHT, and LOWERLEFT).



When you enter the V-Chip menu, you must enter a password. The default password is "000000" (six zeros); in order to change this, simply scroll down to "change password" (more information on Page 36).



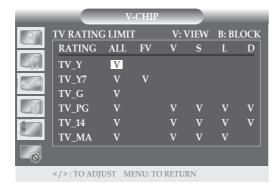


## How to set the parameters in the V-Chip menu.

Function	Description	Options
V-CHIP  This enables(ON)/disables(OFF) the settings in the UNRATED PROGRAM, TV RATING LIMIT, and MOVIE RATING LIMIT. (Note: this option will be ON after the TV has been turned off then on).		ON/OFF
UNRATED PROGRAM	This allows the viewer to view or block unrated programs.	VIEW/BLOCK
TV RATING LIMIT	This allows the user to block or view certain TV program ratings assinged by the NAB.	Edit (refer to Page 36)
MOVIE RATING LIMIT	This allows the user to block or view certain movie program ratings assigned by the MPAA.	Edit (refer to Page 37)
CHANGE PASSWORD	This allows the user to change the V-Chip menu password.	Edit (refer to Page 38)

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## **Setting Up TV Rating Limits**



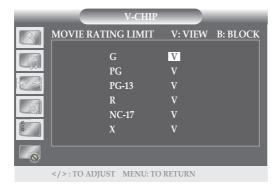
- Enter ◀ ▶ on the TV RATING
   LIMIT and another screen will appear
- 2. Press ▲ or ▼ to scroll to the selection you want to edit
- 3. Press ◀or ▶ to edit the selection that is highlighted.
- 4. "V" means that the selection can be viewed; "B" means that the selection is blocked.

(**Note:** Selecting "ALL" will block everything under that rating)

5.Press "MENU" to exit.

(Refer to page 40 for more information on TV ratings assigned by NAB [National Association of Broadcasters])

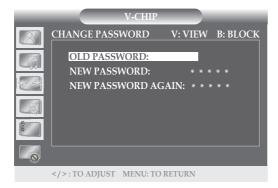
## **Setting Up Movie Rating Limits**



- Enter ◀▶ on the MOVIE RAT-ING LIMIT and another screen will appear
- 2. Press ▲ or ▼ to scroll to the selection you want to edit
- 3. Press ◀ or ▶ to edit the selection that is highlighted.
- 4. "V" means that the selection can be viewed; "B" means that the selection is blocked.
- 5. Press "MENU" to exit.

(Refer to page 40 for more information on movie ratings assigned by MPAA [Motion Picture Association of America])

## **Changing the Password**



- Enter ◆▶ on the CHANGE PASS-WORD and another screen will appear
- Enter the old password where indicated OLD PASSWORD. (Default password is "000000", six zeros)
- 3. Press ▼ to scroll to NEW PASS-WORD and enter your new six-digit password (only numerical keys are applicable).
- 4. Press ▼ to scroll to NEW PASS-WORD AGAIN and enter your new six-digit password again.
- 5. Press "MENU" to exit.

TV Rating Descriptions

Symbol/Icon	Menu Text	Description	
¥	TV_Y	Television shows with Y ratings are usually designed for children; these are suitable for all ages.	
Ϋ́	TV_Y7	Television shows with Y7 ratings are designed for older children; these are suitable for ages 7 and up.	
TY G	TV_G	Television shows with G ratings are designed to be family-friendly.	
TV PG	TV_PG	Television shows with PG ratings are designed to be family-friendly, and they aim for older children.	
<b>1</b> 4	TV_14	Television shows with 14 ratings are designed for viewers ages 14 and older.	
MX	TV_MA	Television shows with MA ratings are designed for adult viewers only.	
Content Descriptions			
FV		Fantasy Violence	
V		Violence	
S		Sexual Situations	
L		Language	
D		Suggestive dialogs	

MPAA Movie Rating Descriptions

Symbol/Icon	Menu Text	Description
G (General Audiences)	G	Movies with G ratings are suitable for all ages.
PG (Parental Guidance Suggested)	PG	Movies with PG ratings may have some unsuitable materials for children.
PG-13 (Parents Strongly Cautioned)	PG-13	Movies with PG-13 ratings may have some materials unsuitable for children under 13.
R (Restricted)	R	Movies with R ratings require anyone under 17 to be accompanied by an adult guardian.
NC-17	NC-17	Movies with NC-17 ratings prohibit anyone 17 and under to be admitted.
Х	X	Movies with X ratings prohibit anyone 17 and under to be admitted (NC-17).

## Controlling PIP, PAP, and MAIN

 Use the hot key "PIP" on your remote control. (For more information on the remote control functions, refer to Page 14).

