

Operation Manual

Free To Air
Digital Satellite Receiver

REV 1.0



Instruction Manual

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Introduction

Welcome to the world of new digital satellite receiver that will make your life richer and closer to your dream. Before using your new receiver, we suggest that you read this manual carefully for your own safety and correct operation.

Digital Satellite Receiver

The digital satellite receiver consists a memory of up to 4000 digital channels and is an advanced multi satellite system. The receiver is designed to cope with the many different operating requirements often imposed by different broadcast standards and program providers world-wide. During the development, we have evolved the best possible solutions to create the next generation of satellite receivers. Together with the most up-to-date electronics and easy to use on-screen menu system, the new digital satellite receiver is designed to give you outstanding picture and CD-quality audio.

Before you install and operate the receiver, please read the following safety notice.

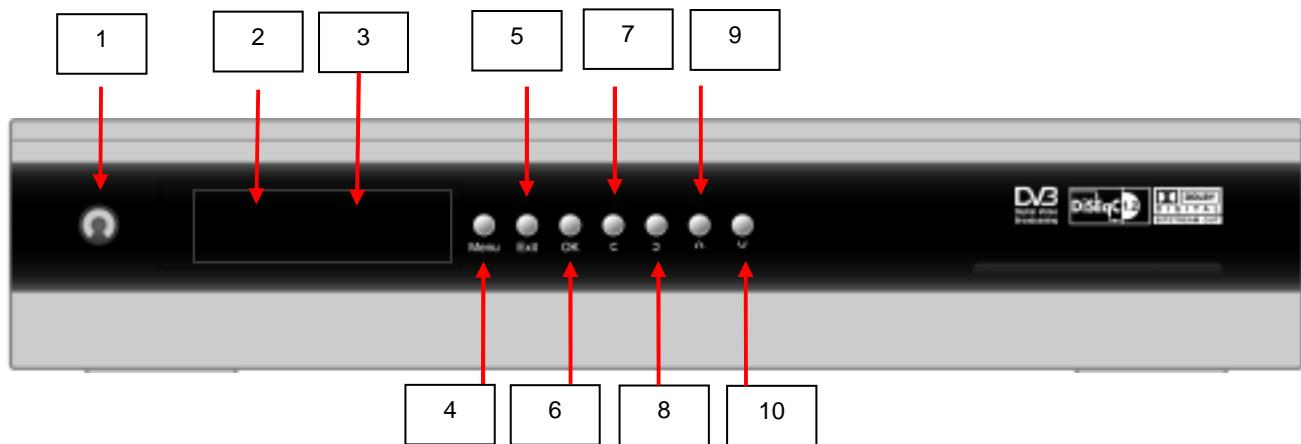
Safety Notice

- **DANGER! HIGH VOLTAGE! RISK OF ELECTRIC SHOCK!**
- Lethal voltages are present inside the unit. Always unplug the receiver completely from the mains outlet before connecting or disconnecting anything.
- Please refer all servicing to qualified service agents.
- Never expose the unit to water, moisture, extreme cold or direct sunlight.
- Slots are provided for proper ventilation of the unit, do not obstruct these.
- Do not insert or drop small objects into the unit.
- Install the unit in a well-ventilated location.
- Never cover the unit or operate the unit near any heat source.
- It is advisable to unplug the unit from the mains, TV, and the satellite dish when a thunderstorm is expected.
- The unit shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the unit.

Cleaning Your Receiver

- Always unplug the unit from mains outlet before cleaning the unit.
- Do not use solvents of any kind to clean the unit, only use a soft-dry cloth.

Front Panel Controls



CONTROLS AND DEFINITIONS

1. STANDBY/ON

After connecting the mains power, press this button to switch ON the receiver or to switch to STANDBY

2. REMOTE CONTROL SENSOR

Location of the infrared receiver. Ensure that this is not obstructed when using the remote control.

3. DIGIT LED DISPLAY

This will display the current channel or certain programming functions when using the menus.

4. MENU

Press this button to display the Main Menu page and to go to previous menu with saving changed values.

5. EXIT

Press this button to exit from menu pages.

6. OK

This button is to confirm setup or menu options.

7. VOL (Left)

In program mode this button will move the cursor (highlighted) to the left to facilitate selection. In normal operation mode it will decrease the sound volume

8. VOL (Right)

In program mode this button will move the cursor (highlighted) to the right to facilitate selection. In normal operation mode it will increase the sound volume.

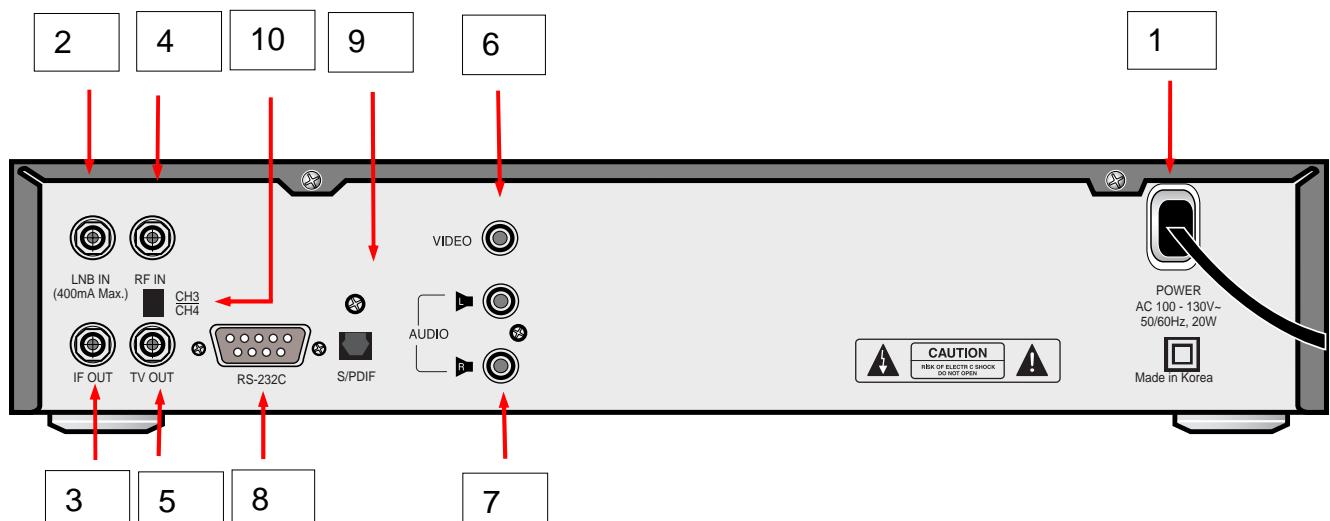
9. CH (Up)

In program mode this button will move the cursor (highlighted) upwards to facilitate selection. In normal operation mode it is used to step up channels sequentially.

