

# GROWROCK

## Linux High Definition Digital Satellite Receiver



## USER'S MANUAL



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## 1. General Information

### 1.1 Important Safety Instructions

**Thank you for choosing our product. Before installation, we would like to remind you of some notes, which is very important for operating safely and properly, as follows:**

- Be sure to read this user manual before starting your operation.
- Never open the cover. It is very dangerous to touch the inside stuff of the unit due to possible electric shock.
- If you don't use this unit for long time, please pull the power plug out form the outlet. Do not use a damaged power cord.
- Do not touch the power with wet hands. If there is liquid flow into the unit, pull out the power cord immediately because it may cause fire or electric shock.
- Place the unit in a well ventilated and no heat environment.
- You must install the dish with correct direction and angle. If the dish is not working properly, contact your local dealer.
- Install the unit horizontally. Unbalanced installation may cause the unit to be damaged by itself.
- When the unit is suddenly moved to a hot area from a cold area, it may cause some problems. In that case, turn off the power, and turn on again after 1-2 hours.
- Install the unit in place with:
  - Good Ventilation
  - Suitable Temperature
  - No Direct Sunrays
  - Low Humidity
  - Low Vibration Influence
- Do not put heavy objects on the unit.

### 1.2 For Your Safety

- Keep receiver placed in clean space with sufficient ventilation.
- Do not cover the STB with or place it on a unit that emits heat.
- Clean the case by a soft cloth with a little washing liquid.
- Do not remove the cover
- Do not let the unit exposed to extreme heat, cold or humid conditions.
- No liquids or any other materials to come inside of the unit.

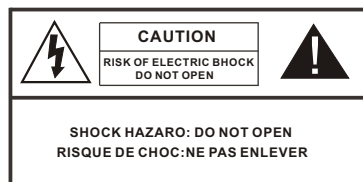
### 1.3 Markings on the Rear Panel

#### General:

This mark appears on rear panel of the receiver.

#### Part 1

This mark consists of two Graphical Symbols and one Warning Message. The detailed explanation are as follows:



#### CAUTION:

**To reduce the risk of electric shock, do not remove cover (or back). Equipment service and maintenance should be undertaken only by trained personnel.**

#### Part 2

Each symbol stands for one meaning respectively.



The lightning flash with arrow symbol, within an equilateral triangle, is to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk to persons.



The exclamation point, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### 1.4 Fast Guidance for Operation

- Please follow the relevant OSD menu for daily-use functions like installation, channel editing, view program and so on.
- All functions could be achieved by RCU, and buttons on front panel could be used for common functions as an alternative.
- TV/SAT key: press once to change from Sat mode to normal TV mode; press twice, it changes from TV mode to VCR mode for transferring signal from VCR to TV.
- Please be aware that any new software up-graded may change functions of the receiver.
- Should user encounter any difficulties with operation of the unit, please refer to the Trouble Shooting section in this manual, or call the local after-sale service center.

### 1.5 Unpacking

Please open the package and make sure the following items are inside:

- Remote Control Unit(RCU)
- User's Manual
- Digital Satellite Receiver

## 2. Main Features

- Fully DVB-S/DVB-S2/MPEG-2/MPEG-4/H.264/VC-1 compliant.
- CVBS/RGB/YPbPr/HDMI output supported.
- Support AVI, VOB, TS, .MPG, .MKV, .FLV etc Media Play files (Optional).
- Support MP3, JPG image and photo display.(Optional)
- Automatic search and Manual Search for satellites and transponders
- NIT search support
- Multi-Satellite(64 Satellites)
- USB2.0 Interface(Optional)
- USB PVR function(Optional)
- Advanced Time-shift function with external HDD
- 10000 channels memory space
- SCPC& MCPC receivable from C/Ku band satellite
- 32bit true color on screen display (OSD)
- User friendly and easy-to-use menu system
- Multi-Subtitle language, Audio Language, Menu Language
- 7 Days Electronic Program Guide(EPG)
- Parental Lock function
- Automatic last channel saving
- Zoom Function
- DiSEqC1.0/1.1/1.2(USALS) and 22KHz switching
- Teletext and close caption output through OSD and VBI.
- RF Modulator for TV standard(PAL B/G, PAL D/K, PAL I,NTSC M)
- Digital Audio with AC-3 support by SPIDF(Optional)
- Timer function, automatically turns On/Off by setting function (Off/Once/Daily/weekly)
- 4:3/16:9 aspect ratio support through pan san or letter box
- Multi-Video function(9, 6,12 available)
- Automatic PAL/NTSC/SECAM conversion
- Upgrade software from PC to receiver or from receiver to receiver through RS232 port.
- USB software upgrade

