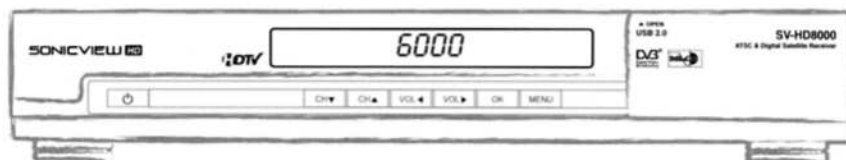


ATSC & Digital Satellite Receiver

# User's Manual

Model No.: **SV-HD8000**

**HDTV**

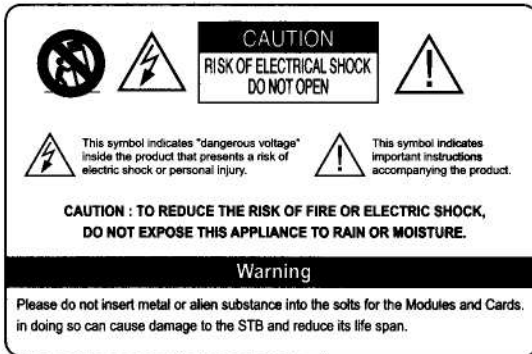


  
**SONICVIEW**

# Important Safety Instructions

## Caution Guide

Please read this safety information carefully and keep these instructions and heed all warnings. Always follow these instructions to avoid the risk of injury to yourself or damage to your equipment.



- **Placement:** Do not place the receiver on an unstable cart, stand, tripod, bracket or table. The receiver may fall to cause the serious personal injury and damage to the receiver. When a cart is used, use caution when moving the cart/Receiver combination to avoid injury from tip-over. Do not use or store the receiver where it is exposed to direct sunlight, or near any heat sources such as radiators, heat registers, stoves or other apparatus(Including amplifiers) that produce heat. Never stack other electronic equipment on top of the receiver. Place the receiver at least 30mm from the wall. Do not use this apparatus near water.
- **Operating Power:** Operate the receiver using only the type of power source indicated on the marking label. Protect the power cord from being walked on or pinched. Particularly at plugs, convenience receptacles, and the point where they exit from the receiver.  
Unplug the receiver during lightning storms or when unused for long periods of time.
- **Ventilation:** Do not block the receiver ventilation holes.  
Ensure that free airflow is maintained around the receiver.
- **Cleaning:** Unplug the receiver from the AC power outlet before cleaning. Use only a dry cloth for cleaning the exterior of the receiver.
- **Attachment:** Do not use accessories or attachments not recommended by the receiver manufacturer as they may cause problems to the equipment and will void the warranty.

- **Water Proof:** Do not expose the receiver to the water or any liquids.
- **Grounding:** The ground of the LNB cable must be directly connected to the system ground for the satellite dish. The grounding system must comply with local regulations. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

## Service

Do not attempt to service the receiver by yourself as opening or removing cover may expose you to the dangerous voltage and will void warranty.

Refer all servicing to qualified service personnel. Servicing is required when the receiver has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the receiver, the receiver has been exposed to rain or moisture, does not operate normally, or has been dropped. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Please contact the authorized service center and personnel.

## Caution & Note for FCC Regulation

**Caution:** Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limit for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

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## Chapter 1. Basic Information

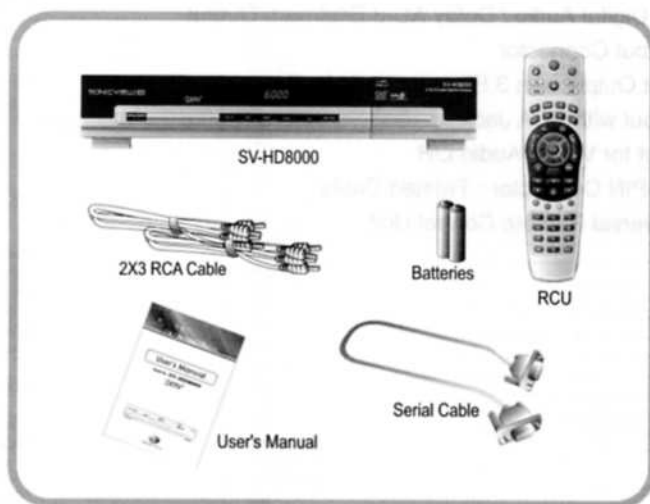
### 1.1 Features

- Fully Comply with ATSC HDTV(VSB) & DVB-S MPEG 2
- Decodes All ATSC HDTV Standard Video Formats Including 576i / 576p / 720p / 1080i
- Down - convert HDTV to SDTV
- Selectable Output Video Format : 1080i / 720p / 480p / 480i
- Two Tuners : ATSC Tuner(Sharp,NIM Type) & QPSK(Samsung, NIM Type)
- USB 2.0 PVR Function Supported : 1 Channel Record & Play with an external HDD
- Channel Naming Supported
- Full Colors & User Friendly GUI for Easy Control
- The Fastest Booting & Scan Speed
- Highly Speedy Channel Changing Time : Less than 1 Sec.
- 6,000 Channels Memory Capacity for TV & Radio Programs
- 8 Favorite Channel List Group Programmable
- Channel Sorting by FTA, CAS, Satellite, Alphabetic Order & Network
- Zoom In-Out Function for Watching Screen
- Various Aspect Ratio with 4:3, Letter Box, Full Screen & 16:9
- Background Graphic Display for Radio Program Channels
- Parental Lock Function using Master PIN Code
- Automatic NTSC / PAL Detection and Simple Video Converter (NTSC <-> PAL)
- Real Time Clock
- Low Power Consumption Supported : Less Than 5W in Stand-By Mode
- DiSEqC 1.0, 1.1, 1.2 & USALS / 22KHz Switching Control Supported

- Blue VFD Display : 9 Character 1 Line
- HDTV Output Connector
- S/PDIF for Digital Audio / Dolby AC-3 Bitstream Output
- S-VHS Output Connector
- Component Output with 3 RCA Jacks (Y,Pb,Pr)
- CVBS Output with RCA Jack
- RCA Output for Video, Audio L/R
- RS232C 9-PIN Connector : Twisted Cable
- Useful Universal Remote Control Unit

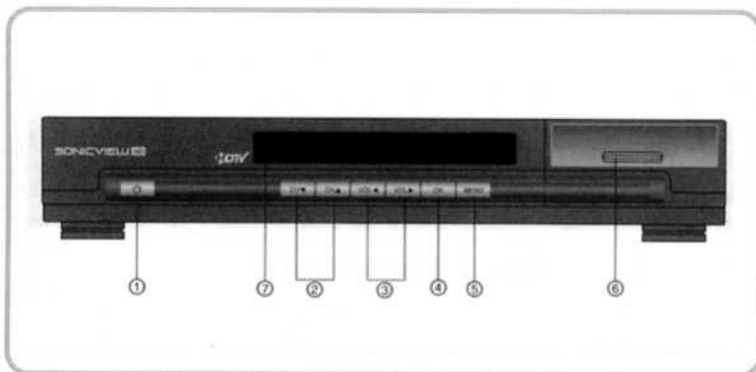
## 1.2 Package Contents

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



- Package contents may be subject to change.
- The other accessories must be purchased individually.

