

FREE TO CHOOSE INNOVATIONS



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**User's Manual (English)**



## Safety Precaution

This STB has been designed and manufactured to satisfy the international safety standards. Please read the following safety precautions carefully before operating this receiver.

### **Main Supply:**

Before operating, please check the units operating voltage is 200-240V AC 50/60Hz.

### **Overload:**

Do not overload a wall outlet, extension cord or adapter, neither use damaged power cord or touch it with wet hand as this may result in electric shock.

### **Liquid:**

The receiver shall not be exposed to dripping or splashing water, and that no objects filled with liquids, such as base, shall be placed on the apparatus.

### **Ventilation:**

Keep the slots on top of the receiver uncover to allow sufficient airflow to the unit. Do not put the receiver on soft furnishings or carpets. Do not expose the receiver to direct light or do not place it near a heater or in humid conditions. Do not stack other electronic equipments on top of the receiver.

### **Cleaning:**

Plug out the receiver from the wall outlet before cleaning. Clean the receiver by a soft cloth or mild solution of washing-up liquid (no solvents).

### **Connection:**

Disconnect the receiver from the mains when you connect it to satellite LNB or disconnect it from LNB. Failure would possibly cause damage to the LNB.

### **Location:**

Put the receiver indoor in order to avoid lightening, raining or sunlight.

### **Uncover:**

Do not remove the cover, to reduce the risk of electric shock. Contact qualified and licensed service personnel to repair the receiver, or contact your dealer.



# 1. Reference

## 1.1 *General Features*

DVB-S/DVB-S2 Satellite Compliant (MPEG-II/ MPEG-IV/ H.264)

SCPC & MCPC receivable from Ku and C band satellites

Universal, Single, Single S & C Band Wideband LNB

Sensitive Tuner

Unicable Supported

Blind Scan supported

PAL/NTSC Conversion

8 bits Color on screen display (OSD)

Storing memory: 64 satellite, 3000 transponders and 5000 channels

8 favorite groups

Parental lock supported

Multi-language menu supported

Multi-language audio supported

Multi-language DVB Subtitle output

Electronic Program Guide (EPG)

Teletext

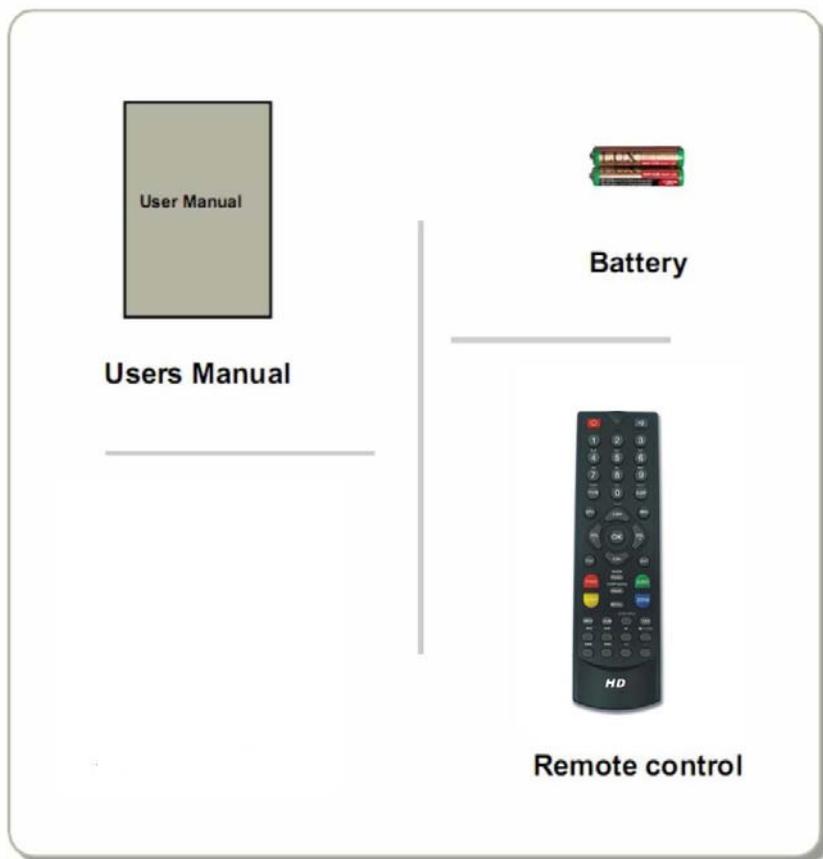
USB 2.0 Interface



## **1.2 Accessories**

1x Users manual

1x Remote Control Unit



**Figure 1.Accessories**



## 2. Product Overview

### 2.1 Front Panel



1. **Power LED**  
Power indicator

Figure 2. Front Panel

2. **Power button**  
Switch between operation and standby modes.

