# PROTON ®

Multi-Media LCD Display

Owner's Manual

CS-32
CS-37
CS-42

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# Table of Contents

# Preface

## About This Manual

This manual is designed to make operating your 32″, 37″, 42″ 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 the continuation of system improvements, these changes will be incorporated in newer editions.

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# Before Using The Product

## 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 radiates radio frequency energy. 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 causes interference to radio or television reception. To determine if the signal is interfered, switch the equipment off and on. If interference does occur 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 with 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.

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.

1. Read these instructions.
   All the safety and operating instructions should be read before the product is operated.

2. 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. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other

9. 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.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

    with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

# Before Using The Product

## Important Safety Instructions

14. 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.

    or moisture.

16. The apparatus shall be connected to a mains socket outlet with a protective earthing connection.

    in accordance with the installation instructions.

19. Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

20. CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

21. Do not install this equipment in a confined space such a book case or similar unit.

22. Maintain minimum 10cm free space around the apparatus for sufficient ventilation.

23. The ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table-cloths, curtains, etc.

24. No naked flame sources, such as lit candles, should be placed on the apparatus.

25. The apparatus should be used in moderate climates.

26. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

# Before Using The Product

## Safety Information

This equipment generates, uses, and radiates radio frequency energy. If not installed and used in accordance with the instructions, this 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 causes interference to radio and television reception. To determined, try by turning the equipment off and on. If the interference does occur 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.

> **CAUTION**
> RISK OF ELECTRIC SHOCK
> DO NOT OPEN
>
> CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
>
> DO NOT REMOVE COVER
>
> NO USER-SERVICEABLE PARTS INSIDE
>
> REFER SERVICING TO QUALIFIED SERVICE PERSONNEL
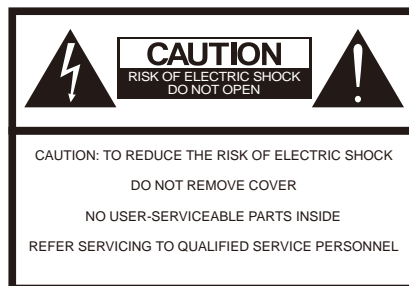
This symbol is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute risk of fire or electric shock.

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

# Before Using The 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.
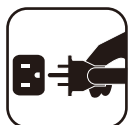
Do not place the TV in a closed compartment. This will overheat the TV.

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.

# Before Using The Product

## Maintenance and Precaution

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)

## Ventilation recommendations:

Avoid improper installation of the product. Never position the unit where ventilation is impossible. When installing this TV, minimal ventilation distance recommendation must be maintained between the set, wall, furniture and tightly enclosed area. Refer to the minimum distance guidelines shown for a safe operation.
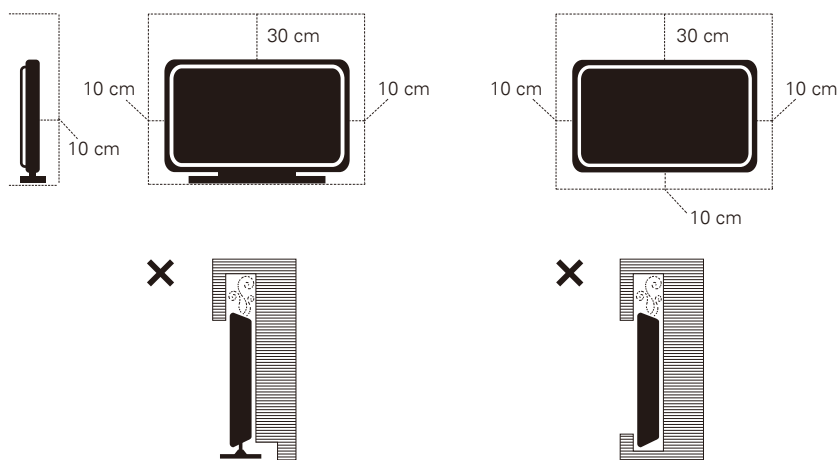


## Cleaning the screen:

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 100-240V) 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.
- •When the source has no signal to input, TV will be "Auto Power Off" after 5 minutes.

## POWER CORD CONNECTION:

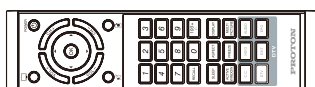Connect the power cord, after completing all other connections.
1.  Connect the power cord to this device.
2.  Connect the power cord to the power outlet.
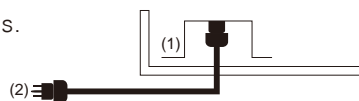
# Introducing The Television

## Supplied Accessories

The following items come along with your LCD TV:

| | |
|---|---|
|  | Remote control |
|  | Two AAA Batteries |
|  | Power Cord |
|  | User's Manual<br>Warranty Card ( in last page ) |
|  | Cleaning Cloth<br>( Use ONLY the cleaning cloth<br>enclosed to clean your TV bezel ) |

# Introducing The Television

## 32" 37" 42"  TV Control Functions

POWER — 3

MENU — 4

CH +
CH – } 5

VOL +
VOL – } 6

SOURCE — 7

1 — ○
2

←
Buttons (Flank)

| | | |
|---|---|---|
| 1 | IR RECEIVER | Target the remote control at the IR Receiver. When operating the remote control, make sure there are no obstacles between you and the IR Receiver. |
| 2 | LED INDICATORS | The LED indicator lights up in 3 different colors: green, red or orange. Each color represents a different status.<br>Green - Power is on.   Red - Stand by.    Orange - Power saving mode. |
| 3 | POWER | Press this button to turn the power on / stand by. |
| 4 | MENU | Press this button to display the OSD menu. It contains all the options to configure your TV's settings. |
| 5 | –CH+ | Press to change channel. When in menu mode, these acts as navigation keys. |
| 6 | –VOL+ | Press to adjust the volume. when in menu mode, these acts as navigation keys. |
| 7 | SOURCE | Video input selection.<br>Press this button to display the menu for input selection mode. |

# Introducing The Television

## Setting Up the Remote Control
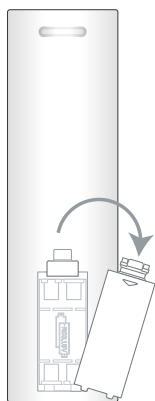


1. Open the lid of your remote control battery compartment on the back of the remote control.
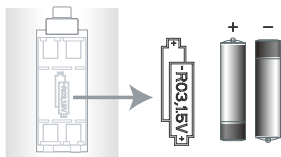


2. Insert two AAA batteries.  Use the (+) and (-) marks to guide you. The (+) marks on your batteries correspond to the (+) marks  on the compartment.  The (-) marks on your battery correspond to the (-) marks on the compartment.
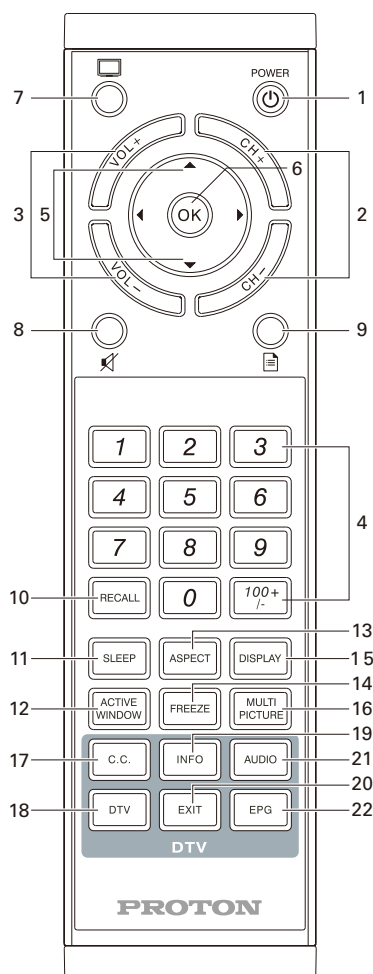
   Note: Do not mix new and used or different kind of batteries.
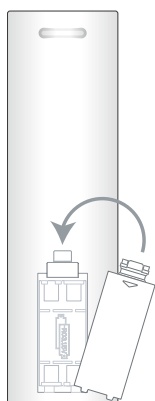


3. Put the lid back onto the remote control battery compartment.

# Introducing The Television

## Remote Control Functions



Note: Panoramic only available when source is 480i or 480p.

| | | |
|---|---|---|
| 1 | ⏻ | Power on/off. |
| 2 | CH + / CH - | Press these keys to change the channels. |
| 3 | VOL + / VOL - | Press these keys to adjust volume. |
| 4 | 0~9 / 100+, / - | Numerical keys to select desired channel. /-: Minor channel indicator ( Direct Digital RF channel tune ) |
| 5 | ▲ ▼ | Navigation keys in Source and Setup menu. |
| | ◄ ► | Adjusting keys in Source and Setup menu when in PIP mode. |
| 6 | OK | Press this key to confirm selection. |
| 7 | SOURCE | Press this key repeatedly to search for the video source. If you have a DVD player connected to the component input, then select " COMPONENT " from source menu. |
| 8 | MUTE | Press this key to turn off the sound. Press the " MUTE " button again or press " VOL+ / VOL− " to enable sound. |
| 9 | MENU | Press this key to display the OSD menu. In the OSD menu, press this key to exit the menu. |
| 10 | RECALL | Recall last channel. |
| 11 | SLEEP | Activates the sleep timer. |
| 12 | ACTIVE WINDOW | Switch controlling between the PIP or PAP and the MAIN. |
| 13 | ASPECT | Choose from widescreen, panoramic, 4 : 3 video, 16 : 9 zoom. ( More details on Page 38 ) |
| 14 | FREEZE | Press this key to freeze current frame from the screen. |
| 15 | DISPLAY | On Screen display on/off. ( shows channel and other details ) |
| 16 | MULTI PICTURE | Switch among PIP ( Picture In Picture ) mode, PAP(Picture And Picture) mode, and MAIN ( Main Picture Only ) Mode. |
| 17 | C.C. | Turns the DTV caption on or off. |
| 18 | DTV | Press this button to enter the DTV mode. |
| 19 | INFO | Press to display " I-plate " which provides information about the current channel. Press the second time, the screen will show the program's extended information. |
| 20 | EXIT | To exit OSD menu. |
| 21 | AUDIO | Allows the user to select the audio channels provided by the channel station (commonly used to select between / among languages). |
| 22 | EPG ( Electronic Programming Guide ) | Opens the Program Guide & shows all the active channels. |

