

PREFACE.....	3
1. General Information.....	3
2. Main Features	3
3. FOR YOUR SAFETY	4
4. ACCESSORIES	5
OVERVIEW.....	6
1. REMOTE CONTROL KEY	6
2. CONNECTION DIAGRAM.....	9
2.1 Receiver to TV with RF	9
2.2 Receiver to VCR and then to TV with RF	9
2.3 Receiver to TV with Audio and Video cables	10
2.4 Receiver to TV and VCR with scart cable	10
3. CONNECTION DIAGRAM (DISH)	11
OPERATION	13
1. Channel Manager	13
1.1 Channel Edit.....	13
1.2 Channel Favorite	14
2. HDD	14
2.1 Recorded Files Edit.....	14
2.2 Schedule Recording	15
2.3 PVR Setting	16
2.4 HDD Format	16
3. Information	16
3.1 System Information.....	16
3.2 Common Interface.....	16
3.3 Channel Information	17

4. Installation.....	18
4.1 Easy Installation.....	18
4.2 Advanced Installation.....	18
4.3 STB to STB Upgrade	22
4.4 Upgrade Software	23
5. User Setup.....	23
5.1 Timer Setting.....	23
5.2 Parent Control	24
5.3 General Setting.....	24
5.4 Factory Default	25
6. General Viewing Function	26
6.1 Channel List	26
6.2 Program Guide	26
6.3 Recall the favorite channel.....	28
6.4 Audio setting	28
6.5 Switch AV\TV.....	28
6.6 Open Teletext	28
6.7 Open Channel Bar	28
6.8 Time shift	28
6.9 PIP (Picture in picture).....	29
6.10 REC.....	30
6.11 File playback.....	31
7. PVR Help.....	33
7.1 Select PVR help topic	33
7.2 Show help info.	33
8. Specifications.....	34
9. Trouble Shooting.....	36

PREFACE

1.General Information

This PVR is the very product that records and playback satellite broadcasts. Thus, you can view a variety of programs provided through satellite. Simply pressing the button of the remote control unit, the vivid picture and life-like sound of digital broadcasting that your TV portrays through this product, allows you to watch whatever channel you wish of the digital broadcasting.

Throughout this manual you will notice that the operation is easy to use.

In case you experience any difficulties to use this product, please consult the relevant section of this manual.

2. Main Features

Dual CI Slot (Conax, Cryptoworks, Irdeto, Nagravision, Seca & Viaccess)

Embedded

DVB/MPEG Compliant Multi Functions

EPG (Electronic Program Guide)

Multi Language

Automatic PAL/NTSC Conversion

2 LNB Input (F-Type), IF Signal Loop Through

Excellent Performance

Fast Channel Change

5000 Channels

S/P DIF (Digital Audio or Dolby AC3 Stream out)

RTC (Real Time Clock) Timer

Friendly User Interface

65536 Colour Graphic

PIG/PIP

8 Favorite Channel List
Channel Editing (Move, Parental Lock and etc.)

Easy Installation
Scan: Satellite, Network, TP and Manual scan
DiSEqC 1.2 and USALS Compatible (STAB USALS)

Software Upgrade
Software Upgrade using USB (STB to STB, PC to STB, OTA)

PVR Functions and Twin Tuner Function
Tested up to 250G bytes HDD
Time shift (buffering): 2~12 Hours (Depend on HDD)
Recording Time: up to 125 Hours (Depend on HDD)
Variable Forward Play Speed: 1, 2, 4, 8, 12, 1/2, 1/4, 1/8, 1/12
Variable Reverse Play Speed: 1, 2, 4, 8, 12, 1/2, 1/4, 1/8, 1/12
Region Selection for Replay
Variable Combination of Watching and Recording Simultaneously with PIP
Functions: Live Watching or Recording + Live Watching or Recording or HDD
Playback
Grouping for Cascade Playing
Editing recorded file
Pre-Recording (Program Reservation)

3. FOR YOUR SAFETY

Do not open the cover. It may cause malfunction or electric shock.

When you do not use the product for a long time, please pull the power cord out from the outlet. Also do not use a damaged power cord that may cause fire or electric shock.

Do not install the product in a humid area.

Do not cover the product or place anything heavy on the product, Keep clear

space around the product for sufficient ventilation.

Avoid using spray or liquid materials around the product. Don't make other materials come into the inside of product.

Do not connect to modify cables when the product is plugged in.

