



TABLE OF CONTENTS

Notice	5
Safety Information	6
1. Before You Begin	9
1.1 Features.....	9
1.2 Accessories.....	11
2. Controls and Functions	12
2.1 Front Panel.....	12
2.2 Rear Panel.....	14
2.3 Remote Control Unit.....	15
3. Connections	18
3.1 Connecting to TV	18

3.2 Connecting to Signal.....	24
---	--------------------

4. Menu Overview **26**

4.1 Menu Instruction.....	26
---	--------------------

4.2 Menu Help.....	26
------------------------------------	--------------------

4.3 Menu Structure.....	27
---	--------------------

5. Menu Operation **29**

5.1 First Installation.....	29
---	--------------------

5.2 Installation.....	31
---------------------------------------	--------------------

5.3 Option.....	34
---------------------------------	--------------------

5.4 Channel.....	39
----------------------------------	--------------------

5.5 Advanced.....	41
-----------------------------------	--------------------

5.6 Status.....	44
---------------------------------	--------------------

5.7 PVR.....	46
------------------------------	--------------------

6. Viewing General Information **48**

6.1 Banner Information.....	48
---	--------------------

6.2 TV & Radio changing.....	50
--	--------------------

6.3 TV or Radio Channel Lists.....	50
--	--------------------

6.4 Option.....	56
---------------------------------	--------------------

6.5 A/V+.....	59
-------------------------------	--------------------

6.6 Fav	61
-------------------------	--------------------

6.7 A-Z	61
-------------------------	--------------------

6.8 EPG.....	61
------------------------------	--------------------

7. PVR **62**

7.1 File List.....	62
7.2 PVR Banner.....	70
7.3 PIP (Picture In Picture).....	82
7.4 JUKEBOX playback.....	83
7.5 USB 2.0.....	84

8. Photo album [86](#)

8.1 Photo album list.....	86
---	--------------------

Additional Information [90](#)

A.1 Troubleshooting.....	90
A.2 Technical Specifications.....	91
A.3 Glossary of Terms.....	95

Notice

- ♦ Read this manual carefully and make sure you understand the provided instructions.
For your safety, check what the result each action will be.

Warnings, Cautions and Notes

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.



Caution

Indicates a situation which, if not avoided, could damage the equipment or apparatus.



Warnings

Indicates a hazardous situation which, if not avoided, could result in serious injury.



Note

Indicates additional information to the user to make the user aware of possible problems and information of any importance to help the user to understand, to use and to maintain the installation.



Correct Disposal of This Product ***(Waste Electrical & Electronic Equipment)***

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

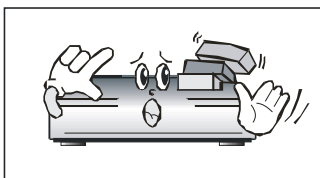
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

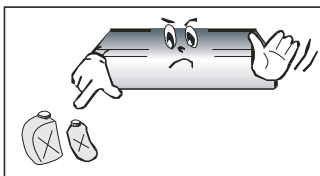
Safety Information

This digital cable receiver has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

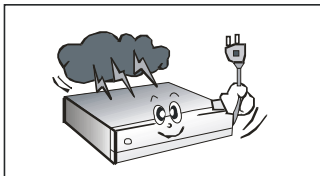
Safety Instructions and Precautions



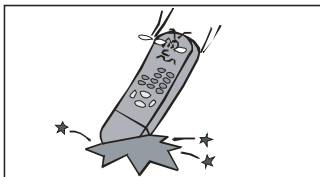
Avoid placing heavy things and blocking ventilation passage.
(Passage blocking can cause fire)



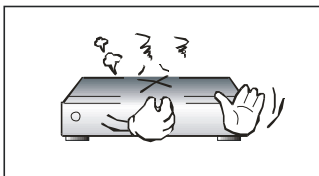
Avoid scrubbing the surface with Benzene or Volatile gasoline. Color can be damaged.



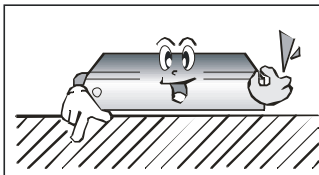
Leave the power and the antenna off for the long absence or during thunder storm.



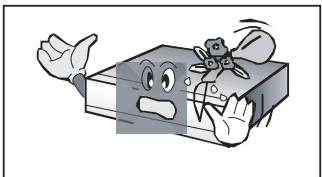
Avoid dropping and damaging Remote Control Unit.



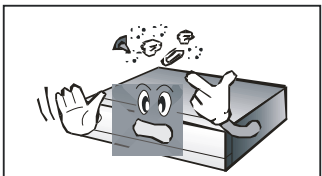
If there is smoke or burning smell, turn off & un-plug the set immediately. Contact your local repair center for advice.



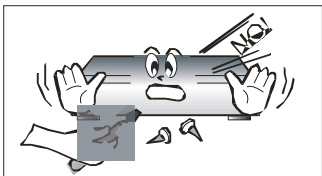
Avoid placing the set on slippery and slant surface.



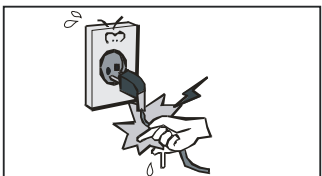
Keep away from the water.



Clear off the dust. Dust or Metallic particles inside the set can cause fire and electric shock.

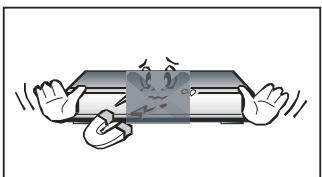


Avoid dissembling and assembling. Do not open the set.

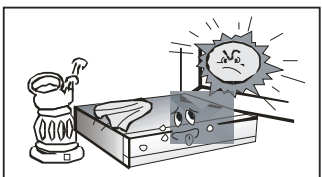


Do not snatch the cable to plug out.

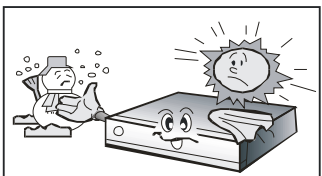
Do not move the set while power cord is plugged in.



Keep the distance from Magnetic items and Audio Speaker.



Place the set with the good ventilation and away from the direct sunlight and humidity.



Avoid the temperature of over 30C and below 5C.

1. Before You Begin

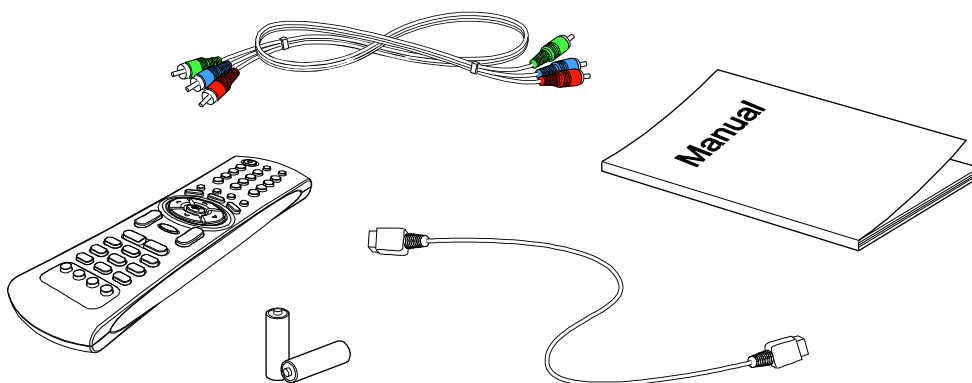
1.1 Features

- ◆ Two Tuners
- ◆ Two recording and playback simultaneously
- ◆ Brilliant On Screen Graphic
- ◆ MPEG-2 Video(MP@ML), MPEG-1 Audio Layer1, Layer2, H.264/AVC, ACR(Dolby Digital)
- ◆ Digital Tuner with Loop-through
- ◆ S/PDIF AC3 audio
- ◆ User friendly OSD menu with full function
- ◆ Vector Font and 256 color GUI(Graphic User Interface)
- ◆ Multi-language menu
- ◆ VFD (Vacuum Fluorescent Display)
- ◆ Variable aspect ratio(4:3, 16:9) with Pan Vector or Letter Box
- ◆ EPG(Electronic Program Guide) for On-screen Channel Information
- ◆ Teletext and Subtitle supported(VBI & OSD)
- ◆ Installation by Easy Setup Guide
- ◆ Capacity for storing multi channel (8000 channels)
- ◆ Favorite Channel and Parental Lock Function
- ◆ RS232C port for upgrading system software
- ◆ HDMI (High Definition Multimedia Interface) supported
- ◆ USB 2.0 Host & Slave supported
- ◆ Recording / Playback in STB