# Introducing The Television

## Inputs and Outputs

Cables

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

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.
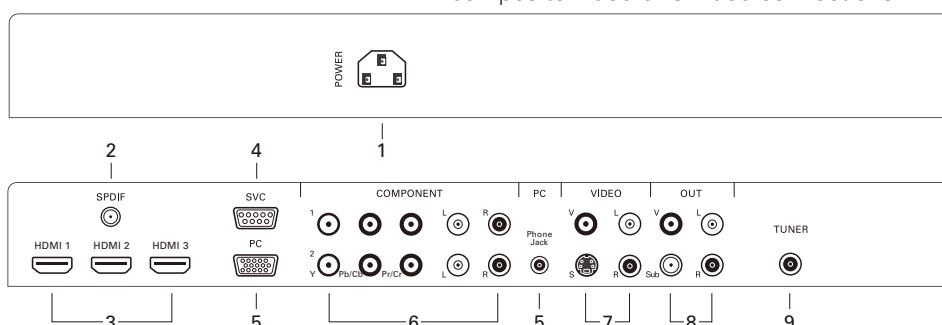


| | Available Interface | Description | Recommended Devices |
|---|---|---|---|
| 1 | Power Input | AC 100-240V | |
| 2 | SPDIF (COAXIAL) | Digital audio output | Any amplifiers with SPDIF input |
| 3 | HDMI 1 HDMI 2 HDMI 3 | HDMI input. | HDTV, Set-top Box, Progressive HD DVD Player. |
| 4 | SVC | Service connector. | Maintenance use only. |
| 5 | PC Input | RGB input ( PC Input ) and audio inputs. | PC. |
| 6 | Component Inputs (Component 1 Component 2) | Component support both High Definition programs ( 720p / 1080i ) and standard definition programs ( 480i / 480p ). | Progressive DVD player, HDTV set-top-box, HD PVR, D-VHS, digital media player. |
| 7 | AV Inputs (Video) | Contains S-video, composite video, a pair of R / L audio inputs. | Camcorder, non-progressive DVD player, digital camera, VCR. |
| 8 | Audio / Video Outputs | Contains, one composite video, Subwoofer and one pair of R/L audio outputs. | |
| 9 | TUNER | NTSC / ATSC | |

# Introducing The Television

# Introducing The Television

## Inputs and Outputs

### Connecting the Antenna or Analog Cable TV ( CATV )

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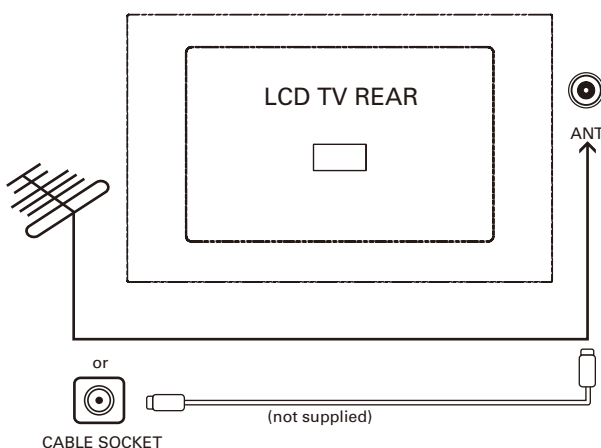
2.  Use the coaxial cable (75 ohms) usually provided by your antenna or cable provider.
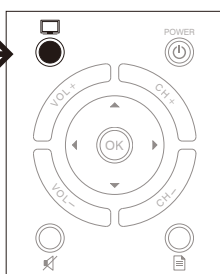
Coaxial Cable

(not supplied)

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

LCD TV REAR

ANT

or

CABLE SOCKET

(not supplied)

4.  Connect the power cord of the LCD TV to a power outlet.

5.  Press the " ▢ " button on either the remote control or the TV controls and select TV on the source menu. ( Changing the source, refer to Page 25 )

SOURCE

POWER

OK

**Main Source**

TV
DIGITAL TV
VIDEO
SVIDEO
COMPONENT 1
COMPONENT 2
VGA
HDMI 1
HDMI 2
HDMI 3

- 32″ LCD: " ▢ " button on the TV controls (refer to Page14)
- 37″ LCD: " ▢ " button on the TV controls (refer to Page14)
- 42″ LCD: " ▢ " button on the TV controls (refer to Page14)

# Introducing The Television

## Inputs and Outputs

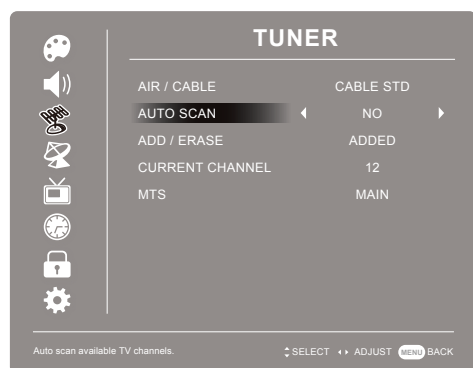### Connecting the Antenna or Analog Cable TV ( CATV )

6. Press the " ▤ " button on the remote control to display the OSD menu. Use ▲ or ▼ to navigate
through the icons. In the three option (Tuner), press " OK ".  Choose the first option
 " AIR / CABLE " and press " OK ".  If your TV is connected to the antenna.  If your TV is
connected to the cable television outlet, choose Cable STD, Cable HRC, Cable IRC. (For more
information on the TUNER menu, refer to Page 32~33)
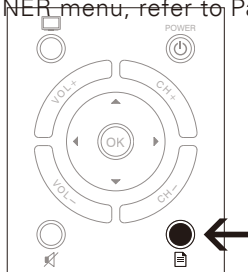
MENU

POWER

VOL+   CH+

OK

VOL−   CH−

- •32" LCD: "▤" button on the TV controls
  ( refer to Page14)
- •37" LCD: "▤" button on the TV controls
  ( refer to Page14)
- •42" LCD: "▤" button on the TV controls
  ( refer to Page14)

| TUNER | |
|---|---|
| AIR / CABLE ◀ | CABLE STD ▶ |
| AUTO SCAN | NO |
| ADD / ERASE | ADDED |
| CURRENT CHANNEL | 28 |
| MTS | MAIN |

Change TV channel standard.       ⬍SELECT ◆▸ ADJUST MENU BACK
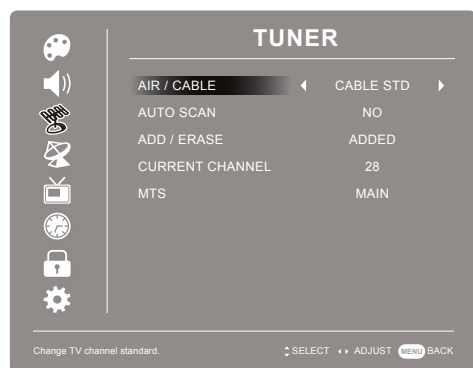
7.  Then choose STD and press "OK".
    - • STD-Standard
    - • HRC-Harmonic Related Carrier
    - • IRC-Incremental Realted Carrier.

| TUNER | |
|---|---|
| AIR / CABLE | CABLE STD |
| AUTO SCAN ◀ | NO ▶ |
| ADD / ERASE | ADDED |
| CURRENT CHANNEL | 12 |
| MTS | MAIN |

Auto scan available TV channels.       ⬍SELECT ◆▸ ADJUST MENU BACK

8.  In order for the LCD TV to detect avail-
able channels, press "▤" and choose the
first option "Tuner" and press "OK". Scroll
down to "Auto Scan" and press "OK".  The
television will automatically scan the available
channels for you. ( For more information on
the TUNER menu, refer to Page 32~33 )

▪To find out your local cable system, please contact your cable company.

# Introducing The Television

## Inputs and Outputs

### 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, COMPONENT, or SVIDEO output jacks of your digital set-top box to the HDMI, COMPONENT, or SVIDEO input
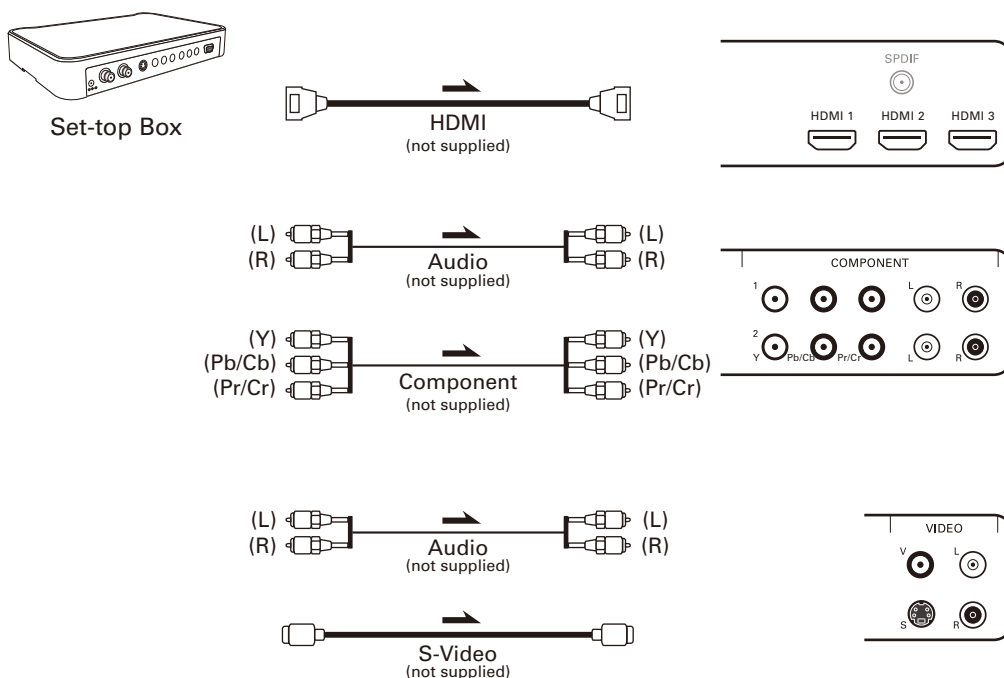


3. Use the AUDIO cables to connect the AUDIO ( L/R ) output jacks of your digital set-top box to the AUDIO ( L/R ) input jacks on the side of the LCD TV. If you use the HDMI cable, you don't need to connect the audio cable between the two equipments. The HDMI cable transmits both digital video and audio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

4. Connect the power cords of your digital set-top box and LCD TV to the power outlets.

# Introducing The Television

## Inputs and Outputs

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

5. Press the " ⬛ " button on either the remote control or the TV controls. Select HDMI 1 / HDMI 2 / HDMI 3 / COMPONENT 1 / COMPONENT 2 / SVIDEO / VIDEO, depending on which input is the digital set-top box connected to.  ( Changing the source, refer to Page 25 )

Note:
1. It is strongly recommended that the user connects Digital Set-Top Box via HDMI connection if provided. The HDMI signal is pure digital signal that gives the best performance for HD programs.

2. If your digital set-top box does not provide HDMI jacks, use the component cables for better picture quality or SVIDEO cable for standard picture quality.

# Introducing The Television

## Inputs and Outputs

### Connecting the Component Video

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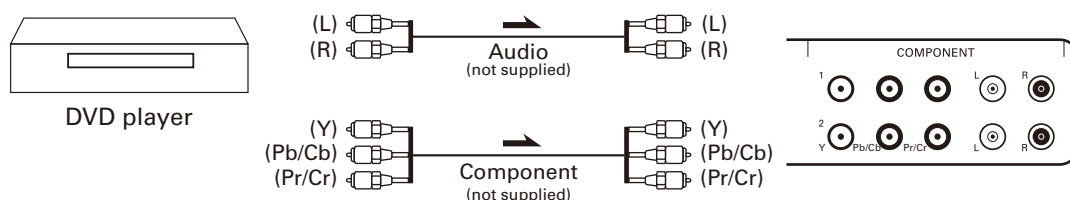


1. Connect the green Y jack on the back of your DVD player to the green component Y jack on the side of the LCD TV.

2. Connect the red Pr/Cr jack on the back of your DVD player to the red Pr/Cr jack on the side 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 side 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 side of the LCD TV.

5. Press the "⬛" button of the remote control to select "COMPONENT 1" or "COMPONENT 2".
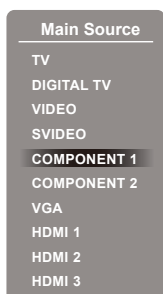
This section shows you how to connect devices to the S-video and composite video inputs of your LCD TV. Most devices like VCRs, camcorders, non-progressive scan DVD players, etc only provide composite video output or S-video output. The steps below are to show you how to connect two devices simultaneously.

