

Safety Instructions

This product has been manufactured to satisfy the international safety standards. Please read all of safety and operating instructions before operating the product and keep this manual for future reference.

MAINS SUPPLY

AC 90-250V~, 50/60Hz

Operate your product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. Disconnect the STB from the mains before you start any maintenance or installation procedures.

OVERLOADING

Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

LIQUIDS

The product should not be exposed to any liquids such as dripping or splashing. No objects filled with liquids, such as vases, should be placed on the apparatus,

CLEANING

Before cleaning, disconnect the product from the wall outlet, Use a cloth lightly dampened with water (no solvents) to clean the exterior.

VENTILATION

The slots on top of the product must be left uncovered to allow proper airflow to the unit. Do not stand the product on soft furnishings or carpets. Do not expose the product to direct sunlight, place it near a heater. Do not stack electronic equipment on top of the product.

ATTACHMENTS

Do not use any attachment that is recommended by the manufacturer it may cause a hazard or damage the product.

CONNECTION TO THE SATELLITE DISH LNB

Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

CONNECTION TO THE TV

Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the TV.

LOCATION

Place the product indoors in order not to expose to lightning, rain or sunlight. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifier) that product heat.

LIGHTNING, or NOT IN USE

Unplug the product from the wall outlet and disconnect the cable during a lightning storm or when unused for a long time.

SERVICING

Do not attempt service that this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazard. Refer all servicing to qualified service personnel.

“The mains plug is used as the disconnect device. Then disconnect device shall remain readily operable”

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Before You Begin

General Features

- Accurate, Brilliant Friendly OSD with Full Function
- MPEG-2 (MP@ML), MPEG-2 (MP@HL), MPEG4 AVC/H.264, HP@L4
- LNB Controlling Logic (0/22KHz Tone)
- SCPC/MCPC Receivable from C /Ku-Band Satellites
- Digital Tuner with Loop-through
- Wide Symbol Rate 2~45Mbps & Frequency Input 950~2150MHz
- DiSEqC 1.0, 1.1 & 1.2 Supported (Go to X function)
- 2 SCARTS for TV, VCR (optional)
- 16 Bit Colors Graphic User Interface
- Multi-language Menu
- 13-digit VFD (Time clock in Stand-by mode)
- OSD Teletext Supported
- EPG (Electronic Program Guide) for On-screen Channel Information
- Installation by Easy Setup Guide
- 10,000 Channels
- User-friendly Data Editing Function
- Favorite Channel and Parental Lock Function
- RS232C Port for Additional Information Service and Upgrading System Software
- S/PDIF OUT Optical and Coaxial
- HDMI
- SVIDEO OUT
- PVR Ready
- Time-Shift
- Unicable
- OTA Update for Software and Channel Data
- Ethernet Port (optional)
- USB Port
- 2 Common Interface and 2 Smart card Reader
- SW Blind scanning function

Accessories

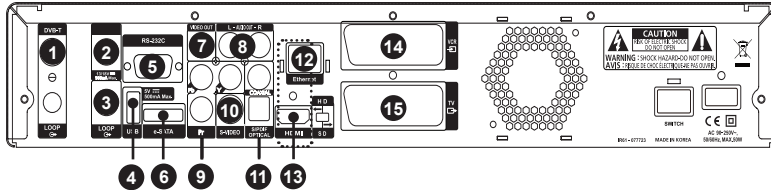
- User's Manual
- Remote Control Unit
- Batteries
- HDMI Cable

Controls and Functions

Front Panel

- 1 Power (⏻) button**
Turns your receiver On/Off.
- 2 Arrow (◀/▶) buttons**
Adjusts the volume and moves the cursor left/right on the menu
- 3 Arrow (▲/▼) buttons**
Changes channels or moves the cursor up/down on the menu.
- 4 MENU button**
Displays the menu
Exits from the current menu or goes to the previous menu
- 5 OK button**
Confirms selection
- 6 DISPLAY**
Displays channel information
Displays local time in Standby mode

Rear Panel

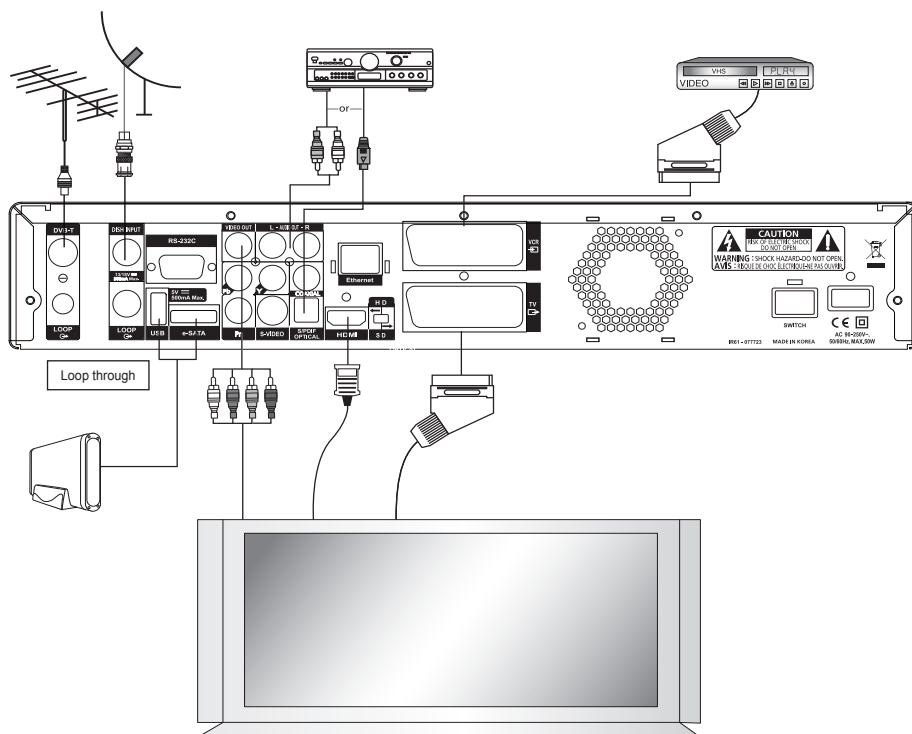


- 1 RF IN (Optional)**
It Connects to the terrestrial antenna for DTV signal.
- 2 Dish INPUT**
Connects to the satellite dish.
- 3 LOOP**
Loop out is an output port of the DISH INPUT signal.
- 4 USB**
Connects to the External HDD or USB storage with USB cable.
- 5 RS-232C**
Connect to a PC.
RS232 transfers data to the external computer.
- 6 e-SATA (optional)**
Connects to the External HDD with SATA cable.
- 7 VIDEO OUT**
Connects to video input jack on TV or any external Video system.
- 8 AUDIO OUT, LEFT / RIGHT**
Connects to audio input jacks on TV or any external audio system.
- 9 Y Pb Pr OUT**
Connects to video input jack on TV or any external Video system.
- 10 S-Video OUT**
Connects to the TV with S-Video cable
- 11 S/PDIF OUT Optical & Coaxial**
Connects to a digital audio component with optical cable.
- 12 Ethernet(Optional)**
Connects to the Ethernet with Ethernet cable
- 13 HDMI**
Connects to the TV with HDMI cable
- 14 SCART for VCR**
Connects to the VCR(AUX) with SCART cables.
- 15 SCART for TV**
Connects to the TV with SCART cables.