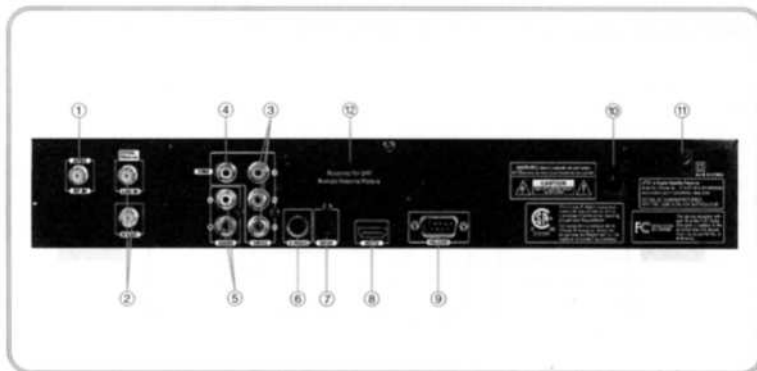
## 1.3 Front Panel



- 1) Power Key  
Switch the receiver ON/OFF
- 2) CH Up/Down  
Change the channel Up/Down or direction key
- 3) VOL Up/Down  
Volume Up/Down or direction key
- 4) OK  
Select the menu or its parameters
- 5) MENU  
Display the main menu
- 6) USB 2.0 Master Slot  
USB 2.0 Master Slot for USB Memory Stick & USB External HDD Connection
- 7) Display  
9 characters -1 Line Blue VFD display



## 1.4 Rear Panel



### 1) ATSC RF IN

Connect ATSC Antenna cable

### 2) LNB IN & IF OUT

Connect the satellite antenna cable and use IF OUT to connect it to another receiver for Loop-through

### 3) Component(Y,Pb,Pr)

Y,Pb,Pr video output for digital video signal

### 4) CVBS Output

CVBS Video Output

### 5) Audio L/R
























Audio output for TV or other









### 6) S-VIDEO

S-video output to connect to TV's S-video input

- 7) S/PDIF  
AC3 digital audio stream for AC3 digital audio amplifier
- 8) HDTV Output  
HDTV output to connect TV's HDTV input
- 9) RS-232C  
Serial port for software download & upload
- 10) Main Power Switch  
Turn ON/OFF of Main Power
- 11) Power Cord  
95~250Vac, 50~60Hz
- 12) Reserved for UHF Remote Antenna Module (Option)  
Reserved for optional function of UHF Remote Antenna Module supplied separately.(Personal purchasing)

## 1.5 Universal Remote Control

- 1) POWER (  )  
Power on/off
- 2) TV/SAT (  )  
Change the mode of TV/Satellite
- 3) SLEEP (  )  
Sleep timer
- 4) Universal Mode  
Select mode of TV, DVD, VCR, STB
- 5) Mute (  )  
Mute the audio
- 6) ? (  )  
Call the help bar
- 7) SIGNAL (  )  
Signal strength display
- 8) USER (  )  
Select user function
- 9) FAV (  )  
Display the favorite channel group list
- 10) TV/RADIO (  )  
Select TV/Radio channel mode
- 11) Capture (  )  
Capture the screen shot
- 12) ZOOM (  )  
Zoom in/out the screen
- 13) FIND (  )  
Find the channel name
- 14) MENU (  )  
Turn to main menu
- 15) EXIT (  )  
Exit the menu
- 16) Guide (  )  
Call the EPG
- 17) LAST (  )  
Call the previous channels
- 18) OK (  )  
Confirm the selection
- 19) Page Up (  )  
Up the page
- 20) Page Down (  )  
Down the page
- 21) Channel Up/Down (  )  
Up/Down the channel & move Up/Down
- 22) Volume Up/Down (  )  
Up/Down the volume & move left/right
- 23) Information (  )  
Show the channel information
- 24) Record (  )  
Record the channel

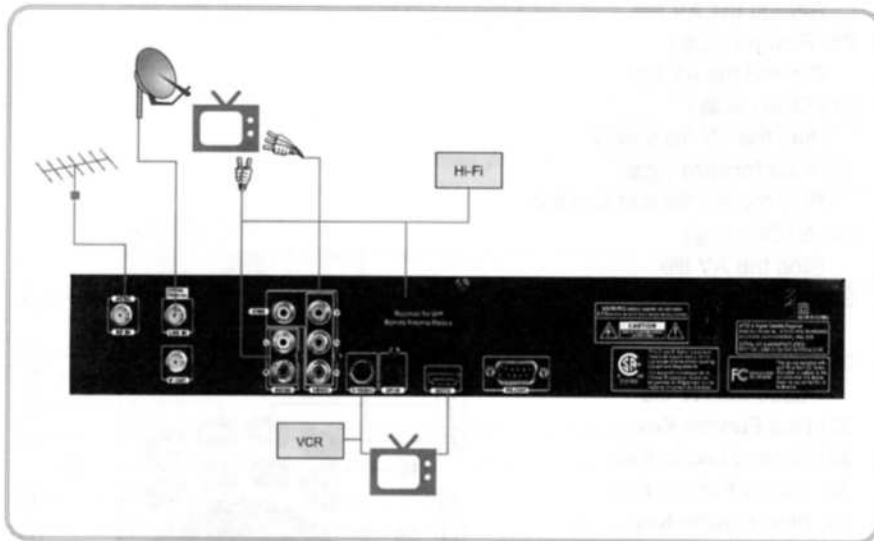
- 25) Repeat (  )  
Repeat the AV file
- 26) Rewind (  )  
Rewind the AV file
- 27) Slow (  )  
Play the AV file slowly
- 28) Fast forward (  )  
Play the AV file fast forward
- 29) STOP (  )  
Stop the AV file
- 30) Playback (  )  
Play the AV file
- 31) Pause (  )  
Pause the AV file
- 32) Red Functin Key
- 33) Green Functin Key
- 34) Yellow Functin Key
- 35) Blue Functin Key
- 36) Numeric Key
- 37) Audio (  )  
Select audio mode
- 38) SAT (  )  
Select satellite name

**\* Remark**

- The keys of 18, 21, 22 & 36 are luminous.
- The keys of 25, 26, 27, 28 are not used in this model.



## 1.6 Connection Configuration



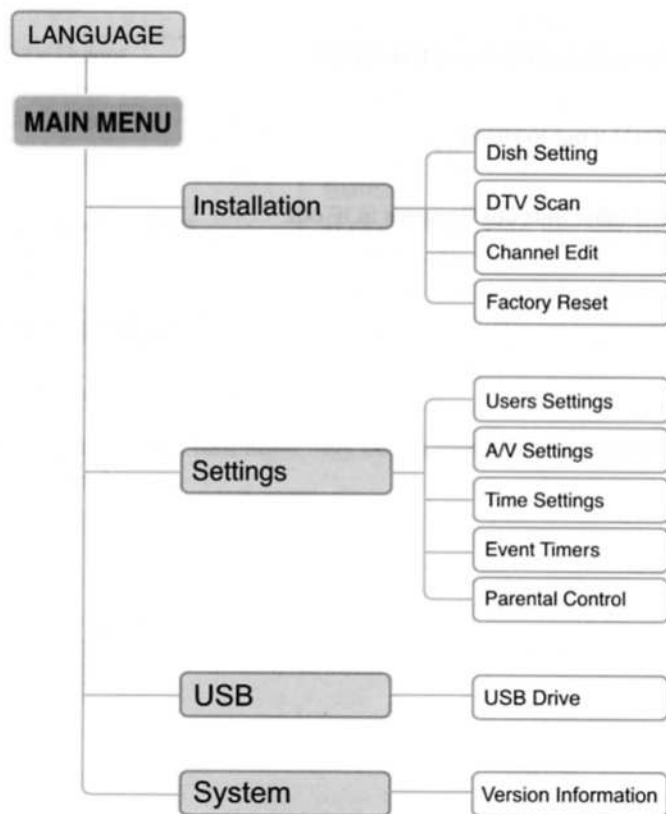
- 1) ATSC Terrestrial Antenna Cable to ATSC RF IN
- 2) Dish Antenna Cable to LNB IN
- 3) TV's Y, Pb, Pr & Audio L/R to Y, Pb, Pr & Audio L/R

- 4) TV's S-Video/CVBS Input to S-Video/CVBS
- 5) VCR's S-Video input to S-Video
- 6) Hi-Fi Audio System to Audio L/R /SPDIF
- 7) TV's HDTV Input to HDTV
- 8) Another Digital Satellite Receiver to IF out

## Chapter 2. Set-Up Procedure

### 2.1 Menu Tree

Menu Tree helps you to understand the STB operation structure.



