TABLE OF CONTENTS

Additional Information   36

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

Caution

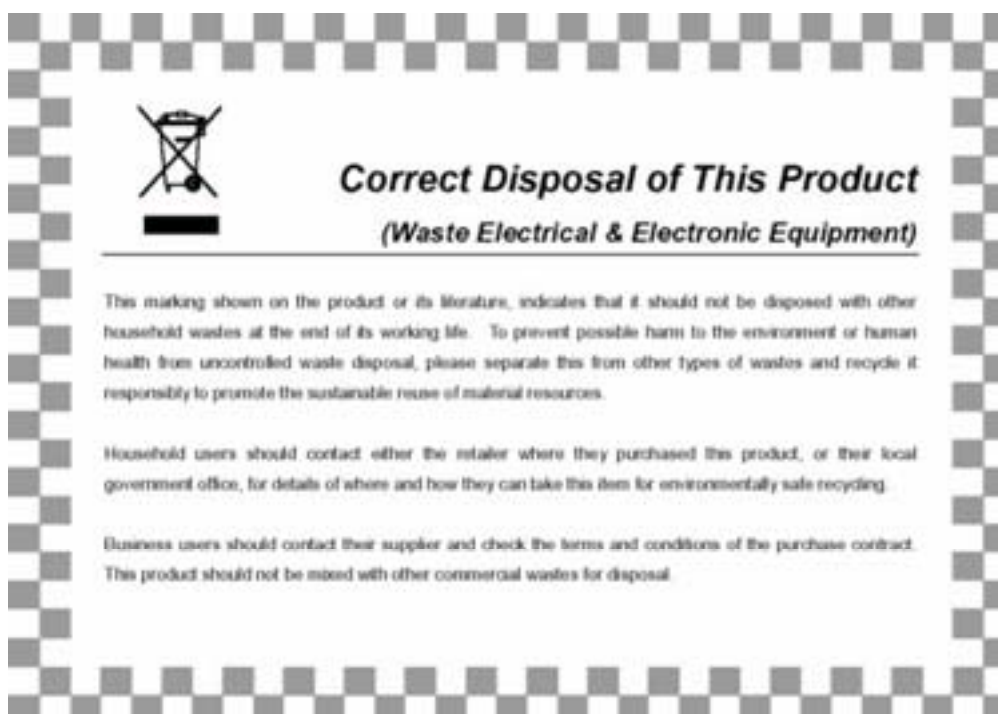Indicates a situation which, if not avoided, could damage the equipment or apparatus.

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.
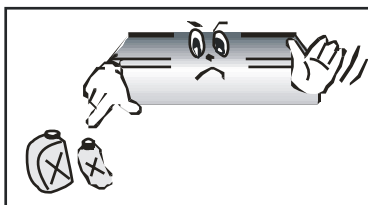
Safety Information

This digital terrestrial receiver has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.
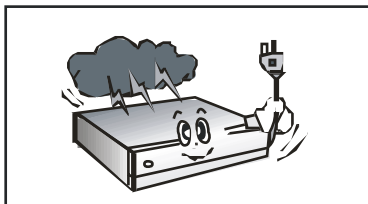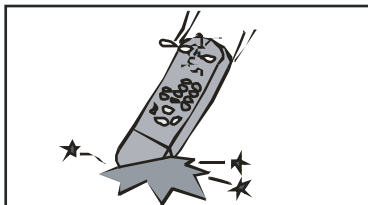
Safety Instructions and Precautions
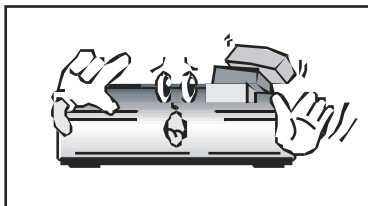
Avoid placing heavy things and blocking ventilation passage.
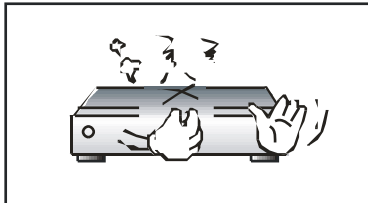(Passage blocking can cause fire)

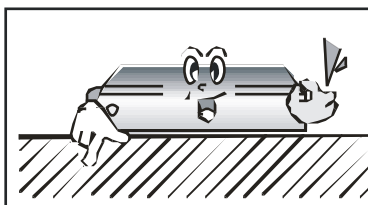Avoid scrubbing the surface with Benzene or Volatile gasoline. Color can be damaged.

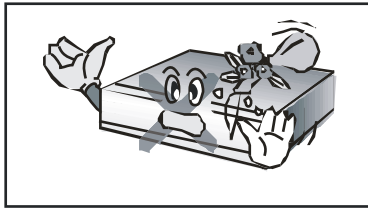Leave the power and the antenna off for the ling absence or during thunder storm.

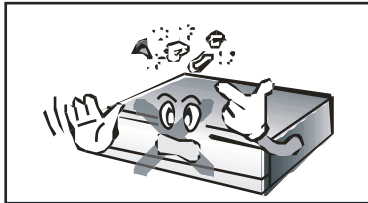Avoid dropping and damaging Remote Control Unit.

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.
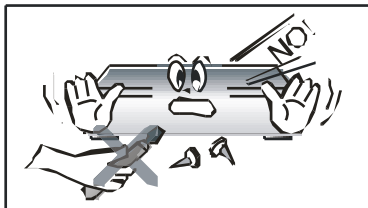
Avoid dissembling and assembling. Do not open the set.
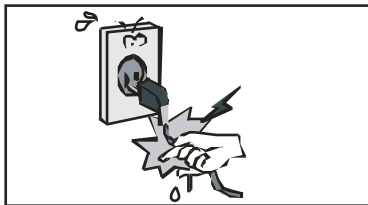
Do not snatch the cable to plug out.
Do not move the set while power cord is plugged in.

Keep the distance from Magnetic items and Audio Speaker.

Place the set with the good ventilation and away from the direct sunlight and humidity.
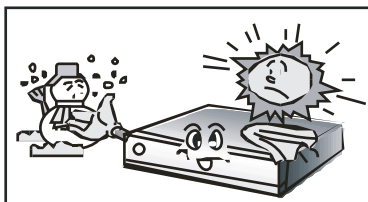
Avoid the temperature of over 30℃ and below 5℃.

1. Before You Begin

1.1 Features

- MPEG-2 Video(MP@ML), MPEG-1 Audio Layer 1, Layer 2, H.264/AVC, HE-AAC, AC3(Dolby Digital)
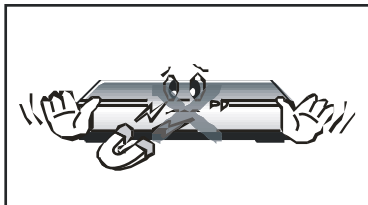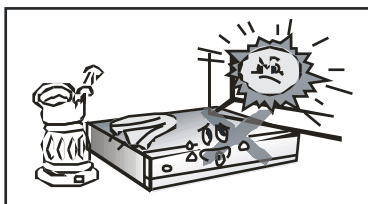
- High Definition Digital Tuner with Loop-through

- Wide Symbol Rate 8Mbps & Frequency Input 474~858MHz

- S/PDIF AC3 audio

- Vector Font and 256 color GUI (Graphic User Interface)

- Multi-language menu

- Variable aspect ratio with full screen, Centre Cut, Letter Box

- Teletext and Subtitle supported(VBI & OSD)

- Installation by Easy Setup Guide

- Favorite Channel and Parental Lock Function

- USB2.0 port or RS232C port for upgrading system software

- OTA supported

- HDMI (High Definition Multimedia Interface) supported

- MHEG-5 (V1.06 NZ profile): Access to a free 8-day Freeview EPG and ability to access interactive TV content

