

CONTENTS

1	SAFETY PRECAUTIONS	3
2	INTRODUCTION.....	4
3	FEATURES.....	4
4	REMOTE CONTROL	6
5	FRONT PANEL	8
6	REAR PANEL	8
7	CONNECTING YOUR SYSTEM	8
8	BASIC OPERATIONS	10
9	MENU “CHANNEL”	16
9.1	ORGANIZING SERVICES	16
9.2	ORGANIZING FAVOURITES	17
9.3	ORGANIZING TIMER.....	18
10	MENU “INSTALLATION”	18
10.1	SATELLITE INSTALLATION.....	18
10.1.1	SATELLITE	18
10.1.2	LNB	19
10.1.3	DISEqC	19
10.1.4	MOTOR	19
10.1.5	22K.....	19
10.1.6	0/12V (OPTIONAL)	19
10.1.7	MY LONGITUDE	19
10.1.8	POWER	19
10.1.9	SATELLITE	20
10.1.10	EDIT TP	20
10.1.11	SINGLE SCAN	20
10.1.12	AUTO DISEQC.....	20
11	MENU “SYSTEM”	21
11.1	IN “SYSTEM” MENU:	21
11.2	PVR/HDD SETTING.....	25
11.3	NET SETTING	27
11.4	UPGRADE	27
12	MENU “CONDITIONAL ACCESS”	28
13	SPARK.....	28
13.1	MESSAGE	28
13.2	UPGRADE SOFTWARE	29

Contents

13.3 WEATHER FORECAST	29
13.4 FAQ	29
13.5 USER MANUAL	29
13.6 MANAGE USER	29
14 MENU "FILE LIST"	30
14.1 FILE LIST	30
14.2 STORAGE INFORMATION	30
15 MENU "DOWNLOAD"	30
15.1 BROWSE SERVER	30
15.2 DOWNLOADING LIST	31
15.3 DOWNLOADED LIST	31
16 MENU "PULG IN"	32
17 MENU "NET WORKING"	32
17.1. YOUTUBE	32
17.2. SHOUTCAST	33
17.3. PICASA	33
17.4. RSS	34
17.5. OPERA	34
<i>Switch Layout</i>	35
<i>Navigation Menu</i>	35
17.6. KARTINA TV	35
<i>Login</i>	36
<i>Play Video</i>	36
<i>Switch Group/Service</i>	36
<i>Switch Date/Type</i>	36
<i>Display the information at VOD list</i>	36
18 TROUBLE SHOOTING	37
19 SPECIFICATIONS	38



Manufactured under license from Dolby Laboratories.

Dolby and the double-D symbol are trademarks of Dolby Laboratories.

1 Safety precautions

CAUTION:



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to "dangerous voltage" and to prevent from a risk of electric shock.



Warning:

To reduce the risk of electric shock, don't open the cabinet. Refer servicing to qualified personnel only.



The exclamation point within an equilateral triangle is intended to alert the user to important operating and maintenance (servicing).

WARNING: Do not use this STB where contact with or immersion in water is a possibility. Do not use near flower vase, washbowls, kitchen sinks, laundry tubs, swimming pools, etc.

WARNING: Do not put the candle or lamp stand on the cabinet; otherwise, there is the danger of fire.

WARNING: The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the unit. If you are not sure of the type of power supply (for example, 120 or 230 V) to your home, consult your local dealer or local power company.

WARNING: This product install diodes. Do not open the cabinet or touch any parts in the inner mechanism. Consult your local dealer for technical service if the opening is required.

Note: To ensure proper use of this product, please read this User manual carefully and retain for further reference.

Note: This product install diodes. Do not open the cabinet to avoid the unit direct exposure to radiation.

Unit Cleaning: After the unit power is turned off, you can clean the cabinet, panel and remote control with a soft cloth lightly moistened with a mild detergent solution.

Attachments: Never add any attachments and/or equipment without the manufacturer consent; as such additions may result in the risk of fire, electric shock, or other personal injury.

Locating: Slots and openings in the cabinet are provided for ventilation to protect it from overheating. Do not block these openings or allow them to be blocked by placing the STB on a bed, sofa, or other similar surface, nor should it be placed over a radiator or heat register.

Power-Cord Protection: Place the power-supply cord out of the way, where it will not be walked on. Please take special attentions to cords at plugs, convenience receptacles, and the point where they exit from the unit.

Basic Operation

Object and Liquid Entry: Never put objects of any kind into this STB through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill any liquid on the STB.

Note: Moisture may be formed on the lens in the following conditions:

- when the unit is suddenly moved from a cold environment or an air-condition room to a warm place.
- immediately after a heater has been turned on.
- in a steamy or very humid room.

If the moisture forms inside the unit, it may not operate properly. To correct this problem, turn on the power and wait about two hours for the moisture to evaporate.

Parts Replacement: When the unit parts need to be replaced, user should make sure the service technician use the replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized replacement may put the unit in the risk of fire, electric shock or other hazards.

Safety Check: After all the maintenances and repairs are done, user is required to request the service technician to conduct the overall safety check to ensure the machine is in the proper condition.

2 INTRODUCTION

Thank you for purchasing the HD Receiver.

This HD Receiver is fully compliant with the international DVB standard and thus transmits digital images, sounds, information guides and teletext directly to your TV through the broadcasting. Now you can comfortably see and receive digitally transmitted music, news, movie and sports broadcasts in your office or at your home.

In service search section, both the automatic service search method and the manual search mode are provided. You can save up to Endless TV and Radio services and work around with the favorite, Lock, Delete, Move and Sort functions.

The menu is very modern and supports multiple languages. All functions can be carried out using the remote control and some of the functions can also be carried out using the front panel. The HD Receiver is easy to use and adaptable for future advances. Please be aware that new software may change the functions of the HD Receiver.

If you have any difficulties concerning the operation of your HD Receiver, please refer to the relevant section of this manual, including the 'Troubleshooting'. This Manual will provide you with useful information on using the HD Receiver.

3 FEATURES

- MPEG-Fully DVB-S / DVB-S2 HD compliant
- Endless channels (TV and Radio) programmable
- Multilingual menu text support
- Channel list editing
- Favourite channel list editing
- True-color On-Screen Display (OSD)
- Full Picture In Graphic (PIG) function
- Electronic Program Guide (EPG) for on screen channel information
- Subtitle supported

Basic Operation

- Teletext supported by software emulation
- Parental lock facility by channel and program event
- Program and Channel information transfer from receiver to receiver
- S/PDIF for digital audio or Dolby digital bitstream output
- DiSEqC 1.0, 1.1, 1.2 and USALS
- HDMI HD Video/Audio Output
- USB 2.0 Host
- LED Display for service information
- RTC (Real-Time-Clock)
- Time Shift
- Video Recording
- Recording one channel and Time Shifting another channel (optional)
- Conax Embedded Card Reader
- FullHD 1080p output via HDMI
- AVI, MKV, MPG, TS, WMA, WMV, M2TS, FLV, DAT, ASF, MP3 playback
- YouTube, SHOUTcast Radio, and Picasa Compatible
- Weather forecast & Rss Reader Functions
- Software Upgrade support via USB, RS232 or Internet
- Endless possibilities with Plug-In support
- Message, FAQ and User Manual support
- Download files from FTP server
- Base on LINUX

4 Remote Control



You can power on/off the receiver, operate on screen menu, and use a variety of hot key function.

POWER

To switch your receiver on from standby or standby to on.

MUTE

Used to enable or disable the audio

NUMERIC KEYS

Used to select channels or enter programming parameters

TV / RADIO

Receiver switches between TV and Radio mode.

(ZOOM)

Press key select zoom times, from X1 to X16.

(RECALL)

Return to the previous menu or status.

AUDIO

Audio channels setup, to select audio mode; Left, Right, Stereo, Mono.

TV/SAT

Receiver switches between TV and receive mode.

INFO

To display channel status or various program information.

EPG

Display the Programs guide on screen when available.