Camcorder

S-video                                    S-video
Audio (L)  ⊲▭⊐━        ━⊏▭⊳  Audio (L)
Audio (R)  ⊲▭⊐━        ━⊏▭⊳  Audio (R)

Composite video  ⊲▭⊐        ⊏▭⊳  Composite video (V)
Audio (L)  ⊲▭⊐    Composite Cable   ⊏▭⊳  Audio (L)
Audio (R)  ⊲▭⊐    (not supplied)    ⊏▭⊳  Audio (R)
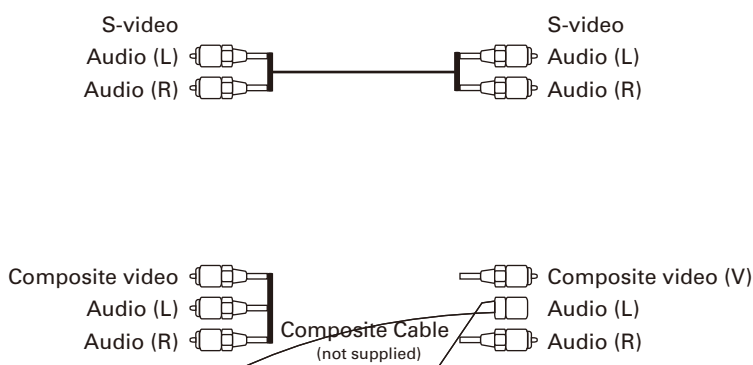
1.  Connect the SVIDEO on the back of your camcorder to the SVIDEO under VIDEO Input jack.

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 side 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 side of your LCD TV under SVIDEO 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 side of your LCD TV.

5.  Press the "▭" button on the remote control to display the OSD setup menu and choose VIDEO to display video from the VCR or choose SVIDEO to display video from the camcorder.
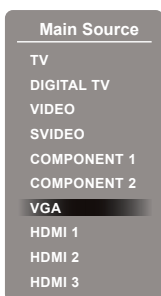
# Introducing The Television

## Inputs and Outputs

### Connecting the PC
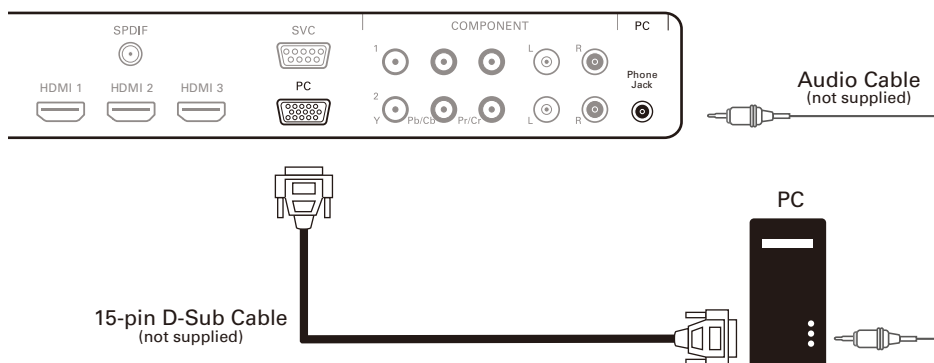


1. If you wish to connect a PC to the LCD TV, connect the 15-pin D sub RGB connector on your PC to the PC connector on the side of the LCD TV.

2. Connect the audio output on your PC to the PC audio input (L/R) on the side of the LCD TV.

3. Press the "⬚" button on the remote control to select "VGA".

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 x 768.

# Introducing The Television

## Inputs and Outputs

### Connecting the HDMI

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

DVD player

HDMI
(not supplied)

SPDIF

HDMI 1    HDMI 2    HDMI 3

2. Press the " ⬜ " button on either the remote control or the TV controls. Select HDMI. (Changing the source, refer to Page 25)
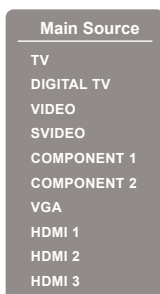
**Main Source**

TV
DIGITAL TV
VIDEO
SVIDEO
COMPONENT 1
COMPONENT 2
VGA
HDMI 1
HDMI 2
HDMI 3
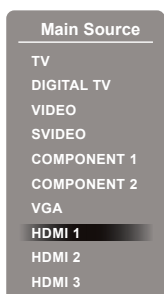
Note: HDMI connection includes both digital audio and video signals.

# Setting Up The Television

## Changing the Source

1. Press the "⬚" button on either the remote control or TV controls.

2. Press the "⬚" button or scroll using ▲ or ▼ on the remote control or "−CH+" on TV control.

3. Select your choice by using "ok" on the remote control or "−VOL+" on TV control.
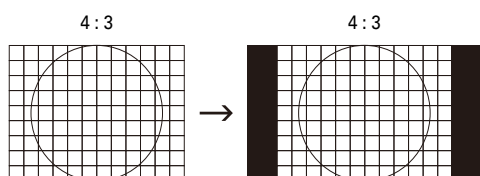
| Main Source |
| --- |
| TV |
| DIGITAL TV |
| VIDEO |
| SVIDEO |
| COMPONENT 1 |
| COMPONENT 2 |
| VGA |
| HDMI 1 |
| HDMI 2 |
| HDMI 3 |

Note: When the source has no signal to input, TV will be "Auto Power off" after 5 minutes.

# Setting Up The Television

## Aspect

### Display Modes

4 : 3 → 4 : 3

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.
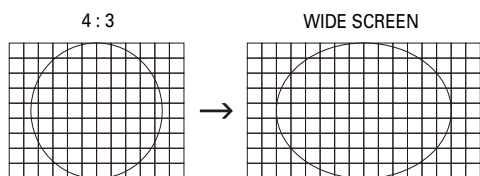
4 : 3 → WIDE SCREEN

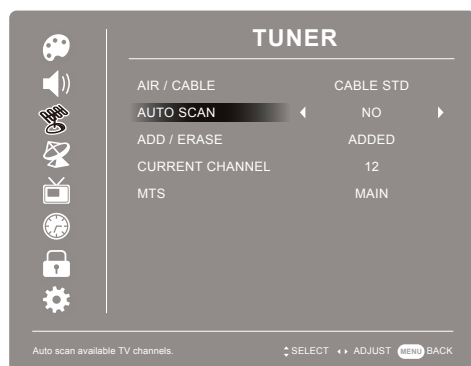By doing this, the user might choose widescreen, which distorts image by stretching the whole image horizontally.

LETTERBOX (4 : 3 / 16 : 9) → 16 : 9 ZOOM
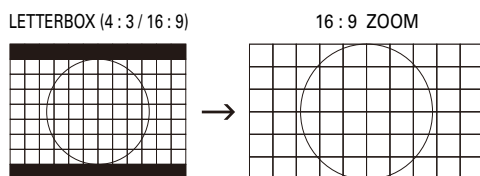
In most cases, widescreen videos (such as DVD movies' widescreen modes) will have "black spots" on the top and the bottom of the screen (this is called letterbox). To eliminate this, the user may select 16:9 zoom.

WIDE SCREEN → WIDE SCREEN
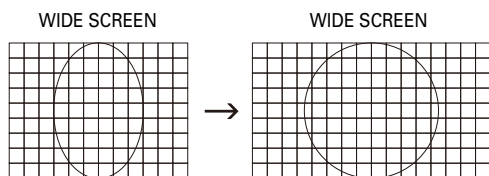
Sometimes the television might receive widescreen signals. If the user sets the mode on 4:3, the image might be distorted into a thin image. To fix this, the user may switch to widescreen mode.

# Setting Up The Television

## Accessing the OSD(On Screen Display)Menu

**TUNER**

| | |
|---|---|
| AIR / CABLE | CABLE STD |
| AUTO SCAN ◄ | NO ► |
| ADD / ERASE | ADDED |
| CURRENT CHANNEL | 12 |
| MTS | MAIN |

Auto scan available TV channels. ⬍ SELECT ◄► ADJUST MENU BACK

**TUNER**

| | |
|---|---|
| AIR / CABLE ◄ | CABLE STD ► |
| AUTO SCAN | NO |
| ADD / ERASE | ADDED |
| CURRENT CHANNEL | 28 |
| MTS | MAIN |

Change TV channel standard. ⬍ SELECT ◄► ADJUST MENU BACK

1. Press "▤" on the remote control or TV controls to start the OSD menu.

2. Use ▲,▼ to navigate through the main function.

3. Press "OK" to enter the high-light-ed category.

4. Press "OK" to change the select-ed settings.

5. Press "▤" to exit the OSD menu.
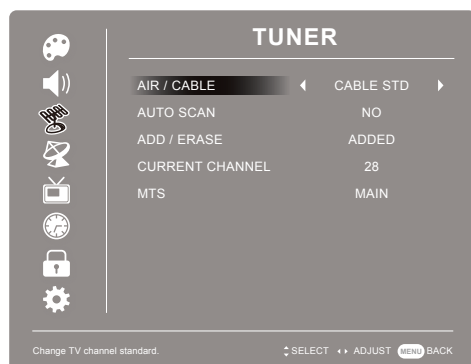
# Setting Up The Television

## Icon Description

There are 7 main functions (VIDEO, AUDIO, TUNER, DISPLAY, TIMER, PARENTAL CONTROLS, SET-UP) in the OSD menu. Before you start using the OSD menu , it is recommended that you read through the following icon descriptions.

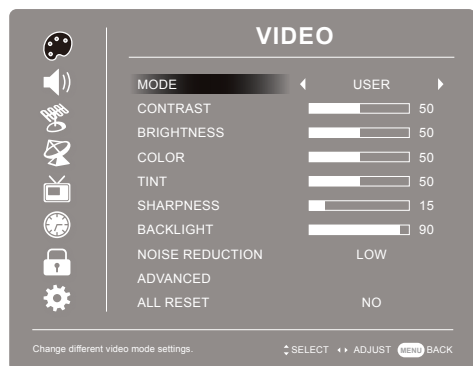| | | | |
|---|---|---|---|
| | **VIDEO** | ● MODE<br>● CONTRAST<br>● BRIGHTNESS<br>● COLOR<br>● TINT | ● SHARPNESS<br>● BACKLIGHT<br>● NOISE REDUCTION<br>● ADVANCED<br>● ALL RESET |
| | **AUDIO** | ● TREBLE<br>● BASS<br>● BALANCE<br>● SUBWOOFER | ● MIDDLE<br>● TONE CONTROL<br>● SPEAKERS<br>● ALL RESET |
| | **TUNER** | ● AIR / CABLE<br>● AUTO SCAN<br>● ADD / ERASE | ● CURRENT CHANNEL<br>● MTS |
| | **DIGITAL TUNER** | ● AUTO SCAN<br>● AUDIO LANGUAGE<br>● DIGITAL C.C | ● C.C OPTIONS<br>● TIME ZONE |
| | **DISPLAY** | ● ASPECT RATIO<br>● PIP<br>● PIP MODE | ● PIP POSITION<br>● PIP SIZE |
| | **TIMER** | ● SLEEP TIMER<br>● TIMER SETTING<br>● POWER ON | ● POWER OFF<br>● SET DATE/TIME |
| | **PARENTAL CONTROLS** | ● PLEASE ENTER PASSWORD<br>● TV RATING<br>● MOVIE RATING<br>● BLOCK CHANNEL<br>● BLOCK UNRATED | |
| | **SETUP** | ● CAPTIONS<br>● LANGUAGE<br>● BLUE SCREEN<br>● OSD TIMEOUT | ● AUTO POWER OFF |

