

High Definition Digital Cable Receiver  
with CONAX Embedded

# AC-8000PVR

## User Manual








 **FERGUSON**

# Notice

This manual can help you to become familiar with how-to-use and the many great features of the high definition digital Cable receiver AC-8000PVR. All the safety and operating instructions should be read before the AC-8000PVR is operated. Please keep the manual in a fixed place so that it can be easily referred to later.

The following symbols will serve as follows:

 <b>Note</b>	Indicates any other additional important or helpful information.
 <b>Warning!</b>	Indicates warning information.
"MENU" (Double quotation marks)	Indicates a button on the remote control or the product.
	To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.
	Indicates dangerous voltage inside the product that presents a risk of electric shock or personal injury.
	Indicates important-operating and maintenance instructions accompanying the product.





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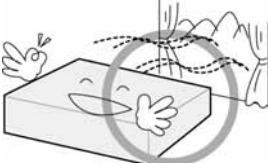
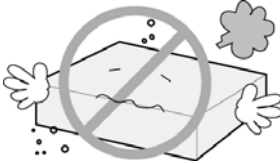
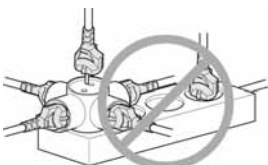



HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

# Safety and Precautions

## <Attention when installing the product>

<p>Install on an even plane.</p> 	<p>Don't install in the cold or under direct sunlight.</p> 
<p>Leave a minimum 10cm gap all around the product.</p> 	<p>Don't disassemble, repair, or reorganize the product.</p> 

## <Use and care of the product >

<p>Place the product in a well-ventilated area.</p> 	<p>Place the product where dust and other materials do not build up.</p> 
<p>Don't plug in with several other power plugs.</p> 	<p>Don't place the product where there are extreme vibrations or near magnetic forces.</p> 
<p>Don't place objects on top of the product.</p> 	<p>Don't place cups that hold water or other liquids on top of the product.</p> 

“The main plug is used to disconnect the device. The disconnected device shall remain readily operable.”

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## Chapter 1



# Before You Begin

## 1.1 Features

The AC-8000PVR is one of the best Digital Cable receivers for the new High-Definition Multimedia Interface. The AC-8000PVR adopts the latest MPEG-4 technology thus you can enjoy the various TV and radio programs. The simple connection and easy-of-use operation, user-friendly three-dimensional OSD, highest quality audio output with S/PDIF for Dolby AC-3 Digital Audio.

Furthermore, the AC-8000PVR provides the enhanced Electronic Program Guide(EPG), various utilities, and various channel sorting.

### <Main Features>

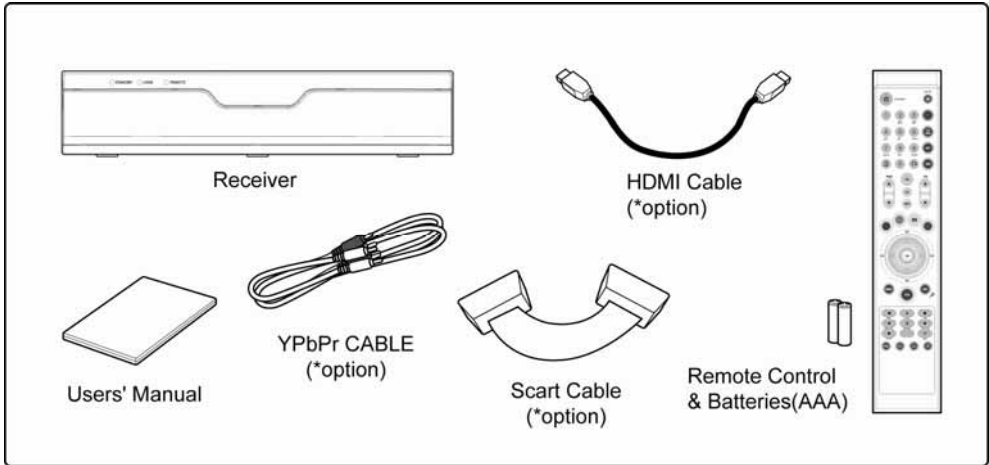
- MPEG-2 / MPEG-4 Part 10 AVC HD/H.264 compliant
- Fully Compliant to DVB-C Standard & Nordig HDTV 1.0
- Tuner & DVB-C Demodulator Compliant European digital cable standard ETSI EN 300 429 & Cable Ready
- Tuner Loop-Through output(Full band) Compliant with Cable Ready Specification
- MP Layer I and II, CD quality audio sound
- S/PDIF for Dolby Digital Audio Output
- Mono, Left, Right, Stereo, Audio Output Support
- PCM with Decoded MPEG I layer II(Musicam) Audio Output Support
- Easy And Fast Auto Programming, Intuitive User Interface
- Various Video Display Format With PAL 576i/576p/720p/1080i 50 Support
- Various Video Aspect Ratio With 4:3, Letter Box, Full Screen And 16:9 Support
- CVBS, HDMI, SCART, YPbPr Video Output Support
- 4-Digit 7-Segments Front LED Numerical Display For Service Number and Time Display
- Software Upgrade Via USB 2.0
- Separated TV/Radio/All List & Favorite Group List
- Multi Language Support(\*Customer Option)
- Conax CAS v7 (Smart Card Reader For Embedded CAS Support)

### <Other Features>

- Powerful and easy functions for editing (Lock, Delete, Rename Channel & Favorite group)
- Electronic Program Guide (EPG) for On Screen Channel Information
- Multi-language Function
- Auto searching & manual searching function
- Parental lock function
- Teletext and subtitle supported by VBI and OSD

## 1.2 Package Contents

Please check to make sure the following contents are in the product package.

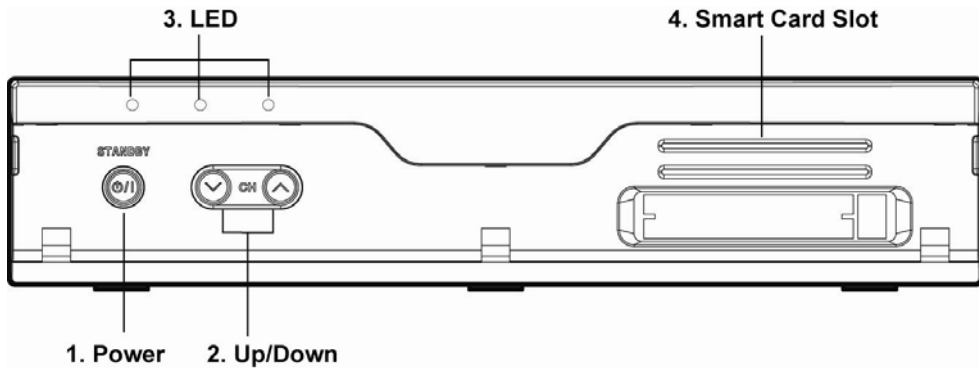


### Note

- Product contents may be subject to change.
- Cables not specified above must be purchased separately.

## 1.3 Names of Each Part

### 1.3.1 Front Panel



#### 1. Power

Switches the product On/Off.

#### 2. Up/Down Button

Changes channels in the No-menu State and moves the cursor up/down in the Menu state.

#### 3. LED (\*Option)

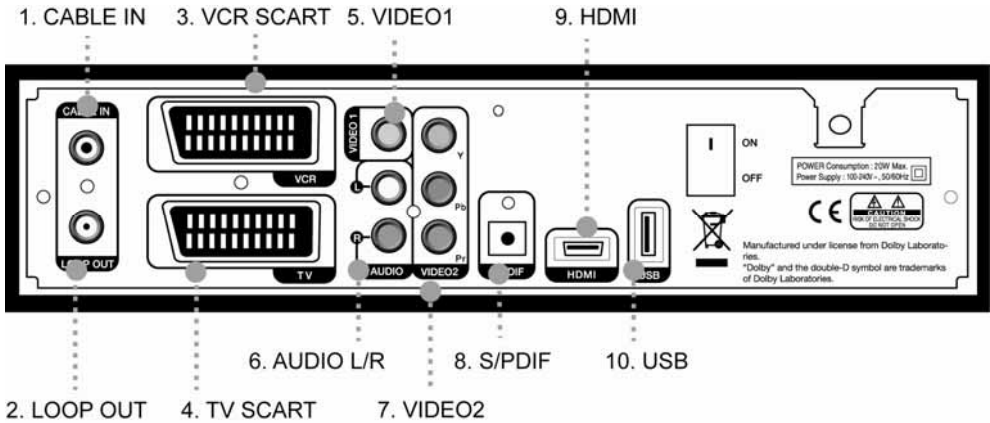
- STANDBY: Red light is displayed when the product is the Standby mode. This light is turned off when the product is in operation.
- LOCK: Green light is in displayed when the product is searched property.
- REMOTE: Yellow light is displayed when the remote control is in operation.

#### 4. Smart Card Slot (\*Option)

Inserts a smart card.



### 1.3.2 Rear Panel



#### 1. CABLE IN

Connect to Cable.

#### 2. LOOP OUT

Connect LOOP OUT to another set-top box via a Loop-through cable.

#### 3. VCR SCART

Connect this connector to your VCR via a SCART cable.