## 3. RCU and Panel Outputs

### 3.1 Remote Control Unit



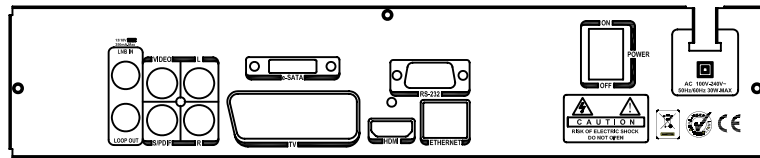
<b>POWER</b>	Turn on/off the STB
<b>TV/SAT</b>	Switch among TV/AV VCR mode
<b>MENU</b>	Show the main menu on the screen or jump back to previous menu in sub-menu setting conditions
<b>MUTE</b>	Enable or disable the audio output
<b>0-9</b>	Select channels or enter programming
<b>EXIT</b>	Escape from present menu and save the settings
<b>OK</b>	Confirm the selected item in the menu screen or show the channel list
<b>CH+/CH-(▲)(▼)</b>	Channel change or move cursor up or down
<b>VOL+/VOL-(◀)(▶)</b>	Volume Control or move cursor left or right
<b>SAT</b>	Display the satellite list which has been searched
<b>EPG</b>	Display the TV/Radio Program Guide
<b>FAV</b>	Display the favourite list
<b>AUDIO</b>	To set the output direction for speaker and change the Audio Language
<b>TV/RADIO</b>	Switch between TV and Radio mode
<b>INFO</b>	To display channel status or various program information of current channel
<b>RECALL</b>	Switch to the last view channel
<b>POS</b>	Display position bar on the screen to adjust the antenna or for manual search
<b>P/N</b>	PAL/NTSC selection
<b>MP</b>	Multi-picture function
<b>ZOOM</b>	Zoom in the selected picture
<b>TTX</b>	Switch to teletext mode
<b>SUB.T</b>	Switch to subtitle mode
<b>PAUSE</b>	Pause the ongoing video and audio
<b>REC</b>	To record current channel
<b>▶</b>	Play or resume
<b>■</b>	Stop Play
<b>▶▶</b>	Fast forward
<b>◀◀</b>	Fast backward
<b>T/S</b>	Time shift
<b>•••VOL•••</b>	Increase or Decrease the volume
<b>•••PAGE•••</b>	Turn to the next or previous page

### 3.2 Front Panel



KEY	FUNCTION
POWER	Turn on/off receiver
MENU	Shows the main menu and back to previous menu
OK	Confirm the selection, or jump back to last menu
CH+/CH-	Channel change(Up/Down)
VOL+/VOL-	Volume Control(Up/Down)

