



User Guide  
Guía del usuario

## digital converter box caja convertidora digital



MVCB1000

[www.memorexelectronics.com](http://www.memorexelectronics.com)

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Please read these instructions completely,  
before operating this product.

Por favor lea toda las instrucciones  
antes de tratar de usar este producto.



**CAUTION**  
**RISK OF ELECTRIC  
SHOCK DO NOT OPEN**



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



This lightning flash with arrowhead symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.



This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.

**WARNING:** TO PREVENT FIRE OR ELECTRIC SHOCK  
HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN  
OR MOISTURE

**CAUTION:** FCC regulations state that any unauthorized changes or modifications to this equipment may void the user’s authority to operate it.

**Note to CABLE/TV Installer:** This reminder is provided to call cable TV system installer’s attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

**IMPORTANT:** One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

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 that may  
cause undesired operation.

## IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturers instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (Including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two Blades with one wider than the other. A grounding type plug has two blades and a third grounding prong .The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand tripod, bracket, or table specified by the manufacturer, or sold with



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

- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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# Introduction

*To ensure proper use of this product, please read this owner's manual carefully and retain for future reference.*

*This manual provides information on the operation and maintenance of your TV SET-UP BOX.*

*This chapter explains the Technical overview, unpacking, front panel, Rear panel, and Remote control.*

## Technical overview

This paragraph explains the technical capabilities of TV SET-UP BOX, and provides background information on digital television. Topics covered here include:

- What are Analog TV, Digital TV, NTSC, ATSC, SDTV, and HDTV?
- What kinds of TV programming can I watch with the TV SET-UP BOX?
- What equipment is required to view Digital programming?
- Resolution an interlacing
- Input formats
- Output options
- Aspect ratio

## What are Analog TV, Digital TV, NTSC, ATSC, SDTV, and HDTV?

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### Analog TV

Analog TV is the TV you're probably most familiar with. Most of the TV broadcasts you receive via a standard off-air antenna or from your local cable company are analog TV broadcasts.

### Digital TV

Digital television (sometimes called DTV) is a newer method of broadcasting TV signals that delivers higher quality audio and video. Digital TV is broadcast in two sets of formats, SDTV and HDTV.

## **NTSC**

NTSC (National Television Standards Committee) refers to the group that first established the standards used for conventional analog television broadcasts and TV equipment.

## **ATSC**

ATSC (Advanced Television Systems Committee) is the group who has been working to establish the standards for digital television broadcasts and digital television equipment – including both SDTV and HDTV.

## **SDTV**

SDTV (Standard-Definition TV) is a digital TV format that provides a high quality picture at resolutions that can be displayed on standard TV sets (see more on resolutions later in this chapter).

## **HDTV**

HDTV (High-Definition TV) is a digital TV format that provides the highest quality picture at resolutions that can be displayed on HDTV-ready TV displays, HDTV Monitors and, computer monitors.

## **What kinds of TV programming can I watch with the TV SET-UP BOX?**

TV SET-UP BOX provides you with the ability to receive digital television programs from a wide range of sources, and to display them on standard definition TV.

Using the Air/Cable jack on the back of the TV SET-UP BOX , you can receive local digital television programs.



- To view cable TV programming, programming subscriptions are also required.

## **What equipment is required to view Digital programming?**

To view digital programming, in addition to your TV SET-UP BOX, you will need television set.

To receive digital off-air television broadcasts, you'll need an off-air antenna.

To receive cable TV programming, you'll need a cable TV connection (provided by your local cable TV service provider).

## Resolution and interlacing

Two of the elements that determine the quality of a TV picture are resolution and interlacing.

**Resolution:** For TV equipment and broadcasts, resolution is defined by the number of horizontal lines displayed to make up each frame of a video image. The more lines of resolution used to draw each frame of video, the more detailed and sharp the picture will be. Standard TV resolution uses 480 horizontal lines to make up each of video. HDTV uses either 720 lines, or 1080 lines to make each video frame.

**Interlacing:** When TVs display video, they display a new video frame at a rate that is faster than your eye can see (from 24 to 60 frames per second, depending on the TV and broadcast). Interlacing refers to whether each of those frames contains all of the lines of video for each frame or every other line. Interlaced signals take every other line frame 2 frames of video (each lasting  $1/60^{\text{th}}$  of a second), and combine them into one frame lasting  $1/30^{\text{th}}$  of a second. In this way, interlacing tricks your eye into thinking it is seeing twice the resolution that is actually being displayed.

In non-interlaced video, (referred to as progressive scan video), video frames are displayed every  $1/60^{\text{th}}$  of a second containing all of the lines of video information for each frame.