# Setting Up The Television

## VIDEO

How to set the parameters in the VIDEO menu.

| Function | Description | Options |
|---|---|---|
| MODE | Mode is the selection that allow the user to choose among default video setting and customizable video setting. | USER, BRIGHT, DIMMER, GAME |
| CONTRAST | Adjusts the contrast. (USER mode must be on) | 0-100 |
| BRIGHTNESS | Adjusts the brightness. (USER mode must be on) | 0-100 |
| COLOR | Adjusts the intensity of color. (USER mode must be on) | 0-100 |
| TINT | Tint adjusts the natural aspect of a color. (USER mode must be on) | (-50) - (50) |
| SHARPNESS | Sharpness adjusts increase or reduce the picture performance Sharpness. | 0-12 |
| BACKLIGHT | Adjusts the brightness of the backlights of the LCD screen. | 0-100 |
| NOISE REDUCTION | This is used to reduce image noise. | OFF, LOW, MEDIUM, HIGH |
| MPEG NR (ADVANCED mode) | Mpeg noise reduction. | 0-63 |
| COLOR TEMP (ADVANCED mode) | This option allows the user choose among three styles of displaying colors. | USER, WARM, NATURE, COOL |
| ALL REST | This option will rest the contrast, brightness, color, tint, and Sharpness options to default. | NO, YES |

# Setting Up The Television

## VIDEO

### VIDEO

| | | |
|---|---|---|
| MODE | ◀ USER ▶ | |
| CONTRAST | | 50 |
| BRIGHTNESS | | 50 |
| COLOR | | 50 |
| TINT | | 50 |
| SHARPNESS | | 15 |
| BACKLIGHT | | 90 |
| NOISE REDUCTION | LOW | |
| ADVANCED | | |
| ALL RESET | NO | |

Change different video mode settings.     ⬍ SELECT  ◆▶ ADJUST  MENU BACK

### MODE
1. Press ▤ button.

2. Use ▲,▼ button to highlight "VIDEO" icon, then press "OK".

3. Use ▲,▼ button to highlight "MODE" and use ◀,▶ button to select.

### VIDEO

| | | |
|---|---|---|
| MODE | ◀ USER ▶ | |
| CONTRAST | | 50 |
| BRIGHTNESS | | 50 |
| COLOR | | 50 |
| TINT | | 50 |
| SHARPNESS | | 15 |
| BACKLIGHT | | 90 |
| NOISE REDUCTION | LOW | |
| ADVANCED | | |
| ALL RESET | NO | |

Adjust contrast.     ⬍ SELECT  ◆▶ ADJUST  MENU BACK

### CONTRAST
1. Press ▤ button.

2. Use ▲,▼ button to highlight "CONTRAST" and use ◀,▶ button to select.

▪Press ▤ to return to the previous menu screen.
▪Press EXIT button to exit the menu screen.

# Setting Up The Television

## AUDIO

```
                        AUDIO

        TREBLE          ▭▭▭▭▭      0
        MIDDLE          ▭▭▭▭▭      0
        BASS            ▭▭▭▭▭      0
        BALANCE         ▭▭▭▭▭      0
        SUBWOOFER       OFF
        TONE CONTROL    ON
        VOLUME          VARIABLE
        SPEAKERS        ON
        ALL RESET       NO


Adjust audio settings.          ⬍SELECT  OK ENTER  MENU BACK
```

How to set the parameters in the AUDIO menu.

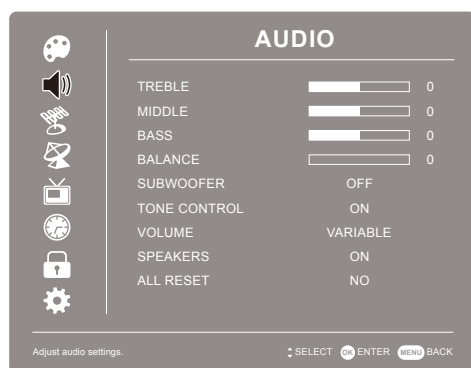| Function | Description | Options |
|---|---|---|
| TREBLE | Adjusts the higher pitched sounds . | (-12) - (+12) |
| MIDDLE | Adjusts the middle pitched sounds. | (-12) - (+12) |
| BASS | Adjusts the lower pitched sounds . | (-12) - (+12) |
| BALANCE | Adjusts the "position" of the sound. The negative end represents that the sound will lean towards the left and the positive end represents that the sound will lean towards the right. | (-12) - (+12) |
| SUBWOOFER | Adjusts Crossover point. | OFF/80HZ/120HZ/160HZ |
| TONE CONTROL | Set if the treble , middle and bass of audio output will be under control or by-pass. | ON/BYPASS |
| VOLUME | Fixed mode will fix the audio output level, so you can't adjust that level . And Variable mode will let you adjust that audio output level, so you can adjust your external audio device with TV remote control unit. | FIXED/VARIABLE |
| SPEAKERS | This option lets the user turn off or on our TV speaker. | OFF / ON |
| ALL RESET | All reset will revert the treble, middle, bass, balance, subwoofer, volume and speakers back of default. | NO / YES |

▪Warning : Before set to FIXED mode , make sure you turn off the TV speaker and turn down the volume of the external audio amplifier to avoid the damage to the speaker units.
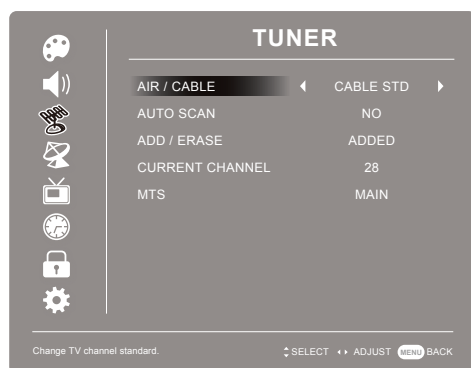
# Setting Up The Television

## TUNER

How to set the parameters in the TUNER menu.

| Function | Description | Options |
|---|---|---|
| AIR / CABLE | This allows the user to switch between analog antenna and Cable TV. | TV(Analog antenna/CABLE(cable tv) |
| AUTO SCAN | The auto scan helps the user to search for available channels on television. | NO/YES |
| ADD / ERASE | This option allows the user to add / erase recognized channels. | ADDED/ERASED |
| CURRENT CHANNEL | This option selscts the channel you want to view. | |
| MTS | MTS is the option that allows the user to change the sound options between main TV audio and SAP. Many channels have this option to allow the viewer to switch between different languages. | MAIN/SAP |

# Setting Up The Television

## TUNER

```
                    TUNER

    AIR / CABLE          ◄    CABLE STD    ►
    AUTO SCAN                     NO
    ADD / ERASE                 ADDED
    CURRENT CHANNEL              28
    MTS                         MAIN

Change TV channel standard.      ⬍ SELECT  ◄► ADJUST  MENU BACK
```

### AIR / CABLE
1. Press ▤ button.

2. Use▲,▼button to highlight "TUNER" icon, then press "OK".

3. Use◄, ►button to make a choice form AIR or cable in analog.

4. If choose cable, must choose STD, HRC or IRC again.

```
                    TUNER

    AIR / CABLE              CABLE STD
    AUTO SCAN          ◄        NO        ►
    ADD / ERASE               ADDED
    CURRENT CHANNEL            12
    MTS                       MAIN

Auto scan available TV channels.   ⬍ SELECT  ◄► ADJUST  MENU BACK
```

### AUTO SCAN
1. Press ▤ button.

2. Use▲,▼button to highlight "AUTO SCAN" and use◄, ►button to Select, then press "OK".

```
                    TUNER

    AIR / CABLE              CABLE STD
    AUTO SCAN          ◄        NO        ►
    ADD / ERASE               ADDED
    CURRENT CHANNEL            12
    MTS                       MAIN

Add or erase current channel.    ⬍ SELECT  ◄► ADJUST  MENU BACK
```
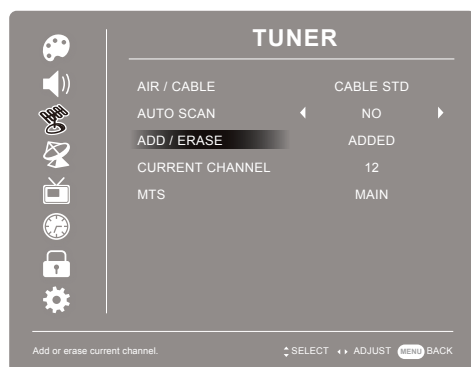
### ADD / ERASE
1. Press ▤ button.

2. Use ▲,▼ button to highlight "TUNER" icon, then press " OK".

3. Use ▲,▼button to highlight "ADD / ERASE" and use ◄, ►button to select.

▪Press ▤ to return to the previous menu screen.
▪Press EXIT button to exit the menu screen.

# Setting Up The Television

## DIGITAL TUNER

How to set the parameters in the DIGITAL TUNER menu.

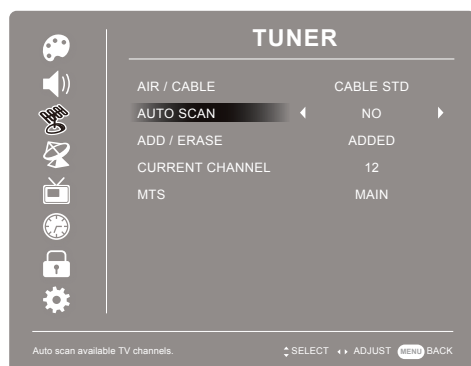| Function | Description | Options |
| --- | --- | --- |
| AUTO SCAN | The auto scan helps the user to search for available channels on television. | NO / YES |
| AUDIO LANGUAGE | This is workable in only DTV broadcasting. If user select the specific language, detecting that language in DTV signal source at the real time. | English / Espanol / Francais |
| DIGITAL C.C. | Select digital TV C.C. service. | CC1~CC4 / SERVICE 1~SERVICE 6 / OFF |
| C.C. OPTIONS | Set DTV C.C. display options. | FONT SIZE / FONT STYLE / F.G.COLOR / B.G. COLOR / F.G.OPACITY / B.G. OPACITY |
| TIME ZONE | Select time zone for digital TV system. | ATLANTIC / EASTERN / CENTRAL / MOUNTAIN / PACIFIC / ALASKA / HAWAII |

# Setting Up The Television

## DIGITAL TUNER

**DIGITAL TUNER**

| | |
|---|---|
| AUTO SCAN | NO |
| AUDIO LANGUAGE | ENGLISH |
| DIGITAL C.C. | CC1 |
| C.C. OPTIONS | |
| TIME ZONE | ATLANTIC |

Auto scan available digital TV channels.　　　SELECT　ADJUST MENU BACK

**DIGITAL TUNER**

| | |
|---|---|
| AUTO SCAN | NO |
| AUDIO LANGUAGE | ENGLISH |
| DIGITAL C.C. | CC1 |
| C.C. OPTIONS | |
| TIME ZONE | ATLANTIC |

Select audio language of digital TV program.　　SELECT　ADJUST MENU BACK

### AUTO SCAN

1. Press 🗐 button.

2. Use▲,▼button to highlight "Digital Tuner" icon, then press "OK".

3. Use▲,▼button to highlight "AUTO SCAN" and use◄, ►button to Select, then press "OK".
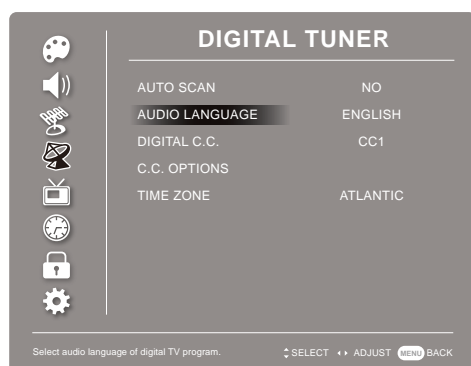
### AUDIO LANGUAGE

1. Press 🗐 button.

2. Use ▲,▼button to highlight "AUDIO LANGUAGE" , and use ◄, ►button to make a choice.

   ▪ ENGLISH / SPANISH / FRENCH

▪Press 🗐 to return to the previous menu screen.