#### 4. TV SCART

Connect this connector to your TV via a SCART cable.

#### 5. VIDEO1

Connect VIDEO to video input of your TV or VCR via a RCA cable.

#### 6. AUDIO L/R

Connect AUDIO L/R to the matching Audio Inputs of your TV/VCR via a RCA cable.

#### 7. VIDEO2(YPbPr)

Connect Y/Pb/Pr output of VIDEO2 to Y/Pb/Pr video input of your TV via a RCA cable.

#### 8. S/PDIF

Connect S/PDIF to audio input of your amplifier with optical digital port via an optical cable.

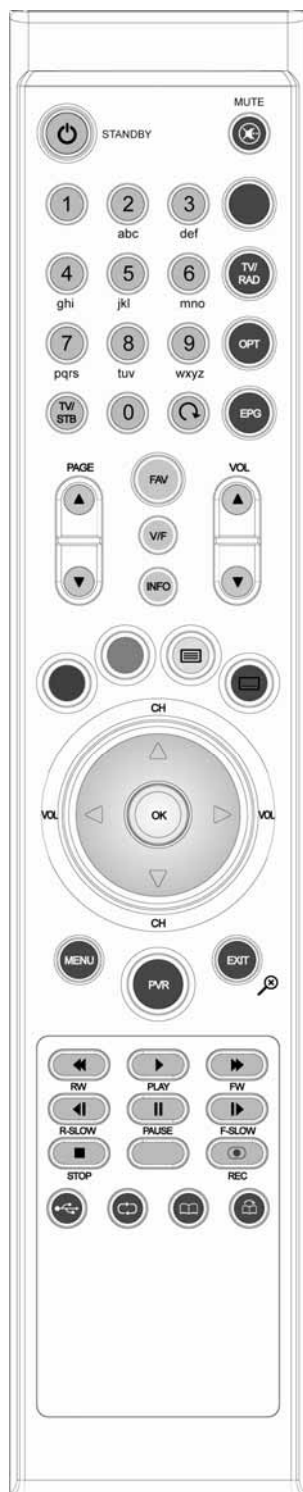
#### 9. HDMI

If you have TV supporting HDMI, connect HDMI to your TV using a HDMI cable.

#### 10. USB







USB2.0 connector for software upgrade.

## 1.4 Names of Remote Button



### 1. STANDBY ( )

Switches the digital Receiver between standby mode and operation mode.

- Operation mode: Front Panel displays the 7-Segment (current service number), , CH .
- Active Standby Mode:
  - Front Panel displays the 7-Segment (current time) and .
  - Switches between active standby mode and operation mode by press  in RCU.
- Passive Standby Mode (less than 1W power consumption function)
  - Front Panel display only .
  - Switches by pressing  in RCU for 4~5 seconds from operation mode or active standby mode.

### 2. MUTE ( )

To mute the sound.

### 3. NUMERICAL BUTTONS (0~9)

To enter a TV/Radio channel number or characters.

### 4. TV/RAD ( )

To switch the product TV or Radio.

### 5. OPT ( )

To show the audio, teletext, and subtitle list(s).

### 6. EPG ( )

To display the Electronic Program Guide. Press again to return to the normal mode.

### 7. TV/STB ( )

To select the input source between digital Cable broadcasts and TV.

### 8. Recall ( )

To return to the previous chosen channel.

### 9. FAV ( )

You can register the favorite channels by pressing the "MENU" button, and then change the channel mode by pressing the "FAV" button.

### 10. PAGE ( )

To change the TV/Radio channels without displaying the OSD.

**11. VOL (▲/▼)**

To change the TV/Radio volume without displaying the OSD.

**12. V/F (V/F)**

Video output format to 1080i/720p/576p/576i & Auto.

**13. INFO (INFO)**

To display the information about the channel.

**14. Audio Language (🔊?, hereafter “Red”)**

To display the provided audio language lists of the current channel.

**15. Sound Mode (🔊🔊, hereafter “Green”)**

To select the sound mode(stereo, left, or right).

**16. Teletext (☰, hereafter “Yellow”)**

To display the teletext information about the channel if applicable.

**17. Subtitle (☐, hereafter “Blue”)**

To display the provided subtitle language lists of the current channel.

**18. VOL ◀/▶**

To increase or decrease TV/Radio volume level or change the value of an item with preprogrammed values. The “◀” button can be used as a backspace to cancel the numerical input.

**19. CH ▲/▼**

To change the TV/radio channels Up/Down.

**20. OK (OK)**

To select a menu or confirm the user's action and display the channel list during watching a program.

**21. MENU (MENU)**

To display the menu OSD.

**22. PVR (PVR)**

To show the recorded file or MP3 file list.

**23. EXIT (EXIT)**

To exit from the current menu or cancel the current operation in menu state.

**24. Fast Rewind/Forward (◀◀ ▶▶)**

To rewind/forward the playback during the recorded file playback. Whenever you press ▶▶, the forward playback speed increases by 4 steps (x 2, x 4, x 8, x16). And whenever you press ◀◀, the rewind playback speed increases by 4 steps (x 1, x 2, x 4, x8). If you press the button in the progress bar state, AC-2710VHD PR resumes to the playback with normal speed after 20 seconds backward/forward rewind.

**25. Playback** (▶)

To show the progress bar. If you press the button in the trick mode or paused state, DTA-9500N resumes to the playback with normal speed.

**26. Slow Rewind/Forward** (◀▶)

To change the playback speed into the slow motion mode.

**27. Pause** (⏸)

To pause the playback.

**28. Stop** (■)

To stop the playback or the recording.

**29. Recording** (⏺)

To record the current channel or show the record menu in the recording state.

**30. USB** (USB icon)

To remove the USB safely.

**31. Repeat** (↺↻)

Whenever you press the button, the repeat mode changes sequentially such as a specified block repeat→all block repeat→ the repeat mode Off.

**32. Bookmark** (🔖)

To add or delete the current position as a bookmark. Up to 64 bookmarks for one recorded file can be set up.

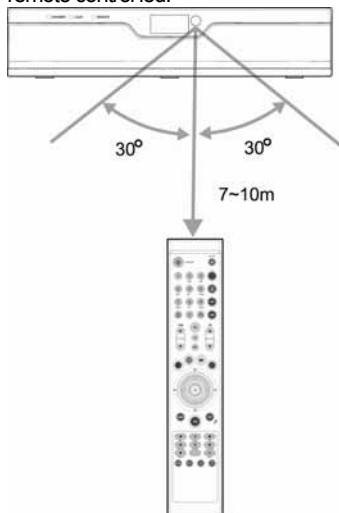
**33. Changing the Position of the Bookmark** (🔖)

To go to the next bookmark position.

35. Showing and changing the Size of

**Note : Angle of remote control use**

The remote control can be used at a distance of up to 7 to 10 meters, and at an angle of 30 degrees from the remote control led.



## Chapter 2



# Connections

This chapter describes how to connect the product to your home entertainment system. Choose the most appropriate procedure depending on your environments.

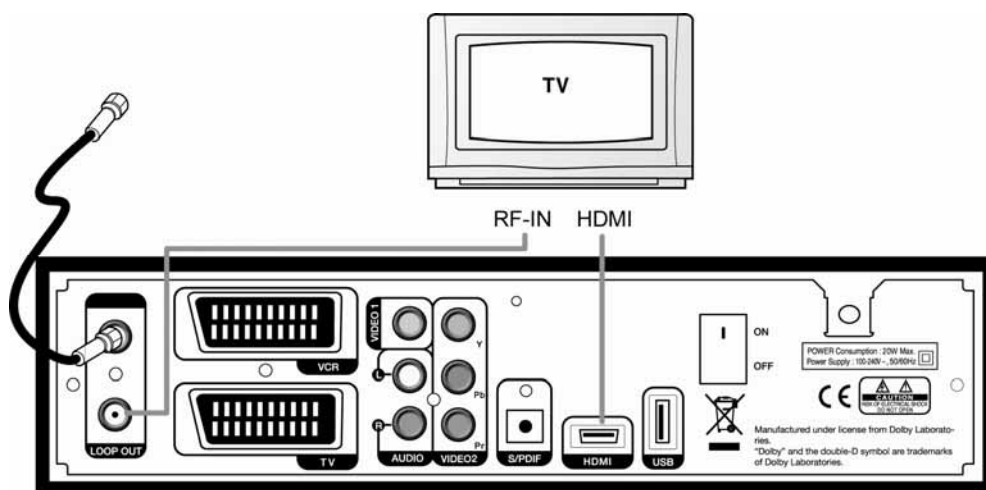


**Note** : If you encounter with any problems or have any questions during connecting the product, please contact your local product distributor.