MENU

Displays the Main Menu on the screen, or return to the previous menu or status.

EXIT

Cancel the user selection and return to the viewing mode from a menu.

OK

To select menu option, or to updated on entry.

◀, ▶ KEY

To adjust volume level, or to move cursor left or right in the menu.

▼, ▲ KEY

To change channels, or to move cursor up or down in the menu.

P+ / P-

To move up the cursor to the next or previous page in the menu or channel list.

V+ / V-

To adjust volume level.

PORTAL

To display the navigation menu in Opera.

●RECORD

To start the recording.

TXT

Shows teletext or subtitle information of the current channel supports.

OPTION

Shows NVOD information of the current channel supports.

Blue Button

Into the multi-screen function in full screen.

(FIND)

Use to prompt find channels sort by character.

SLEEP

Press timer key you can setup up the Standby time.

V.FORMAT

Press V.FORMAT button to switch the display mode among "Auto", "480", "576", "720", "1080i" and "1080P".

FAV(FAVORITE)

To set receiver to the favorite server mode, display the favorite channel.

SAT

Display the satellite list at normal picture.

FOLDER

Press this button to enter the Record Manager menu directly.

Time Shift

Press this button to display Time Shift info bar.

Play

To play the MP3, JPEG, or Record files. And to display Time Shift info bar.

Stop

To stop the Time Shift, recording, or MP3/JPEG player.

PAUSE

Used to select the freeze function.

Press once to freeze the screen picture.

(PAGE- / PAGE+)

To start Fast Backward / Forward function.

Switch to previous / next file when play more files

USB

To remove the USB Hard Disk safely.

(PREV / NEXT)

Jump to beginning / end of the file in play mode

PLAYMODE

switch playing mode to order, single cycle and circulation list.

F1

To display quickbar menu in full screen.

F2/F3

Reserved buttons.

5 Front panel

POWER KEY: To switch the receiver power on/stand by

MENU KEY: Displays the Main Menu on the screen, or return to the previous menu or status.

<, > KEY: To adjust volume level, or to move cursor left or right in the menu.

^, v KEY : To change channels, or to move cursor up or down in the menu

OK KEY: To see TV/Radio channel list, or to confirm in the menu.

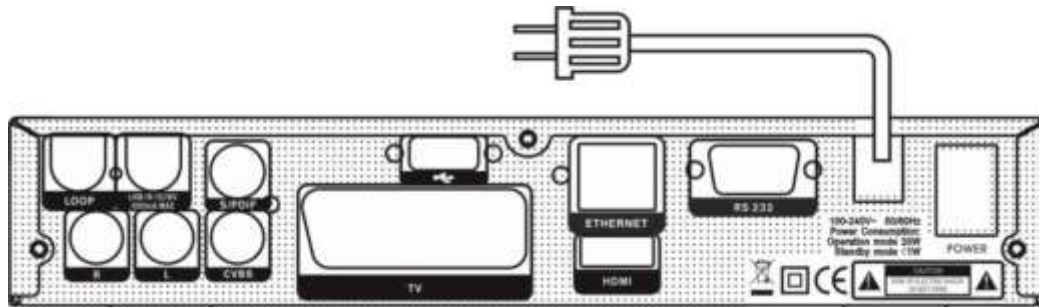
Remote Sensor: Detects infrared signal from remote control unit

Display: (LED type) Indicates operating status of receiver

POWER Indicator: while the receiver is power on and at standby mode.

Card Slot: One slot CA Interface for Conax, Insert the smart card chip side up!

6 Rear Panel



Please refer to the diagram above for all possible connections of your receiver

Do not connect the unit to the mains socket until all other connections have been made and checked.

Your configuration can vary depending on model

LOOP: This enables the connection of another receiver.

LNB IN : This port is to connect the coaxial cable from satellite antenna.

AUDIO R/L : These RCA connectors are used to connect any external audio amp or system.

TV: This is used to connect your TV through SCART cable.

HDMI: Audio and Video output socket for TV set with HDMI Input Jack only.

CVBS: Component video output socket for TV set.

S/PDIF: Audio output socket for speaker set with PDIF.

USB: USB 2.0 Host, connect to USB hard disk, or flash disk

RS 232C: This is used to connect your receiver to a computer through a serial cable.

POWER: To switch ON/OFF the receiver power supply.

ETHERENT: This is used to connect internet.

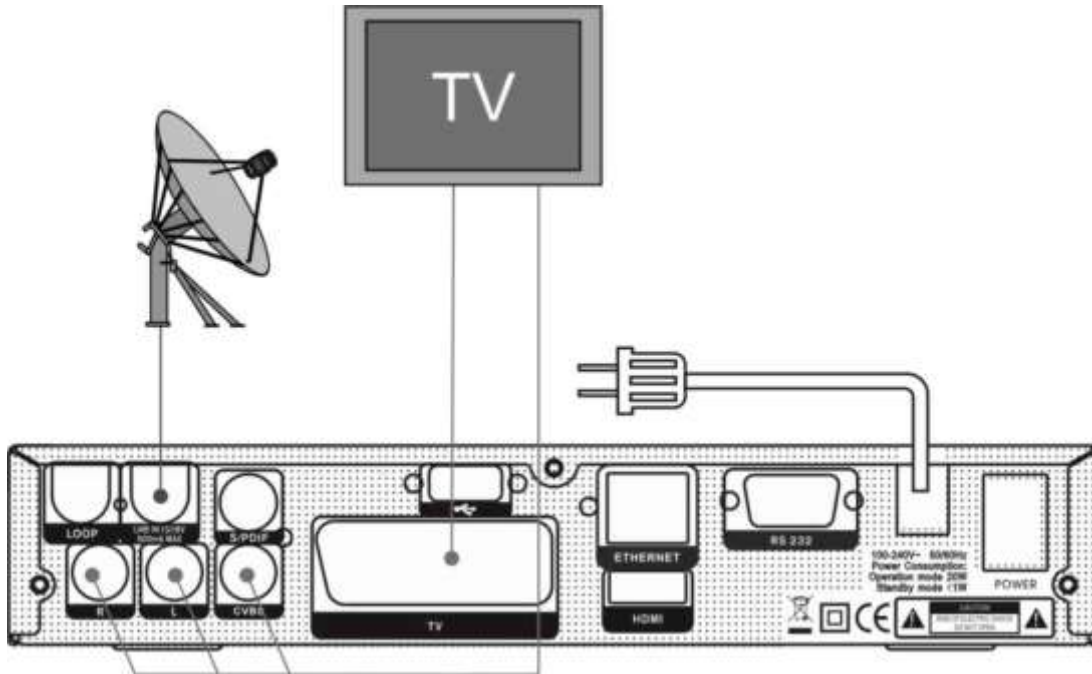
7 Connecting Your System

There are three ways to connect the receiver to your existing TV system. We recommend using one of the following cases for the best result:

1. If you have a high definition television set, you should use a HDMI cable for best result, Plug one end of the cable into the HDMI socket on the receiver, and the other end into the matching socket on your television. In this case, you do not have to make audio connections because the HDMI connector can output stereo audio or Dolby digital audio.

Basic Operation

2. Connect one end of SCART cable to the TV (SCART) jack on the back of the receiver and the other end to a SCART jack on your TV.
3. Connect one end of RCA cable to the RCA jack on the back of the receiver and the other end to a RCA jack on your TV.



Finally connect the coaxial cable from the operator to the CVBS jack on the receiver.

With External Audio / Hi-Fi System

To connect any external Audio Hi-Fi system, the receiver has been provided with two RCA connectors at the back of the receiver marked with Audio L and R.

Connect an RCA stereo cable from the AUDIO L, R jacks on the back of the receiver to the LINE, AUX, SPARE OR EXTRA input jacks on your Hi-Fi System.

7.1 TV with Motorized System (DiSEqC 1.2)

Connect one end of your coaxial cable to the LNB IN connector on the receiver and the other end to the REC or Receiver connector on the DiSEqC 1.2 motor.

