Table of Contents
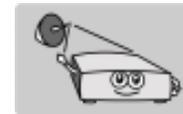
SAFETY INSTRUCTIONS

Please read these safety instructions through carefully, before operating the receiver. Please observe all warnings and instructions on the equipment and contained in these operating instructions.
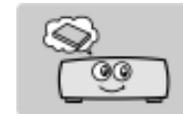
Be sure to read this user's manual before starting your operation.	You must install the dish with correct direction and angle. If the receiver antenna is not working properly, contact your local dealer.
Never open the cover. It is very dangerous to touch the inside of the unit due to possible electric shock.	Install the unit horizontally. Unbalanced installation may cause the unit to be damaged by itself.
When you don't use this unit for a long time, please pull the power cord from the outlet. Also do not use a damaged power cord.	When the unit is suddenly moved to a hot area from a cold area, it may cause problems. In that case, turn off the power, and turn on after 1-2 hours.
Do not touch the power withwet hand. If there is liquid flowing into the unit, pull out the power cord immediately because it may cause fire or electric shock.	Install the unit in a place with: good ventilation suitable temperature no direct sunrays low humidity low vibration influence
Place the unit in a well ventilated and no heat environment.	Do not put heavy objects on the unit.
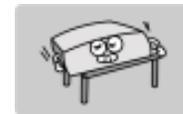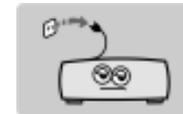
SYMBOLS USED ON THE RECEIVER

The next paragraphs explain the meaning of the symbols, present on the receiver.

The Digital Video Broadcasting logo.
This logo tells you that this receiver is compliant with the DVB standards as registered under registration number 2347.
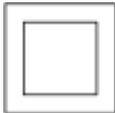
The caution risk of electrical shock - do not open symbol
This symbol tells you that you are not allowed to open the receiver. Only authorized (service) technicians are allowed to open the box.

The double insulation symbol.
This symbol tells you that the receiver is electrically safe within the normal use of the receiver as stated in the safety chapter.

GENERAL INFORMATION

This digital satellite receiver allows you to view a variety of satellite programs. This user's guide covers the installation of the STB and the necessary steps to operate various features. It also explains special features available only in this STB in detail, and will allow you to take full advantage of these features.

1. Main Features

- ❖ Fully DVB-S / MPEG -2 compliant
- ❖ 5000 channels memory space
- ❖ 8 favorite channel groups
- ❖ SCPC & MCPC receivable from C/Ku band satellites
- ❖ 16-bit true colors on screen display (OSD) supported
- ❖ DiSEqC 1.0/1.2 and USALS supported
- ❖ Multi-language OSD
- ❖ Multi-language Audio supported
- ❖ Multi-language Subtitle output supported
- ❖ 7 days Electronic Program Guide (EPG)
- ❖ Teletext output with both VBI and OSD
- ❖ Digital Audio Output
- ❖ Picture in graphics (PIG) supported
- ❖ NIT search supported
- ❖ Channel search in automatic, manual and network search
- ❖ Software upgrade via RS-232 serial port
- ❖ Timer function supported
- ❖ OTA supported(optional)
- ❖ Channel mosaic for 4,6,9 pictures

2. Unpacking

Unpack the receiver and check to make sure that all of the following items are included in the packaging.

- ❖ 1 x Remote Control Unit (RCU)
- ❖ 1 x User's Guide
- ❖ 1 x Digital Satellite Receiver

3. General Operation of STB

Throughout this manual you will notice that the everyday operation of your STB is based on a series of user friendly on screen display and menus. These menus will help you get the most from your STB, guiding you through installation, channel organizing, viewing and many other functions.

All functions can be carried out using the buttons on the RCU, and some of the functions can also be carried out using the buttons on the front panel.

Please be aware that new software may change the functionality of the receiver. Should you experience any difficulties with the operation of your unit, please consult the relevant section of this manual, including the Problem Shooting, or alternatively call your dealer or a customer service adviser.