## 2.2 Set Up Procedure

Set up procedure is completed by the following process.

**Main Menu => Installation Menu => Dish Setting**

### 1. Language Selection

When you plug in the receiver, you can see the **Select Language** menu on the screen. You can select the GUI language you want using the RCU direction keys and press the **OK** key. Only when the factory default is done, this menu appears.

After language selection, you see the black screen with the channel information bar that mentions "No TV Channel". Then, press the **MENU** key on the RCU and the **Main Menu** appears on the screen.

In case channel list is preset in the factory, you can see the No. 1 channel of the channel list after language selection. In this case you can change the channel list, if you want, using the Channel Search menu.

### 2. Dish Setting



In the **Main Menu**, move to **Installation** menu and choose its sub-menu, **Dish Setting** menu, pressing **OK**.





#### (1) Satellite

You can choose the satellite you want to search pressing **Vol Up/Down** keys on the RCU.

Or press **OK** key and you can see all the preset satellite list with alphabetic-order.

Multi-selection is available using **Blue** function key.

**Red** function key : Add new satellite

**Green** function key : Delete the satellite

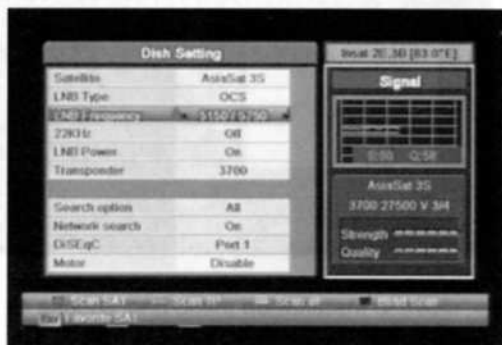
**Yellow** function key : Rename satellite

**Blue** function key : Add this satellite to multi selection

**Sort** key : Sort satellite list by name or location

#### (2) LNB Frequency

You should choose your LNB frequency or enter its frequency directly using RCU.



22KHz: ON/OFF

LNB Power: ON/OFF

## (3) Transponder

You can choose the Transponder frequency you want to search pressing **Vol Up/Down** keys on the RCU.



Or press the **OK** key and you can see all the preset transponder list with alphabetic-order.

**Red** function key : Add new transponder

**Green** function key : Delete the transponder

**Yellow** function key : Edit current transponder parameters

**Blue** function key : Add user channel to this transponder

## (4) Search Option

3 modes are available.

**All:** FTA + Scrambled channels

**FTA:** FTA channels

**CAS:** Scrambled channels

**Network Search:** On / Off

**DiSEqC:** Off / Mini-A, Mini-B, Port 1,2,3,4

(5) Motor

This is for motorized antenna system 3 modes are available:

Disable : Not to use

motor : move the antenna system

USALS : set up the antenna system with USALS

(6) Channel Scan Start

4 modes are available.

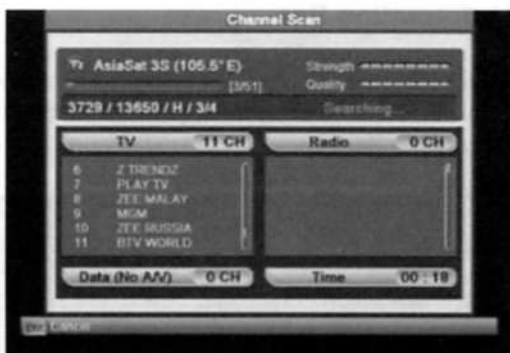
**Red** function key : Start Satellite Scan

**Green** function key : Start Transponder Scan

**Yellow** function key : Start Multi-Satellite Scan

**Blue** function key : Start blind Scan

**Before channel scan start, you can check the signal's strength and quality with Signal Meter and Strength & Quality Bar on the screen of Channel Search menu.**



## (7) Channel Scanning

After channel scan start, **Channel Scanning** menu appears.

During the channel scanning, you can see the parameters related to the scanning.

- Satellite name
- Scanning percentage bar
- Scanned TV channel name & quantity
- Scanned Radio channel name & quantity
- Data channel quantity
- Scanning time

After Channel Scanning is completed, "Channel Changed!" pop-up menu appears. If you select Yes, the scanned channel list is saved.

Then, press EXIT key and Channel Search is completed to move to the no.1 channel.

## 2.3 Channel Information Bar

Once Channel Search is finished, you can enjoy the scanned channels. During enjoying the TV & Radio programs, you can manage several functions with Channel Information Bar.



Whenever you change the channels, **Channel Information Bar** appears for a while at the bottom of screen and disappears. The program information is shown through this **Channel Information Bar**.

**The Channel Information Bar consists of various icons and functions.**

① TV / Radio program

This shows that the current channel is either TV program or Radio program. When you press **TV / RADIO** key on the RCU and it converts between TV & Radio program.

② Current Time

Current time is shown.

③ Channel No. & Name

This is the channel no. and name that you are watching. The channel no. is decided during the channel scanning.

④ Program Information

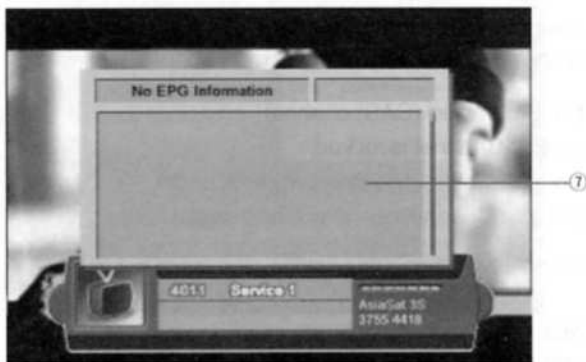
The program information is described in this area.

## ⑤ Favorite channel group

You can make favorite channel group in the **Channel Edit** menu. If you press **FAV** key, the list of all favorite groups is appeared, so you can select the group you want.

## ⑥ FTA / CAS Indicator

This indicates FTA / CAS channel.

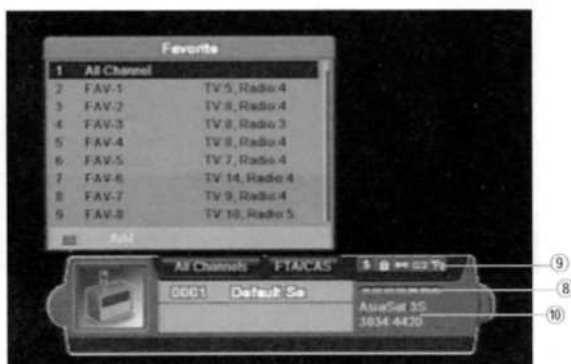


## ⑦ Program Information

- a. During the **Channel Information Bar** is appearing, you can press ⑦ key on the RCU.