4. ACCESSORIES

Please check the following accessories are enclosed

User Manual 1 set

Remote Control Unit 1 Set

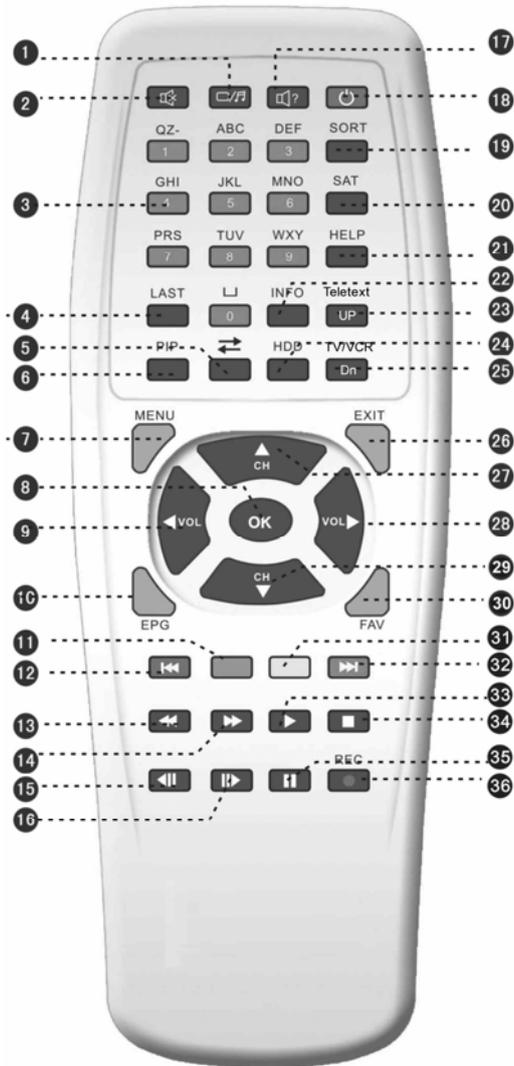
Batteries 2EA

Note

If any of the accessories listed above are missing, Please contact the sales outlet where this product was initially purchased.

OVERVIEW

1. REMOTE CONTROL KEY



No	NAME	FUNCTION
1		Toggles between the TV service and radio service. It is automatically changed to TV mode that enables to watch terrestrial TV broadcasting.
2		Sounds Off/On
3	0~9	Changes channel directly, Controls the numerical operation, Inputs the alphabet in the name edit screen.
4	LAST	Returns to previous program.
5		Swap from main picture to sub-picture on PIP
6	PIP	Picture In Picture
7	MENU	Enters main menu screen or exits menu screen.
8	OK	Shows channel list, Confirms selection
9	VOL	Volume down/up, Changes the value of a selected item
10	EPG	Electronic program guide
11	Green key	On PIP, you can change sub-picture position
12		Change file playback position (backward)
13		Fast Rewind (1, 2, 4, 8, 12) or start timeshift
14		Fast Forward (1, 2, 4, 8, 12)
15		Slow Rewind(1/2, 1/4, 1/8,1/12) or start timeshift
16		Slow Forward(1/2, 1/4, 1/8,1/12)
17		Selects audio mode (Stereo, left only and right only). Selects language in case of Multilingual program.
18		Turns this receiver On/Off. In the standby mode, it is automatically changed to TV mode that enables to watch terrestrial TV broadcasting.
19	SORT	Sort live channels in different ways
20	SAT	Classifies satellite by satellite
21	HELP	Press to display the help information
22		a) Shows channel information, such as channel number, channel name and simple EPG. b) Shows information of the current playback file.
23		a) Views the text information if the transmitting stream

		includes text data b) Execute page up function in the menu
24	HDD	Enter recorded files list.
25		a) Switch between TV and VCR modes. b) Execute page down function in the menu.
26	EXIT	Moves to upper previous
27	CH	Channel up/down, Moves the cursor upward / downward in the menu screen.
28	VOL	Volume down/up, Changes the value of a selected item
29	CH	Channel up/down, Moves the cursor upward / downward in the menu screen.
30	FAV	Enter favorite program or exit from favorite program.
31	Yellow key	On PIP, you can let sub-picture smaller or bigger.
32		Change file playback position (Forward)
33		Start Playing / Release Pause
34		Stop Recording
35		Start Time shift or pause
36		Start Recording

Operating Principle

Select an item by using up and down key and change the value of the highlighted (selected) item by using keys shown on the screen. Press OK key to enter the sub-menu if there is no instruction marked on the screen.

The item is automatically stored and moved the upper menu by pressing the “EXIT” key

You can return to normal mode at any time by pressing the menu key from the menu mode.

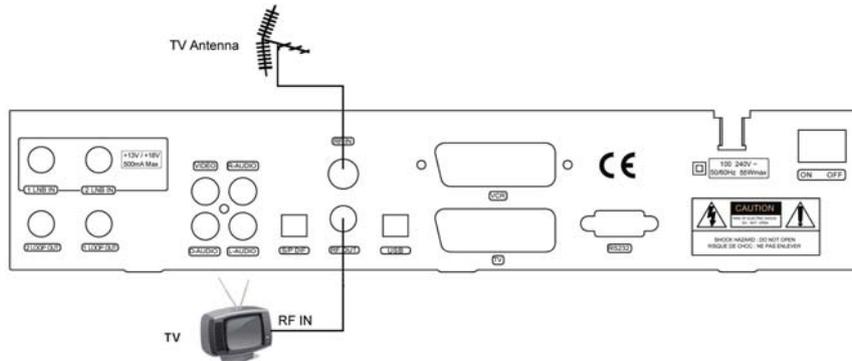
2. CONNECTION DIAGRAM

2.1 Receiver to TV with RF

Connect the TV antenna the ANT IN socket of the receiver.