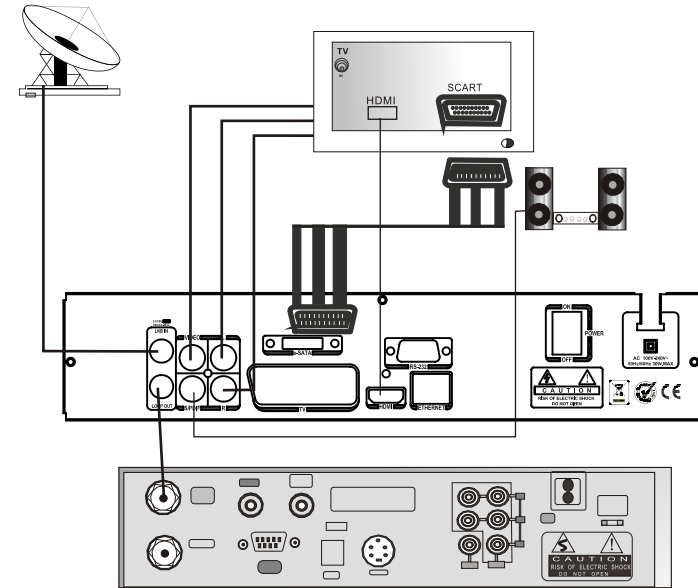
### 3.3 Rear Panel



CONNECTOR	FUNCTION
LNB IN	Connect to satellite antenna cable
LOOP OUT	Connect to another receiver( IF loop through output from digital tuner)
RS232	Connect to PC for software upgrade
VIDEO	Connect to the TV's video port
AUDIO R/L	Connect to the TV'S audio port
S/PDIF	Connect to the TV for digital audio output(Optional)
TV SCART	Connect to the TV using SCART cable
HDMI	Connect to TV's HDMI ports
e-SATA	Connect to extern e-SATA storage device(Optional)
ETHERNET	Connect the Ethernet port(Optional)
POWER ON/OFF	Power On/Off the receiver

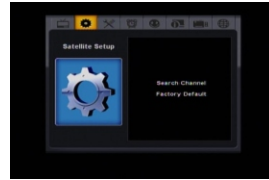
### 3.4 Installation of Receiver

Please refer to the following illustrative chart for the proper way of installation.



## 4. Satellite Setup

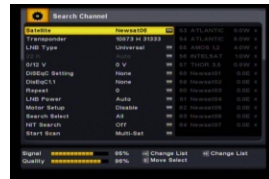
- Move the cursor to **Satellite Setup**.
- The **Satellite Setup** includes two items as follow:  
**Search Channel**  
**Factory Default**



### 4.1 Search Channel

At this Dialog:

- Press **Up/Down** key to move your select.
- Press **Left/Right** keys to select.
- Press **OK** key to enter Selected Item.
- Press **OK** key to enter the right list and you can press **Up/Down** to move selected.
- **Transponder:** Press **OK** key to enter the right list and you can press **Up/Down** to move selected.
- **LNB Type:** Select the type of your LNB. If you have universal LNB, select universal.
- **LNB Freq (Low/High Freq):** Enter the proper LNB frequency via RCU or use the keypad displayed by pressing **OK** key.
- **22K:** Select the 22K to Off or On
- **DiSEqC Switch Setting:**  
**Committed:** Set DiSEqC1.0 and DiSEqC2.0 port from Port A to Port D.  
**Uncommitted:** Set DiSEqC1.1 port from Port 1~ Port 16.  
**Repeat:** Set DiSEqC1.0 command send count.
- **LNB Power:** Select the LNB Power to Auto, Off, 14V or 18V.
- **Motor Setup:** Press **Left/Right** keys to select appropriate positioned as DiSEqC1.2, then press **OK** key to enter Motor Setting Dialog.



### Motor Setting

If you connect a DiSEqC1.2 motor, select the Motor Setup type to DiSEqC1.2, the following items will be displayed.

- **Satellite Name:** Select the satellite that you want to move.
- **Transponder:** Select the transponder to check the signal level.



- **Move:** Select this item and then keep pressing **Left/Right** keys to move your antenna east or west. Use the signal strength and signal quality bars at the bottom of the screen to judge the best position of the antenna.
- **Save Position:** Press **OK** key to save the current position.
- **Recalculate All Position:** Press **OK** key to recalculate all satellite position.
- **Goto Reference:** Press **OK** key to move the motor to the reference position.
- **Limit Setting:** Press **OK** key to set West or East limit.

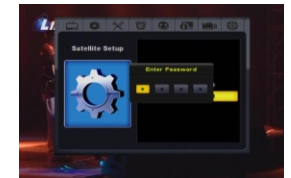
If you connect a USALS positioner, first get your longitude and latitude, then select the Motor Setup type as USALS, the following items will be displayed.

- **Satellite Name:** Select the satellite that you want to move.
- **Motor Setup:** Press **Left/Right** keys to select appropriate positioner as USALS.
- **Transponder:** Select the transponder to check its signal level.
- **Local Longitude:** Input the local longitude by using numeric keys.
- **Local latitude:** Input the local latitude by using numeric keys.
- **Search Select:** Press **Left/Right** keys to select Search Type, or press **OK** key to enter the right list and then press **Up/Down** key to move your select.
- **NIT Search:** Press **Left/Right** keys to select on/off, or press **OK** key to enter the right list and then press **Up/Down** key to move your select.
- **Start Scould:** Press **Left/Right** keys to select Scould Type, or press **OK** key to enter the right list and then press **Up/Down** key to move your select.

