



## DVB-S2 REC20



MANUAL (p. 2)  
High definition DVB-S2 receiver

## Introduction:

- We recommend that you read this manual before installing/using this product.
- Keep this manual in a safe place for future reference.

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## GENERAL INFORMATION

A Digital Satellite Receiver is a convenient product that allows you to view a variety of programmes via satellite. This user guide covers the installation of the DSR and the necessary steps to implement various features. This also explains special features available only in this DSR in detail, which will allow you to make full use of these features. Information presented in this document is subject to change. We reserve the right, without notice, to make change in product design or performances, as improvements are made in engineering or technology.

## MAIN FEATURES

- MPEG2 SD, MPEG2 HD, H.264/AVC SD, H.264/AVC HD, MP4
- Embedded Conax
- SCPC and MCPC receivable from C/Ku band satellite
- Automatic PAL/NTSC conversion
- 4000 channels TV and Radio programmable
- 32 different favourite groups selection
- Multi-language OSD
- Fully supports 7 day Electronic Programme Guide (EPG)
- Picture in Graphics (PIG) support
- True colour On Screen Display
- Automatic network search for newly added transponders
- Fully supports DiSEqC 1.2, 13/18V, 0/22K, 0/12V LNB control
- Various channel editing functions (favourite, moving, locking, renaming, deleting and sorting)
- Parental control for channels
- Easy to use Menu System
- Software upgrades through RS232 port and receiver to receiver, support
- USB upgrade
- 8 Timer Reservations, automatically switch to a specific channel (Not active for this model)
- Subtitle support DVB EN300743 and EBU
- Teletext support DVB ETS300472 by VBI and OSD
- Automatic save for last channel
- Channel list can be sorted alphabetically A-Z, Scramble, Favourite, Lock, Sat
- Dual display HD and SD simultaneous
- Supports FAT16/FAT32/FAT12
- Only lists JPEG/BMP files
- 480i/p, 576i/p, 720p, 1080i, 1080p with HDCP copy protection
- Games
- 1 recording, then can still perform another pre-programmed recording (not active for this model)

## FOR YOUR SAFETY

- To avoid electric shock hazards, do not open the cabinet. Refer servicing to qualified personnel only.
- Keep the receiver away from flower vases, tubs, sinks, etc., in order to avoid damaging the equipment.
- Do not expose the receiver to intense sunlight and keep it away from any heat sources.
- Do not block the ventilation holes of the receiver so that air can circulate freely.
- When a power surge occurs, you should cut off the power immediately.
- Do not touch the receiver during thunderstorms, as it may create electric-shock hazards.
- Switch the receiver off whenever it remains out of service for an extended period.
- Be sure to turn the receiver off and disconnect the AC power cord before cleaning the receiver surface. If the surface is dirty, wipe clean with a cloth which has been dipped in a weak soap and water solution and wrung out thoroughly. Then wipe again with a dry cloth.

## IMPORTANT SAFETY INSTRUCTIONS

1. All the safety and operating instructions should be read before this product is operated.
2. The safety and operating instructions should be retained for future reference.
3. All warnings on the appliance and in the operating instructions should be adhered to.
4. All operating instructions should be followed.
5. Do not use this apparatus near water. The appliance should not be used near water or moisture, for example in a damp basement or near a swimming pool.
6. Clean only with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. If the provided plug doesn't fit into your outlet, consult an electrician for replacing of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at the plugs, portable receptacles, and at the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from falling furniture. The external wiring connected to the terminals requires installation by qualified personnel or the use of ready-made leads or cords.
13. Unplug the apparatus during lightning, or during long periods of disuse.
14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug damage, spilled liquids, objects have fallen onto the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
15. CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that delineated in the operating instructions unless you are qualified to do so.
16. Ensure that ventilation is not impeded, by refraining from covering the ventilation openings with items such as newspapers, table cloths, curtains etc.
17. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the apparatus.
18. WARNING: Terminals marked with the ⚡ symbol may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by qualified personnel or the use of ready-made leads or cords.
19. CAUTION: Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.
20. WARNING: The batteries should not be exposed to excessive heat such as sunshine, fire or other heat sources.
21. WARNING: The mains plug is used as a disconnect device, the disconnected device will remain readily operable.
22. Explanation of symbols, markings, signal lamps or similar indicate that the apparatus is completely disconnected from the mains.  This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth.



23. - This lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's casing that may be of sufficient magnitude to constitute a risk of electric shock.
  - Warning: To reduce the risk of electrical shock, do not remove the cover (or back) as there are no user serviceable parts inside. Refer servicing to qualified personnel.
  - The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.



24.  Correct Disposal of this product. This marking indicates that this product should not be disposed of with other household waste throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collections systems in your area, or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

<b><u>Problem</u></b>	<b><u>Possible causes</u></b>	<b><u>What to do</u></b>
The display on the front panel does not light up	Main cable is not connected.	Check if the main cable is plugged into the power socket.
No sound or picture, but the front panel shows a red light.	The receiver is in stand-by mode.	Press the stand-by button.
No sound or picture.	The satellite dish is not pointing at the satellite	Adjust the dish. Check the signal level in the antenna setup menu.
	No signal or weak signal.	Check the cable connections, LNB and other equipment connected between the LNB and the receiver or adjust the dish.
	The satellite dish is not pointing at the satellite.	Adjust the dish.
	Signal is too strong.	Connect a signal attenuator to the LNB input.
Bad picture/blocking error.	Satellite dish is too small.	Change to a larger dish.
	LNB noise factor is too high.	Change to an LNB with a lower noise factor.
	The LNB is faulty.	Change the LNB
The picture is not showing on the screen when switched on.	The system is connected by RF leads (coaxial cables).	Check the UHF channel selected in your system and tune the UHF channel properly.
There is interference with your digital satellite channels, an existing terrestrial channel or video signal.	The system is connected by RF leads and the output channel of the receiver interferes with an existing terrestrial channel or video signal.	Change the receiver output channel to a more suitable channel or connect the system by SCART leads.
The RCU is not working	Batteries are exhausted.	Change the batteries.
	RCU is incorrectly aimed.	Aim the RCU at the receiver or check that nothing blocks the front panel.

**Note:** If you have tried all of the actions suggested above without solving the problem, please contact your dealer or service provider.