### 2.2 Rear Panel

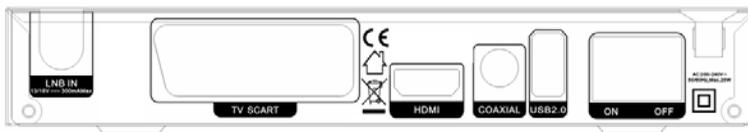


Figure 3. Rear Panel

1. **LNB IN**  
Connect the satellite antenna cable.
2. **HDMI**  
Connect to the TV using an HDMI cable. (preferred)
3. **SPDIF**  
Digital Audio output (Optical).



#### 4. USB2.0

One USB 2.0 Host Port.

#### 5. TV SCART

Connect to the TV using a SCART cable.

### 2.3 Remote Control Unit (RCU)

1.  Power button
2.  Mute button
3. **NUMERIC KEY** (0~9): Enter a TV/radio channel number or menu option number
4. **TV/R**: Switch between TV and RADIO
5. **SLEEP**: Set the sleep time
6. **EPG** (Electronic Program Guide): Display the program guide
7. **MENU**: Activate main menu
8. **CH▲ /CH▼**: Changes program
9. **VOL◀ /VOL▶**: Change volume in viewing mode.
10. **OK**: Confirm
11. **FAV**: Display favorite channel list
12. **EXIT**: Exit current menu step by step
13. **FIND**: Quickly find channels which you want
14. **AUDIO**: Display the audio list
15. **DISP**: Set the HDMI mode
16. **ZOOM**: Picture zooming function
17. **P▲/▼** : Page up/down
18. **MARK**: Mark a position when play





19. **JUMP MARK**: Jump to the marked position
20. **RECALL**: Switch to the previous viewed channel
21. **INFO**: Display the program information
22. **SUB**: Display the subtitle language list
23. **DVR INFO**: Display the information of the video and the recording
24. **TXT**: Display the teletext
25. **◀◀**: Fast rewind
26. **▶▶**: Fast forward
27. **▶**: Play
28. **■/USB**: Enter USB menu or stop playing or recording
29. **I◀◀**: Previous
30. **▶▶I**: Next
31. **II**: Pause/Step
32. **●**: Record



### 3. Connection with Other Device

The following diagram shows you the connections among receiver, TV, LNB and other equipment.

#### 3.1 Connecting to TV

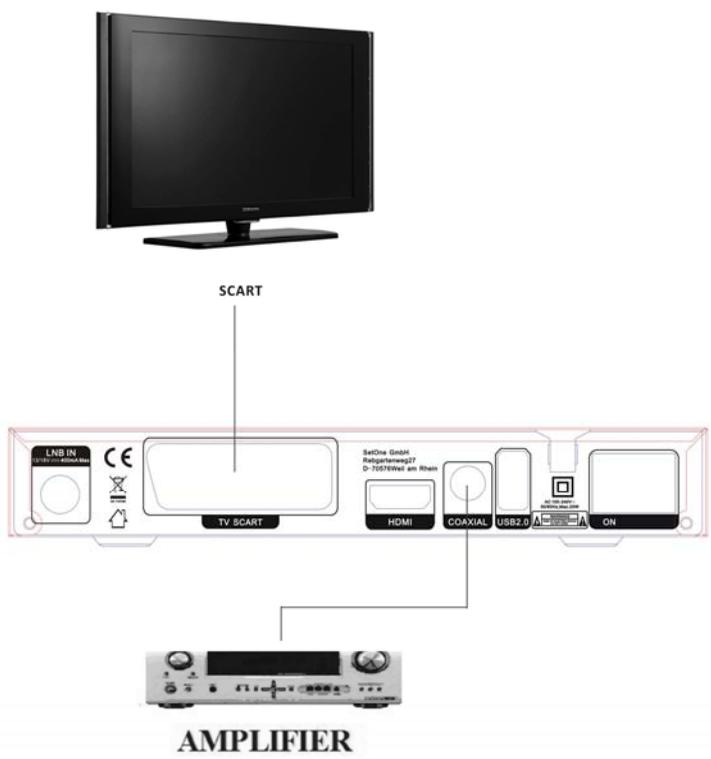


Figure 5. Connecting to TV & VCR



### 3.2 Connecting the Antenna

You can connect one fixed dish LNB directly to the LNB IN, or connect at least two dishes LNB by DiSEqC Switch.