Connect the TV out of the receiver to the RF INPUT of the TV set.

Search on the TV set for UHF Channel.



2.2 Receiver to VCR and then to TV with RF

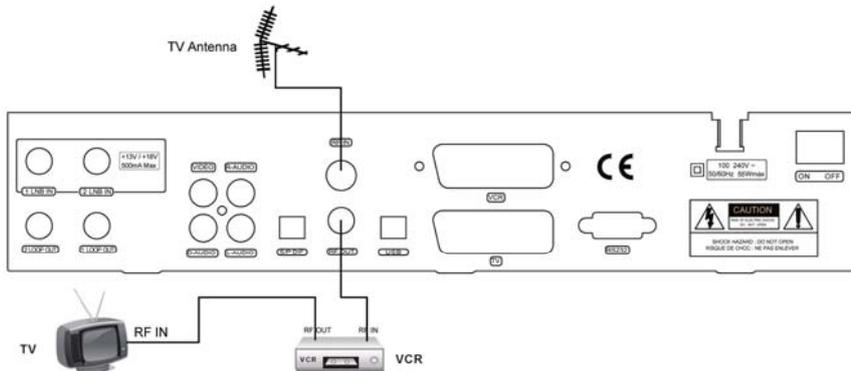
Connect the TV antenna to the ANT IN socket of the receiver.

Connect the TV output socket of the receiver to the RF IN of the VCR.

Connect the RF output of the VCR to the RF IN of the TV set.

Search on the TV set and the VCR for UHF channel.

Note: Use different UHF channels for VCR and receiver.

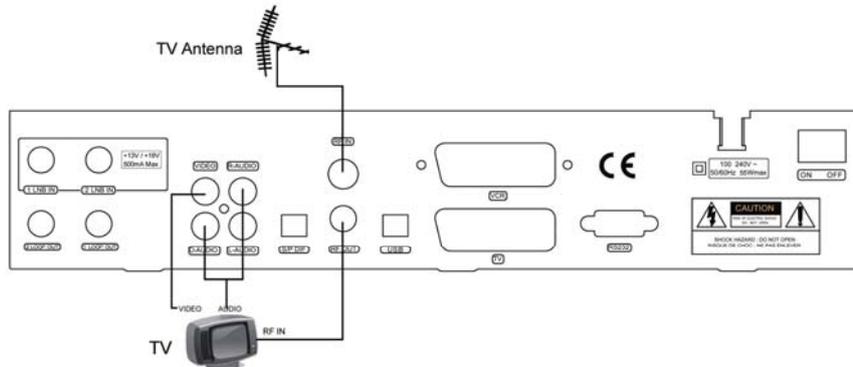


2.3 Receiver to TV with Audio and Video cables

Connect the TV antenna to the ANT IN socket of the receiver.

Connect the TV out socket of the receiver to the RF IN of the TV set.

Connect the Video and Audio outputs of the receiver to the Video and Audio inputs of the TV set.



2.4 Receiver to TV and VCR with scart cable

Connect the TV antenna to the ANT IN socket of the receiver.

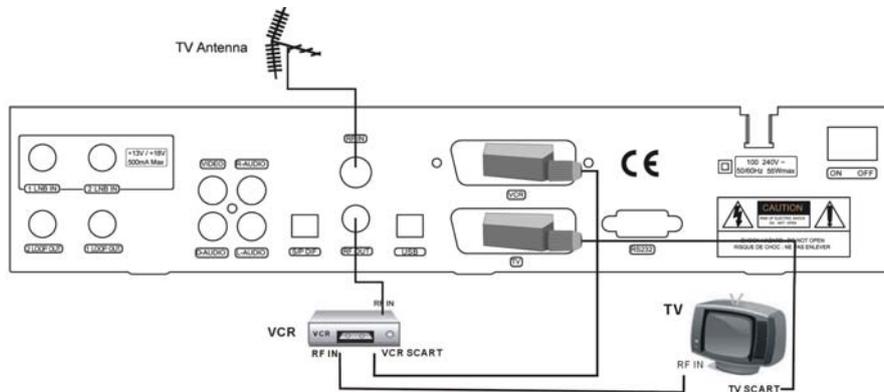
Connect the TV out socket of the receiver to the RF IN of the VCR.

Connect the RF out of the VCR to the RF IN of the TV set.

Search on the VCR for UHF channel.