Connect the coaxial cable from the LNB to the LNB connector on the DiSEqC 1.2 motor.

All our receivers are designed to be DiSEqC 1.0 and DiSEqC 1.2 compatible.

This allows multiple antennas to be connected to the receiver at the same time.

If you have two or more fixed antennas or LNBs, then we recommend you use a DiSEqC 1.0 switch.

Connect the coaxial cable from the first LNB to the LNB 1 or LNB A input connector of the DiSEqC switch.

Do the same for any other LNBs that you have.

connect the other end to the LNB IN socket on the receiver.

To the digital receiver, you can connect either a single satellite antenna directly or LNB of multi-feed equipment.

8 Basic operations

Turn on STB

First, press the [⏻POWER] to turn on the unit. When the STB is first used, there will play the first channel from the default Channel List. If the STB is not first used, STB will play the same channel as last time before turning off.

? Frequently Asked Question

Q: The power of my STB has been turned on and not in Standby mode, but the TV screen showed nothing:

A: Make sure the TV set has been set to the correct video input (not the TV channels). For example, if you have connected the unit with the Video1 input of the TV set, the TV set has to be switched to Video1.

Q: The power of my STB has been turn on and not in Standby mode, but the TV screen showed nothing except popup window with “No Signal” information.

A: That means the channel, which you select, is no signal. Check connection of signal cable or contact operator.

Power

1. Press [⏻POWER] Key can enter the Standby state
2. In Standby state, press [⏻POWER] Key again can call back the unit and go on play the previous channel
3. User can also disconnect the device's main power to end the Standby state.

Channel Up/Channel Down

In full screen, press [↑/↓] to change channel.

Volume Up/Volume Down

In full screen, press [←/→] or [vol+/vol-] to adjust volume.

Number

In full screen, use number key and press [ENTER] on the Remote Control Unit to change channel.

Mute

1. Press [🔇MUTE] key to mute the sound and the screen will show up mute OSD.
2. Press [🔇MUTE] key again to restore sound.

Pause



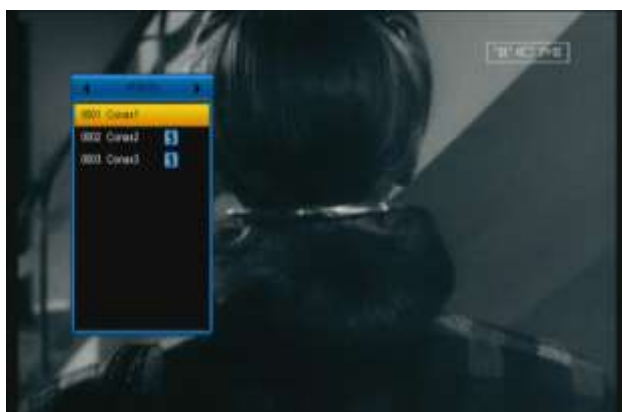
1. In playing mode, press [⏸ PAUSE] key, the picture will be paused, but the sound of the channel will still continues.
2. Press [▶PLAY] key, the screen's picture will skip over to the current playing picture, and the sound of the channel will corresponding playing.

Recall

Press [⏮RECALL] key will directly switch to the previous channel that you played before current channel.

Favourite

1. In full screen, press [FAV(FAVORITE)] key, it will display a window of “Favorite Group” on the left of the screen, which you can watch like below:



2. You can press [←/→] keys to select different "Favorite Group". Pressing [Page+/Page-] keys can implement the "Page up/Page down" function
3. Press [Exit] key to exit the current window.

SAT

1. In full screen, press [SAT] key, it will display a window of "satellite Group" on the left of the screen, which you can watch like below:
2. You can press [↑/↓] keys to select different "Favorite Group".
3. Press [Exit] key to exit the current window.



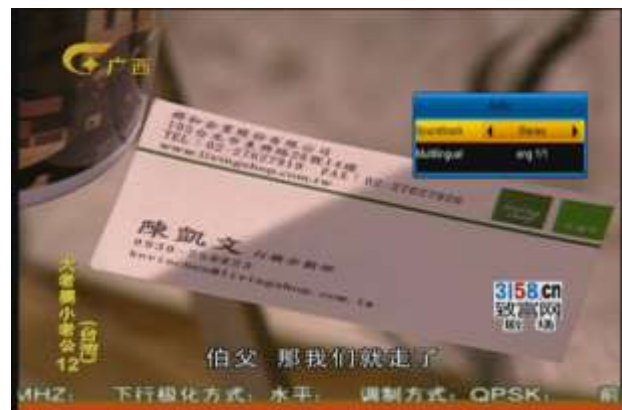
? Frequently Asked Question

Q: Why the screen displays "No Favorite Channel", after pressing [FAV(FAVORITE)] key?

A: It is because that you haven't set any channels as "favorite channel". Please refer to Favorite

Audio

1. In full screen, press [AUDIO] key can open the "Audio" window on the screen.



2. You can modify the audio track by press [←/→] key and modify the audio mode by press [←/→] key.
3. Mode: Left/Right/Stereo/Mono

Information



In full screen, press [i(INFORMATION)] key can open infobar ,press again to display EPG information screen, then press [red] key to display information screen, in the window shows the parameters of current channel.

EPG

1. The STB has an Electronic Program Guide (EPG) to help you navigate channels through all the possible viewing options. The EPG supplies information such as channel

Press [EPG] key to display Program Guide.





3. Press [RED] key to open the “Group” window. You can press [↑/↓] key to move highlight and press [ENTER] key to select group of channels.



5. Press [YELLOW] key to open “Timer” window. User can save a timer as he want. More about timers You can read in “Organizing Timer”.

6. Press [REC] key to directly add timer for recording event.

TV/RADIO

In TV mode, pressing [ (TV / RADIO)] key can switch to Radio mode. In Radio mode, press [ (TV / RADIO)] key to switch to TV mode.

TV List

1. In full screen, press [ENTER] key to enter "TV List".



2. Press [BLUE] key to open the “Sort” window. There are five kinds of sorting ways.
3. Press [GREEN] key to recall shortcut to EPG actual event details.

4. Press [YELLOW] key to enable shortcut to channel parameters edition.
5. Press [↑/↓] key to move highlight and press [ENTER] key to play the highlighted channel.
6. Press [Page+/Page-] key to page up and page down.
7. Press [EXIT] key to exit the channel list.

Sleep

1. This function can set sleep timer. When you set a sleep timer and the time arrive, the system will enter to standby automatically.
2. Press [⌚(SLEEP)] key to switch the mode between Sleep Timer Off /10 /30/60/ 90/120 minutes.

Page Up/Page Down

1. In Channel list, press [Page+/Page-] key can page up and page down the channel list.

TXT

1. Press [YELLOW] key in full screen, you can open teletext & subtitle menu and choose teletext, then press [ENTER] key on the channel which has teletext information.



2. If the channel has no teletext information, it will show "No Teletext" on the screen.



Subtitle

1. Press [YELLOW] key in full screen, you can open teletext & subtitle menu and choose subtitle, then press [ENTER] key on the channel which has subtitle information.
2. If the channel has no subtitle information, it will show "No subtitle" on the screen.

Find



1. Press [F(FIND)] key in full screen can open the "Channel Find" window. You can press then press number keys to input the

seles [←,→,↑,↓] keys to move highlight and press [ENTER] key or press [F1] key to switch keyboacted symbol or letter into the dialogue.

2. After input each character, the program list on the left will search the channel according your input, and list the matched channel.
3. Press [red] button ,Move highlight to you select channel and press [ENTER] key to switch chiannel from the channels list fdirectly .

Zoom



1. The [🔍 (ZOOM)] key allows you to magnify a certain area on the images
2. Press [🔍 (ZOOM)] key again, the image will enlarge rotate as x1, x2, x4, x6, x8, x12, x16.
3. In "x2 ~ x16" mode, using [←,→,↑,↓] keys to move the image center area you want to see.
4. In zoom mode, press [EXIT] to close "Zoom" Window.