## 2.1 Connecting a TV & VCR

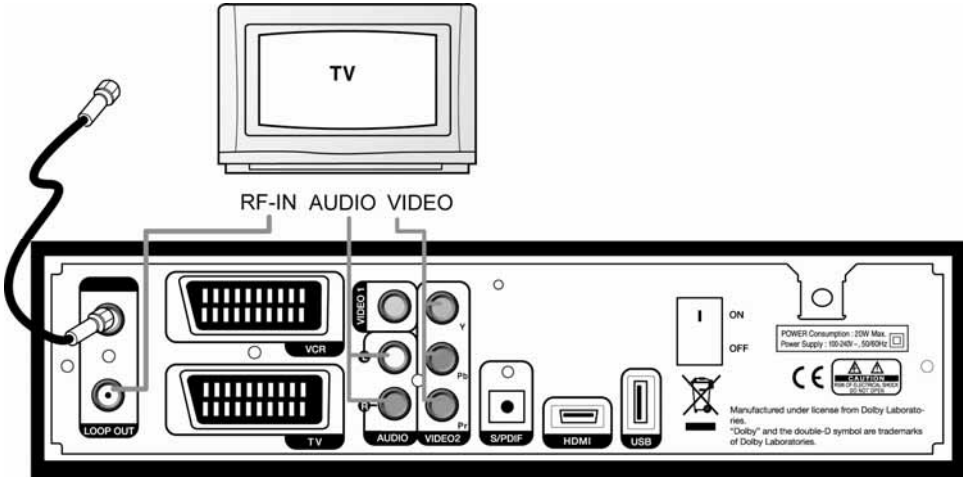
### 1. Connecting a TV with HDMI (If your TV has HDMI input)

- 1) Connect the TV cable to the CABLE IN of the product.
- 2) Connect the HDMI output to HDMI input of your TV.



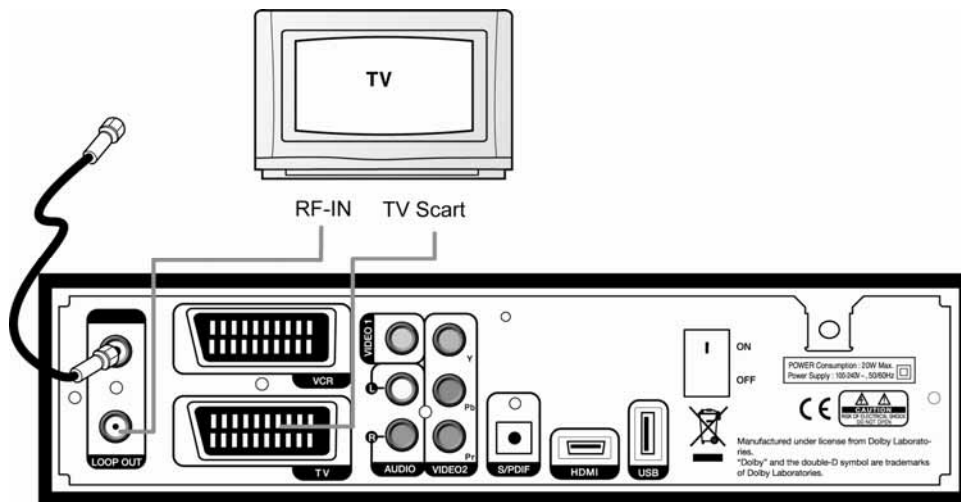
## 2. Connecting a TV with YPbPr (If your TV has YPbPr input)

- 1) Connect the TV cable to the CABLE IN of the product.
- 2) Connect the VIDEO2 (YPbPr) to YPbPr input of your TV.
- 3) Connect the AUDIO L/R to Audio input of your TV.



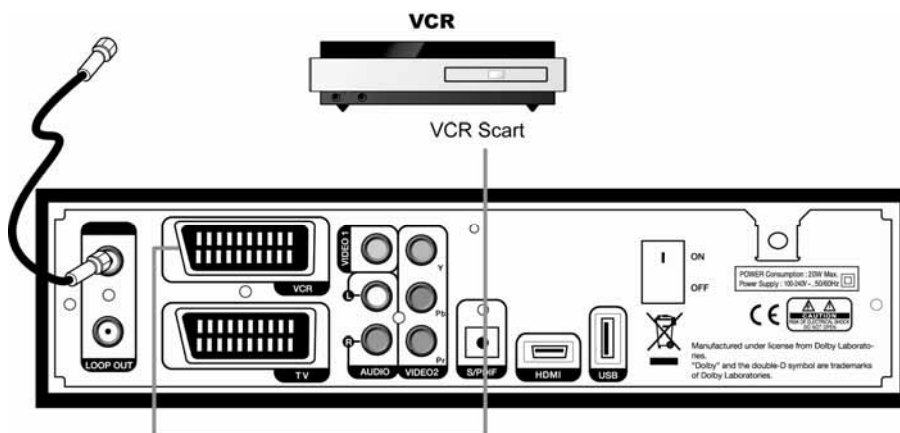
### 3. Connecting a TV with SCART-Cable

- 1) Connect the TV cable to the CABLE IN of the product.
- 2) Connect the TV Scart output to SCART input of your TV



### 4. Connecting a VCR with SCART-Cable

- 1) Connect the VCR SCART output to SCART input of your VCR.

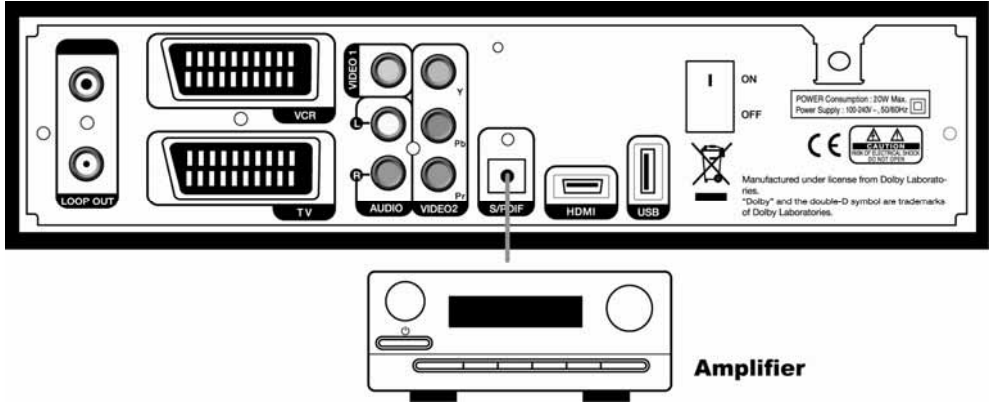




## 2.2 Connect the Optical S/PDIF

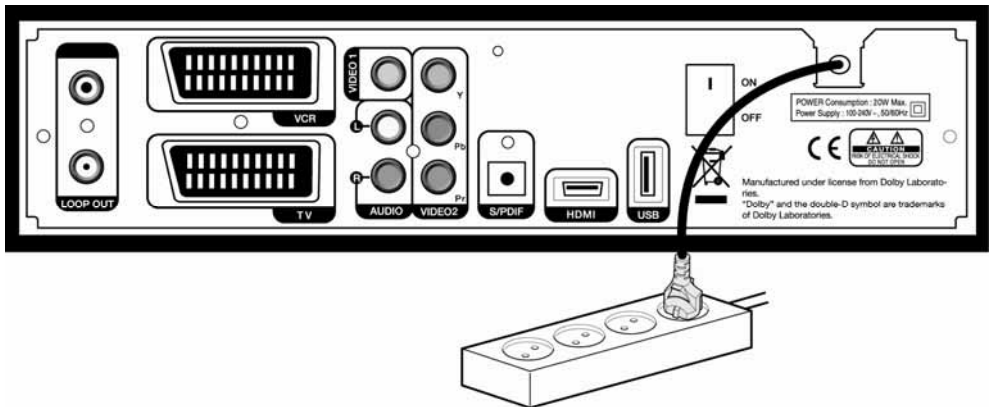
If you watch a program encoded by a Dolby Digital, you can enjoy the higher quality sound of the Dolby Digital audio.

Connect the optical S/PDIF to Dolby Digital decoder or Digital television.



## 2.3 Starting Up

1. Connect the power cord of the product to a power outlet and press the "Power" button at the rear panel to turn the product on.



2. The first time you power up the product, it will display the initial screen, then some parameters for system configuration should be set. Refer to the following chapter for detailed information about the basic settings.

---

### Installation Notice

Connecting your TV directly to the audio/video output of your Set-Top Box will assure a more vivid picture and enhance your viewing enjoyment.



## Chapter 3



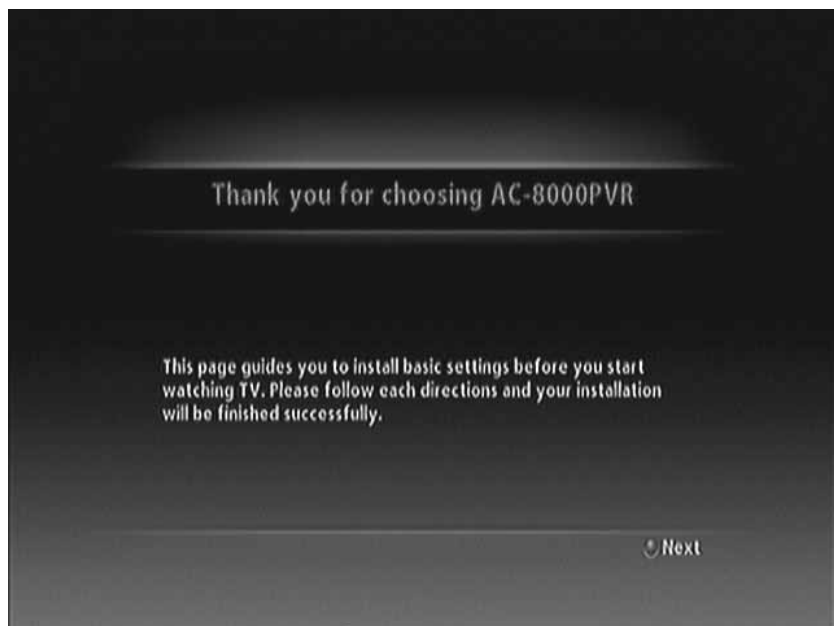
# Basic Settings

If you use the product for the first time after connecting, you have to perform basic settings. Once the setup procedure is finished successfully, you can start watching TV or listening to radio.