10. CH (Down)

In program mode this button will move the cursor (highlighted) downwards to facilitate selection. In normal operation mode it is used to step down channels sequentially.

Rear Panel Connections



CONNECTORS AND DEFINITIONS

1. AC IN (Power Cord)

Connect this lead to the mains outlet (100-130 V AC 50/60 Hz) after all other connections have been made.

2. IF INPUT

Connect the IF cable from your LNB on your dish to this connector.

3. IF LOOP OUT

If you have a second satellite receiver, the receivers LNB input to this connector.

4. ANT IN

Connect your VHF TV antenna to this connector.

5. TV OUT (VHF Modulator Output)

Connect your TV or VCR to this connector.

6. VIDEO

Composite video output for connecting to an AV monitor etc.

7. AUDIO LEFT / RIGHT

Audio outputs for connecting to a stereo amplifier.

8. RS-232

Connect your PC via this connector using a NUL female to female RS232 cable when you wish to upgrade the system software.

9. SPDIF

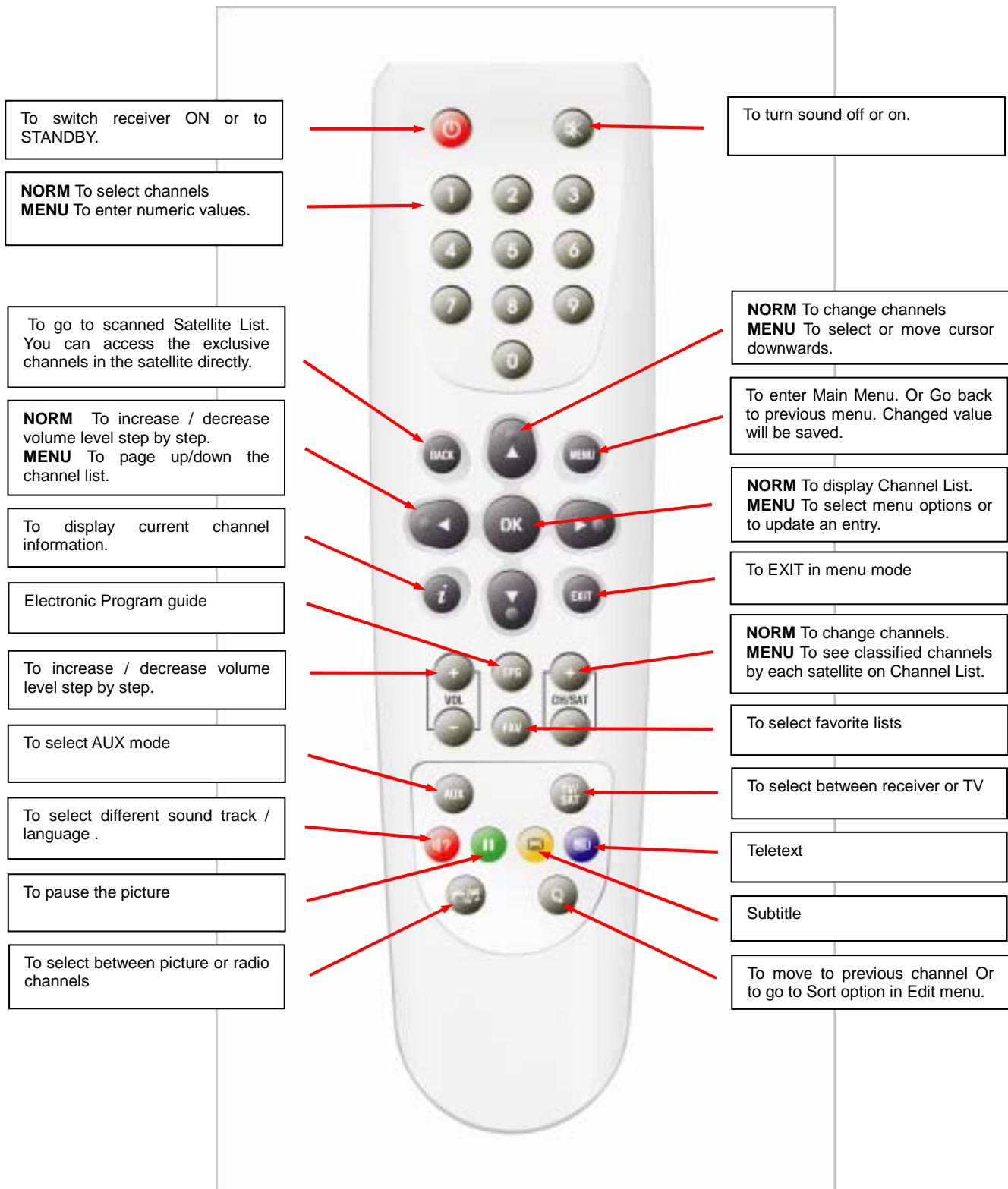
Digital audio output for optical cable.

10. CHANNEL SELECT SWITCH

Select channel 3 or 4.

Remote Control Functions

We recommend that you familiarize yourself with the remote control handset prior to installing the receiver.



NORM : Normal operation in viewing mode.