- ◆ Bookmarking & jump function

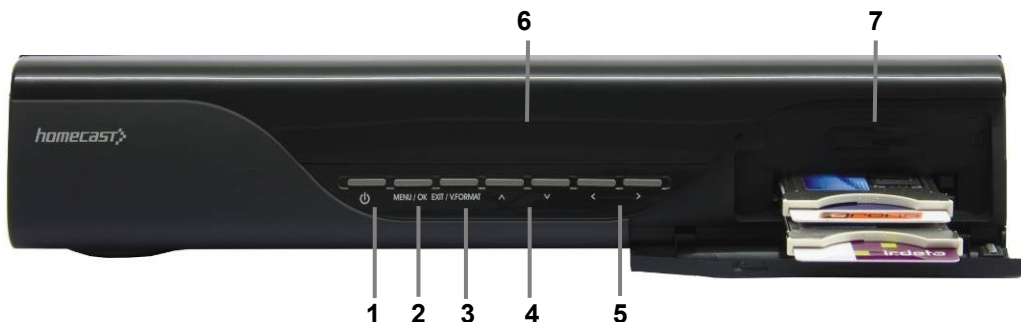
1.2 Accessories

- ◆ Component cable
- ◆ HDMI cable
- ◆ Operating instruction (this Manual)
- ◆ Remote Control
- ◆ AAA dry cell batteries x 2



2. Controls and Functions

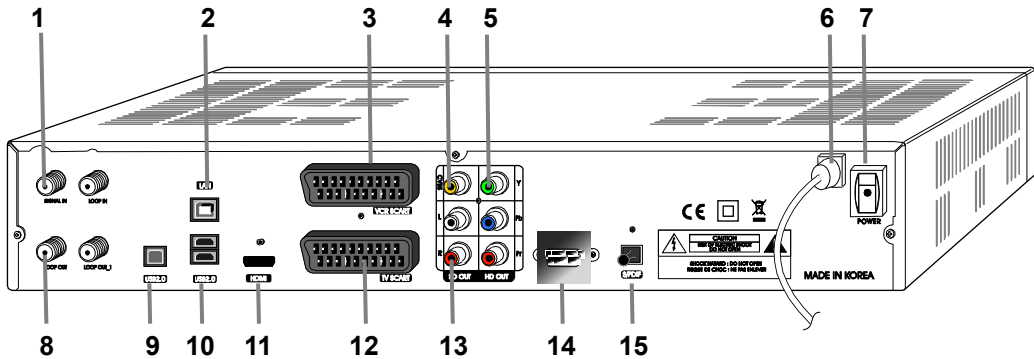
2.1 Front Panel



Item	Description
1. Power Button	Turns the receiver On/Off.
2 Menu/OK Button	Shows the Main menu in viewing mode. Activates the highlighted menu item in menu mode.
3. EXIT Button	Exit from the current menu or cancels the current progressing operation if applicable. Select the video resolution while watching the program.
4. CH Up/Down Buttons (▲/▼)	Changes channels in viewing mode and moves the cursor up/down in menu mode.
5. Volume Up/Down Buttons (◀/▶)	Increases/ decreases the volume levels in viewing mode and changes settings in menu mode.
6. Display (VFD module)	Shows channel information and indicate operating status. In STAND

	BY mode, the display shows local time.
7. Smart Card Slot & 2 CI slots	Smart Card Slot and 2 CI Slots

2.2 Rear Panel



Item	Description
1. SIGNAL IN	Connect the digital signal cable.
2. LAN Port	Network Interface
3. VCR SCART	Connect a conventional VCR.
4. CVBS OUT	Using standard video cables, these jacks connect CVBS(Yellow).
5. YPbPr OUT	Using standard A/V cables, these jacks connect Y/Pb/Pr(Green, Blue, Red) HD component video input.
6. Electric Inlet Lead	90~240V AC(Auto-selectable), 50~60Hz. Make sure to check the power specification.
7. Power Switch	AC Power Switch.
8. LOOP OUT	Loop Out is an output port of the signal from SIGNAL IN
9. 10. USB2.0	USB2.0 Connector
11. HDMI OUT	Connect HDMI input of TV or PC monitor.
12. TV SCART	Connect a conventional TV.
13. Stereo Audio OUT	Using standard stereo audio cables, these jacks connect L/R(White, Red).
14. RS-232C	Connects to a Set-top box or a PC serial port.
15. S/PDIF	Output for connection to a digital amplifier.

2.3 Remote Control Unit







All receiver features can be controlled with the remote controller.

Button	Description
1. POWER	Turns the receiver On/Off.
TV/Rad	Switches between TV and Radio.
TEXT	Shows the teletext
2. NUMERIC Buttons (0 ~ 9)	Select channels or can use as an alphabetic search key in the sorted channel lists.
BACK	Move to the previous channel.
MUTE	Turns the sound on/off.
3. OPT(●)	Select the option such as Audio Language, Teletext Language, Subtitle Language and Multifeed.
A/V+(●)	Select video mode (4:3, 4:3 Letter Box, 16:9) and audio mode (Left, Right, Stereo and Joint).
Favorite (●)	Select the group of satellite or favorite.
A-Z (●)	Sort the channels automatically in alphabetical order.
MENU	Display the main menu of the receiver and come out from inner level to viewing mode(Exit all).
EPG	Shows the TV/Radio Channel guide.





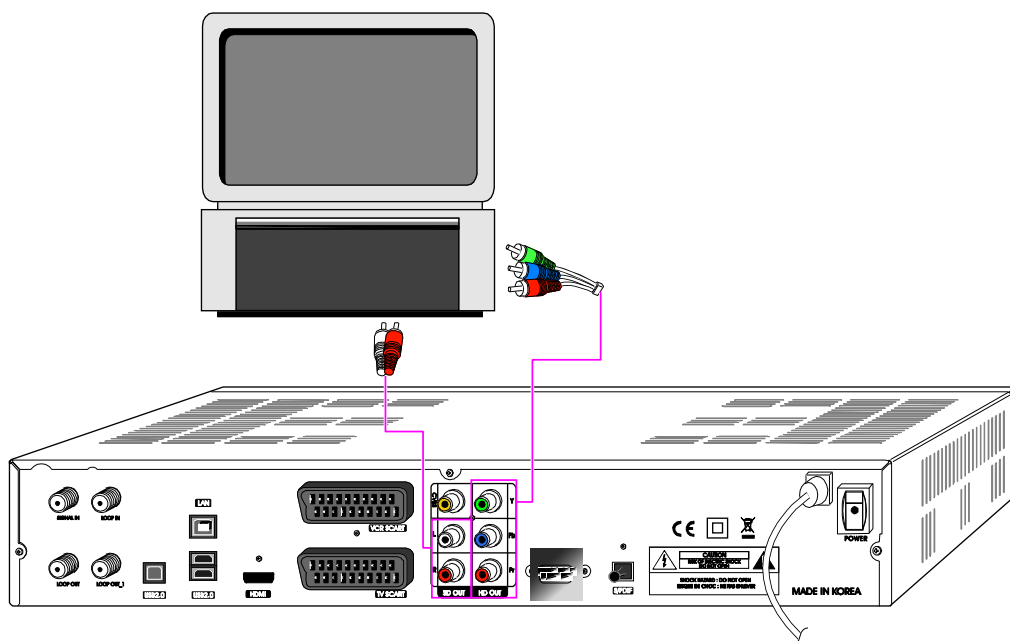
Information	Shows the information of the Banner and EPG.
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Button	Description
4. ◀/▶ ( / )	Moves left/right or change settings in menu mode.
▲/▼ ( / )	Moves up/down in menu mode.
OK ()	Confirms the choices and/or selections the highlighted menu item. While watching TV or listening to Radio, press the  button and the channel list will appear.
5. V+/-	Changes the volume level in viewing mode.
P+/-	Changes channels in viewing mode. Selects other menu pages with sub-pages.
EXIT	Go back step or exit from the menu of the receiver.
6. PAUSE	Pauses playing mode, recording mode and Time Shift.
PLAY	Play the recorded file.
7. REW	Rewind playback.
STOP	Stop playing mode, recording mode and Time Shift.
FF	Fast forward playback.
REC	Record the channel.
SLOW	Playback in slow mode
LIST	Display the filelist.
A-B	Set the block to repeat, copy and cut.
MARK	Set the bookmark.
JUMP	Jump to bookmarked point.
8. PIP	Watch the two channel at the same time
SWAP	Switch between main-picture and sub-picture
MOVE	Move sub-picture on PIP screen
SLEEP	You can turn the STB off after minutes set.
TV	You can change TV mode (Universal RCU)
STB	You can change STB mode