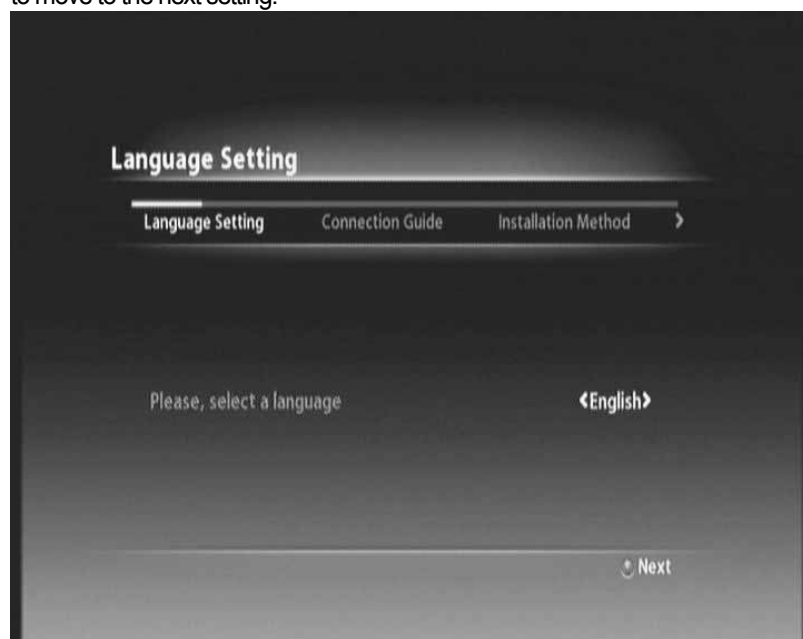
### **Warning!**

- Press the “MENU” button to save the previous input information and exit the basic settings. If you exit the basic settings without fully completing the setting procedures, you may not watch any broadcasting normally.
- If there is any disagreement between the current setting and TV type, any picture will not appear. You should change the video format by pressing the “V.Format”. Press the “V.Format” button twice until you can see any picture on TV screen.

1. Turn on your TV and the product. Follow the instruction on the screen. Press the “Blue” button to start to perform basic setting.



2. Select the appropriate language from the list using the “ ” button and press the “Blue” button to move to the next setting.



3. Press the “Blue” button to move to the next setting.



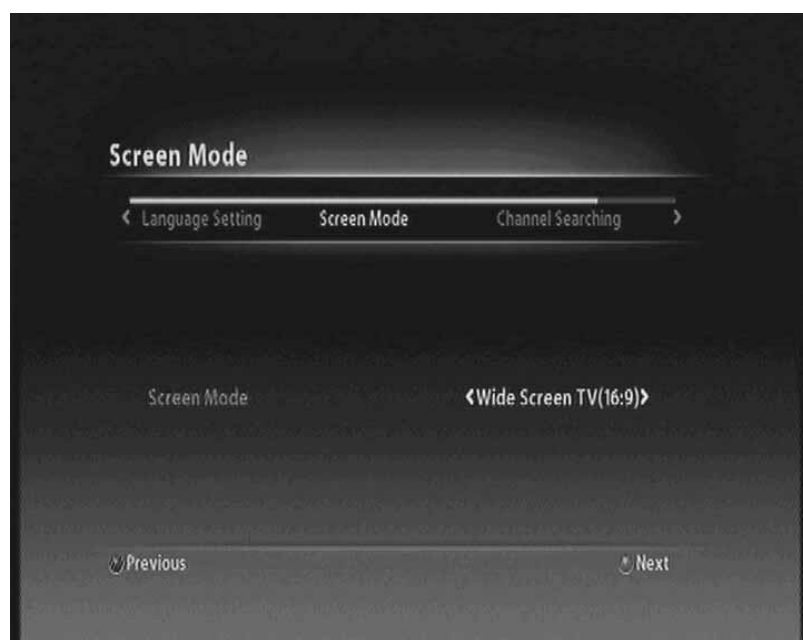
4. Select the installation method using the “ ” button and press the “Blue” button. If you select the ‘advanced’ method, you should select primary audio, secondary audio, primary subtitle, and secondary subtitle the “ ” button.



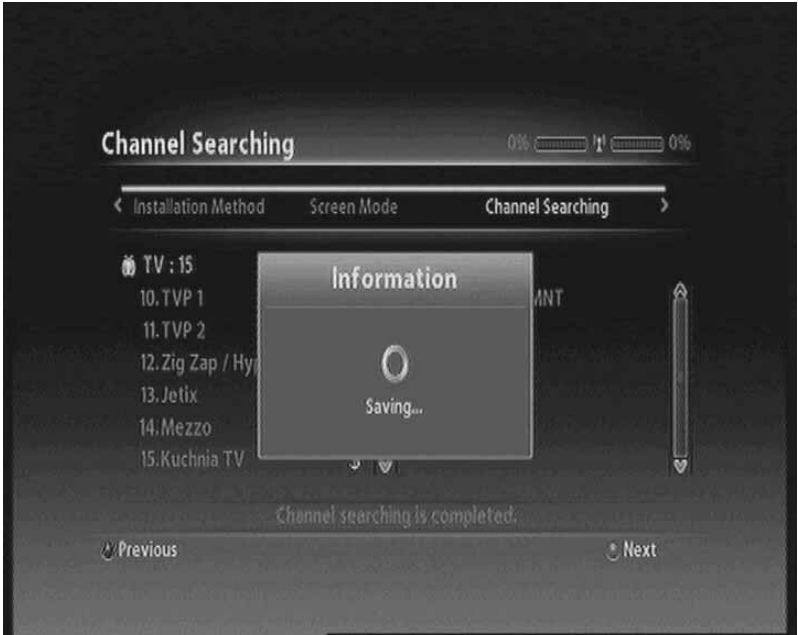
5. Select the Audio, Subtitle language the “ ” button and press the “Blue” button.



6. Select the screen mode the “ ” button and press the “Blue” button.



7. When completing basic settings, the following message will appear.



### **Note**

If you encounter with any problems or have any questions when setting up the antenna, please contact your local product installer or distributor.

Now you have completed all steps required for watching TV or listening to radio. Press the "MENU" button to exit the basic settings. For detailed information about how to use the product, refer to Chapter 4.



## Chapter 4



# Operations

# [Basic Functions] .....

## 4.1 Changing Channels

There are several ways to change the channels.



- Press the “ ” or “P+/-” button on the remote control to access the channels sequentially.
- Press the “OK” button to display TV channel list, and then select the desired channel.
- Press the “Blue” button on the remote control to move to the previous channel.
- Enter your desired channel number using the “0~9” button directly.
- Press the “EXIT” button to hide TV channel list.

## 4.2 Adjusting Volume

You can change the volume level of the current channel.



- Press the “◀▶” button to adjust the volume.
- Press the “MUTE” button to turn the sound off and on again
- Press the “OPTION” button to change the audio mode.



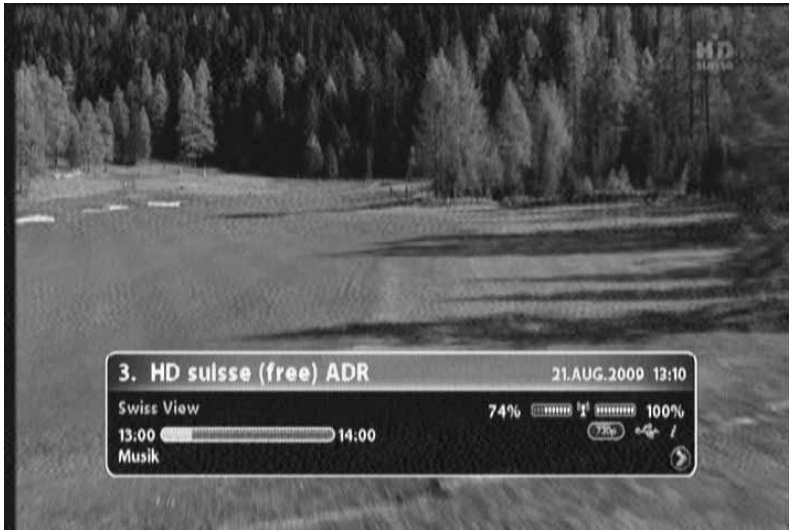
**Note** : During setting up the Menu(ex, EPG, Edit channel, etc), you can also change the volume level using the lower “V +/- ” button without OSD.