Remote Control Unit

- 1 Power** (⏻) button for TV & STB
Turns your receiver & TV On/Off.
- 2 Numeric (0~9)** buttons
Controls the number entry and changes program channel directly.
- 3 Mode** (📺/📻) button
Switches between TV and Radio channel list.
- 4 Sleep** (⌚) button
Shows the time setting for the sleep-timer.
- 5 MoSAic** (🖼️) button
Displays multi picture section.
- 6 Arrow** (⬅️/➡️) or **OK** buttons
Adjusts the volume level or moves the cursor left or right on the menu.
Arrow (⬆️/⬇️) or **OK** buttons
Changes channels or moves the cursor up or down on the menu.
- 7 Menu** (☰) button
Displays the menu
Exits from the current menu or goes to the previous menu.
- 8 Mute** (🔇) button
Mutes audio output.
- 9 Last** button
Shows **Viewed Channel List**.
- 10 Audio** (🔊) button
Shows the Input Audio information.
- 11 OK** button
Shows Channel list while watching TV or listening to the Radio.
- 12 Guide** (📺) button
Shows the TV program guide.
- 13 VOL +/-** buttons
Adjusts the volume level.
- 14 Zoom** (🔍) button
Zooms in the selected screen.
The Zooming location changes by pressing direction buttons. (x2 → normal)
- 15 Text** (📄) button
Changes to the teletext mode.
- 16 INFO** (ℹ️) button
Displays program information in the screen.
- 17 Back** (⏪) button
Goes to previous menu. The changed values are to be saved.
- 18 SAT** (📶) button
Shows satellite channel list.
- 19 PR +/-** buttons
Changes channel up or down.
- 20 Page** (+/-) buttons
Moves up or down pages on the menu and TV/Radio List.
- 21 FAV** (♥) button
Go to the last channel you've watched in the Favorite Channel List 1.
And if pressed again, you can see the last channel you've watched in the next Favorite Channel List2. Repeat pressing the button until no more Favorite Channel is found. Then it returns to the current channel.
- 22 REW** button
Rewinds the recorded programs to x8.
- 23 Play** button
Play the recorder programs
Shows the recorded program in the media player.
- 24 FWD** button
Fast forward the recorded program to x16.
- 25 Record** button
Starts to record programs.
- 26 Stop** button
Stops to record the program and to play the program.
- 27 Pause** button
Pauses and play the program.
- 28 F1** button
Set the Video format.
- 29 F2** button
Shows Media Player.
- 30 F3** button
Starts Time shift function.

Connections



Location of your receiver

- Install your receiver in horizontal position
- Do not put any heavy stuff such as a TV on your receiver
- Do not install your receiver in the places as follows: Vibrating place, direct sunrays, Humid place, too high or low temperature, and no ventilated place.

Connecting your receiver with dish system

After installing your antenna system, connect the coaxial cable from the LNB of your antenna to “DISH INPUT” terminal marked at the rear panel of your receiver. All cable connectors should be finger-tightened; do not use any kind of wrench while tightening connectors. The cable should be 75 ohm impedance coaxial twisted at the end with an “F” type connector.

Connecting your analog receiver

To facilitate the user using analog receiver to view analog channels, this product has been provided with a loop through terminal marked as “Loop”. Connect the coaxial cable from this terminal to the IF input terminal of your analog receiver. Now by keeping your receiver in standby, you will be able to tune and view analog channels from your analog receiver.

Connecting your receiver to TV

To connect your receiver with your television, you can use 4 different methods; via RCA cable, SCART cable, HDMI cable or YUV.

Connect the RF cable to the terminal marked “RF OUT” on the rear panel of your receiver and its other end to the TV RF input socket.

Connect the Video/Audio RCA cables from the Video OUT/AUDIO OUT (LEFT, RIGHT) on the rear of your receiver to the Video INPUT/AUDIO INPUT (LEFT, RIGHT) jacks on the TV. In the case of connecting your TV through SCART cable, connect the SCART connector marked TV to the respective SCART port on the TV. (depend on model)

Connect the HDMI cable to the terminal marked “HDMI” on the rear panel of your receiver and its other end to the TV HDMI input.

Connecting your receiver to VCR (depending on model)

To connect a VCR, your receiver has been provided with SCART at the rear marked “VCR”. Using a SCART connector, the VCR can be connected to your receiver.

Connecting external audio/Hi-Fi system

To connect any external Audio Hi-Fi system, your receiver has been provided with two RCA connectors at the rear panel of your receiver, marked with AUDIO L and R respectively to connect the left and right Audio on the external audio/Hi-Fi system.

Connecting digital audio system

Connect a cable between S/PDIF OUT at the rear panel of your receiver and S/PDIF INPUT COAXIAL or OPTICAL on the Digital Audio System.

Initial Settings and Operations

Menu Information

A menu is a field of text shown on the TV screen. Selectable lines are generally activated (highlighted). No-activated lines cannot be selected. Most of menus show short information at the bottom of the screen.

This menu consists of 7 main menus:

- Installation
- System Setup
- Channel Setup
- Parental Lock
- Game
- Multimedia
- Conditional Access

- 1 Using the **Arrow (▲/▼)** buttons you can move upwards and downwards on the menus. On the menus, you can search channels using this button.
- 2 When you have reached the required subject menu, press the **OK** button to confirm your choice.
- 3 On the menus, you can select menu items using the **Arrow (◀/▶)** buttons.
- 4 When you want to return to the previous menu with saving the change, press the **Back (⏪)** button.
- 5 When you want to exit from the current menu, press the **Menu (□)** button.