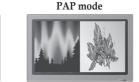


2. This allows you to switch among three modes.

MAIN mode



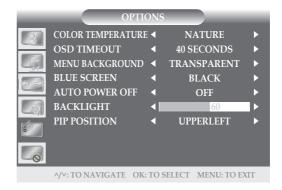
PIP mode



3. During PIP and PAP modes, you may use the "MAIN/SUB" on your remote control to navigate between which window you wish to adjust (channels, volumes, OSD video settings, and etc.).



4. To adjust the position of the PIP, simply press "MENU" on your remote control or TV controls; scroll down to the OPTIONS menu and press "OK". Navigate down to the PIP POSITION on the menu and press ◀▶ to change the position. The PIP screen will adjust itself to a new location (goes clockwise). (For more information on the options menu, refer to Page 34)



### Note:

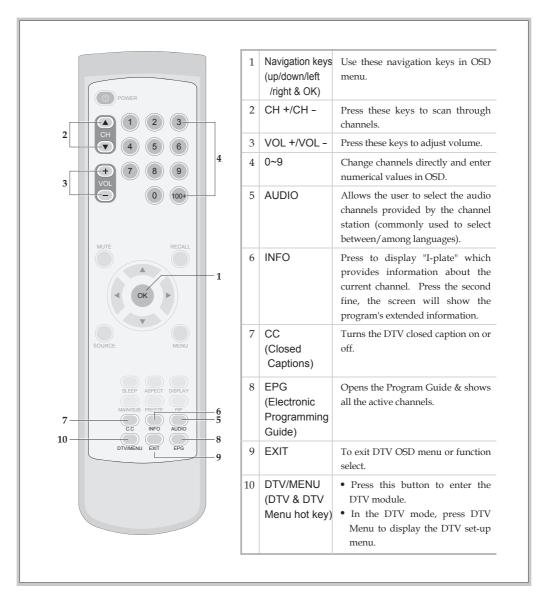
- 1. PIP/PAP Sub-screen supports TV, AV1, AV2, S1, S2 input signals only.
- 2. PIP/PAP will not apply to video signals from HDMI.

## Connecting the DTV (Digital Television)



ATSC: DTV Ant in, used to connect an over-the-air terrestrial antenna.

## **Understanding the Remote Control for DTV**



## **Setting Up the DTV**

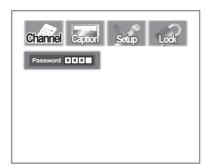
### Channel

Before you can use any of the channel buttons "CH  $\blacktriangle \blacktriangledown$ ", the available channels must first be scanned and memorized.

#### **Initial Screen:**

- The first time the TV is turned on, you will see the message (Press "MENU" key and then select Channel to run Auto/Manual Scan). Press the "DTV MENU" button to display the MENU banner.
- Use the arrow keys ◀or ▶ to navigate the highlight through the menus and view the menu items.
- 3. Press the "EXIT" button to return to the previous menu or press the "DTV MENU" button to exit the menu.





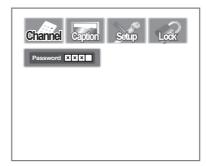
### **Auto Scan**

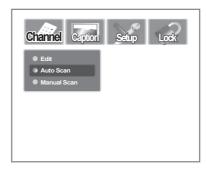
The steps required to automatically program the product are outlined as below:

1. Press ◀or ▶ keys to the CHANNEL and enter the password (Default: "0000").

You will see three sub-menus:

- Edit
- Auto Scan
- Manual Scan
- 2. Press ▲ or ▼ button to highlight AUTO SCAN and then press "OK" to launch the auto scan. The AUTO-SCAN window shows the SCAN status.
- 3. The scanning will search for both NTSC analogue and ATSC digital signals from channel 2 to channel 69. The percentage bar shows the progress made.
- 4. Once the digital TV signal is scanned, the channel number and the program name will be shown on the "Scan List".
- 5. It takes about three minutes to complete the scanning process.
- 6. When the scanning is complete, press "EXIT" to leave this window or press "DTV MENU" to exit the menu system.



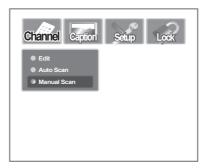




## **Memorizing Channel Manually**

- On the Channel menu, select the third option, (Manual Scan), and then use the 

   ◆ or ▶ button to select (Manual Scan).
- Press "OK" to highlight the input column. Then press numerical buttons to input the channel. The channel frequency will be automatically shown on right side of the input column.
- Press "OK" when the messages "Add channel" and "press Enter to add channel" are shown.
- 4. If the ATSC signal is found and locked, the (status) will show the message (Get No.XX 8VSB channel success), press "EXIT" or "DTV MENU" to leave the menu page, watch the program, or scan other channels.
- 5. If the signal is not locked, the status will show "Got No Channel". You can scan the signal again or refer to the signal level bar "Signal" for aligning the direction of the antenna to get the signal.
- When the signal is locked and the product is on the channel, you can enter this page to check the signal level.
  - **Note:** Contact the antenna installer it you are haveing trouble locking the signal.
- 7. Press "EXIT" to go back to the main menu or press "DTV MENU" to leave.