The specifications for video resolutions are usually stated by giving the number of horizontal lines, followed by either the letter “i”, for interlaced video, or “p” for progressive scan video. The ATSC specification for HDTV broadcasts and equipment requires either 1080i or 720p. While there is some debate as to whether it is better to have more lines that are interlaced that 1080i is highest quality video format.

## Input formats

TV SET-UP BOX is able to receive broadcasts in any of the resolutions mentioned above. It will then do the appropriate conversion from input signal format to general TV display format.

The table below details the results you get with each combination of input signal format.

	Type	Aspect Ratio	Compression Size Values	Frame Rate
18	H D T V	16:9	1920×1080	30p
17				24p
16				30i
15			1280×720	60p
14				30p
13				24p
12	S D T V		704×480	60p
11				30p
10				24p
9				30i
8				60p
7				30p
6		24p		
5		30i		
4	4:3	640×480	60p	
3			30p	
2			24p	
1			30i	



**Output options**

To select one of the connections to connect general TV, you can view digital programming.

**Output Options**

Output Connection	Source	Format
VIDEO/AUDIO	AV	480i
RF	3CH/4CH	480i

**Aspect ratio**

In addition to resolution and interlacing, HDTV is also defined by the aspect ratio of its broadcasts.

Aspect ratio means the shape of the screen as defined by the ratio of the screen's width to its height. For analog TV and SDTV, the aspect ratio is 4 units wide by 3 units high (usually written 4:3). This is familiar shape of conventional TVs----slightly wider than they are tall.

For HDTV broadcasts, the aspect ratio is 16:9 (nearly twice as wide as it is tall). This is not coincidentally, more like the shape of movies shown in theaters.

TV SET-UP BOX allows you to choose from a variety of aspect ratios to help you dealing with those scenarios.

**Letter box:** Choose this when receiving a 16:9 image and you want to see the original wide format. Letter boxing shrinks the picture so the entire image will fit on the screen. Blank panels appear at the top and bottom of the screen.

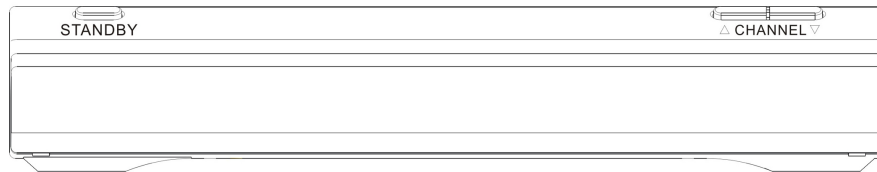
**Full:** Choose this when you want the television to adjust the 16:9 image vertically so it fills your 4:3 screen. No blank panels will be added, and the image is horizontally unaltered.

**Cut out:** Choose this when receiving a 16:9 image and you want the wide movie format to fill the entire screen. Left and right portions of the picture are cropped, or cut.

<b>Source Signal</b>	16 9 	4 3 
<b>letter box</b>		
<b>Full</b>		
<b>Cut out</b>		

(Setting this preference are included in page 26).

Make sure you have received all these items listed below with the TV SET-UP box.