### 4.2 Factory Default

- The factory default allows user to restore the factory-reset values.
- When you press **OK** key, the password box appears,. Input the password, the Warning window will appear, if you select Yes, the system setup will be reset to the default values.

**Warning:** On selecting factory default you will lost all data for previous settings.



## 5. Channel Manager

This menu allows user to delete channels, lock channels, move channels, rename channels, sort channel, set favourite channels, delete satellite etc.



### 5.1 Edit Channels

- Functions for icon keys in different color vary with different selected modes. Press **Left/Right** key for different modes.
- **Delete Mode:**
  - Delete All:** Press **Red** key to Delete all channels.
  - Delete TP:** Press **Green** key to Delete all channels under the same TP for Selected channel.
  - Delete SAT:** Press **YELLOW** key to Delete all channels under the same SAT for Selected channel.
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to edit.
- **Lock Mode:**
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to edit.
- **Move Mode:**
  - Start:** Press **Red** key to start move.
  - Cancel:** Press **Exit** Key to cancel the move.
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to edit.
- **Move Mode:**
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to edit.
- **Fav1 Mode:**
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to edit.



### 5.2 Sort Channels

- Press **OK** Key to enter sort channels dialog.
- **Sort:** Press **Red** key to enter sort type menu. Select the sort order by using **Up/Down** keys and press **OK** key to confirm. Meanwhile, Edit channels list where all the channels are arranged according to choices appeared on the screen.



**Alphabet:** All the channels will be sorted in alphabetical order.

**Satellite:** All the channels will be sorted in satellite order.

**FTA->CAS:** FTA channels will be listed ahead of the scrambled channels.

**CAS->FTA:** Scrambled channels will be listed ahead of the FTA channels.

**FAV:** Favourite channels will be listed ahead of the others.

### 5.3 Delete Satellite

Select the Delete Satellite item and Press **OK** Key to enter sort channels dialog.

- **Delete:**
  - Select Item:** Press **OK** key to Select Item.
  - Delete SAT:** Press **SAT** key to Display the Satellite list and select the satellite to delete.
  - Delete Type:** Press **TV/RADIO** key to Display the TV channel or audio channel and select the channel, then delete the Satellite of the Selected Channel.

## 6. Preference

- This menu consists of sub-menus as shown below:

**System Options**  
**AV Setting**  
**Parental Control**  
**About Receiver**



### 6.1 System Options

- OSD Language:** Press **Left/Right** keys to select desired language.
- OSD Transparence:** Press **Left/Right** keys to select the transparency level of the MENU window.
- OSD Timeout:** Set the delay time for information banner to be disappeared.
- Audio Language:** Select the first language to listen if this language is supported by current program. This depends on the TV content provider.



### 6.2 AV Setting

- Screen Ratio:** Select the TV Screen format 4:3 or 16:9.
- Screen Mode:** Select the Screen Mode letter Box, Pan Scan.
- Black Freeze:** Select the Black Freeze Yes or No.
- HD Resolution:** Select the HD Resolution Auto, 1080i-50Hz, 1080i-60Hz, 720p-50Hz, 720p-60Hz.
- Monitor Type:** Select the TV mode NTSC SECAM PAL\_BG PAL\_I PAL\_M PAL\_N PAL\_NC NTSC\_M\_JPN.
- Video Output:** Select the Video Output CVBS or RGB.
- SPDIF Mode(AC3):** Select the SPDIF Mode(AC3)PCM AC3 Mute.



### 6.3 Parental Control

- The STB provides an active Parental Lock and Install Lock function which allows user to block specific menu settings by means of a four-digit security code. The default password is "0000"
- Parental Lock:** Accessing the Parental Lock menu is controlled by a password.
- Install Lock:** Accessing the Installatin menu in main menu is controlled.
- Change the password:
  - Select Parental Lock.
  - Select the Current Password and input "0000"
  - Select the New Password and input a new PIN.
  - Select the Confirm Password and input the same new PIN.



**Note:** Do not forget the password. For further assistance, call your local distributor.

### 6.4 About Receiver

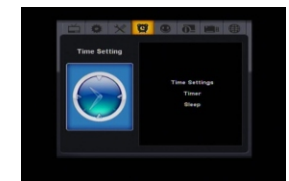
- This menu shows Software Version, Hardware Version and Date information.