3. Connections

3.1 Connecting to TV

<Connecting to digital TV which can support HD resolution (1080i, 720p, 576p) using YPbPr port>

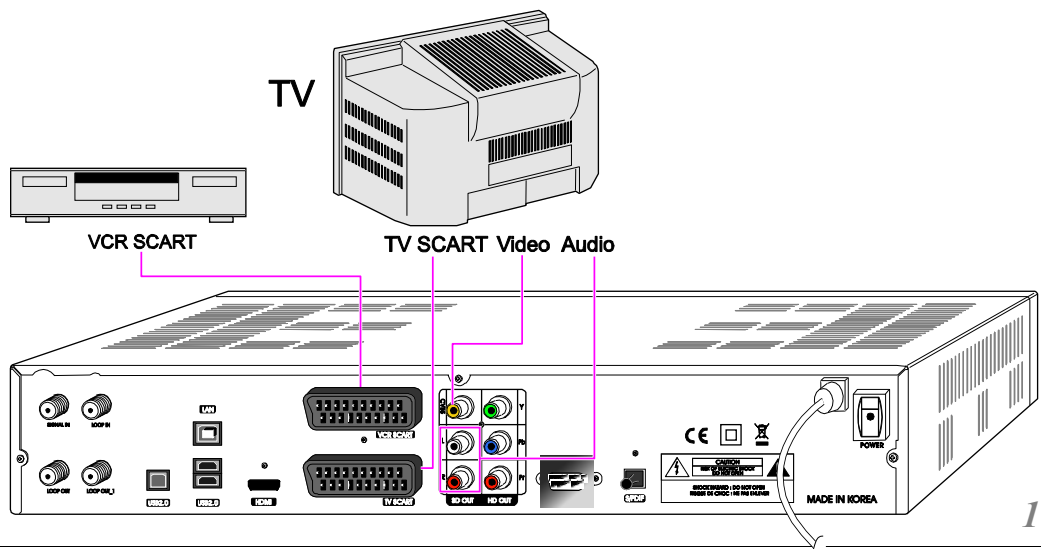



1. Connect STB's YPbPr out and audio L/R out to YPbPr in and audio L/R in of TV.

2. Set STB's video output mode to 1080i or 720p or 576p using 'FUNC' key of remote controller.

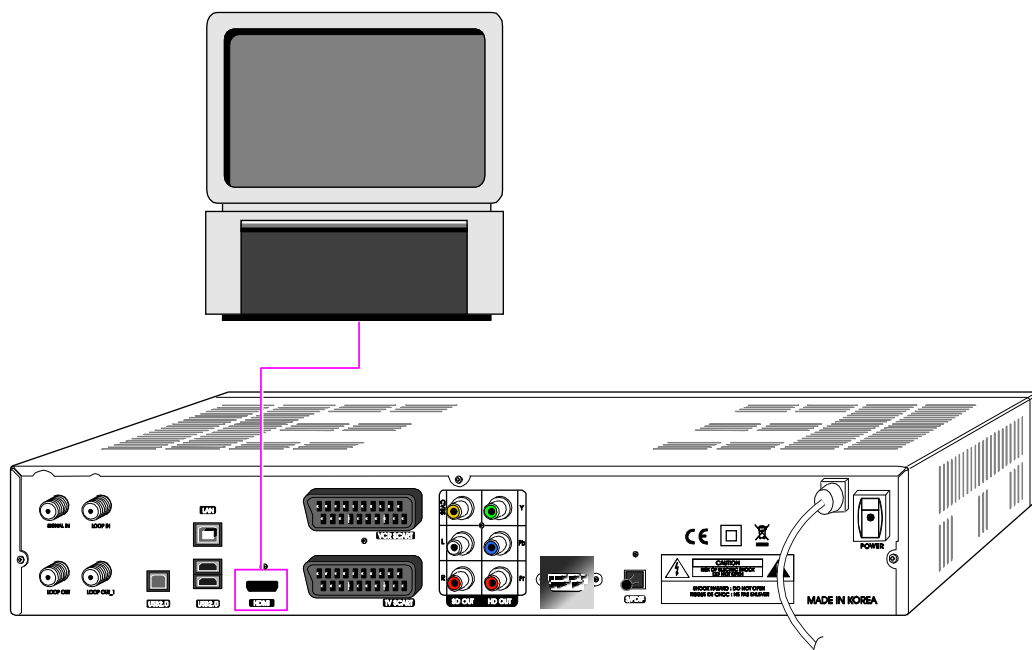
Please check TV's user manual for detail connecting method of the YPbPr input port.

<Receiver to TV and VCR with SCART Cables>



- 
- 1.** Connect the Video and Audio of TV to the Video and Audio. Connect Red and White connector to Audio R and Audio L, and Yellow to Video port respectively.
 - 2.** Connect the TV SCART of TV to lower SCART connector with fully featured SCART cable.
 - 3.** Connect the VCR SCART of TV to upper SCART connector with fully featured SCART cable.

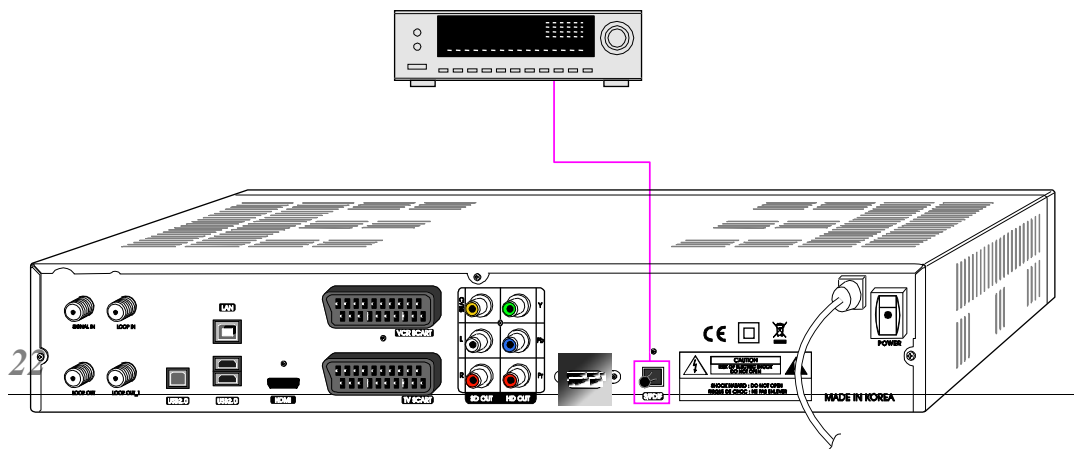
<Connecting to PC monitor or digital TV which has HDMI input port>



1. Connect STB's HDMI out and to HDMI in of monitor or TV.
2. Set STB's video output mode to 1080i or 720p or 576p using 'FUNC' key of remote controller.

For the best access to HD programming at the highest available resolution, use this connection method.

<Connecting to A/V receiver (Dolby digital amplifier)>





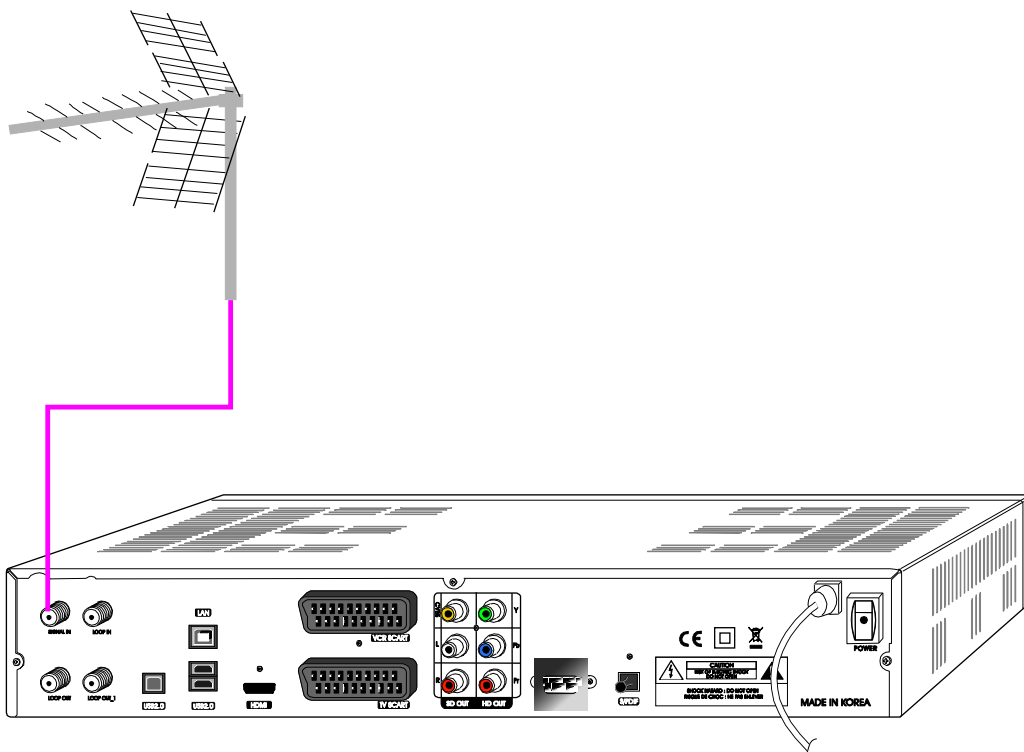
- 1.** Connect STB's optical digital audio out to A/V receiver.