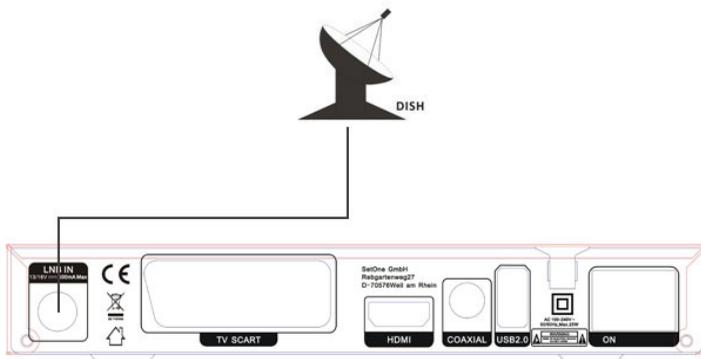
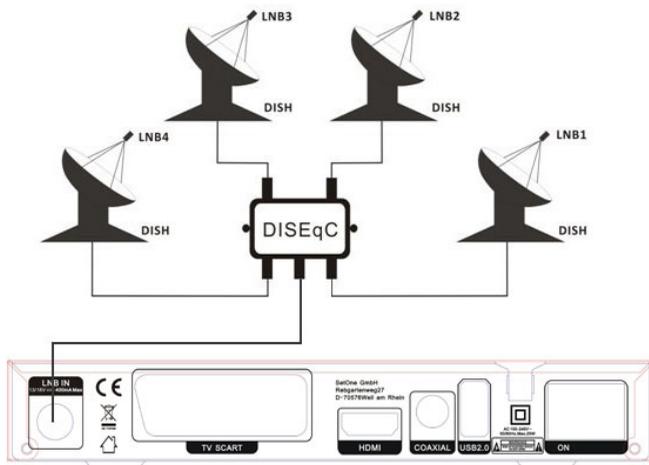


Figure6. Connecting to Dish LNB



**Figure7. Connecting to Dish LNB**



## 4. Installation

Please connect all cable before powering on your product for the first time after purchase.

**Tip:** The default password is **0000**.

### 4.1 Powering On

1. Connect the power cord of the product to a wall outlet.
2. Ensure the **ON/OFF** switch at the rear of the product is switched to **ON**.
3. Power on by pressing the **STANDBY** button on the remote control or the **STANDBY** button at the front of the product.

### 4.2 Antenna Connection

**Antenna Connection** allows you to configure the antenna using only one LNB or Motor.

**Menu->Installation->Antenna Connection**

When select **Motor Antenna** here, you can set the DiSEqC1.2 or Motor in Antenna Setup.

### 4.3 Antenna Setup

**Antenna Setup** allows you to configure the antenna setting parameters.

**Menu->Installation->Antenna Settings**

1. **Satellite:** Select the satellite you want to configure.
2. **LNB Freq:** Press the **VOL+/VOL-** button to change the LNB frequency.
3. **Transponder(TP for short):** Press the **VOL+/VOL-** button to change the TP.
4. **DiSEqC 1.0:** Press the **VOL+/VOL-** button to select the required DiSEqC1.0 input.





5. **DiSEqC 1.1:** Press the **VOL+/VOL-** button to select the required DiSEqC1.1 input.
6. **22kHz:** Press the **VOL+/VOL-** button to select **ON, OFF**.
7. **Polarity:** Press the **VOL+/VOL-** button to select horizontal, vertical or auto.

**Recommendation:** Use the option Auto!

### 4.3.1 Antenna Setup for DiSEqC 1.2

1. Select **Motor Antenna** in **Antenna Connection**.

2. Enter **Antenna Setup**, navigate with the arrow key DOWN to the **Motor Type** option and select the DiSEqC1.2 by **VOL+/VOL-** button.