Getting Started

To start your receiver for the first time, you must select the language for displaying menus and you should set parameters for system configuration and scan satellite channels. Perform the following setup procedure for scanning the satellite. Follow the instructions below to scan satellite channels. You can enjoy watching TV or listening to the Radio after the procedure completes.

- 1 Turn on your TV and receiver.
Language Setting menu will appear automatically.
OSD Language is highlighted.

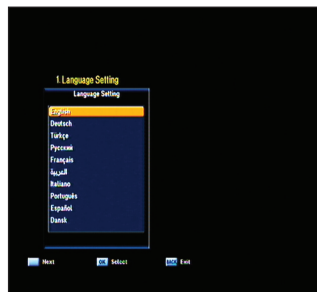
Selecting the On Screen Display (OSD) Language

- 2 Select the OSD language of your choice using the **Arrow (◀/▶)** buttons.
You will see the selected language on the OSD menu.
- 3 Select **Installation** using the **Arrow (◀/▶)** buttons.

<<SATELLITE>>

Selecting the Antenna Setting

- 4 Select **Antenna Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.
Antenna list and option list will appear.
- 5 Select the desired satellite using the **Arrow (▲/▼)** buttons or **Page (+/-)** buttons and press the **Arrow (▶)** or **OK** button to move through the option list.
- 6 Select options and press the **RED(MoSAiC)**, **OK** or **Menu** button to save the changes.



- **RED (MoSAiC):** Save
 - **OK:** Save and changes to exit for AV mode.
 - **Menu:** Save the changes to exit for AV mode.
 - Select one or more satellites according to the direction of your satellite dish. You can select many satellites depending on the direction to the satellites.
- 7 Press the **Back** (⏪) button to return to the **Installation** menu.

Auto Scanning

- 9 Select **Auto Scanning** using the **Arrow** (▲/▼) buttons and press the **OK** button.

The preprogrammed satellite lists will appear.

- 11 Select an appropriate satellite using the **Arrow** (▲/▼) buttons and set the channel options using the **Arrow** (◀/▶) buttons.

- **Off:** Scanning is disabled.
- **All:** Scan all the free and scrambled channels.
- **Free:** Scan free channels only.
- **NIT:** Scan all mode with TP network scanning.
- You can set **Off, All, Free** or **NIT** to each satellite.

- 12 Press the **OK** button, **Auto Scanning** will start.

All the channels in the list from the selected satellite will be automatically downloaded.

- 13 Press the **OK** button to save the changes.

- 14 Press the **Back** (⏪) button to exit from the menu and press the **Arrow** (▲/▼) buttons to select the desired channel. Now you can watch TV or listen to the Radio.

<<TERRESTRIAL>>

Auto Scanning

- 1 Press the **OK** button, auto Scanning will start.
- 2 Press the **OK** button to save the changes.
- 3 Press the **Back** (⏪) button to exit from the menu and press the **Arrow** (▲/▼) buttons to select the desired channel. Now you can watch TV or listen to the Radio.



Basic Operation

This section explains various functions while watching TV or listening to the Radio.

Switching Channel

You can switch the current channel by three different methods.

- **Method 1:** Press the **Arrow** (▲/▼) buttons or **PR+/-** buttons.
- **Method 2:** To select a channel directly, select a channel using the **Numeric (0~9)** button.
- **Method 3:**

- 1 To display the channel list, press the **OK** button.

- 2 Select a channel you want to watch using the **Arrow** (▲/▼) buttons and then press the **OK** button.

- If there are multiple channels, use the **Page (+/-)** or the **Arrow (◀/▶)** buttons to move to channels by page.
 - Press the **Mode** (📺/📻) button to switch between the TV and Radio channel.
- 1 **Method 4:** In case of more than two scanned satellites
 - 1 Press the **SAT** (📶) button to show satellite list.
 - 2 Move the cursor to the satellite of a channel to watch with the **Arrow (◀/▶)** buttons and then press **OK** button.
 - 3 You can follow the method 3 instruction for channel selection.
- **Method 5:** How to move to the watched channel.
- 1 Press the last button with RCU.
 - 2 Press **OK** button after a channel selection by using the Arrow (▲/▼) with RCU.
 - 3 Press **OK** button to exit.

Volume Control

To control the volume:

- Press the **VOL+/-** or the **Arrow (◀/▶)** buttons.
- Press the **Mute** (🔇) button to turn the sound off.
- Press the **Mute** (🔇) button again or the **VOL+/-** or **Arrow (◀/▶)** buttons to cancel muting.

Info Bar

Channel information always appears for a specific period of time whenever you switch channels.

General Information

Press the **INFO** (i) button; you can see general information of the current channel.

- 1 Channel number and name
- 2 Current time
- 3 Signal Level
- 4 Signal Quality
- 5 Icons: HD channel, Locked channel, Radio Channel, Scrambled channel, Subtitle, Teletext information
- 6 EPG information.
- 7 Conditional Access

Detailed Channel Information

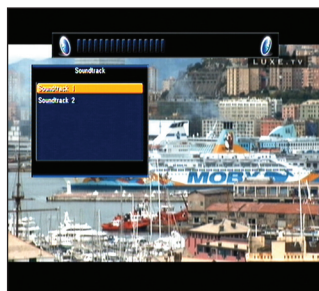
You can see detailed channel information pressing the **INFO** (i) button again.

- 8 You can see detailed channel information pressing the INFO button again.
- 9 Satellite, Frequency, Symbol Rate, FEC, Polarity, Video PED, Audio PID, PCR PID, Transponder
- 10 Display the stream information.

Selecting the soundtrack

You can select the audio language, soundtrack, or sound mode.

- 1 Press the **Audio (Yellow)** button.
- 2 Press the **Arrow (▲/▼)** buttons to select the audio language or soundtrack and press the **OK** button.
- 3 Press the **Arrow (◀/▶)** buttons to select the sound mode from **Stereo**, **Mono left**, or **Mono Right**.
- 4 Stream information.



Selecting the OSD teletext, VBI teletext, Subtitle and DVB subtitle

You can choose the **OSD teletext**, **VBI teletext**, **subtitle** and **DVB subtitle** for the current live TV program if provided from the broadcasting station.

- **OSD teletext:** Press the **Text** (⏏) button
- **VBI teletext:** Press the **Text** (⏏) button **twice**.
- **Subtitle:** Press the **Text** (⏏) button **three times**.
- **DVB subtitle:** Press the **Text** (⏏) button **four times**.