## **CONTENTS OF PACKAGING**

- 1x DVB-S2 receiver
- 1x IR eye
- 1x Remote control
- 2x AA batteries
- 1x 3.5mm to SubD cable
- Manual

## **GENERAL OPERATION**

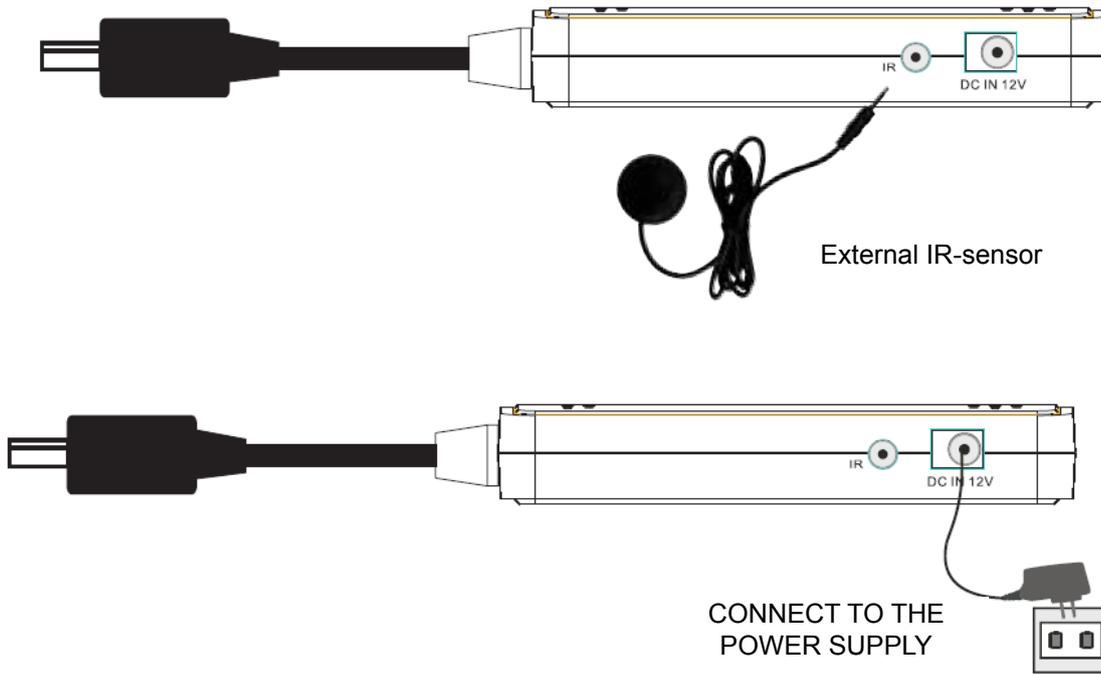
- Throughout this manual you will notice that the everyday operation of the receiver is based on a series of user friendly on-screen displays and menus. These menus will help you get the most from your receiver, guiding you through installation, channel organising, viewing and many other functions.
- All functions can be carried out using the buttons on the RCU, and some of the functions can also be carried out using the buttons on the front panel.
- The receiver is easy to use, always at your command and adaptable for future technological advances.
- Please be aware that new software may change the functionality of the receiver.
- Should you experience any difficulties with the operation of your receiver, please consult the relevant section of this manual, including the troubleshooter, or alternatively call your dealer or a customer service adviser.

## RCU

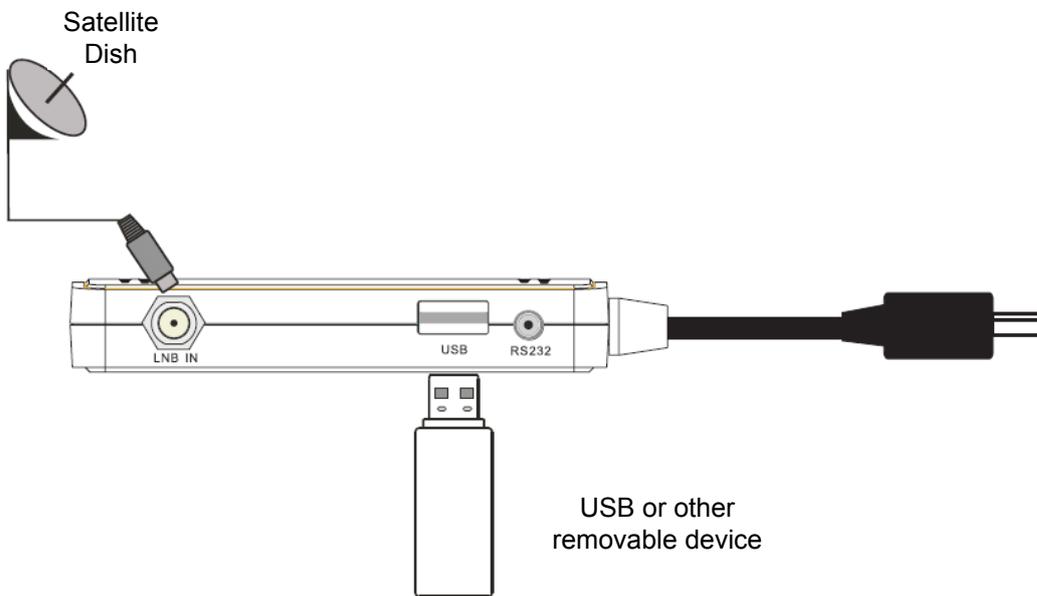


Key	Function
	Turns the DSR power ON/OFF
	When watching a channel, mutes the sound
0 ~ 9	Enter the number of the required menu item or select a channel number to search
TV/RADIO	Switches between TV and Radio mode
	Switches back to previous channel
FAV	Displays the favourite groups list
SAT	Displays the satellite window
FIND	Displays the Find window
INFO	Information on the current channel
MENU	To open the menu
	Page up and page down
OK/LIST	Executes the selected item in the menu screen or enters the desired value in any input mode.
PR+, PR-	To move one channel up or down
	Adjusts the volume up or down, or in the menu moves left or right
EXIT	Go to the previous menu or exit the menu
EPG	Go to the Electronic Programme Guide
	Go to the audio window
SLEEP	Enter sleep mode
TXT	Enter teletext or subtitle mode
TV/AV	Switches between TV and AV mode
V-FORMAT	Changes the HD format
RECORD	To record a programme
	Plays the programme
	Stops the programme
	Fastforward or rewind
	Skip forward or skip backward
SHIFT	Time shift function key (not active for this model)
PAUSE	Press once to pause, press again to unpause