▪Press EXIT button to exit the menu screen.

# Setting Up The Television

## DIGITAL TUNER
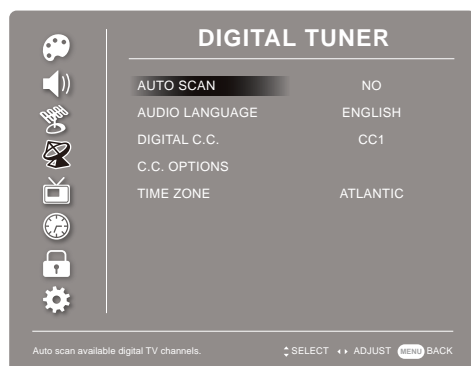
**DIGITAL TUNER**

| | |
|---|---|
| AUTO SCAN | NO |
| AUDIO LANGUAGE | ENGLISH |
| DIGITAL C.C. | CC1 |
| C.C. OPTIONS | |
| TIME ZONE | ATLANTIC |

Select digital TV C.C. service.   ⬍ SELECT  ◂▸ ADJUST  MENU BACK

**DIGITAL TUNER**

| | |
|---|---|
| AUTO SCAN | NO |
| AUDIO LANGUAGE | ENGLISH |
| DIGITAL C.C. | CC1 |
| C.C. OPTIONS | |
| TIME ZONE | ATLANTIC |

Set DTV C.C. display options.   ⬍ SELECT  OK ENTER  MENU BACK

**DIGITAL TUNER**

| | | |
|---|---|---|
| FONT SIZE | ◂ STANDARD | ▸ |
| FONT STYLE | STYLE 1 | |
| F.G.COLOR | WHITE | |
| B.G. COLOR | WHITE | |
| F.G.OPACITY | SOLIO | |
| B.G. OPACITY | SOLIO | |

Set the font size of digital C.C.   ⬍ SELECT  ◂▸ ADJUST  MENU BACK
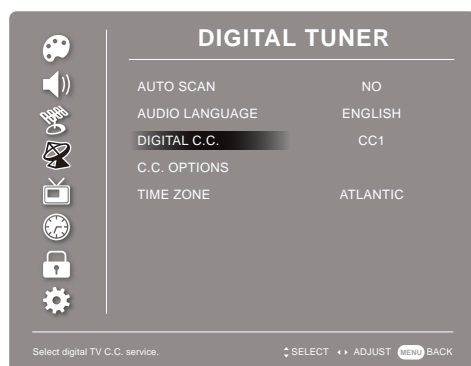
### DIGITAL C.C.
1. Press 🗎 button.

2. Use ▲,▼button to highlight "DIGITAL TUNER" icon, then press "OK".

3. Use▲,▼button to highlight "DIGITAL C.C." and use ◀, ▶button to make a choice from CC1~CC4 / Service1~Service6

### C.C. OPTIONS
1. Press 🗎 button.

2. Use▲,▼button to highlight "C.C. OPTIONS" then press "OK".
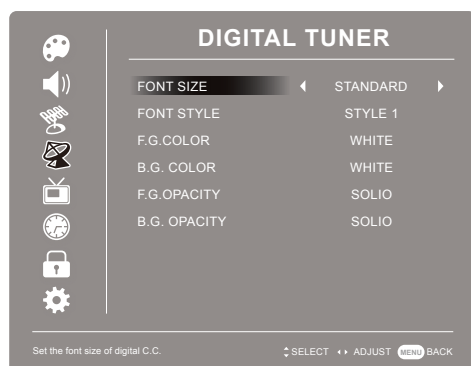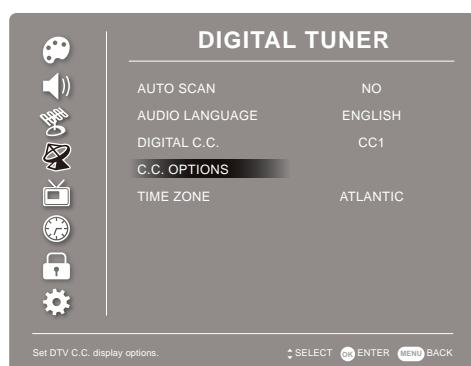
3. Use the ▲, ▼, ◀, ▶button to make a choice and setting.
- FONT SIZE: STANDARD / LARGE / SMALL
- FONT STYLE: STYLE1~STYLE7
- F.G COLOR: WHITE / BLACK / RED / GREEN / BLUE / YELLOW / MAGENTA / CYAN
- B.G COLOR: WHITE / BLACK / RED / GREEN / BLUE / YELLOW / MAGENTA / CYAN
- F.G OPACITY: SOLID / TRANSPARENT / TRANSLUCENT
- B.G OPACITY: SOLID / TRANSPARENT / TRANSLUCENT

- Press 🗎 to return to the previous menu screen.
- Press EXIT button to exit the menu screen.

# Setting Up The Television

## DIGITAL TUNER

**DIGITAL TUNER**

| | |
|---|---|
| AUTO SCAN | NO |
| AUDIO LANGUAGE | ENGLISH |
| DIGITAL C.C. | CC1 |
| C.C. OPTIONS | |
| TIME ZONE | ATLANTIC |

Select time zone for digital TV system.      ⬍ SELECT  ◄► ADJUST  MENU BACK
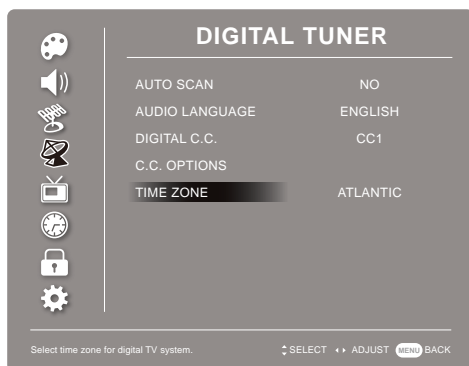
### TIME ZONE

1. Press ▤ button.

2. Use ▲,▼button to highlight "DIGITAL TUNER" icon, then press " OK".

3. Use ▲,▼button to highlight "TIME ZONE" and use ◄, ►button to make a choice.

- CENTRAL / MOUNTAIN / PACIFIC / ALASKA / HAWAII / ATLANTIC / EASTERN

▪Press ▤ to return to the previous menu screen.
▪Press EXIT button to exit the menu screen.

# Setting Up The Television

## DISPLAY

| Function | Description | Options |
|----------|-------------|---------|
| ASPECT RATIO | This mode lets the user to choose among 4 choices that will change the viewing area on the screen. | WIDE / 4:3 / 16:9 ZOOM / PANORAMIC |
| PIP | Turn on/ off pip. | ON / OFF |
| PIP MODE | Set the mode of pip. | PIP / PAP / POP |
| PIP POSITION | Adjusts the position of the pip screen. | BOTTOM-LEFT / BOTTOM-RIGHT / TOP-LEFT / TOP-RIGHT |
| PIP SIZE | Set the size of pip. | SMALL PIP / LARGE PIP |
| H CENTER | Adjusts the horizontal position (VGA source only). | (-50) - (+50) |
| V CENTER | Adjusts the vertical position (VGA source only). | (-50) - (+50) |
| H SIZE | Adjusts the horizontal size (VGA source only). | 0-100 |
| SYNC PHASE | Adjusts the quality of the image by eliminating distortion. (VGA source only) | 0-63 |

# Setting Up The Television

## TIMER



| TIMER | | | |
|---|---|---|---|
| SLEEP TIMER | ◀ | OFF | ▶ |
| TIMER SETTING | | OFF | |
| POWER ON | | OFF | |
| POWER OFF | | OFF | |
| SET DATE / TIME | | 00 / 00 /2000 00 : 00 AM | |
| | HOUR | MIN | AM / PM |
| POWER ON TIME | 01 | : 00 | AM |
| POWER OFF TIME | 01 | : 00 | PM |

Adjust clock and timer settings.　　　　SELECT　ADJUST　MENU BACK
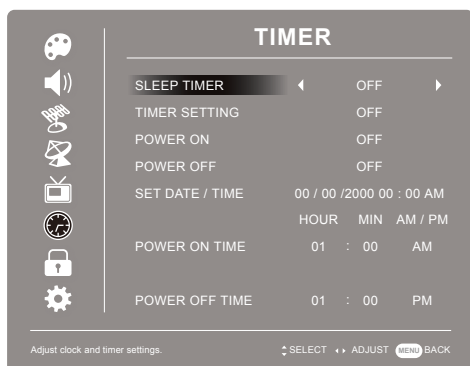
### SLEEP TIMER

1. Press 📄 button.

2. Use ▲,▼button to highlight "TIMER" icon, then press " OK"

3. Use ▲,▼button to highlight "SLEEP TIME" and use ◀, ▶button to make a choice.

- OFF/ 15min/ 30min/ 60min/ 90min/ 120min



| TIMER | | | |
|---|---|---|---|
| SLEEP TIMER | | OFF | |
| TIMER SETTING | ◀ | Once | ▶ |
| POWER ON | | OFF | |
| POWER OFF | | OFF | |
| SET DATE / TIME | | 00 / 00 /2000 00 : 00 AM | |
| | HOUR | MIN | AM / PM |
| POWER ON TIME | 01 | : 00 | AM |
| POWER OFF TIME | 01 | : 00 | PM |

Set operation mode of power on / off timer.　　SELECT　ADJUST　MENU BACK

### TIMER SETTING

1. Press 📄 button.

2. Use ▲,▼button to highlight "TIMER SET-TING" and use ◀, ▶button to make a choice.

- The user can choose the follows:OFF / ONCE / DAILY
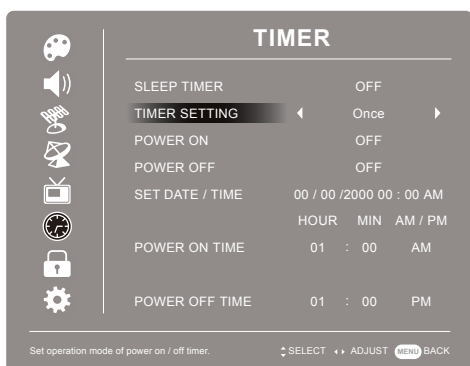


| TIMER |
|---|

### POWER ON

1. Press 📄 button.

2. Use ▲,▼button to highlight "POWER ON" and use ◀, ▶button to make a choice then press "OK" to setting "POWER ON TIME".

- OFF/ON

# Setting Up The Television
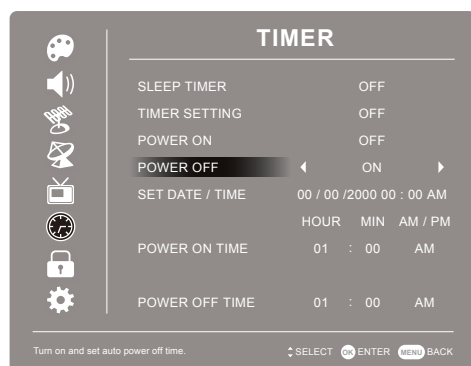
## TIMER

```
                TIMER

  SLEEP TIMER              OFF
  TIMER SETTING            OFF
  POWER ON                 OFF
  POWER OFF         ◄      ON      ►
  SET DATE / TIME    00 / 00 /2000 00 : 00 AM
                    HOUR   MIN   AM / PM
  POWER ON TIME       01  :  00      AM

  POWER OFF TIME      01  :  00      AM

Turn on and set auto power off time.    ⬍ SELECT  OK ENTER  MENU BACK
```

```
                TIMER

  SLEEP TIMER              OFF
  TIMER SETTING            OFF
  POWER ON                 OFF
  POWER OFF                OFF
  SET DATE / TIME    01 / 01 / 2000 00 :19 AM
                    MONTH   DAY   YEAR
  POWER ON TIME       01    01    2000
                    HOUR   MIN   AM/PM
  POWER OFF TIME      00    19     AM

Set system time and date.    ⬍ SELECT  OK ENTER  MENU BACK
```

### POWER OFF

1. Press 🗐 button.

2. Use ▲,▼button to highlight "TIMER" icon, then press "OK".

3. Use ▲,▼button to highlight "POWER OFF" and use ◄, ►button to make a choice, then press "OK"to setting "POWER OFF TIME".