1.2 Accessories

- HDMI cable
- Component Cable (Red, Green, Blue RCA connectors)
- Composite Cable(Yellow- Video, White/Red –L/R audio)
- Operating instruction (this Manual)
- Remote Control
- AAA dry cell batteries x 2
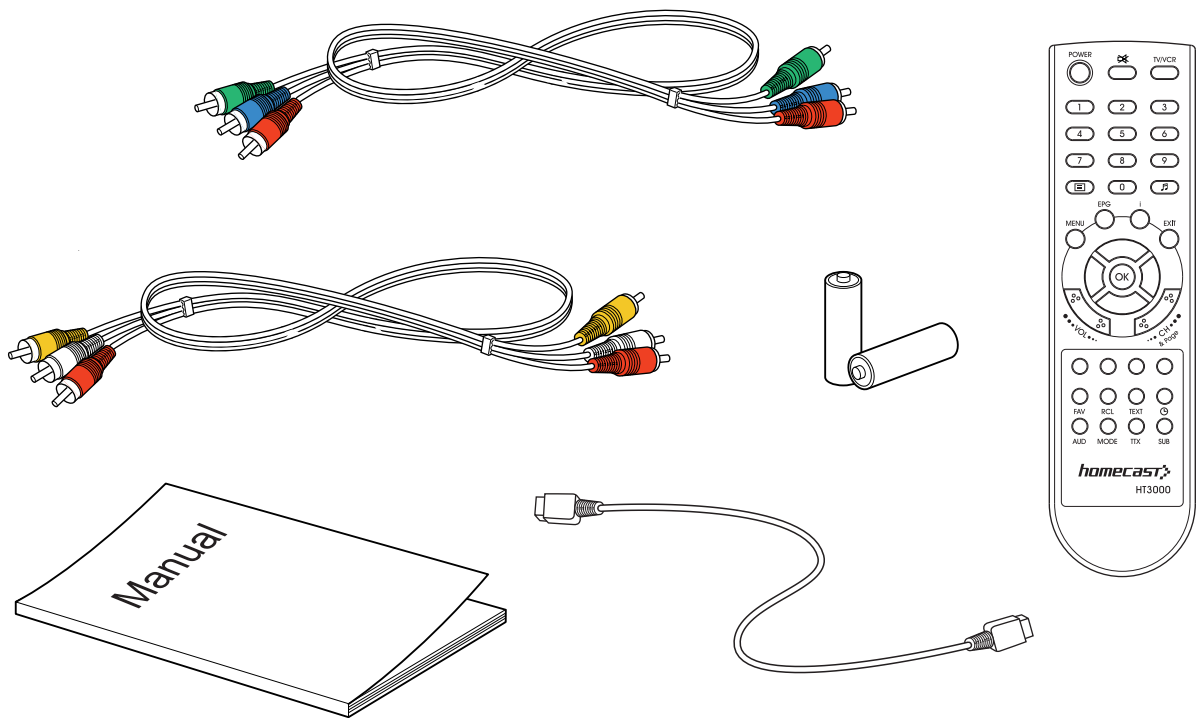
2. Controls and Functions

2.1 Front Panel
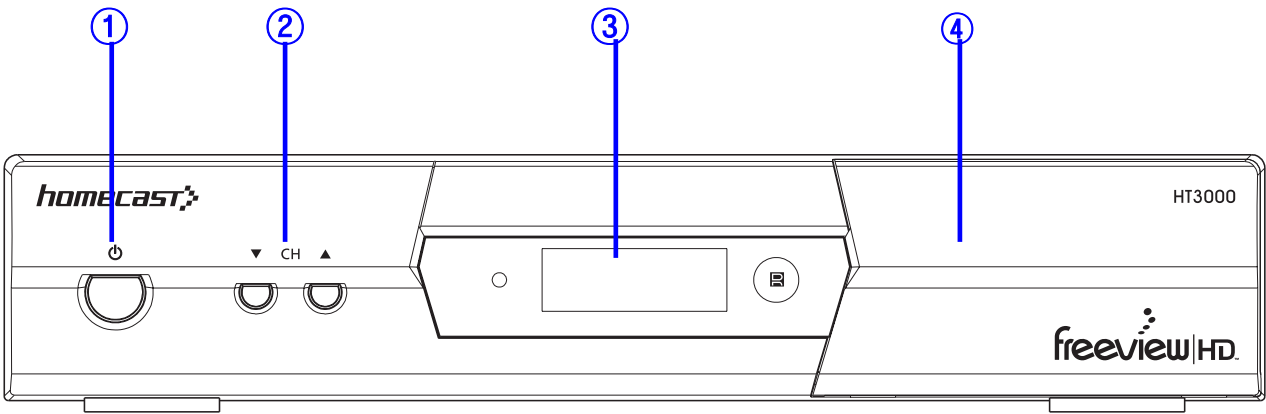
Item	Description
1.Power Button	Turns the receiver On/Off.
2.CH Up/Down Buttons (▲/▼)	Changes channels in operation mode
3. Display	Shows channel number and indicate operating status. In STAND BY mode, the display shows local time.
4. USB port	USB Host port for the firmware upgrade is behind panel

2.2   Rear Panel
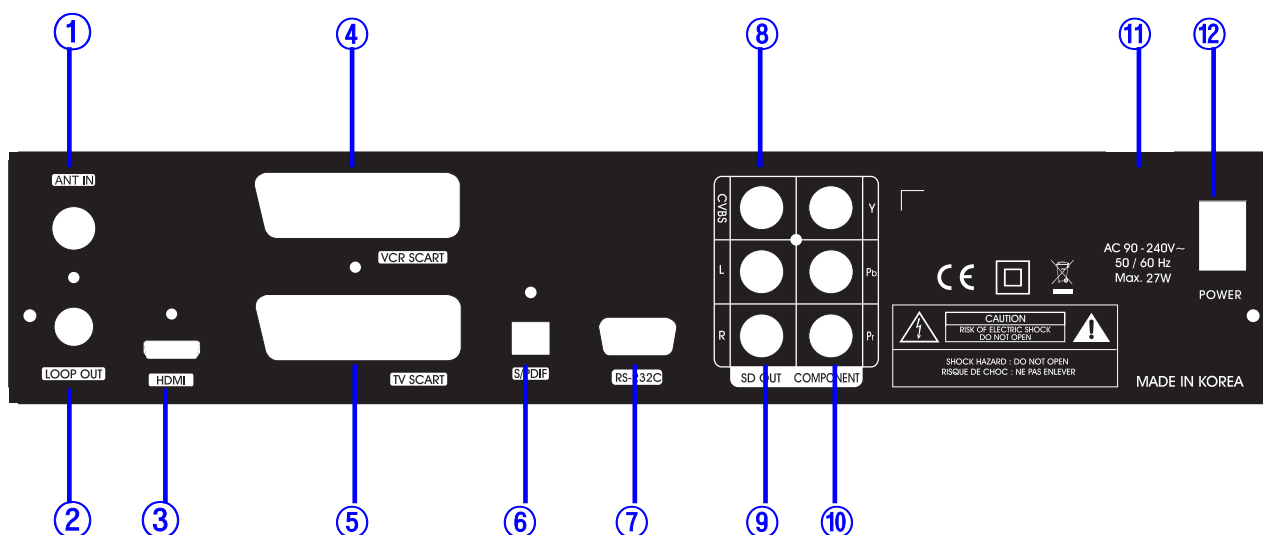
Item	Description
1. ANT IN	Connect Antenna In cable.
2. LOOP OUT	Loop Out is pass-through connector for Antenna IN
3. HDMI OUT	Connect to an HDMI input of TV or PC monitor. 1080i, 720p, 576p, 576i resolution supported.
4. VCR SCART	Connect to a SCART to VCR
5. TV SCART	Connect to a SCART to TV
6. S/PDIF	Digital Audio output for connection to an amplifier.
7. RS-232C	Connects to another HT3000 or a PC serial port.
8. CVBS OUT	Use this to connect a composite video cable (CVBS-Yellow). Standard Definition only (576i resolution).
9. Audio OUT	Connect L/R (White, Red) analog audio cables to your TV or amplifier.
10. YPbPr OUT	Use these jacks to connect Y/Pb/Pr (Green, Blue, Red) component cables to a component video input on your TV. (576p and 576i resolution only supported due to copy protection specification).
11. Power Lead	90~240V AC(Auto-selectable), 50~60Hz.
12. Power Switch	Turn power to the unit on/off.