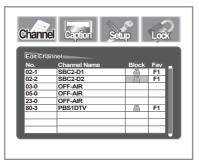


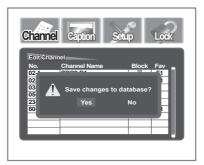


### **Edit Channel**

- On the (Channel) menu, press the numeric key to input the password (Default: "0000"). Press ▲ and ▼ to highlight (Edit), and press "OK".
- 2. Press ▲ ▼ and ◀ ▶ buttons to highlight the channel's BLOCK or FAV control columns and press "OK" to block or copy channels into the favorite channel list "F1".
- 3. After the edit setting, press the "EXIT" button; a confirmation window will pop up.
  - (1) Press the "OK" key on "NO" to cancel the change.
  - (2) Press **♦** keys to highlight "YES" and press "OK" to save the edit settings.

**Note:** When the blocked channel has selected, the program can not be viewed, and you will get the message "Channel is blocked" on the TV screen.







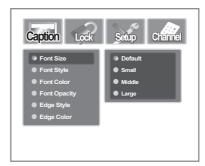
## Caption (Closed-Caption Options)

Press the "DTV MENU" button on the remote control.

Press ◆▶ buttons to highlight the (Caption) icon and press "OK".

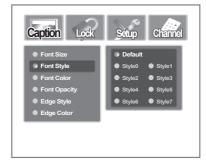
### **Font Size:**

 Press ◆▶▲ ▼ and "OK" buttons to select desired Closed Caption font size.



### Font Style:

 Press ◆▶▲ ▼ and "OK" buttons to select desired Closed Caption font style.

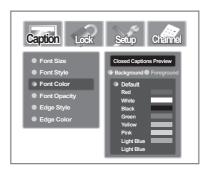


### **Closed Caption Background Color:**

Press ◆▶ ▲ ▼ and "OK" buttons to select desired Closed Caption background

### **Closed Caption Foreground Color:**

 Press ◆▶▲▼ and "OK" buttons to select desired Closed Caption font color.



## **Closed Caption Background Opacity:**

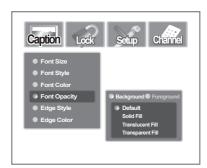
Press ◆ ▶ ▲ ▼ and "OK" buttons to select desired Closed Caption background opacity.

## **Closed Caption Foreground Opacity:**

Press ◆▶ ▲ ▼ and "OK" buttons to select desired Closed Caption foreground opacity.

### **Edge Style:**

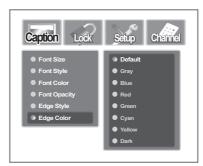
 Press ◆▶▲ ▼ and "OK" buttons to select desired Closed Caption edge style.





### **Edge Color:**

- Press ◆▶ ▲ ▼ and "OK" buttonsto select the desired Closed Caption edge color.
- Press "EXIT" button to go back to the main menu or press "DTV MENU" button to leave.



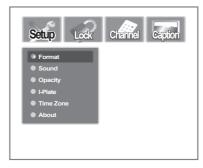
## Setup

Press the "DTV MENU" and ◀▶ buttons to highlight the (Setup) menu. The sub-menus include the following:

- Format
- Sound
- Opacity
- I-Plate
- Time Zone
- About

### **Format (Screen Format Setup)**

- 1. On the "Setup" menu, press ▲ ▼ buttons to highlight "Format" and press "OK".
- Press ▲ ▼ and ◀ ▶ buttons to select your
   TV type, video resolution, and aspect ratio.
- 3. Press the "EXIT" button to go back to the main menu page or press "DTV MENU" button to leave.





### **Screen Formating and Aspect Ratios**

### TV Type

Select 16:9

#### Resolution

**480I-** 240 lines 1/60 seconds and 240 lines 1/60 seconds; interlace scanning (two step image processing [odd and even lines of pixels alternate])

**480P**-480 lines 1/60 seconds; progressive scanning (top to bottom image processing)

720P- high quality video processing; 720 lines 1/60 seconds; progressive scanning (top to bottom image processing)

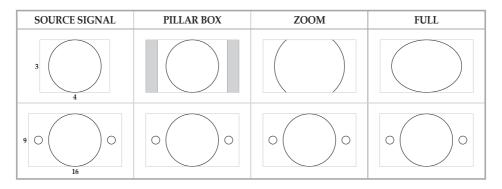
**1080I**- high quality video processing; 540 lines 1/60 seconds and 540 lines 1/60 seconds; interlace scanning (two step image processing [odd and even lines of pixels alternate])

### **Aspect Ratio**

**Pillar Box:** Select this when the television is receiving a 4:3 signal and you want to see the original 4:3 format. Blank panels appear at the left and right of the screen.