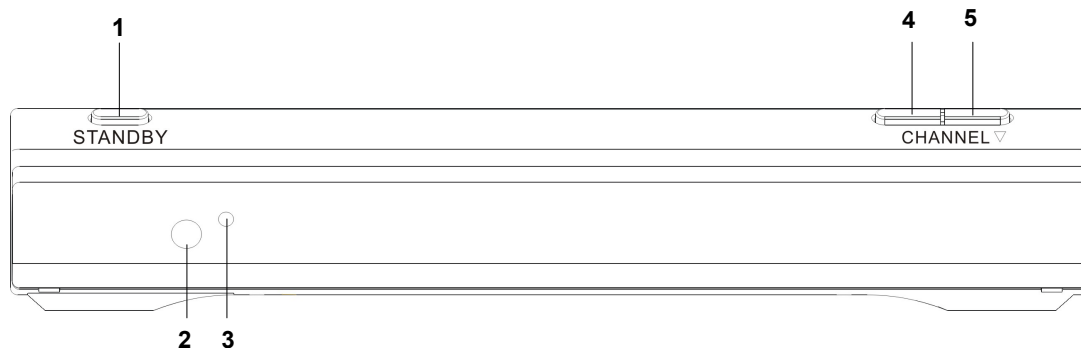


**TV SET-UP Box**

**USER'S MANUAL**

**ATSC**

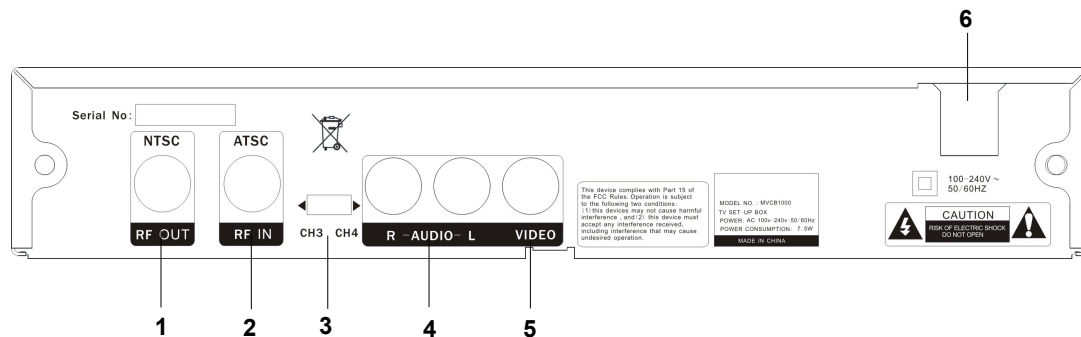
## Front Panel



1. **STANDBY**-Turn DTV Tuner on and off.
2. **REMOTE CONTROL SENSOR**
3. **INDICATION LIGHT**

4. **▲**-Choose the channel upward.
5. **▼** - Choose the channel downward.

## Rear Panel



1. **RF OUT**-Connect to TV's antenna.
2. **RF IN**-Antenna connects to this jack.
3. **CH3 .CH4**- select NTSC channel.

4. **AUDIO** -Connect to TV's AUDIO
5. **VIDEO** -Connect to TV's VIDEO
6. **MAIN POWER** - Connect to mainpower supply using the power cord

## Remote control

### 1. STANDBY

Turn TV SET-UP BOX on and off.

### 2. NUMBER

Push to change channel.

### 3. BACK

Move to the previous channel.

### 4. ASPECT

Change Screen Size.

### 5. Direction & OK

Move highlight to items in whatever direction needed, and confirm the selected option.

### 6. MENU

Display the Menu Screen.

### 7. MUTE

Temporarily cut off the sound.

### 8. CC

Closed Caption on and off.

### 9. FAV1 FAV2 FAV3

Change among the favorite channels assigned.

### 10. AUDIO

Change Audio's Track.

### 11. INFO

Display the channel information.

### 12. SLEEP

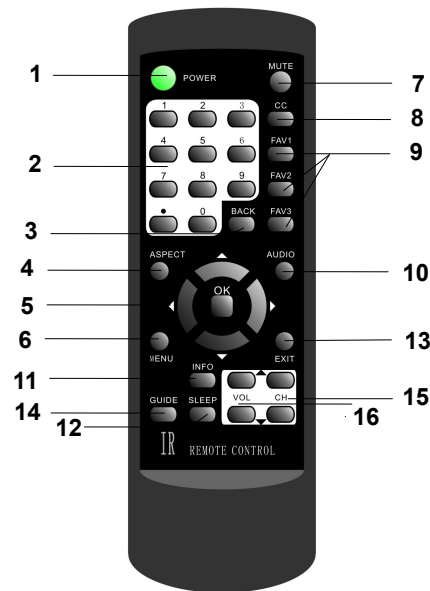
Press to select a preset time interval for automatic shut off.

### 13. EXIT

Terminate the menu.

## 14. GUIDE (Electronic Program Guide)

Weekly Program Guide Display with reference to date, time and channels



### 15. CH + / -

Choose the next or previous channel.

### 16. VOL + / -

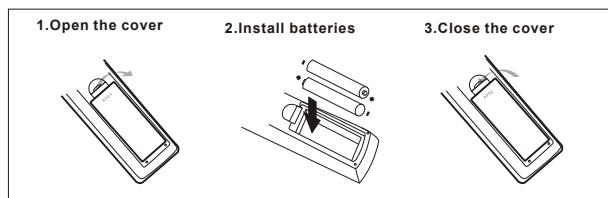
Increase or decrease the volume.

## Loading Battery

### 1.1.1 Installing the Batteries

Remove the battery cover from the remote control and put 2xAA size batteries inside the compartment.

The diagram inside the battery compartment shows the correct way to install the batteries.



### 1.1.2 Using the Remote Control

To use the remote control, point it towards the front of the TV SET-UP BOX.

The remote control has a range of up to 7 metres from the TV SET-UP Box at an angle of up to 60 degrees.

The remote control will not operate if its path is blocked.



**Sunlight or very bright light will decrease the sensitivity of the remote control.**

# Connections and Setup

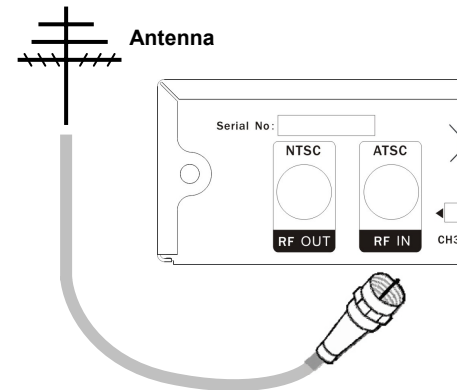
*This chapter tells you everything you need to know start setting up and using your converter box. It includes information on Connections and Initial Settings.*

## Connections

This paragraph tells you connecting the converter box, and connects to TV, Display, the home theater and DVI to HDMI Connection.