NVOD

Press [GREEN] key in full screen, it display NVOD menu if it has NVOD.Or it will show"no option channal".

TV/SAT

Press [TV/SAT] key can switch between TV mode and STB mode

Menu

Press [MENU] key can open the menu, exit the current menu to last menu or close the window.

Video Format

Press [V.FORMAT] key under Full Screen playback continuously press this key, system will switch its outputting video resolution by sequence "

Auto N/P-> 480-> 576-> 720-> 1080".

Time Shift

1. If you connect the USB HDD, and enable the Time Shift function in the menu "Main Menu/ USB/ PVR Setting/Time Shift", it will start the Time Shift function automatically after you switch the program, and when you press the [play] button the Time Shift info bar will displayed as the following picture:



2. You can press [⏸] button to pause the video
3. You can press [⏮] or [⏭] button to Fast Backward or Fast Forward.
4. Press [←] or [→] button to jump to different position
5. Press [■] button to exit the playback.

a) Record

1. If you connect the USB HDD, You can press [■] button to start record function, as following picture:



2. Press [▶] button to display the record info bar when you recording.
3. Press [■] button again to pause the record time.



4. You can press [||] button to pause the video.
5. You can press [◀] or [▶] button to Fast Backward or Fast Forward.
6. Press [←] or [→] button to jump to different position.
7. Press [■] button to stop the recording.

b) Exit

Press [EXIT] key can exit the current menu to last menu or close the window

quickbar

In full screen press [F1] button to enter

quickbar, like below:



It show weather message, time and state of NET and USB, and has shortcut to enter to "weather" menu. It also has message box.

PICASA

In full screen press [picasa] key to display picasa menu immediate.

SHOUTCAST

In full screen press [shoutcast] button to enter shoutcast menu immediate.

YOUTUBE

In full screen press [youtube] button to show youtube menu immediate.

SPARK

In full screen press [spark] button to enter the spark menu immediate.

HBBTV



When info bar has HBBTV icon, it mean this channel has HBBTV service. First make sure the service is ON in System/Basic Setting/Miscellaneous Setting/HBBTV menu. In these channels, when the message display, press [red] button to enter into the correlative internet point



9 Menu “Channel”

When you press [Menu] key to enter menu, there will display the picture like below:



1. Press [↑/↓] and [←/→] key to select menu pages among channel, Install,, System, CA, Spark, file list,donwload and plug in.
2. Press [ENTER] key to enter the selected item.

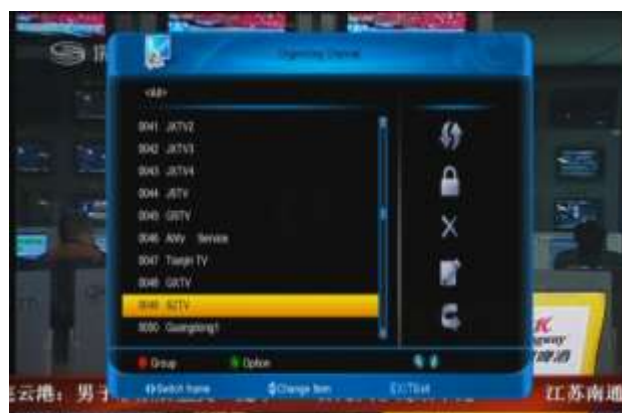


In “channel” menu:

1. Press [↑/↓] key to select menu items among Organizing channel ,Organizing Favourites and Organizing Timer.
2. Press [ENTER] key to enter the selected item.

9.1 Organizing Services

When you enter to “Organizing Channel” menu, there will display the screen like below.



1. You can move highlight by press [↑/↓] keys and press [ENTER] key to confirm to preview the current highlighted program in the left side preview window.
2. You can press [Page+/Page-] keys to implement the Page Up/Page Down function.
3. You can use [←/→] key to switch between list of channels and list of channel edit functions – Move, Lock, Delete, Rename, Skip.

4. Press color key can implement the corresponding function – Group, Options, Find.

5. You can press [Exit] key to enter full screen playing mode.

9.1.1. Move

You can reorder and move the service to the preferred position. Mark the desired services using [ENTER] button, use [→] button to choose Move mode and press [ENTER] button, then use [↑/↓] buttons to move and press [ENTER] button to confirm.

9.1.2. Lock

You can restrain and lock the services. Mark the desired services using [ENTER] button, use [→] and [↑/↓] button to choose Lock mode and press [ENTER] button to confirm.

9.1.3. Delete

You can delete the services. Mark the desired services using [ENTER] button, use [→] and [↑/↓] button to choose Delete mode and press [ENTER] button to confirm.

9.1.4. Rename

Mark the service you want to rename, use [ENTER] button to select one Rename item, use [→] and [↑/↓] button to choose rename icon and press [ENTER] button to display keyboard, and rename it. After renaming it press [red] button on keyboard to save.

9.1.5. Skip

You can restrain and Skip (hide) the services. Mark the desired services using [ENTER] button, use [→] and [↑/↓] button to choose Skip mode and press [ENTER] button to confirm.

9.1.6. Group (RED)

It is very useful to select services with different Groups.

9.1.7 Options (GREEN)

It is very convenient function to Mark the desired services with different options.

Find

It is an item to locate certain service by name quickly. Press [Q] button to display the “Channel Find” submenu, use keyboard to enter service name and press [red] button to complete input and select the desired services.

9.2 Organizing favourites

When you enter to “Organizing favourites” menu, there will display the screen like below.



1. You can move highlight by press [↑/↓] keys in the left and right side list window.
2. You can press [Page+/Page-] keys to implement the Page Up/Page Down function.
3. You can use [←/→] key to switch between list of all channels at the left, list of channel in actual selected FAV list at the right and edit functions in the middle of the screen – Add, Remove, Move, Rename.
4. Press color key to implement the corresponding function – Group, Options, Find (described in previous chapter).
5. Press FAV(FAVORITE) key when cursor is active in left or right window, to choose actual FAV list.
6. You can press [EXIT] key to enter full screen playing mode.

9.3 Organizing Timer

In "Organizing timer" menu, there will display the screen like below.



1. You can move highlight by press [\uparrow/\downarrow] keys and press [ENTER] key to confirm to the desired items.
2. Press color key to implement the corresponding function —Delete, Edit, New.
3. You can press [EXIT] key to enter full screen playing mode.

When you enter to "timer configuration" Menu, you will see a screen like below:



1. Number: Display the order of current item.
2. Service : Show the channel, if you want change, press [ENTER] key.
3. Event name: Show event default name, you also press [red] key to rename it.

4. Start date: Show start date of event, you can press number keys to change it.
5. Start time: Show start time of event, you can press number keys to change it.
6. End date: Show end date of event, you can press number keys to change it.
7. End time: Show end time of event, you can press number keys to change it.
8. Repeat: Show the event transact times, press [left/right] key to switch among once, everyday, a week, workday, weekend.
9. Timer mode: Type of the event, it has change service and HDD record.

10 Menu "Installation"

When you enter to "Installation" menu, there will display the screen like below:



10.1 Satellite Installation

10.1.1 Satellite

1. Satellite: Press [ENTER] key to enter the Satellite list.



2. Press [\uparrow/\downarrow] key to select satellite. Press [Page+/Page-] key to page up or page down.

10.1.2 LNB

In this item, press [\leftarrow/\rightarrow] to switch among "C-Band(5150)", "KU Band(11300)" "One Cable L", "One Cable H", "Uni(9750/10600)", "Uni(9750/10750)", "Low Band(9750)", and "High Band(10600)" mode.



10.1.3 DiSEqC

DiSEqC: You can use [\leftarrow/\rightarrow] key to switch options. There are several options for your selection:

- OFF: without DiSEqC.
- 1/4, 2/4, 3/4, 4/4: 4 ports DiSEqC
- 1/16, 2/16....16/16: 16 ports DiSEqC

10.1.4 Motor

Motor: In "Motor" item, you can press [\leftarrow/\rightarrow] key to switch "OFF / DiSEqC 1.2 / USALS" Functions.