2.3 Remote Control Unit

All receiver features can be controlled with the remote controller.

Button	Description
1. POWER	Turns the receiver On/Off.
2. MUTE ⊠	Turns the sound on/off.
3. TV/VCR	Switches between TV and VCR mode when connecting TV and VCR by Scart
4. NUMERIC Buttons (0 ~ 9)	Selects channels or use as an alphabetic search key in the sorted channel lists.
5. ▤	Shows the channel list
6. ♬	Turns on Radio mode
6. MENU	Displays /Exits the main menu and Exits to main menu from the sub-menu
7. EPG	Shows MHEG Electronic Program Guide (EPG) - The Freeview Guide.
8. i	Shows the Channel information bar and extended program information
9. EXIT	Goes back on Menu level, Cancel an Operation, or Exit from menu
10. OK	Confirms the choices and/or selects the highlighted menu item. While watching TV or listening to Radio, press the button to display the channel list.
11. ◄ /► (◄ / ►)	Moves left/right or change settings in menu & EPG
12. ▲ /▼ (▲ / ▼)	Moves up/down in menu & EPG
13. VOL +/-	Changes the volume level in viewing mode.
14. CHL +/-	Changes channels in viewing mode.
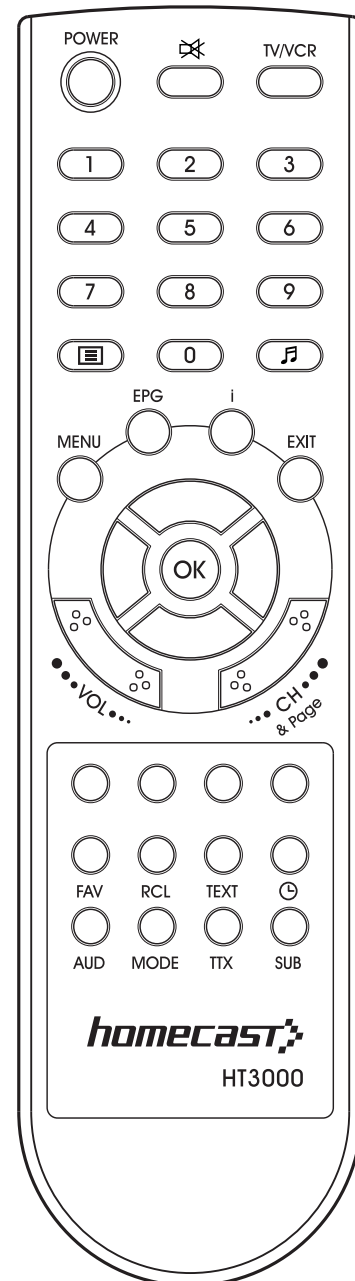
15. Color button (🔴 🟢 🟡 🔵)	Moves in MHEG EPG Menu
16. FAV	Selects from the group of favorite channels.
17. RCL	Reverts to the previous channel
18. TEXT	Operates MHEG functions when Service is available
19. 🕐	Puts STB in Standby mode. Press repeatedly to adjust in 30 minutes increments.
20. AUD	Selects Audio, Teletext, Subtitle Language
21. MODE	Select Audio, Video Mode and Video Format (1080i 720p, 576p, 576i)
22. TTX	Shows Teletext
23. SUB	Shows DVB Subtitle

3. Connections

3.1 Connecting to the Antenna

<Making Antenna connections>

1. Connect the antenna cable (75 ohm co-axial) to the SIGNAL IN connector.
2. For passing the antenna signal through to another device (such as a VCR and your TV), connect an appropriate 75 ohm co-axial cable from the Loop Out connector of HT3000 (The Loop Out connection will pass the antenna signal through to your device-even when HT3000 is in Standby mode (or Turn off at the switch)
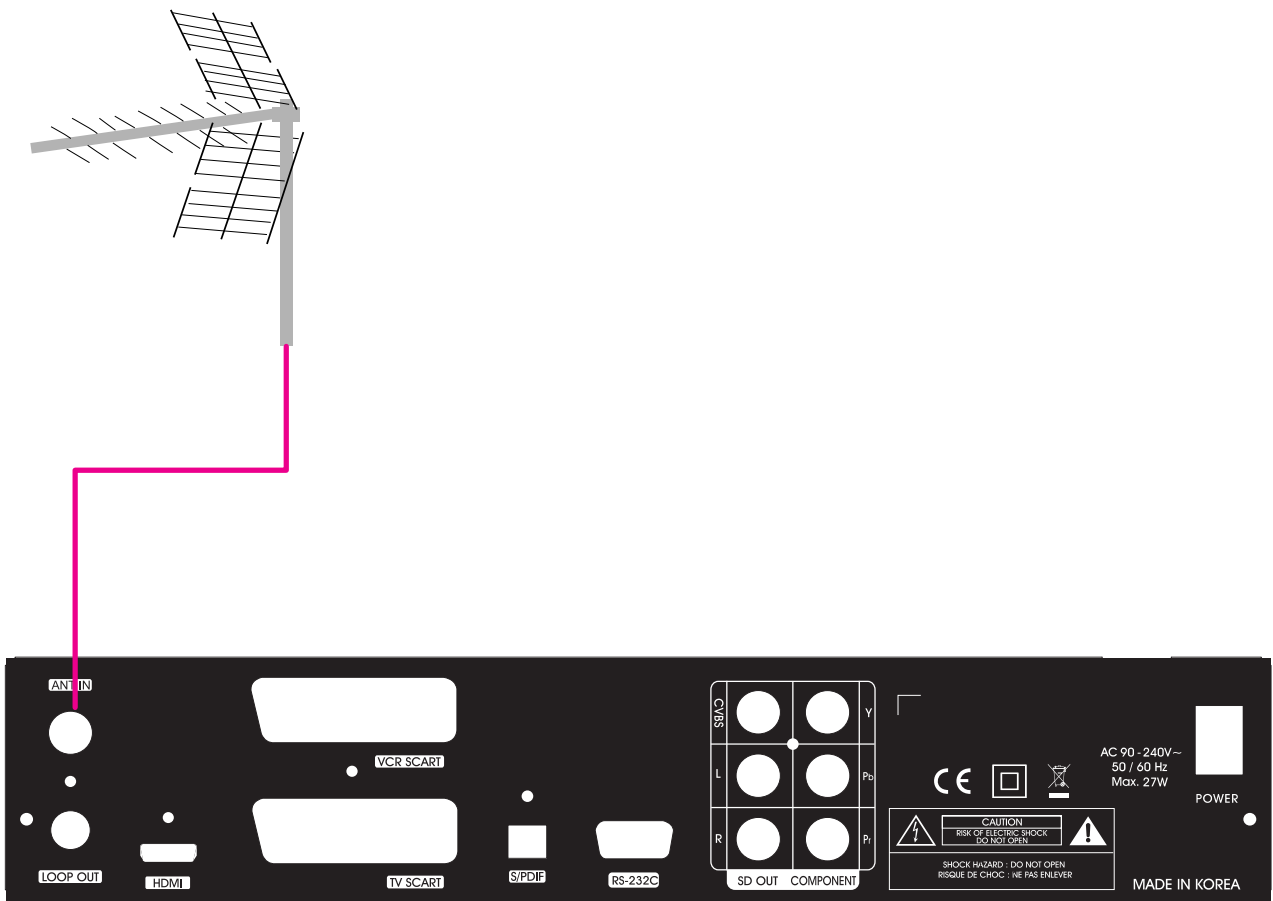
3.2 Connecting to TV