NOTE:

Please be aware that new software may change the functionality of the receiver. The photo and the function explanation involved in this specification is for reference only. If there is any mistake, please refer to the entity.

OVERVIEW OF THE EQUIPMENT

1. Front Panel

STAND BY : Press to switch between opreation and standby modes

VOL : When watching a channel, adjust the volume or move to the left or right item in the menu.

CH : When watching, change to the previous or next channel, or move to the next higher or lower item in the menu.

OK : Execute the selected item in the menu

Front Panel Display

 : UP LOAD PROCEDURE   : SYSTEM WAITING

 : DOWN LOAD PROCEDURE   : INVALID DOWNLOAD INFO

 : ERROR IN DATA TRANSMITTING   : SYSTEM BOOTING

2. Rear Panel
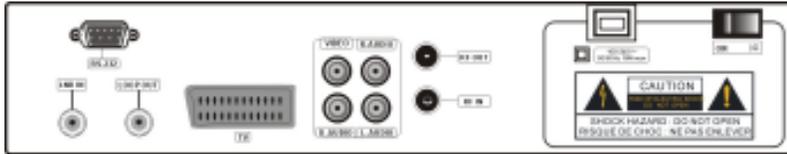
RS232: Connect to a PC for software upgrade

LNB IN: Connect to satellite antenna (IF input from LNB to digital tuner)

LOOP OUT: Connect to another receiver (IF loop through output from digital tuner)

TV: Connect to TV by using the SCART cable

VIDEO: Connect to the TV using RCA jack (CVBS output to TV)

L/R-AUDIO: Connect to TV or audio tuner

D-AUDIO: Connect to audio system for digital audio output

RF OUT: RF output to TV set's antenna in

RF IN: Input from satellite TV antenna

100-240V ~ : Input alternating current

ON/OFF: Main power switch

3. Remote Control Unit
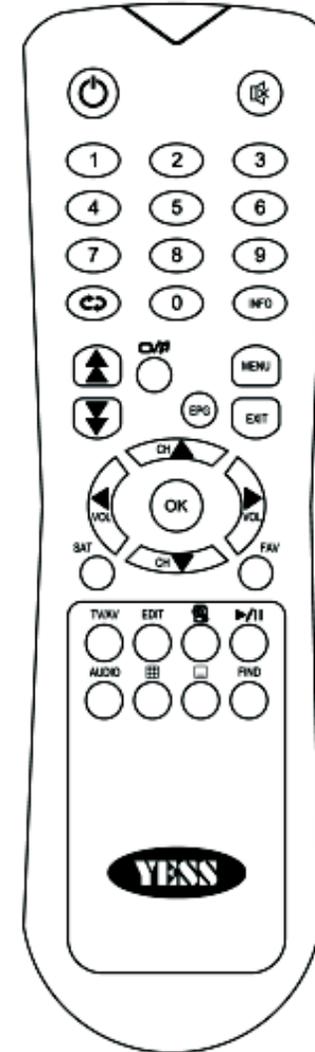
◎ :   Press to switch between Operation and Standby modes