3. Navigate with the arrow key DOWN to the **Motor Setting** option and press the OK button.



#### **Motor Setting**

➤ *Satellite/ Transponder*

Select a Satellite and a Transponder.

➤ *Position No. & Save*

Press the **VOL+/VOL-** button and select one of the 64 settings (0 to 63). You also can press the numeric keys directly to input the Position No.

➤ *Go to x*

Press the OK button and select one

of the 64 settings (0 to 63). Confirm your selection with the OK button and it appears a message on the screen "Wait to move the position!"

➤ *Save*





You can press **VOL+/VOL-** button to move the dish and when it move to the correct position, you can press the **OK** button to save the position.

➤ *Recalculation*

You can press **OK** button to recalculate.

4. Navigate with the arrow key DOWN to **Delete All**, press ok will delete all satellite positions. This item is only valid in “DiSEqC1.2” mode.

5. Navigate with the arrow key DOWN to Limit Setup, press **OK** button.

### **Limit Setup**

You can set the East/West limit.

Select the East Limit or West Limit

by the **VOL+/VOL-** button. Then

move the highlight to the Limit setup

item and move the dish to west or

east by pressing the **VOL+/VOL-**

button manually. When you are

moving to the target place, press **OK** button to limit.



### **4.3.2 Antenna Setup for USALS**

The operations are almost same to DiSEqC 1.2, only the difference is you can set local longitude and latitude, then the Motor will rotate to the correct angle automatically.

### **4.4 Satellite List**

**Satellite List** allows you to Edit/Add/Delete/Select the satellite.





## **Menu->Installation->Satellite List**

**Note:** Must select a satellite here before doing search.

### **4.5 Single Satellite Search**

**Single Satellite Search** allows you to do a searching on a satellite that is selected in Satellite List.

#### **Menu->Installation->Single Satellite Search**

1. **FTA Only:** Press the **VOL+/VOL-** button to change the searched channels type, only FTA channels or not.
2. **Scan Channel:** Press the **VOL+/VOL-** button to only search TV, radio or both.
3. **Network Search:** Press the **VOL+/VOL-** button to change network search mode.
4. **Scan Mode:** Press the **VOL+/VOL-** button to change the scan mode.



- Auto scan is a fast blind scan and may skip some transponder with weak signal.
- Accurate Scan is a slow blind scan, but may get more transponders
- Present Scan only search stored transponders.

### **4.6 Multi Satellite Search**

**Multi Satellite Search** allows you to do a searching on multiple satellites that are selected in Satellite List. The operations are almost same to Single Satellite Search, please refer to 4.5.

#### **Menu->Installation->Multi Satellite Search**

### **4.7 TP List**

**TP List** allows you to do a searching on a transponder of a satellite that's selected in Satellite List. Also you can Edit/Add/Delete TP here.

#### **Menu->Installation->TP List**



## 5. Edit Channel

### 5.1 TV Channel List

#### Menu->Edit Channel->TV Channel List

**Edit Channels** enables you to move, delete, sort, rename, lock/unlock, skip the channels in the channel list conveniently, and set favorite.

**Tip:** Radio Channels operation similar to the TV Channels.

#### 1. Switch Satellite

Press the **VOL+ / VOL-** button and you can change the satellite selection.

#### 2. Lock/unlock Channels

Use the **CH+ / CH-** keys to the channels and press the **RED** button.



#### 3. Skip Channels

Use the **CH+ / CH-** keys to the channels and press the **GREEN** button.

#### 4. Move Channels

Use the **CH+ / CH-** keys to the channels and press the **YELLOW** button. Then you can using the **CH+ / CH-** keys to move the channel to the new location or using the numeric keys input the number of the position that you want to move to, and press the **OK** button.

#### 5. Edit Channels

Press the **BLUE** button and you can edit the channels. The options are here:

##### ➤ Sort

Press the **RED** button and the sort menu is showed up. Then you can sort channels by (Z-A, A-Z, FTA/Scramble and lock).



### ➤ Delete

You can mark multiple channels with **BLUE** button. Then exit the edit window, you will get a security message asking whether you want to save the operation or not.