<Connecting to PC monitor or digital TV that has an HDMI input port>
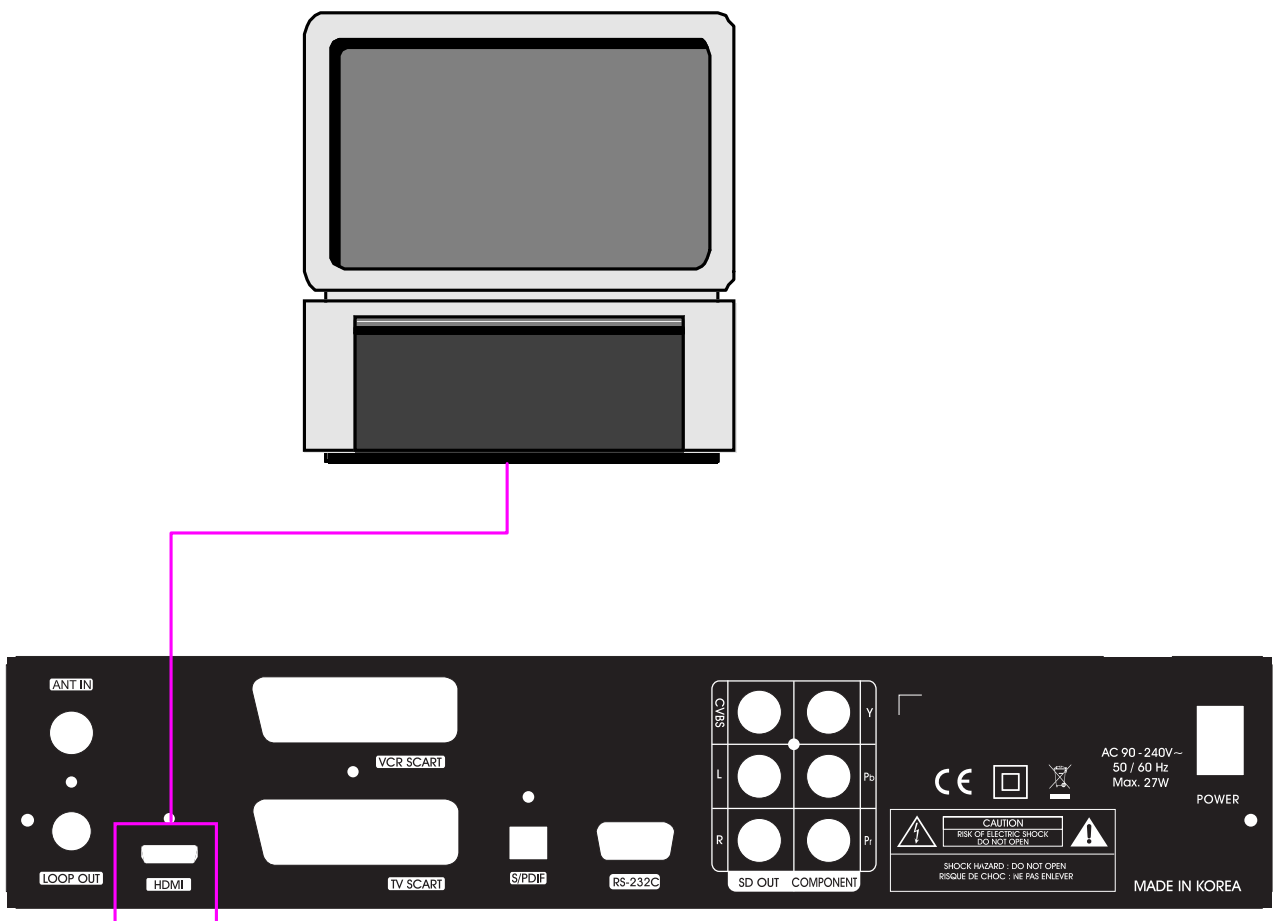
1. Connect HT3000's HDMI jack to an HDMI jack on your monitor or TV.

2. Set the video output mode to 1080i or 720p or 576p by using 'Resolution' in Mode on RCU

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

<Connecting to digital TV that supports HD resolution (1080i,720p576p) using YPbPr port>
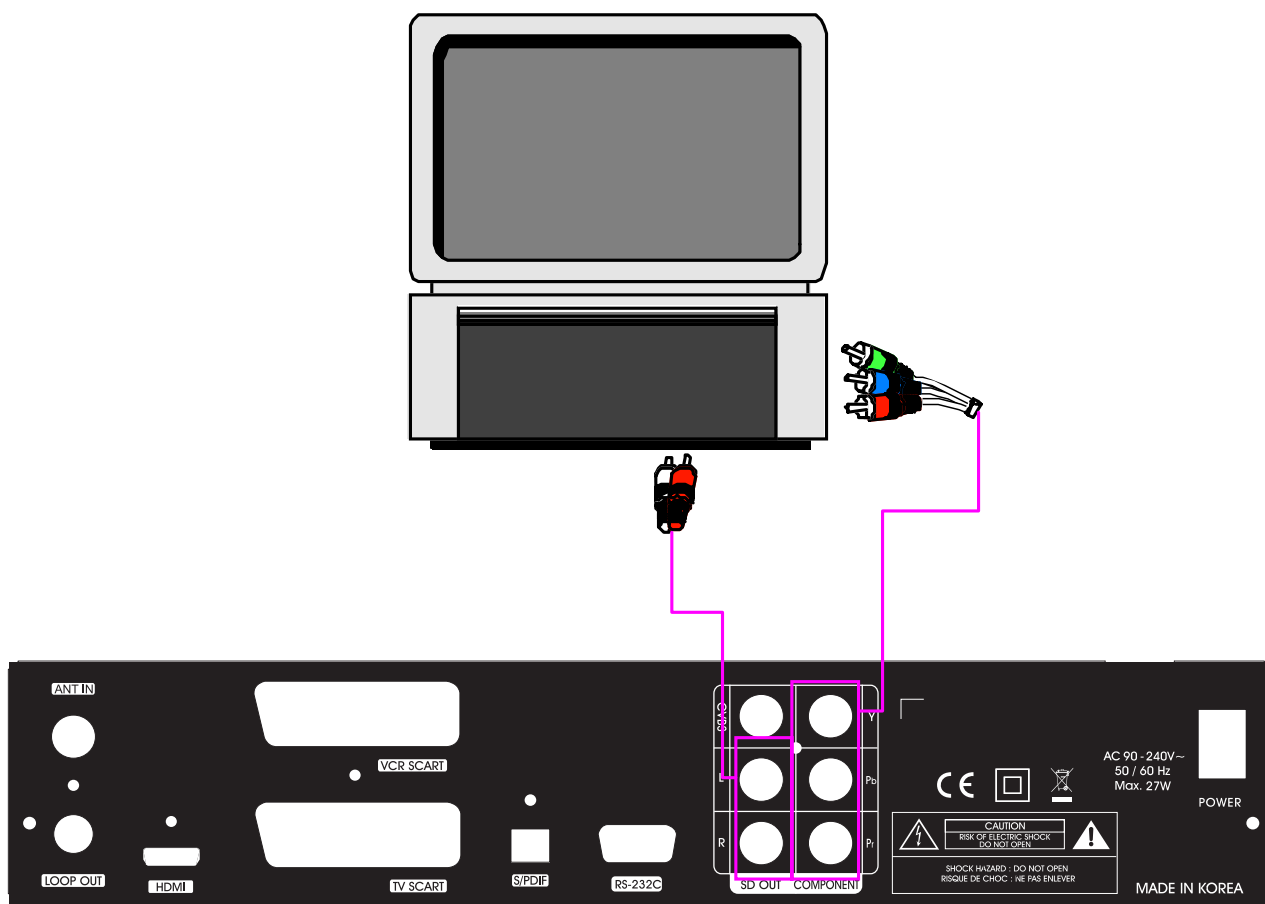
1. Connect the HT3000 YPbPr out jacks to a set of matching YPbPr in jacks on your TV. The Audio L/R out jacks can also be connected to matching jacks on your TV or you can use The digital audio Out (See Connecting to A/V receiver (Dolby Digital Amplifier) section, page??. out and audio L/R out to YPbPr in and audio L/R in of TV.