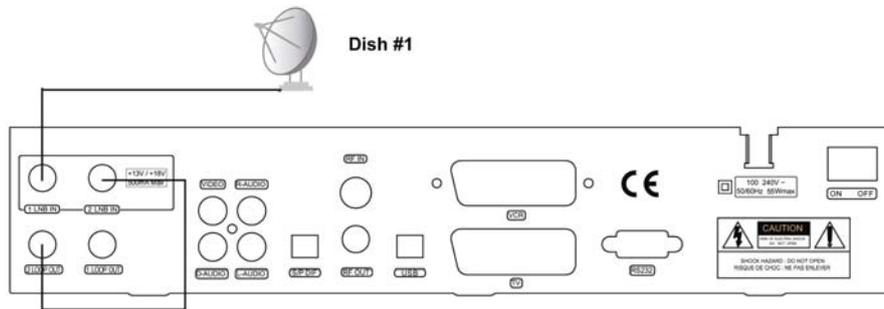
Connect the SCART cable from the TV SCART of the receiver to the SCART of the TV set.

Connect the SCART cable from the VCR SCART of the receiver to the SCART of the VCR.

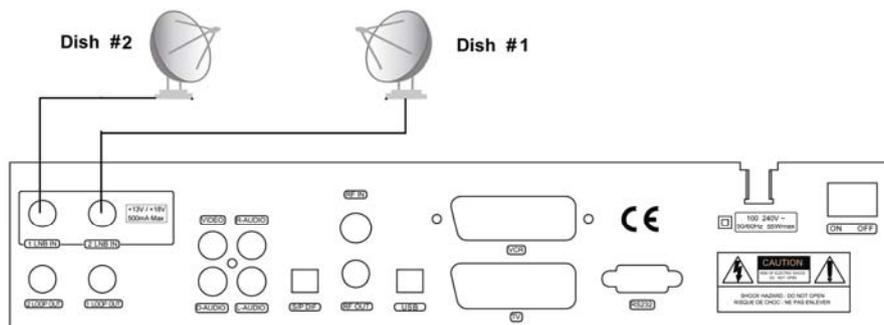


3. CONNECTION DIAGRAM (DISH)

1) One dish



2) 2 dishes



OPERATION

1. Channel Manager

1.1 Channel Edit

In this mode, you can edit TV, Radio channel and favorite name.

If you press OK button in a channel on both TV and radio channel, you can see as follows.

Move, Lock, Delete, Delete All



1.1.1 How to select the channel

- 1) Method 1: You can use ▲▼, UP Dn, or ◀▶ key to select the channel.
- 2) Method 2: You can select the channel by pressing the numeric keys.
- 3) Method 3: You can press □/■, SORT, SAT, or FAV key to change channels group to select the channel

1.1.2 How to move the channel

- 1) After selecting a channel you want to move, press red color key on the RCU, an icon is drawn on the selected channel, and the focus will jump to the next channel.
- 2) Move the selected channels to the new position by using ▲▼, ◀▶, UP Dn or numeric keys.
- 3) Press OK key to stop moving and all moving icons will disappear.



1.1.3 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,

password is requested to validate your identity. After the correct password is given, you can release locked channel.

- 4) Once 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.

1.1.4 How to delete the channel

- 1) Select a channel you want to delete, then press yellow color key.
- 2) Press blue key to select all services in current group to delete.
- 3) When you exit, you are requested to input the correct password to confirm.

1.2 Channel Favorite

You enter this menu, 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 FAV1
- 2) After selecting your favorite channel and then press OK key.
- 3) The selected channel will be shown on the FAV1 list
- 4) Select the channel you want to delete in the FAV1 list, and press OK. The deleted channel will be disappearing.
- 5) You can change FAV group's name by press blue key on the RCU
- 6) You can select the channel by pressing the numeric keys.



2. HDD

2.1 Recorded Files Edit

User can edit recorded channels in the menu.

Lock: Press red color key on the selected file name.



Delete: Select a recorded file you want to delete, and press yellow key.

Rename: Press blue key to display a keypad dialog. Using the arrow keys on the RCU, you can edit the file name.

2.2 Schedule Recording

Select the Schedule Recording item and enter it by pressing **OK** key, The Schedule Programs list window will be shown. For a selected item, press **BLUE** key to delete the item. Press **OK** key to open a dialog to modify record type (just play or record), time mode (once, daily, and weekly), start time and end time.



Press **EXIT** or **MENU** key to exit.

You can enter Schedule Recording menu to add a new book item by pressing **GREEN** key.

In Schedule Recording, there are parameters below to be set .

Record Task: Select open or close

Record Start Time(hh:mm): Input wanted time by numeric keys.

Record End Time(hh:mm): Input wanted time by numeric keys.

Record mode: Once / Daily / Weekly

Weekly: If record mode is weekly, you can choose a day from Sunday to Saturday. Schedule can work if today is 13 same as this weekly day.

Event Alarm: On / Off

Channel No: TV-0001(Ex)

Channel Name: SAB-TV(Ex)

You can select the channel to reserve by press **GREEN** key if all parameters are valid.