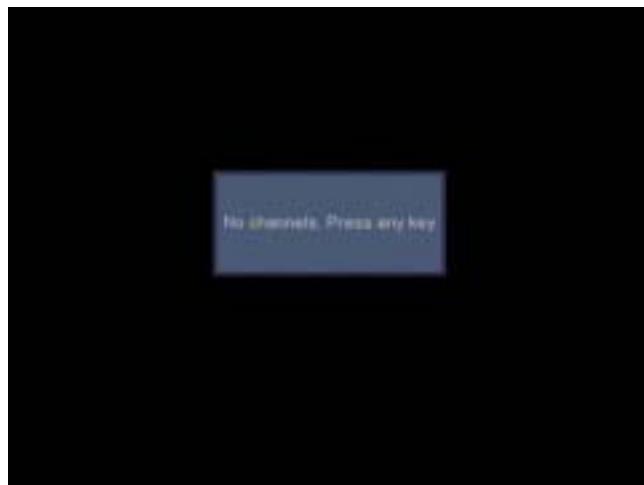
MENU : Operation in Menu field.

First Switch - On

The receivers programming menus are designed to assist you from the moment you switch on the receiver. When programming, the help messages will appear at the bottom of the page indicating the appropriate handset buttons associated with each function.

In digital mode in order to appreciate digital quality picture, connect your receiver to your TV set using a fully wired RCA cable. If you connect your TV using a VHF lead, then follow these steps below for tuning your TV to the receiver's VHF output channel.

1. The VHF channel output of the receiver has been factory set to CH 3. If you experience picture interference (e.g. from your VCR) you may need to change the VHF channel output to use channel select switch In the rear panel.
2. Connect your receiver to the mains supply. The INFOBOX of the front panel will display "noPr"
3. Select channel 3 for your TV



4. Press the **MENU** button.



5. Select a spare channel on your TV for use with your satellite receiver. In this case you should change satellite receiver channel first, then change TV channel. Because the VHF channel is different each other, you cannot watch receiver display.

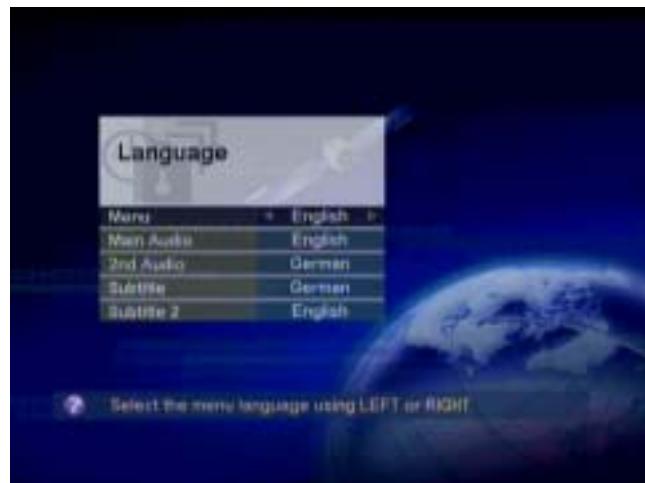
6. You can change the desired language by moving the cursor to **Language of Configuration** menu.

1. Configuration



1.1 Language

You may change the default menu/audios/subtitles Language. The number of Languages available depends on the receiver's software version. To change the menu language, Press Left / Right arrow button.



1.2 Change Password

You may change the default Password. To change the Password, press Numeric buttons and confirm the settings



1.2.1 Old Password

Use 0-9 buttons, enter 0000. This is the default password.

1.2.2 New Password

Use 0-9 buttons and enter four numbers of your choice.

1.2.3 Verify Password

Use 0-9 buttons and re-enter four numbers of your choice.

After above, the **Installation** and **Edit Program** Menu can only be accessed using the new password you programmed. It is therefore important to remember this password.

1.3 Parental Control



Select the age limit (OFF, 6, 9, 12, 15, or 18) for channels which have parental control information. If the contents have the parental guide information, it will be locked automatically according to the option.

1.4 V/A Setting

The **V/A setting** menu contains various options that allow you to configure the receiver to suit your system. If you access **V/A Settings** in the **Configuration** menu, the menu will appear as below.



1.4.1 AUDIO OUTPUT

You can select audio output, Stereo, Left(Mono), Right(mono), Mixed(mono).

1.4.2 Screen Format

Select between a standard TV aspect ratio among 4:3, 16:9 and Letter-Box..

- 16:9 Mode is to be active only if a program is transmitted in this format.
- With a modern 4:3 TV, 16:9 mode may produce a “Letter Box” format.
- 4:3 can not display all screen of 16:9 mode. The left and right picture is to be cut by ratio of 4:3 mode

1.5 Time Setting

The **Time setting** menu contains various options that allow you to configure the receiver to suit your system. If you access **Time Settings** in the **Configuration** menu, the menu will appear as below.



1.5.1 Display

You can select the display format of the time using Left or Right button

1.5.2 GMT Offset

You can select the Offset time using Left or Right button

In order to display the correct time when EPG function is used, Please ensure that the transmitted time settings are adjusted to suit your location. This should be done on a TP which is currently transmitting EPG.

1.5.3 Summer Time

You can select Summer Time On/Off.

1.5.4 Sleep Time

This function is to sleep the receiver automatically. Set the sleep time by minutes.

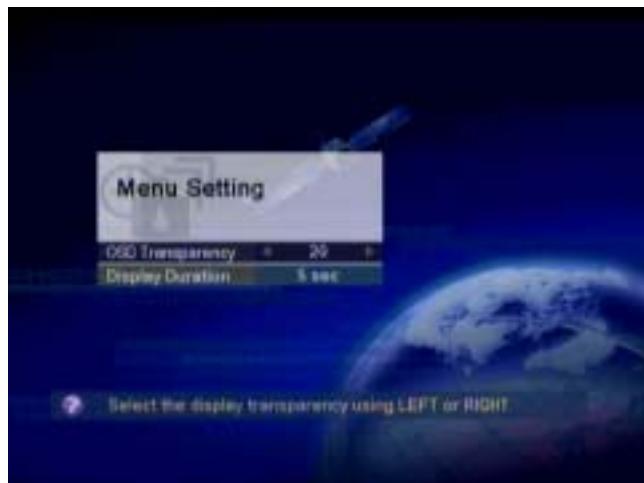
1.5.5 Power-On Time

Set timer when you want to turn on the receiver automatically. Input digits by numeric buttons.

1.5.6 Power-Off Time

Set timer when you want to turn off the settop automatically. Input digits by numeric buttons.