## 4.3 Viewing Program Information

You can view the **2 steps** information window by pressing the “INFO” button while watching a program. Press the “EXIT” button to hide the program information.

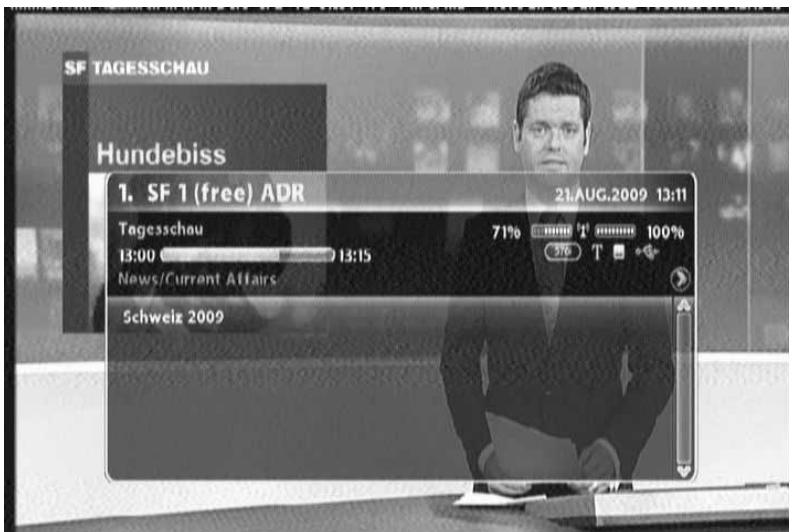
### Step 1: Basic Information

The Basic Information is displayed as following on the screen.



### Step 2: Detailed Information

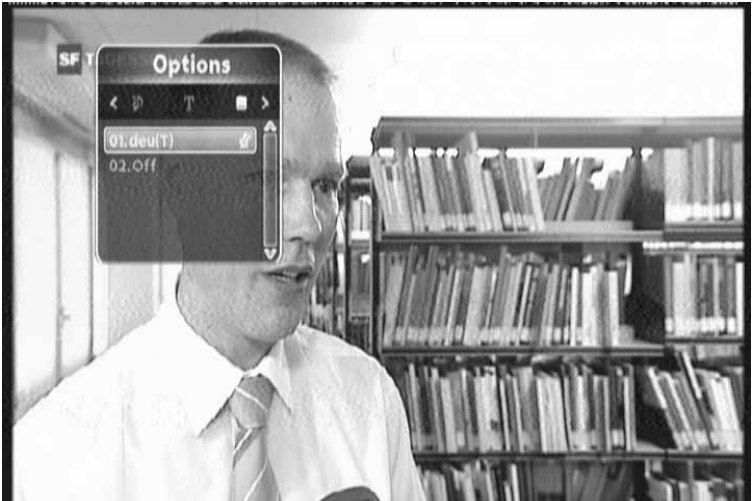
You can see detailed information about the current program. Press the “INFO” button to view detailed information during the Basic information is displayed. Press the “EXIT” button to hide the program information.



## 4.4 Changing Subtitle Language

If the current program provides Subtitle information, you can select the subtitle language.

1. Press the “SUBT” button to display the subtitle language list.



2. Select the desired subtitle language using the “▲▼” button, and press the “OK” button. The subtitle language will be displayed at the bottom of the screen.



3. Select 'OFF' from the subtitle language list not to display subtitle from the screen.

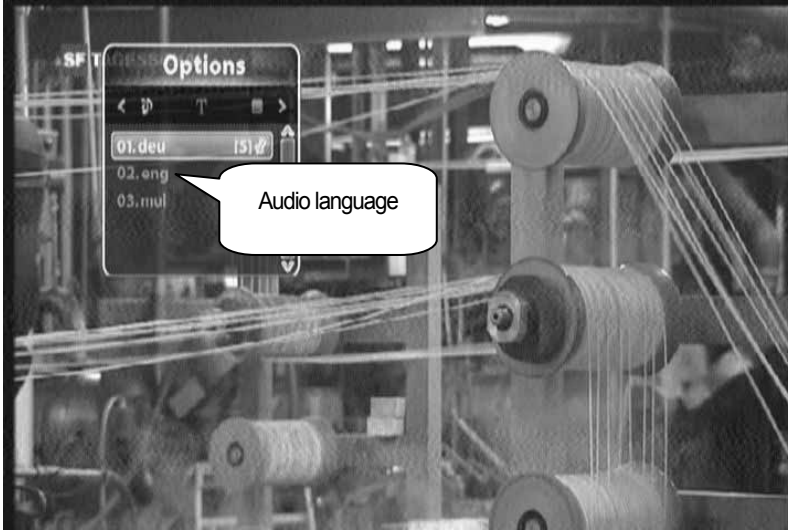


**Note** : You can select a default subtitle language by pressing the “MENU” button and selecting the User Setting–Language–Primary Subtitle menu in order.


## 4.5 Changing Audio Language

If the current program provides multiple audio languages, you can select the desired language.

1. Press the “OPTIONS” button to display the audio language list. If the mode is not the audio language, press the “◀▶” button.



2. Select the desired audio language using the “▲▼” button, and press the “OK” button. The audio language will be changed immediately.

 **Note** : You can select a default audio language by pressing the “MENU” button and selecting the User Setting–Language–Primary Audio menu in order.

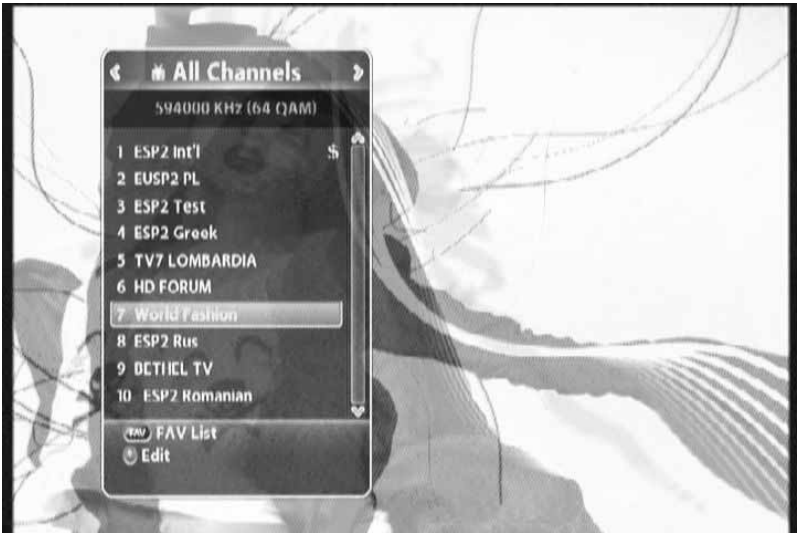
# [ Advanced Functions ] .....

## 4.6 Managing Channel List

### 4.6.1 Displaying Channel List

You can see various channel lists and change the channels from the channel list more conveniently.

1. Press the “OK” button while watching a program to display the selected channel list.



- FAV : Shows the favorite channel lists.
- Green : Edits the channel lists.

2. Move to the desired channel using the “▲▼” or “P+/-” button and press the “EXIT” button to change the channel.

### Note

Press the “FAV” button to switch among the channel modes such as ‘ALL, FAV1~4, etc’. Refer to **Chapter 4.7 Managing Favorite Channel Lists** for more information.

## 4.6.2 Searching Channel

You can search the specific channel among favorite channel lists more conveniently.

1. Press the “OK” button while watching a program to display the selected channel list.
2. If the channel list is not the favorite channel, press the “◀▶” button to select the favorite channel list.
3. Press the “Red” button to select the sorting mode such as alphabetic order, date, and etc.



4. Press the “PAGE ▲▼” button to move to the previous/next page.

## 4.6.3 Editing Channels

You can edit(such as lock, rename, and favorite group) each channel.

1. Press the “OK” button while watching a program to display the selected channel list.
2. Press the “Green” button to edit the channel.



3. You can lock, rename, and change to other favorite groups each channel. Move to the desired menu using the “▲▼” button and press the “OK” button.
4. Whenever you press the “EXIT” button after completing channel edit, the confirmation message will appear. Move cursor to the “OK” button and press the “OK” button to save the changes.

## 4.7 Managing Favorite Channel Lists

You can create and edit favorite channel list(s) or group(s).

1. Press the “MENU” button.
2. Move to the Channel Manager menu using the “▼” button and press the “OK” button.  
Select the Edit Favorite menu using the “▼” button and press the “OK” button.