MoSAic

You can see multi picture by pressing the **RED (MoSAic)** button.

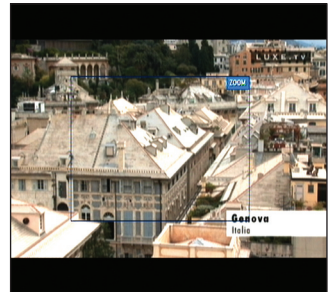
Sleep Timer Function

Press the **GREEN (Sleep)** button, you will see the time set for the sleep timer if already set from the Time Setting menu.

Zoom Function

You can make the picture appear larger on the screen pressing the **Zoom** (⏏) button.

- 1 Press the **Zoom** (⏏) button.
- 2 Select the area you want to zoom using the **Arrow** buttons and then press the **OK** button.
Picture is enlarged two times.
- 3 Each time you press the **Page (+/-)** buttons, the picture is enlarged two or four times.
Press the **Arrow (▲/▼/◀/▶)** buttons to change the location at the lower right of display.
- 4 To cancel the Zoom function, press the **Zoom** (⏏) button twice or **Back** (⏏) button.



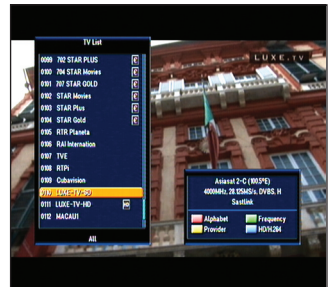
Channel List

You can see the TV or Radio channel list pressing the **OK** button while watching TV or listening to the Radio. Switch the channel list pressing the **Mode** (⏏/⏏) button. The icon (€) behind the channel name symbolizes scrambled channel, and the (⏏) icon behind the channel name symbolizes indicates a locked channel.

Select channel using the **Arrow (▲/▼/◀/▶)**, **PR+/-**, or **Page (+/-)** buttons and press the **OK** button to watch.

The colored buttons show the channel lists as follows:

- **RED (MoSAic)** button: by alphabetical order (alphabetical A-Z)
- **GREEN (Sleep)** button: by satellites (all/searched satellites)
- **YELLOW (Audio)** button: by names of broadcasting providers
- **Blue (SAT)** button: by HD channels



To view channel list in specific order (Alphabet/Satellite/Provider/HD)

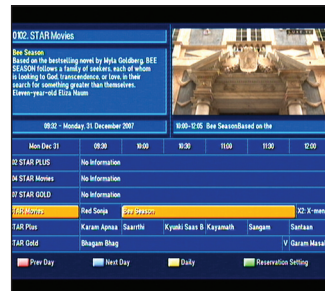
- 1 Press the **Colored (Red/ Green/Yellow/Blue)** button. Channel list is highlighted.
- 2 Select **Alphabet, Satellite, Provider, or HD** using the **Arrow (▲/▼)** buttons. The channel list is sorted automatically by your selection.
- 3 Select the channel pressing the **Arrow (▲/▼)** or **Page (▲/▼)** buttons and press the **OK** button to watch it.



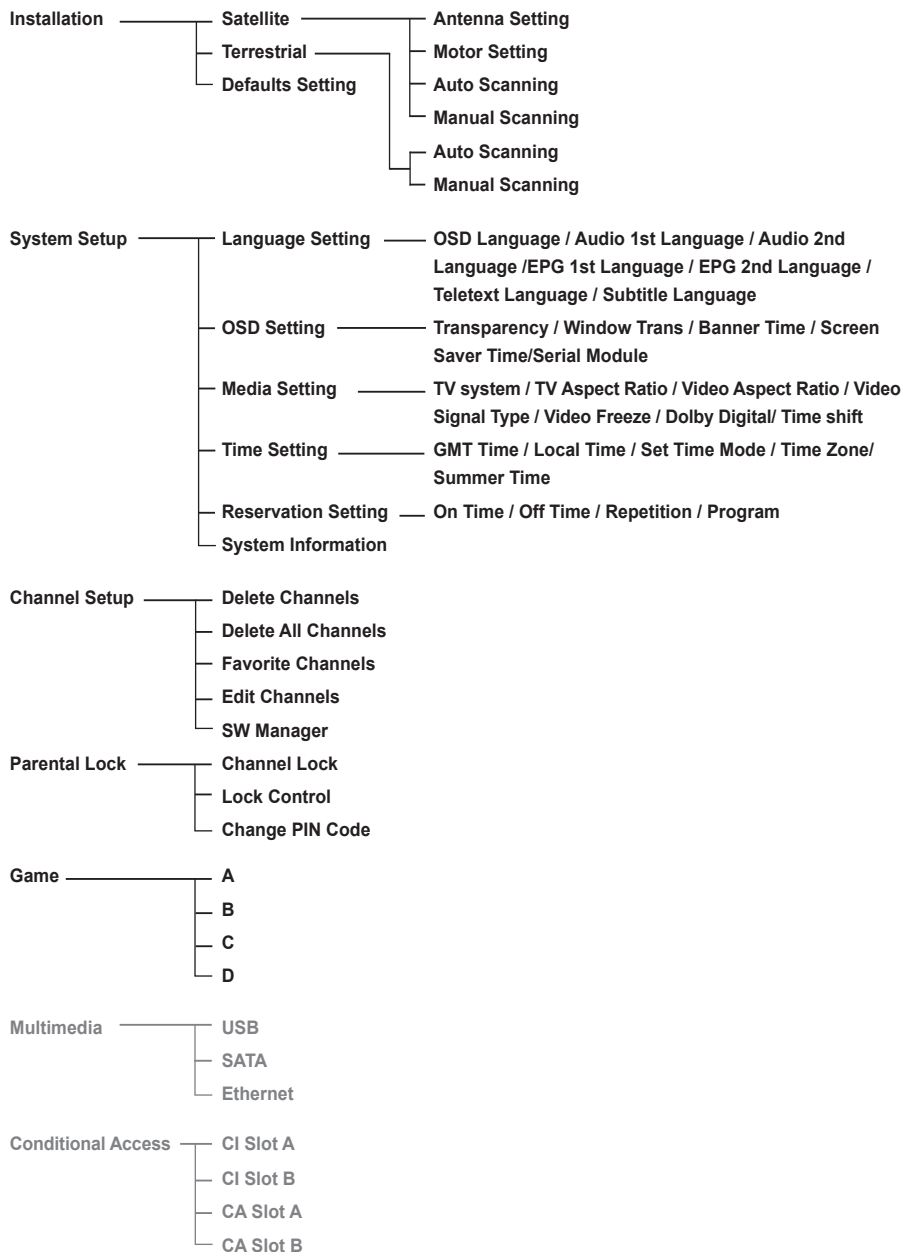
Electronic Program Guide (EPG)

EPG displays program information such as program titles, broadcasting schedule, Program synopsis and such EPG service differ depending on the service provider.