1.6 Menu Setting



1.6.1 OSD Transparency

You can adjust the menu display transparency to suit your needs. This allows you to view background, picture while the menu mode provided on pre-tuned channels. Adjust by Left / Right arrow buttons.

1.6.2 Display Duration

You can adjust the channel information banner display duration time

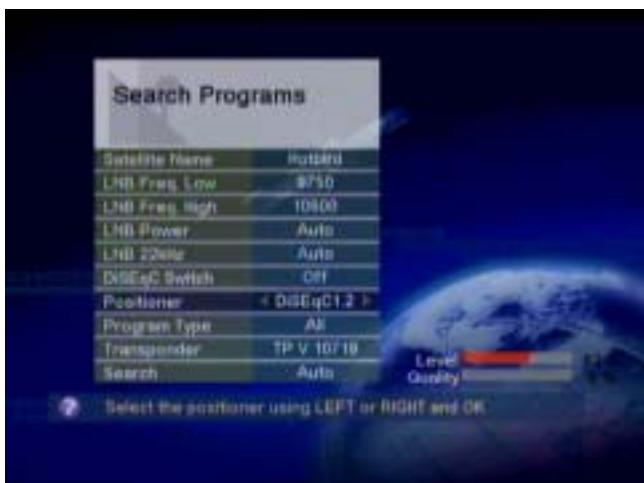
2. Installation

For ease use of installation please refer to the basic operations of the remote control and the help messages at the bottom of the on-screen Menu.



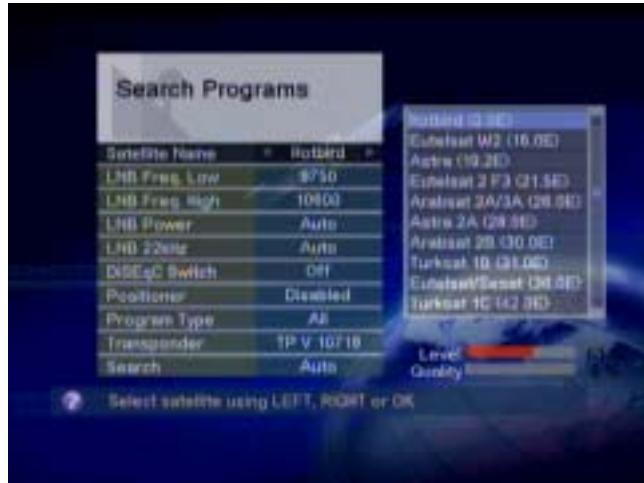
2.1 Search Programs

Select **Search Programs** in the **Installation** Menu. The below menu will appear on your screen.



2.1.1 Satellite Name

This menu is to select the satellite your dish aim to. Press OK button to enter satellite list.



2.1.2 LNB Freg. Low

Move cursor down to LNB Freg. Low, then using Left / Right or numeric 0~9 buttons select the appropriate LNB type you are using.

2.1.3 LNB Freg. High

Move cursor down to LNB Freg. High, then using Left / Right or numeric 0~9 buttons select the appropriate LNB type you are using.

2.1.4 LNB Power

LNB Power control has two kinds of function. One is for selection of vertical/horizontal of LNB. The second function is for selection of LO frequency. And LO frequency select is applicable in C band.

1. **OFF** = NO supply
2. **14V** = VERTICAL ONLY
3. **18V** = HORIZONTAL ONLY
4. **AUTO** = VERTICAL and HORIZONTAL

If your LNB is controlled by another receiver, then select OFF.

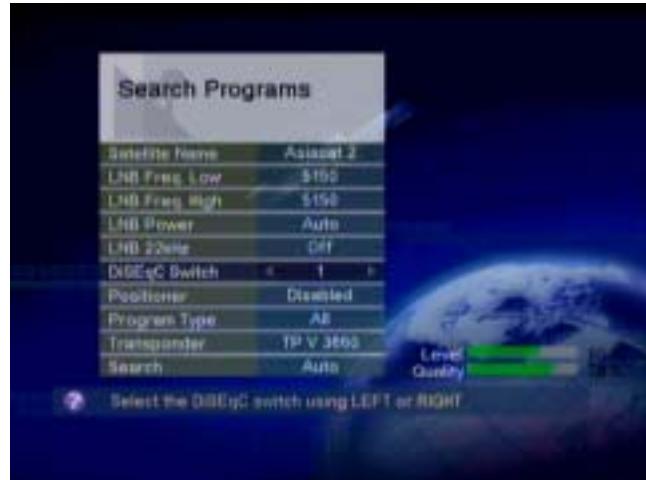
2.1.5 LNB 22KHz

If you have selected UNIVERSAL for the LNB type, then the 22KHz tone will operate automatically (AUTO) to switch between LOW and HIGH bands. Therefore you cannot select and change status for this function.

If you have selected others for the LNB type and you wish to switch the 22KHz Tone on, then select ON by pressing Left / Right arrow buttons. The tone will be activated while down loading the channels.

2.1.6 DiSEqC Switch (Digital Satellite Equipment Control Switch)

Press Left / Right arrow buttons to select DiSEqC switch among Off, 1, 2, 3, 4



2.1.7 Positioner

Using DiSEqC 1.2 protocol in conjunction with HH100 or HH120 DiSEqC motors. First ensure that the motor is correctly installed as per manufacturer's instructions provided with your DiSEqC motor and that the angle of elevation for the dish is correctly aligned.



If you have a DiSEqC 1.2 motorized system, you can use this DiSEqC 1.2 positioner functions. Press **OK** button on DiSEqC 1.2 option to enter below menu.

1. **Satellite Name** : Select the desired satellite from given satellite list.
2. **Transponder** : Select the desired transponder from given transponder list.
3. **Movement** : Adjust the direction of movement for East/West.
4. **Step Move** : By pressing on Left/Right button, the motor will move by one notch for EAST/WEST.
5. **Movement Unit** : Ajust the movement unit from 1 step to 5 step.
6. **Movement Limit** : After move the antenna to furthest east and west, press **OK** and it will store limit there.
7. **Position:**
 - GOTO : If you need to move antenna to 0 position as indicated on the DiSEqC positioner.
 - SAVE : Press **OK** to store the above settings.