### Connecting to antenna

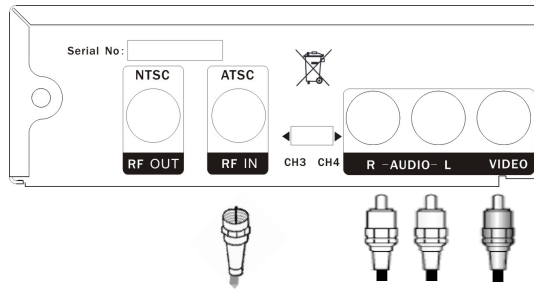
Connect an outdoor or indoor Antenna directly to this jack with a coaxial RF cable. This is to receive Digital TV signals from TV broadcasters.



## Connecting to TV

1. Connect antenna cable to AIR/CABLE jack of DTV Tuner unit. Refer to previous section "Antenna /RF Connections".
2. Connect video cable from VIDEO jack to the TV video (CVBS) input.
3. Connect audio cable from R-AUDIO-L jacks to the TV stereo (L/R) audio inputs.

4. **Optional:** If the TV does not have AUDIO/VIDEO input connectors, then connect one end of a coaxial RF cable to the RF OUT connector on the back of the PHD-089 DTV Tuner. Connect the other end of the coaxial RF cable to the antenna input connector on the back of the TV. Set the CH3/CH4 on the menu to the channel not used in your area. (See page 26). It is this channel you will select on your TV to view the digital programming with DTV Tuner.



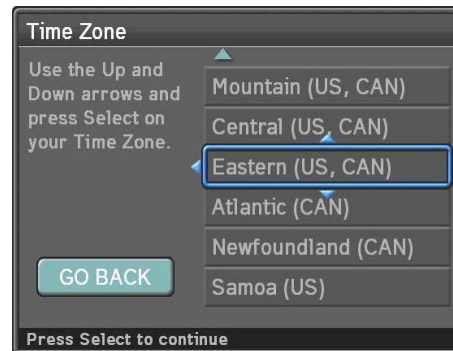
## Initial Settings

After you finish connecting your converter box, you need to run initial setup, which automatically sets up available channels. The initial setup appears when you turn on your converter box for the first time. If you do not want to set up the channels at this time, you can do it later by selecting the CHANNEL of the MENU (see page 28).

1. Plug the Power Cable into AC In on the back of the TV, and press the **Power** switch on the front panel.
2. Press the **STANDBY** button on the Remote Control or Front Panel of TV SET-UP BOX.
3. Press the ▼ or ▲ button to select language, then press **OK** button.



4. Press the ▼ or ▲ button to select Time Zone, then press **OK** button.



5. Press the ▼ or ▲ button to select Daylight Saving, then press **OK** button.





6. TV SET-UP BOX auto scans channels.



7. Press the **OK** button to finish the Channel scan.



8. Change Channel by pushing **CH+/CH-** button or number keys on the Remote Control.



- The channel number is shown up in the top-left corner of the screen.
- Check the Antenna and Power Cable Connection if there is no display.

# Operation

*This chapter covers all of the things you can do with the Guides and other features that let you control the way you use converter box. It includes watching TV and using menu.*

## Watching TV

This paragraph explains simple operations for watching a TV program. It includes:

- Turning on or off the TV SET-UP BOX.
- Setting the Sleep timer
- Changing the channels
- Adjusting the volume
- Using the MUTE
- Seeing the Closed Caption
- Displaying the channel information
- Displaying the GUIDE (EPG)
- Audio Preference

## Turning on or off the TV SET-UP BOX

### Preparation

Perform the following steps before you turning on the TV SET-UP BOX.

1. Insert the batteries into the remote control unit. (See page 13.)
2. Connect the antenna/cable signal to TV SET-UP BOX  
(See page 14)
3. Plug in the AC cord to the AC outlet.

### Turning on the power

1. Press the **STANDBY** button on the front panel or the remote control.



#### Power indicator

ON	Lighting(Green)
Standby	Lighting(Red)

### Turning off the power

1. Press the **STANDBY** button on the front panel or the remote control.
2. If you are not going to use this TV SET-UP BOX for a long period of time, you can plug out the AC cord from the AC outlet.

### Screen Saver

If no signal is being received or the signal is very weak, Screen saver is automatically activated after 2 minutes. "Press any button to continue" will appear on the screen until you take an action to dismiss it.