## 7. Timer Setting

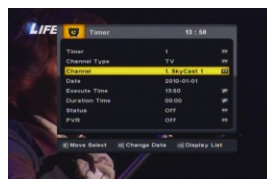
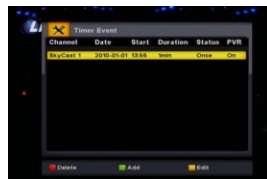
### 7.1 Time Settings

- User could set your local time according your location.
- Select GMT of your local area, and set the current date and time.
- The receiver will get time information automatically from the satellite.
- Summer Time:** Select whether to use daylight saving for Local time.



## 7.2 Timer

- User could use the Timer function to automatically switch channels or record channels at any time.
- It enables user to set 10 timers. Which one user can select the statuses as Off, Once, Daily and Weekly.
- Use the numeric of RCU to input the Hour and Duration Time.
- **PVR:** Select On to record the channels at the special time. Select Off to switch channels automatically at the special time.

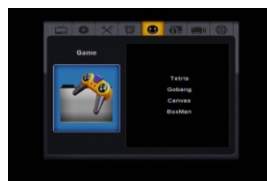


## 7.3 Sleep

you can enter the Sleep list and select the sleep time.

## 8. Game

- This menu consists of Teris, Gobang, Canvas and Boxman games.
- Press **OK** key to enter the corresponding sub-menu. User could play the game via remote control.

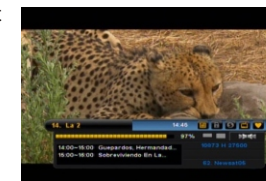


## 9. General Viewing Function

The following instruction describes the basic function of your STB while watching TV or listening to Radio.

### 9.1 Program Information

- This section explains the general information sent by the program provider while watching TV or listening to Radio.
- First press **Info** key will show small amount of information.
- Second press **Info** key will show more details of the current program.
- When information banner is being displayed. Press **Left/Right** keys will show Current/Next Programme information. Press **Up/Down** keys to view to previous/next programme information.
- Press **Info** key again to remove the banner.



**Note:** Program information is not always sent with the program.

### 9.2 Channel List

- In full screen play mode, press **OK** key to display the channel list.
- Press **Up/Down** and **OK** keys to enter the desired channel.
- Press **Red** key to enter Channel Type list. User could select Satellite, FREE/CAS, Alphabet and Video Definition types to display channels.
- Press **Green** key to enter Alphabet List to display channels according to alphabet.
- Press **Yellow** key to find channel.
- Press **Sat** key to enter Sat List to display channels according to different Sat type.
- Press **Info** key to switch HD/SD.



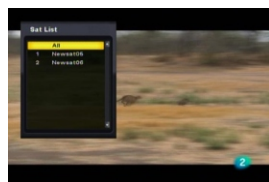
### 9.3 EPG (Electronic Program Guide)

- Electronic Program Guide (EPG) is to help user navigate program through all the possible viewing options. This receiver is equipped with a unique dual EPG system, which makes it easy to view the program information.
- The Guide supplies information such as program listing, starting and ending items for all available programs.
- Press the **EPG** key to show Program Guide menu.
- **Navigate EVENT**: Press **Red** or **Green** keys to navigate the information in 7 days.
- **Detail Info**: Press **Yellow** key to display the detail information.
- **Timer**: Press **OK** key to set the Timer.



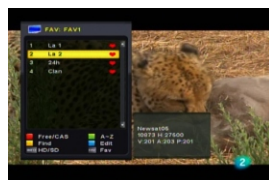
### 9.4 Satellite List

- Press **SAT** key to sort out channels by different satellites
- Press **Up/Down** keys to select the satellite you want to view, then press **OK** key to enter channel list.



### 9.5 Favourite List

- Press **FAV** key to enter favourite channel list. In favourite list, press **FAV** key again to choose favourite type.



### 9.6 Multi Video Type

- Press **MP** key to enter Multi Video Type menu in playing screen.
- This receiver offers you 2, 4, 6, 9, 12, or 16 options. User could easily view what other channels doing in the same time



### 9.7 Zoom Function

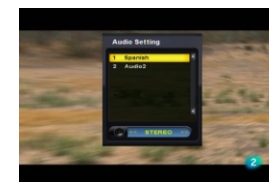
- This function enable you to enlarge the picture. Press **Zoom** key then press **OK** key, the selected picture within the frame will be enlarged.