2.1.8 Program Type

This search option contains two type.

1. **ALL** : To search all scrambled and free to air channels on that satellite

2. Free-To-Air : To search free to air channels only on that satellite.

2.1.9 Transponder



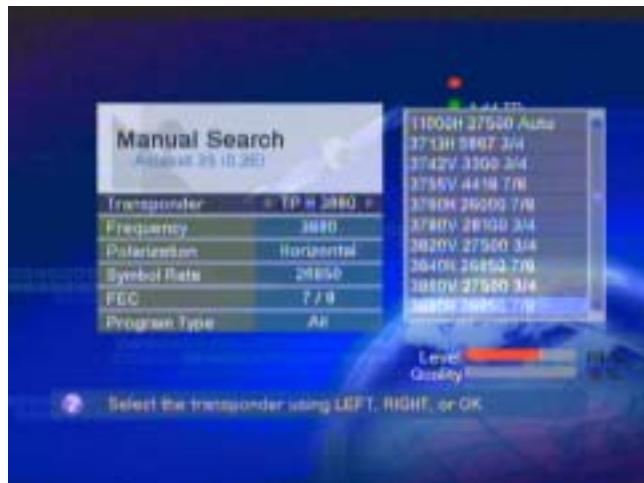
Select the desired transponder from given TP list. Press OK button to enter TP list. You can check the signal level on the gauges when the TP has proper signal.

2.1.10 Search



Select searching type for each satellite you wish to do . See below for types. Press Left / Right button to change type.

1. **Auto** : To search automatically all TP for all channels.
2. **Manual** : To search a single TP. Press OK button to enter Manual Search menu and select and set one required TP you wish to search.
You can add TP by Green button and save the TP by Blue button.



3. Network : To search network identification table for all channels.

4. Advanced : To search a single TP with PIDs setting. Press OK button to enter Advanced Search menu and select and set one required TP you wish to search. You can add TP by Green button and save the TP by Blue button.



After above configuration press OK to start search. When searching done, press OK button if you wish to store TV/Radio Channels or EXIT button to quit.

2.2 Reset(Factory Default)

This option enables the user to reset the receiver. This will reset all changes made by the user, including installation, channel set up and parental control settings. This function however does not reset DiSEqC 1.2 motor settings. To re-set all other settings follow below steps.

1. Select the **Installation** menu and move down to **Reset(Factory Default)**. Then press OK button.
2. The screen will display a “Reset Satellite Info” message and will prompt you to confirm your options. Press OK button if you wish to continue or EXIT button to quit.
3. If you confirm “Reset Satellite Info” then the screen will ask next question “Resetting Channel Data”. Press OK button if you wish to continue or EXIT button to quit.



3. Edit Programs

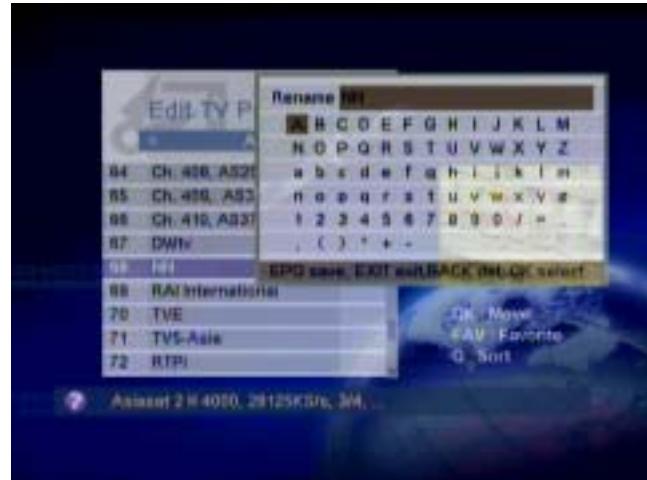


3.1 Edit TV / Radio Programs

This menu is to edit your TV/Radio programs. You can change the satellite by **SAT** Up/Down button. To finish editing, press EXIT or MENU button. Press OK to confirm or EXIT to cancel the saving on the dialogue box.

3.1.1 Rename

The Rename is for change the name of Channels.



To change channel name,

1. Select the Channels and press **RED** button
2. Screen keyboard will appear. Use arrow buttons to move to a character which you want to. and press **OK** button to select a character.
3. Press **EPG** button to store the change.

If you want to cancel the changes, press **EXIT** button.

3.1.2 Lock

Press **GREEN** button on the channels you wish to lock. A lock icon will appear on the channel.



3.1.3 Delete



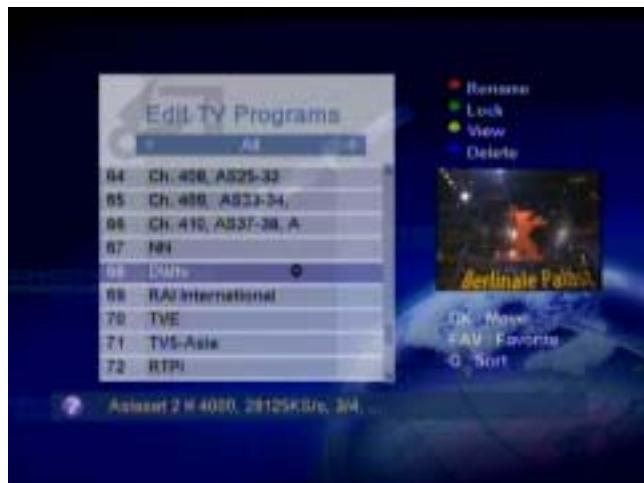
Select the channel you wish to delete using arrow buttons. Then press **BLUE** button to delete.

NOTE:

To re-install the deleted channels, these have to be re-tuned in the **Search Programs** mode.

3.1.4 Move

To move channels and re-arrange the channel list proceed as below:



To move the channel,

1. Select the Channel and push **OK** button .
2. Use arrow buttons to move the channel to the desired position in the list.
3. After moving the channel press **OK** button again and repeat the process for other channels you wish to move.

3.1.5 Favorite

This menu is to make favorite group.