- 2.** Set STB's audio out mode to 'AC3'.

3.2 Connecting to Signal

<Signal and Tuner connection>

Connect the digital signal cable to the SIGNAL IN.





4. Menu Overview

4.1 Menu Instruction



Press the MENU button to display the menu. You can select the sub menu using ▲/▼/◀/▶ button. The selected sub menu becomes highlighted.

When you have selected the sub menu you want, press the  button.

When you want to return to the previous menu, press the  button.

When you want to return to the live screen, press the Menu button.









4.2 Menu Help



In the menu, short information is displayed at the bottom of the screen.

: Using ▲/▼ button.



-  : Using P+/P- button.
-  : Using ◀/▶ button.
-  : Using  button.
-  : Using Opt, A/V+, Fav button.
-  : Using  button.
-  : Numerical button or ◀ Button.

4.3 Menu Structure

In the menu, short information is displayed at the bottom of the screen.

Installation

- ◆ Auto Scan : Search the channel automatically.
- ◆ Manual Scan : Search the channel manually with user's inputting parameters.
- ◆ Full Scan : Search the channels at 1MHz intervals on the frequency range.

Option

- ◆ TV Output : Select the video or audio output.
- ◆ Language : Select the display language, audio language, and subtitle language.
- ◆ Time Setting : Setting current time.
- ◆ Parental Control : Change the password and select the censorship classification
- ◆ OSD Display : Setting OSD display time and transparency.

Channel

- ◆ Reservation : Reserving channels you want to record at your desired time.
- ◆ Delete : Delete the channels such as Favorite, TV/Radio CAS, etc.

Advanced

- ◆ Reset Factory Default : Restore the receiver to the default values.
- ◆ OTA : Upgrade the receiver into the latest software version.
- ◆ S/W Upload : Transfer the software from receiver to receiver or PC.
- ◆ USB Transfer : Transfer the system software between receiver and USB drive.

Status

- ◆ Information : Check the version of the receiver.
- ◆ Mail Box : Check the mails sent by the operator.
- ◆ CI Slot 1 : Check the smartcard information of Slot 1.
- ◆ CI Slot 2 : Check the smartcard information of Slot 2.
- ◆ Card : Check the smartcard information of smartcard reader.

PVR


- ◆ Record Setting : Set Time shift function and record time
- ◆ HDD Information : Check the capacity of HDD
- ◆ Format HDD : Format HDD permanently

5. Menu Operation


5.1 First Installation

You can install the receiver using First Installation for your convenience.

'First Installation' allow you to set your receiver using simple procedure.


1. Select the desired language using the ▲/▼ button.
2. Press the  button to confirm and go to the next step.



3. Select the desired Audio language 1-2 using the ▲/▼ button.
4. Press the  button to confirm and go to the next step.



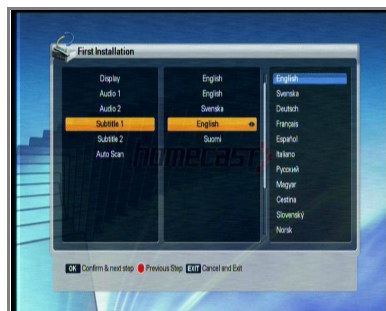
5. Select the desired Subtitle language 1-2 using the ▲/▼ button.

6. Press the  button to confirm and go to the next step.



7. If you want to search the channel automatically


Press the  button



- ◆ Previous Step button : If you want to go to the previous step, press the Opt button and then you can reset options.
- ◆ Cancel and Exit button : If you want to skip 'First installation', press the Exit button.

5.2 Installation




1. Press the Menu button to display the main menu.
2. Press the  button on the sub menu. Some sub menus such as Auto Scan. Manual Scan on the Installation are locked by password, and the password pop-up window appears. The default password is "0000".

5.2.1 Auto Scan

1. Select the setting menus using the ▲/▼ button.




Press the ◀/▶ or numeric button to change the setting values. If you want to search the channel, press the  button.

- ♦ Start Frequency / End Frequency : Start and end point of frequency range which Auto Scan is going to perform
- ♦ Step Frequency : An offset parameter for auto scanning between Start and End Frequencies. (regular interval searching)
- ♦ Scan Mode : Free+CAS Channel, Free Channel and CAS Channel
- ♦ Service Type : TV+Radio, TV and Radio
- ♦ Modulation : QAM16, QAM32, QAM64, QAM128, QAM256 and Auto. (To change the modulation value, use the ◀/▶ button.)
- ♦ Symbol Rate : If you want to search the channels of various symbol rates simultaneously, press the Opt button and input each symbol rate parameter one by one. (Opt->***-Opt->***...) You can set 8 Symbol Rates at a time.

2. The left window shows TV channels and the right

window shows Radio channels during the scanning process. White channel names are new channels downloaded to your receiver. Black channel names are already existing channels.




3. If you press the  button when scanning for channels, a pop-up window appears.

4. When you complete scanning for channels, a similar pop-up menu appears.

5. If you want to save the updated channels, select 'Yes'.



5.2.2 Manual Scan

1. Change to the specific values you want to scan.
2. Press the  button to start the manual scan.



- ♦ Frequency : The frequency of the transponder you want to find manually.
- ♦ Scan Mode : In the Free Channel mode, the receiver scans all channels without scrambled service.
- ♦ Service Type : The selection of TV, Radio and TV&Radio.
- ♦ Modulation : The selection of modulation (QAM16, 32, 64, 128, 256)

- ◆ Symbol Rate : The symbol rate you want to find.
- ◆ Network Search : When enable, the receiver searches for more transponders using the network index table.

5.2.3 Full Scan

The Full Scan searches channels at 1MHz intervals on the frequency range. The scanning may take much time depending on searching options and environments, so please wait until the whole process completes.

5.3 Option

5.3.1 TV Output Setup

1. Select the TV output options using the **▲/▼/◀/▶** button.
2. If you press the **OK** button, the changed state will be saved and exit.



- ◆ SCART : Select your TV type.(RGB, S-VIDEO, CVBS).


If you select RGB, the component out will be disabled.

- ♦ TV Screen : Select the screen format of your TV.(4:3, 4:3 Letter Box, 16:9)
- ♦ Dolby Digital(DD) : If you set it to the enable mode and the channel has DD audio, it can be automatically selected DD language
- ♦ Digital audio : If you set it to the enable mode, you can listen to Dolby-digital audio through AC-3 decoder.
- ♦ AUX Output : You can restore AUX A/V output.

When you show the PIP mode, AUX output will be black screen.

If you want to show the Aux A/V play, you can restore using this menu.

5.3.2 Language

1. Select the language options using the ▲/▼/◀/▶ button.
2. Press the  button to change the selected language.




- ♦ Display : Change the language used in the OSD and Menus.
- ♦ Audio 1-2 : Change the language that you listen to audio in.
- ♦ Subtitle 1-2 : Change the language that you watch the subtitle in.

5.3.3 Time Setting

1. Setting current time using the ▲/▼/◀/▶ button.



2. If you press the  button, current changing state will be saved and exit.


♦ Time Mode (TDT, USER)

TDT : Receive the time from broadcaster.

USER : Set the time directly by user.


- ♦ Offset : Set the time difference between GMT and the local time.
- ♦ Day light saving : Day light saving will work only in case of 'Enable' mode.
- ♦ Start day : Day light saving start day.
- ♦ End day : Day light saving end day.

5.3.4 Parental Control

1. If you want to change the password, press the  button, following message requiring new password will be displayed.
2. Change the password into new one by numeric button.
3. To ensure your change, you are supposed to input a password once more.