## CONNECT TO POWER SUPPLY AND EXTERNAL IR-SENSOR



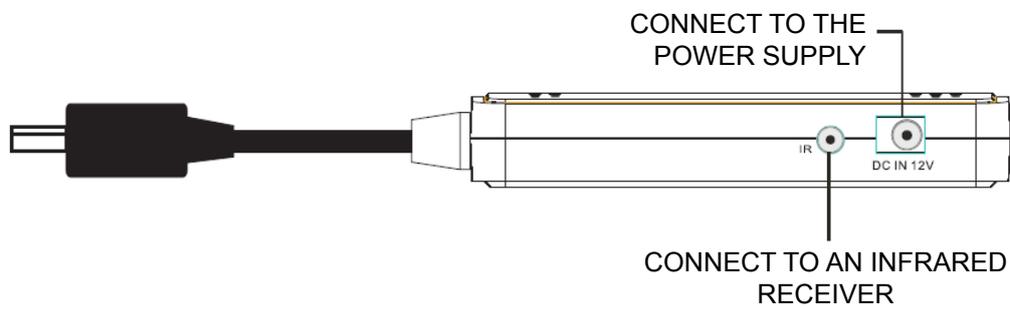
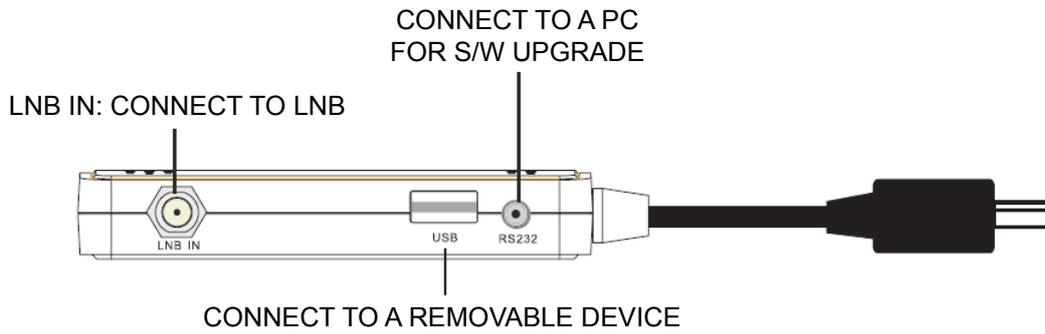
## CONNECTING TO A USB DEVICE



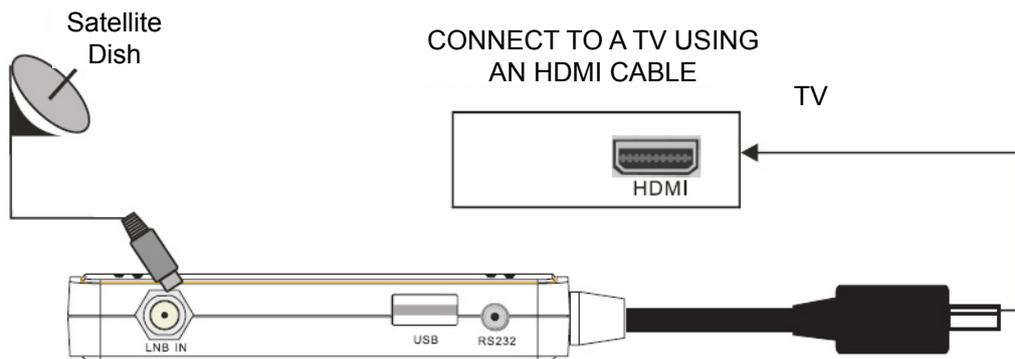
Note: Pictures are only for reference.

# INSTALLATION

## REAR PANEL



## CONNECT TO A TV USING HDMI SUPPORT



**Note: Pictures are for reference only.**

## MENU INFORMATION

### MAIN MENU

Make sure that you have properly installed and connected the receiver cables.

If the receiver is in factory status or there is no programme list (when the power is on), the Main Menu window will be displayed on the screen.

During the normal TV/Radio mode, press the MENU key on the RCU to enter into the Main Menu window.

This menu consists of 6 major main menus:

- Edit Channel
- Installation
- System Setup
- Tools
- Game
- REC



During the installation the OK key confirms a selection and the LIST key shows a Drop Down Box if the column has a ◀▶ mark. You can also use the numeric keys on the remote control (RCU) to enter a numeric value.

Use the PR+, PR- keys to move up and down from one line to another, and use the ⏪ ⏩ key to move from main menu to sub menu and move from left to right or vice versa.

In the meantime, if you want to escape the menu system, please press the MENU or EXIT key on the RCU.

Sub-menu	Turns grey when there is no programme		
Edit Channel	TV Channel List Radio Channel List Delete all		
Installation	Antenna Connection Antenna Setup Multi-Satellite Search	Satellite List Single Satellite Search TP List	
System Setup	Language Local Time Settings Parental Lock Favourite Display Settings	TV System Timer Settings OSD Settings Other	
Tools	Information Upgrade by RS232 Upgrade by USB Media Player Remove USB device safely	Factory Settings S/W Upgrade by OTA Conditional Access	
Game	Tetris	Othello	Sudoku
REC	PVR Storage Information PVR Settings		

# 1 Edit Channels

1. Press the OK or  $\Rightarrow$  key to pop up the "Input Password" dialogue box. You cannot enter the menu unless the correct password is input. The default password is "0000".
2. Press the PR+, PR- keys to move the cursor up or down.
3. Press the EXIT or  $\Rightarrow$  key to move the selection to the left menu.



## 1.1 TV Channel list

1. Press the  $\Rightarrow$   $\Leftarrow$  keys to select the satellite.
2. Press the PR+, PR- keys to select the programme that you want to play and then press the OK key to view it in the small window. If you move the yellow cursor to select up or down, you will see a grey line which indicates the playing programme in the small window.



3. Press the FAV key to move the FAV button upward. Select the programme and press the OK key to pop up the favourite groups list. In the list, select the group that you want to add and press the OK key. Then you will find the favourite marker is displayed on the right side of the selected programme.  
Press the FAV key again to exit from the FAV mode and you will find the FAV button returns to its original position.



4. Press the red key to move the lock button upward. Select the programme and press the OK key to mark this programme with the locked marker. You can cancel this marker by pressing the OK key once more.  
Press red key again to exit from the locked mode and you will find the locked button return to its original position.



5. Press the green key to move the skip button upward. Select the programme and press the OK key to mark this programme with the skip marker. You can cancel this marker by pressing the OK key once more.  
Press the green key again to exit from skip mode and you will find the skip button returned to its original position.