### Power Management

TV SET-UP BOX will automatically switch to the standby mode when there is screen saver activate for 4 hours.

## Setting the Sleep Timer

You can select a time period of between 30 and 240 minutes after which the TV SET-UP BOX automatically switches to standby mode.

1. Press the **SLEEP** button on the remote control.
2. Select the preset time interval for staying on by pressing the **SLEEP** button repeatedly.



## Changing the channels

You can change channels in several ways.

### Method 1

Press **CH+/CH-** button on the remote control or the front panel to change the channels.



! The channel number and name are displaying on the screen

### Method 2

Using remote control buttons **0-9**, and **•** (DOT) to select a channel program.

e.g., channel 8:

Press **8** → **OK**

e.g., channel 15.1:

Press **1** → **5** → **•** → **1** → **OK**



### Method 3

1. Press **BACK** to switch to the previously tuned channel.
2. Press **BACK** again to switch back to the currently tuned channel.



- **BACK** will not work if no channel has been changed after the converter box is turned on.

## Adjusting the volume

You can adjust the volume on the remote control.

To increase the volume, press **VOL+**.

To decrease the volume, press **VOL-**.



- If the audio was muted, pressing **VOL+** or **VOL-** will un-mute the audio and display the volume banner without changing the volume. The next press will increase or decrease the volume one increment.

## Using the MUTE

Mutes the current sound output.

1. Press **MUTE** button on the remote control.
2. "MUTE" will be displayed on the screen, and sound is silenced.



3. Press **MUTE** button again, and sound is output.

## Seeing the Closed Caption

Closed Caption feature is to display On Screen Text Messages during watching TV. You can select on, or off.

1. Press **CC** button on the remote control.
2. Press **▲/▼** button to highlight the item from “On”, “Off” , or “On When Muted”.
3. Press **OK** to select an option.
4. Than Closed Caption is display or closed.



### On

Captioning information always appears, when available.

### Off

No captioning information displayed.

### On When Muted

Displays captioning information, when available, whenever the TV's sound is muted by pressing the **MUTE** button. The captioning information is not displayed when the sound is not muted.

## Displaying the channel information

1. Press **INFO** button on the remote control to display the current channel information on the screen.

Channel information includes

- ☐ Date and clock;
- ☐ Channel number;
- ☐ Channel label (if preset)
- ☐ Broadcast program name
- ☐ Program name



2. Press **INFO** again to clear the display.



## Displaying the GUIDE

Show program information for the current channel.

1. Press **GUIDE** button on the remote control once, the information will appear.
  - Date and clock;
  - Channel number;
  - Channel label (if preset)
  - Broadcast program name
  - Program name



2. Press **GUIDE** button again, more information will appear.

- Signal strength;
- Signal format;
- Audio format;
- V-CHIP mark
- Closed Caption mark



3. Press **GUIDE** again to clear the display.

## Audio Preference

The digital-TV transmission system is capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages). The availability of these additional “multi-tracks” depends upon the program.

1. You can select the audio preference by pressing **AUDIO** button on the remote control.
2. Press **▲/▼** button to highlight the item.



3. Press **OK** to select an option.



- If multiple tracks are not available, the following menu will be displayed. It will also show language if available. The menu is not selectable.



- This audio service selection is a temporary override and the system shall revert back to the audio service based on language preference when:
  - 1)The audio language preference is changed in the menu(See page 27),
  - 2)A different channel is selected,
  - 3)TV SET-UP BOX is re-activated,
  - 4)An audio service appears/disappears in/from the broadcast.



## Using the MENU

MENU provides one button access for controlling your converter box. It enables you to perform a variety of tasks intuitively with a control panel on the screen rather than a variety of remote control button presses.

1. Press **MENU** on the remote or front panel. MENU control panel appears.
2. Press **◀/▶** to highlight the item.
3. Press **OK** or **▼** into submenu, and press **▶** into option.
4. Press **MENU** or **EXIT** to exit.

### Menus items

#### Set up

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#### Channel

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## Set up



This item can adjust menu's language, picture's aspect ratio, audio, time zone, DST, and system information.

1. Highlight "Set up" on the MENU control panel and press **OK** or **▼**.
2. Press **▲/▼** to highlight the item: Language, Aspect Ratio, Audio, Time Zone, DST, Reset All, and system Information.
3. Press **OK** or **▶** to select an option.
4. Press **EXIT** to exit.

## Language

You can select the language of the menu from English, French and Spanish.

## Aspect Ratio

You can select an aspect ratio of the "Letter box", "Full", and "Cut out".

You can press **ASPECT** button on the remote control to select the aspect ratio too.



The picture size mode see page 9.

## RF Output

If you use the RF OUT jack, select channel 3 or channel 4 to send RF signal from your TV SET-UP BOX to your TV. Your TV must be tuned to the selected channel to display the picture.