4. Select your desired rating level using the ◀/▶ button.

5. Press the  button to save and exit. Rating mode allows you to block channel according to the age level you have set.




- ♦ View All : All channels can be watched.
- ♦ 7 : Channels are blocked under the age of 7.
- ♦ 12 : Channels are blocked under the age of 12.
- ♦ 15 : Channels are blocked under the age of 15.
- ♦ 18 : Channels are blocked under the age of 18.

You have to enter password to watch the channels which is blocked by the age level.

5.3.5 OSD Display

1. Select the options using the ▲/▼/◀/▶ button.

2. If you press the  button, current changing state will be saved and exit.



- ◆ Banner display time : Banner will disappear after setting time passed.(1~9).
- ◆ Screen Saver : Screen Saver is a function to protect your TV in case Radio status or in Menu. (Disable, 5, 10, 20, 30, 60, 120 Minutes)
- ◆ OSD Mixweight : Select the OSD transparent type. (Low, Middle, High).
- ◆ Teletext Mixweight : Select the Teletext transparent type. (Low, Middle, High).
- ◆ VFD Display : Select the VFD display type (Channel Number + Name, Channel Name)

5.4 Channel

5.4.1 Reservation

You can reserve a channel recording at your desired time. In this mode, you can reserve channels up to 50.






1. Press the Opt, A/V+, Fav and A-Z buttons to use the reservation function. And then use the ▲/▼/◀/▶ button to the detail setting for your reservation.



< Functional buttons >

- ◆ Opt : You can edit the reservation
- ◆ A/V+ : You can add the reservation
- ◆ Fav : You can delete the reservation
- ◆ A-Z: You can sort the reservation

< Timer Event Icons >

- ◆ Once () : A single timer event
- ◆ Weekdays () : Occurs at the same time on Monday to Friday
- ◆ Weekends () : Occurs at the same time on Saturday to Sunday
- ◆ Weekly () : A timer event occurs at the same time each week
- ◆ Daily () : A timer event occurs at the same time every day

5.4.2 Delete

You can delete channels. You can select not only Mode such as Channel, CAS and Favorite, but also Option such as TV, Radio and etc.


1. Select the Mode and Option you want to delete channels using the ▲/▼/◀/▶ button.

2. Press the  button to delete and exit.



5.5 Advanced

5.5.1 Reset Factory Default

1. If you want to change the set into the default values, press the  button. The following confirmation window will appear.
2. If you select 'Yes', the system will be reset to the primitive state like new receiver.

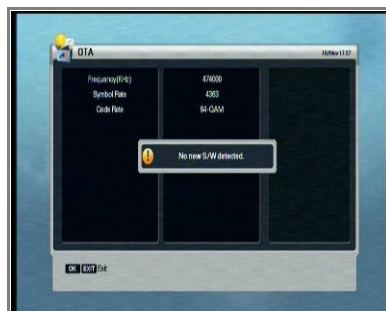


5.5.2 OTA

1. You can upgrade the latest software. The receiver checks whether the new S/W is released when you view channels or select this OTA menu.
2. If the new version is detected, the receiver will be rebooted automatically and the download screen will appear.



3. If any S/W can't be found, this following message will appear.



5.5.3 S/W Upload

1. Connect the receiver with other receiver or PC through RS-232 cable.
2. For the target receiver, turn the AC Power off, then turn on again.
3. You can watch the transfer status of software.



5.5.4 USB Transfer

You can transfer the system software between a set-top box and a USB drive.

1. Select the source & the target.



2. If the data exists in the target, the data will be removed and the new data will be replaced.



3. If you select "Yes", the data will transfer. The window will appear while the data being transferred. You should keep USB connection until transferring is done.



4. The window appear on the TV screen after data transferring is done.



5.6 Status

5.6.1 Information

1. You can watch the system information such as Model ID, Hardware version and Software version.



5.6.2 Mail Box

1. You can check the Mails sent by the operator.



5.6.3 CI slot 1,2

1. You can see not only Free To-Air services, but also scrambled services, using the Conditional Access Modules (CAM).
2. This STB supports Common Interface of two slots. If you want to see scrambled services, contact your service provider or distributor. Common Interface module depends on the service provider.



5.6.4 CAS

1. You can check the CAS information when you insert the Conax smartcard into the reader.



5.7 PVR

5.7.1 Recording Setting

1. You can set Time shift function as Enable or Disable. And you can set Default record time.




- ♦ HDD : If HDD is enabled, HDD function is always activated. If disable, HDD sleep. When you use HDD function, HDD will be activated.
- ♦ Time shift : If Time shift is enabled, whenever user change the channel, Time shift is activated automatically. If disabled, Time shift function doesn't work. To force Time shift function in A/V, you should use the PAUSE key.
- ♦ Default record time : You can set the default record time between 5 minutes and 10 hours.

5.7.2 HDD Information

1. You can see the capacity of HDD such as Total size, Free size, Used size and the model name of HDD.



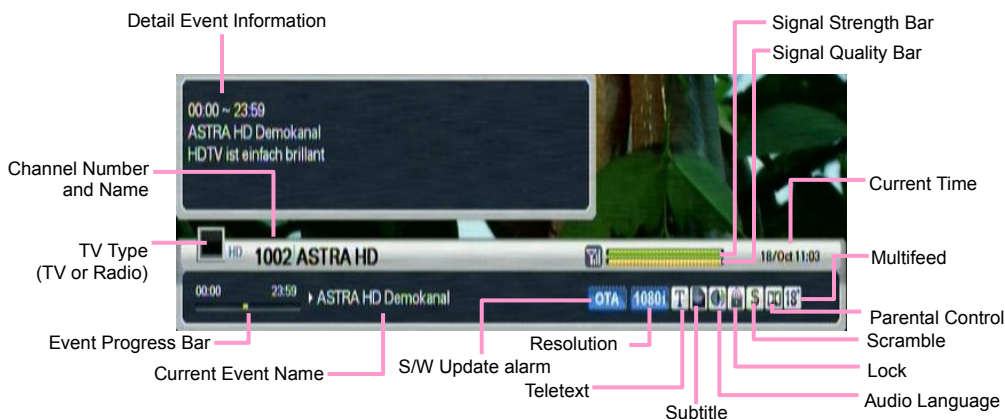
5.7.3 Format HDD

1. If you press the  button, you can delete all files in HDD permanently.



6. Viewing General Information

6.1 Banner Information



1. Whenever you press the INFO button, the banner information window appears for a few seconds.

* You can also find the output resolution at the left top side

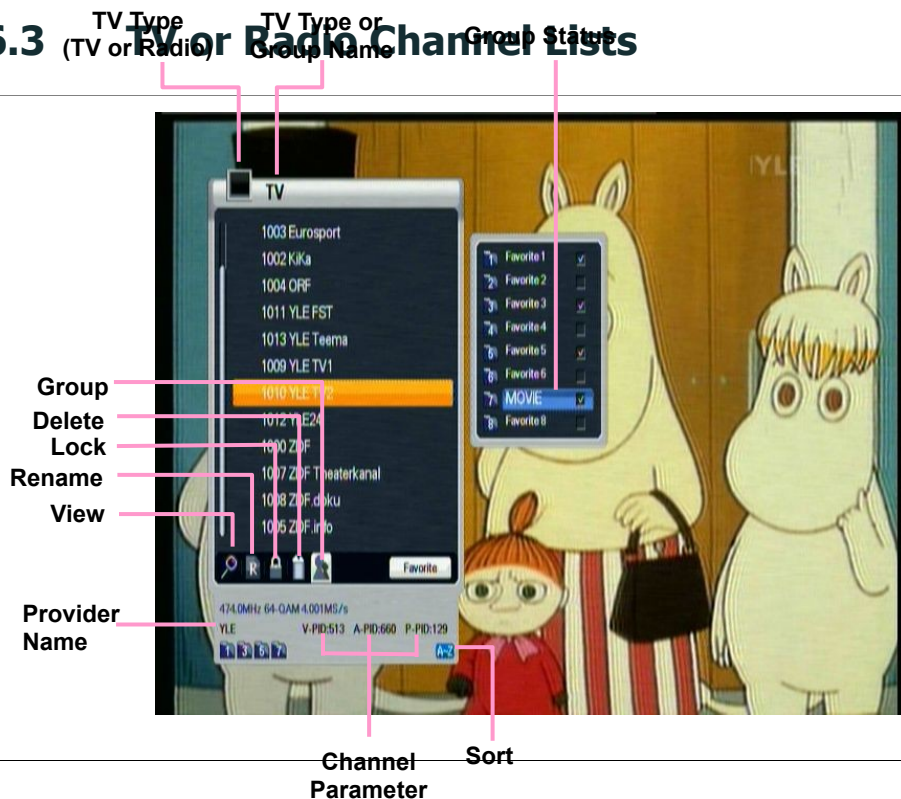


6.2 TV & Radio changing



While watching TV or listening to Radio, you can select TV or Radio using the TV/Rad button.