10.1.5 22K

You can use [\leftarrow/\rightarrow] key to switch "ON / Off". When this item is switched to "ON", receiver will receive TV and radio input signal from 22K port. If the item is switched to "Off", the receiver will receive all signal from 0K port.

Note:

When you choose LNB type "Universal", you cannot modify 22K.

10.1.6 0/12V (Optional)

You can use [\leftarrow/\rightarrow] key to switch "0V / 12V". When this item switches to "12V", receiver will receive TV and radio input signal from 12V port. If the item switches to "0V", the receiver will receive all signals from 0V port.

10.1.7 My Longitude

In "Toneburst" item, you can press [\leftarrow/\rightarrow] key to switch "E/W" functions.

10.1.8 Power

In "Polarity" item, [\leftarrow/\rightarrow] key to switch or press [ENTER] key to enter list for selection among "OFF", "13", "18", "13/18", "13.5", "18.5" and "13.5/18.5".

10.1.9 Satellite

In “Satellite” item, press [←/→] key to switch satellite that you want to scan or press [ENTER] key to enter satellite list for selection.

10.1.10 Edit TP

When you enter to “Edit TP” menu, there will display the screen like below:



1. In “Transponder” menu, you not only can use [↑/↓] key to select transponder but also can use [Add] and [Delete] functions.

- When you press [GREEN] key, it will display “New TP” in “Transponder” menu; You should set the parameters of “Frequency” and “Symbol Rate” for this new transponder. The parameters of “TP Frequency” and “Symbol Rate” can set by number keys. The available range are “3000~13450 MHz” and “1000~45000Ks/s”.
- When you press [yellow] key, it will display Edit TP menu, you could reconfigure the parameters of TP
- When you press [blue] key, there will show up a warning message for reminding whether you will delete the current transponder or not. If you select “Yes”, the current transponder will be deleted, and the total account of transponder will reduce 1 correspondingly.

2. For the existed transponder, you also can use number keys to modify the parameters of “TP Frequency” and “Symbol Rate”.

3. When you complete your modification, Press [RED] key, it will show up a dialog to ask you scan mode, program type, scan type and NIT Search on/off. After you set up, press [ENTER] key to start scanning.

4. In the “TP Scan” item, press [EXIT] key to exit the scanning and save the current parameters.

10.1.11 Single Scan

1. Press [RED] key, it will show up a dialog to ask you scan mode (means you want to scan all channels or only scan free channels), program type (means you want to scan all channels or only scan TV/Radio channels), scan type (means preset scan, that is searching the existed TP. Automatic Scan means blind scan. It is no need existed TP info) and NIT Search on/off. After you set up, press [ENTER] key to start scanning.

10.1.12 Auto Diseqc

This function will try to analyze Your dish/LNB configuration and automatically scan for founded settings.



11 Menu “System”

When you enter to “system” menu, you will see the screen like below:



11.1 In “system” menu:

1. Press [↑/↓] and [←/→] keys to select menu items among basic setting, PVR/HDD setting, Net setting, upgrade and them's submenu
2. Press [ENTER] key to enter the selected item.
basic setting

11.1.1. Language

When you enter to “Language” menu, you will see the screen like below:



1. Menu Language: Press [←/→] keys to select OSD menu language.
2. Audio Language: Some channels have more than one audio language for choosing; by this function you can set the first audio for this channel. If the playing channel has the

same audio as the “First Audio” you set, system will play this audio language as default. If the channel hasn't the suited audio language, then the default language of current channel will be played automatically. The selections of audio languages include: English, French, German, Russian, Arabic, Portuguese, Turkish, Spanish, Polish and Italian.

3. Audio Priority: You can select the Audio Priority among Dolby and Language. If Dolby mode is selected, AC3 audio track will be played even if track language not correspond to selected one in above functions – First and Second Audio.

4. EDV Language: Press [←/→] keys to select EPG language.

5. Subtitle Language: It is an item for changing the language of the Subtitle. As long as the services support it, the Subtitle language is changeable by subtitle menu on full screen.

The supported language can be changed without any notice.

6. Teletext Language: Press [←/→] keys to select TXT language.

As long as the services support it, the Teletext language is changeable by teletext menu on full screen.

The supported language can be changed without any notice.

7. Subtitle display: Press [←/→] keys to select subtitle display model. if set "auto", it will automatically display subtitle in has subtitle stream, or it need press [yellow] key and select subtitle to display.

8. You can press [EXIT] key to enter full screen playing mode.

11.1.2. Parental Control

You can set a password for anyone who wishes to operate in the “Installation” menu. And you can also set the password for the lock channels. (How to set the lock channel please refer to LOCK) Here will show you how to setting and how to revising the password.

1. In “Parental Control” function,if "Parental Lock" is ON, press [ENTER] key, there will pop an dialogue for you to input the password. When you input the correct password, you will see a screen like below:



2. Parental Lock determining that when user wish to enter menu, whether have to input Password or not. If the setting of “Parental Lock” is “Yes” which means user have to key in password, set “No” means unlock.
3. Censorship Classification Lock determining that when user wish to lock channels, If the setting is “view all”, play channels not need password. If it setting "lock all", play channels with password. Setting 7,12,15,18,these are determining that different stream,whether have to input password.
4. Time control is "off",it not need password to play channel.if it setting "on",channels are not need input password in allow time,or all channel are need input password to watch.
5. New Password is used for revising password; you can input the new password in

this item by using number keys directly. After you filled in 4 digital numbers, the highlight will auto skip to Confirm Password and ask you to input the new password again. If the password is correct, the screen will show up a message of “Change password successfully”.

6. You can press [EXIT] key to enter full screen playing mode.

11.1.3. Time setting

When you enter to “Time Setting” menu, you will see the screen like below:



1. Auto update:this item is use setting date and time of STB.if it setting "on",the time as the same with current channel.or it need manual setting date and time.
2. GMT Offset: This item is valid only when the setting of “auto update” is “On”. You can press [←/→] keys to switch “GMT Offset” value, and the range is “-12:00 ~ +12:00”, increase each half hour progressively.
3. Summer: You can press [←/→] to control Summer time on or off.
4. Date and Time: items are valid only when the "auto update" setting is "off". You can use number keys to input directly.

If the current channel provides the correct time information, you will see the current time while you enter “Time” menu. If the channel doesn’t provide time information, you have to input the date and time information manually.

5. Wake up/sleep: Config the STB turn on and off.If these are setting on,the stb will turn on/off at the wake up time/sleep time.if set wake up channel,it turn on at the channel, or it at the last channel before stb turn off.
6. Press [EXIT] key to draw back from "Time Setting" menu.

11.1.4. A/V Output

When you enter to "A/V Output" menu, you will see the screen like below:



1. User can switch display resolution in view mode using [V.FORMAT] button. Also Display Mode is for switching the system outputting video resolution. Move highlight on it and press left or right key, it will switch video resolution circularly by the sequence " 480<-> 576<-> 720<-> 1080<-> Auto N/P". Auto N/P means system will set the video output resolution according to the program it's playing, different resolution programs switching perhaps will makes TV screen flickering.
2. Screen ratio is for switching the screen aspect ratio mode. Now we provide below options: 4:3 / 16:9/ Auto. You can press [←/→] key to select each mode circularly. 16:9 will provide user pillar box mode it means user use 16:9 TV to display but need to see a 4:3 full display picture. System will force press wide

screen picture to be narrow and there're black band on left and right site. Auto means system won't do any aspect ratio translation, 16:9 picture source will be good display on a 16:9 TV but will be too narrow on a 4:3 TV, and 4:3 picture source will be too wide in a 16:9 TV but will be good display in a 4:3 TV.