**Zoom:** Select this option to eliminate the left and right black panels that appear in the "Pillar Box" option.

**Full:** Select this option when you are receiving a 16:9 signal and you want the image to fill up the screen.



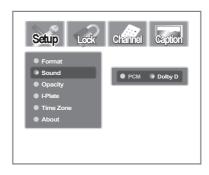
# Sound (Digital Audio Output Setting):

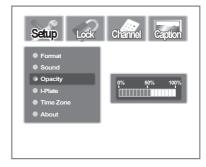
The digital channels' sound had Dolby Digital® or PCM formats.

- 1. Press "OK" on (Sound) to show the audio format option, you can press ◀▶ buttons to highlight the desired audio format, and then press "OK" to confirm the setting.
- 2. Press "EXIT" to go back to the main menu or press "DTV MENU" to leave.

# Opacity (Changing the Transparency of the On-Screen-Display):

- Press ▲ ▼ buttons to highlight the Opacity and press "OK".
- Use the ◆▶ buttons to change the percentage of the On-Screen-Display's transparency.
- 3. Press "EXIT" to go back to the main menu or press "DTV MENU" to leave.



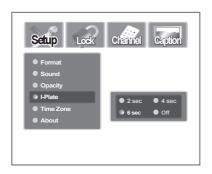


## I-Plate (Changing the Display Time Of the Information-Plate):

- Select the I-Plate, press ▲ ▼ and ◀ ▶ buttons to change the Information-Plate display time to 2, 4, 6 seconds, or off mode.
   (This adjusts the idle time allowed before the I-Plate exits)
- Press the "EXIT" button to go back to the main or press the "DTV MENU" button to leave.

### Time Zone:

- 1. On the (Setup) menu, select (TIME ZONE) and press "OK".
- Press ▲ to highlight the (AREA) and then press ◀ or ▶ buttons to change time zones (four time zones available).
- 3. Press ▼ to highlight (Daylight Saving), and then press ◀ or ▶ buttons to select (Yes) or (No). (If this option is on (Yes) then the time will automatically adjust accounting daylight savings)
- 4. Press the "EXIT" button to go back to the main menu or the press "DTV MENU" button to leave.





### **About:**

- 1. Under Setup's sub-menus, you can select the item (About) to check the hardware and software versions..
- Press ▲ or ▼ buttons to highlight (About) and press the "OK" button to see the information window.
- 3. Press the "EXIT" button to go back to the main menu or press the "DTV MENU" button to leave.



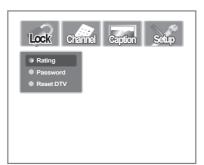
### Lock

Press the "DTV MENU" button on the remote control.

- Press ◆▶ buttons to highlight the (Lock) icon and press "OK" to show the password column.
- 2. Enter the password correctly (Default "0000").
- 3. After the password is entered, the screen will display three sub-menus:
  - Rating
  - Password
  - Reset DTV
- 4. Press ▲ ▼ buttons to highlight the (Rating) and then press "OK" to show the rating control menu. This menu lists both MPAA and USTV (FCC) Parental ratings. You can independently lock the MPAA and TV ratings. The locked ratings are indicated by the lock symbol.
- 5. Press ▲ ▼ and ◀▶ buttons and the EN-TER button to activate the appropriate restrictions for either the MPAA rating system or the USTV (FCC) rating system.
- 6. Press the "EXIT" button to go back to the main menu or press the "DTV MENU" button to leave.

**Note:** When the rating locked channel has been selected, the program, under the rating locked category, cannot be viewed and you will get the message **(Program is rating blocked)** on the TV screen.







## **NAB TV Rating Descriptions**

Symbol/Icon	Menu Text	Description	
Ţ	TV_Y	Television shows with Y ratings are usually designed for children; these are suitable for all ages.	
Ϋ́	TV_Y7	Television shows with Y7 ratings are designed for older children; these are suitable for ages 7 and up.	
TY G	TV_G	Television shows with G ratings are designed to be family-friendly.	
TV PG	TV_PG	Television shows with PG ratings are designed to be family-friendly, and they aim for older children.	
<b>14</b>	TV_14	Television shows with 14 ratings are designed for viewers ages 14 and older.	
MĂ	TV_MA	Television shows with MA ratings are designed for adult viewers only.	
Content Descriptions			
FV		Fantasy Violence	
V		Violence	
S		Sexual Situations	
L		Language	
D		Suggestive dialogs	