- OFF / ON

### SET DATE/TIME

1. Press 🗐 button.

2. Use ▲,▼button to highlight "SET DATE/ TIME" and press "OK" to setting.

- The user can use ▲, ▼, ◄, ►button to set for DATE/TIMER.
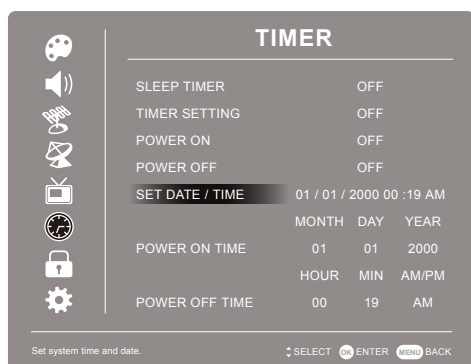
- Press 🗐 to return to the previous menu screen.
- Press EXIT button to exit the menu screen.

# Setting Up The Television

## PARENTAL CONTROLS

**PARENTAL CONTROLS**

PLEASE ENTER PASSWORD
☐ ☐ ☐ ☐

| | |
|---|---|
| TV RATING | OFF |
| MOVIE RATING | OFF |
| BLOCK CHANNEL | NO |
| BLOCK UNRATED | NO |

Please enter password with number keys.                    MENU BACK

**PARENTAL CONTROLS**

| | | | |
|---|---|---|---|
| SETTINGS | | | ▶ |
| CHANGE PASSWORD | | | ▶ |
| CLEAR ALL | ◀ | ON | ▶ |

Set TV and movie block settings.          ↕ SELECT  OK ENTER  MENU BACK

**PARENTAL CONTROLS**

| | | | |
|---|---|---|---|
| TV RATING | | | ▶ |
| MOVIE RATING | | | ▶ |
| BLOCK CHANNEL | | | ▶ |
| BLOCK UNRATED | ◀ | OFF | ▶ |

Set TV program rating.          ↕ SELECT  OK ENTER  MENU BACK
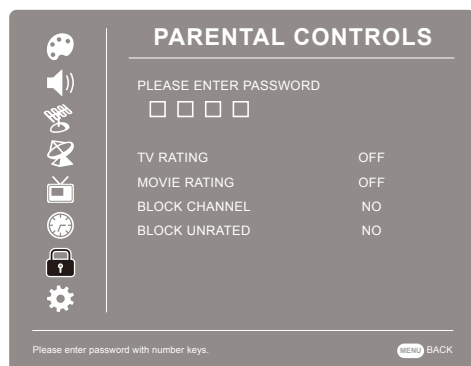
### TV RATING

1. Press 🗎 button.

2. Use ▲,▼button to highlight "PARENTAL CONTROLS" icon, then press " OK"

3. When the "PLEASE ENTER PASSWORD", enter the 4 digit password.

   ▪ The default password is 1111.

4. Use ▲,▼button to highlight "SETTINGS", then press "OK".
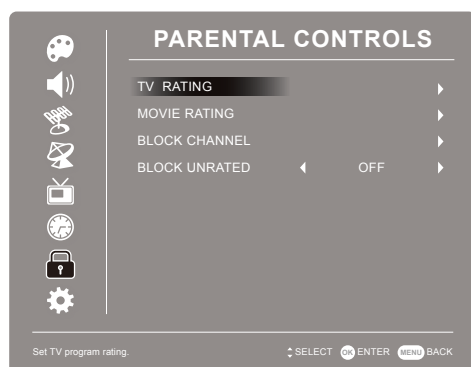
5. Use ▲,▼button to highlight "TV RATING", then press "OK".

▪Press 🗎 to return to the previous menu screen.
▪Press EXIT button to exit the menu screen.

# Setting Up The Television

## PARENTAL CONTROLS

### PARENTAL CONTROLS

|  | FV | V | S | L | D |
|---|---|---|---|---|---|
| TV YOUTH ◀ ON | ☐ | ☐ | ☐ | ☐ | ☐ | ▶ |
| TV YOUTH 7 ◀ ON | 🔒 | ☐ | ☐ | ☐ | ☐ | ▶ |
| TV G ◀ ON | ☐ | ☐ | ☐ | ☐ | ☐ | ▶ |
| TV PG ◀ ON | ☐ | 🔒 | 🔒 | 🔒 | 🔒 | ▶ |
| TV 14 ◀ ON | ☐ | 🔒 | 🔒 | 🔒 | 🔒 | ▶ |
| TV MA ◀ ON | ☐ | 🔒 | 🔒 | 🔒 | ☐ | ▶ |
| OFF | | | | | | |

Set TV Youth rating options.    ↕ SELECT  OK ENTER  MENU BACK
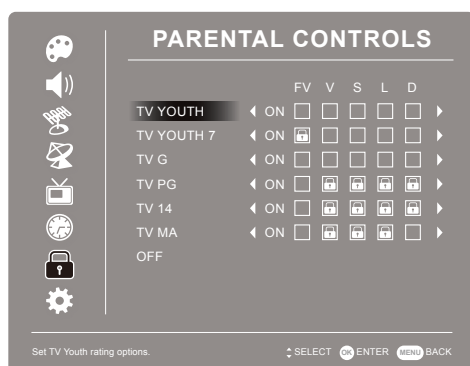
6. Press "OK" button and use ▲,▼button to select ON or OFF, then press "OK".

- TV-Y : For all children
- TV-Y7 : For children above 7
- TV-G : For anyone
- TV-PG : children can watch guardian
- TV-14 : need parental guide
- TV-MA : Only for adult
- FV : Fantasy Violence
- D : Dialog(sexual)
- L : Language(abusive , sexual)
- S : Sexual
- V : violence

### MOVIE RATING

1. Press 📄 button.

### PARENTAL CONTROLS

| TV  RATING | ▶ |
|---|---|
| MOVIE RATING | ▶ |
| BLOCK CHANNEL | ▶ |
| BLOCK UNRATED ◀ OFF | ▶ |

Set movie rating.    ↕ SELECT  OK ENTER  MENU BACK

2. Use ▲,▼button to highlight "MOVIE RATING" ,then press "OK".

### PARENTAL CONTROLS

| MOVIE G | ▶ |
|---|---|
| MOVIE PG | ▶ |
| MOVIE PG-13 | ▶ |
| MOVIE R ◀ OFF | ▶ |
| MOVIE NC-17 | |
| MOVIE X | |
| OFF | |

Turn on / off Movie G rating.    ◀▶ ADJUST  OK ACCEPT  MENU ABORT

3. Press "OK" button and use ◀, ▶button to select ON or OFF , then press "OK".

- N/A
- G
- PG
- PG-13
- R
- NC-17
- X
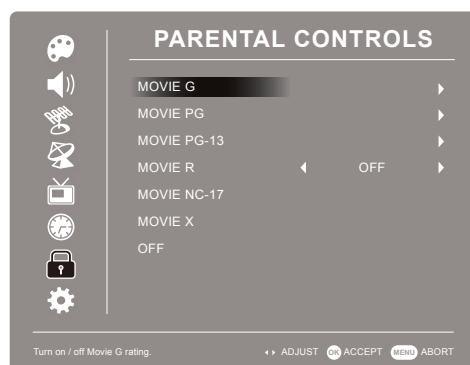
- Press 📄 to return to the previous menu screen.
- Press EXIT button to exit the menu screen.

CHANNEL

2586..

# Setting Up The Television

**PARENTAL CONTROLS**

SETTINGS ▶

CHANGE PASSWORD ▶

CLEAR ALL ◀ NO ▶

Change the password. ‡ SELECT OK ENTER MENU BACK

CHAN

1. Press

2. Use ▲
   PASS

**PARENTAL CONTROLS**

Please enter new password:
☐ ☐ ☐ ☐

Please confirm new password:
☐ ☐ ☐ ☐

Enter the new password with number keys. MENU ABORT

3. Enter t
   the sa

**PARENTAL CONTROLS**

SETTINGS ▶

CHANGE PASSWORD ▶

CLEAR ALL ◀ NO ▶

Clear all block settings. ◀▶ ADJUST OK PERFORM MENU BACK

CLEAR

1. Press

2. Use ▲ ",
   and u OFF ,
   then p

44

# Setting Up The Television

## SETUP

**SETUP**

| | | |
|---|---|---|
| CAPTIONS | ◀ | CC1 ▶ |
| LANGUAGE | | ENGLISH |
| TV NO SIGNAL | | SNOW |
| OSD TIMEOUT | | 40sec |
| AUTO POWER OFF | | OFF |

Mi: Select which closed caption to display.    ↕ SELECT  ◀▶ ADJUST  (MENU) BACK
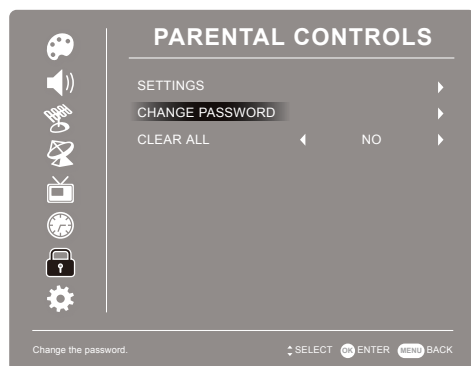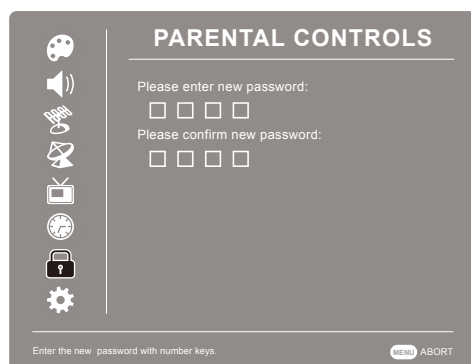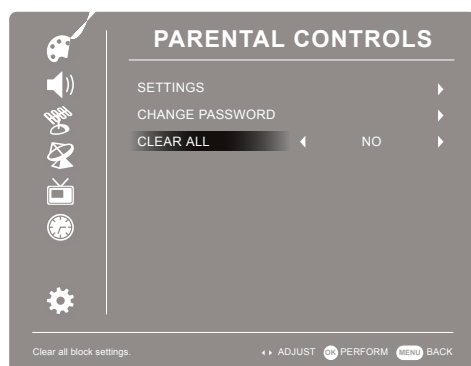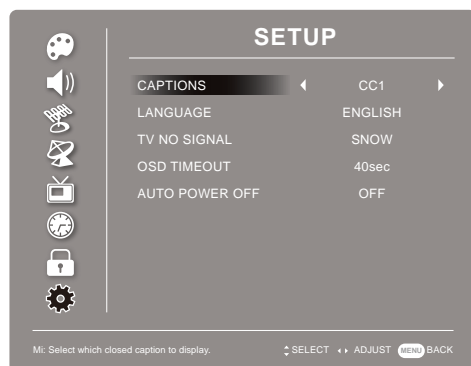
### CAPTIONS