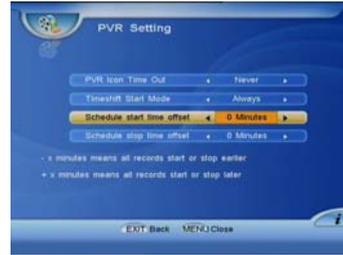
2.3 PVR Setting

PVR Icon Time Out: Select the time that the PVR icon is displayed on the screen by using ◀▶ keys.

Timeshift Start Mode: The available options is Never, Always and Pause key. New setting can work after playing a new service.

Schedule start time offset: Schedule record or play start earlier or later

Schedule stop time offset: Schedule record or play stop earlier or later



2.4 HDD Format

You are asked to input password before formatting HDD.

3. Information

3.1 System Information

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

3.2 Common Interface

If you have the common interface receiver, select “Common Interface” menu in main menu and the following screen will be displayed.

When a common interface CAM (Conditional Access Module) is inserted inside the PCMCIA slot, the receiver detects the type of the CAM automatically and is display in the main menu.

On choosing this menu, you will be able to access the different options available with the type of the CAM like Consultation, Authorization, Module

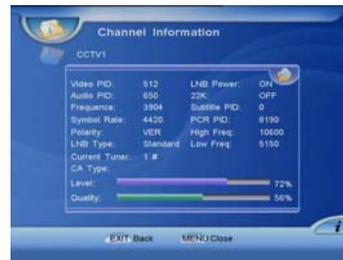


Information and etc.

The user can receive the scrambled channels with a smart card and a common interface CAM. If you want to subscribe the service more than CA service, you have to change with different Smart Card and CAM.

3.3 Channel Information

You can check the current channel information in the menu.



4. Installation

4.1 Easy Installation

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

Select Easy Install 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 than one satellite by the same way.
- 2) You can select scan type including All, TV, Radio, FTA, CAS
- 3) Then press red color key to execute scanning.
- 4) During the searching, newly searched channels will be sorted automatically into two categories: TV and radio.

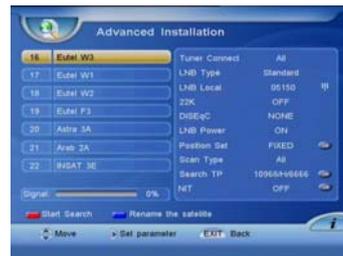


4.2 Advanced Installation

In this section, you can also press red color key on the RCU immediately to search channel for the selected satellite.

First select the satellite that you want to scan. Then move cursor by using ► key to set parameter.

You can also set parameter for the selected satellite.



4.2.1 Tuner Select

You can select one out of Tuner 1, Tuner 2 and All. If you have selected Tuner 1 (or Tuner 2), it means that only the selected Tuner 1 (or Tuner 2)

tuner can receive the signal from satellite. If you have selected ALL, it means that the both tuners can work. .

4.2.2 LNB type

Select proper LNB type using ◀▶ keys according to your physical LNB type.

Universal 1 (9750MHz & 10600 MHz)

Universal 2 (9750MHz & 10750 MHz)

Single- SL (5150MHz & 5750 MHz)

Single- SH (5150MHz & 5750 MHz)

Standard

22KHz control is automatically set for each LNB alternative. If universal 1 or 2 is selected, 22KHz control should be “off state”.

4.2.3 LNB Local

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

4.2.4 22KHz

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

4.2.5 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.

4.2.6 LNB POWER

Set LNB power on/off by using ◀▶ keys.

4.2.7 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

Select the position number by using ◀▶ keys (#0~#26: default define, #27~#49:user define)

(2)Movement

Select East / West by using ◀▶ keys and press OK to stop

(3)Nudge East / West

Select nudge East / West by using ◀▶ keys 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

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

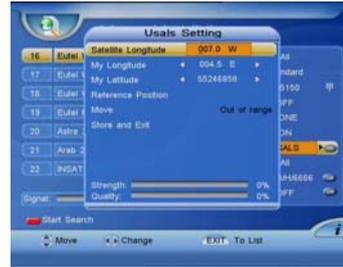
This is same as DiSEqC 1.2 reference

(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.



4.2.8 Scan Type

You can select scan type including All, TV, Radio, FTA, CAS

4.2.9 TP Search

Select a specific transponder by using the ◀▶ keys.

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

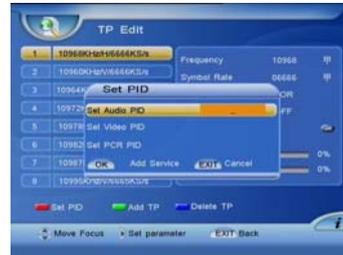
Enter the Down frequency, symbol rate and LNB polarity.

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

4) Set PID

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 **▶** key to 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.

4.2.10 NIT

(1) Press **◀▶** to open or close NIT

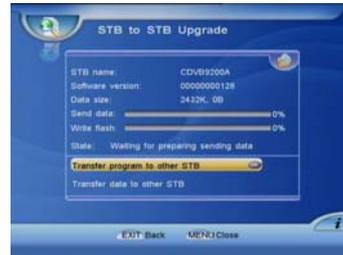
(2) Press OK key start search in current NIT state.