Then, EPG (Electronic Program Guide) Information of the current channel is popped up above the **Channel Information Bar**.

- b. When the Channel Information Bar disappears, You can press **INFO** key to recall the Channel Information Bar and press **INFO** key one more time to hide the Channel Information Bar.



8 favorite channel groups are available in total. You can add current channel to the selected favorite list directly by pressing **Red** function key.

⑧ Signal Quality Bar

This indicator the current channel's signal quality.

⑨ Icons of Channel Features

These icons show the specialty of the current channel.

\$ icon(💰): Scrambled (CAS) channel

Lock icon(🔒): Channel is locked

Audio icon(🔊): Channel contains multiple audio.

Dolby icon(🔊): Channel contains Dolby digital audio.

When the channel has above specialties , the icons are on,

⑩ Channel Data

These indicate satellite name, channel frequency, symbol rate, polarity & FEC of the current channel.

## 2.4 Channel List

During watching the channels, Channel List menu helps you to select easily the channel you want to see. Also, you can see the channel list that you have searched before group by group.



1. During watching the channel, press **OK** key to move to the **Channel List** menu.
2. You can change the **Channel List** using **Red** key on the RCU channel group by channel group and its 8 favorite channel group can be listed by **FAV** key on the RCU.
3. The selected channel's video & audio are shown in the small frame.
4. Pressing **OK** or **EXIT** key, the channel is returned to the main frame.

You can sort the channel list using **Yellow** key on the RCU.

1. Press **Yellow** key on the RCU.
2. Then, the **Sort Channel List** window pops-up.
3. You can select 4 sort types.  
Alphabetical / Satellite / Default, Service ID off and press **OK** key.

Also, You can choose the channel list of Tuner 1 / Tuner 2 using **Green** key on the RCU.

**In the Channel List press OK key, after selecting the channel you want to see, and the selected channel is shown in the small frame.**



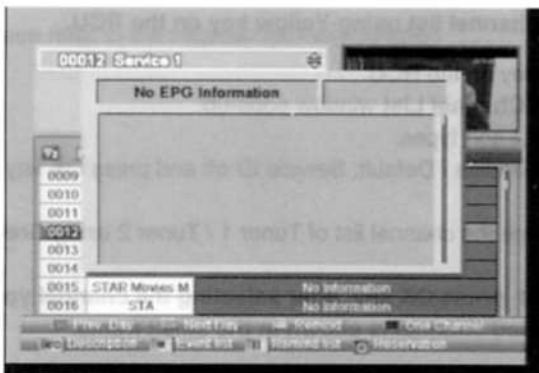
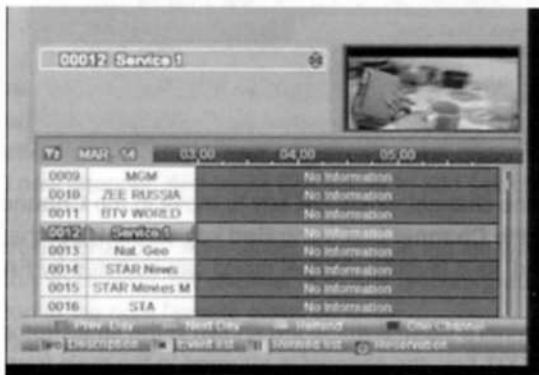
Also, you can enjoy the Multi-Picture function in the Channel List menu.

1. In the Channel List, you can Implement Multi-Picture function using **Blue** key on the RCU.
2. Pressing **Blue** key, Multi-Picture window pops-up and choose the mode you want.

In the Channel List, you can change TV Channel List to Radio Channel List to press the TV/RADIO key on the RCU.

## 2.5 EPG(Electronic Program Guide)

You can view program guide information in EPG menu.



1. During watching the channel, press **Guide** key to enter the **Channel Guide** menu.
2. In **EPG** menu, press **VOL Up/Down** key to change channel. You can also enter channel number directly by number key. The **FIND** key is also available.  
You can select specific event by **CH Up/Down** key. If you want to view information about the selected event, press **OK** key.  
This information is also displayed in the right window with automatic scrolling feature.

You can also view the information about the current event immediately from channel information bar by pressing **INFO** key.

## 2.6 Audio

Some channel contains multiple audio data.



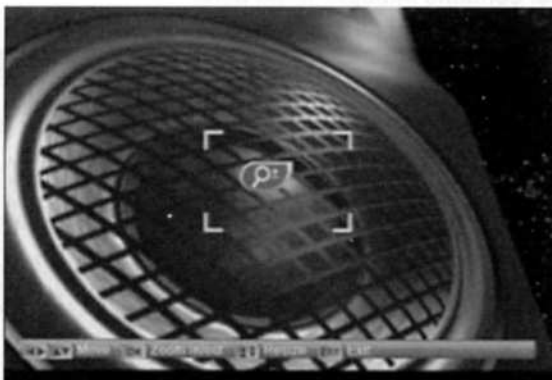
1. When the current channel contains multiple audio data, the audio icon in the channel information bar is activated. Pressing **007** key, the audio selection window pops up.


- Initially the default audio language in **User settings** menu is automatically selected. You can change audio language for the current channel. Once changed, it remains as selected by user for this channel.
- You can change audio mode such as **Stereo, Mono, Left** and **Right** in this menu also.

The audio settings are channel specific, which means you can select different audio settings per channel.

## 2.7 Zoom

These functions are user-friendly functions to enjoy programs more usefully.

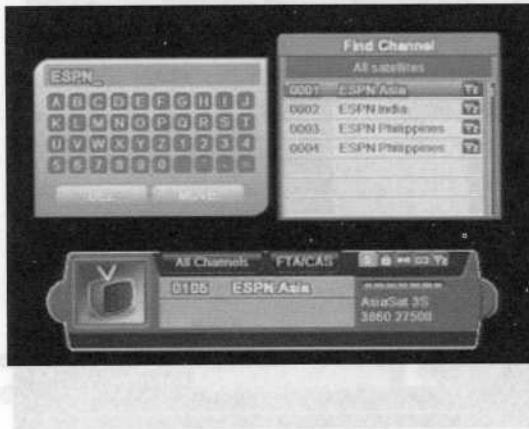


- During watching TV program, press  key on the RCU. Then, the zoom cursor appears.
- Using **CH Up/Down** & **VOL Up/Down**, you can move the cursor where you want to move.
- When you want to resize the cursor, please use **Page UP/Down** key on the RCU.
- After moving the cursor, please press **OK** key and the zoom is active and returning to the main frame is to press **EXIT** key.
- In the zoom mode, you can see the zoom indicator on the upper right side and can move the zoomed spot directly.

Zoom function is also workable in the Pause mode.

## 2.8 Find

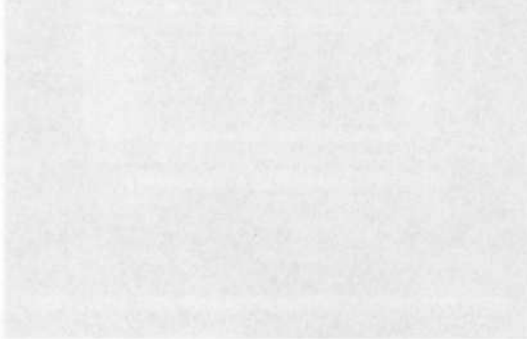
This function enables you to find the channel you want easily by its name.