1. Press 🗐 button.

2. Use ▲,▼button to highlight "SETUP" icon, then press "OK".

3. Use▲,▼button to highlight "CAPTIONS" and use ◀, ▶ button to make a choice from "CC1~CC4" "Text1~Text4".

**SETUP**

| | | |
|---|---|---|
| CAPTIONS | | CC1 |
| LANGUAGE | ◀ | ENGLISH ▶ |
| TV NO SIGNAL | | SNOW |
| OSD TIMEOUT | | 40sec |
| AUTO POWER OFF | | OFF |

Change the language of OSD menu.    ↕ SELECT  ◀▶ ADJUST  (MENU) BACK
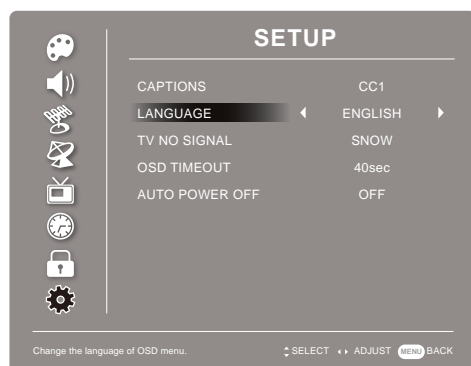
### LANGUAGE

1. Press 🗐 button.

2. Use ▲,▼button to highlight "LANGUAGE" and use◀, ▶button to make a choice.

- ENGLISH / ESPAÑOL

**SETUP**

| | | |
|---|---|---|
| CAPTIONS | | CC1 |
| LANGUAGE | | ENGLISH |
| TV NO SIGNAL | ◀ | SNOW ▶ |
| OSD TIMEOUT | | 40sec |
| AUTO POWER OFF | | OFF |

Turn on / off blue screen no no-signal.    ↕ SELECT  ◀▶ ADJUST  (MENU) BACK
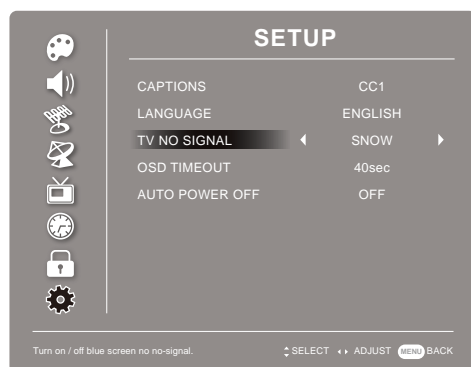
### TV NO SIGNAL

1. Press 🗐 button.

2. Use ▲,▼button to highlight "TV NO SIGNAL" and use◀, ▶button to select SNOW or BLUE SCREEN.

- Press 🗐 to return to the previous menu screen.
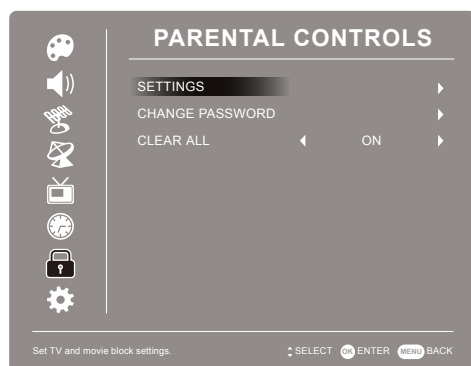- Press EXIT button to exit the menu screen.

# Setting Up The Television

## SETUP

```
              SETUP

 CAPTIONS              CC1
 LANGUAGE              ENGLISH
 TV NO SIGNAL          SNOW
 OSD TIMEOUT       ◄   40sec    ►
 AUTO POWER OFF        OFF

 Set the timer of OSD timeout.    ↕ SELECT  ↔ ADJUST  MENU BACK
```
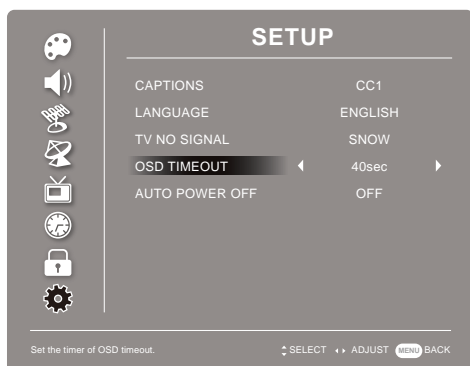
### OSD TIMEOUT

1. Press 📄 button.

2. Use ▲,▼button to highlight "OSD TIME-OUT" and use ◄, ►button to make a choice.

- 10,15,20,25,30,35,40(seconds)

```
              SETUP

 CAPTIONS              CC1
 LANGUAGE              ENGLISH
 TV NO SIGNAL          SNOW
 OSD TIMEOUT           40sec
 AUTO POWER OFF    ◄   OFF      ►

 Turn on / off auto power off on no-signal.  ↕ SELECT  ↔ ADJUST  MENU BACK
```
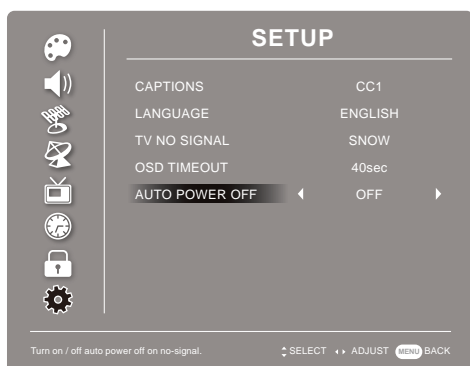
### AUTO POWER OFF
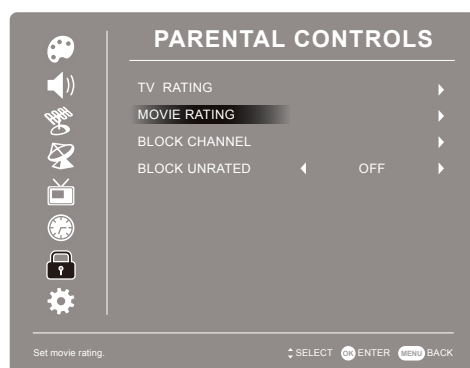
1. Press 📄 button.

2. Use ▲,▼button to highlight "AUTO POWER OFF" and use ◄, ►button to select ON or OFF.

- Press 📄 to return to the previous menu screen.
- Press EXIT button to exit the menu screen.

# Basic Troubleshooting

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

| Problem | Possible Solution |
|---|---|
| There is no picture or sound. | 1. Make sure the power plug is properly connected to the power outlet.<br>2. The channel may not have been scanned and can be re-scanned again from the setup OSD menu.<br>3. Make sure you have selected the correct input mode. |
| There is just noise. | 1. The antenna reception strength may be weak.<br>2. Reposition the antenna's placement.<br>3. Make sure the antenna cable is properly connected to the LCD TV set. |
| Color abnormal or improper. | 1. Check the color adjustment in the OSD video menu. |
| Picture is too bright. | 1. Check the brightness setting; it may be set too high.<br>2. 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. |
| Picture is too dark. | 1. Check the brightness and contrast level setting from the OSD video menu.<br>2. Check the "Backlight" setting in the OSD options menu. |

# Basic Troubleshooting

# General Specifications

## LCD 32"

| | | |
|---|---|---|
| **LCD Panel** | Screen Size | 32" diagonal |
| | Viewable Size | 31.44" diagonal |
| | Resolution | WXGA (H) 1366 x (V) 768 pixels |
| | Display Color | 16, 777, 216 Color |
| | Aspect Ratio | 16 9 WIDE |
| **Input/Output** | 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 |
| | Audio L/R in/out | Input: 400 mV / 47 KΩ , Output: 400 mV / 600 Ω |
| | Analog RGB | VGA x 1 |
| | HDMI | HDMI x 3 |
| | PC Audio in | Phone Jack x 1 |
| | Antenna input | 75 Ω |
| **Audio Features** | Built-in speaker | 10W x 2 |
| **Video Features** | Color Temperature | NATURE / COOL / WARM / USER |
| | Screen Size adjustment | WIDE / 4:3 / 16:9 ZOOM / PANORMIC |
| | Multi picture | Yes |
| | Progressive Scan | Yes |
| | 3-2 pull down | Yes |
| **Compatibility** | Color system | NTSC / ATSC |
| | Video system | NTSC / ATSC |
| | SDTV/HDTV | 480i, 480p, 1080i, 720p, 1080p |
| | PC | VGA / SVGA / XGA |
| **Other** | Power | AC 100-240V, 50 / 60Hz 150W |
| | Operative temperature | 32° - 95°F |
| | Storage temperature | 14° ~ 104°F |
| | Dimension | (W) 32 x (D) 4.5x (H) 24 inch (without stand) |
| | | (W) 32 x (D) 8.7 x (H) 25 inch (with stand) |
| | Net Weight/ Gross Weight | 46.29 Lbs / 52.91 Lbs |

▪Please refer to page 52 for stand removal for wall mounting.

# General Specifications

## LCD 37"

| | | |
|---|---|---|
| **LCD Panel** | Screen Size | 37" diagonal |
| | Viewable Size | 37" diagonal |
| | Resolution | WXGA (H) 1366 x (V) 768 pixels |
| | Display Color | 16, 777, 216 Color |
| | Aspect Ratio | 16 : 9 WIDE |
| **Input/Output** | 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 |
| | Audio L/R in/out | Input: 400 mV/47 K Ω , Output: 400 mV/600 Ω |
| | Analog RGB | VGA x 1 |
| | HDMI | HDMI x 3 |
| | PC Audio in | Phone Jack x 1 |
| | Antenna input | 75 Ω |
| **Audio Features** | Built-in speaker | 10W x 2 |
| **Video Features** | Color Temperature | NATURE / COOL / WARM / USER |
| | Screen Size adjustment | WIDE / 4:3 / 16:9 ZOOM / PANORMIC |
| | Multi picture | Yes |
| | Progressive Scan | Yes |
| | 3-2 pull down | Yes |
| **Compatibility** | Color system | NTSC / ATSC |
| | Video system | NTSC / ATSC |
| | SDTV/HDTV | 480i, 480p, 1080i, 720p, 1080p |
| | PC | VGA / SVGA / XGA |
| **Other** | Power | AC 100-240V, 50 / 60Hz, 190W |
| | Operative temperature | 32° - 95°F |
| | Storage temperature | 14° ~ 104°F |
| | Dimension | (W) 37 x (D) 4.5 x (H) 26 inch (without stand) |
| | | (W) 37 x (D) 9.3 x (H) 28 inch (with stand) |
| | Net Weight/ Gross Weight | 57.32 Lbs / 63.93 Lbs |

▪Please refer to page 52 for stand removal for wall mounting.