3. Video Output: Press [←/→] to select CVBS or RGB.
4. Conversion :Press [←/→] to select LETTER_BOX, PAN_SCAN, COMBINED or IGNORE.
5. SPDIF is for setting the both SPDIF and PCM audio output mode, it has options PCM and Auto. You can press [Left/Right] Key to select each mode circularly. PCM Out means system will decode no PCM audio track data to be PCM, digital audio decoder or HDMI TV will get PCM digital audio data. Auto means system will detect which the connected HDMI TV can decode and then output that data. If HDMI TV can decode AC3, system just output RAW data, if HDMI TV can decode PCM only, system will just decode AC3 or PCM to be PCM and then output.
6. Press [EXIT] key to draw back from "A/V Control" Menu.

11.1.5. factory default

When you input to "factory default" menu, you will see a screen like below:



1. Load from factory default: When you press [ENTER] key, it displays a warning information, select "yes" to come back factory default.
2. Factory reset: When you want come back the factory default, press [ENTER] key on this item.
3. Save As Factory default: when you want save current database as default database, press [ENTER] key on this item.
4. Delete All Channel: This item is used to delete all channels.
5. Press [EXIT] key to draw back main menu.

? Frequently Asked Question

Q: If I incautiously delete all channels, what should I do?

A: There are two ways to restore:

To re-search all channels in "Installation" function.

Use "Default Value" function to restore all channels in "Tools" function

11.1.6. Miscellaneous setting

When you input to "Miscellaneous Setting" menu, you will see a screen like below:



1. Banner display Time: When you switch channels in full screen, there will show up some information about current channel on the lower of the screen. And regarding to the duration of these information show up on the screen, you can press [←/→] key to set the time. The range of the duration is 1 – 20 seconds.
2. OSD Transparency: You can set the transparency of OSD. You can press [←/→] key to select the values. There are 4 levels of transparency, 25%, 75%, and 100% and "0" (means no transparency function).
3. Remote mode: Enables to set remote mode is RC1, RC2 or RC1\$2.
4. Press [EXIT] key to draw back from the "Miscellaneous Setting" menu.

11.1.7. Conditional Access

When you enter to "Conditional Access"

Menu, you will see a screen like below:



1. Conax: Control conax block whether or not useableness.
2. Press [EXIT] key to draw back from the "conditional access" menu.

11.1.8. contact

When you enter to "contact" menu, you will see a screen like below:



1. Name: This item to use note provider's name. Press [ENTER] key to enter to the selected item. Press [ENTER] key to enter to the selected item. press [red] button to confirm.
2. Telephone: This item to use note provider's telephone. Press [ENTER] key to enter to the "contact rename" menu, press numeric keys input number, then press [red] button to confirm.
3. Website: This item to use note provider's website. Press [ENTER] key to enter to the "contact rename" menu, press [up/down] [left/right] key to move highlight and press [ENTER] key to input characters, then press [red] button to confirm.
4. Press [EXIT] key to come back contact.

11.1.9. System information

When you enter to "system information" menu, you will see a screen like below:



1. This menu to show parameters about the STB.
2. Press [ENTER] key to draw back to "system information"

11.2 PVR/HDD Setting

When you enter to "PVR/HDD Setting" menu, you will see a screen like below:

Note:

If no USB Hard Disk insert to the receiver this menu is not available.



1. Press [↑/↓] key to select menu items among HDD Format, USB Speed Testing, Record Setting, Timeshift Setting.
2. Press [ENTER] key to enter the selected item.

11.2.1. HDD Format

In HDD Format menu, you will see a screen like below:



1. Press [red] button and select the file system between win 95 FAT 32 and ext3 ,then press [ENTER] to straight format disk.
2. Press [green] button to partition for the disk then format disk.In this submenu. Press [green] key to add a new subarea. Press [yellow] key to delete a subarea. Press [red] key to save and partiton the disk. The end,press [blue] key to format disk.

Note: If you format the HDD, all the files include JPEG and the record files will be deleted from the HDD.

11.2.2. Usb speed testing

When you enter to "Usb speed testing" menu. You will see the write speed and read speed of you disk, according this information you can know what operation your disk can support. like below:



11.2.3. Record Setting

When you enter to "Record Setting" menu, you will see a screen like below:



1. Record Path: Using change path of record file save.
2. Duration: Press [left/right] key to switch the time of the record.
3. Extend record time: Using add time for the record at the first and end.Press [left/right] key to switch the time.
4. Press [EXIT] key to come back.

11.2.4. TimeShift Setting

When you enter to "TimeShift Setting" menu, you will see a screen like below:



1. Enable: Press [left/right] key to switch on or off. If it on, this function automatism run when in full screen or change channel.Or this function is fofbid.
2. TimeShift Path: Using change the path of timeshift file save.

3. Time: Press [left/right] key to set timeshift time.
4. Press [EXIT] key to come back the "pvr/hdd setting" menu.

11.3 Net setting

When you enter to "Net setting" menu, you will see a screen like below:



1. DHCP: Press [left/right] button to set it on or off. If it on, stb will auto get the IP, network mask, gate way and DNS in has DHCP function net. Or it need manual config with number keys.
2. Press [EXIT] key to come back.

11.4 Upgrade

When you enter to "Upgrade" Menu.

1. Press [↑/↓] key to select menu items between backup system to hdd and upgrade from USB.
2. Press [ENTER] key to enter the selected item.

11.4.1. Backup system to HDD

When you enter to "Backup system to HDD" menu, you will see a screen like below:



1. type: It the type of the backup file. Press [left/right] key to change among App, Database and App+Database.
2. Path: It the place of the file save. Press [ENTER] key to switch it.
3. Name: Press [ENTER] key to rename for the file.

11.4.2. Upgrade from USB

When you enter to "Upgrade from USB" menu, you will see a screen like below:



In this menu you can select the Upgrade type among app (no channel list), database, app + database. You can select the appropriate upgrade file on "Upgrade type" item. After you select the "Upgrade type" and "folder", press [red] button, the receiver can upgrade automatically.

If you want come back to factory default, press [green] key.

12 Menu “Conditional Access”

1. When you enter to “Conditional Access” menu, you will see a screen like below:



Receiver provide one CA slot for user to use. Receiver has build in smart card module with CONAX system. By using cards in this system provided by operators, it is possible to watch many scrambled channels coded in this system. This menu shows detailed information about card inserted into card reader module. It allows inserted according to help messages visible on the bottom of the screen.



Note:

All information showed in this menu and submenu are coming from inserted card. In case if anything is wrong, it could be card problem. After inserting the card correctly at any time, a message-box will show on the screen with message about detecting the card, in "card info" menu all available information will be displayed.

13 spark

In main menu, choose spark icon and press [ENTER] button to enter to online menu. Press [ENTER] button to enter child menu. Press [up/down] button to switch item.



13.1 message

When you enter to “message” menu, you will see a screen like below:



You can see the message list. Press [ENTER] button to see the information of the message that the highlight message. Press [red] button to sort messages. Press [green] button to delete message. Press [yellow] button to delete all messages in list.

13.2 Upgrade software

When you enter to “Upgrade software” menu, you will see a screen like below:



Press [left/right] button to switch the type in software list and database list.

Press [up/down] button to choose item.

Press [red] button to upgrade with choose item.

Press [ENTER] button to display information of highlight item.

13.3 Weather forecast

When you enter to “Weather forecast” menu, you will see a screen like below:



Press [left/right] button to switch date.

Press [up/down] button to change city.

Press [red] button to update the data

Press [green] button to add city.

Press [yellow] button to delete the current city.

Press [blue] button to change units.

13.4 Faq

When you enter to “Faq” menu, you will see a screen like below:



Press [left/right] button to switch frame.

Press [up/down] button to change item.

Press [ENTER] or [play] button to download and play video at has video item.

13.5 User manual

When you enter to “User manual” menu, you will see a screen like below:



Press [left/right] button to switch item.

Press [up/down] button to change item.

Press [ENTER] button to play picture at right column.

13.6 Manage user

When you enter to “Manage user” menu, you will see a screen like below:



Press [ENTER] button to enter edit name, telephone, addresser, email, language.