🔇 :   Press to temporarily cut off the sound

NUMERIC KEYS: Press to enter required numbers in the input box or select a

                   channel to watch

⟳ :   Press to switch back to previous channel

INFO: Press to show information of the current channel

⬆⬇ :   Press to page up or down

▭/♫ :   Press to switch between TV and Radio modes

EPG: Press to display EPG (Electronic Program Guide) menu

MENU: Press to display the Main Menu on the screen

EXIT: Press to return to the previous menu or escape from the item

▲▼◀▶ :   Move cursor up/down/left/right, Page up/down, Volume +/-

OK: Press to execute the selected item in the menu, or to confirm the

                   desired value in input mode

SAT: Press to display the satellite list of searched channels

FAV: Press to display the favorite channel list

TV/AV: Press to switch between TV and AV modes

EDIT: Press to display the Channel Edit window

📷 :   Press to magnify the video from the currrent program

▶/❚❚ ::   Press to switch between Pause and Play

AUDIO: When watching a channel, press to switch the audio languages

▦ :   Press to display the multi-pictures window

▢ :   Press to switch to teletext or subtitle mode

FIND: Press to dispaly the Quick Find window

4. Installation of STB

This section explains the installation of the receiver. Refer to the manuals supplied with the equipment for the installation of outdoor equipment such as the dish antenna. When adding new equipment, be sure to refer to the related parts of the manual for the installation.
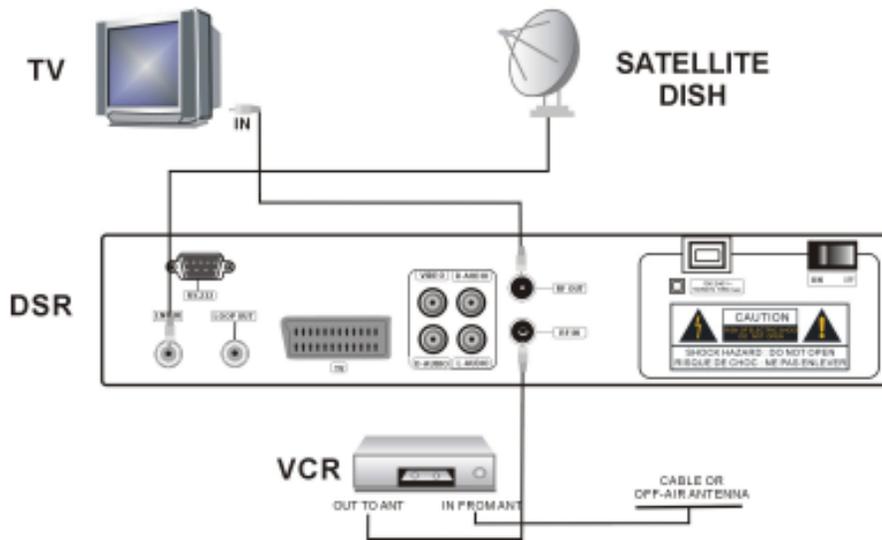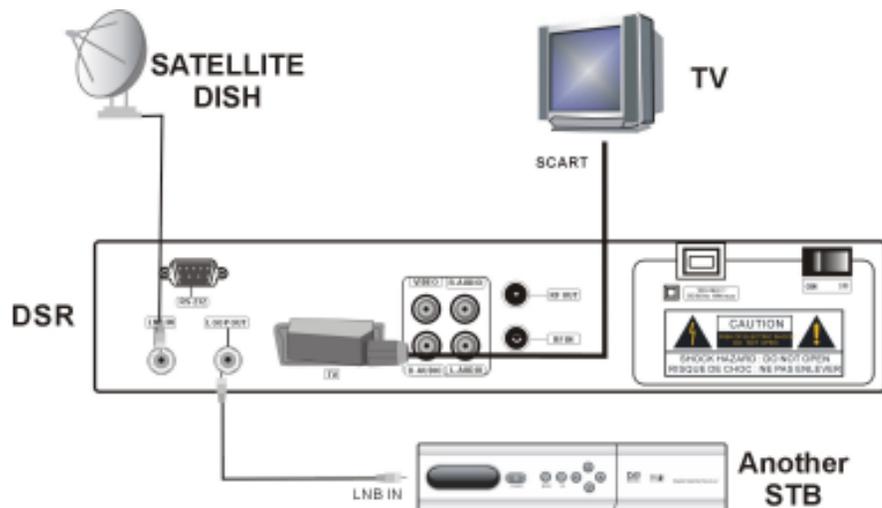
4.1 Connecting to TV using RCA Support
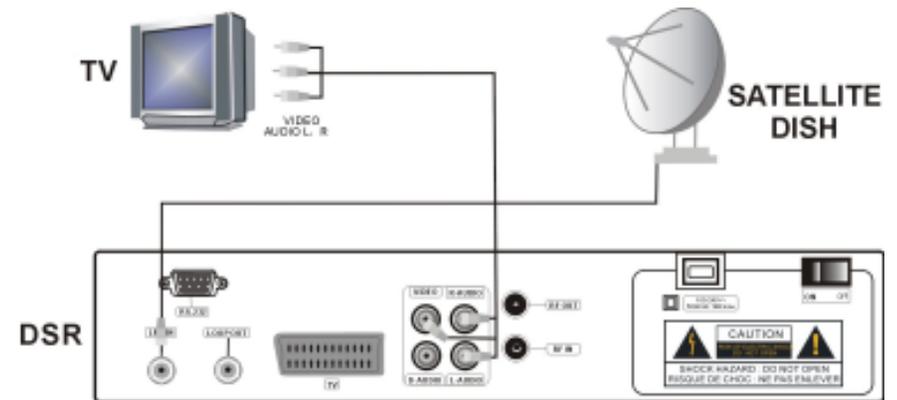
4.2 Connecting to TV using SCART Support
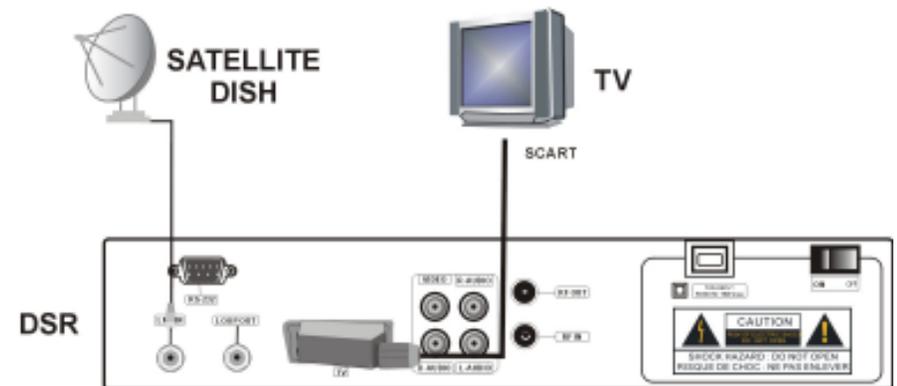
4.3 Connecting to TV using RF Support