2. Set the video output mode to 576p or 576i by using 'Resolution' in Mode on RCU

For contents copy protection, YPbPr can support 576p and 576i video output only.

14

\<Connecting to A/V receiver (Dolby digital amplifier)\>
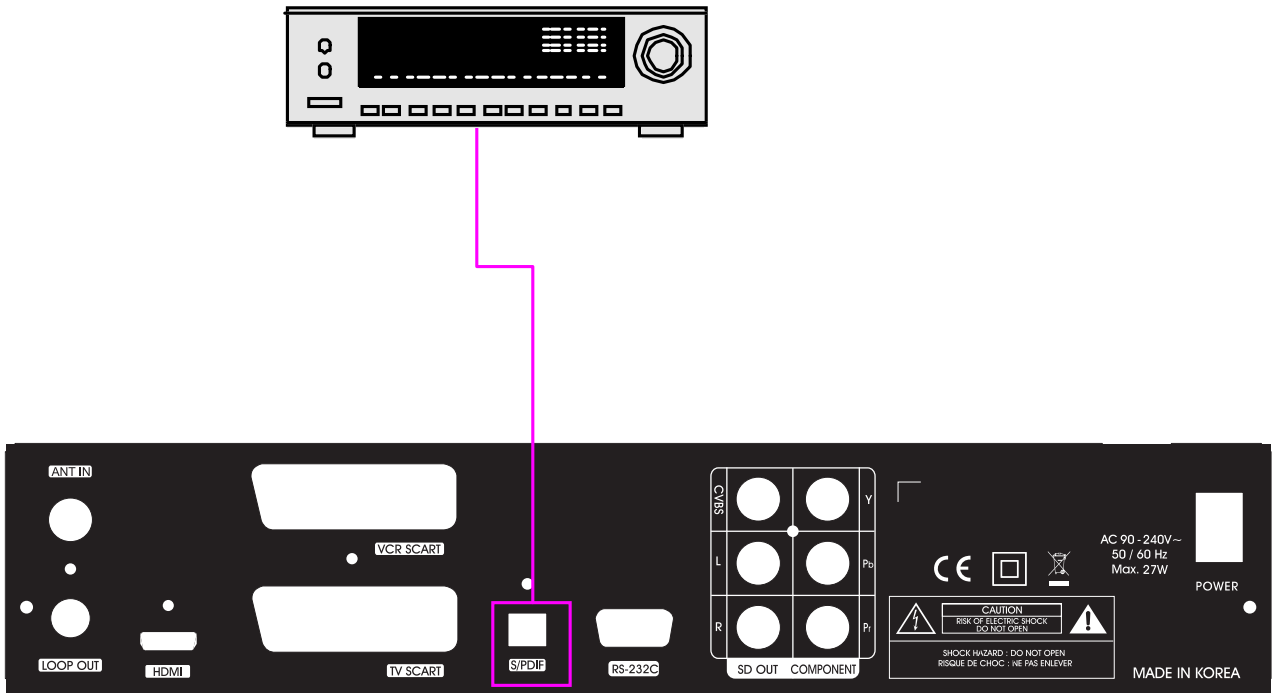
1. Connect HT3000 Optical Digital Audio Out to an Optical Digital Audio Input on A/V receiver.

2. Set HT3000 Audio out mode to 'Dolby Digital'. (See page 20)

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 OK button.

When you want to return to the previous menu, press EXIT 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 ◄/► button.
OK	: Using OK button.
🔴🟢🟡 🔵	: Moves in MHEG EPG Menu
Exit	: Using EXIT button.
0~9	: Numerical button

4.3   Menu Structure

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

Installation

- Antenna : Select the Antenna power settings.
- Auto Scan : Search the all channels automatically without specifying parameters.
- Manual Scan : Search the channels manually by specifying parameters.
- Region Scan: Search the channels by specifying the transmitter to which the end user's antenna is pointed to.

Option

- TV Output : Select the video or audio output.
- Language : Select the display language, audio language, and subtitle language.
- 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 turn on STB at your desired time.
- Delete : Delete the channels such as Favorite, TV/Radio CAS, etc.

Advanced

- 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.

Reset

- Reset Factory Default : Restore the receiver to the default values.

Status

- Information :   Check the version of STB.

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 begin scanning.

5.2   Installation

1. Press the Menu button to display the main menu.
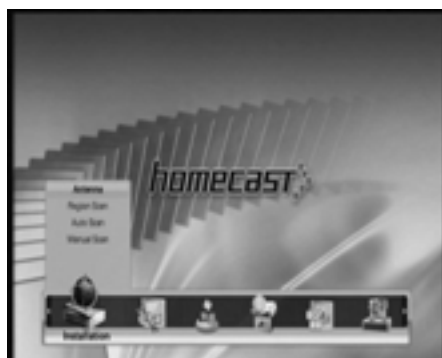
5.2.1 Antenna

1. Select Antenna Power type using the ◄/► button.

You can select Antenna Power value as Off normally or if the antenna needs power supplied from receiver, you can select Antenna Power value as On.

ℹ️ *Off is the default value in this option. If you a master dhead amplifier or distribution amplifier, you should not enable this option.*

5.2.2 Region Scan

1. Seelect the region where user's are now liviing by using ◄ /► ▲/▼ buttons.
2. Press the (OK) button to start the region scan.

5.2.3 Auto Scan

1. 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. Gray channel names are already existing channels.

1. Choose Auto Scan menu and press (OK) button to begin scanning
2. You can press Exit at any time to stop scanning. A pop-up menu appears.
3. If you allow the complete scan, the same pop-up menu appears.
4. To save the updated channels, select 'Yes'.

5.2.4 Manual Scan

1. Set the desired values (see the below) to scan. Use the numeric keys (0-9) and ◄ /► ▲ /▼ buttons.
2. Press the (OK) button to start the manual scan.

♦ Channel   : The target channel number for the manual scan.
♦ Frequency   : The transmitter frequency of the channel

Transmitter frequencies and other channel details for your area can be found on-line, or phoning your TV station.

5.3 Option

5.3.1 TV Output Setup

1. Select the desired TV output options with the ▲/▼ /◀/▶ button.

2. Press the (OK) button to save your chosen settings and exit the dialogue.

- ◆ 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. (Full screen, LetterBox, Centre Cut)
- ◆ Dolby Digital(DD) : If enabled (and the channel has DD audio), it will automatically be selected as the default soundtrack.
- ◆ Digital audio   : If enabled- and you are using the optical S/PDIF connector- you can listen to 5.1 channel Dolby audio (if broadcast) through an AC-3 decoder (your home theatre amplifier). Selecting PCM will limit this to 2.1 channel audio.

5.3.2 Language

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

2. Press the (OK) button to save your chosen language.

- ◆ Display : Change the language used for the OSD and Menus.
- ◆ Audio 1-2 : Choose the preferred audio language for broadcast.
- ◆ Subtitle 1-2 : Choose the preferred subtitle language.

5.3.3   Parental Control

You can block access to particular channels by age level. The users need to enter a password in order to watch blocked channel.

1. To change the password, press the ◄/► button, a dialog will open.

2. Use the numeric buttons(0-9) to type in the new password.

3. You will be prompted to reconfirm your password. Type it in a second time.

4. Set the desired rating level with ◄/► buttons.

5. Press the OK button to save and exit.

Understanding Parental Rating

- ◆ - (No Block) : All channels can be viewed.
- ◆ P (Pre school): Channels are blocked under the age of 2.
- ◆ C (Children's) : Channels are blocked under the age of 4.
- ◆ G (General)   : Channels are blocked under the age of 6.
- ◆ PG (Parental guidanance) : Channels are blocked under the age of 8.
- ◆ M (Mature audience) : Channels are blocked under the age of 13.
- ◆ MA 15+ (Mature adult audience) : Channels are blocked under the age of 15.
- ◆ AV 15+ (Audult audience , strong violence) : Channels are blocked under the age of 17.
- ◆ R (Restricted) : Channels are blocked under the age of 18.