6. Press the yellow key to move the move the button upward. Select the programme and press the OK key to mark this programme with the move marker. Press the PR+, PR- keys to move the cursor to the position where you want it and press the OK key to confirm. Press the yellow key again to exit from yellow mode, and you will find the yellow button returned to its original position.



7. Press the blue key to enter the Edit channel window.



**i. Sort (red key)**

Press the red key to open the Sort drop-down list.

Name (A-Z): The ascending order, omitting the \$ Character. The numbers are at the beginning, then capital letters, and finally lowercase letters.

Name (Z-A): The opposite order from the above Name (A-Z).

Free/Scramble: All FTA programmes are listed at the beginning, while all scrambled programmes are listed last.

Lock: all locked programmes are listed last.



**ii. Edit (green key)**

Press the green key to move the Edit button upwards. Select the programme and press the OK key to pop up the Rename window.

In the Rename window, press the red key to switch between a capital letter and lowercase letter; press the green key to delete the character on the cursor; press the ← → keys to move the cursor left or right; press the numeric keys (0-9) to input the characters, please refer to the drop-down table. Press the yellow key to save and exit or press the blue key to cancel and exit.



Numeric keys	Press the numeric keys repeatedly, displaying in circle
1	.,*?!@1
2	ABC2
3	DEF3
4	GHI4
5	JKL5
6	MN06
7	PQRS7
8	TUV8
9	WXYZ9
0	[space]_ -0

If the name is empty, the system will pop up a dialogue box with “Name” once the yellow key is pressed. Press the OK key to close this dialogue box.

**iii. Delete (blue key)**

In the delete window, press the blue key to move the delete button upward. Select the programme and press the OK key to mark this programme with the delete marker. You can cancel this marker by pressing the OK key again.

Press the EXIT key to pop up the dialogue box “Are you sure you want to save?”. Select the Yes option and press the OK key to save, or select the NO option and press the OK key to exit without saving.

## 1.2 Radio Channel List

Same operation as 1.1 TV Channel List. Please look there for operation.

## 1.3 Delete All

Move cursor to Delete All Items, and press the OK key to pop up the dialogue box "Warning! Do you really want to delete all channels?". Press the EXIT key to pop up the dialogue box "Are you sure you want to save?". Select the Yes option and press the OK key to save, or select the NO option and press the OK key to exit without saving.



## 2. Installation

1. Press the OK or  $\triangleright$  key to pop up the "Input Password" dialogue box. You cannot enter the menu unless the correct password is input. The default password is "0000".
2. Press the PR+, PR- keys to move the cursor up or down.
3. Press the EXIT or  $\triangleleft$  key to move the selection to the left menu.



## 2.1 Antenna Connection

Press the  $\triangleright$   $\triangleleft$  keys to select between motor antenna and fixed antenna.



## 2.2 Satellite List

1. Press the PR+, PR- keys to select the satellite up or down. Press the OK key to select and mark, or you can press the OK key again to cancel the selection and the mark.
2. If there is no satellite, the red and blue keys will be invalid.
3. Press the red key to pop up the Edit Satellite Window. Press the PR+, PR- keys to move the cursor up or down.  
Name: Use the numeric keys to change the name of the satellite, please refer to Edit Channel Name.



Longitude: You can press the  $\triangleright$   $\triangleleft$  keys to switch between east longitude and west longitude. After pressing the OK key, you can use the numeric keys to edit the longitude, press the EXIT key or the PR+, PR- keys to exit editing mode. The range of the longitude is from 1 to 180 degrees. If beyond this range, the system will inform you "out of range" when you press the yellow key on the RCU.

After setting, press the yellow key to save and exit, or press the blue key to exit without saving.

4. Press the green key to pop up the satellite window. Since it's the same operation as the above Edit Satellite Window, Please read there for operation instructions.



5. Press the blue key to pop up the dialogue box “Are you sure you want to delete?”. Select the Yes option and press the OK key to delete the selected satellite. You can cancel this operation by selecting the NO option.

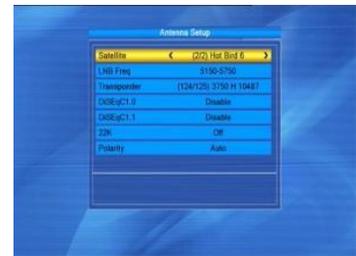


### 2.3 Antenna Setup

#### Part A: Fixed

Suppose that you have selected Fixed Antenna in the Antenna Connection window.

1. Satellite: All selected satellites in the satellite list are displayed in this item. Press the  $\leftarrow$   $\rightarrow$  keys to select the circled satellite. Or press the OK key to open the drop-down list, then select the desired satellite in the list and press the OK key to confirm.
2. LNB Freq, Transponder, DiSEqC 1.0, DiSEqC1.1: The same operation as above.
3. 22K, 0/12V, polarity: you can press the  $\leftarrow$   $\rightarrow$  keys to select what is circled.



#### Part B: Motor

Suppose that you have selected Motor Antenna in the Antenna Connection window.

1. LNB Type: Select the proper LNB type.
2. Motor Type: Select between DiSEqC1.2 and USALS. If you select DiSEqC1.2, the following Local Longitude and Local Latitude items will turn grey.
3. Delete All: Press the OK key to pop up the dialogue box “Are you sure you want to clear the set satellite position of this tuner?”. Press the OK key on the Yes option to clear all the memory of satellite positions that are connected to the current tuner.



4. Motor Settings: Press the OK key to enter the Motor Settings window. Satellite: Press the  $\leftarrow$   $\rightarrow$  keys to select the circled satellite. Or press the OK key to open the drop-down list, then select the desired satellite in the list and press the OK key to confirm. Transponder: The same operation as above.



Position No., & Save: The range is from 0 to 63. “0” denotes the original position. You can select the proper value when you rotate the antenna.

Go to X: Press the OK key to open the drop-down list, select the proper position (reference or from 1 to 63), in order to activate the selected position.

West <Save> East: Press the  $\Rightarrow$  key to turn west, or press the  $\Rightarrow$  key to turn east.

Press the OK key to pop up the dialogue box "Are you sure you want to change this satellite's position?".

Press the OK key on the Yes option to save the current position, or press the OK key on the NO option to cancel the operation.

Recalculation: Press the OK key to pop up the dialogue box "Are you sure you want to change this satellite's position?". Press the OK key on the Yes option for recalculation.

5. Limit Setup: Press the OK key to pop up the Limit Setup window.

Limit Setup: Press the  $\Rightarrow$   $\Leftarrow$  keys to switch between Disable Limit, East Limit and West Limit.