Press [red] button to login and save.

Press [green] button to setup sth.

Press [yellow] button to clear online data and reboot.

14 Menu "file list"

If you enter to the "file list" Menu, you will see the picture like the below:



Note:

If no USB Hard Disk insert to the receiver this menu is not available.

14.1 File List

In this menu you can check the files and folders of the USB storage, and you can view files from 6 categories: Music, Record, picture, movie, Software, All.

14.2 Storage Information

Press [ENTER] button to enter the HDD

Information menu like the below picture, in this menu you can see the details information about the HDD.



If you want to change the type of the file list display. press [red] button.

Press [green] key to sort for the file list.

Press [yellow] key to delete the files that you want.

In software file, press [blue] key to upgrade.

Press [find] key to find the file.

15 Menu "download"

In main menu, choose download icon and press [ENTER] to enter to download menu.

15.1 Browse server

Press [red] button to switch among browse server, downloading list and downloaded list.

Press [green] button to select the server or file.

Press [yellow] button to config the max number of allow download.

When you enter to "browse server /server list" menu, you will see a screen like below:



Press [right] button to select connect icon, and press [ENTER] button to connect the server that you select.

Press [right] button to select add icon, and press [ENTER] button to enter to add server menu. and do next

Press [right] button to select delete icon, and press [ENTER] button to delete the server that you select

Press [right] button to select edit icon, and press [ENTER] button to edit the server that you select, then do next.

When you enter to "In browse server /file list menu" menu, you will see a screen like below:



Press [right] button to select disconnect icon, and press [ENTER] button to disconnect the server.

Press [right] button to select refresh icon, and press [ENTER] button to refresh the file list.

Press [right] button to select connect icon, and press [ENTER] button to connect the server

that highlight.

Press [right] button to select download icon, and press [ENTER] button enter to "information" menu, then do next and press [red] button to confirm.

Press [info] button or press [right] button to select info icon, and press [ENTER] button to display the information of the file that you highlight

15.2 Downloading list

When you enter to "Downloading list" menu, you will see a screen like below:



Press [right] button to select start icon, and press [ENTER] button to start download the role that you select

Press [right] button to select stop icon, and press [ENTER] button to stop download the role that you select

Press [right] button to select delete icon, and press [ENTER] button to delete download the role that you select

Press [info] button or press [right] button to select info icon, and press [ENTER] button to display the file that highlight.

15.3 Downloaded list

When you enter to "Downloaded list" menu, you will see a screen like below:



Press [right] button to select delete icon, and press [ENTER] button to delete the role that you select

Press [info] button or press [right] button to select info icon, and press [ENTER] button to display the file that highlight.

16 Menu "Pulg in"

This menu is allow user install software by self. It support the number of software by the hardware. It only has a calculate at first. When you enter to "pulg in" Menu, you will see a screen like below:

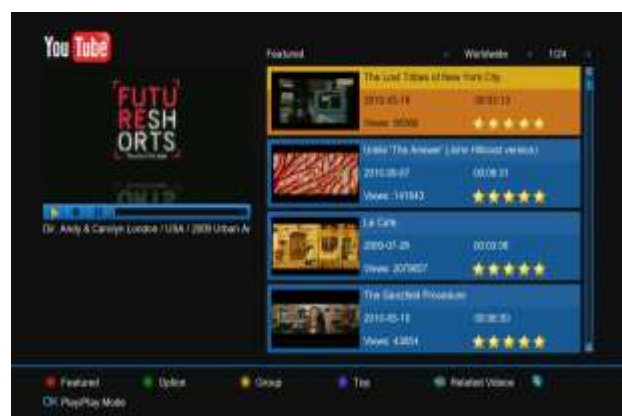


1. Press [up/down] and [left/right] keys then press number and color keys to input Pree [ENTER] key to enter calculate interface at "calculate" Item.
2. press [ENTER] key to input you need, or immediacy.
3. If you need clear input, press [EPG] key.
4. Press [EXIT] key to come back.

17 Menu "Net working"

17.1. youtube

This menu is some internet applications. "youtube" can play stream media in "www.youtube.com". When you enter to this menu, you will see a screen like below:

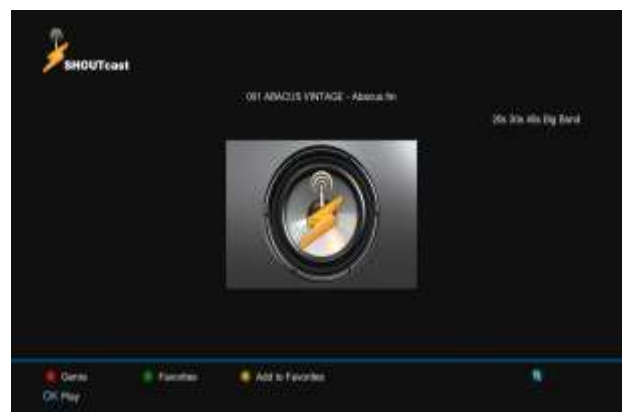




1. Press [up/down] key to move highlight.
2. Press [ENTER] key on one item, it will be play pertinent video. The video will show on top left corner. Press [ENTER] again, it only has video in mid of screen. Now press [zoom] key, the video will play in full screen.
3. Press [vol+/vol-] to control volume.
4. Press [pause] key to pause video, or press [stop] key to stop play.
5. Press [red] key to display the featured video.
6. Press [green] key to sort of site and duration. The site has Germany, worldwide, Poland and so on. Duration has all time, this week, this month and so on.
7. Press [yellow] key to switch group. These are game, news, tech, move and so on.
8. Press [blue] key to display the top video. These are top favourites, top rated, most views, most recent and so on.
9. Press [REC] key to display relate videos about the highlight video.
10. Press [FIND] key in full screen can open the "Find" window. You can press then press number keys to input the select [←,→,↑,↓] keys to move highlight and press [ENTER] key or press [F1] key to switch keyboarded symbol or letter into the dialogue. Then press [red] key to find.

17.2. Shoutcast

This menu is radio in "www.shoutcast.com", when you enter to this menu, you will see a screen like below:



1. Press [up/down] key to move highlight.
2. Press [ENTER] key to play the audio.
3. Press [vol+/vol-] to control volume.
4. Press [stop] or [EXIT] key to stop radio.
5. Press [red] key to switch class.
6. Press [yellow] key to add highlight item to favourite.
7. Press [green] key to show favourite radio.
8. Press [yellow] key in favorites menu to delete the highlight favourite radio.
8. Press [find] key to find radio.

17.3. Picasa

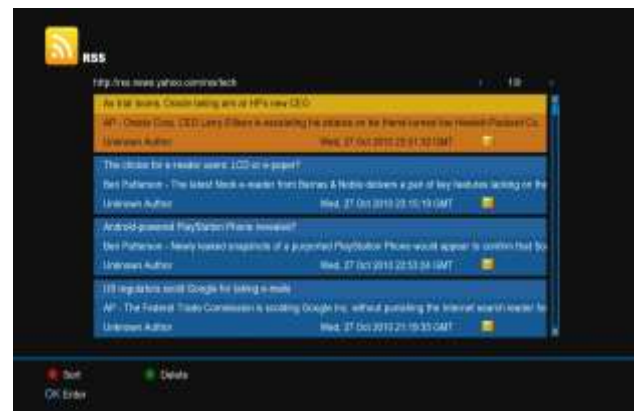
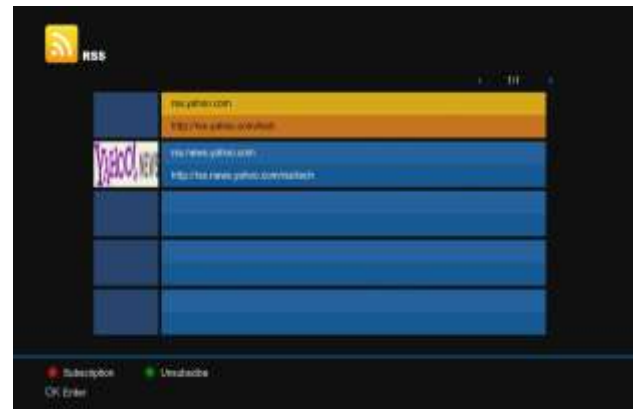
This menu is picture in "www.picasa.com", when you enter to this menu, you will see a screen like below:



1. Press [up/down] key to move highlight.
2. Press [ENTER] key to show the picture in full screen.
3. Press [left/right] key to switch picture.
4. Press [EXIT] key to come back.
5. Press [red] key to show the featured pictures.
6. Press [green] key to show the user's album of the highlight picture.
7. Press [yellow] key to display the album of the highlight picture.
8. Press [find] key to find picture.