### 9.8 Audio

#### Volume

- Press **Left/Right** keys to adjust the volume
- Press **Mute** key to mute volume and press **Mute** key again to resume the volume.
- Press **Left/Right** keys also can resume the mute function.



#### Audio Control

- In Digital Satellite Broadcasts, the program provider can transmit multiple audio language simultaneously.
- Press **Audio** key then press **Left/Right** keys to select one of three possible audio settings (Left, Right and Stereo).
- Press **Audio** key then press **Up/Down** keys to select audio language. This depends on the transmission of the audio signal.

### 9.9 TV/Radio

While watching a TV channel, press **TV/Radio** key to switch between TV and Radio mode.

### 9.10 TV/SAT mode

The **TV/SAT** key lets you change the mode from satellite to TV or VCR. Press once to move to TV mode. Press twice to move to VCR mode. Press three times to change back to satellite mode.

### 9.11 Recall

Press **Recall** key to switch to the previous channel you watched.

## 10. USB Function

The receiver integrates USB port, which support the following device:

- **USB portable harddisc**
- **USB memory**

**Note:** Non-memory device such as keyboard and mouse are not supported.

There will appear the below menu while USB device is inserted to the USB port(On the condition that the receiver is under normal working status), which means USB device has been recognized by the system . If the cursor automatically moves to “Visit USB Menu” item, it means this device can be used. Otherwise, this device can be only supported but cannot be used.

### USB function as listed below:

- PVR(Personal Video Record)
- Timeshift record
- Audio/Video file display
- Photo display
- Software Upgrade
- Format disk
- Delete/Rename disk file
- Device Info display

### Other feautres of USB function:

- Multi system format support:: Such as Fat12, Fat 16, Fat32, not support NITS format.
- Mult disk partition support
- Multi USB device support: User could user morethan one devices at the samen time by USB hub
- Multit file format support: Support file format including(file extension name):  
JPG----Picture  
MP3----Audio file  
TRP----PVR Record file  
AVI, VOB, TS, .MPG, .MKV, .FLV etc---Media Play file
- Multi HDD type support: Most of the HDD types are supported by the system.
- No limit to the HDD capacity.

## USB Menu

There are 6 sub menu in USB menu, User could found this menu in main menu.

- MP3 Player**
- Picture Browser**
- Meida Playback**
- Upgrade data**
- Disk Manager**
- Device Information**



### MP3 Player

There are two parts under this menu: disk partition list and file list. User could switch between two lists with left /Right button. While the cursor in partition list, press **OK** key to choose disk partition. While the cursor in file list, press **OK** key to enter directory or start to play current audio file.

**RED** key to start or resume play audio file.

**GREEN** key to stop current playing audio

**YELLOW** key to pause playing audio

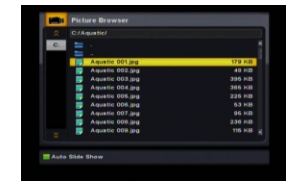
**BLUE** key activate volume bar and change volume level.



### Picture Browser

There are two parts under this menu: disk partition list and file list. User could switch between two lists with **left /Right** keys. While the cursor in partition list, press **OK** key to choose disk partition. While the cursor in file list, press **OK** key to enter directory or start to play current picture file.

**GREEN** key to start display picture file, and will automatic slide show.



### Upgrade data

There are two parts under this menu: disk partition list and file list. User could switch between two lists with **left/Right** keys. While the cursor in partition list, press **OK** key to choose disk partition. While the cursor in file list, press **OK** key to enter directory or start to play current update file.





## How To Update Firmware

1. go to <http://www.growrock.com/download.htm>, download the latest firmware

2. files.zip



3. unzip the files.zip, get the folder



4. Copy the files to your usb stick

5. Then ,plug the usb stick to receiver usb port, then power on receiver. then go the the USB menu, , choose upgrade data



If you have rs232 line, you can check it with HyperTerminal. There are all update info