- 1 Press the **EPG (◀📺)** button while watching TV or listening to the Radio EPG information appears.
- 2 Select a program for further more information.
 - **Arrow (▲/▼)** buttons: Selects a program by channel
 - **Arrow (◀/▶)** buttons: Selects a program by time & date within the same channel.
 - It displays the program list at 30 minutes intervals.
 - You can see the detailed information by pressing **Page (+/-)** buttons with RCU.
- 3 Press the **OK** button, detailed information on the selected event appears.
- 4 To exit from the EPG mode, press the **Back (↩)** button.



Menu Map



Main Menu

The menu has been carefully designed from user-friendly point of view to assure easy operation to your receiver. The main menu is classified into 7 sub menus that will carry out the various operations individually.

Installation

In the **Installation** menu, you can customize antenna setting and do channel scanning. Press the **Menu (III)** button.

Select **Installation** using the **Arrow (◀/▶)** buttons on the main menu.

Installation >> Antenna Setting Antenna Setting

You can set antenna and LNB information for scanning channels. If antenna is not correctly set, you cannot scan channels, therefore you cannot watch any programs.

- 1 Select **Antenna Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button. Antenna setting menu appears.
- 2 Select satellite for channel scan using the **Arrow (▲/▼)** or **Page (+/-)** buttons and press the **Arrow (◀/▶)** button to select at option.
- 3 Select an option using the **Arrow** buttons.

◆ LNB Power

Set **LNB Power** On.

◆ Longitude

If you know the exact longitude of your location, use the **Numeric (0~9)** buttons. Toggle between **E (East)** and **W (West)** using the **Arrow (◀/▶)** buttons.

◆ LNB Type(Unicable)

Select the **LNB type** by pressing **Arrow (◀/▶)** button

- Universal 1 (9750 / 10600)
- Universal 2 (9550 / 10750)
- Unicable (1210 IF / 1420 IF / 1680 IF / 2040 IF)
 - Select the **Unicable** and press **OK** Button to choose one IF by Auto detection (When you use Unicable, Blind Scan function will be not supported)
- User Define (LNB Low / LNB high)
 - LNB IF Frequency can be input with numeric key with RCU
- Standard (5150 / 9750 / 10000 / 10600 / 10750 / 11250 / 11300 / 11475)



Note

- What is Low Noise Block (LNB)?
The LNB is located at the satellite dish antenna. It amplifies the very weak received satellite signal then converts the received microwave satellite signal so that the signal may not decrease the gain between the dish and your receiver.

◆ DiSEqC (Digital Satellite Equipment Control) System Mode

You can select **DiSEqC** using the **Arrow (◀/▶)** buttons.

You can select one mode among **DiSEqC Port1~4 for 1.0** and **Tone Burst 1~2 and Off**.

◆ Tone 22kHz

In case you are using a dual LNB or two antennas connected to a 22KHz Tone Switch Box, with 22KHz Tone Switch (**On**, **Off**, or **Auto**) you can switch between LNB or antenna.

◆ Motor

Select motor setting from **DiSEqC**, **USALS**, **Positioner**, and **No**.

◆ DiSEqC 1.1

In case of DiSEqC 1.1 usage, select port 1~16 for the satellites by using the **Arrow (◀/▶)** button

◆ Signal Status

Press the blue button, you can check the signal status for each TP and Satellite with the **Arrow (◀/▶ ▲/▼)** buttons.

You can scan the selected satellite and TP and save the changes.

- **Green (sleep)** button: Satellite Auto Scan
- **Yellow (Audio)** button: TP Scan.

4 After setting the option, press the **OK** or **RED (MoSAiC)** button to save.

- Select satellite(s) according to the direction of your satellite dish. You can select many satellites depending on the direction to the satellites.

5 Press the **Back (↵)** button to return to the **Installation** menu.

Note

- DiSEqC is the registered trademark of Eutelsat Communications.
A standard through which is possible to let a DiSEqC compatible receiver send a signal over the RF cable to a switching device to switch between different LNBs or dishes. The DiSEqC uses the 22KHz signal to control the switching device.
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-

Installation >> Motor Setting

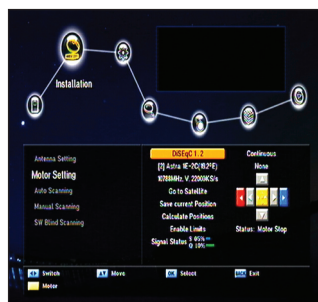
Motor Setting

◆ DiSEqC 1.2

When Motor is set to **DiSEqC 1.2** in the Antenna Setting menu.

- 1 Select **Motor Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.
- 2 Select a satellite using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears.
Select satellite using the **Arrow (▲/▼)** buttons and press the **OK** buttons. Bulleted list indicates selected satellites.

- 3 Press the **RED (MoSAic)** button to save selected satellites and then press the **Back (↩)** button.
- 4 If you press the **YELLOW (Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow** buttons to move the motor to the west, east, north, and south in order. The position of the motor can be restricted to the software setting limits (West/East) using the **RED (MoSAic) / BLUE (SAT)** buttons.
- 5 Press the **YELLOW (Audio)** button to highlight **Satellite**.
- 6 Press the **OK** button on the **Go to satellite** Menu. Dish changes its position to the direction of satellite (depending on the types of motor, dish changes its position to the default-direction of satellite for the maximum 28 satellites).
- 7 Press the **OK** button on the **Save Current Position** menu. Current position of the motor is saved according to the selected satellite.
- 8 You can change the Function Menu (**Go to Ref. Position / Reset Position / Calculate Positions**) by using the Arrow (**◀/▶**) button, activate the function with OK button



- **Go to Ref. Position:** Press the **OK** button in the **Go to Ref. Position** menu. Motor changes its position to zero longitude / latitude where the count begins.
 - **Reset Position:** Reset Positioner initialize the position of motor to the default value.
 - **Calculate Positions:** Calculate Positions selects one satellite to revise the position of motor and saves the changes. Changed position of the motor also applies to the directions for other satellites.
- 9 Confirm the **Enable Limits/Disable Limits** function pressing the **OK** button. You will be prompted to decide whether to use the West/East setting Limits setting value.
 - 10 The method to position motor is selected in the **Continuous/Step (Impulses)/Time (Seconds)** menu. If you press the **Arrow (◀/▶)** buttons once in the Continuous mode, selected TP signal of the satellite is locked or the motor stops to move. In the **Step (Impulses)** mode, you can select **Steps (Pulse)** from 1 to 10. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).
In the **Time (seconds)** mode, you can select time (seconds) from 1 to 20. The motor changes its position according to the selected step if moved to the left or right (depending on the motor).