3. Press the “FAV” button to view the favorite channel groups.



### Note

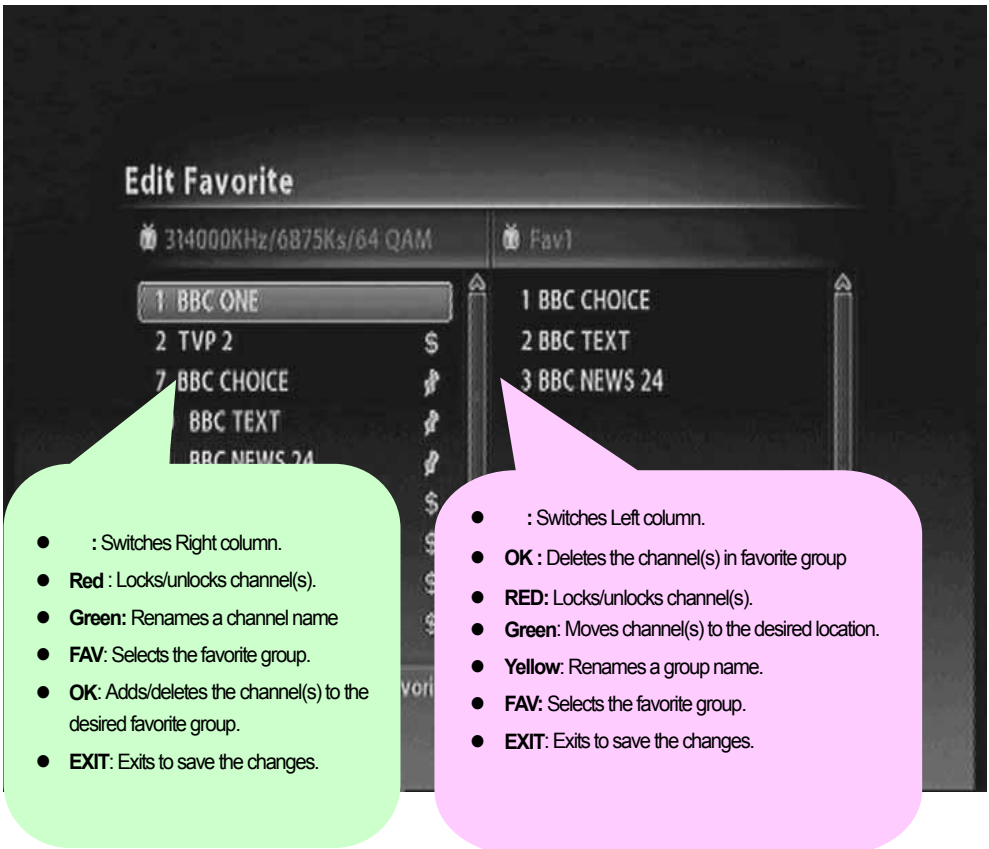
- **Red** : Locks/unlocks channel(s).
- **FAV**: Selects the favorite group.
- **OK**: Adds/deletes the channel(s) to the desired favorite group.
- **EXIT**: Exits to save the changes.



**Note** : FAV1~4 are default name. You can also rename them for your convenience.



4. You can edit favorite channel list(s) or group(s). Select the Favorite group using the “▼” button and press the “OK” button. If you want to add channel(s), select the desired channel, and then press the “OK” button.



5. If you want to save the changes, press the “MENU” or “EXIT” button after editing favorite channel.

## 4.8 Managing Edit Channel Lists

You can create and edit channel list(s) or group(s).

1. Press the “MENU” button.
2. Move to the Channel Manager menu using the “▼” button and press the “OK” button.  
Select the Edit Channel menu using the “▼” button and press the “OK” button.



### Note

- **Red** : Locks/unlocks channel(s).
- **Green**: Deletes channel(s).
- **Blue**: Change channel name Renames a channel name.

## 4.9 Changing Channel Mode

You can change the channel mode by group.

1. Press the “OK” button to display All Channel or Favorite Channel lists according to the current channel mode.



2. Select the channel mode using the “◀▶” button and press the “OK” button.

## 4.10 Viewing Program Guide

The Program Guide shows program information about each channel-by date and time.

1. Press the “EPG” button.



### Note

- **Red:** Changes the schedule mode.
- **Green:** Views the channel group(s).
- **Yellow:** Moves to the Next Day.
- **Blue :** Makes a reservation.
- **INFO:** Views detail EPG.

2. Press the “INFO” button to view daily schedule for the selected channel.



## 4.11 Viewing Teletext

Teletext Service is text data service from Service Provider. It is available only when the program provides teletext data service.

1. Press the “TEXT” or “OPTIONS” button. Teletext Service Data is displayed.

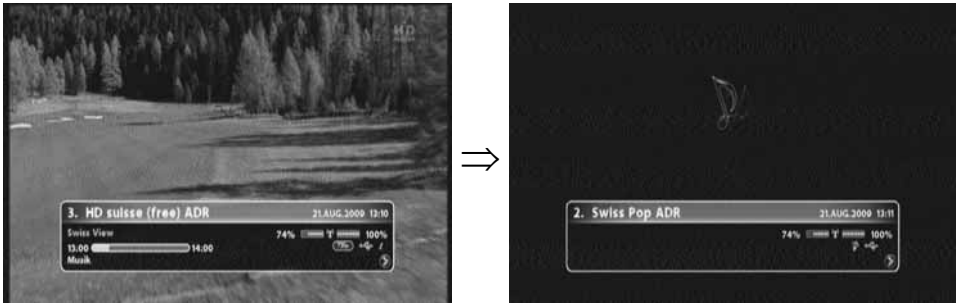


2. Select the page using the “0~9” buttons(100~899).

3. Press the “EXIT” button to the previous screen.

## 4.12 Switching TV and Radio

Press the "TV/RADIO" button to switch TV and Radio.



## 4.13 Changing Video Format

Press the "V.Format" button. You can select the video output format among 576i, 576p, 720p, 1080p and auto.



## 4.13 Recording & Playback

AC-2710VHDPH provides three recording modes such as the instant recording, the normal recording, and the reservation recording.

### 4.13.1 Instant Recording

The instant recording function automatically saves one hour amount of the broadcasting program to the external HDD temporarily, so that you can watch program as you watch a video tape using functions such as rewind, fast forward, replay and pause.

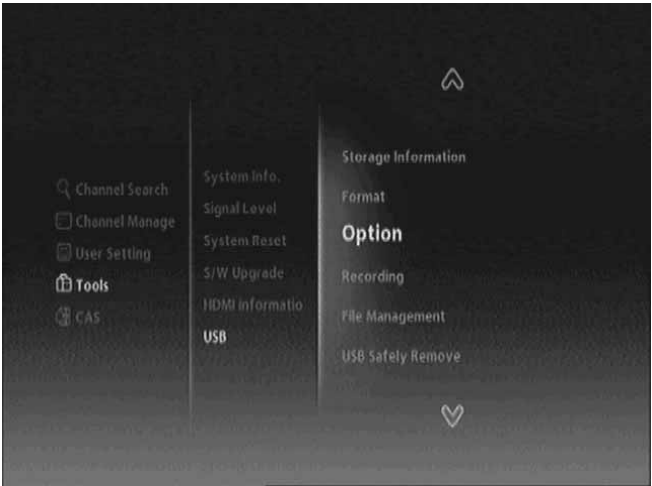
1. Press the “MENU” button to enable the instant recording.

Move to the Tools menu using the button and press the “OK” button.

Select the USB men using the “▲▼” button and press “OK” button.

Move to the Instant Recording sub-menu using the “ ” button, and press the “OK” button.

Select the Enable using the “ ” button.



2. Whenever you watch a program, it starts to record the current channel automatically.

3. Press the “▶” button to display the progress bar. The progress bar shows the current operation status and an amount of temporarily saved data.



- ◀ ▶ : Changes the playback speed into slow motion mode.
- : Moves to the desired position during the progress bar is displayed. Or changes the volume in on-air mode.
- ◀ ▶ : Moves to the desired position during the progress bar is displayed. Or changes the playback speed in the playback mode.

4. If you move to other channel, it stops instant recording and restarts instant recording. The previous saved data is deleted.

### 4.13.2 Normal Recording

The normal recording function saves the program at once. You can also watch program using functions such as rewind, fast forward, replay, pause, and recording.

1. Press the “MENU” button to set the recording options.

Move to the Tools menu using the “ ” button and press the “OK” button.

Select the USB menu using the “ ” button and press the “OK” button.

Set the recording options.




#### Note

- You can only change the duration option during the recording.
- The mode provides the Normal and EPG time option. You can select the EPG time option when there is any EPG data.

2. Press the “Red” button to start recording immediately for the program you are watching. Press the “MENU” button to exit the recording option window, and then the index number message will appear on the upper right corner.




You can also start the normal recording like this: using the Recording of USB Menu. using the Reservation Recording.

 **Note** : Some menus (such as Search Channel, Edit) don't work during the recording.

3. If press the “” button to stop recording, it shows the recording file lists.



4. Move to the desired file using the “ ” button, and press the “” button. Press the “EXIT” and “OK” button then the recording is stopped.

 **Note** : There is limitation to change the channel during the recording.



### 4.13.3 Reservation Recording

The reservation recording function saves the desired programs automatically. You can watch program using functions such as rewind, fast forward, replay, pause, and recording.

1. Press the “MENU” button to set the reservation recording options.

Move to the User Setting menu using the “ ” button and press the “OK” button.

Select the Timer menu using the “ ” button and press the “OK” button.