### ➤ Rename

Use the **CH+/CH-** keys to the channel and press the **GREEN** button.

## 6. Favourites

Use the **CH+/CH-** keys to select the channel then press the FAV button and use the **CH+/CH-** keys to select a FAV group, then press OK button to confirm.

### 5.2 Delete All

**Menu->Edit Channel->Delete All**



If you select this option, all the channels will be deleted.

## 6. System Setup

### 6.1 Language

**Menu->System Setup->Language**

Enter Language menu, you can set the OSD Language, First Audio Language, Second Audio Language and Teletext Language.





## 6.2 TV System

### Menu->System Setup->TV System

Enter TV System menu, you can set the Video Resolution, Aspect Mode, Video Out and Digital Audio Out.

#### 1. Video Resolution

Here you define the resolution, which is output via the HDMI. The options are 480i / 480p, 576i / 576p, 720p\_50 / 720p\_60, 1080i\_25 / 1080i\_30, 1080p\_50 / 1080p\_60 / 1080p\_25 / 1080p\_30 / 1080p\_24.

**Note:** Please use the native resolution of your TV. To do this, follow the specifications of your TV equipment. E.g. 720p for HD-Ready TV sets or 1080i/1080p for FULL-HD TV sets.

#### 2. Aspect Mode

With this menu you can change the aspect ratio to your TV television, AUTO, 4:3 PS, 4:3 LB, 16:9.

**Note:** In general, allows to 16:9 optimal output. This shows in the correct 4:3 aspect ratio display.

#### 3. Video Out

With this menu you can set to use RGB or CVBS for the video output.

#### 4. Digital Audio Out

With this option you can define the nature of the digital audio output via coaxial audio output.

BS Out Sound is in RAW mode to the coaxial audio output unchanged issued  
LPCM Out Output is in PCM format





### 6.3 Display Setting

#### **Menu->System Setup->Display Setting**

The display settings can set Brightness, Contrast, Saturation. You can press the **VOL+ / VOL-** button to adjust the value.

### 6.4 Local Time Setting

#### **Menu->System Setup->Local Time Setting**

The Local Time Setting contains option for Region, GMT Usage, GMT Offset, Summer Time, Date, Time.

### 6.5 Timer Setting

#### **Menu->System Setup->Timer Setting**

You can setup a View or Record Timer here. Select a timer and press OK button.

#### **Timer Mode**

- Once: only one time.
- Daily: Repeat every day.
- Off: Close this timer.

#### **Timer Service**

- Channel: Will switch to the channel when the timer is started.
- Record: Only if there is a USB device, it will be recorded automatically when the timer is started. And the recorded PVR will be saved in USB device.

#### **Wakeup Channel**

Select the Channel from Channel List.

#### **Wakeup Date**

Input start date of the timer.

#### **On Time**

Set Start time of the timer.

#### **Duration**

Set the timer duration.





## **6.6 Parental Lock**

### **Menu->System Setup->Parent Lock**

#### **1. Menu Lock**

Menu Lock determines that when users wish to enter “Edit Channel/Installation/Tools” menu, whether have to input Password or not.

#### **2. Channel Lock**

Channel Lock determines that when users wish to play the lock channels, whether have to input the password or not.

#### **3. New Password**

New Password is used for change the password. You can input the new password in this item by using numeric keys directly.

#### **4. Confirm Password**

After you finished the New Password, 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 “Saving Data, Please wait...”. After finish saving and back to “system Setup” menu, the password is changed.

## **6.7 OSD Setting**

### **Menu->System Setup->OSD Setting**

#### **1. OSD Timeout**

OSD Timeout can set the duration time of the information bar show up on the screen. The range of the duration is “1 second~10 seconds”.

#### **2. OSD Transparency**

Press the **VOL+ / VOL-** button to change the OSD Transparency. There are 5 levels of transparency, 10%, 20%, 30%, 40% and “Off”.



## 6.8 Favourite

### **Menu->System Setup->Favourite**

You can rename the favourite group's name in this menu.

## 6.9 Other

### **Menu->System Setup->Other**

#### 1. LNB Power

You can press the **VOL+ / VOL-** button to switch the LNB Power On or Off.

Receiver will supply power to satellite antenna or not.

#### 3. Auto Standby

The Auto Standby with the default of 3 hours is part of the implementation of EuP.