## 2.10 Signal

This function shows the signal strength and quality of the selected channel. You can move to the Channel List window in the right side at any time by press.

This function is available in the main menu.



1. During watching TV program, press the Yellow key on the RCU to view signal status such as signal strength and quality.
2. You can control DSEqC or USALS setting here.

1. During watching TV program, press **FIND** key on the RCU if you want to find channel by its name.

2. Using **CH Up/Down**, **VOL Up/Down** and **OK** button, enter the name of the channel you are looking for.

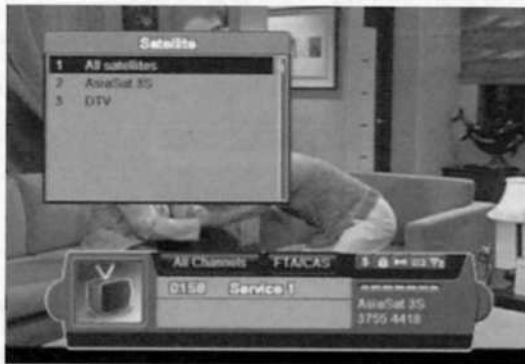
Every time you enter the character, all the channels whose name contains the string are listed in the right window.



3. You can move to the **Channel List** window in the right side at any time by press **Green** button and select channel by pressing **OK** key.

**This function is also available in channel list and channel edit menu.**

## 2.9 Satellite Selection



Press **SAT** key on the RCU and you can select the Tuner 1/ Tuner 2.  
After selecting the Tuner you can also choose the satellite you want to see.

## 2.10 Signal

This function shows the signal status of the current channel with a larger view.



1. During watching TV program, press the **Yellow** key on the RCU to view signal status such as signal strength and quality.
2. You can control DiSEqC or USALS setting here.

## 2.11 Sleep



1. Press the **SLEEP** key on the RCU to set time the receiver will be turned off.
2. You can select time by **VOL Up/Down** and **OK** button.
3. Once sleep timer set, a small icon appears on the left top corner of the screen.

## 2.12 Capture

You can capture the screen shot using capture (📷) key and turn it to file into the HDD. Please read the PVR section for more details.

## 2.13 Other Useful Function

- **MUTE** (MUTE)

When you press **MUTE** key, the audio is changed between mute and un-mute state.

- **TV/RADIO** (TV/RADIO)

When you press **TV/RADIO** key, the current channel list is switched between TV channels and Radio channels.

- **LAST** (LAST)

The receiver remembers up to 8 recent channels. When press **LAST** key the 8 recent channels are listed, and you can select one of those channels. You can also erase this list by pressing **RED** key in the list.

- **FAV**

Once the favorite group is made in **Channel Edit** menu, you can select one of the favorite list by pressing **FAV** key.

- **TV/SAT** (TV/SAT)

You can feed TV input from this receiver or other A/V device such as VCR by pressing **TV/SAT** key. The device should be connected to the SCART port to make this function work.

- **Help** (HELP)

You can view help information by pressing **?** key for some menu.



## Chapter 3. Main Menu

This section describes each item in the main menu. Please note that some items in the menu are protected by PIN code to prohibit unauthorized modification. You can change PIN code in Parental Control menu.

### 3.1 Installation

#### A. Dish Setting

You can scan available channels in this menu. You can also add, delete or modify satellite and transponder information here.

(Please refer to the previous section for more information.)

#### B. DTV Scan

You can scan DTV terrestrial channels in this menu.



## C. Channel Edit

You can delete, rename, lock or unlock the scanned channels in this menu.



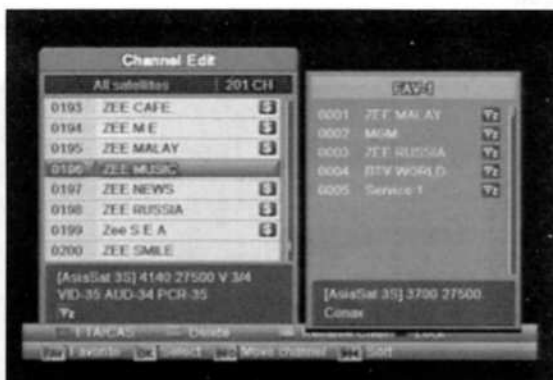
**Delete Channel:** Press **Green** button.

**Rename Channel:** Press **Yellow** button.

**Lock/Unlock Channel :** Press **Blue** button.

**Move Channel:** Press **INFO** key after selecting the channel to be moved and press **CH Up/Down** key to move. After moving the channel, press **OK** button to place the channel at new location. Multiple channels can be move at a time.

You can also make, edit or delete favorite channel groups in this menu.



**Change current favorite group:** Whenever press **FAV** key, current favorite group changes in rotation.

**Add favorite channel:** Press **FAV** key to select the favorite group you want to add new channel. And press **OK** button to add selected channel to this group.

**Delete favorite channel:** After select channel in the left window, press **OK** button to remove this channel from any favorite group. Or press **Green** button in the right favorite group window.

**Rename favorite channel:** Move cursor the favorite group window, and press **Yellow** button.

Also, please refer to the help bar for more function

## D. Factory Reset

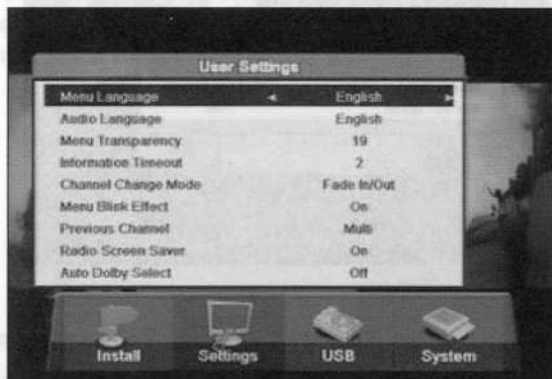
You can delete all the data using this function, if you select yes, all the data will be erased to the factory default status.



## 3.2 System Settings

### A. User Settings

You can modify various properties of your receiver in this menu.



**Menu Language:** The language displayed in menu.

**Audio Language:** The default language for audio. If there are multiple audio in the current channel, this default language will be automatically selected initially. When the user selects other language in some channel, it remains till user change it again.

**Information Timeout:** It specifies the displaying time of channel info bar.

**Channel Change Mode:** It specifies the mode for changing channel. There are three types of channel changing as followings.

Black Out: Video goes black during shifting channel.

Freeze: Video remains still during shifting channel.

Fade In/Out: Video fades out slowly, and fades in again with new channel.

**Remote Control Beep:** You can enable or disable beep sound of the RCU.

**Beep Frequency:** You can change tone of beep sound of the RCU. Lager value means higher tone.

**Beep Volume:** You can change the volume of the RCU beep.

## B. A/V Settings

The settings related audio and video outputs can be modified in this menu.