4.3 STB to STB Upgrade

You can transmit data from one STB to another STB

4.3.1 Select upgrade data type

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



4.3.2 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.

4.3.3 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.

4.4 Upgrade Software

You can upgrade software by OTA

4.4.1 Upgrade PID: Input a right PID your supplier give for upgrade.

4.4.2 Set more upgrade parameter: Your should choose right upgrade transporter your supplier give for upgrade.

4.4.3 Start upgrade: If you have set right parameters, and signal level and quality progress bar show signal information, you can start upgrade. After you press OK key, STB will reboot for upgrade.



5. User Setup

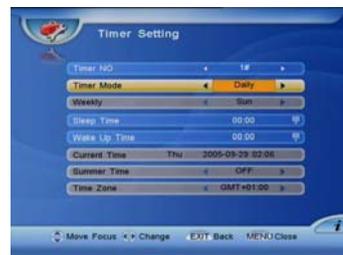
5.1 Timer Setting

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

Timer No: 1# ~ 8#, or close. If your selection is Close, the follows option will not be operate.

Timer mode: Once / Daily / Weekly

Weekly: If timer mode is weekly, you can choose a day from Sunday to Saturday. Timer can work if today is same as this weekly day.



Sleep Time: Set up by pressing numeric keys

Wake up Time: Set up by pressing numeric keys

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.

Summer time: Open or close summer time setting.

Time zoon: Change time zone for different area in Earth. Press ◀▶ to change.

5.2 Parent Control

Input password: The default password at the factory is “0000”.

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

5.3 General Setting

5.3.1 Menu Language

Select the desired language.



5.3.2 Menu opacity

You can adjust the transparency level by using VOL ◀▶ keys. From 65% to 100%

5.3.3 TV mode

You can set the TV type by pressing ◀▶ keys. If the setting value is AUTO,

then TV is set default to PAL. If the source program is PAL, TV set PAL, source program is NTSC, TV set NTSC.

5.3.4 Aspect ratio

You can set the TV aspect ratio (4:3 for normal TV & 16:9 for wide TV) by pressing ◀▶ keys.

5.3.5 Scart Output

The selection is available RGB, CVBS.

5.3.6 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 & never.

5.3.7 UHF Type

PAL-G, PAL-I, PAL-K, NTSC is supported. You can adjust the modulator type by pressing ◀▶ keys.

5.3.8 UHF Channel:

Modulator channel can be changed from the channel 21 to channel 69.

5.4 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.



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 SORT key.

If channels are sorted by alphabet, you can press alphabet key on RCU to choose channel.

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

You can get SORT-SAT group if your sort channel by SORT key first and then press SAT key.

To watch another channel, move the cursor to the channel you want by using ▲▼ keys, ◀▶, [UP] [Dn] or numeric 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 press TV/RADIO key change from channel list TV to channel list radio.

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



6.2 Program Guide

6.2.1 EPG 1

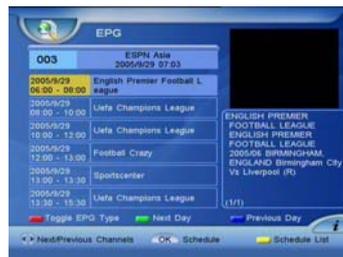
The title and start time of the program is shown as in the figure after pressing EPG key.

If you want to watch TV with full screen, press EXIT.

Press ◀▶ to see previous or next channel in current group.

Press ▲▼ to move program focus. You can get next day EPG by press Green key and get previous day EPG by press Blue key.

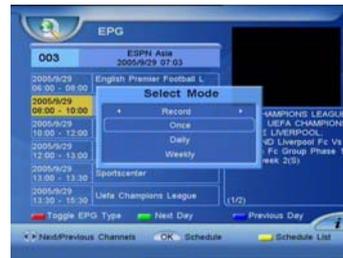
Program description is put on the right down area. If the content is more than one page, you can press [UP] [Dn] to next page



Press OK key to reserve the selected program.

Press Yellow key to enter Scheduled Programs list which displays all reserved programs.

Press Red key to toggle EPG to another style (EPG 2).



6.2.1 EPG 2

Press ▲▼ to move channel's focus.

Press ◀▶ to see previous or next program in one channel.

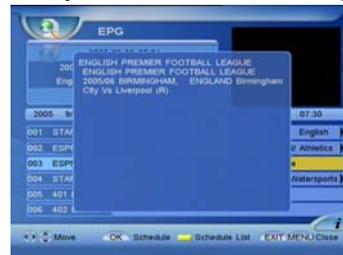
User can book program in the menu. First select program that you want to book, and then press OK. If the selected program has been scheduled, the screen will display a message box with “This program had been scheduled. If you want to delete, please press OK key”. Then choose booking mode.

If program is booked successfully, a clock icon is put on the up-left where detailed program information displayed.