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

5.3.4 OSD Display

1. Choose the desird options with the ▲/▼ /◄/► button.

2. Press the [OK] button to save your setting and exit the dialog.

- Banner display time : Banner will remain onscreen for the selected time. (1~9 secs).
- Screen Saver : The Screen Saver function protects when listening to a Radio channel.
  You can choose from the following options : Disable, 5, 10, 20, 30, 60, 120 Minutes.
- OSD Mixweight : Select the OSD transparency level. (Low, Middle, High).
- Teletext Mixweight : Select the Teletext transparency level. (Low, Middle, High).

5.4 Channel
5.4.1 Reservation

You can reserve a Channel to be watched at your desired time. In this mode, you can reserve channels up to 8.

1. Press the Green button to add a reservation.
2. Use the ▲/▼/◄/► buttons to naviugate through the fields, and adjust values for your reservation. You can also use the numeric keys (0-9) to directly type in time values.
3. Press the OK button to complete your reservation.

[1] Once : A single timer event

[ ] Weekdays : Occurs at the same time on Monday to Frinday

[ ] Weekends : Occurs at the same time on Saturday to Sunday

[7] Weekly : A timer event occurs at the same time each week.

[30] Daily : A timer event occurs at the same time every day

5.4.2 Delete

You can delete channels by "Mode" (Channel / Favorite) and by "Option"(TV, Radio etc).

1. Select the delete mode or option with the ▲/▼/◄/► button.
2. Press the OK button to make the deletion and exit the dialog.

5.5 Advanced

5.5.1 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. If the new version is detected, the receiver will be rebooted automatically and the download screen will appear.

5.5.2 S/W Upload

1. Connect the receiver to another receiver or PC through RS-232 cable.

2. Turn the power off, and then on, for the target unit.

3. The SW transfer status is shown in real-time.

5.5.3 USB Transfer

You can transfer the system software (firmware) between HT3000 and a USB drive("memory stick" or HDD.)

1. Connect the USB device to a rectangular Host port on the front (underneath the front panel at the right-handed side) of HT3000.

2. Select the source and target (USB to STB or STB to USB) with the ▲/▼/◀/▶ button.

3. Select "Yes" to begin data transfer. The warning dialog shown below will remain onscreen during the update.

4. HT3000 will reboot automatically once the firmware has been updated.

5. When you next open this menu, new firmware detail should be shown in the lower section of screen.

 DO NOT DISCONNECT THE USB CABLE / DEVICE UNTIL THE TRANSFER IS COMPLETED!

5.6　Reset

5.6.1　Reset Factory Default

1. To perform a full factory reset to default value, simply press OK button. The confirmation window shown in the image will appear.

2. If you select 'Yes', the HT3000 will be reset to defualt factory values.

5.7　Status

5.7.1　Information

You can check system information such as; Model ID, Hardware version and Software version in this dialog.

6. Viewing General Information

6.1   Banner Information

TV or Radio channel
SD or HD transmission
Channel place and name
Show the signal quality
Show the signal strength
Date / Time

Event name
Time table for actual event

Resoultion
Teletext
Subtitle
Audio
Lock
Scrambled
Dolby
Parental protection
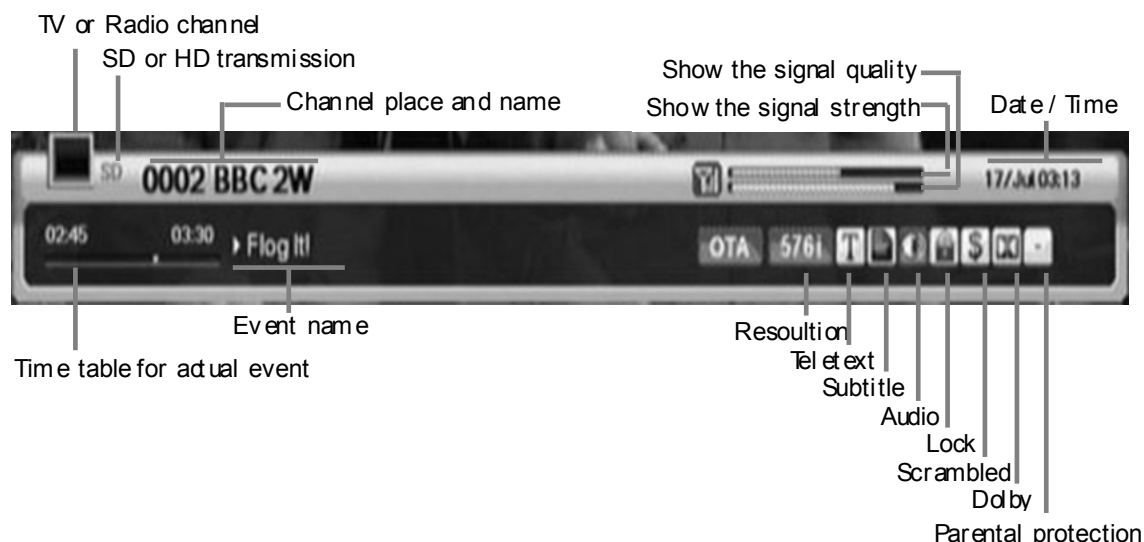
1. Press the INFO button to display the channel Information bar for a few seconds. The display duration is set in the OSD Display MENU.
* The output resolution is also shown on the top left corner of the screen.

To view extend program information:

1. Press the INFO button (while channel information bar is visible) to display the extended program information. The information bar remains onscreen when extend information bar is shown.
2. Press the ◀/▶ button to view further prgoram information page.
3. Press the EXIT or INFO button, information to hide the information bar and extended program information..

6.2   TV & Radio changing

Press the TV/Rad button to switch between TV and Radio channels

6.3   TV or Radio Channel Lists

6.3.1 Displaying and Using the channel list
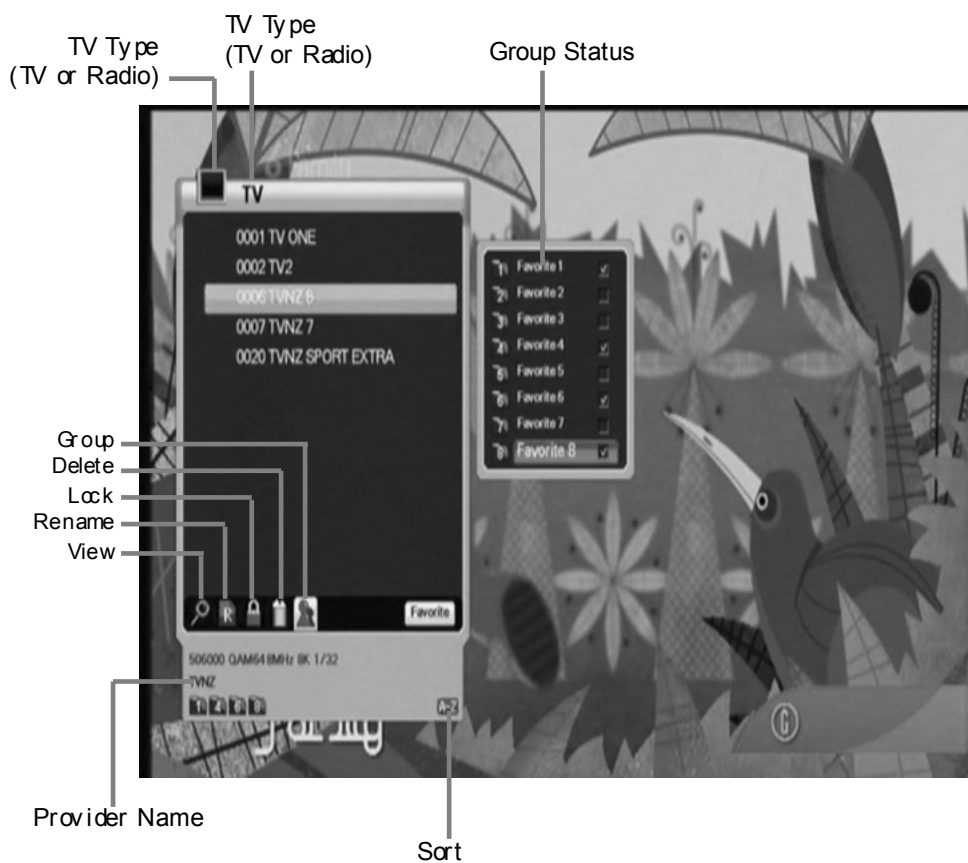
1. Press the OK button or Channel list button to show the channel list.