**TV Type:** You can select the type of your TV set such as NTSC, PAL and AUTO.

**Screen Type:** You can select the type of your TV set such as 4 : 3 or 16 : 9.

## C. Time Settings



**Time mode:** There are two time modes.

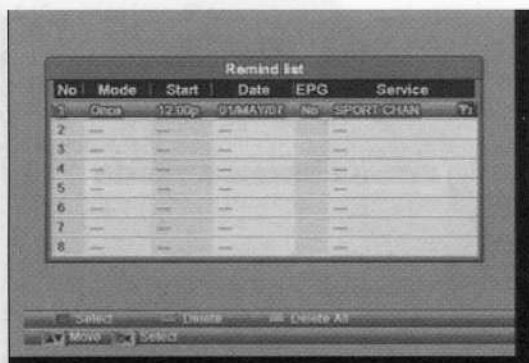
- Auto
- Manual

**Time offset:** In automatic time mode, you can set the time offset from GMT for your location.

**Current Time:** In manual time mode, you can enter current time directly.

**Summer Time:** It enables summer time (day light savings) option.

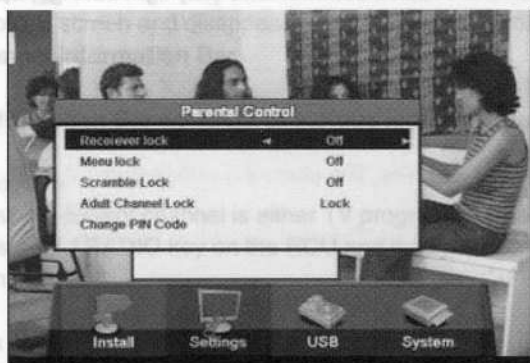
#### D. Event Timer Menu



You can turn on/off the STB using this function.  
The option can be chosen by selecting the parameters.

#### E. Parental control

When you enter this menu, you should enter PIN code. The default is '0000' and you can change it in this menu.



**Receiver Lock:** To lock receiver

**Menu Lock:** To lock menu

**Scramble Lock:** To lock scrambled channel

**Adult Channel Lock:** To lock known adult channels at a time

**Change PIN Code:** To change PIN code, press **OK** button and enter new PIN code

### 3.3 USB

You can connect USB memory stick or external USB HDD to the USB 2.0 slot located in the front panel.

Using this USB slot, you can enjoy mp3, JPEG & mini PVR functions. Please refer to the chapter 4, How to enjoy USB PVR function, for more information.



### 3.4 System

This is for system information.

You check the current model No., software version of the STB in this menu.

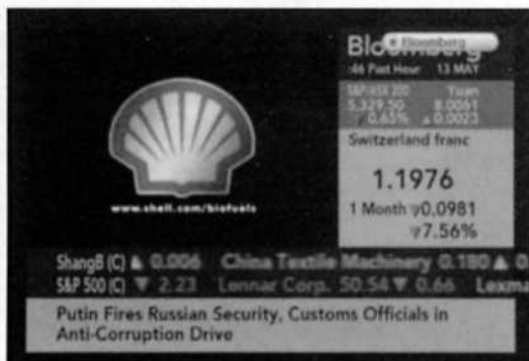


## Chapter 4. How to Enjoy USB PVR Function

This function is available only when the external USB memory or drive is connected.

### 4.1 Recording

#### A. Recording




Press the **Record** (  ) key on the RCU to record the current channel.

When the recording started the record icon is displayed on the right-upper side.

Press the **STOP** (  ) key to stop recording.

#### B. Stop the Recording



If you press **STOP** (  ) key, stop recording pop-up appears.

Using **Up/Down** keys you can choose the channel to be stopped optionally.

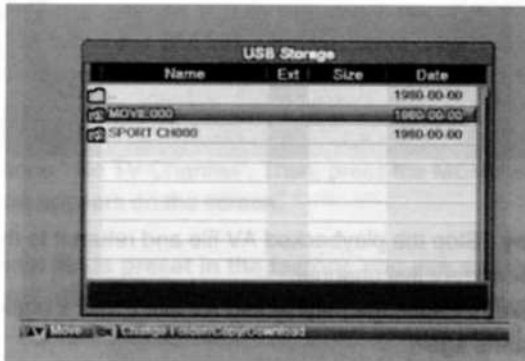
If you stop the recording the record icon will be disappeared.

## 4-2 USB Storage

With this function you can manage the recorded files & directories in the USB memory drive.

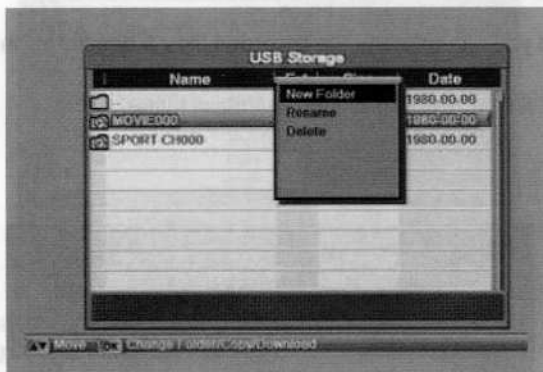
The recorded AV files are stored in "SVHD-Video" folder.

### A. File List



You can select folder and the AV file which you want to manage. If you press **OK** key the Sub pop-up menu appears and you can manage how to do the AV file.

## B. Play

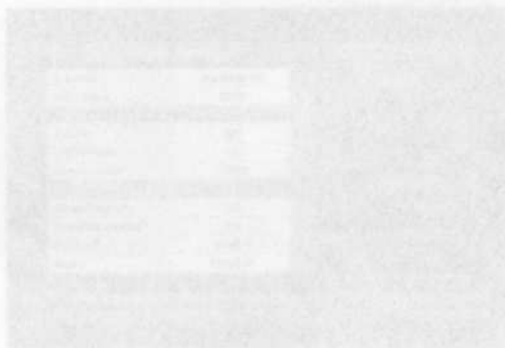


**STOP (⏏) key** : Stop the playback AV file and return it to the starting point or current live channel.

**PAUSE (⏏) key** : Pause the playback AV file. Press it again and the playback starts again.

**PLAY (▶) key** : Start playback of AV file.

**OK (⏏) key** : Manage the recorded AV file.



## Chapter 5. Technical Specification

<b>Tuner &amp; Service Decoder</b>	
• 2 Tuners	ATSC & QPSK
• Input/Loop through Connector	75 $\Omega$ , IEC 169-24, Female
• Frequency Range	950 ~ 2150 MHz
• Signal Level Input	-65 ~ -25 dBm
• LNB Power & Polarisation	Vertical: +13.5VDC
	Horizontal: +18VDC
	Current: Max. 500mA with Overload Protection
• 22KHz Tone	Frequency: 22 $\pm$ 1KHz
	Amplitude: 0.6 $\pm$ 0.2V
• Modulation	QPSK, QAM 256, VBS, 64QAM
• Input Symbol Rate	1~45 MS/s
• Code Rate	1/2, 2/3, 3/4, 5/6 and 7/8
<b>MPEG Transport Stream A/V Decoding</b>	
• Trans port Stream	ISO/IEC 13818-1 MPEG-2
• Profile Level	2 x MPEG-2 MP@HL
• Aspect Ratio	4:3, 16:9, Pan & scan, Letterbox
• Video Resolution	576i / 576P / 720P / 1080i
• Audio Decoding	MPEG-1/2, Layer 1, 2
<b>Main System</b>	
• Main Processor	RISC CPU
• External HDD	MAX 300GB
• RTC	Real Time Clock
<b>Front Panel &amp; RCU</b>	
• 7 Keys	CH-/+, VOL-/+, STANDBY, MENU, OK
• VFD	Service name and other information display
• RCU	52 Keys
• USB	USB 2.0 Host Slot

<b>A/V &amp; Data In/Out</b>	
• S-VIDEO	Video S-VIDEO output
• RCA A/V	Video CVBS output
	Audio L/R output
• S/PDIF	Digital audio or Dolby AC-3 bitstream output
• RS-232C	9 pin D-sub type
	Transfer rate 115.2Kbps
• HDTV Output	HDTV Output
• Component	Y, P <sub>b</sub> , P <sub>r</sub>
<b>Power Supply</b>	
• Input Voltage	95 ~ 250VAC, 50/60Hz
• Type	SMPS
• Power Consumption	Running: MAX.48W, Standby: 8W
• Protection	Separate internal fuse.
	The input shall have lightning protection.
<b>Physical Specification</b>	
• Size(W x H x D)	370 x 60 x 265 mm
• Weight(Net)	4.2Kg

▪ Specifications and functions may be changed for improvement without notice in advance.