◆ USALS

- 1 Select **Motor Setting** using the **Arrow (▲/▼)** buttons and press the **OK** button.
- 2 Select **Satellite** menu using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears. Select satellite using the **Arrow (▲/▼)** buttons and press the **OK** button. Bulleted list indicates selected satellites.

- 3 Press the **RED (MoSAic)** button to save selected satellites and then press the **Back (↵)** button.
- 4 If you press the **YELLOW (Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow** buttons to move the motor to the west, east, north, and south in order. Position of the motor can be restricted to the software setting limits (West/East) using the **RED (MoSAic) / BLUE (SAT)** buttons.
- 5 Press the **YELLOW (Audio)** button to highlight Satellite.
 - This function may not work depending on the type of USALS program.
- 6 Enter the value of 000.0 E/W (latitude) and 000.0 N/S (Longitude) and then press the **OK** button on the **Go to X** menu. Motor changes its position according to the selected satellite.
- 7 Confirm the **Enable Limits/Disable Limits** function pressing the **OK** button. You will be prompted to decide whether to use the West/East setting Limits setting value.
 - This function may not work depending on the type of USALS program.
 - Press **OK** in **Go to Reference** menu, the motor moves at zero longitude/latitude.



◆ **Positioner**

- 1 This function is used when receiving DiSEqC 1.2 Command with the adaptor that controls positioner antenna. Select a satellite using the **Arrow (▲/▼)** buttons and press the **OK** button. Satellite list appears. On the satellite list, you can select satellites pressing the **OK** button. Press the **RED (MoSAic)** button to save the selected satellites.
- 2 If you press the **YELLOW (Audio)** button, on-screen navigation menu is highlighted. Use the **Arrow (▲/▼/◀/▶)** buttons to move the motor to the west, east, north, and south in order. Position of the motor can be restricted to the software setting limits (West/East) using the **RED (MoSAic) / BLUE (SAT)** buttons.
- 3 Press the **OK** button on the **Go to satellite** menu. Dish changes its position to the direction of satellite.
- 4 Press the **OK** button on the **Save Current Position** menu. Current position of the motor is saved according to the selected satellite.
- 5 Press the **OK** button on the **Go to Ref. Position** menu. Motor changes its position to the zero longitude/latitude where the count begins. (this function is not supported by the adaptor that controls positioner antenna)
- 6 **Go to Reference** changes the position of control adaptor.
- 7 **Reset Positioner** initializes the position of motor to the default value.
- 8 You can change the function Menu (Go to Ref. Position / Reset Position / Calculate Positions) by using the **Arrow (◀/▶)** button, activate the function with **OK** button

- Go to Ref. Position: changed position of the motor also applies to the directions for other satellites.
 - Calculate Positions: Confirm the **Enable Limits/ Disable Limits** function pressing the **OK** button. This function may not be supported depending on the model.
- 9 The method to position motor is selected on the **Continuous / Step (Impulses) / Time (Seconds)** menu, If you press the **Arrow (◀/▶)** button once on the **Continuous** mode, selected TP signal of the satellite is locked or the motor stops to move. On the **Step (Impulses)** mode, you can select steps (pulse) from 1 to 10. The motor changes its position according to the selected step if moved to the left or right (depending on the motor). On the **Time (Seconds)** mode, you can select time (seconds) from 1 to 20. the motor changes its position according to the selected step if moved to the left or right (Depending on the motor).



If you have a MOTEK motor please use positioned menu instead of DiSeqC 1.2. to make sure that your motor is working correct.

Installation >> Auto Scanning Auto Scanning

If you select the satellite to scan channel according to the antenna setting, your receiver can automatically scan the satellite without entering any other information.

- 1 Select **Auto Scanning** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.
- 2 Select satellite to scan channels by using the **Arrow (▲/▼)** buttons and select scan mode (**All, Free or NIT**) using the **Arrow (◀/▶)** button.
 - **All**: Scans all channels.
 - **Free**: Scans free channels only.
 - **NIT**: Scan All mode with TP network scanning.
- 3 Press the **OK** button, and then it starts scanning. After Auto Scanning completes, you can see TV and Radio channels in the list.



Installation >> Manual Scanning Manual Scanning

You can scan channels of the selected satellites by transponders if you know the transponder information.

- 1 Select **Manual Scanning** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.

2 Set the following options to complete **Manual Scanning**.

◆ **Satellite:**

Select a satellite by using the **Arrow (▲/▼ ◀/▶)** buttons or **Page (+/-)** buttons.

◆ **Transponder:**

Select the transponder for the selected satellite.

Select a transponder using the **Arrow (◀/▶)** buttons.

If you cannot find your desired transponder, select **New** to change transponder information as follows:

- **Frequency**
Display the selected TP Frequency.
- **Symbol Rate**
Display the selected TP Symbol Rates.
- **FEC (Forward Error Correction)**
Select a FEC option Auto, 1/2, 2/3, 3/4, 5/6, and 7/8 using the Arrow buttons.
- **Polarity**
Select a polarity value among Horizontal, Vertical, Circular Left, and Circular Right using the Arrow buttons.
- Horizontal output is 18V and Vertical output is 13V via LAN.



Note

- What is transponder?

A wireless communications device usually attached to a satellite. A transponder receives and transmits incoming signals with in a prescribed frequency range. After receiving the signals the transponder will broadcast those signals with different frequencies.

◆ **Scan Mode**

Decide whether to find free channels only or all the channels including scrambled ones. Select a scan mode using the **Arrow (◀/▶)** buttons.

- **All:** Scans all types of channels.
- **Free:** Scans free channels only.

◆ **NIT Search**

You will be asked whether to search channels for another transponder.

Select either **Yes** or **Off** using the **Arrow (◀/▶)** buttons.

Select **Yes** to run Network Search.