## 10. Technical Specification

TRANSMISSION STANDARDS	
DVB-S, DVB-S2, MPEG-2, MPEG-4, H.264	
SATELLITE INPUT/DEMULATION	
Connector Type	2XF Type(1 Input/1 Loop Through)
Input Frequency	950 to 2150 MHz
Signal Input Level	- 65 to 25 dBm
Band Switch Control	22KHz
LNB Supply	13.5 +0.5V/18V +0.7V, Max 350mA
Demodulation Type	QPSK/FRC Coding(DVB prETS 300 421)
Symbol Rate	2<Rs<45 Mband(SCPC/MCPC)
TV SCART	
Video Output	CVBS/75Ω unbalanced
RGB Bandwidth	5MHz
Fast Blanking	0V to 3V
Function Switch	6V-16:9 Aspect Ratio Image(AV Mode) 12V-4:3 Aspect Ratio Image(AV Mode)
Audio Output	"Left, Right"/ 600Ω unbalanced
Level	1.0V rms 2dB into 10kΩ
AUDIO/VIDEO PROCESSING	
Format	MPEG-2/H.264/VC-1, MPEG-2 MP@HL, MP@ML, MP@LL, SP@ML, AVC HP@L4.1, VC-1 AP@L3 and MP@HL
Aspect Ratio	Supports 16:9 image aspect ratios through Pan/scan, Letterboxing, Combined and Ignore
Video Resolution	Max. 1920x1080I 50Hz & 60Hz
Audio Decoding	<ul style="list-style-type: none"> <li>- Program decoding of MPEG-1, MPEG-2, DTS, MPEG-2 AAC, MPEG-4 AAC, aacPlus and WMA encoded bit-streams</li> <li>- Decodes MPEG-1 Layer I and II (MUSICAM) ISO 11172</li> <li>- Supports MPEG-1 Layer 3 (MP3) decode</li> <li>- Supports Windows Media Audio v.9 and WMA Pro decoding</li> <li>- Supports sample rates of 16, 22.05, 24, 32, 44.1, 48kHz</li> <li>- Stereo 24-bit audio DAC for analog audio output</li> <li>- Single program encoded bit-stream output on S/PDIF port</li> </ul>

DATA SERVICEPORT	
Connector	9-pin D-sub male
Data rate	Maximum of 115.2K bits/s
POWER SUPPLY	
Type	Switching mode
Main input voltage	100 - 240V AC @ 50Hz/60Hz±5%
Power consumption	Max. 25W
Insulation resistance	More than 10MΩ at 500Vdc Ambient conditions of 28±2% & 70%RH
Hi-Pot	I/p to O/p:3kV(1 min)
Temperature Rise	<75 on winding & core; <50 on casting At 220Vac @ 50Hz
Safety Standard	Designed to meet IEC 9
MICROPROCESSOR	
Microprocessor	PNX8735
Clock Frequency	320MHz
DDR SDRAM Memory	1Gbit
PHYSICAL CHARACERSTICS	
Front Panel	
Keys	7 Keys
Remote Control Input	Infra-red receiver
Display	4 Digit LED
Rear Panel	
Connections	LNB Input / LNB OUT 1 x TV SCART 2 x Audio L/R (RCA) 1 x Video Signal (RCA) 1 x RS-232 (9-pin D-sub male) 1 x S/PDIF Optical Output 1 x HDMI 1 x ETHERNET Port

## 11. Trouble Shooting

Problem	Possible Causes	What To Do
No display light up on front panel	Power Cord is not well plugged	Check to make sure power cord is plugged properly into power socket
No sound or picture, but the front panel red light is ON.	The unit is in standby mode	Press the standby button.
No sound or picture	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the Signal Level in the Antenna Setup Menu
Bad picture/Blocking Error	No signal or weak signal	Check the cable connections. LNB and other equipment connected between the LNB and the receiver and adjust the dish.
	The satellite dish in not pointing at the satellite	Adjust the dish.
	Signal is too strong	Connect a signal attenuator to the LNB input
	Satellite dish is too small	Change to a larger dish
	LNB noise factor too high.	Change to an LNB with lower noise factor
	The LNB is faulty.	Change the LNB
No picture(Video)	The system is connected by SCART cable and TV is not in AV/EXT mode.	Check the UHF channel fixed in your system and tune the UHF properly.
There is interference on your digital satellite channel.	The system is connected using RF cable and the output channel of the receiver interferes with an existing terrestrial channel or Video Signal.	Change the receiver output channel to a more suitable channel or connect the system using SCART cable.
The RCU is not working.	Out of battery	Change the battery
	RCU is aimed at wrong direction	Aim the RCU at the unit, and make sure no blocks between the front panel and RCU

**Note:** If problems could not be resolved through the above list, please contact the local dealer or their after-sales service center.