## Universal Remote Control Setting & Key List

### 1. Set up-programming mode

1.1 Device Default: STB

1.2 Mode Default

STB..... 001 Only

TV..... 001

VCR..... 001

DVD..... 001

### 2. DEVICE Buttons

The DEVICE(SRB,TV,VCR,DVD)buttons are first used to select a device to be programmed, Once programming is complete, press these keys to select the device you wish to operate before starting to use the relevant function buttons.

### 3. How to Program Your Remote Control

3.1 Basic programming by 3 digit code

3.1.1 Press both the DEVICE and OK buttons simultaneously for two seconds

The LED will turn on for approximately 20 seconds.

On set-up mode, if there is no input for 20 seconds, LED is off set-up mode is off.

Also, set-up mode is off if OK button pressed with LED off.

3.1.2 While the LED is still "ON", enter the three digit BRAND CODE NUMBER sequentially on the keys numbered 1 to 0. (LED Blink when key pressed)

If it is the correct BRAND CODE NUMBER, you can check to press Power On/Off on each devices with POWER Code output(LED on)

Unavallable buttons input, LED will turn-off for 1.5 seconds and on again(stand-by)

No response when buttons input except OK, 0~9, CH+, CH- and Power buttons.

3.1.3 Finally, when you have found the correct BRAND CODE NUMBER, and again while the LED is still "ON" press and release the OK button. The LED will then blink twice to confirm that the code has been stored.

### 3.2 Auto Search

- 3.2.1 Press both the DEVICE and OK buttons simultaneously for two seconds  
The LED will turn on for approximately 20 seconds.  
On set-up mode, if there is no input for 20 seconds, LED is off and set-up mode is off.  
Also, set-up mode is off if OK button pressed while LED off.
- 3.2.2 Press UP/CH+ or DOWN/CH- button. The POWER code of the next set-number of the current set-number put on every button input(LED on)  
No response when buttons input except OK, 0-9, CH+, CH- and Power buttons.
- 3.2.3 Finally, when you have found the correct BRAND CODE NUMBER, and again while the LED is still "ON", press and release the OK button. THE LED will then blink twice to confirm that the code has been stored.

## 4. How to Identify Your Brand Code Number

- 4.1 Press both Device and the OK buttons simultaneously for seconds.  
On set-up mode, if there is no input for 20 seconds, LED is off and set-up mode is off.  
Also, set-up mode is off if OK button pressed with LED off.
- 4.2 Press INFO buttons  
Set up code will blink hundred-position, ten-position, single-position one by one. If "0" will blink 10 times.  
All set up code out, Set-up mode is off automatically.

## 5. Factory Reset Function

- 5.1 Press the TV and the SET buttons simultaneously for five seconds
- 5.2 LED blinks 3 times and off as following sequence TV → VCR → DVD → STB
- 5.3 Current Set-up code will change "Default"

## B. Universal Remote Control Key List

TV	
MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
ADMIRAL	072 081 160 161 096
ADVENT	247
AIKO	103
AKAI	006 146 248
ALARON	028
AMARK	112 143
AMERICA ACTION	043
AMPRO	073
ANAM	043 054 055 056 080 112
AOC	058 006 004 112
APEX DIGITAL	015 226
AUDIOVOX	076 103 043
BAYSONIC	043
BELL&HOWELL	072
BRADFORD	043
BROKSONIC	096
CANDLE	006 002 003 004
CAPEHART	058
CARVER	164
CELEBRITY	001
CETRONIC	043
CINERAL	103 120
CITIZEN	006 002 003 004 101 103 143
CLASSIC	043
CONCERTO	004
CONTEC	043 051
CORONADO	143
CRAIG	043 054 028
CROSLEY	164
CROWN	043 143
CURTIS MATHES	006 004 101 143 011 072 081 120 164
CXC	043
DAEWOO	076 103 055 004 127 143 016 043 044 125 120
DAYTRON	004 143
DENON	011
DUMONT	004 073
DWIN	161
DYNASTY	043
DYNATECH	062
ELECTROBAND	001
ELECTROHOME	024 076 143
EMERSON	005 028 043 048 076 096 155 004 051 143 151 153 154
FISHER	007 057
FUJITSU	164 028 198 246
FUNAI	028 043 052 249
FUTURETECH	043
GATEWAY	242
GE	006 073 144 160 161 004 008 009 034 056 074 091 155 081 120
GIBRALTER	004 073
GOLDSTAR	004 106 119 110 112 113 127 143
GRUNPY	028 043
HALL MARK	004
HARLEY DAVIDSON	028
HARMAN KARDON	164
HARVARD	043
HITACHI	163 004 007 009 011 072 010 012 023 075 143 158
INFINITY	164
INKEL	129
INTEQ	073



## TV

MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
JBL	164
JCB	001
JCPENNEY	004 006 008 024 030 065 101 143 156 160
JENSEN	013
JVC	038 001 034 083 206
KENWOOD	006 001
KLOSS	002 059
KTV	006 043 143 154
LG	004 106 119 110 112 113 127 143
LODGENET	072
LOEWE	207 164
LOGIK	072
LUXMAN	004
LXI	007 015 052 081 160 164
MAGNAVOX	006 003 004 022 059 060 061 063 064 127 164 094 160 028 250
MAJESTIC	072
MARANTZ	164 006
MATSUI	164
MATSUSHITA	080
MEGATRON	004
MEMOREX	004 007 072 028 096
METZ	088
MGA	024 006 004 042
MIDLAND	073
MINERVA	088
MINUTZ	008
MITSUBISHI	109 024 042 004 040 146 028 081 225
MOTOROLA	081
MTC	006 004 062 101
MULTITECH	043
NAD	025
NEC	006 134 040 056 007 019 024 237
NIKEI	043
NIKKO	103
NTC	103
ONKING	043
ONWA	043
OPTIMUS	080
OPTONICA	019 081
ORION	096 201 202 203 204 205 028
PANASONIC	034 056 080 164 208 222
PHILCO	006 003 004 024 056 059 060 063 064 127 143 164
PHILIPS	164 005 038 093 127 006 003 004 059 210
PIONEER	023 025 135 176 004 018 006 209 234
PORTLAND	004 143 103
PRISM	034
PROSCAN	144 160 161
PROTON	004 058 143 171 173 112
QUASAR	034 056
RADIO SHACK	004 019 127 143 043
RCA	160 161 144 156 065 006 004 023 024 056 074 152 081
REALISTIC	007 019
RUNCO	072 073
SAMPO	006 004 058 242
SAMSUNG	004 101 127 133 143 160 089 105 211 228 229
SANSEI	120
SANSUI	096
SANYO	007 053 057 082 020
SCOTCH	004
SCOTT	004 005 028 043 048 143
SEARS	004 007 015 028 030 057 082 094 143 160 052 164
SEMIVOX	043
SEMP	015