Select the channel you wish to list in favorite group using arrow buttons. Then press **FAV** button on the channel to input the favourite group. Repeat this process for other channels you wish to select. You can move to next favorite group by pressing **FAV** button one more time on the channel.

3.1.6 Sort

Press **Q** button on your Remote Control Unit to sort channels.



1. Select Sort All to sort channels alphabetically
2. Select Sort FTA to sort channels free to air first then scrambled.
3. Select Sort CAS to sort channels scrambled first then free to air.

3.2 Edit Transponder

To finish editing, press **EXIT** or **MENU** button. Press **OK** to confirm or **EXIT** to cancel the saving on the dialogue box.

3.2.1 Rename

The Rename is to change the name of Transponder.



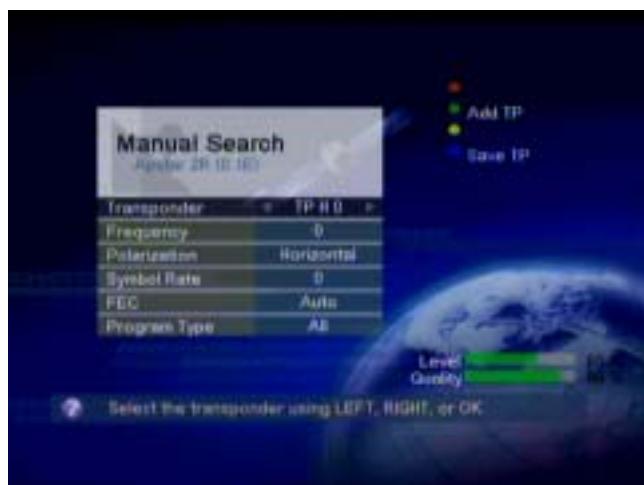
To change Transponder name,

1. Select the Transponder and press **RED** button
2. Screen keyboard will appear, use the arrow buttons to move to a character which you want to and push **OK** button to select a character.
3. Press **EPG** button to store the change.

If you want to cancel the changes, press **EXIT** button.

3.2.2 Add

Select the satellite by **SAT** up/down button and press **GREEN** button. Follow instructions as indicated.



This menu is connected to Manual Search menu.

After adding Frequency, Polarization, Symbol Rate, FEC, Program Type as below and press **BLUE** button for saving.

- **Freq** --- Use 0-9 buttons to enter the frequency for the TP
- **Polarity** --- Press arrow buttons to change polarity
- **S / R** --- Use 0-9 buttons to enter symbol rate for the TP
- **FEC** --- Press arrow button to select forward error correction (FEC). If you don't know the FEC

value, then select Auto.

- **Program Type** : This search option contains two type.

1. ALL : To search all scrambled and free to air channels on that satellite
2. Free-To-Air : To search all free to air channels on that satellite.

3.2.3. Delete

Select the Transponder you wish to delete using arrow buttons. Then press **BLUE** button to delete. Repeat this process for other Transponders you wish to delete.

3.2.4 Move

To move Transponder and re-arrange the channel list proceed as below:



To move the Transponder

1. Select the Transponder and push **OK** button .
2. Use arrow buttons to move the Transponder to the desired position in the list.
3. After moving the Transponder press **OK** button again and repeat the process for other Transponders if you wish to move more.

3.3 Edit Satellites

To finish editing, press **EXIT** or **MENU** button. Press **OK** to confirm or **EXIT** to cancel the saving on the dialogue box.

3.3.1 Rename

The Rename is to change the name of Satellite.



To change Satellite name,

1. Select the satellite and press **RED** button
2. Screen keyboard will appear. Use the arrow buttons to move to a character which you want to and push **OK** button to select a character.
3. Press **EPG** button to store the change.

If you want to cancel the changes, press **EXIT** button.

3.3.2 Add

Press **GREEN** button to add a **New SAT**. Repeat this process for other Satellites if you wish to add more.

3.3.3 Delete

Select the Satellite you wish to delete using arrow buttons. Then press **BLUE** button to delete. Repeat this process for other Satellites you wish to delete more.

3.3.4 Move

To move satellite and re-arrange the Satellite list, proceed as below:



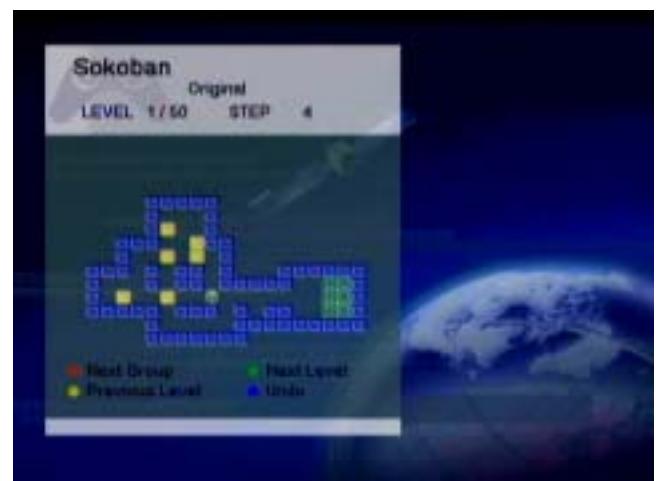
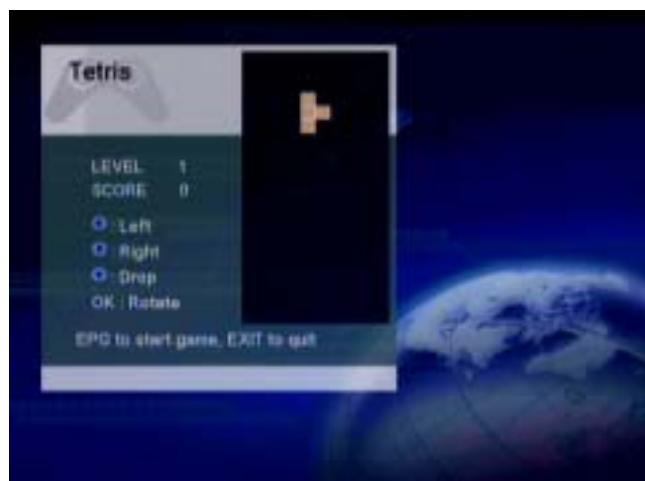
To move the Satellite

1. Select the Satellite and push **OK** button .
2. Use arrow buttons to move the Satellite to the desired position in the list.
3. After moving the Satellite press **OK** button again and repeat the process for other Satellites you wish to move more.