Limit Setup: Move the cursor to the Limit Setup button. You can press the  $\Rightarrow$  key to turn west, or press the  $\Leftarrow$  key to turn east.

Go to Reference: Press the OK key to go to reference.

If you select Disable Limit in the above Limit Setup item, this button will turn grey.



6. If you select USALS, Delete All Items will turn grey.

Local Longitude, Local Latitude: Press the  $\Rightarrow$   $\Leftarrow$  keys to switch between West and East, or press the  $\Rightarrow$   $\Leftarrow$  keys to switch between North and South. Press the OK key to enter editing mode. Use the numeric keys (0-9) to input the longitude or latitude, press the MENU or EXIT key to exit.

The range of the longitude is from 0 to 180 degrees, while The range of the latitude is from 0 to 90 degrees. If the input value is not in this range, the system will pop up an "Out of Range" dialogue box when you exit this window. You can press the OK key to close this dialogue box.



7. Motor settings: Press the OK key to enter into the Motor setting window.

Satellite, Transponder: Press the  $\Rightarrow$   $\Leftarrow$  keys to select satellite or transponder, or press the OK key to open the drop-down list and select within the list.



## 2.4 Single Satellite Search

1. Satellite: Press the  $\Rightarrow$   $\Leftarrow$  keys to select the circled satellite. Or press the OK key to open the drop-down list, then select the desired satellite in the list and press the OK key to confirm.

2. FTA Only: Press the  $\Rightarrow$   $\Leftarrow$  keys to select between Yes and No.

3. Scan Channel: Press the  $\Rightarrow$   $\Leftarrow$  keys to select between TV+Radio, TV Channel, Radio.

4. Network Search: Select between Yes and No. This item turns grey when Auto Scan is selected in the following Scan mode item.

5. Scan Mode: Press the  $\Rightarrow$   $\Leftarrow$  keys to select between Auto Scan and Preset Scan. Auto Scan is a Blind scan, while Preset Scan searches the preset frequencies.

6. Search: Press the OK key to start searching.



## 2.5 Multi Satellite Search

From the Multi Satellite Search window you can search several satellites at the same time.

1. Satellite: All selected satellites in the satellite list window are displayed in the lower section. You can press the  $\leftarrow$   $\rightarrow$  keys to switch between them.
2. FTA Only: Press the  $\leftarrow$   $\rightarrow$  keys to select between Yes and No.
3. Scan Channel: Press the  $\leftarrow$   $\rightarrow$  keys to select between TV+Radio, TV Channel, Radio.
4. Network Search: Select between Yes and No. This item turns grey when Auto Scan is selected in the following Scan mode item.
5. Scan Mode: Press the  $\leftarrow$   $\rightarrow$  keys to select between Auto Scan and Preset Scan. Auto Scan is a Blind scan, while Preset Scan searches the preset frequencies.
6. Search: Press the OK key to start searching.

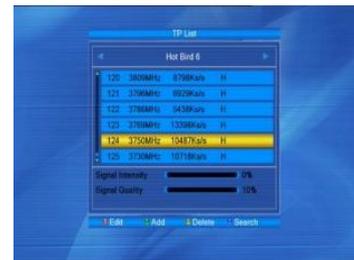


## 2.6 TP List

1. Press the PR+, PR-.keys to select the proper satellite.
  2. Press the red key to pop up the Edit TP window.
 

Frequency, Symbol rate: Press the  $\leftarrow$   $\rightarrow$  keys to add or reduce step by step. Or press the  $\leftarrow$   $\rightarrow$  numeric keys (0-9) to input the desired value. The range of the frequency is 3000-13500, while the range of the symbol rate is 1000~45000. If the input value is beyond this range, the value will return to the original value.

Polarity: Press the  $\leftarrow$   $\rightarrow$  keys to switch between Vertical and Horizontal.
  3. Press the green key to pop up the Add TP window. Same operation as the above Edit TP window.
  4. Press the yellow key to pop up the dialogue box “Are you sure you want to delete?”. Press the OK key on the Yes option to delete the selected TP, or press the EXIT key to cancel the operation.



- Press the blue key to pop up the Search window.  
FTA only, Scan Channel, Network Search:  
Press the  $\Rightarrow \Leftarrow$  keys to select the proper option.  
Press the OK key to start searching.

### 3. System Setup

- Press the OK or  $\Leftarrow$  key to move the cursor to the right menu.
- Press the PR+, PR- keys to move the cursor up or down.
- Press the EXIT or  $\Rightarrow$  key to move the selection to the left menu.

#### 3.1 Language

- Press the OK key to enter the Language window. Press the  $\Rightarrow \Leftarrow$  keys to select the language circled, while pressing the PR+, PR- keys to move the cursor up or down within the circle.
- Press the MENU or EXIT key to save and exit.
- For language type, please refer to the customer configuration.



#### 3.2 TV System

Press the PR+, PR- key to move the cursor up or down, while pressing the  $\Rightarrow \Leftarrow$  keys to change the setting (the setting will take effect immediately).

- Display Mode: Select between 1080i\_25, 1080i\_30, 1080p\_50, 720p\_60, 720p\_50, 576p, 576i, 480p, 480i, By Native TV and 1080p\_24.
- Aspect Mode: 4:3 PanScan, 16:9. Select between 4:3LetterBox.
- Video Output: Select between RGB and CVBS.
- Digital Audio Out: Select between LPCM Out and BS Out.

#### 3.3 Display Setting

- Brightness: Press the  $\Rightarrow \Leftarrow$  key to select from 0-100.
- Contrast: Press the  $\Rightarrow \Leftarrow$  key to select from 0-100.
- Saturation: Press the  $\Rightarrow \Leftarrow$  key to select from 0-100.
- Hue: Press the  $\Rightarrow \Leftarrow$  key to select from 0-100.
- Sharpness: Press the  $\Rightarrow \Leftarrow$  key to select from 0-10.



#### 3.4 Local Time Setting

- Summer Time: Select between ON and OFF.  
"OFF" delegates the normal time. If ON is selected, the time will add one hour.
- GMT Offset: When selecting "ON" in the GMT Usage item, the system will get the date and time information from the screen automatically. Date and Time items will turn grey. Select the proper option in the GMT Offset item. The default setting is GMT ON.
- Date, Time: When selecting "OFF" in GMT Usage, the Date and Time items take effect, while GMT Usage turns grey. Use the numeric keys to input the desired value 5.  
After setting, press the MENU or EXIT key to exit and save. If the value is invalid, the system will display "Invalid input! Continue to edit?". Press the OK key on the Yes option to continue with the modification, or press the OK key on the No option to exit without saving.