# General Specifications

## LCD 42"

| | | |
|---|---|---|
| **LCD Panel** | Screen Size | 42" diagonal |
| | Viewable Size | 42.11" diagonal |
| | Resolution | WXGA (H) 1920 x (V) 1080 pixels |
| | Display Color | 16, 777, 216 Color |
| | Aspect Ratio | 16 9 WIDE |
| **Input/Output** | 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 |
| | Audio L/R in/out | Input: 400 mV / 47 K Ω , Output: 400 mV / 600 Ω |
| | Analog RGB | VGA x 1 |
| | HDMI | HDMI x 3 |
| | PC Audio in | Phone Jack x 1 |
| | Antenna Input | 75 Ω |
| **Audio Features** | Built-in Speaker | 10W x 2 |
| **Video Features** | Color Temperature | NATURE / COOL / WARM / USER |
| | Screen Size Adjustment | WIDE / 4:3 / 16:9 ZOOM / PANORMIC |
| | Multi Picture | Yes |
| | Progressive Scan | Yes |
| | 3-2 Pull Down | Yes |
| **Compatibility** | Color System | NTSC / ATSC |
| | Video System | NTSC / ATSC |
| | SDTV/HDTV | 480i, 480p, 1080i, 720p, 1080p |
| | PC | VGA / SVGA / XGA |
| **Other** | Power | AC 100-240V, 50 / 60Hz, 250W |
| | Operative Temperature | 32° - 95°F |
| | Storage Temperature | 14° ~ 104°F |
| | Dimension | (W) 41 x (D) 4.5 x (H) 29 inch (without stand) |
| | | (W) 41 x (D) 10.1 x (H) 30 inch (with stand) |
| | Net Weight/ Gross Weight | 63.93 Lbs / 74.95 Lbs |

# Preparing Your Proton LCD TV for Wall Mounting

All Proton CS Series LCD TV can be mounted on the wall for viewing. If you choose to mount your TV on the wall, please follow the instructions below for removing the stand.



A

B

1. Unplug all of the cables and cords from your TV.

2. Place the TV on a flat and soft surface (blanket, foam, cloth, etc) with the screen facing down.

3. Remove the four (4) screws indicated in figure A.

4. Loosen the two (2) screws in the back of the speaker indicated in figure B.

5. Pull out the stand indicated in figure C.

6. Tighten the two (2) screws in the back of the speaker indicated in figure D.

## Caution:

1. It is best to use professional installers to wall mount your new TV.
2. The wall mount itself is not included. Please purchase from your local retailer. Make sure that the bracket will support the weight of the TV.
3. If you have difficulty, please contact Proton at info@protonav.com
4. Proton uses VESA (Video Electronics Standard Association) certified wall mounts.

# 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) |
|---|---|---|
| HDMI input | 480p | 60 |
| | 576p | 50 |
| | 1080i | 50/60 |
| | 720p | 50/60 |
| | 1080p | 60 |
| Component (Y/PbCb/PrCr) | 480i | 60 |
| | 480p | 60 |
| | 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) |
|---|---|---|---|---|---|---|
| PC input | 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 |
| | 800 x 600 | 60 | 37.879 | 60.317 | P | P |
| | | 72 | 48.077 | 72.188 | P | P |
| | | 75 | 46.875 | 75.000 | P | P |
| | | 85 | 53.674 | 85.061 | P | P |
| | 1024 x 768 | 60 | 48.363 | 60.004 | N | N |
| | | 70 | 56.476 | 70.069 | N | N |
| | | 75 | 60.023 | 75.029 | P | P |
| | | 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.

- **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.

- **VIDEO/ 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 Bar/ 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].

# Acronyms, Abbreviations, Functions, and Terms

- **Cool/ 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/ Genera**: 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 contro**: No sound will be emitted.

# Acronyms, Abbreviations, Functions, and Terms

- **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; does distort the entire image (which widescreen does with a 4:3 video). The center of the image will not be stretched horizontally.

- **PC- genera/ Inputs and outputs I**: 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.

# Acronyms, Abbreviations, Functions, and Terms

- **SPDIF/ Inputs and Outputs**: Coaxial (RF) is a output socket that transmits to the cable connecting from an amplifier/additional speaker system; digital audio output. (for HDMI only)

- **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; 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.

# Channel Frequency Table

# Channel Frequency Table

| TV CH | CH | Picture Carrier (MHz) TV/STD | CATV HRC | CATV IRC |
|-------|-----|---------|----------|----------|
| 92 | 76 | 535.25 | 534.00 | 535.25 |
| 93 | 25 | 537.25 | | |
| 94 | 77 | 541.25 | 540.00 | 541.25 |
| 95 | 26 | 543.25 | | |
| 96 | 78 | 547.25 | 546.00 | 547.25 |
| 97 | 27 | 549.25 | | |
| 98 | 79 | 553.25 | 552.00 | 553.25 |
| 99 | 28 | 555.25 | | |
| 100 | 80 | 559.25 | 558.00 | 559.25 |
| 101 | 29 | 561.25 | | |
| 102 | 81 | 565.25 | 564.00 | 565.25 |
| 103 | 30 | 567.25 | | |
| 104 | 82 | 571.25 | 570.00 | 571.25 |
| 105 | 31 | 573.25 | | |
| 106 | 83 | 577.25 | 576.00 | 577.25 |
| 107 | 32 | 579.25 | | |
| 108 | 84 | 583.25 | 582.00 | 583.25 |
| 109 | 33 | 585.25 | | |
| 110 | 85 | 589.25 | 588.00 | 589.25 |
| 111 | 34 | 591.25 | | |
| 112 | 86 | 595.25 | 594.00 | 595.25 |
| 113 | 35 | 597.25 | | |
| 114 | 87 | 601.25 | 600.00 | 601.25 |
| 115 | 36 | 603.25 | | |
| 116 | 88 | 607.25 | 606.00 | 607.25 |
| 117 | 37 | 609.25 | | |
| 118 | 89 | 613.25 | 612.00 | 613.25 |
| 119 | 38 | 615.25 | | |
| 120 | 90 | 619.25 | 618.00 | 619.25 |
| 121 | 39 | 621.25 | | |
| 122 | 91 | 625.25 | 624.00 | 625.25 |
| 123 | 40 | 627.25 | | |
| 124 | 92 | 631.25 | 630.00 | 631.25 |
| 125 | 41 | 635.25 | | |
| 126 | 93 | 637.25 | 636.00 | 637.25 |
| 127 | 42 | 639.25 | | |
| 128 | 94 | 643.25 | 642.00 | 643.25 |
| 129 | 43 | 645.25 | | |
| 130 | 100 | 649.25 | 648.00 | 649.25 |
| 131 | 44 | 651.25 | | |
| 132 | 101 | 655.25 | 654.00 | 655.25 |
| 133 | 45 | 657.25 | | |
| 134 | 102 | 661.25 | 660.00 | 661.25 |
| 135 | 46 | 663.25 | | |
| 136 | 103 | 667.25 | 666.00 | 667.25 |

| TV CH | CH | Picture Carrier (MHz) TV/STD | CATV HRC | CATV IRC |
|-------|-----|---------|----------|----------|
| 137 | 47 | 669.25 | | |
| 138 | 104 | 673.25 | 672.00 | 673.25 |
| 139 | 48 | 675.25 | | |
| 140 | 105 | 679.25 | 678.00 | 679.25 |
| 141 | 49 | 681.25 | | |
| 142 | 106 | 685.25 | 684.00 | 685.25 |
| 143 | 50 | 687.25 | | |
| 144 | 107 | 691.25 | 690.00 | 691.25 |
| 145 | 51 | 693.25 | | |
| 146 | 108 | 697.25 | 696.00 | 697.25 |
| 147 | 52 | 699.25 | | |
| 148 | 109 | 703.25 | 702.00 | 703.25 |
| 149 | 53 | 705.25 | | |
| 150 | 110 | 709.25 | 708.00 | 709.25 |
| 151 | 54 | 711.25 | | |
| 152 | 111 | 715.25 | 714.00 | 715.25 |
| 153 | 55 | 717.25 | | |
| 154 | 112 | 721.25 | 720.00 | 721.25 |
| 155 | 56 | 723.25 | | |
| 156 | 113 | 727.25 | 726.00 | 727.25 |
| 157 | 57 | 729.25 | | |
| 158 | 114 | 733.25 | 732.00 | 733.25 |
| 159 | 58 | 735.25 | | |
| 160 | 115 | 739.25 | 738.00 | 739.25 |
| 161 | 59 | 741.25 | | |
| 162 | 116 | 745.25 | 744.00 | 745.25 |
| 163 | 60 | 747.25 | | |
| 164 | 117 | 751.25 | 750.00 | 751.25 |
| 165 | 61 | 753.25 | | |
| 166 | 118 | 757.25 | 756.00 | 757.25 |
| 167 | 62 | 759.25 | | |
| 168 | 119 | 763.25 | 762.00 | 763.25 |
| 169 | 63 | 765.25 | | |
| 170 | 120 | 769.25 | 768.00 | 769.25 |
| 171 | 64 | 771.25 | | |
| 172 | 121 | 775.25 | 774.00 | 775.25 |
| 173 | 65 | 777.25 | | |
| 174 | 122 | 781.25 | 780.00 | 781.25 |
| 175 | 66 | 783.25 | | |
| 176 | 123 | 787.25 | 786.00 | 787.25 |
| 177 | 67 | 789.25 | | |
| 178 | 124 | 793.25 | 792.00 | 793.25 |
| 179 | 68 | 795.25 | | |
| 180 | 125 | 799.25 | 798.00 | 799.25 |
| 181 | 69 | 801.25 | | |

# Channel Frequency Table

| TV CH | CH | Picture Carrier (MHz) | | |
|---|---|---|---|---|
| | | TV/STD | CATV HRC | CATV IRC |
| 182 | 126 | 805.25 | 804.0402 | 805.2625 |
| 183 | 127 | 811.25 | 810.0405 | 811.2625 |
| 184 | 128 | 817.255 | 816.0408 | 817.2625 |
| 185 | 129 | 823.25 | 822.0411 | 823.2625 |
| 186 | 130 | 829.25 | 828.0414 | 829.2625 |
| 187 | 131 | 835.25 | 834.0417 | 835.2625 |
| 188 | 132 | 841.25 | 840.042 | 841.2625 |
| 189 | 133 | 847.25 | 846.0426 | 847.2625 |
| 190 | 134 | 853.25 | 852.0426 | 853.2625 |
| 191 | 135 | 859.25 | 858.0429 | 859.2625 |

# Warranty Card Info

## ONE YEAR LIMITED WARRANTY

This Proton 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 Proton 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 by:

Proton International America, Inc.
2540 CORPORATE PLACE, SUITE B111              E-mail: info@protonav.com
MONTEREY PARK, CA 91754                       Tel: 1-877-878-7484

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

Warranty is valid only in the country of purchase.

Proton 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.

Proton International America, Inc.
2540 CORPORATE PLACE, SUITE B111              E-mail: info@protonav.com
MONTEREY PARK, CA 91754                       Tel: 1-877-878-7484

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## RETURN MERCHANDISE AUTHORIZATION (RMA) FORM

RMA  Number:_____          Date:_____

Name:_____          E-mail:_____

Company:_____

Address:_____

City:_____          State:_____   Zip:_____

Phone   Number:  (____)_____

Product    Name/Model:_____

Purchase  Date:_____          Serial  Number:_____

Problem(s) (please  be  specific):_____

_____

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