### MPAA Movie Rating Descriptions

Symbol/Icon	Menu Text	Description
G	G	Movies with G ratings are suitable for all ages.
(General Audiences)		
PG	PG	Movies with PG ratings may have some unsuitable materials for
(Parental Guidance Suggested)		children.
PG-13	PG-13	Movies with PG-13 ratings may have some materials unsuitable for
(Parents Strongly Cautioned)		children under 13.
R	R	Movies with R ratings require anyone under 17 to be accompanied by
(Restricted)		an adult guardian.
NC-17	NC-17	Movies with NC-17 ratings prohibit anyone 17 and under to be admitted.
X	X	Movies with X ratings prohibit anyone 17 and under to be admitted (NC-17).

<sup>\*</sup> USTV (FCC) ratings: The particular rating that you have selected will be locked (and indicated as a green lock symbol). Also, all of the age-based ratings will be locked within the particular group. For example: the TV-G rating is locked; then all of its contents (V, S, L, and D) are locked. In addition, more restrictive ratings (TV-PG, TV-14, and TV-MA) and all of their contents (V, S, L, and D) are automatically locked as well.

 $<sup>{}^*</sup>MPAA\ ratings: The\ particular\ rating\ that\ you\ have\ selected\ will\ be\ locked.\ In\ addition,\ more\ restrictive\ ratings\ will\ be\ locked\ as\ well.$ 

<sup>\*</sup> Neither USTV (FCC) ratings nor MPAA ratings apply to news programs.

### Changing the Password:

Please note that accessing "Lock" and "Channel" menu functions are all controlled by the password. (Default "0000")

- 1. Press the "DTV MENU" button on the remote control.
- Press ◀ or ▶ button to highlight the Lock icon. Then press ▲ or ▼ button to highlight the Password and press "OK".
- Follow the instructions on the pop-up window by inputting the new password and confirming it.
- 4. Press the "EXIT" button to go back to the main menu or press the "DTV MENU" button to leave.

### Resetting the Data to Default:

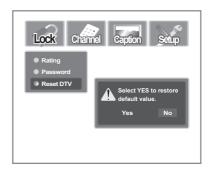
The "Reset DTV" function resets the DTV settings factory default.

- On the "Lock" page, press ▲ or ▼ button to highlight "Reset DTV", then press "OK". The reset confirmation message "Select YES to restore default value" will show.
  - Press "OK" on "Yes" to proceed.
  - Use 

    or 

    keys to highlight "NO" and press "OK" to cancel the setting.
- Press the "EXIT" button to go back to the main menu or press the "DTV MENU" button to leave.





## INFO (Information-Plate)

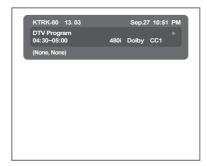
When you are watching the DTV channels and want to learn about the current program, you can press "INFO" to activate the I-Plate.

### Now (Current) EPG:

- After pressing INFO button, the I-Plate will display the information below:
- -TV Station Name
- -Current Channel Number
- -Current Local Time
- -Program Name
- -Program start and end time
- -Picture resolution
- -Closed Caption
- -Audio System (Dolby 5.1 or PCM)
- -Program Rating Information

### **NEXT EPG:**

• Press the ▶ button, the Information –Plate status will show the next program's information. Press the ◀ button to return to the now (current) program's information.





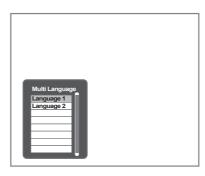
### **Extended Program Information:**

- When the Now or Next Information-Plate is still on the TV screen, press the INFO button again and the extended program information of the current TV channel will show.
- Press INFO again to exit the Information-Plate extension window or press EXIT button to leave.

Note: The TV should be tuned to a DTV channel when you press "INFO".

### MTS/Audio:

- Press the "MTS AUDIO" button to display the Multi-languange window.
- Use ▲ ▼ keys to highlight the language you want to hear and press "OK" to change it.
- Press "EXIT" to leave.

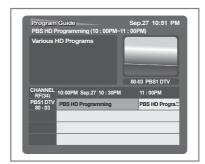


## **EPG** (Electric Program Guide)

- Press the EPG button to display the EPG window.
- The current program will be highlighted yellow color automatically.
- Presss ◆ ▶ ▲ ▼ buttons to roll the program list towards the right to see the maximum 12 hours program guide.

### **Channel Guide:**

- 1. Press "EPG" again in the EPG window, you can see the channel list guide. Press
  - $\blacktriangle$  or  $\blacktriangledown$  buttons to roll the channel list up or down.