TV	
MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
SHARP	081 014 019 028 004 022 143 175
SIGNATURE	072
SONY	001 126 139
SOUNDESIGN	003 004 028 043
SPECTRICON	112
SQUAREVIEW	052
SSS	004 043
STARLITE	043
SUPRE MACY	002
SUPREME	001
SYLVANIA	006 003 059 060 063 064 127 160 164 044 249
SYMPHONIC	052 249
TANDY	081
TATUNG	056 062
TECHNICS	034 080
TECHNOL ACE	028
TECHWOOD	004
TEKNIKA	002 003 004 024 028 043 072 101 143 103 164
TELERENT	072
TERA	172
TMK	004
TNCI	073
TOSHIBA	015 030 007 040 062 101
TOTEVISION	143
UNIVERSAL	008 009
VIDEO CONCEPTS	146
VIDIKRON	174 188 164
VIDTECH	004
WARDS	004 064 164 008 009 019 028 060 061 063 072 074 143
WESTING HOUSE	076
YAMAHA	004 006
YORK	004
YUPITERU	043
ZENITH	072 073 095 103 011 096
ZONDA	112

VCR	
MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
ADMIRAL	025 053
AIKO	117
AIWA	034 161 101
AKAI	043 046 124 146
AMERICA ACTION	117
AMERICAN HIGH	031
AMPRO	072
ANAM	031 103
ASHA	040
AUDIO DYNAMICS	012 023 043
AUDIOVOX	101
BEAUMARK	040
BROKSONIC	035 037 129 025
CALIX	101
CANON	028 031
CAPEHART	108
CCE	024 117
CINERAL	117
CITIZEN	101 117
COLT	024
CRAIG	003 040 135 024 101
CUIRTIS MATHES	031 041
CYBERNEX	040
DAEWOO	005 108 111 117 017 065 007 010
DAYTRON	108
DBX	012 023 043

# VCR

MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
DYNATECH	034 053
ELECTROHOME	059 101
ELECTROPHONIC	101
EMERSON	006 029 035 037 129 153 017 025 027 031 034 036 046 101 131 138 117
FISHER	003 010 008 009
FUJI	031
FUNAI	034
GARRARD	034
GE	031 072 144 147 063 107 109 040 053
GO VIDEO	132 155 040 136
GOLDSTAR	101 004 012 020
HARLEY DAVIDSON	034
HARMAN KARDON	012 045
HARWOOD	024
HITACHI	004 026 034 043 063 137 150
HQ	034
HUGHES	004
INSTANTREPLAY	031
JCL	031
JCPENNEY	004 012 031 040 101
JENSEN	043
JVC	048 043 055 060 130 150 152 012 031
KEC	101 117
KENWOOD	034 150 014 048
KLH	024
KODAK	031 101
LG	101 004 012 020
LLOYD	034
LOGIK	024
LXI	003 009 017 034 101 004 106
MAGIN	040
MAGNASONIC	117
MAGNAVOX	067 031 034 068 041 156 170
MARANTZ	067 069 012 031
MARTA	101
MATSUI	027 030
MATSUSHITA	031
MEI	031
MEMOREX	040 101 003 014 031 034 053 072 134 139 025
MGA	045 046 059
MGN TECHNOLOGY	040
MINOLTA	004 020
MITSUBISHI	059 061 051 004 046 020 045 053
MOTOROLA	031 053
MTI	034 040
MULTITECH	024 034
NEC	012 023 043 048
NIKKO	101
NOBLEX	040
NORDMENDE	043
OLYMPUS	031
OPTIMUS	053 101
OPTONICA	053 054
ORION	025
PANASONIC	031 070 133 140 163
PENTAX	004 031 063 020
PHILCO	031 034 067 025
PHILIPS	031 034 054 067 101 150
PILOT	101
PIONEER	021 004 048
PORTLAND	108
PROFITRONIC	040

VCR	
MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
PROTEC	024
PULSAR	072
QUARTZ	014
QUASAR	031 070 133 140 163 014
RADIO SHACK	123 034
RADIX	101
RANDEX	101
RCA	107 109 144 041 031 004 020 034 040 140 147 158 053
REALISTIC	003 008 014 031 034 040 053 054 101 010
RICO	058
RUNCO	072
SALORA	014
SAMSUNG	040 017 107 109 113 115 124 122
SANKY	053
SANSUI	043 135 048 025 034
SANYO	003 014 040 134
SCOTT	017 037 129 131
SEARS	003 004 008 014 017 081 101 010 031 034
SHARP	053 031 054 159
SHINTOM	024
SHOGUN	040
SINGER	024
SONY	001 057 058 003 052 053 031 154 171 009 034
SOUNDESIGN	034
STS	004
SYLVANIA	031 034 059 067
SYMPHONIC	034
TANDY	034 010
TATUNG	043
TEAC	034 043
TECHNICS	031 070
TEKNIKA	031 034 101
THOMAS	034
TMK	006 040
TOSHIBA	017 131 004 008 059 082 150
TOTEVISION	040 101
UNITECH	040
VECTOR RESEARCH	012
VIDEO CONCEPTS	012 034 046
VIDEOSONIC	040
WARDS	003 004 017 024 031 034 040 053 054 131
WESTINGHOUSE	024 025
XR-1000	024 031 034
YAMAHA	012 034 043
ZENITH	072 034 001 058 080 101 153 048 025

**DVD**

MAKER(BRAND) NAME	CODE NUMBER (3 DIGIT) LIST
AIWA	202
ALPINE	221
APEX DIGITAL	251 246
ARCAM	215
CYBERHOME	220
DAEWOO	220
DENON	226 241
FUNAI	208
GE	230 231
GOLDSTAR	235 239
GO VIDEO	201
HARMAN KARDON	243
HITACHI	223
HITEKER	246
JVC	238
KENWOOD	216
KLH	210
LG	235 239
MAGNAVOX	254 237
MARANTZ	253 242
MCINTOSH	217
MEMOREX	207
MITSUBISHI	227
MYRYAD	224
NAD	247 239
NAKAMICHI	225
ONKYO	240
OPTIMUS	229
PANASONIC	228 206 226
PHILIPS	253 237 214 242
PIONEER	255 222 229
PROCEED	245
PROSCAN	230 231
RCA	230 231
SAMSUNG	236 248 201
SANSUI	205
SANYO	204
SHARP	252
SONY	232 218 203
SYLVANIA	208
SYMPHONIC	208
TATUNG	224
TECHNICS	228
THETA DIGITAL	229
TOSHIBA	233 244 219 205
VENTURER	209
YAMAHA	249 226
ZENITH	239 226 235 239

## UHF Remote Antenna Module & S-ATA HDD Installation(Optional)

In the near future, the s/w will be upgraded to support S-ATA HDD PVR Function & UHF Remote Antenna Module for UHF Remote Control unit.

With respect to the STB's Hardware, the STB is ready for them.

For those usages, you should buy the bracket kit for S-ATA HDD & UHF Remote Antenna Module for UHF Remote control, which will be supplied soon, additionally from your dealers. These are optionnal applications.

The S/W upgrading will be noticed by your dealers seperately.