Press yellow key to edit all booked items.

Press INFO key to show the description of selected program.

Press Red key or EXIT to toggle EPG to another style (EPG 1).



6.2.2 Scheduled Programs list

By press **YELLOW** color key in **EPG** view, you can edit all booked items. For a selected item, press **BLUE** color key to delete the item. Press **OK** key to open a dialog to modify record type (just play or



record), time mode (once, daily, and weekly), start time and end time.
Press **EXIT** or **MENU** key to exit.

6.3 Recall the favorite channel

Press the FAV key to recall a stored favorite channel.

Favorite channel is programmed and stored in the channel edit menu.

6.4 Audio setting

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



6.5 Switch AV\TV.

Press TV/RCU to switch AV\TV.

6.6 Open Teletext

Press Teletext to Open Teletext.

6.7 Open Channel Bar

Press INFO or  Key to open channel bar.

When channel bar is open, press INFO key to show the description of current program.



6.8 Time shift

6.8.1 Start time shift

Press  to display time shifting progress bar.

If you can't start timeshift, please check Timeshift Start Mode in **PVR Setting** menu.



6.8.2 Change time shift speed

After pressing ⏪, ⏩, ⏮, ⏭, ⏪ or ⏭ to change time shift speed, a speed icon will be displayed on up-left of screen.

6.8.3 Play live service while time shift

Press PIP key to pop up PIP window which play the current live service.

6.8.4 Change time shift playing position

Press ⏪, red or blue color key to display time shift process bar. You can change time shift playing position



6.8.5 Stop time shift

Method 1: Press ⏹ to stop time shift and return to play live service.

Method 2: Start play new service, time shift of old service will be stop automatically.

6.9 PIP (Picture in picture)

6.9.1 Open PIP

Press PIP key to pop up a small window which play current service on up right of screen.



6.9.2 Change PIP size

Press yellow color key to change the size of PIP window.

6.9.3 Change PIP position

Press green color key to change the position of PIP window

6.9.4 Swap PIP

You can change service in main window, so there are two different services in main window and PIP window. Press ⏪ to swap two services.

6.9.5 Close PIP

Press PIP key again to close PIP window

6.9.6 Change service in PIP window

Press OK key to display channel list. Press PIP key to play selected service in PIP window.

6.10 REC

6.10.1 Start record

Press  to start a record, a record icon is displayed on the up left of screen.

Record icon display recording number, duration and recording name. Recording name is in the form of Channel Name-Event Name.



6.10.2 Record second channel

You can play a new service during single record if you have right tuner setting and no operation clash. Press  again to start a new record. Now there are dual records. Dual records have icons in main window, and they will show one after one. If the recording service is same as current playing service, the recording icon text color is white, else it is yellow. If you press PIP icon, one recording service will play in PIP window, and the recording icon will move to PIP.

6.10.3 Change recording information

If you switch to the channel which is recording, and press OK will enter change recording information window. You can change recording duration and recording file name.



6.10.4 EPG record and Common scheduled record

If time in scheduled EPG or scheduled REC reached, a new record can also be start. For more information, refer to **Scheduled Programs list** and **Schedule Recording**

6.10.5 Recording file information

If current recording service has EPG information, recorded file is partitioned automatically according EPG items. Recorded file name is program name, file duration is program duration and file description is program description. If current recording service has no EPG information, recorded file name is channel name and will not be partitioned.

6.10.6 Time shift while record

During single recording, Time Shifting is possible. But, if you are recording 2 service at the same time, Time Shifting is possible only in the recorded channel.

6.10.7 Stop record.

Press  to stop record. You will be asked to confirm stop.

6.11 File playback.

6.11.1 Choose HDD file to play

Press HDD key to pop up file list. You can use , ,  ,   or numeric keys to select file.



6.11.2 Look through record file description

Press INFO key to show description of selected item.



6.11.3 Play select file

Press OK key to play selected item

When file playback start, a play icon is displayed on the up left of screen.

6.11.4 Change file playback speed

Press ◀▶, ▶▶, ◀◀, ◀▶▶, ▶▶▶ or ◀▶▶▶ to change file playback speed, a speed icon is displayed on up left of screen



6.11.5 Change file playback position

Press ▶, red or blue color key to display playback process bar. You can press red or blue color key to change file playing position



6.11.6 Display playing file information

Press ◻ to pop up a bar to show current playing file information

6.11.7 Play live service while file playback

Press PIP key to pop up PIP window which play the current live service. You can press OK to popup all services and press PIP to play the live service

6.11.8 Play current file again

When current file is played to end, a stop icon is displayed, then presses ▶ to play current file again

6.11.9 Stop current file playback

Press ◻ to stop file playback and return to play live service.

6.11.10 Start play file while recording

After display file list, you can choose one file except current recording file to play.

6.11.11 Jump file playback time

In playback process bar, you can press number key to input a time, then press OK or waiting for a while, file will play from the time if the time is valid.