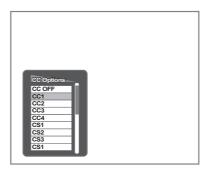




### CLOSED CAPTION

### **CLOSED CAPTION:**

- 1. Press "CC" button on the remote control to open the (C.C. Option) menu.
- Use ▲ and ▼ keys to highlight the desired CC signal and press the "OK" button.
- 3. After the Closed Caption is selected, press the "EXIT" or "CC" key to close the CC Options. Then you can watch this Digital TV program with Closed Caption.





## Basic Troubleshooting

Read this section to learn how to maintain and troubleshoot your LCD TV.

Problem	Possible Solution
There is no picture or sound.	<ol> <li>Make sure the power plug is properly connected to the power outlet.</li> <li>The channel may not have been scanned and can be re-scanned again from the setup OSD menu.</li> <li>Make sure you have selected the correct input mode.</li> </ol>
There is just noise.	<ol> <li>The antenna reception strength may be weak.</li> <li>Reposition the antenna's placement.</li> <li>Make sure the antenna cable is properly connected to the LCD TV set.</li> </ol>
Color abnormal or improper.	Check the color adjustment in the OSD video menu. (Refer to page 27)
Picture is too bright.	<ol> <li>Check the brightness setting; it may be set too high.</li> <li>Check the "Backlight" setting in the OSD options menu. The Backlight setting is to adjust the screen's backlight with respect to the environment's lighting.</li> </ol>
Picture is too dark.	<ol> <li>Check the brightness and contrast level setting from the OSD video menu.</li> <li>Check the "Backlight" setting in the OSD options menu.</li> </ol>

Problem	Possible Solution
No picture, there is sound.	<ol> <li>Check to see if the video cable is properly connected.</li> <li>Press the "SOURCE" button from the remote control to see if the input is correctly selected.</li> </ol>
There is no sound.	<ol> <li>Make sure the volume level is not set to the minimum.</li> <li>Make sure the mute function is not selected.</li> </ol>
The picture is not sharp.	The program reception may be weak .     Check the "Sharpness" setting in the OSD video menu. (Refer to page 27)
Remote control does not work.	<ol> <li>Check the remote control's batteries.</li> <li>Make sure there is no device near by the LCD TV generating interference.</li> <li>Turn the TV off for 10 seconds and turn it on again.</li> </ol>

## General Specifications

	Screen Size	37" diagonal		
LCD Panel	Resolution	WXGA (H) 1366 × (V) 768 pixels		
DOD TAILOT	Display Color	16, 777, 216 Color		
	Aspect Ratio	16:9 WIDE		
	VIDEO in/out	1 Vp-p/75 Ω		
	S-VIDEO in	Y 1 Vp-p/75 Ω, C 0.7 Vp-p/75 Ω		
	Y / Pb/Cb / Pr/Cr	Y 1 Vp-p/75 Ω, Cb/Pb / Cr/Pr 0.7 Vp-p/75 Ω		
In much / Outbrack	Audio L/R in/out	Input: $400 \mathrm{mV}/47 \mathrm{K}\Omega$ , Output: $400 \mathrm{mV}/600 \Omega$		
Input/Output	Analog RGB in	D-Sub×1		
	HDMI in	HDMI×1		
	PC Audio L/R in	RCA Jack×2		
	Antenna input	75 Ω		
Audio Features	Built-in speaker	10W×2		
	Color Temperature	Cool/Nature/Warm		
	Screen Size adjustment	Wide Screen/Panoramic/4:3 Video/16:9 Zoom		
Video Features	Multi picture	Yes		
	Progressive Scan	Yes		
	3-2 pull down	Yes		
	Color system	NTSC		
Compatibility	Video system	NTSC		
Companionity	SDTV/HDTV	480i, 480p, 1080i, 720p		
	PC	VGA/SVGA/XGA		
	Power	AC 120V, 250W		
Other	Operative temperature	32° - 95°F		
Outer	Storage temperature	14° ~ 104°F		
	Dimension	(W)44.88 $\times$ (D)4.57 $\times$ (H)24.29 inch (without stand)		
		(W)44.88×(D)9.33×(H)25.04 inch (with stand)		
	Net Weight/Gross Weight	27kg/32kg		

## **RGB Frequency Table**

The table below shows the frequency ranges supported by the LCD TV. It supports from VGA to XGA. If you are connecting your PC to the LCD TV via the RGB port, please use the following table in order to setup your PC's VGA output for maximum optimization.