2. Press the ▲/▼ button to move the selection cursor up and down the channel list.

3. Press the OK button to choose / watch the highlighted channel.

4. Press the EXIT button to close the channel list window.

1. To choose a channel with the numeric buttons

2. Somply press the '3' button to watch channel 3, or '1' and '0' (in quick sucession) to select channel 10.

**1.** 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.

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

3. You can select the Alphabet using the numeric key(1-9)/▲/▼/◄/► button.

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

6.3.2   Understanding and Using Mode Commands

The icons shown at the bottom of the channel list provide access to a number of "modes". Modes are used to perform particular types of operations in the open window.

1. Press ◀/▶ button to select the desired mode.
2. The selected mode icon is highlighted, and the active mode name is shown on the label to the right of the icons.
3. View mode is automatically selected when you open the channel list.
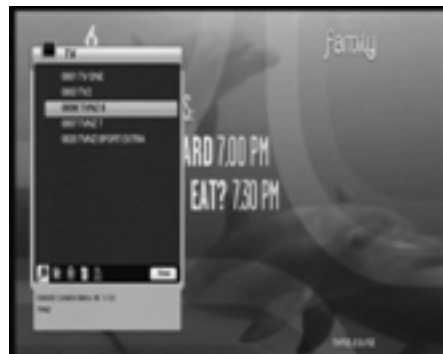
6.3.2.1   Delete Mode

1. Select the Delete mode(Trash) icon with the ◀/▶ button.
2. Select channel you want to delete with the ▲/▼ button.
3. Press the OK button, and a tick will be shown to the right of the channel name.
4. Press the EXIT button to delete the channel, and exit the dialog.

6.3.2.2   Rename Mode

1. Select the Rename mode (R) icon with the the ◀/▶ button.
2. Select the channel you want to rename with the ▲/▼ button, and press the OK button. And small name editing window will be displayed.
3. Choose each letter of the new channel name with the ▲/▼/◀/▶ buttons.
4. Press the OK button to enter each letter.
5. After renaming, press the "Done" icon (see below)
6. Press the EXIT button to leave the dialog.

To change the Favorite group name.

1. Press the desired group.

2. Change the name of group as per the instructions above.

<Rename Window Icon Meanings>

◆ [⟵] : Move focus to the left

◆ [⟶] : Move focus to the right

◆ [⊡] : Close keyboard window

◆ [A] : Change to upper-case letters

◆ [a] : Change to low-case letters

◆ [⊟] : Save & Exit ("Done" icon)

6.3.2.3 Lock Mode

1. Select Lock mode(Padlock) icon with the the ◄/► button.

2. Select the channel that you want to lock with ▲/▼ buttons, and press the OK button.

3. Set the password. A Lock icon will appear on the left of the Channel name. This can be cancelled by pressing the OK button.

4. Press the EXIT button to save and exit.

6.3.2.4 Favorite Mode (Creating Favorites)

1. Select the Favorite mode (Two people) icon with the ◄/► button.

2. Press the OK button, and a small Favorite Window will appear to the right of the channel list.

3. Choose the group number with the ▲/▼ buttons, and confirm by pressing the OK button. To cancel the confirmation, press the OK button again.

4. Use the ▲/▼ buttons to choose, and press the OK button to add them to the Favorite group.. Press OK again if you accidentally ass a channel to a group.

5. Press the EXIT button (twice) to save and exit.

6.4   AUD Button

Press AUD Button while watching TV or listening to Radio to launch a small pop-up window. You can select from the following sub-menus in this window.

- Audio Language
- Teletext Language
- Subtitle Language

6.4.1   Audio Language

1. Select the 'Audio' sub-menu with the ◄/► button.
2. Press the ▲/▼ button to select a language.
3. Press the OK button to change the audio language.

6.4.2   Teletext Language

1. Select the 'Teletext' sub-menu with the ◄/► button or press "TTX" button on RCU.
2. Press the ▲/▼ button to select a language.
3. Press the OK button.
4. You can view Teletext in the chosen language -if available.

6.4.3   Subtitle Language

1. Select the 'Subtitle' sub-menu with the ◄/► button or press "SUB" button on RCU.
2. Press the ▲/▼ button to select a language.
3. Press the OK button.
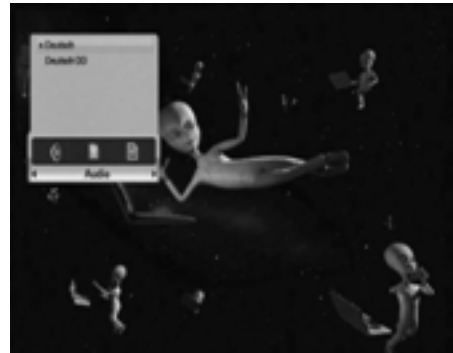**4.** If the selected language is unavailable, subtitles are not shown.

6.5 MODE Button

Press MODE Button while watching TV or listening to Radio to launch a small pop-up window. You can select from the following sub-menus in this window.
- Audio Mode
- Video Mode
- Video Format

6.5.1   Audio Mode

1. Select the 'Audio Mode' sub-menu with the ◄/► buttons.

2. Press the ▲/▼ button to set the output directionyou're your TV speakers. (STEREO, LEFT, RIGHT, JOINT)

3. Press the OK button to save and exit.

4. This option is only applicable to the HT3000 analog audio output jacks. It has no impact on the digital audio output.
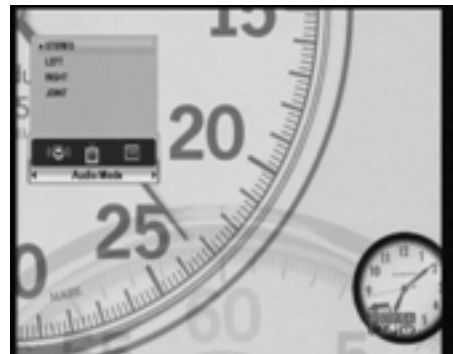
6.5.2   Video Mode