NOTE :

This Satellite data has been made by system manufacturer and the data had already been saved. In case of deleting the data by carelessness, you should key-in TP data at first-hand and save TP information before channel search. Meanwhile, if the information is not accurate, you will get the unexpected results, in this case, please refer to your dealer.

4. Games



5. Information

It is represent the system operating program version. Check the version and upgrade your system with latest version.



6. Additional Information (Using Hot Keys)

6.1 Channel List

While watching TV or listening to Radio, you can get the 'TV or Radio Channel List' by pressing the **OK** button on the remote controller. Press the UP/DOWN button to change channel name and Press **OK** to watch the channel. Press LEFT/RIGHT button to go to the previous/next page of list.

There are 4 sorting options for the Channel List :

1. **RED** button : Arrange the list FTA to CAS channel order.
2. **GREEN** button : Arrange the list CAS to FTA channel order.
3. **YELLOW** button : Arrange the channel name of list as A to Z alphabetical order.
4. **BLUE** button : Arrange the channel name of list as Z to A alphabetical order



6.2 Accessing the Channels

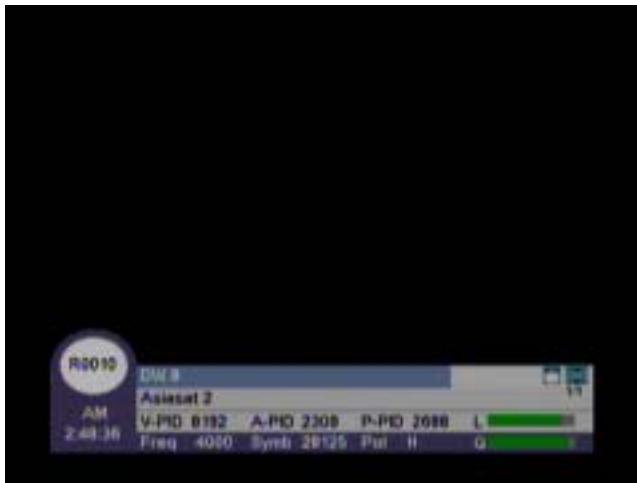
There are several ways to access the stored channels as below

1. Using the CH up/down button on the remote control or the front panel of the receiver to access the channels sequentially.
2. Using the numeric button on the remote to access the channels directly.
3. Pressing **OK** button to call up the channel list and use arrow buttons to scroll through the list, And the press **OK** button to go to channel.

If you have listed the channels into a favorite channel then press **FAV** button to call up the list(s).

6.3 Radio Channels

To select press **TV/RADIO** button on the remote control. The channel banner will display a radio icon and the channel list will change to radio channels. To select between different radio channels press **OK** button in normal mode to display the list. Then select desired radio channel and press **OK** button.



6.4 Selecting Different Audio Channels

In digital satellite broadcasts, multiple audio languages may be simultaneously transmitted by the programme provider. The broadcasters may transmit more than one language for any channel.



To select press the **AUDIO** button and the Alternate Audio banner will appear indicating the selected language or audio. Press this button successively until you find the desired language. To revert to original language and audio simply re-select.

6.5 Volume Control

The receiver features two types of volume controls. The main volume control is represented by the Left / Right arrow buttons where you can adjust the volume quicker. The **VOL +/-** buttons are stepped control where you can adjust the volume step by step upon each press of the buttons.

6.6 Pause Function

Press **PAUSE** button to pause the current channel screen

6.7 TV/SAT convert Function

Press **TV/SAT** button to convert to TV mode.

6.8 Selecting Subtitles languages



If the service provider is transmitting subtitles for a channel then you can select this by pressing **SUBT (Yellow)** button. Select one and press **OK**. The subtitles will appear in a few seconds. If there is no subtitles transmitted, a message will appear which states 'No Subtitle Data'.

NOTE: At times the subtitle menu will appear on the top left corner but there may not be any subtitles transmitted.

6.9 Selectting Teletext



This receiver has a built in teletext circuitry which enables you to call up the text pages when these are transmitted by the service provider.

To select the teletext mode press **TEXT (blue)** on your remote. If teletext transmission is provided by the service provider, the text page will be displayed after a few seconds. If there is no teletext transmission then a message will appear stating 'No Teletext Data'.

To select a page enter using **0-9** buttons.

To change to next page up or down use the Up / Down buttons.

To exit from teletext mode, press **TEXT** button again or press **EXIT**.

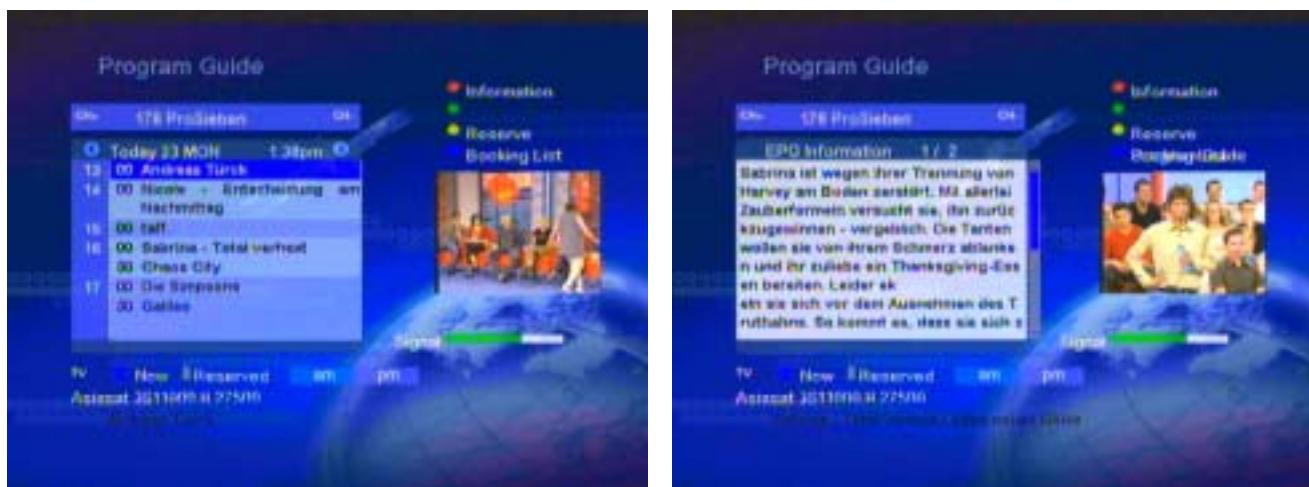
6.10 Electronic Program Guide (EPG)

This receiver incorporates dual EPG lists that give you two easy ways to view the program information, what's on now and what's on next! The EPG system display a variety of program information ranging from start to end times of a program and additional information about the program itself.