4.4 Connect to another SVR

FIRST STEPS

1. Insert the plugs of the receiver's and the auxiliary equipments in the power socket and switch them on.

2. Select the AV channel on the TV set.

3. The receiver is delivered with pre-programmed TV channels and can be used immediately. To see if there are any new channels, then activate the channel search.

Caution!

Check the connections of all equipment and the antenna are in working order before connecting the receiver to the power source.

MENU INFORMATION

The user interface has various ways to navigate through the menus and functions. Some of the keys on the remote control unit give direct access to functions. The most important keys are identified as EPG, colored keys, MENU and OK. Other keys are multi-functional which means that their function changes dependent of the mode that you are in.

Unless otherwise specified; this note explains the way you can navigate through the pages of the user menu.

1. Use the ▲▼ keys to move the cursor up or down from one line to another line.

2. Use the ◄► keys to move the cursor left or right from one line to another line.

3. Use the OK key to enter the sub-menu.

4. Use the EXIT key to leave the menu and return to the view mode.

5. In a sub-menu:

- use the ◄► keys to select one from the preprogrammed options in the sub-menu.

- use the OK key to confirm the selection;

- the yellow cursor indicates the active selection

THE MENU OPERATION

Once you have installed and connected the cables of the receiver, press menu key on the RCU to display the Main Menu.

This menu consists of 4 menu options as shown below.

- ❖ Installation
- ❖ Manage Channel
- ❖ User Setup
- ❖ Information
- ❖ Games

Use the ▼▲ keys to move the cursor up or down in the menu. Use the OK key to confirms a selection.

To escape the menu system at anytime, press EXIT key on the RCU.