1. Select the 'Video Mode' sub-menu with the ◄/► button.

2. Press the ▲/▼ button to set the screen format (Full Screen, Letter Box, Centre TV)

3. Press the OK button to save and exit.
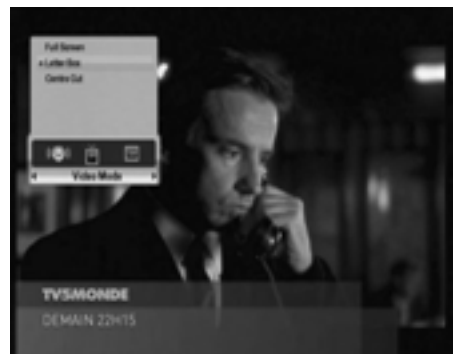
6.5.3   Video Format

1. Select the 'Video format' sub-menu with the ◄/► button.

2. Press the ▲/▼ button to set the video format (576i-All, 576p-All, 720p-HDMI only, 1080i-HDMI only)

3. Press the OK button to save and exit.
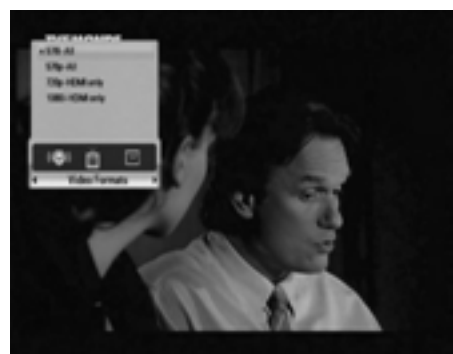
6.6   TTX Button

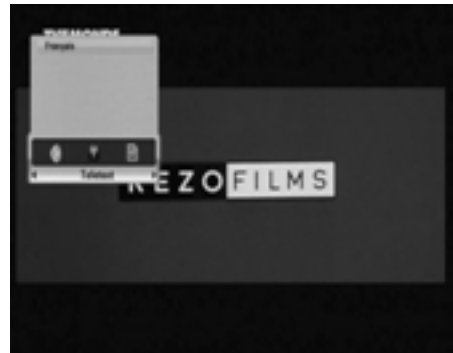Refer to 6.4.2 Teletext Language

6.7   SUB Button

Refer to 6.4.3 Subtitle language

6.8 MHEG-5 EPG (Freeview Guide)

Press the EPG button to access Electronic Programme Guide (EPG) - The Freeview Guide.

The Freeview Guide is very simple to use and enables you to view 8 days of programme listings on all Freeview channels. It also contains a Now/Next screen that shows what is on now and next for each channel. When new channels are added to the Freeview service they will automatically appear on the Freeview Guide.

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

6.8.1 Navigating MHEG-5 EPG (Freeview Guide)

1. Press the EPG button to access EPG

ℹ️ *'Loading...' is shown on the screen while Freeview Guide is being downloaded.*

2. The current day's programmes for the channel you were watching is displayed. The programme you were watching appears in the top right corner along with a description, parental rating and captioning information for the highlighted programme (on the lower right below the ¼ screen video window).

3. Press the ▲/▼ button to navigate the channel's programme listing for the current day. As scrolling, a synopsis of highlighted programme, parental rating and captioning information are displayed.

ℹ️ *After scrolling down to past midnight, the next day's listing is displayed and aftrer scrolling up to past midnight, the previous day's listing is displayed*

4. Press the ◀/▶ button to navigate between Freeview channels. The current channel listing is displayed next 'Chnl'.

- Press the numeric button of desired channel number to move directly to that channel.
- Press ⬤ button to go to the previous day's listing or press ⬤ button to go to the next day's listing for the current channel.

5. Press the OK button to view a highlighted programme.

6. Press the EXIT button to exit Freeview Guide and retun to the programme that EPG was loaded.

6.8.2 What's On Now/Next page

1. Press the EPG button again on Freeview Guide (the current day's programme) to view 'What's On Now/Next' that displays what's on now and next on all Freeview channels.

2. Press the ▲/▼ button navigate through channel or press the numeric button of desired channel number to move directly to that channel.

3. Press the OK button to view a highlighted programme.

4. Press the EXIT button to exit EPG and retun to the programme that you were watching.

5. Press the EPG button again to return to the current day's listing page for the higlighted channel.

The RED button will launch any available MHEG-5 interactive application when available. The TEXT button will launch the MHEG-5 Digitext application when available.

Additional Information

A.1 Troubleshooting

There are many factors that can cause receiver problems. Please take a look at the troubleshooting table below.

Do not open the unit as this may cause damage to the HT3000, your property or yourself.

Problem	Cause	Solution
The front panel doesn't display any message.	The power cord is not plugged in or the unit is turned off.	Check that the power cable is plugged in to the socket and that the power switch is on. Also check the power switch on the back of the HT3000.
No picture or sound.	Poor (or Wrong) connection of the HT3000 Audio/Video outputs to the TV.	Ensure that appropriate connectors are used, and are correctly connected.
	Incorrect antenna connection.	Connect the antenna cable correctly.
	No or Bad signal message is displayed.	Check other devices connected between antenna and HT3000, or adjust the antenna position.
	Audio muting.	Press the MUTE button to unmute the sound. Also check amp or TV volume (and input) settings – if applicable.
	TV Power is off.	Turn on the TV.
	Wrong TV input.	Select he correct TV input.
No picture or sound.	HT3000 can't receive a signal.	Check antenna cable to ensure firm connection. Replace if necessary.
	Incorrect values for some tuner parameters.	Set the correct tuner values. Refer to the installation menu section of this manual.
No or bad signal.	Antenna is inappropriate for digital TV reception.	Replace the antenna.
	Antenna is underpowered.	Turn on the Antenna Power setting in the HT3000 menu. Add an antenna power booster.
	Antenna is receiving non-TV signals from wireless devices etc.	Reduce the power being supplied to the antenna. Adjust (or replace) the antenna.
	Antenna is damaged.	Replace the antenna.

The remote controller doesn't work.	The batteries of the remote controller are not inserted correctly, or are exhausted.	Check if batteries are correctly inserted. Replace batteries, if necessary.
Poor picture or audio quality.	Low antenna power or signal loss in cabling.	Add an antenna booster or turn on Antenna Power in HT3000 menus. Check video cables, and replace if necessary.
	Broadcasting fault.	Wait until the broadcaster remedies the fault, or electrical storm etc. has passed.
Some channels are not found when scanning.	Low antenna power or signal loss in cabling.	Add an antenna booster or turn on Antenna Power in HT3000 menus.
	Some channels may require a different type of antenna (UHF/VHF)	Replace antenna.

Some issues may be resolved with a firmware upgrade.
Use of the latest firmware version is advisable. Please see page 23.

A.2 Technical Specifications

1. Tuner & Demodulator

Parameter	Specifications
Input Connector	1 X IEC169-2, female
Loop through Connector	1 X IEC169-2, male
Input Signal Frequency	VHF 177.5~226.5 Mhz, UHF 470~860MHz
Input Signal Level	-90~-20dBm
Input impedance	75 Ohms nominal
IF Center Frequency	36Mhz
IF Bandwidth	7/8MHz
Waveform	OFDM
Transmission mode	2K FFT, 8K FFT
Constellations	QPSK, 16QAM, 64QAM
Code rate	1/2, 2/3, 3/4, 5/6, 7/8
Guards intervals	1/4, 1/8, 1/16, 1/32
FEC decoder	Reed-solomon Viterbi Decoder, for 16 parity bytes Block lengths 204 byte
MCPC and SCPC	Supported

2. MPEG

Paramenter	Specifications
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Video	MPEG-2 MP@ML, H.264/AVC
Audio	MPEG-1/2 Audio Layer 1, 2, AC3(Dolby Digital)
Video bit rate	1.5`15 Mbps
Active pixel	1920x1080i, 1280x720p, 720x576p, 720x576i
Aspect ratio	4:3 or 16:9
Audio Mode	Stereo, Dual channel, Joint stereo, Mono
Audio Sampling frequency	32 kHz, 44.1 kHz, 48 kHz

3. Connector

Port	Specifications
Video	2 Scarts for TV, VCR RCA (VIDEO) Component (YPbPr) HDMI
Audio	RCA(Audio L, R) SPDIF
Serial Port	RS232C D-sub male type
USB2.0	Front : Host x 1ea

4. Power Supply

Parameter	Specifications
Input Voltage	90~260VAC(SMPS)
Power consumption	Operation : 27W Standby : 8W
Protection	Separate internal fuse Lighting protection Lighting protection

5. 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	1.2Kg
Dimension(H x W x D)	55mm x 280mm x 233mm

A.3 Glossary of Terms

EPG

Electronic Programme 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.

RS 232

Serial communication standard data port.