◆ **PID Search**

You can manually scan channels by entering individual Packet Identifier (PID) values. Enter the PID the **Numeric (0~9)** buttons.

First, select a PID type (**Video PID**, **Audio PID**, or **PCR PID**) using the **Arrow (◀/▶)** buttons, then enter the PID value by pressing the **Numeric (0~9)** buttons.

3 Press the **OK** button, then starts scanning.

After Auto Scanning is complete, you can see TV and Radio channels found from Auto Scanning.

- 4 Press the **RED (MoSAiC)** button on the Manual Scan menu
 - **Satellite:** Select the satellite by using **Arrow (▲/▼ ◀/▶)** buttons or **Page (+/-)** buttons
 - **Transponder:** Change the TP with the **Arrow (◀/▶)** buttons
 - **Frequency:** Displays the current Frequency
 - **Symbol Rate:** Displays the current Symbol Rate
 - **FEC (Forward Error Correction):** Displays the current FEC
 - **Polarity:** Displays the current Polarity
 - **Add TP:** Press the Green (Sleep) button for a new TP add
 - **Del TP:** Delete the current TP with **Yellow (Audio)** button
 - **RED (MoSAiC) button:** Save the TP information

<<TERRESTRIAL>>

Auto Scanning

- 1 Press the **OK** button, Auto Scanning will start.
- 2 Press the **OK** button to save the changes.
- 3 Press the **Back (⏪)** button to exit from the menu and press the **Arrow (▲/▼)** buttons to select the desired channel. Now you can watch TV or listen to the Radio.

Installation >> Manual Scanning

Manual Scanning

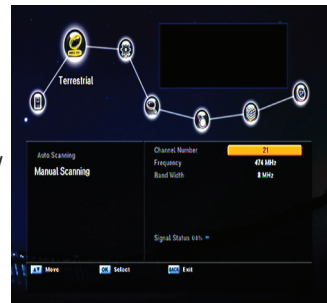
- 1 Select the channel number using the **Arrow (◀/▶)**
- 2 Press the **OK** button. Manual scanning will start.
- 3 Press the **OK** button to save the changes.
- 4 Press the **Back (⏪)** button to exit from the menu and press the **Arrow (▲/▼)** buttons to select the desired channel. Now you can watch TV or listen to the Radio.

Installation >> Defaults Setting

Defaults Setting

You can restore the default setting in case you have encountered some problems after saving changes to channel data and others that may be in error.

- 1 Select **Defaults Setting** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.
- 2 Select a defaults option (**Factory Defaults**, or **STB Reboot**) using the **Arrow (▲/▼)** buttons and press the **OK** button.
 - **Factory Defaults:** Resets back to the factory-default settings.
If you press the **OK** button in this menu, you will see a dialog box asking you to confirm the channel defaults or factory defaults setting.
Select **Yes** or **No**, and press the **OK** button.
 - **STB Reboot**
If you press the **OK** button in this menu, the Set-top box (STB) reboots.



System Setup

You can set the system configuration in this menu. Press the **Menu** (▢) button. Select **System Setup** using the **Arrow** (◀/▶) buttons on the menu.

System Setup >> Language Setting

Language Setting

You can set languages for OSD, Audio 1-2, Teletext, Subtitle, and EPG 1-2

- 1 Select **Language Setting** using the **Arrow** (▲/▼) buttons on the **System Setup** menu and press the **OK** button.
- 2 Select any of **OSD, Audio1- 2, Teletext, Subtitle,** and **EPG1-2 languages** using the **Arrow** (▲/▼) buttons and use the **Arrow** (◀/▶) buttons to select its language.

System Setup >> OSD Setting

OSD Setting

You can adjust **OSD Transparency**, Window Trans OSD Banner Time, and Screen Saver Time.

- 1 Select **OSD Setting** using the **Arrow** (▲/▼) buttons on the **System Setup** menu and press the **OK** button.
- 2 Select any of **Transparency, Window Trans, Screen saver Time, VFD Module and Display in Standby Mode,** and **Screen saver Time** using the **Arrow** (▲/▼) buttons and use the **Arrow** (◀/▶) buttons to make changes.
 - **Transparency:** 0 (opaque) to 100%
 - **Window Trans:** 0 (opaque) to 100%
 - **Banner Time:** 1 to 60 seconds or Always
 - **Screen saver Time:** 1 to 60 minutes or None
 - **Serial Module:** X-crypt or None

System Setup >> Media Setting

Media Setting

You can enter the various media setting for TV System, TV Aspect Ratio, Video Aspect Ratio, RGB, Y/Pb/Pr or Composite, RF Channel, Broadcasting System, Video Freeze and DVB Subtitle.

- 1 Select **Media Setting** using the **Arrow** (▲/▼) buttons on the **System Setup** menu and press the **OK** button.
- 2 Select **Media Setting** using the **Arrow** (▲/▼) buttons and press the **Arrow** (◀/▶) buttons to make changes.
 - **TV System:** 576p, 720p, 1080i
 - **TV Aspect Ratio:** You can set the aspect ratio of your TV. (4:3,16:9 or Auto)



- **Video Aspect Ratio:** You can select the display format according to TV screen ratio. (Letter Box, Pan & Scan, Mixed, or Full)
- **Video Signal Type:** RGB, Y/Pb/Pr, Composite
- **Video Freeze:** On/Off
- **Dolby digital:** PCM/Bitstream
- **Time Shift:** Manual / Auto

System Setup >> Time Setting
Time Setting

You can set the time zone.

1 Select **Time Setting** using the **Arrow (▲/▼)** buttons on the **System Setup** menu and press the **OK** button.

◆ **Set Time Zone:**

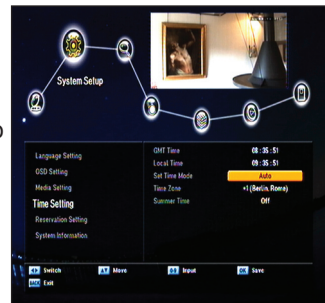
Press the **Arrow (◀/▶)** buttons to set time mode for Auto or Manual

◆ **Time Zone**

Press the **Arrow (◀/▶)** buttons to set the time zone. The local time will be automatically changed by this setting. Set the time by using the **Arrow (◀/▶)** buttons in case of **Auto set time mode**

Input the figures with the numeric keys in case of **Manual set time mode**

◆ **Summer Time:** Select the summer time function **on** or **off**



System Setup >> Reservation Setting
Reservation Setting

You can set timer of reservation for TV program such as switch on, off and TV program. Select the Event NO. for the reservation.