OPERATION

1. Installation

1.1 Automatic Search

User can scan all transponder of selected satellites in the menu.

Select the Automatic Search option in the main menu, and press OK to enter the Sub-menu.

1). Select wanted satellite by using ▼▲ keys and press OK key. The selected satellite will be marked with the symbol 🔖. User can select more then one satellite by the same way.

2). Then press RED color key to execute scanning.

3). During the searching, newly searched channels will be sorted automatically into two categories: TV and radio.

1.2 Advanced Installation

In this section, you can press Red color key on the RCU to search channel of the selected satellite. And press Green key to search by Sky mode.

You can also set parameter for the selected satellite. First select the satellite that you want to scan. Then move cursor by using OK key to set parameter.

1.2.1 LNB type
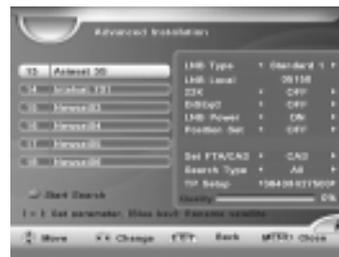
Select proper LNB type using ◄► keys according to your physical LNB type.

Universal 1 (9750MHz & 10600 MHz)
Universal 2 (9750MHz & 10750 MHz)
Universal 3 (9750MHz & 11300 MHz)
Single- SL (5150MHz & 5750 MHz)
Single- SH (5150MHz & 5750 MHz)

1.2.2 LNB Local

When the required LNB frequency is not available, select "Standard" and then input the frequency value with the numeric keys.

1.2.3 22KHz

When you are using a Dual LNB or two antennas connected to a 22KHz tone switch box, set 22KHz tone switch "ON" or "OFF" mode.

1.2.4 DiSEqC

Full DiSEqC

If DiSEqC switching box is used in this receiver, select the port number to get the RF signal from the LNB, which is connected, to DiSEqC switching box.

Option DiSEqC box

There are two kinds of different ways to scan satellite depending on LNB type.

(1) For universal LNB.

Select a DiSEqC number to which the RF signal is fed the LNB.

(2) For standard LNB.

For low band scanning, "set 22KHz" to off and select a DiSEqC number.

For high band scanning, "set 22KHz" to off and select a DiSEqC number.
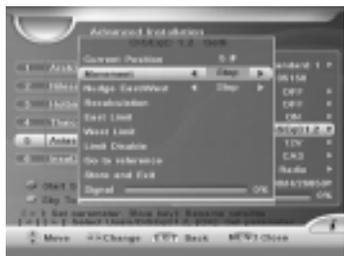
1.2.5 LNB POWER

Set LNB power ON/OFF.

1.2.6 Position Set

It is used to set the DiSEqC 1.2 motor & USALS

If you have no positioner equipment, select OFF. Otherwise you can select either DiSEqC 1.2 or USALS.

1) DiSEqC 1.2

(1)Current position

The default value.

(2)Movement

Select East / West by using ◄► keys and press OK to stop

(3)Nudge East / West

Select nudge East / West and press OK to save current position

(4)Recalculation

If it is used to shift the position for all the satellites. Recalculation by using OK key and then makes above movement function

(5)East Limit Set

Move the position to the most eastern position and press OK to store it.

(6)West Limit Set

Move the position to the most western position and press OK to store it

(7)Limits Disable

Select disable limits by using OK key

(8)Go to reference

Select go to reference by using OK key

(9)Store and Exit

Please select "Store" and the present position will be saved.

2) USALS (DiSEqC 1.3)
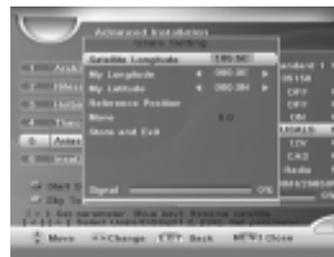
(1)Satellite Position

It points out the position of saved satellite. You can change the position of the satellite by numeric keys

(2)My Longitude

Please input local longitude by numeric keys

(3)My latitude

Please input local latitude by numeric keys

(4)Reference position

This is same as DiSEqC 1.2 reference

(5)Move

The satellite's position of (1) and the one calculated by value of (2) & (3) will be shown. Press OK key and it will move.