2. The Timer Setting window will appear. Press the “Red” button to set the recording options.



3. Set the Mode to 'Record' using the “ ” button, and then set the Cycle, Time, and Duration.



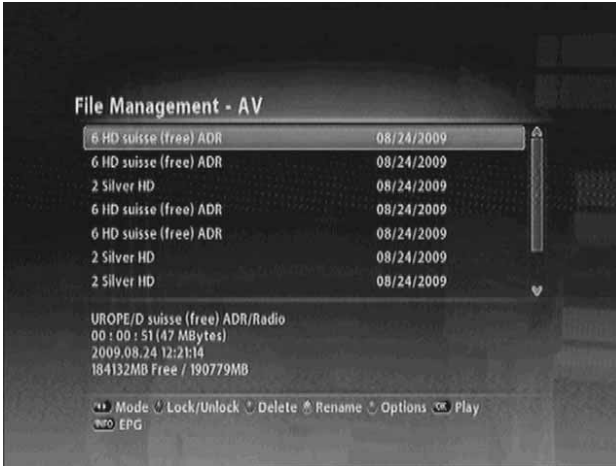
4. Whenever you press the “EXIT” button after completing setup, the following message will appear. Move cursor to the “OK” button and press the “OK” button to save the changes.



### 4.13.4 Recorded File Playback

You can play the recorded file by selecting a desired file.

1. Press the “PVR” button to display the file list. Or press the “OK” button during the playback.
2. Select the desired file to playback using the “ ” button, and then press the “OK” button.



- **Red:** Locks/unlocks the specified file.
- **Green:** Deletes the specified file.
- **Yellow:** Renames the specified file.
- **Blue:** Shows the Options(Sorts the files, creates older, and moves file to folder) .

#### **Note :**

You can record the playback file during the playback. The file name on recording is in different color. You can't change the channel during the recorded file playback. You should stop the playback, and then change the channel. If you choose the recording file, the channel is changed to the same channel.

3. Press the “▶” button to display the progress bar. And you can perform time shift operations like VCR functions such as slow rewind/forward (◀ ▶), pause (⏸), repeat(↺), and replay(↻).

#### **Note :** How to Repeat A-B

You can **select** a specific block within a recorded file and play it back repeatedly.




Press the “▶” button to display the progress bar. Press the “↺” button to set the start position. Move to the desired position using the “ ” button. Press the “↺” button again to set the end position.

Then the program plays the selected block repeatedly. If you stop the repeat mode, press the “↺” button during repeating the selected block.

4. Press the “■” button to stop the playback, and you can watch the current channel on air.



### 4.13.6 Bookmark

You can search positions very quickly and easily by bookmark during the recorded file playback.

1. Press the “” button at the desired position to set a bookmark during a recorded file playback.  
The bookmark OSD will appear on the upper right corner during on air mode.



**Note** : Up to 64 bookmarks for one recorded file can be set up.

2. Press the “” button again to delete a bookmark.
3. Press the “” button to go to the next bookmark.

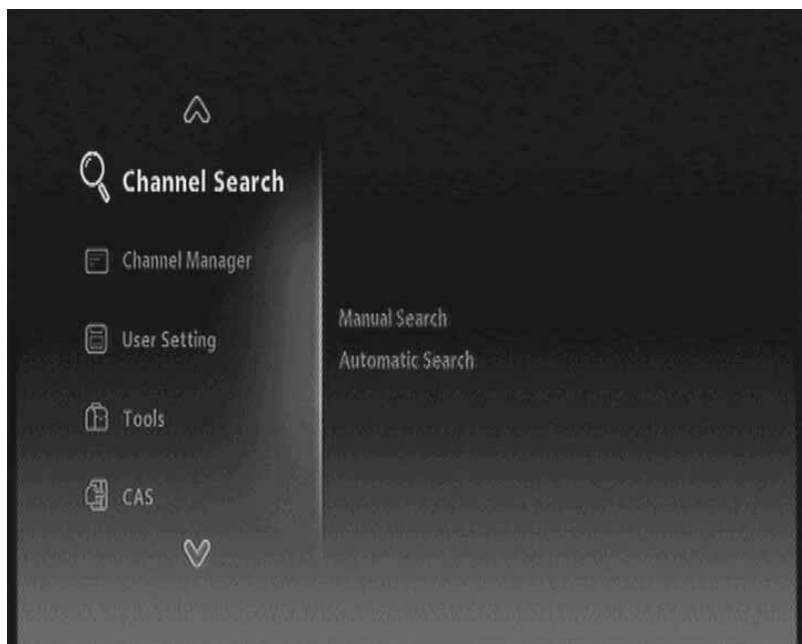
## Chapter 5



# Settings

This chapter describes how to search for channels, edit channel, setup for language(OSD, Timer, etc.), and show tools.

1. Press the “MENU” button to display the Menu OSD.
2. Move to the appropriate Menu using the “ ” button, and then press the “OK” button to select the sub-menu.

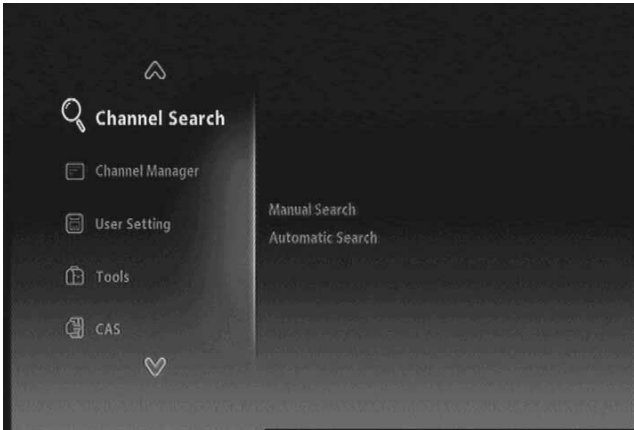


## Note

- Press the “EXIT” button to return to the previous stage.
- Press the “MENU” button to exit the setting menu.
- The menu program shows buttons that can be used at every stage of setup.


## 5.1 Channel Search

You can search channel.



- **Manual Search:** Searches the channel manually.
- **Automatic Search:** Searches the channel automatically.

Move to the Channel Search menu using the “ ” button and press the “OK” button.  
Move to the desired sub-menu using the “ ” button, and press the “OK” button.

 **Note** : Please wait for finishing the Search. If you want to stop the Search, press the “EXIT” button anytime. If the Search is stopped or finished, the searched information is automatically saved.

## 5.2 Channel Manager

You can edit channel(s) and favorite channel(s).

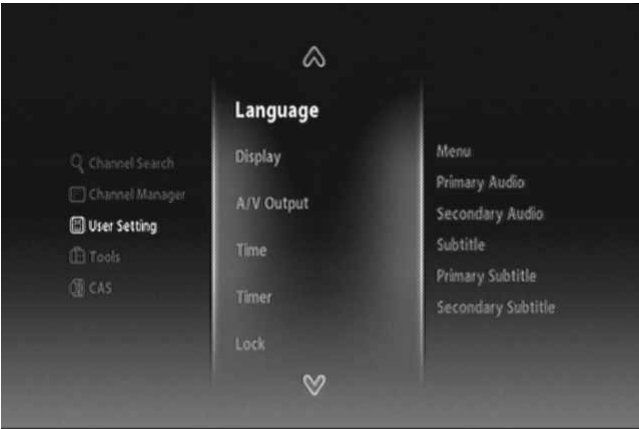


- **Edit channel:** Edit channel.
- **Edit Favorite:** Creates/edits favorite channel.

Move to the Channel Manager menu using the “ ” button and press the “OK” button.  
Move to the desired sub-menu using the “ ” button, and press the “OK” button.

## 5.3 User Setting

You can setup additional function such as Language, Display, A/V Output, Time & Timer Setting, and Lock Control.

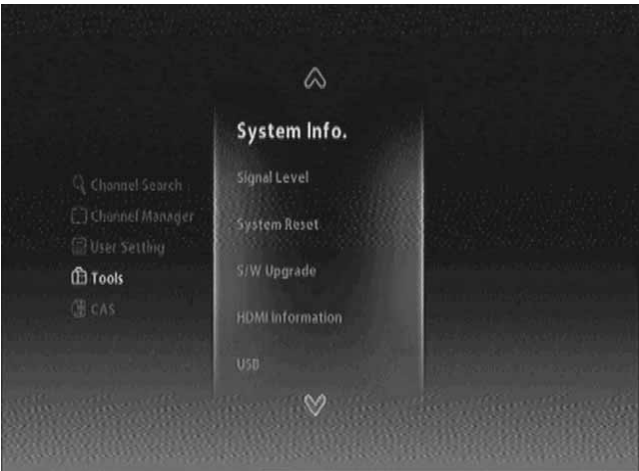


- **Language:** Selects the language such as menu, primary/secondary audio, subtitle, and primary/secondary subtitle.
- **Display:** Sets the infobar display time, OSD transparency, and load default.
- **A/V Output:** Sets the connected devices such as TV scart, Screen mode, TV aspect ratio, audio mode/delay.
- **Time & Timer:** Sets the time and timer.
- **Lock:** Sets the age lock and password.

Move to the User Setting menu using the “ ” button and press the “OK” button.  
Move to the desired sub-menu using the “ ” button, and press the “OK” button.

## 5.4 Tools

You can view the system information, signal level, system reset, s/w upgrade, and HDMI information.