7. PVR Help

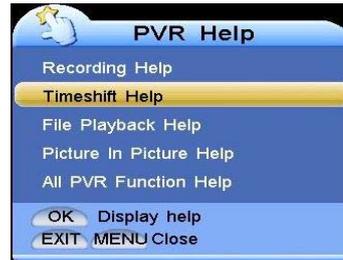
7.1 Select PVR help topic

Press HELP key to Select PVR help topic.

Using ▲▼ keys to select different topic including Recording, Timeshift, File playback, PIP, All PVR Function include all pre-items.

Press OK key to display help of selected topic.

Press EXIT, MENU or HELP key to Exit.



7.2 Show help info.

It displays all operations in selected topic.

It shows key of one operation flickeringly in left RCU picture. Help topic is displayed at the top of TV picture. Operation result displayed in TV picture and operation is described in text at the bottom of TV picture.

Press OK key to switch operation display

mode between manual and automatic. Press ▲▼ to show previous or next operation help immediately. Or next operation is show automatic after the key flicker a while in automatic mode.

Press EXIT, MENU or HELP key to Exit.



8. Specifications

Common Interface	
PCMCIA	2 Slot: Type 1 or type 2 DVB common interface standard
Tuner / LNB	
2 Input Connector	F-type, IEC 169-24
IF Input Frequency	950MHz to 2150MHz
IF Loop through out	950MHz to 2150MHz
If Frequency	Zero-IF
Input Level	-65 dBm ~ -25dBm
LNB Power	13/18V DC 500mA Max
DiSEqC Control	Version 1.3 Compatible
Band Switching	22KHz Tone
System Rate	2 ~ 45 Msps (SCPC, MCPC)
Viterbi Decoding Rate	1/2, 2/3, 3/4, 5/6, 7/8
Reed Solomon Dedoding	FEC:204,188. t=8
DiSEqC	1.3 Compatible (STAB USALS)
Mpeg transport stream & A/V decoding	
Demultiplex	According to ISO/IEC 13818-1
Input Stream	Max, 90Mbit/s
Aspect Ratio	4:3, 16:9
Video Resolution	720×576
Audio Decoding	MPEG layer I and II
Audio Mode	Single / Dual Channel, Stereo, Joint Stereo
Sampling Frequency	16/22, 05/24/32/44, 148KHz
Microprocessor & Memories	
Main Processor	EMMA2
CPU Clock	200 MIPS
Flash Memory	4 Mbyte
SDRAM	32 Mbyte

Data Port	
Connector	9 Pin D-Sub type
Protocol	RS232 asynchronous
Data Rate	Max. 19,2 kbps
RF Modulator	
Connector	IEC 169-2, Male / Female
Frequency	470 MHz to 860 MHz
Output Channel	CH 21-69
TV Standard	PAL DK/BG/I/M
Preset Channel	CH38,Changeable by menu screen
Front Panel	
4 Digits LED Display	Channel Number Display
8 Keys	Power, Menu, Select, Exit, Channel , VOL
Rear Panel	
IF Input	F-type Connector
IF Loop Through Output	F-type Connector
TV Scart	RGB, CVBS, Audio L/R
VCR Scart	CVBS, Audio L/R
3 Phone (Cinch)	Video, Audio L, Audio R
Digital Audio Out Modulator	S/P DIF or AC-3 Optical
RS232 Serial Port	9 Pin D-sub Type
Remote Control	
Type	Infra-red (Carrier Freq: 38 KHZ)
Battery	2×1.5V AAA Type
HDD	
HDD	From 20GB to 120GB (Option)
Interface	USB Ports
Others	
Input Voltage	AC 90-250, 50/60Hz
Power Consumption	Max. 55 Watts
Standby Power	Less than 5 Watts

9. Trouble Shooting

There may be various reasons for the abnormal of the unit. Therefore, if the unit does not work properly, check the unit according to the procedures shown in the table below.

Problem	Possible Causes	Remedy
LED on front panel does not light	AC power cord disconnected	Connect power cord properly into the power socket
No picture or sound	Wrong connection of the video/audio output to TV input terminal	Connect two terminals correctly with scart cable or RCA or RF cable
	Wrong Connection of satellite antenna cable	Connect the antenna cable correctly
	Wrong direction of satellite antenna	Adjust the direction of antenna
	No signal or weak signal	Check the cable connections, LNB and other equipment connected between the LNB and the receiver or adjust the antenna
	Wrong setting of channel information in menu screen	Type the setting value correctly
Black and white screen or V-Hold	Your TV mode is different from satellite broadcasting mode	Use TV of same mode Use the NTSC/PAL converter connected to the receiver and TV
The remote controller is not working	Battery exhausted	Change the batteries
	Fluorescent light interfering with the remote controller	Switch off the light
	Remote controller is incorrectly aimed	Switch off the light
Distorted menu screen	Too high brightness and contrast level of TV set	Adjust brightness and contrast to low level
Not working	Process Down	Remove the power code or AC switch OFF/ON