(6)Store

Please select "Store" and the present position will be saved.

1.2.7 Set FAT-CAS

Select searching type among ALL, FTA or CAS.

1.2.8 Search Type

Select searching type among Radio, TV or All.

1.2.9 TP Setup

Select a specific transponder.

You can also press OK to enter the TP Edit windows.

In this mode, you can scan, delete, add, update TP and set PID.

1) How to scan a TP

Select a TP you want to scan and press RED color key on the RCU. The Scanning windows will be shown on the screen.

2) How to delete a TP

Select a TP you want to delete, and then press BLUE key. The selected TP will be disappeared from the TP list.

3) Add TP

After pressing GREEN key, a new TP will be display on the end of TP list, and move the cursor to the right side of the window by using OK, enter the Down frequency, symbol rate and LNB polarity.

Press EXIT or OK key and the new transponder information is stored.
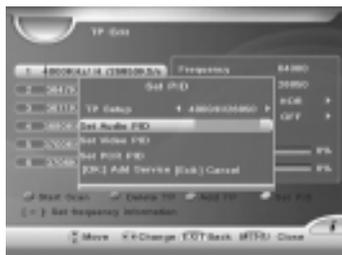
4) Set PID

After pressing YELLOW key, the Set PID box will be displayed on the screen. Setting Video PID/Audio PID/PCR PID by the numeric key.

After setting the PID values, press OK key.

5) How to set frequency information

(1)Press OK key to move the cursor and then set frequency.

(2)Enter the Down frequency, Symbol Rate and select LNB Polarity, NIT.

Press EXIT or OK and the new transponder information is stored.

1.3 STB To STB

You can transmit data from one STB to another STB

1.3.1 Select upgrade data type

You can transmit program default data or application data to another STB. You can choose one for transmitting.

1.3.2 Prepare sending data

After you choose one data and press OK key, this STB is in ready sending data state. Before sending start, you can cancel sending.

1.3.3 Sending data

When host STB is in preparing state and RS232 connect between host and target STB, you should reboot target STB. When target STB reboot, data transmitting start. In transmitting process, there is no effect to press only key on RCU. Before transmitting complete, you can not power off.

2. Manage Channel

2.1 Channel Edit

2.1.1 How to move the channel

1) Press Red color key on the RCU until the "Move" letter displays on the right-down side of the menu, selecting a channel you want to move and press OK, an icon is drawn on the selected channel.

2) Move the selected channels to the new position by using ▼▲.

3) Press RED key to stop moving and all moving icons will disappear. If press Blue key again, the "Move" symbol will disappear.

2.1.2 How to lock / unlock the channel

1) Select the channel that you want to lock and press YELLOW color key.

2) This channel is now locked and the symbol of lock " 🔒 " will be shown as a locked channel .

3) After you press YELLOW key again after selecting the locked channel, you can release locked channel.

4) Once the locked channel is selected while watching television, password is requested.

5) Picture and sound appear after the correct password is given by pressing the numeric keys.

2.1.3 How to delete the channel

1) Pressing Blue key continuously will display the Del Cur, Del TP, Del SAT or nothing at the bottom of the menu cycle.

2) Select a channel you want to delete, then press OK key.

3) The selected channel will be marked with the ✂ symbol.

2.1.4 How to rename the channel

1) Select a channel you want to rename

2) Press Green key to display a virtual keyboard.

3) Input the new name of the selected channel by using arrow keys.

2.1.5 How to skip the channel

1) Press TV/AV key on the RCU until the "Skip" symbol displays on the right-down side of the menu.

2) Selecting a channel you want to skip and press OK, an icon is drawn on the selected channel.

3) If press TV/AV key again, the "Skip" symbol will disappear.