6.3 TV or Radio Channel Lists



6.3.1 Watching Mode

While watching TV or listening to Radio, you can watch the channel list. Press the  button to display the channel list. You can watch several icons at the bottom of the channel list. Each icon has a special and convenient function for user. If you want to change the mode, press the  button to go to the desired icon.

1. If you want to view the sorted channel list, press the A-Z button.
2. Press the  button to move the cursor.
3. Press the  button to watch the desired channel.
4. If you want to hide the channel list, press the



- 1

5. If you know the correct channel-number to watch, press the number using the numeric button.




6. If you want to go Alphabetic move, you must change the channel list to the sorted status. To become the sorted status, press the A-Z button on the channel list or on the Live screen.

7. Press the numeric button. Then Alphabetic Pad will appear.


8. You can select the Alphabet using the numeric



key(1-9)/▲/▼/◀/▶ button.



9. Press the  button. If the selected channel by user input-letter not exists, there will be any change.

6.3.2 Delete Mode

1. Select the Delete Icon using the ◀/▶ button.
2. Select channel you want to delete using the ▲/▼ button. Press the  button. Checked sign will be marked on the right side of the channel name.
3. Press the EXIT button to save and exit.



6.3.3 Rename Mode

1. Select Rename Icon using the ◀/▶ button.
2. Select the channel to rename and press the  button. And then a small editing name window will be displayed.
3. You can write each letter of the channel name using the ▲/▼/◀/▶ button and the  button.



4. After renaming is done, select "Done" tab.

5. Press the EXIT button to exit.

You can change the Favorite group name.

1. Select the desired group.

2. Change the name of group according to above procedures.



<Remark>


It is impossible that Delete & Group function can be changed in grouping mode.


- ◆ Space () : Write between two characters.
- ◆ Backspace () : Delete characters.
- ◆ Caps Lock (A↔a) : Change between caps and lower case letter.
- ◆ Done () : To save the change.
- ◆ Cancel () : Exit rename mode.

6.3.4 Lock Mode

1. Select Lock Icon using the the ◀/▶ button.








2. Select the channel to be locked and press the  button.

3. Set the password. Locking mark will appear on the left side of the Channel name. To cancel it, just press the  button.

4. Press the EXIT button to save and exit.

6.3.5 Group Mode

You can make the group up to the 8th group. It can accommodate 100 Channels in one group. So you can get 800 favorite channels.

1. Select Group Icon using the  button.
2. Select the channels that you want to make favorite channel list.
3. Press the  button, and then a small favorite Window will appear on the right side of the screen.
4. Choose the group number using the  button and press the  button. To cancel it, just press the  button again.



5. If you want to select other channel in current

group, press the ◀/▶ button. And then highlighted channel will be showed on the channel list.

6. Press the  button to set the group with

selected group using the ◀/▶ button.

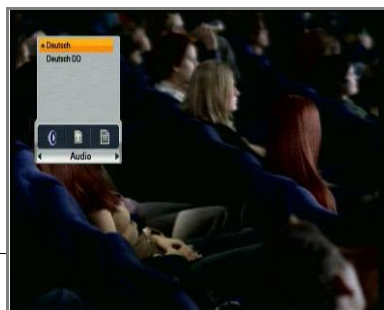
7. Press the EXIT button to save and exit.

6.4 Option


While watching TV or listening to Radio, press the Opt button. You can watch small pop-up window. You can select a option.(Audio Language, Teletext Language, Subtitle Language) If you want to change the option mode, press the ◀/▶ button.

6.4.1 Audio Language


1. Select the 'Audio' using the ◀/▶ button.



2. Press the ▲/▼ button to select a desired audio language.

3. Press the  button to change the audio language.

6.4.2 Teletext Language

1. Select the 'Teletext' using the ◀/▶ button or press "Text" button on RCU.
2. Press the ▲/▼ button to select a language.
3. Press the  button.
4. You can watch the Teletext contents in the language if it is available.



6.4.3 Subtitle Language

1. Select the 'Subtitle' using the ◀/▶ button.
2. Press the ▲/▼ button to select a language.




3. Press the  button.

4. If the selected language is different from what is
available, you can't watch the subtitle.

6.5 A/V+


While watching TV or listening to Radio, press the A/V+ button. You can watch small pop-up window. You can select an option.(Audio Mode, Video Mode, Video format) If you want to change the option mode, press the ◀/▶ button.

6.5.1 Audio Mode

1. Select the 'Audio Mode' using the ◀/▶ button.
2. Press the ▲/▼ button to set the output direction for speakers.
(STEREO, LEFT, RIGHT, JOINT)
3. Press the  button to save and exit.




6.5.2 Video Mode

1. Select the 'Video Mode' using the ◀/▶ button.
2. Press the ▲/▼ button to set screen format of your TV.
3. Press the  button to save and exit.



6.5.3 Video Format


1. Select the 'Video Format' using the ◀/▶ button.
2. Press the ▲/▼ button to set video resolution of your TV.
3. Press the  button to save and exit.



6.6 Fav

While watching TV or listening to Radio, press the Fav button. You can watch small pop-up window. You can select a Favorite group.

6.6.1 Favorite

1. Select the 'Favorite' using the ◀/▶ button.
2. Press the ▲/▼ button to select a group.
3. Press the  button, then you can watch the channel list of selected group.



6.7 A-Z

While watching TV or listening to Radio, press the A-Z button. You can watch the sorted channel list.

6.8 EPG

Press the EPG button and the electronic channel guide appears if applicable.

Time intervals are arranged in a row and Channel lists are shown in a column.

6.8.1 EPG Information

1. Press the ◀▶ button to change time interval.
2. Press the ▲▼ button to watch the guide about the channel, and then the detail EPG information will appear in the below. On the other hand, the small screen in the left will be changed if only you press the OK button on the channel list.
3. Press the 'EXIT' button to exit.



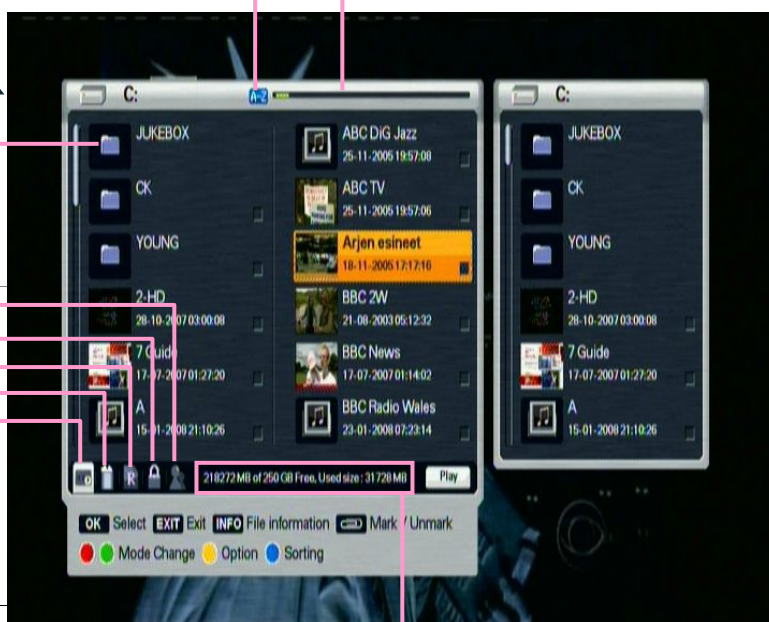
- ◆ Press the Opt button to reserve channels with event. If you want to know the detail description about reservation, refer to the reservation description in chapter 5.4.1.
- ◆ When one or two channels are being recorded, you can search the reservation list only.

7. PVR

Juke Box Folder


7.1

Juke Box
Lock
Rename
Delete
Play




HDD Information

7.1.1 Playback mode

1. Select the 'Playback mode' using the Opt button.
2. Select the recorded file using the ▲/▼ button.
3. Press the  button and then the file will be played.
4. In the 'Playback mode', you can move the progress bar to left using the Opt button and





move it to right using the 'A/V+' button.