## 7. Tools

### 7.1 Information

#### **Menu->Tools->Information**

Display version information such as software or hardware.





## 7.2 Factory Setting

### Menu->Tools->Factory Setting

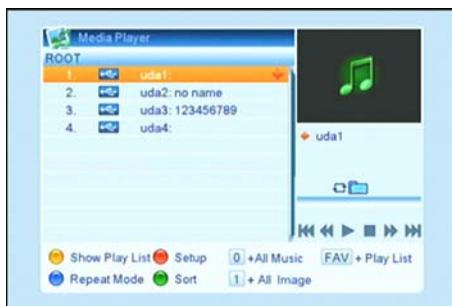
You have the opportunity to make undo all the settings and changes by load the default settings.

**Note:** All settings are reset. Then that they should also perform the search again.

## 7.3 USB Upgrade & Save

### Menu->Tools->USB Upgrade & Save

Let you install a new software version on the device. This of course must be connected to a USB HDD or memory stick with the update file in the root directory.



### 1. Upgrade & Save

You can select “Upgrade” or “Save “.

- Upgrade Upgrading a new software version
- Save Saving the data of current software version
- Check [www.xoro.de](http://www.xoro.de) for updated firmware.



## **7.4 USB**

### **Menu->Tools->USB**

It's Media Player. It can play many kinds of media files, you also can record channels and playback them and you can do various operations when using USB HDD or USB disk.

#### **1. Show Play List**

Press YELLOW button to show up play list(only for pictures and music). Here you can see all files in the play list, you also can play/delete/delete all files.

#### **2. Setup**

Press RED button to setup pictures view mode.

- Slide Show Time: How long will each picture keep showing up.
- Slide Show Repeat: Loop play pictures or not.

#### **3. Repeat Mode**

Press BLUE button to setup music play mode. Play all files once, loop, or random.

#### **4. Sort**

Press GREEN button to sort USB files.

#### **5. FAV**

Press FAV button to add highlighted file into play list.

**OK:** Play the selected file.

**CH+/CH-:** Change the highlighted item.

**▶:** Play the file.

**■ :** Stop playing file.

**I◀◀:** Play the previous file/ Jump to forward as jump option in the PVR Setting menu

**▶▶I:** Play the next file/ Jump to backward as jump option in the PVR Setting menu.

**◀◀:** Fast rewind.

**▶▶:** Fast forward.

**||:** Pause/Step.

**VOL+/VOL- :** Adjust volume/Rotate when playing the picture/Jump a time interval when playing the movie and recording.

**EXIT:** Exit playing state and return to file list menu.



## 7.5 Remove USB device safely

**Menu->Tools->Remove USB device safely**

You can use this item to remove USB device safely.

## 8. Games

You can play 2 games here, Othello and Sudoku.

## 9. REC

### 9.1 Record Manager

**Menu->REC->Record Manager**

You can see all recordings here, and Lock/Delete/Rename these files.

Additional function: When playing the recording, you can press **MARK** button to mark on current time when info bar display. And press the **JUMP MARK** button to jump to mark.





## 9.2 Storage Information

### Menu->REC->Storage Information

You can press **VOL+ / VOL-** button to see the selected partition information of USB HDD or memory stick. Also can format the selected partition with **YELLOW** button, and set it to be recording partition with **BLUE** button.

*Option: this feature is available in some models only!*

## 9.3 DVR Configuration

### Menu->REC->DVR Configuration

1. **Timeshift**: Turn on timeshift or off.
2. **Timeshift to Record**: Add the auto timeshifted content into recorded file or not.

# 10. Basic Operation

## 10.1 Audio

You can select the language you prefer in **Audio** if the current program is available in multiple audio languages.

1. Press the **AUDIO** button.
2. Press the **OK** button to select the audio language you prefer.
3. Select audio direction (**Left**, **Right**, **Stereo**) using the **VOL+ / VOL-** button.
4. Press the **EXIT** button to close.





## 10.2 Zoom In

You can zoom in the current video picture.

1. Press the **ZOOM** button.
2. Press the **CH+/CH-/VOL+/VOL-** button to move the icon to the position you want to zoom in.
3. Press the **OK** button to display.
4. Press the **EXIT** button to close.