2.2 Channel Favorite

You can make 8 groups of the favorite channel as you want.

How to make a favorite channel group
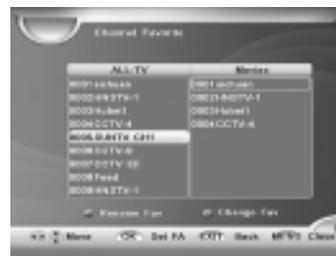
1)Press FAV key on the RCU to select a favorite group as News

2)After selecting your favorite channel, press OK key. The selected channel will be shown on the favorite group.

3)Select the channel you want to delete in the group, and press OK. The deleted channel will disappear.

4) You can also press blue key to rename the group.

3. User Setup

3.1 Timer Setting

After selecting Timer setting, you can adjust the time as follows.

Timer No: 1# ~ 10#, or close. If your selection is Close, the follows option will not be operate.

Timer mode: Once / Daily / Weekly / Monthly / Close

Sleep Time:Set up by pressing numeric keys

Wake up Time:Set up by pressing numeric keys

Wake Up Channel:Select the desired option.

Current Time

To help you set sleep time and wake up time. If Timer NO is close, you can edit current time. But if STB has time info in inputting signal, current time will be decided by signal.

3.2 Parent Control

Input password: The default password at the factory is "000000".
Menu Lock: Select Close or Open.
Channel Lock: Select Close or Open.
New password: Enter the new password.
Confirm new password: Reenter the new password to confirm.

Warning! You must remember the password because it is used in several functions as follows.
To show parental lock channel.
To execute factory setting
To enter menu and so on

3.3 General Setting

3.3.1 Menu Language
Select the desired language.

3.3.2 Menu opacity
You can adjust the transparency level by using ◄► keys. From 65% to 100%

3.3.3 TV mode
The value of default is PAL.

3.3.4 Aspect ratio
You can set the TV aspect ratio (4:3 for normal TV & 16:9 for wide TV).

3.3.5 Audio Mode
The selection is available Stereo, Left, Right.

3.3.6 Time out
When you want to fix up the channel information box disappearing function, you can set time period at the option.
Time out value is available 2,3,4,5 seconds & always.

3.3.7 Time Zone
Select the desired option.

3.3.8 RGB/CVBS
Select RGB or CVBS.

3.3.9 UHF Type
PAL-G, PAL-I, PAL-K, NTSC is supported. You can adjust the modulator type by pressing ◄► keys.

3.3.10 UHF Channel
Modulator channel can be changed from the channel 21 to channel 69.

3.4 Factory Default

Once the factory setting is selected, the correct password is given by pressing 4 digit numeric keys followed by OK key, the whole parameters change into the value written in the factory. That is, factory setting functions your STB (Set Top Box) the first stage. If you do not want to continue this mode, press EXIT key before you enter password.

4. Information

4.1 System Information

This menu shows the information of model name, release date and version of the STB.

4.2 Channel Information

You can check the current channel information in the menu.

5. Games

Move the cursor to Game and press the OK key to play.

6.General Viewing Function

6.1 Channel List

You can see the channel list as shown in the screen by pressing OK key.

You can sort the channel in different way by pressing BLUE key.

You can get all TV or Radio channels in different satellite by pressing SAT key.

You can get SAT list after pressing SAT key on the RCU.

To watch another channel, move the cursor to the channel you want by using ▼▲ keys and press OK key.

If favorite channels are saved, the list is changed from channel list TV to favorite list by pressing FAV key.

You can exit from the channel list menu by pressing "EXIT" key.

6.2 Program Guide
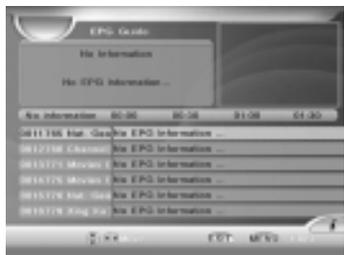
The STB provides EPG function for you to get access to the TV guide that shows the necessary information of the current and future programs on different channels. The information is only available from the network to which the channel you are watching.