5. Press the EXIT button to close the file list.

6. You can watch the detail file information.

7. Press the "INFO" button to watch the information for the selected file

8. Press the EXIT button to hide the information.



7.1.2 Delete mode

1. Select the 'Delete mode' using the Opt button.

2. Select the file you want to delete using the ▲/▼ button.

3. If you decide to delete the file, press 'Yes' on the pop-up window.

4. Press the EXIT button to exit.



7.1.3 Rename Mode

1. Select 'Rename mode' using the Opt button.
2. Select the file to rename and press the button.

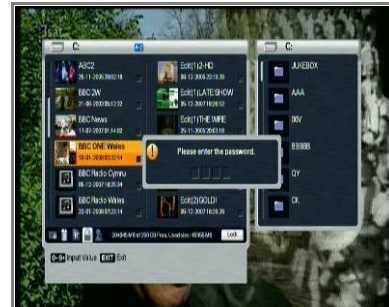
And then a small editing name window will be displayed.
3. You can write each letter of the file name using the ▲/▼/◀/▶/numeric button and the button.
4. After renaming are done, select 'Done' tab.

5. Press the EXIT button to exit.



7.1.4 Lock Mode

1. Select 'Lock mode' using the Opt button.
2. Press the OK button. And then the following message window will appear.
3. Input your password and then the highlighted file will be locked.
4. If you want to lock another file, select the file using the ▲/▼ button. And press the button.
5. Press the EXIT button to exit.



7.1.5 JUKEBOX

1. Select 'Jukebox mode' using the Opt button.
2. Press the FAV button. And then the following pop-up window will appear.
3. Select 'Create jukebox' mode.



4. The following JUKEBOX window will appear.
5. Select Radio or AV files on the file list to add the JUKEBOX. To cancel removing it, just press the button on the JUKEBOX window.
6. Press the EXIT button or the Opt button to stop adding files.



7.1.6 Folder

1. Select 'Jukebox mode' using the Opt button.

Press the FAV button. And then the following pop-up window will appear.

2. Select "Create folder" mode.



3. A small editing name window will be displayed.

4. You can write each letter of the folder name using the ▲/▼/◀/▶ button and the OK button.



5. After renaming is done, select 'Done' tab.

6. Select Radio or AV files on the file list to add the folder.



1. If STB connects with the USB device, you can copy the file to the selected USB device.

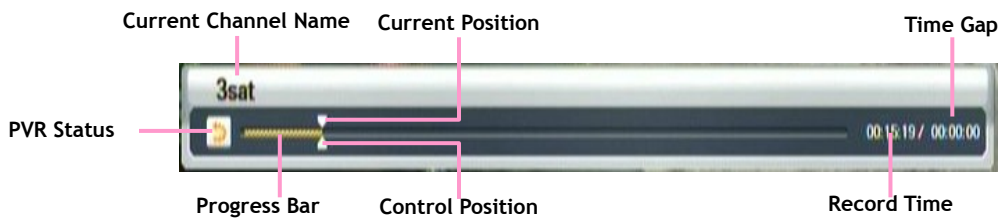


- 2.** The message window will appear during copying.



7.2 PVR Banner

To access the PVR Banner, press the ◀/▶ button or the trick button such as PLAY(▶), FF(▶▶), REW(◀◀), SLOW(1▶).



- ◆ The description of icons



: Time Shift status






: Recording status



: Playback and trick status



: Time Shift playback and trick status

   : Recording, playback and trick status

7.2.1 Time Shift

Time Shift function automatically records the current playing program temporarily.

1. If Time Shift function is set to enable in the PVR

menu. Time Shift is always working on air and changing the channel. You can not stop Time Shift function in enabled mode except the case you choose to record the channel.



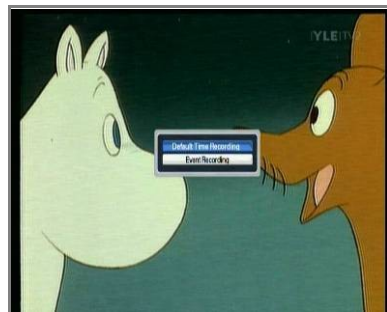
2. If Time Shift function is set to disable in the PVR

menu. Time Shift will work only when you press the PAUSE(II) button.



7.2.2 Record

1. Press the Record (●) button to record the channel you're watching. And then following pop-up window will appear.
2. Select the mode (Default recording & Event recording) you want. If you select 'Default recording', you can continually record the channel . If you select 'Event recording', you can record the program you are watching only.
3. Record mode can't be canceled by any control such as changing channel, etc. except pressing the STOP (■) button.



- ♦ Max duration time for recording is set to the default record time which set in Menu. If you want to change the duration, press the ◀/▶ button.

(Minimum: 5Minutes, Maximum: 10Hours)

One recording and playback the same channel simultaneously

1. Press the Record(•) button on the desired channel.

2. Press the REW(◀◀) button and use the
▶▶/◀◀/◀/▶ button to find position
you want to watch.



3. Press the PLAY(▶) button when found the
desired position.

4. The recorded content will be played from that
position until the current recorded part..



One recording and view live channel simultaneously

1. You can watch another channel while recording.

Press the Record(●) button on the desired channel.

2. Press the  button to view the channel list

3. Select the channel you want to watch using the

▲/▼ button.



- ◆ Several channels are restricted due to the frequency of the recorded channel.

Two recording

1. Press the REC button on the desired channel.
2. When you change the channel, you can record another channel pressing the REC button.
3. Two channels will be recorded simultaneously.



4. If you want to stop recording, press the STOP button.

5. Select the desired channel using the ▲/▼ button, and press the OK button on the desired channel.

6. If your recording channel is reserved on the 'Reservation' menu, the pop-up windows appears when the 'Reservation' function executes according to the reserved time.



Two recording and playback one file simultaneously

1. Press the REC(●) button on the desired 2 channels as above.

2. Press the LIST button to open the file list.



- 1

- 6



6. Press the EXIT button to exit from the file list.

7. When you play the file, the file list will be disappeared.

8. Press the ◀/▶ button or trick button such as REW, FF, etc., if you want to check the status of playing.



9. Press the numeric button(0~9) in Playback mode.

10. Each number means the ratio of the number to ten. If you press number 3, control position will be located 30% progressed position.



Jump in playback mode

1. You can locate the control position to the desired position using the ◀/▶ button.
2. By releasing the ◀/▶ button, playback continues from this position.



Bookmark

For your convenience, the bookmark function enables you to set bookmarks within the media file to continue or target a special position in media file.

1. Play the file you want to watch.
2. Move the control position to the favored position using the ◀/▶ button. Then press the MARK button and the white small bar will be placed at that position.
3. To delete the Bookmark, move the control position using the ◀/▶ button to the desired



Bookmark and then the color of the control position turns black Just that time, press the MARK button.

4. Press the JUMP button and the control position will jump to the next bookmarked position and playback starts from this point.

- ♦ The maximum number of the Bookmark is twenty in a file.
- ♦ The first Bookmark exists at the starting position of the file.

7.2.4 FF/REW/SLOW mode

These functions are available in Playback mode and Time Shift mode.

<Fast Forward / Speed : x2, x3, x4 >

1. Press the FF(►►) button.
2. If you press the FF(►►) button continuously, speed will be increased up to 4 times.



- ♦ : Fast forward icon on Playback mode.
- ♦ : Fast forward icon on Time Shift mode.

<Rewind / Speed : x2, x3, x4>

1.

Press the REW(◀◀) button.

2. If you press the REW(◀◀) button

continuously, speed will be increased up to 4 times.



<Slow>

1.

Press the SLOW(▶▶) button.

2. If you press the SLOW(▶▶) button continuously,

speed will be decreased up to 1/4 times.



7.2.5 Set repeat, copy and cut block

You can set the block to repeat, copy and cut the recorded file on the PVR Banner.

1.

Play the recorded file.

2. Locate the control position to the favored

starting position using the ◀/▶ button.

3. Press the A-B button to set the starting point

and then move the ending point using the ◀/▶ button.




1. Press the A-B button again on the ending point

and then pop-up window are displayed.

2. You can select the function such as Repeat

block, Copy block, Cut block using the ▲/▼ button.



3. Press the  button to start repeating or copy or cut block.
4. Press the EXIT button or the A-B button to cancel setting block.

7.3 PIP (Picture In Picture)

1.

Press the PIP button.

2. Sub-Picture can be moved using the MOVE button.



3. Press the SWAP button to switch between main-picture and sub-picture at PIP screen.
4. Press the EXIT button to exit PIP mode.

- ♦ supported playback functions for following file formats

7.4 JUKEBOX playback

You can playback Radio or AV files after adding the files into the JUKEBOX.

1. Select the files you want to watch using the


▲/▼/P+/P- button in the Jukebox folder.