## Audio

---

You can select an audio preference from English, French and Spanish.



- If you want to temporary changing audio service at a channel, you can use **AUDIO** button on the remote control. (See page 24)

## Time Zone

---

You can select a time zone from Alaska/ Hawaii/ Pacific/ Mountain/ Central/ Eastern/ Atlantic/ Newfoundland/ Samoa.

## DST (Daylight Saving Time)

---

You can select ON or OFF to setup the Daylight saving time.

## Reset All

---

With one fell swoop you can reset all settings back to factory settings. This includes the channel map, all Program Info, Favorite channel lists, etc. The TV should display the Setup Wizard following reset, just as if it was turned on out-of-the-box.



- If a PIN is set, the PIN entry dialog is displayed before the Reset All Settings dialog box, even if Locks are temporarily off. If no PIN is set, the dialog is displayed immediately.

## System Information

---

Display important system information.

The information is including:

- ☐ Chipset
- ☐ Demod
- ☐ Remote Code
- ☐ Version

## Channels



1. Highlight "Channels" on the MENU control panel and press **OK** or **▼**.
2. Press **▲/▼** to highlight the item: Tuner, Auto Scan, Manual Scan, Master List, Favorites1, Favorites2, Favorites3.
3. Press **OK** or **▶** to select an option.
4. Press **EXIT** to exit.

### Auto Scan

If you select the "Start Scan" and confirm the "Scan", TV SET-UP BOX will scan channels.

You can watch the TV as finish to scan.



- This step may take 10-15 minutes.
- All the current stored channels will be deleted or replaced with new channel information after doing 'Start Scan'.

### Manual Scan

Using this option, you can find a channel on a particular frequency.

You can use the number button (0-9) on the remote control to find the channel.

### Channel name edit

### Master List

Edit the master list of all your channels. You can add or remove some channels from the master list.



- When you press **CH+/CH-** button to watch TV, your TV will stop only on the channels you have programmed into the TV's channels master list.
- Removed channels in the master list will select by pressing number button only.

## Favorites

Edit the list of channels in your favorites.

Favorite Channel Function is for the convenience of channel change among your frequent watching or favorite channels by separately memorizing them in FAV.

You can mark to add the favorite channel in each FAV.

You can use "name" item to rename the FAV name also.

### FAV name default

FAV1	List
FAV2	Sports
FAV3	News

### Using FAV1 FAV2 FAV3 button

You can use **FAV1** **FAV2** or **FAV3** button to add or remove the channels also.

1. Press **CH+/CH-** buttons to select the channel you would like to register.
2. Press **FAV1** **FAV2** or **FAV3** button on the remote control to register it as a favorite channel, select "Add" to register it.
3. In the favorite channel, you can press **FAV1** **FAV2** or **FAV3** button to remove it.
4. After you finish favorite channel registration, by each pressing of **FAV1** **FAV2** or **FAV3** button, you can change the channels between them.

## Caption



Closed Caption feature is to display On Screen Text Messages during watching TV. This feature is available in both analog and digital broadcast. The converter box is equipped with an internal Closed Caption decoder. It allows you to view conversations, narration and sound effects as subtitles on your TV.

Digital Closed Caption service is a new caption service available only on digital TV programs (also at the discretion of the service provider). It is a more flexible system than the original Closed Caption system, because it allows a variety of caption sizes and font styles. When the Digital Closed Caption service is in use, it will be indicated by the appearance of a 3-letter abbreviation that also indicates the language of the Digital Closed Captions: ENG (English), SPA (French), FRA (French) or other language codes.



- Closed captioning is not available on all channels at all times. Only specific programs encoded with closed-captioning information are applicable.

1. Highlight "Caption" on the MENU control panel and press **OK** or **▼**.
2. Press **▲/▼** to highlight the item: CC Mode, Basic CC, Advanced CC, Advanced CC Style, and CC Preference.
3. Press **OK** or **▶** to select an option.
4. Press **EXIT** to exit.

### CC Mode

You can select the CC Mode from ON, OFF and On when muted.

You can also press CC button on the remote control. (See page 22)

## Basic CC

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You can select an available in these options.

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**CC1:** The Primary Synchronous Caption Service. These are captions in the primary language that must be in sync with the sound, preferably matched to a specific frame.

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**CC2:** The Special Non-Synchronous Use Captions. This channel carries data that is intended to augment information carried in the program.

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**CC3:** Secondary Synchronous Caption Service. Alternate program-related caption data, typically second language captions.

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**CC4:** Special Non-Synchronous Use Captions. Similar to CC2.

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**Text1:** First Text Service. This may be various non-program related data.

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**Text2:** Second Text Service. Additional data, usually not program related.