17.4. Rss

This menu is display rss web. When you enter to this menu, you will see a screen like below:



1. Press [red] key to add rss web.
2. Press [green] key to delete the rss web of highlight.
3. Press [up/down] key to move the highlight.
4. Press [ENTER] key to display the summary of the new that highlight.
5. Press [EXIT] key to come back.

17.5. Opera

This menu is a Browser.

1. Press [ok] button to enter into. It default have several internet point.
2. Press [▲, ▼] buttons to select one point.

3. Press **[ok]** button to connect and display the information.



Switch Layout

Press **[yellow]** button to switch layout.



Navigation Menu

1. Press **[PORTAL]** button to display the navigation menu.



2. Press icon to display the default internet point.



3. Press icon to display a browser, you can use it like IE.



4. Press icon to make browser to display front internet point that you linked.



5. Press icon to make browser to display next internet point that you linked.



6. Press icon to refresh the information.



7. Press icon to startup/cancel soft keyboard.



8. Press icon to startup/cancel mouse.



9. Press icon to exit spark portal.

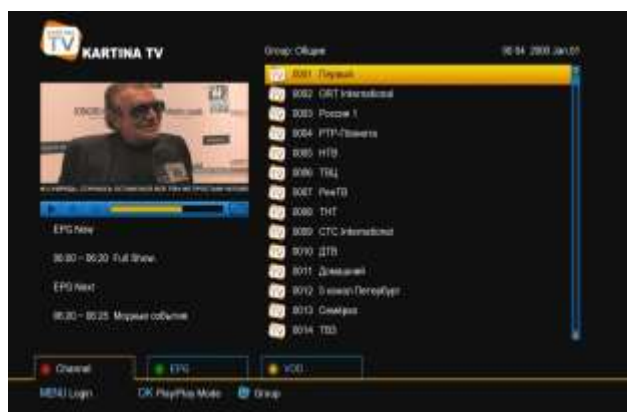
17.6. Kartina TV

This menu is play video on "www.kartina.tv".

1. Press **[red]** button to display channel list.

2. Press **[green]** button to display the channel EPG list.

3. Press **[yellow]** button to display the VOD list.



Switch Group/Service

1. Press [folder] button to display the group menu.
2. Press [▲, ▼] buttons to choose a group/Service.
3. Press [ok] button to confirm.



Switch Date/Type

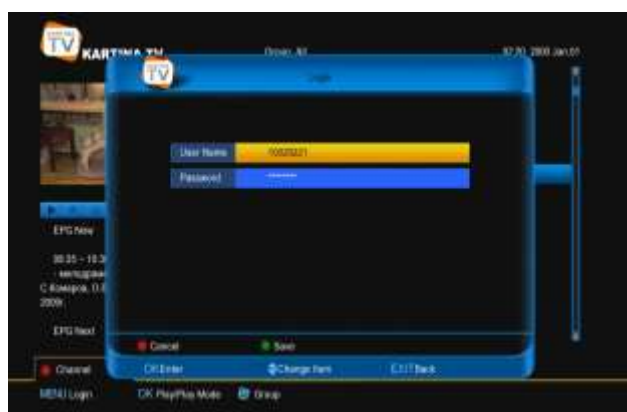
Press [◀, ▶] buttons to switch date/type.

Display the information at VOD list.

Press [INFO] button to display the information about the video.

Login

1. Press [menu] button.
2. Input User Name and Password.
3. Press [green] button to save and login.



Play Video

1. Press [▲, ▼] buttons to choose an channel.
2. Press [ok] button to play it.
3. Press [ok] button again to play it in full screen.

18 Trouble Shooting

If you suspect there is a fault with your receiver, please check the following trouble shooting guide before calling authorized service agent.

Warning! Under no circumstances attempt to repair the receiver yourself. Tampering with the receiver may result in fatal electric shock and will invalidate your warranty.

Symptom	Possible cause
Settings you made in the menu have not change	The receiver lost power before being able to enter into standby mode Some of the Settings saved by user can be deleted partly or fully
No signal	The level of signal is weak LNB is out of order The cable from the LNB or Terrestrial is incorrectly Connected (short circuit or open circuit) The position of dish is aligned incorrectly
Receiver is on but no picture or sound except the following messages (NO TV program)	Channel is not available Channel is scramble
Receiver not responding to remote control unit	RCU batteries are dead or inserted incorrectly The RCU is pointing toward wrong direction
Poor picture Quality	The level of Signal strength is low
No sound	The cable is connected incorrectly The Volume level is low Muting function is active
No display on the LED Display	The power cord is not plugged in correctly.
No picture on the screen	Receiver is in Standby mode RCA Jack or cable is not connected firmly to the video output port of television Incorrect channel or video output is selected on television Brightness level of your TV set is incorrectly defined

19 Specifications

SYSTEM RESOURCES	
Main Processor	450M Hz based CPU
Flash Memory	Nor flash:8MB X 1 ; Nand flash:512MB X 1
DDR SDRAM	DDR2 128MB x 2
Tuner/Front-end(Optional)	
Tuner Type	DVB-S / DVB-S2
Input Connector	F-type, Connector, Female
Loop Through	F-type, Connector, Female
Signal Level	-65 to -25 dBm
LNB Power & Polarization	Vertical: +13V/+14V
	Horizontal: +18V/+19V
	Current: Max. 500mA
	Overload Protection
22KHz Tone	Frequency: 22±1KHz
DiSEqC Control	Amplitude: 0.6±0.2V
	Version 1.0, 1.1 1.2, USALS Available
Demodulation	QPSK, 8PSK
Input Symbol Rate	2-45 Mbps, Convolution Code Rate
	1/2, 2/3, 3/4, 5/6,7/8,1/4,1/3,2/5,3/5,4/5,8/9,9/10 and Auto
POWER SUPPLY	
Input Voltage	Free Voltage (100~240V AC, 50/60Hz)
Power Consumption	20W MAX
MPEG TS A/V Decoding	
Transport Stream	MPEG-2, H.264
Input Rate	Max.120Mbit/s
Aspect Ratio	4:3, 16:9, Letter Box
Video Decoding	MPEG-2, MP@ML, MPEG-4 part 10/H264
Video Resolution	720*480P/I, 720*576P/I, 1280*720p,1920*1080i, 1920*1080p
Audio Decoding	MEPG-1 layer I/II, Mpeg2 layer II, Dolby digital
Audio Mode	Left / Right / Stereo/ Mono
Sampling Rate	32, 44.1 and 48KHz
A/V & DATA INPUT/OUTPUT	
TV-SCART	Video CVBS/RGB output
	Audio L/R output
RCA A/V	Video CVBS output
	Audio L/R output
S/PDIF	Coaxial, Digital Audio or Dolby Digital Bit Stream Output
RS-232C	Transfer rate 115.2Kbps
	9 pin D-sub Type
RJ-45	10M/100M
USB	One USB 2.0 slot Compatible for Host
HDMI	VER1.2
	Type A
PHYSICAL SPECIFICATION	

Specifications

Size[W*H*D]	220mm*46mm*169mm
Net Weight	1.2KG
Operation Temperature	0℃~+45℃
Storage Temperature	-10℃~+70℃
Storage Humidity	5%~95% RH (Non-Condensing)