## 10.3 EPG

You can view the EPG information of all channels in time and date order.

1. Press the **EPG** button.
2. Press the **CH+/CH-** button to change channel.
3. Press the **VOL+/VOL-** button to change EPG event of the highlighted channel.
4. Press the **OK** button to display the detail information of the highlighted EPG event.
5. Press the **GREEN** button to enter **Timer Setup** menu. After setup, press the **OK** button can add the highlighted EPG event to the Timer.
6. Press the **RED** button to browse EPG by time fast.
  - ◀ Go to the EPG of previous hour
  - ▶ Go to the EPG of next hour
  - ◀◀ Go to the EPG of previous 2 hours
  - ▶▶ Go to the EPG of next 2 hours
  - ◀◀◀ Go to the EPG of previous day
  - ▶▶▶ Go to the EPG of previous day
  - ⌚ Go to the EPG of current time





### 10.4 Subtitle

You can select the language for the subtitle if the program provides subtitle information.

1. Press the **SUB** button.
2. Select the required subtitle language and press the **OK** button. The subtitle of the selected language will be displayed at the bottom of the screen.

### 10.5 Teletext

You can view the teletext information of this program.

1. Press the **TXT** button.
2. Press the **CH+/CH-** button to page up or page down.
3. Press the **NUMERIC(0-9)** buttons can go to the designated page directly.



### 10.6 Find channel

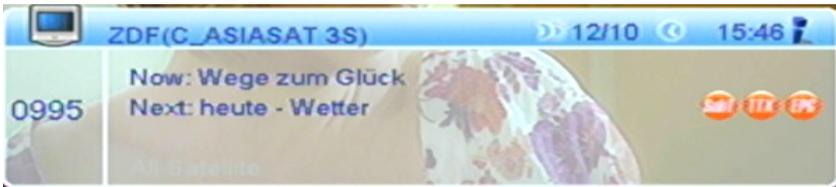
You can find the channels you want quickly just by pressing the **FIND** button directly.

### 10.7 Program Information

You can view the program information by pressing the **INFO** button while watching a program.

#### 1. General Information

You can press the **INFO** button to display the general information of the current channel. And the info bar will disappear automatically after few seconds or you can press the **EXIT** button to exit the info bar.



## 2. Detail Information

You can press the **INFO** button twice to display the detail information of the current channel. It can display the channel name, satellite, transponder, PID and signal information. And you can press the **EXIT** button or **INFO** button to exit the info frame.



# 11. Channel List

This chapter will help you manipulate the channel list.

**Tip:** You can press the **VOL+VOL-** button to choose different satellite when you are operating on a channel list, then all the channels of this sat will be display in list.

## 11.1 OK List

- 1) Press the **OK** button to enter the channel list while watching a program.
- 2) Press the **VOL+VOL-** button to switch the satellite and FAV group.
- 3) Press the **CH+/CH-** button to move the highlighting, and press OK button to watch the highlighting channel.





4) Press the **RED** button to enter the **Quick Find** menu.

### 11.2 Favorite List

1) If you have set several favorite lists, press the **FAV** button can enter the favorite list.

2) Press the **CH+/CH-** button to change different favorite list and press the **OK** button can select a favorite group.

3) Press **CH+/CH-** button to select the channel in the current favorite list.



**Note:** If you selected a favorite list, press the **CH+/CH-** button can only change the channels in this favorite list and press the **OK** button can only display the channels in this favorite list.

## 12. USB Control

### 12.1 Recording and Timeshift

#### 12.1.1 Recording

You can watch another channel from the same TP while recording. You can also do many operations while recording.

##### 1. Start Recording

- 1) You can press the **●** button to start recording while watching program.
- 2) If you have set the timer, and set the **Time Record** on, it will start recording automatically according to the start time of the timer.

##### 2. Stop Recording

- 1) You can press the **■** button to stop recording. If you don't press the **■** button, it will stop recording according to the record duration.
- 2) If you have set the timer, it will stop recording automatically according to the stop time of the timer.
- 3) If the free space on the USB HDD or USB disk is insufficient, recording will stop.



### 3. Watch the Other Program while Recording

At the same time, you can only watch the program from the same TP.