Source	Resolution	Vertical Frequency (Hz)
	640 x 480	60
	480i	60
HDMI input	480p	60
HDMI input	576p	50
	1080i	50/60
	720p	50/60
	480i	60
Component	480p	60
(Y/PbCb/PrCr)	1080i	60
	720p	60

\* P: positive, N: negative

Source	Resolution	Refresh Rate (Hz)	Horizontal Frequency (Khz)	Vertical Frequency (Hz)	Horizontal Sync Polarity (TTL)	Vertical Sync Polarity (TTL)
	640 x 350	85	37.86	85.080	P	N
	640 x 480	60	31.469	59.940	N	N
		72	37.861	72.809	N	N
		75	37.500	75.000	N	N
		85	43.269	85.008	N	N
	720 x 400	70	31.46	70.08	N	P
		85	37.927	85.039	N	Р
PC input	800 x 600	56	35.156	56.250	P	P
PC input		60	37.879	60.317	P	P
		72	48.077	72.188	P	Р
		75	46.875	75.000	P	P
		85	53.674	85.061	P	Р
	1024 x 768	60	48.363	60.004	N	N
		70	56.476	70.069	N	N
		75	60.023	75.029	Р	Р
		85	68.67	84.997	P	P

## Acronyms, Abbreviations, Functions, and Terms

**1080i-** *general-* high quality video processing; 540 lines 1/60 seconds and 540 lines 1/60 seconds; interlace scanning (two step image processing [odd and even lines of pixels alternate]); usually used in HDTV set-up boxes.

**16:9 zoom-** *screen menu-* this option is generally used to eliminate letterbox "black spots" on the screen.

**4:3-** *screen menu-* a popular resolution setting that is widely used in cable television, antenna television, video cassettes, and DVDs.

**480i-** *general-* high quality video processing; 240 lines 1/30 seconds and 240 lines 1/30 seconds; interlace scanning (two step image processing [odd and even lines of pixels alternate]).

**480p-** *general-* standardized video processing; 480 lines 1/60 seconds; progressive scanning (top to bottom image processing).

**720p-** *general-* high quality video processing; 720 lines 1/60 seconds; progressive scanning (top to bottom image processing); usually used in HDTV set-top boxes.

AC- general- alternating current (The type of current used in a plug).

**Act window-** *remote control-* the key to switch from controlling the main picture to picture in picture.

**Auto Power Off-** *options menu-* when this option is on, the TV will automatically turn off after 5 idle minutes or longer on an unavailable channel.

**Auto Program-** TV menu- known as APS (Auto Program Search); searches for channels that are available.

**AV (AV1/AV2)-** *inputs and outputs-* Analog Video (Composite); used commonly with VCRs and cameras.

B- V-Chip menu- block.

**Backlight-** *options menu-* this adjusts the brightness of the LCD screen. Use this option to adjust the backlights without affecting the contrast, brightness, color, tint, and sharpness.

Bass- audio menu- involves with the lower pitched sounds.

"Black Spot" - general - this is a coined term used to describe areas without an image. This can be seen in 4:3 videos and letterbox videos.

Blue Screen- options menu- this appears when the channel or source is unavailable.

Brightness- video menu- this adjusts the color differences.

**CATV-** *general-* Community Access Television (Cable TV).

CC- video menu- closed captioning.

Ch- remote control- channel.

**Closed Caption-** *video menu-* this option creates text that corresponds to the dialogue of the viewing program [CC1, CC2, CC3, CC4, Text 1, Text 2, Text 3, Text 4, XDS].

**Cold-** *options menu-* gives a blue tint to the screen (part of color temperature).

**Color Temperature-** *options menu-* this allows the user to choose among the three styles of colors that are favorable to be projected: cool, nature, and warm.

**Composite-** *inputs and outputs-* this wiring consists of one wire that is responsible for both color and brightness. Used widely in cameras and VCRs.

Contrast- video menu- adjusts brightness differences.

**DVD-** *general-* Digital Versatile Disc (Digital Video Disc).

**D-VHS-** *general-* Digital Video Home System.

FCC- general- Federal Communications Commission.

H (H size, H position)- screen menu- Horizontal.

**HDMI-** *inputs and outputs-* High Definition Multimedia Interface; this is used widely with high definition Set-up boxes and newer DVD players.

**HD PVR-** *general-* High Definition Personal Video Recorder; this device is used widely in satellite TVs and personal video recorders.

LCD- general- Liquid Crystal Display.

**LED-** *general-* Light Emitting Diode; a form of a light bulb.

**Letterbox-** *general-* this is the video setting that is usually used by "widescreen" videos in DVDs. It includes "black bars" on the bottom and top parts of the screen.

**Mild-** *video menu-* a video mode that centers all available options (contrast, brightness, saturation, tint, sharpness).

**Mode-** *video menu-* a selection that allows the user to chose video characteristics: mild, vivid, and standard (user customized).

Mono- audio options- a single directional sound.

**MP-** general- Main Picture.

MPAA- general- Motion Picture Association of America.

**MTS-** *TV menu-* Multichannel Television Sound; used on many channels to switch between main and SAP (Secondary Audio Program).