#### 3.5 Timer Setting (Not available for this model)

If there is no programme, you cannot enter this window. There are 8 timers that can be set.

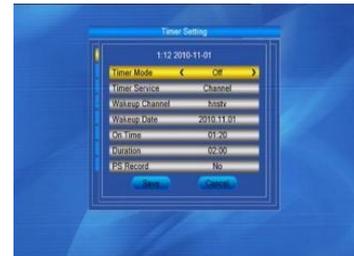
Select Timer up or down, and press the OK key to enter the setting window.

- Timer mode: The default mode is off. You can set the timer once, daily, weekly, monthly or yearly.
- Timer Service: Select between Channel or Record. If the Channel is selected, the Wakeup Channel is displayed in the following screen. If Record is selected, the Wakeup Message is displayed in the following



screen. In the wakeup message, you can select between Birthday, Anniversary, General. At the same time the duration item will turn grey.

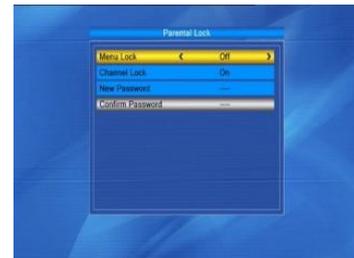
3. Wakeup Date, On Time: Use the numeric keys to input the valid date. Duration: Set the gap time. After waking up, system will power off automatically after the duration time. Press the MENU or EXIT key to save and exit.



### 3.6 Parental Lock

Before entering the Parental Lock window, you need to input the correct password. The default password is 0000.

1. Menu Lock: Press the  $\Rightarrow \Leftarrow$  keys to select between Off and On. If you select "On", you cannot enter the window before entering the password.
2. Channel Lock: Press the  $\Rightarrow \Leftarrow$  keys to select between Off and On. The default value is Off. If you select "On", you cannot view the locked channel set in Channel List Edit window until you have input the correct password.
3. New Password: User the numeric keys (0-9) to input the new password.
4. Confirm Password: Input the new password again. The confirmed password must be the same as the new password. The system will inform you "Password changed successfully!" if they are the same, or ask you to input the password again if they are not the same.



### 3.7 OSD Setting

1. OSD timeout: Press the  $\Rightarrow \Leftarrow$  keys to select from 1 to 10 by step 1. The default value is 5.
2. OSD Transparency: Press the  $\Rightarrow \Leftarrow$  keys to select between Off, 10%, 20%, 30%, 40%. The default option is Off. Press the MENU or EXIT key to save and exit.



### 3.8 Favourite

There are 32 favourites groups listed in this window. Press the PR+, PR- keys to select one and press the OK key on the rename window. For explanation please look at: Add Satellite window.



### 3.9 Other

1. LNB Power: Select between Off and On.
2. Channel Play Type: Select between All, Free, Scramble.
3. Channel Change: Select between black screen and freeze.



### 4. Tools

1. Press the OK or  $\Leftarrow$  key to pop up the "Input Password" dialogue box. You cannot enter the menu unless the correct password is input. The default password is 0000.
2. Press the PR+, PR- keys to move the cursor up or down.
3. Press the EXIT or  $\Rightarrow$  key to move the selection to the left menu.



#### 4.1 Information

Press the OK key on the Information window.



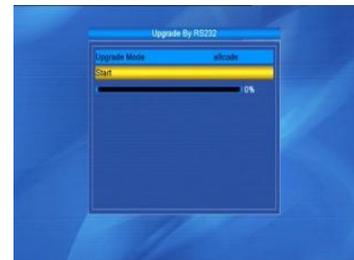
#### 4.2 Factory Setting

Press the OK key to enter the Factory Setting window. Select the Yes option and press the OK key to return to the factory setting. All searched channels and set information will be erased. Select the No option and press the OK key to cancel this operation, or press the MENU or EXIT key to cancel and exit.



#### 4.3 Upgrade By RS232

1. Press the  $\leftarrow$   $\rightarrow$  keys to select between all code, Main code, card, Radio back, key date default db, user db. The default option is all code.
2. Press the OK key on the Start button to start checking the serial port.



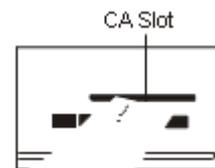
#### 4.4 S/W Upgrade by OTA

1. Satellite, Transponder: Select the proper satellite or transponder.
  2. Frequency, Symbol Rate, Download PID: Use the numeric keys to input the proper value.
  3. Polarity: Select between H and V.
  4. Start: Press the OK key to start upgrading.
- If there is no correct information, system will display "Collecting information". You can press the OK key on the Stop button and then press the OK key on the Exit button to return to the previous window. The system will start upgrading after collecting the information successfully. Press the OK key on the Download button and press the OK key on the Burn flash button to start burning. After booting, press the OK key on the Reboot button to reboot.



#### 4.5 Conditional Access (Not active for this model)

Insert the smart card with the chip facing down. Push the smart card into the CA slot. Only a few millimeters of the card should be visible outside the slot. Select the Conditional Access item and press the OK key. You will then enter its sub-menu which consists of four items about CA Info, Change PIN, Change Signature PIN, Maturity Level.



#### 4.5.1 About CA Info

In the About CA Info sub-menu, you can view the basic information about this conditional access such as Card Status, CAS System ID, Interface Version, Card Number, Number of sessions, Country Indicator, and Maturity Level.



#### 4.5.2 Change PIN

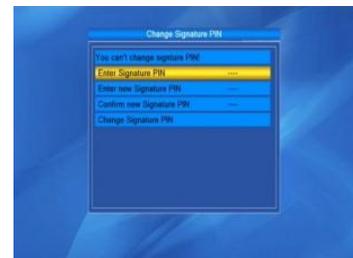
The Change PIN window is designed for changing the smart card's PIN, which is required if you want change the maturity level settings. In order to change the PIN, you must know the current PIN, also called the old PIN. Input the new PIN you want twice (New PIN and Confirm PIN must be the same). Move the cursor to the OK button and press the OK key, and the system will pop up a dialogue box informing you of the PIN change result. Note that the PIN can only made up of Arabic numerals.



#### 4.5.3 Change Signature PIN

Follow the instructions above for Change PIN.

Note: The signature PIN will be locked after three failed attempts to enter the correct PIN. If locked, please call the product dealer for help.