Press **EPG** button on the remote control and the **Program Guide** will appear on your screen.

Further information, when transmitted by the broadcaster, will be displayed below the current / next page. The satellite name, channel number, and channel name is displayed on the screen, and the program list is displayed by time. But if there is no information, no message will be displayed.

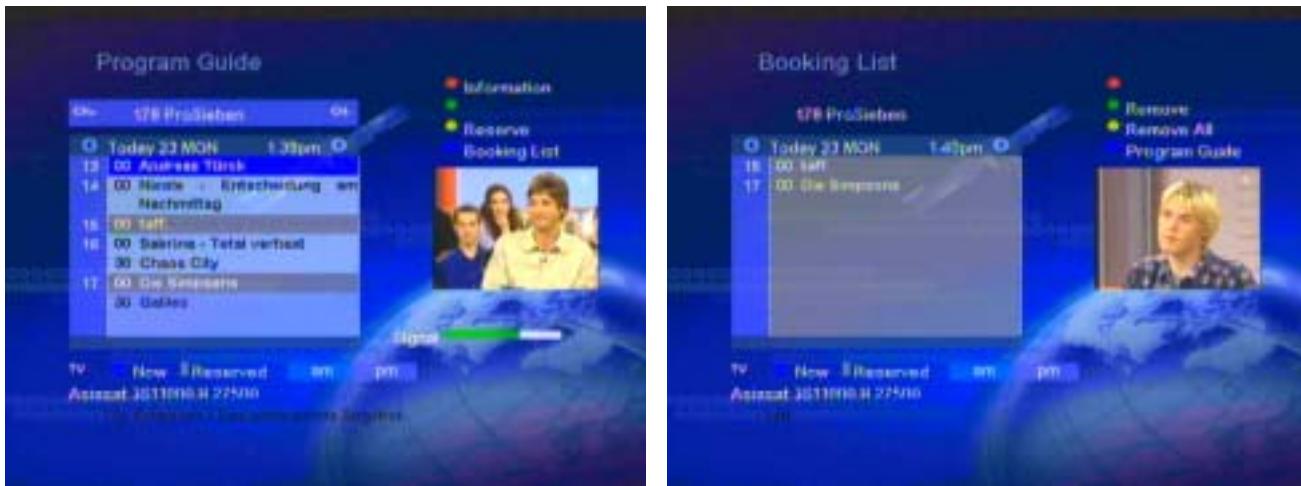
To select an item simply press arrow buttons with Colour buttons.



Press Up / Down button to select an event and press **RED** button again. After you press **RED** button on an event the full EPG information for the channel is displayed.

If you want reserve events, press **YELLOW** button to reserve the channel.

You can see Booking List by press **BLUE** button.



Press **EXIT** button to finish this menu.

6.11 Default Password

The default Password is stated below. You will require this code if you have lost or forgotten your set password. Please write down your password below and keep it in a safe place.

DIGITAL SATELLITE RECEIVER

DEFAULT PASSWORD:

0	0	0	0
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NEW PASSWORD:

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Please keep this section of this manual in a safe place.

6.12 Trouble Shooting

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

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

Symptom	Possible cause / solution
No receiver display	Check that the receiver is plugged in and there is power at the mains socket.
Receiver is ON, but no picture or sound or any menus	Check that your TV is switched on and set to the correct channel or input type.
Receiver is ON, but no picture or sound or any menus	Channel scrambled. Check tuning and set-up parameters are OK.
	Check Signal and Data levels. Dish moved or LNB is faulty. Switch receiver off and retry.
Interference on picture, sound OK	Local TV interference, change the receiver TV out put to another channel, or connect to TV via Phono connectors.
Interference on picture, noisy audio	Check Signal and check if Signal level is good enough.
Receiver not responding to remote	Check remote batteries and that the receiver IR sensor is not covered (marked F5 on the front panel)
No picture or after channel tune in digital mode.	Weak signal check Signal Data. Switch receiver off from mains and retry.

6.13 Features

- MPEG-2 Digital & fully DVB compliant
- Input Frequency 950 - 2150 MHz
- 1 LNB input (F-Type), IF signal loop through
- Up to 4000 channels TV or RADIO programmable
- Channel switching time within 1 sec.
- SCPC & MCPC receivable from C/Ku band satellites
- Composite video
- 256 Color On-Screen Display
- Enhanced Teletext supported
- MPEG Layer I and II, CD Quality Audio sound (32KHz, 44.1KHz, 48KHz)
- S/PDIF Digital audio output
- Stereo, Mono, dual and joint stereo audio modes
- Enable to select RF Modulator VHF CH 3 or 4
- 3 X PHONO (Video, Audio L/R) connectors
- Multiple controllable LNB switching e.g. 13/18V, 22KHz and DiSEqC 1.2
- RS232 Serial Data Interface connector (for user software upgrades)
- High speed RISC integrated chipset
- 4 different favorite groups
- MPEG II Main Profile @ Main Level decoding at 1 to 15 Mbps
- QPSK demodulation capability of 2~45 symbols continuously variable
- Good looking and easy operational menu system
- Signal strength bar
- Last viewed channel remembered after power down
- 100-130 V AC, 50/60 Hz ~ SMPS

NOTE) This manual can be revised without prior notice.

7.FCC Information

INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.