Multi Picture- remote control- switches among picture in picture modes and main picture mode.

Mute-remote control- no sound will be emitted.

**Movie Rating Limit-** *V-Chip menu-* makes movie programs with selected ratings unavailable/ available.

NAB-general- National Association of Broadcasters.

Nature- options menu- natural color tint.

**NR-** *video menu-* Noise Reduction; imaging noise and distortion will be reduced.

**NTSC-** *television input-* National Transmission Standards Committee, an analog television input widely used by cable television and standard antennas.

Opaque- options menu- Incapable of seeing through.

OSD- general- On Screen Display.

**OSD Timeout-** *options menu-* Setup of how much idle time is allowed before the menu screen exits.

**Panoramic-** *screen menu-* this is generally used to eliminate the "black bars" on the screen and not distort the entire image (which widescreen does with a 4:3 video). The center of the image will not be stretched horizontally.

**PAP-** *general-* Picture And Picture; another channel/image/source can be watched beside the main channel/image/source. (split screen).

**PIP-** *general-* Picture In Picture; another channel/image/source can be watched within the main channel/image/source.

**PC-** *genera/inputs and outputs l*- Personal Computer; RGB input (for computers).

Pb/Cb- inputs and outputs- part of the component input.

**Position-** *options menu-* adjusts the position of the picture in picture screen.

Pr/Cr- inputs and outputs- part of the component input.

**Prog-** TV controls- program.

Recall- remote control- goes back to previous channel viewed.

RF- general- radio frequency.

**RGB (PC)-** *inputs and outputs/general-* socket used for connecting to a personal computer/ Red Green Blue.

**R/L-** *inputs and outputs-* right/left.

**Sharpness-** *video menu-* adjusts the sharpness.

**Skip-** *remote control-* the option allows the user to use the channel + and – buttons and not encounter unavailable channels.

**Sleep-** remote control- gives a time limit for automatically turning off the TV.

**Source-** *remote control/TV control-* this displays the source input menu.

**SPDIF-** *inputs and outputs-* Coaxial (RF); the output socket that transmits to the cable connecting from an amplifier/additional speaker system; digital audio output.

**Stereo-** *audio menu-* multi directional sound (usually has higher quality than mono).

S-video-connections- used widely on DVD players and PCs.

**Tint-** *video menu-* this is the nature aspect of a color.

Transparent- options menu- capable of seeing through.

**Treble-** *audio menu-* this involves with the higher pitched sounds.

TV Rating Limit- V-Chip menu- makes TV programs with selected ratings unavailable/available.

V or V (V Position)- general/screen menu/V-Chip menu-Volts/Vertical/View.

**V-Chip-** *general-* a chip that allows the television to filter out user-selected ratings.

**Vivid-** *video menu-* A video mode that gives higher contrast, lower brightness, higher color, and higher sharpness.

VCR- general- Videocassette Recorder.

VGA- general- Video Graphics Array.

VOL- remote control/TV control- Volume.

Warm- options menu- gives a red tint.

**Widescreen-** *screen menu-* this is generally used to view widescreen signals from DVD videos and certain television channels.

**XDS-** *video menu-* Extended Data Service; this provides information of the program, network name, start time, length of the program elapsed time of the program, rating of the program, language of the program, program type, and audio settings of the program.

Y- luminance- part of video signal.

#### ONE YEAR LIMITED WARRANTY

This EMPREX device is guaranteed against manufacturing defects for one full year from the original date of purchase.

This warranty is valid at the time of purchase and is non-transferable. Sales slip or other authentic evidence is required to validate warranty. Damage caused by accident, misuse, abuse, improper storage, and/or uncertified repairs is not covered by this warranty.

All mail or transportation costs including insurance are at the expense of the owner.

DO NOT send any product to EMPREX for warranty without an RMA (Return Merchandise Authorization) and proof of purchase. Ensure delivery method can be tracked (keep tracking number).

Before returning a product, obtain an RMA number from EMPREX by:

- 1. Emailing: techsupport@allsupport.net or
- 2. Calling: (510)657-3956 x325

The RMA number should be clearly displayed on the outside of the returned package and on the accompanying RMA form. EMPREX will refuse any package without an RMA number.

Warranty is valid only in the country of purchase.

EMPREX assumes no liability that may result directly or indirectly from the use or misuse of these products. IMPORTANT

This warranty will be voided if the device is tampered with, improperly serviced, or the security seals are broken or removed.

Technical support email: techsupport@allsupport.net Technical support phone number: (510) 657-3956 x 321

### RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA Number:	Date:	
Name:	E-mail:	
Company:		
Address:		
City:		Zip:
Phone Number: ()		
Product Name/Model:		
Purchase Date:	Serial Num	ber:
Problem(s) (please be specific):		

Parts No.: 21-4T562