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**Text3/Text4:** Third Text Service. These data channels should be used only if Text1 and Text2 are not sufficient.

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## Advanced CC

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You can select an available advance caption in DTV Caption.

This item include

- ☐ Advanced CC1
- ☐ Advanced CC2
- ☐ Advanced CC3
- ☐ Advanced CC4
- ☐ Advanced CC5
- ☐ Advanced CC6

## Advanced CC Style

This will adjust advanced settings such as text style and size and etc.

It can be used into digital channel.

### Text

Style	Typewriter/Storybook/ Computer/Modern/ Formal/ Cursive/Casual/ As Broadcast
Color	White/Red/Green/Blue/Black/Yellow/ Magenta/Cyan/ As Broadcast
Size	Small/ Standard Size/ Large/ As Broadcast
Opacity	Solid/ Translucent/ Transparent/ Flashing/ As Broadcast

### Background

Color	White/Red/Green/Blue/Black/Yellow/ Magenta/Cyan/ As Broadcast
Opacity	Solid/ Translucent/ Transparent/ Flashing/ As Broadcast

### Edge

Style	None/ Raised /Depressed/ Uniform/ Shadow left/ Shadow Right/ As Broadcast
Color	White/Red/Green/Blue/Black/Yellow/ Magenta/Cyan/ As Broadcast

\*Factory default: As Broadcast

## CC Preference

Choose whether to use “basic”, “advanced” or “Automatic” closed caption setting for digital TV channels. (Advanced closed caption is the priority)



## Parental Control (V-Chip)



In this item, you can use Ratings locks (V-CHIP), Channel locks and change PIN after setting your password.

When you first enter into this menu, setup your password.

1. Press **MENU** and "MENU" screen display.
2. Press **◀/▶** to select "Parental" item.
3. Press **OK** or **▼** into the New PIN item.
4. Select and enter PIN (4 digits) using the number buttons (0-9).
5. Enter same PIN (4 digits) again and access the Parental menu.



- In screen, ★ appears instead of the number.
- As a precautionary measure, make a note of your password (PIN) and keep it in a familiar place.
- System default PIN number is 2273.

6. Press **▲/▼** to highlight the item: Change PIN, MPPA-Rating, TV-USA, CA English Rating, CA French Rating.
7. Press **OK** or **▶** to select an option.
8. Press **EXIT** to exit.

V-CHIP is an electronic filtering device built into this Digital HDTV Tuner. This tool gives parents a great degree of control over broadcasts accessed by their children. It allows parents to select programs judged suitable for child viewing while blocking ones judged not suitable. It does so automatically once you activate the V-CHIP feature in your equipment.



### IMPORTANT

Two conditions must be met to enable the V-CHIP.

- Password (PIN) is registered.
- V-CHIP settings have been made.

## Change PIN

You can change the lock PIN.

1. Enter New PIN.
2. Confirm New PIN.
3. Select "Done" to confirm it.
4. Than your New PIN is configured.

## Unrated Show

You can block all programs and movies that are broadcast without a rating.

### Unrated Show

On	Blocks all programs and movies that are broadcast without a rating.
Off	Allows all programs and movies that are broadcast without a rating.

## US Movie Rating

Movie ratings are used for original movies rated by the Motion Picture Association of America (MPAA) as watched on cable TV and not edited for television. The V-CHIP can also be set to block MPAA-rated movies.

\*Restriction Categories based on six aged base.

### Voluntary movie rating system (MPPA)

G	General Audience (No Restrictions).
PG	Parental guidance Suggested.
PG-13	Parental guidance for children under 13.
R	Restricted. Children under 17 should be accompanied by an adult
NC-17	17 years old and above.
X	Adults Only



- If you block G, other will automatically be blocked and similarly.
- If you unblock X, other will automatically be unblocked and similarly.

## US TV Rating

The TV Parental Guidelines work in conjunction with the V-CHIP to help parents screen out inappropriate television shows from their children.

\*Restriction Categories based on six aged base.

### Hierarchy of Age-based Ratings

TV-Y	All Children
TV-Y7	7 years old and above
TV-G	General audience
TV-PG	Parental guidance
TV-14	14 years old and above
TV-MA	Mature audience only



- If you block TV-Y, TV-Y7 will automatically be blocked and similarly. And you block TV-G, TV-PG, TV-14 and TV-MA will be blocked.
- If you unblock TV-V7, TV-Y will automatically be unblocked and similarly. And you unblock TV-MA, TV-G, TV-PG and TV-14 will be unblocked.

Each Restriction Category has additional options.

### sub-ratings

ALL	All restriction
FV	Fantasy Violence
D	Sexually Suggestive Dialog
L	Adult Language
S	Sexual Situation
V	Violence

V-Chip will automatically block certain sub-categories that are more restrictive. For example, if you block “L” sub-rating in TV-PG, then the “L” sub ratings in TV-14 and TV-MA will automatically be blocked.