### 4. Other Operations while Recording

While the recording channel is current channel, press the **INFO** button can display the channel information. And press the **DVR INFO** button can display the recording time. And press the **DVR INFO** button twice can display all the previous recording files. Press the **•** button can set the record duration. Press the **||** button to pause the program and press the **▶** button to play the program. Press the **◀◀/▶▶** button can fast rewind or fast forward in playback mode.

### 12.1.2 Timeshift

Timeshifte allows you to pause a live broadcast and return to it later and continue where you left off.

In order to use the Time Shift function, you must: navigate to: Menu -> REC -> PVR Setting-> Timeshift with the option "ON". And the timeshift will start automatically while play the program. While it is in timeshift mode, press the **DVR INFO** button can display the recording information, press the **||** button can pause or play the program, press the **◀◀/▶▶** button can fast rewind or fast forward. Press **MARK** button to mark on current time when info bar display. And press the **JUMP MARK** button to jump to mark.

### 12.2 Recording List

You can press the **DVR INFO** button to enter the recording list directly. Press the **CH+/CH-** to highlight the PVR file you want to play, press the **OK** button to play. And you can watch the PVR file while recording.

## 13. Additional Information

### 13.1 Trouble Shooting

Before contacting your local service centre, please read the tips below carefully. If the problem persists after completing the following procedure, please contact your local product distributor or service centre for further instructions.



### **1. The product will not switch on**

- Check the main power cable and make sure it is plugged into a suitable power outlet.
- Check that the mains supply is switched on.
- Connect the power cable to a different power outlet.
- Check that the power switch is on at the rear of the product.

### **2. No picture**

- Make sure that the product is powered on and in operation mode. (Press the STANDBY button)
- Make sure that the AV/HDMI/YUV cable is firmly connected to the TV.
- Make sure that the antenna cable is properly connected to the product.
- Be sure to activate channel search.
- Check the brightness level of the TV.
- Check if the channel is currently on air. Contact the broadcaster to ensure that the channel is running.

### **3. Poor picture/sound quality**

- Make sure there is no mobile phone or microwave oven near the product.
- [Satellite] Check that your dish alignment is correct.
- [Satellite] Change the satellite dish for a larger one as this will increase the signal levels received.
- [Satellite] Replace the LNB with a lower noise factor in cases where the noise factor is too high.
- [Satellite] Replace the LNB with a new one in case it is damaged or out of order.
- [Satellite] Check the signal levels and adjust your antenna if the level is too low. The signal level may be affected by weather conditions.
- [Terrestrial] Adjust the antenna direction to get a better picture.
- [Terrestrial] Set the antenna power in menu to On, if you use the active antenna to improve the reception.(where applicable)

### **4. No or poor sound**

- Check that your AV/HDMI cable is connected correctly.
- Check the volume levels of your TV set and the product.
- Check if the product or TV is on mute.
- Check audio type or soundtrack option. (where applicable)



**5. Remote control does not operate.**

- To control the product, the top end of the remote control should point directly towards the receiving part of the product.
- Remove and reinsert the batteries in the remote control.
- Replace the batteries in the remote control for a new set.



## 13.2 Technical Specification

### Tuner

<b>No. of Tuners</b>	1
Frequency Range	950 MHz to 2150 MHz
Signal Level	-25 to -65 dBm
LNB Power	13V/18V/14V/19V OFF, I <sub>max</sub> = 300mA
LNB Tone Switch	22KHz±2KHz, 0.6V <sub>pp</sub> ±0.2V

### MPEG

Transport Stream	MPEG-2 ISO/IEC 13818 Transport stream specification
Profile Level	MPEG1, MPEG-2 MP@ML, H.264, and MPEG4
Input Rate	80 Mbps for MPEG Transport Stream and 25 Mbps for DV streams
Aspect Ratio	4:3, 16:9
Video Resolution	576i, 576p, 480i, 480p, 720p50, 720p60, 1080i, 1080p
Audio Decoding	MPEG-2 layer I and II (Music cam)
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Sampling	32, 44.1 and 48 KHz

### Power Supply

Input Voltage	AC 200 ~240V, 50/60Hz
Power Consumption	Max. 25 W
Protection	Separate internal fuse. Input shall have lightning Protection

### Physical Specification

<b>Operating Temp</b>	0°C to +40°C
<b>Storage Temp</b>	-40°C to +65°C

FREE TO CHOOSE INNOVATIONS



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