Press ▼▲ to move channel's focus.

Press ◄► to see previous or next program in one channel.

6.3 Audio setting

Press AUDIO to set audio mode (Stereo, left and right). Select language in case of multilingual program.

6.4 Quick Find channel
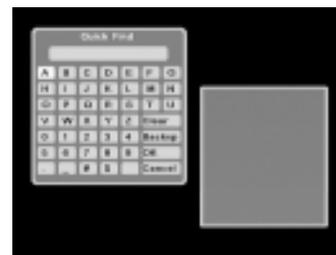
After pressing FIND key on the RCU, the Quick Find window will be displayed. Select the first letter of the channel name which you want to find from the alphabet and press OK, the relevant channels will be display on the screen.

TECHNICAL SPECIFICATION

TRANSMISSION STANDARDS	
DVB, MPEG-2	
TUNER	
Input Frequency	950 to 2150 MHz
Loop Out Frequency	950 ~ 2150 MHz
Input Level:	-65 ~ -25 dBm
LNB Supply	13V/18V /OFF, Imax = 400 mA
Input Impedance	75
Symbol Rate	2 ~ 45 MS/s
CHANNEL DECODING	
Waveform	QPSK
Roll Off Factor	0.35
FEC	1/2, 2/3, 3/4, 5/6, 7/8, Automatic
Reed Solomon	204, 188, t = 8
Symbol Rate	2.0 ~ 45 MS/s
DEMULTIPLEXER	
Standard	ISO / IEC 13818-1
VIDEO DECODING	
Standard	ISO/IEC 13818-2, MPEG-2 MP@ML
Aspect Ratio:	4:3, 16:9

AUDIO DECODING	
Standard	ISO/IEC 13818-3, MPEG-1 & MPEG-2 layer I and II
Audio Channel	Mono, Dual-channel and Stereo
Sampling Frequency	32, 44.1, 48KHz
POWER SUPPLY	
Type	Switching mode
Main input voltage	AC100 - 240V 10%, 50/60Hz
Power consumption	18Wmax
PHYSICAL CHARACTERSTICS	
Front Panel	
Keys	Up, Down, Left, Right, Menu, OK
LED Display	4-digit LED to indicate channel number and status
IR Receiver	38KHz
Rear Panel	
Connectors	1 LNB Input / 1 Loop through output (2F-type) 2 x Audio L/R (RCA) 1 x Video SIGNAL (RCA) 1 x D-AUDIO 1 x R S-232 (9-pin D-sub female) 1 x TV 1 x RF Modulator

TROUBLE SHOOTING

Problem	Possible Causes	What To Do
The display on the front panel does not light up.	Main cable is not connected.	Check that the main cable is plugged into power socket.
No sound or picture, but the front panel red light is ON.	The unit is in standby mode.	Press the standby button.
No sound or picture.	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the Signal Level in the Antenna Setup menu.
	No signal or weak signal.	Check the cable connections, LNB and other equipment connected between the LNB and the receiver, and/or adjust the dish.
Bad picture/ Blocking error.	The satellite dish is not pointing at the satellite	Adjust the dish.
	Signal is too strong.	Connect a signal attenuator to the LNB input.
	Satellite dish is too small.	Change to a larger dish.
	LNB noise factor too high.	Change to an LNB with lower noise factor.
	The LNB is faulty.	Change the LNB.
No picture appears on the TV screen.	TV is not in AV/EXT mode.	Check the UHF channel fixed in your system and tune the UHF channel properly.
There is interference on your digital satellite channel.	The system is connected using RF leads and the output channel of the receiver interferes with an existing terrestrial channel or Video signal.	Change the receiver output channel to a more suitable channel, or connect the system using SCART leads.
The RCU is not working.	Battery exhausted.	Change the battery.
	RCU is incorrectly aimed.	Aim the RCU at the unit, or check that nothing blocks the front panel.