#### 4.5.4 Maturity Level

Input the PIN then Move the cursor to Select Maturity level, you can select A-Over18, X-Erotic, G-General audience, PG-Parental Guidance, then move cursor to the Change Maturity level button and press the OK key, and the system will pop up a dialogue box informing you of the result.

#### 4.5.5 Subscription Status

View detailed information for the Subscription Status.

#### 4.5.6 Even Status

View the detailed information for the Event Status.

#### 4.5.7 Token Status

View the detailed information for the Tokens Status.

#### 4.6 Upgrade by USB

1. Upgrade File: View the Upgrade File.
2. Upgrade Mode: Select between allcode, maincode, defaultdb, userbd. and Dump When users change the upgrade mode, Upgrade File will show the corresponding file according to the table below:



Upgrade Mode	File feature
All code:	File named as "*.abs"
Main Code:	File named as "*.abs"
Radio back:	File named as "*.abs", the picture will be used as both the radio back and menu back
Default db:	File named as "*.abs"

Select the upgrade mode and upgrade file, then you can start to upgrade by USB.  
 3. Press the OK key on the start button to start receiving data from the USB device.  
 When the USB device is not connected, this item is grey, and you cannot edit it.

#### 4.7 Media Player

The USB menu will be automatically shown when inserting a U disk to the USB port except auto scan, multi picture, upgrade. Or open the USB menu via to Menu -> Tools-> USB. Press the OK button to enter this window.

The USB menu will be disabled when no USB device is plugged in. The Media Play List will not be saved when the USB plug is out or the unit is in standby or powered off.

Move the scroll bar when pressing the up/down key, page up or down by the page key. Go into the sub-directory when pressing the ok key in the file directory, play the selected file when the scroll bar is on the file, it will automatically return to the USB menu when play is over.

#### Function Key

Yellow key: press to show the playlist.

Red key: press to show the setup window.

Green key: press to show the sort list.

Blue key: press to show repeat mode.

1. Press the 0 key to add all music to the playlist.
  2. Press the 1 key to add all images to the playlist.
  3. Press the 2 key to change between different removable devices.
- FAV: Press the FAV key to add the image you selected to the playlist.



#### Playlist

Press the PR+, PR- key to select the image you want and press the FAV key to add the image to Playlist. Press [OK] on the Playlist button to see the image you selected, in this list you can play and delete them.

Red key: Plays the image in full screen.

Yellow key: Deletes the image you selected.

Blue key: Deletes all images in the list.



#### Setup

Slide Show Time: Select between 0-9sec.

Slide Show Repeat: Select between on and off.



#### Sort

Press [OK] on the Sort button, to open the Sort drop-down list.

Name (A-Z): The ascending order, omitting the \$ character, numbers at the top, then capital letters, and lastly lowercase letters.

Name (Z-A): The opposite order from the above Name (A-Z).



#### 4.8 Remove USB device safely

Press OK on this item to pop up a dialogue box: "You can safely remove the USB device now!", then you can remove your USB device safely.



#### 5. Game

1. Press the OK or  $\triangleright$  key to open the game.
2. Press the PR+, PR- keys to move the cursor up or down.
3. Press the EXIT or  $\triangleleft$  key to move the selection to the left menu.
4. Select the game that you want to play and press the OK key to enter the window.



#### 6. REC (Not available for this model)

##### 6.1 PVR storage information

Displays information in a separate window.

Yellow key: Press the yellow key to format the disk

Blue key: Press the blue key to pop up the DVR Set window.



##### 6.2 PVR Setting

1. Time shift: Select between Off and On.
2. Jump: Select between 30sec, 1min, 5min, 10min, 30min.
3. Timeshift to Record: Select between On and Off.
4. PS Record: Select between On and Off.



#### 7. Hot key

##### 7.1 Info

Press the INFO key to pop up the Info bar.

Press the INFO key again to pop up the programme guide for the current program.



## 7.2 EPG

Press the EPG key to enter the EPG window.

1. Press the PR+, PR-,  $\leftarrow$   $\rightarrow$  keys to select up or down, left or right.
2. Press the red key to pop up the Time Bar window. Press the PR+, PR- keys to select up or down, while pressing the  $\leftarrow$   $\rightarrow$  keys to select left or right in the time bar.
  - : Press the OK key on this button to return to the EPG window.
  - : Press the OK key on this button to move the cursor to the current time line.
  - : Press the OK key to push the time forward or backward by half an hour.
  - : Press the OK key to push the time forward or backward by half an hour.
  - : Press the OK key to push the time forward or backward by a day.
  - : Press the OK key to push the time forward or backward by a day.
3. Detailed Information: In the EPG window, press the PR+, PR-  $\leftarrow$   $\rightarrow$  keys to select the channel and programme and press the OK key to view the detailed information for the current programme.
4. Press the green key to enter the Timer window. You can add the current programme to the Timer. If 8 timers are already set, the system will inform you "Timer is full!".



## 7.3 Find

Press the FIND key to pop up the Find window.

Use the numeric keys to enter the characters and use the coloured keys to bring up the corresponding operation.



## 7.4 Number

Use the numeric keys (0-9) to input the number of the desired channel. If the input number is beyond the valid channel number, the system will show "No such a channel", press the OK key to close this message.

## 7.5 TV/RADIO

In normal mode, press the TV/RADIO key to switch between TV mode and Radio mode.

## 7.6 Up/Down (Channel Change)

Press the PR+, PR- keys to change the channel up or down. If in all satellite groups, you can select the channel from all searched channels. If for a specific satellite, you can only select the channel from the satellite group.

## 7.7 Left/Right (Volume+/-)

Press the  $\leftarrow$   $\rightarrow$  keys to change the volume. Press the  $\leftarrow$  keys to decrease the volume, while pressing the  $\rightarrow$  keys to increase the volume.

## 7.8 Mute

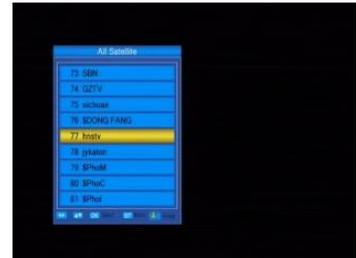
Press the key to turn off the volume. You can press the key again to restore the volume, or press the  $\leftarrow$   $\rightarrow$  keys to increase the volume.

## 7.9 Pause

While viewing, you can press the PAUSE key to stop the picture while the sound continues. You can play the picture by pressing the PAUSE key once again.