2. Press the  button or PLAY(▶) button.

3. To stop playing, press the EXIT button.



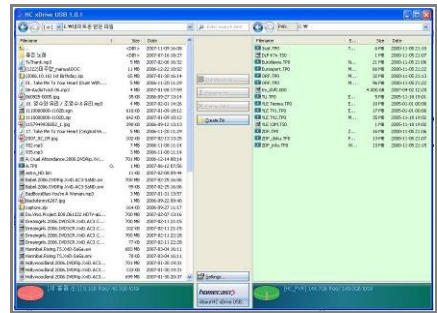
4. If you want to see the file list in the JUKEBOX,

press the  button after selecting the JUKEBOX folder. And then the file list window appears as the left picture.



7.5 USB 2.0

1. You can download and upload files from STB to PC through the USB port.
2. After installing USB driver, double click the "HCxDriveUSB.exe" file. And then the window appears as the right picture.
3. The left windows shows folders and files in hard disk of your PC, on the other hand, the right window shows folders and files in hard disk of STB.
4. If you want to make new folders, click the "New folder" in the "File" menu. Also you can move or copy files by dragging your PC mouse.



USB driver installation

Please visit the website, http://homecast.net/eng/service/download_list.asp

And then refer to "24. [Win App] HD PVR file manager program for Windows" to understand

how to install USB driver.

(How to install USB driver)

1. Unzip the zip file downloaded to the specific folder. (The zip file includes "hcpvrsb.inf", "HcPvrUSB.sys" and "HCxDriveUSB.exe".)
2. Connect STB and PC with USB cable.
3. Standby off STB. (standby mode)
 - This USB system works in standby mode only.
4. If you see the message, "New device detected", on the screen, update the driver in Windows controlpanel.
 - Controlpanel -> System -> Device Manager -> Universal Serial Bus Controller -> USB storage Device -> Driver update -> Select "hcpvrsb.inf" file in the specific folder
5. Execute(Run) "HCxDriveUSB.exe"

- ◆ Transferring the file is available in standby mode only.

8. Photo album

8.1 Photo album list

1.

Press the LIST button to open to the file list.

2.

The pop-up window will appear.



3.

Select the File list mode.


8.1.1 Watching mode

1.

Select Play Icon using the Opt button.



2.

Press the  button and then pop-up window will appear.

3.

Select the watching mode you want. (View, Slide show)

8.1.2 Delete mode

1.

Select the Delete Icon using the Opt button.

2.

Select the image you want to delete using the ▲/▼ button.

3.

.If you decide to delete the file, press 'Yes' on the pop-up window




8.1.3 Rename mode

1.

Select Rename Icon using the Opt button

2.

Select the file to rename and press the  button.

And then a small editing name window will be displayed.

3.

You can write each letter of the image name using

the ▲/▼/◀/▶/numeric button.

4.

After renaming are done, select 'Done' tab.



8.1.4 Jukebox mode

1. Select 'Jukebox mode' using the Opt button.
2. Press the FAV button. And then the following pop-up window will appear.
3. Select 'Create folder' mode.



4. A small editing name window will be displayed.
5. You can write each letter of the folder name using the ▲/▼/◀/▶ button and the OK button.
6. After renaming is done, select 'Done' tab.
7. Select the image on the Photo album list to add the folder.



8. Select 'Jukebox mode' using the Opt button.



9. Press the FAV button. And then the following

pop-up window will appear.

10. Select 'Update thumbnail' mode.

11. You can update the thumbnail of photo.

Additional Information

A.1 Troubleshooting

There may be various reasons behind receiver problems. Check the receiver according to the procedures described below.

If you can't solve your problem even after following the troubleshooting procedures, please contact the dealer. Do not open the receiver cover. It may cause a dangerous situation.

Symptom	Cause	Remedy
The front panel doesn't display any message.	The power cord is not plugged in.	Check that the power cable is plugged in to the wall outlet.
No picture or sound.	Wrong connection of the Audio/Video output of the receiver to TV.	Connect the Audio/Video output of the receiver to TV correctly.
	Wrong connection of the antenna.	Connect the antennal cable correctly.
	No or Bad signal message appears.	Check other device connected between Antenna and the receiver, or adjust the antenna position.
	Audio muting	Press the MUTE button
	TV Power off.	Turn TV on.

No picture.	The receiver can't receive the signal.	Check the antenna cable, replace the cable, or connect the cable to the receiver tightly.
	Incorrect values of some tuner parameters.	Set the values of tuner parameters correctly. Refer to the Installation menu.
No or bad signal.	The satellite dish is not pointing at the satellite.	Adjust the dish.
	Satellite dish is too small.	Change to a larger dish.
	The LNB is faulty.	Change the LNB.
The remote controller does not operate.	The batteries of the remote controller are not inserted or exhausted.	Check whether the batteries are inserted correctly in your remote controller.
Poor picture quality.	Low LNB power or signal loss in cable.	Change the LNB power in dish set up menu to 14v/19v.
Less channels in scanning.		

A.2 Technical Specifications

1. Tuner & Demodulator

Parameter	Specifications
Input Frequency Range	47MHz to 862 MHz
RF Input Signal Level	-15 ~ +15dBm
RF Impedance	75 Ω
Demodulation	QAM
Symbol Rate	7Msps

2. MPEG

Parameter	Specifications
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Input Rate	Max. 15Mbit/s
Video	MPEG-2 MP@ML, H.264/AVC
Audio	MPEG-1/2 Audio Layer 1,2, AC3(Dolby Digital)

Aspect ratio	4:3 or 16:9
Active Pixel	1920x1080i, 1280x720p, 720x576p, 720x576i
Audio Mode	Stereo, Dual channel, Joint stereo, Mono
Audio Sampling Frequency	32/44.1/48kHz

3. RF-Modulator

Parameter	Specifications
RF Connector	75 Ω IEC169-2, Male/Female
Frequency	470MHz to 860MHz
Output Channel	CH 21-69 for the Demodulator
TV Standard	PAL B/G/I/D/K Selectable by Menu Setting

4. Connector

Port	Specifications
Video	TV SCART (RGB, CVBS, S-VIDEO) VCR SCART (CVBS) RCA (VIDEO) Component (YPbPr) HDMI
Audio	TV SCART VCR SCART RCA(Audio L,R) SPDIF
Serial Port	RS232C D-sub male type
USB2.0	Rear : Host x 2ea / Slave x 1ea
LAN Port	RJ45

5. Power Supply

Parameter	Specifications
Input Voltage	90~260VAC (SMPS)
Power consumption	Operation : 28W Standby : 8W
Protection	Separate internal fuse Lighting protection Lighting protection

6. Conditional Access Interface (optional)

Parameter	Specifications
PCMCIA	2 Slot Common Interface
Embedded	1 Slot Smart card reader (Conax)

7. Environmental

Parameter	Specifications
Operating temperature	0 ~ 45 C
Storage	-10 C ~ +50 C
Storage humidity range	5 ~ 90% Rh Non condensing
Operating humidity range	10 ~ 85% Rh Non condensing
Weight	3.4Kg
Dimension(H x W x D)	60mm x 360mm x 270mm

8. SCART Socket

PIN No.	TV	AUX
1	Audio Out Right	Audio Out Right
2	-	Audio In Right
3	Audio Out Right	Audio Out Left
4	Audio ground	Audio ground
5	Blue Ground	Blue Ground
6	-	Audio In Left
7	Blue Out	Blue In
8	Function Control Out	Function Control In
9	Green Ground	Green Ground
10	-	-
11	Green Out	Green In
12	-	-
13	Red Ground	Red Ground
14	Fast Blanking Ground	Fast Blanking Ground
15	Red(C) Out	Red(C) In
16	Fast Blanking Out	Fast Blanking In
17	CVBS ground	CVBS ground
18	CVBS ground	CVBS ground
19	CVBS(Y) Out	CVBS Out
20	-	CVBS(Y) In
21	Ground	Ground

A.3 Glossary of Terms

EPG

Electronic Program Guide. Software that enables viewers to navigate easily among the large selection of channels provided by the digital technology and choose the service they desire.

FEC

Forward Error Correction. Correction of faulty bits in the received signal.

Parental control

A feature that allows parents to lock programs that they consider unsuitable for their children. A locked channel or program can only be unlocked with the password.

PIN code

Personal Identification Number. A four-digit code that is used for locking/unlocking channels and programs, as in the parental control feature.

Polarization

Polarization allows several programs to be fitted into the same frequency band.

The signals from a satellite are transmitted either with linear (vertical or horizontal) polarization or circular (right or left) polarization.

RS 232

Serial communication standard data port.

SCART

A 21pin connector is used for connection of STB, TV and VCR.

Scrambled satellite TV program

Some satellite TV programs are transmitted in scrambled form. A smartcard, and possibly a CA module is needed to view such programs.

Symbol rate

Size of the digital package transmission.