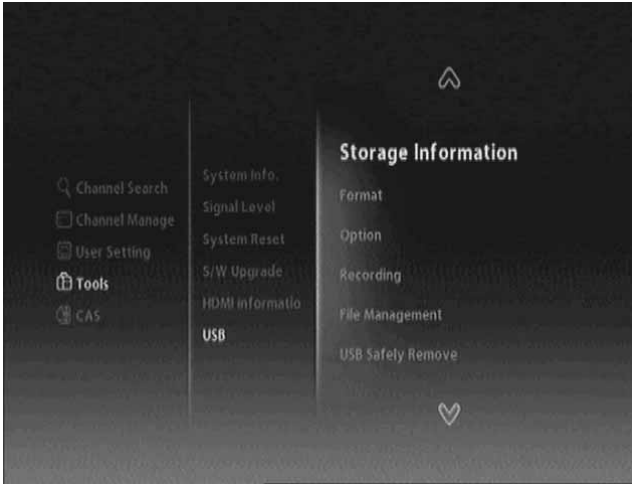
- **System Information:** Shows the system version.
- **Signal Level:** Shows the signal level.
- **System Reset:** Restores to the default setting.
- **S/W Upgrade:** Updates the program.
- **HDMI Information:** Shows the HDMI information.
- **USB:** Shows the USB device information.

Move to the Tools menu using the “ ” button and press the “OK” button.  
Move to the desired sub-menu using the “ ” button, and press the “OK” button.



### 5.4.1 USB

You can view the USB device (hard disk and USB flash drive) information, the hard disk format, the recording, and the instant recording.



- **Storage Information:** Shows the USB device information such as the model name, the remained storage, and etc.
- **Format:** Formats the USB device.
- **Option:** Instant Recording Records the programs temporarily.
- **Recording:** Records the programs.
- **File Management:** Display the files of USB device.
- **USB Safely Remove:** Safely removes USB device.

Move to the USB menu using the “ ” button and press the “OK” button. Move to the desired sub-menu using the “ ” button, and press the “OK” button.

### 5.5 CAS

You can view the current status of smart cart.

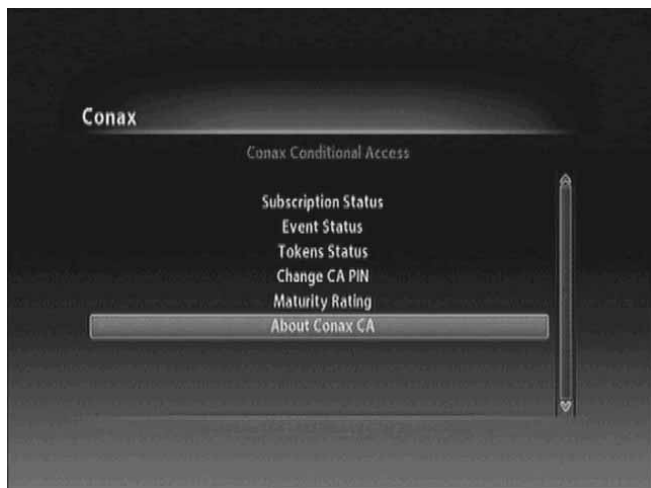


- Conax
- Mailbox

Move to the CAS menu using the “ ” button and press the “OK” button. Move to the desired sub-menu using the “ ” button, and press the “OK” button.

### 5.5.1 Status of Smart Card

You can see the various status of smart card.



- Subscription status
- Event Status
- Tokens Status
- Change CA PIN
- Maturity Rating
- About Conax CA: Show conax pairing id(CHIP\_ID) and Smart card id (Card Number).

Move to the CAS sub-menu using the “ ” button and press the “OK” button.

Move to the desired sub-menu using the “ ” button, and press the “OK” button.

## Chapter 6



# Appendix

## 6.1 Trouble Shooting

If the product does not work properly after checking it, please **contact your local dealer**. Don't open the product. It may result in a dangerous electric shock and will invalidate your warranty

Problem	Possible Causes	What to do
The display on front panel does not light up.	The main power cable is not connected.	Check that the main power cable is plugged in to the wall outlet.
No picture, no sound.	Wrong connection of the audio/video output of the product to TV.	Connect the audio/video output of the product to TV correctly.
	TV power off.	Turn TV on.
	The product is standby mode.	Change the mode to the normal mode.
	No or Bad signal message appears.	Connect the antenna cable correctly.
The remote control unit (RCU) does not working.	No Batteries.	Change the batteries (both).
	The RCU is incorrectly aimed.	Aim the RCU properly to the product.
	The product is standby mode.	Change the mode to the normal mode.
Bad picture or noisy sound in the TV or radio mode.	Bad reception of the signal.	Make sure the dish and LNB are clean and correctly adjusted.

## 6.2 Specification

### 1. Tuner & Demodulator

<b>RF Input Range</b>	VHF Low CH.E2 ~ CH.S6 ( 50.5MHz ~ 142.5MHz ) VHF High CH.S7 ~ CH.S36 (149.5Mhz ~ 426.0MHz) UHF CH.S37 ~ CH.E69 (434.0Mhz ~ 858.0MHz)
<b>Input Connector</b>	IEC-DIN(IEC 169-2) Female
<b>Output Connector</b>	IEC-DIN(IEC 169-2) male (With Loop-Through Output)
<b>Input/Output Impedance</b>	75[Ohm], Unbalanced
<b>Signal Input Level at QEF</b>	-20 ~ -67 dBm at (64QAM, SR=6.875Msps) -20 ~ -64 dBm at (128QAM, SR=6.875Msps) -20 ~ -61 dBm at (256QAM, SR=6.875Msps)
<b>PLL X-tal Frequency</b>	4 Mhz
<b>Intermediate Frequency</b>	36.125 Mhz(Center)
<b>IF Bandwidth</b>	8MHz
<b>QAM Demod-IC</b>	TDA10023(NXP)
<b>FEC</b>	Annex A/C
<b>Modulation Format</b>	16, 32, 64, 128, 256 QAM
<b>Symbol Rate</b>	1.0 Msps ~ 7.0 Msps
<b>Roll-Off Factor</b>	0.13, 0.15
<b>Supporting System</b>	- . Compliant Nordig Unified 1.0.3. - . European digital cable standard <b>ETSI EN 300 429</b> & Cable Ready. - . Loop-Through output(Full band) Compliant with Cable Ready Specification.

### 2. MPEG TS AV Decoding

<b>Transport Stream Format</b>	MPEG-2/MPEG-4 Part10 AVC/H.264 HD <u>HP@L4.0</u> 1920x1080 @ 50Hz (MPEG-2 ISO/IEC 13818 Transport stream Specification)
<b>Profile Level</b>	"MPEG-2 MP@HL", MPEG-4 Part10 AVC/H.264 HD MP@L4.0
<b>Input Rate</b>	Maximum 31.668450Mb/s, 27.709893Mb/s
<b>Video Aspect Ratio</b>	4:3, Letter Box, 16:9, Pan & Scan
<b>Video Display Resolution</b>	1920x1080i, 1280x720p, 720x576p, 720x576i @ 50Hz
<b>Audio Decoding Format</b>	MPEG-1 Layer 1,2 Dolby Digital Down-mix (*Option) PCM with Decoded Stereo AAC Stereo (*Option) DTS with Transcoded Multichannel HE-AAC (*Option)
<b>Audio Output Mode</b>	Mono, Left, Right, Stereo, Dolby Digital bit-streams

3. AV And Data Output

<b>Analog Component YPbPr</b>	1 Set(3xRCA Vertical Array Type)
<b>CVBS(Composite Video)</b>	1 Jack(RCA Type)
<b>S/PDIF Dolby Digital Interface</b>	1 Optical(Fiber Optic Type)
<b>Stereo Audio</b>	L/R 1 Set(2xRCAArray Type)
<b>HDMI/HDCP</b>	1 HDMI™ Connector
<b>SCART Interface</b>	TV/VCR(CVBS, RGB)
<b>USB2.0 Host Interface</b>	A-Type Horizontal Connector (Firmware Upgrade Port)

4. Conditional Access Interface

<b>Smart Card Reader</b>	1 Slot For Embedded CAS Support(Conax CAS v7 Embedded)
<b>PCMCIA</b>	N/A

5. System Resource Information

<b>Main Processor</b>	ST40 32-bit Superscaler RISC CPU_400 Dhrystone 2.1 MIPS@266MHz
<b>Flash ROM</b>	Default 8Mbytes(Secure Flash)
<b>Program &amp; Graphic DDR SDRAM</b>	Default 128Mbytes(Program 64Mbytes & Graphic 64Mbytes)
<b>Serial EEPROM</b>	Default 128Kbits

6. Power Supply

<b>Input Voltage</b>	AC 100-240V ~ 50/60Hz
<b>Power Consumption</b>	Maximum 20Watts(Under 2Watts in Standby Mode)
<b>Protection</b>	Separate Internal Fuse
<b>Type</b>	SMPS(Switching Mode Power Supply)
<b>Safety And EMI</b>	For Country Regulation

7. Physical Specification

<b>Dimension(WxDxH)</b>	260x180x55[mm]
<b>Net Weight</b>	About 2.0Kg
<b>Operation Temperature</b>	5 C ~ 50 C
<b>Storage Temperature</b>	-40 C ~ 65 C









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