### 7.10OK

1. During viewing or listening, press the OK key to pop up the TV programme list or the Radio programme list.
2. Press the PR+, PR- keys to select the channel up or down, and then press the OK key to play this channel in full-screen.
3. Press the  $\leftarrow$   $\rightarrow$  keys to select the satellite.
4. Press the MENU or EXIT key to close this window.



### 7.11 Audio

1. Press the  $\leftarrow$   $\rightarrow$  keys to enter the Audio window.
2. Press the  $\leftarrow$   $\rightarrow$  keys to select between Left, Right, Stereo and Mono.
3. Changing the audio mode is only connected with the current channel, not all the channels.
4. Press the MENU or EXIT key to close this window.



### 7.12Recall

Press the  $\leftarrow$  PR key to switch the current channel to the previous channel.

### 7.13FAV

1. Press the FAV key to pop up the favourite group window.
  2. Press the  $\leftarrow$   $\rightarrow$  keys to select the favourites group.
- Press the PR+, PR- keys to select channel up or down. Press the OK key on the selected channel to view it in full-screen. Press the MENU or EXIT key to exit.
3. If there is no favourite channel, the system will display "No FAV Channel!" when you press the FAV key.



### 7.14Teletext

Press the TXT key to open the teletext on the screen. If there is no teletext, the system will display "No Teletext Data". Press the EXIT key to exit.

### 7.15Zoom

1. Press the ZOOM key to switch between Zoom\*1, Zoom\*2, Zoom\*3, Zoom\*4, Zoom\*5, Zoom\*6, Zoom\*8, Zoom\*12, Zoom\*16.
2. In zoom mode, press the PR+, PR- or  $\leftarrow$   $\rightarrow$  keys to move the cursor up, left, right or down.
3. Press the MENU or EXIT key to exit.

## 8. More tools (For all the tools below you'll need a USB WiFi dongle!)

### 8.1 Network local setting

DHCP: Select between On and Off. When switched On the IP address, Subnet mask and gateway items will turn grey and can't be edited anymore. Press the numbers 0-9 to input the address.



### 8.2 WiFi manager

Insert the Wifi equipment first, then search available enter net signal; input the password to connect with the network.

### 8.3 Upgrade by network

1. Protocol: select between HTTP and FTP
2. URL type: select between number and string
3. URL: press the number keys 0-9 to input
4. User: press the number keys 0-9 to input the user name
5. Press the number keys 0-9 to input the password

6. Press the OK key on the star button to begin updating. Press the green key to delete the number or characters and press the red key to switch the input mode.

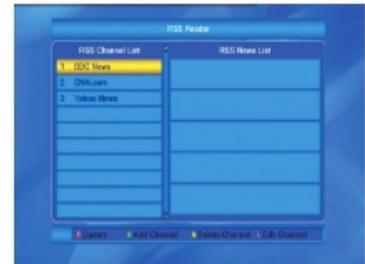
#### 8.4 Weather forecast

- Press the green key to enter city  
 Press the yellow key to delete city  
 Press the red key to update



#### 8.5 RSS reader

- RSS channel list is on the left side of the window.  
 RSS news list is on the right side of the window.  
 Press the PR+, PR+ key to select the channel you want  
 Press the red key to update  
 Press the green key to add a channel  
 Press the yellow key to delete a channel  
 Press the blue key to edit a channel



Problem	Possible causes	What to do
The display on the front panel does not light up.	Main cable is not connected.	Check that the main cable is plugged into the power socket.
No sound or picture, but the front panel shows a red light.	The receiver is in standby mode.	Press the standby button.
No sound or picture.	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the signal level in the Antenna Setup menu.
	No signal or weak signal.	Check the cable connections, LNB and other equipment connected between the LNB and the receiver, or adjust the dish.
Bad picture / blocking error.	The satellite dish is not pointing at the satellite.	Adjust the dish.
	Signal is too strong.	Connect a signal attenuator to the LNB input.
	Satellite dish is too small.	Change to a larger dish.
	LNB noise factor is too high.	Change to an LNB with a lower noise factor.
	The LNB is faulty.	Change the LNB.
The picture is not showing on the screen, when switched on.	The system is connected by RF leads.	Check the UHF channel selected in your system and tune the UHF channel properly.
There is interference with your digital satellite channels, an existing terrestrial channel or video signal.	The system is connected by RF leads and the output channel of the receiver interferes with an existing terrestrial channel or video signal	Change the receiver output channel to a more suitable channel, or connect the system by SCART Leads.
The RCU is not working.	Batteries are exhausted.	Change the batteries.
	RCU is incorrectly aimed.	Aim RCU at the receiver, or check that nothing blocks the front panel.

Note: If you have tried all of the actions suggested above, without resolving the problem, please contact your dealer or service provider.

**Safety precautions:**

To reduce risk of electric shock, this product should ONLY be opened by an authorized technician when service is required. Disconnect the product from mains and other equipment if a problem should occur. Do not expose the product to water or moisture.

**Maintenance:**

Clean the product only with a dry cloth.  
Do not use cleaning solvents or abrasives.

**Warranty:**

Any changes and/or modifications to the product will void the warranty. We cannot accept any liability for damage caused by incorrect use of this product.

**Disclaimer:**

Designs and specifications are subject to change without notice. All logos, brands and product names are trademarks or registered trademarks of their respective holders and are hereby recognized as such.

**Disposal**

- This product is designated for separate collection at an appropriate collection point. Do not dispose of this product with household waste.
- For more information, contact the retailer or the local authority responsible for waste management.



## Declaration of conformity

We,  
Nedis B.V., De Tweeling 28, 5215MC, 's-Hertogenbosch  
The Netherlands  
Tel.: 0031 73 5991055  
Email: info@nedis.com

Declare that product:

Brand: **KÖNIG ELECTRONIC**  
Model: **DVB-S2 REC20**

Description: High definition DVB-S2 receiver

Is in conformity with the following standards:

**EMC: EN55013 : 2001+A1 : 2003+A2 : 2006 ; EN61000-3-2 : 2006+A1 : 2009+A2, EN61000-3-3: 2008;  
EN55020:2007**

**ERP: EN62301: 2005; IEC62087:2008 (FprEN 62087:2009)**

**LVD: EN60065:2002+A1: 2006+A11:2008**

EU Directive(s):

**EMC directive 2004/108/EC; ERP DIRECTIVE 2009/125/EC; LVD DIRECTIVE 2006/95/EC**

's-Hertogenbosch, **21-12-2012**

Mr.: **Victor Hoyneck van Papendrecht**  
Chief Operating Officer (CEO)



Mr. Victor Hoyneck van Papendrecht  
CEO

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