### TV Parental Guidelines

	ALL	FV	D	L	S	V
TV-Y	<input checked="" type="checkbox"/>					
TV-Y7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
TV-G	<input checked="" type="checkbox"/>					
TV-PG	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TV-14	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TV-MA	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

☒: Content rating can be set

## CA English Rating

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Restriction Categories based on five aged base.

### Hierarchy of Age-based Ratings

G	General programming.
8 ans+	Not recommended for young children.
13 ans+	Not recommended for ages under 13.
16 ans+	Not recommended for ages under 16.
18 ans+	Programming restricted to adults.

## CA French Rating

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Restriction Categories based on six aged base.

### Hierarchy of Age-based Ratings

C	All Children.
C8+	Children 8 years and above.
G	General programming.
PG	Parental guidance
14+	14 years old and above.
18+	Adults programming.

## A New U.S. Rating Region (Downloadable Rating)

The rating information can be updated if a TV station sends the downloadable rating information.



Downloadable Rating is a technology that allows digital TV stations to create and deliver new rating systems in the future if they choose.

1. Select the "A New U.S. Rating Region" option then press **►** or **OK**.
2. Select a rating title or TV rating then press **►** or **OK**.
3. Select a rating then press **OK**.



- If rating information is not downloaded from a TV station, the Downloadable Rating option will not be available.
- Rating information is automatically downloaded while watching DTV channels. It may take several seconds.
- The Downloadable Rating option is available for use after rating information is downloaded from a TV station. However, depending on the information from a TV station, it may not be available for use.
- Rating levels may differ depending on the broadcasting station.
- The default option name and Downloadable Rating changes depending on the downloaded information.

- The on-screen display for Downloadable Rating options will appear with a language that TV station sends.
- The rating titles (For example: Humor, etc) and TV ratings (For example: MH, H, VH, etc) may differ depending on the TV station.

# Reference

## Troubleshooting

### No power

- Is the AC power cord plugged in?

### No signal

- Check your antenna input or location.
- Check your cable input.
- Check your RF connection or set up.

### No picture

- Make sure that the right video type is selected.
- Make sure the Initial Setup process has been performed. Select the correct antenna type to Auto Scan Channels if you have not already done so.
- Check to make sure all the cables are installed correctly and that the proper source is selected on your TV.
- The digital TV signal strength may be low. Check the signal strength and adjust the off-air antenna.
- Make sure the broadcaster or service provider is supplying programming on the selected channel. Use the SIGNAL button to check for digital video signals.
- You may be trying to access a pay-per-view program. Follow the on-screen instructions to order the program.
- Due to copyright restrictions, you may not be able to view some high definition programs in the high-definition format.

### Cannot receive high-definition channels

- Make sure there is a good signal strength on available off-air antenna

### Normal picture but no sound

- Make sure the TV or Amp is not muted.
- Check that the TV SET-UP BOX is connected properly

### Picture is distorted.

- Make sure the proper aspect ratio is selected.
- Adjust the aspect ratio setting of your TV or monitor if available.

### Channels are missing

- If you changed the type of antenna, please select a correct tuner option in menu and Auto scan channel again.

### The remote control is not responding

- Make sure the batteries are fresh and installed properly.
- Point the remote control unit at the remote control sensor.

### Closed captions are not displayed

- Depending on broadcast provider, different types of captioning may be available. According to your preferences, you will need to set your Caption settings for Analog and Digital modes.
- Check your CC mode and Closed Caption options.
- Try to change your advanced settings (for instance, Text and Background) and CC Preference (for instance, Automatic).

## Specification

Contents	Spec.
Broadcasting standard	DTV(Terrestrial ATSC A/74 Protocol)
Turning system type	VHF2~13, UHF14~69 (Antenna 2~69channel)
Video System	ATSC Decoder
Auto Channel Search	Supported
Aspect Ratio	Letter box/Full / Cut out
EPG	(Electronic Program Guide) with ATSC PSIP(Program and Service Information Protocol)
Closed Caption	EIA-608A/EIA-708B Supported
V-Chip (Parental Control)	EIA-766-A Supported
Multi language OSD	English, Spanish, French
RF IN	Antenna In (75ohm Coaxial cable) (F-connector)
RF Out	F-connector (3ch/4ch)
Audio Line Out (RCA)	1 RCA Stereo (L/R) Out
Composite output (RCA)	RCA Video Out (480i)
Power supply	AC 100V-240V, 50~60Hz, 7.5W (Standby mode: 0.5W)
Size (mm/inch)	220(W)×38(H)×162(D) /8.5'(L)×1.5'(H)×6.5'(W)
Net weight	2.1 LB