- **ON time:** Input the Switch-ON time with numeric keys.
- **OFF time:** Input the Switch-OFF time with numeric keys.
- **Repetition:** Select the Event activation time option (Once, Daily, one day a week) with the **Arrow (◀/▶)** buttons.
- **Program:** Select the channel with **Arrow (◀/▶)** button and press **OK** to save.



System Setup >> System information
System Information

You can check system information like Model Name, hardware version, Loader version, Main Software version, and Main Software Build Date.

Channel Setup

You can edit TV and Radio channels and the favorite channel group in this menu.

Press the **Menu (III)** button. Select **Channel Setup** using the **Arrow (◀/▶)** buttons on the main menu.

Channel Setup >> Delete Channels

Delete Channels

You can delete TV and Radio channels you want.

- 1 Select **Delete Channel** using the **Arrow (▲/▼)** buttons on the **Channel Setup** menu and press the **OK** button.
- 2 Select the channel you want to delete using the **Arrow (▲/▼)** buttons and press the **OK** button. Press the **Arrow (◀/▶)** buttons to switch between TV and Radio List.

You can select multiple channels.

Bulleted list indicates selected channels.

Press the Green (sleep) button for Delete mode by Channel, TP or Satellite.

- 3 Press the **RED (MoSAiC)** button to delete selected channels.

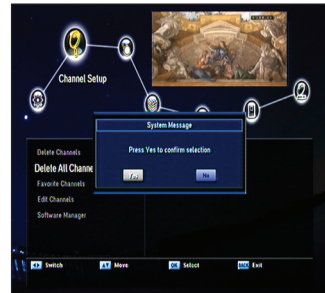


Channel Setup >> Delete All Channels

Delete All Channels

You can delete all channels.

- 1 Select **Delete All Channels** using the **Arrow (▲/▼)** buttons on the **Channel Setup** menu and press the **OK** button. System message dialog box appears asking you to confirm it.
- 2 Select **Yes** using the **Arrow (◀/▶)** buttons and press the **OK** button to delete all channels.



Channel Setup >> Favorite Channels

Favorite Channels

You can edit favorite channels. There are 9 favorite channel groups (**News, Sports, Movie, Music, Shopping, Kids, Adults, Drama, and Education**).

- 1 Select **Favorite Channels** using the **Arrow (▲/▼)** buttons on the Channel setup menu and press the **OK** button.
- 2 Select channels that you want to edit using the **Arrow (▲/▼)** or **Page (+/-)** buttons in the **TV/Radio List** and press the **RED (MoSAiC)** button. Selected channels are listed in the favorite group. Pressing the **TV/Radio (تلفزيون/راديو)** button switches between TV and Radio List.
- 3 Press the **FAV (♥)** button to select another favorite group.
- 4 Select channels that you want to edit using the **Arrow (▲/▼)** buttons in the **TV/Radio List** and press the **RED (MoSAiC)** button. Repeat steps from 3 to 4.
- 5 Press the **OK** button to confirm.



Channel Setup >>Edit Channels Edit Channels

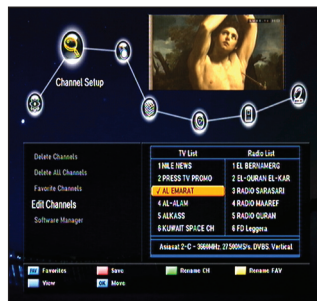
You can rename the channel list.

Select **Edit Channels** using the **Arrow (▲/▼)** buttons on the Channel Setup menu and press the **OK** button.

- **FAV (♥)** button: Shows Favorite channel lists
- **Arrow (◀/▶)** buttons: Switches between TV and Radio channel lists

To rename the channel list

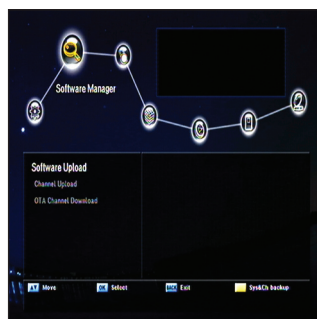
- 1 Select the channel you want to rename using the **Arrow (▲/▼)**, **PR+/-**, or **Page (+/-)** buttons and press the **GREEN (Sleep)** button. Font Table will appear.
- 2 Press the **BLUE (SAT)** button to delete the selected channel name.
- 3 Select characters using the **Arrow** buttons and press the **RED (MoSAic)** button to enter characters.
 - **YELLOW (Audio)** button: Enters space
 - **BLUE (SAT)** button: Hits the back space
 - **RED (MoSAic)** button: Selects the input
- 4 Press the **OK** button to confirm.



Channel Setup >> SW Manager SW Manager

You can download the software of your receiver through satellite when the new software is available for your system. During download, don't turn off your receiver. In case of the power is turned off, turned on your receiver again to complete the download.

- 1 Select **Software manager** using the **Arrow (▲/▼)** buttons on the **Installation** menu and press the **OK** button.
 - **Program Upload:** Copies all the data from Master STB to Slave STB.
 - **Channel Data Upload:** Copies only the channel data from master STB to Slave STB. Connects both Master and Slave STB using RS232C Cable and then press the **OK** button on the **Software Upload** menu for the Master STB.
 - **USB Explore (Optional):** Select a Software file by using the **Arrow (▲/▼)** or **Page (+/-)** buttons and press **RED (MoSAic)** button for software downloading.
 - **OTA Update (Optional):** Main S/W or Channel Date can be updated over the air.



Parental Lock

You can lock the channels to prohibit unauthorized users from watching specific channels. Press the **Menu** (III) button. Select **Parental Lock** using the **Arrow** (◀/▶) buttons on the main menu

Parental Lock >> Channel Lock

Channel Lock

Whenever you want to see the locked channel you will be prompted to enter the PIN Code in the dialog box.

- 1 Select **Channel Lock** using the **Arrow** (▲/▼) buttons on the Parental Lock menu and press the **OK** button.
- 2 Select the channel that you want to use the **Arrow** (▲/▼), **PR+/-**, **Page** (+/-), or **Numeric** (0-9) buttons and press the **OK** button.

Selected channel will be displayed with locking-marked. Press it again to clear.

Arrow (◀/▶) buttons: Switches between TV and Radio List.

- 3 Press the **RED (MoSAiC)** button to confirm.
- 4 Press the **Blue (SAT)** button to move PIG screen.

Parental Lock >> Lock Control

Lock Control

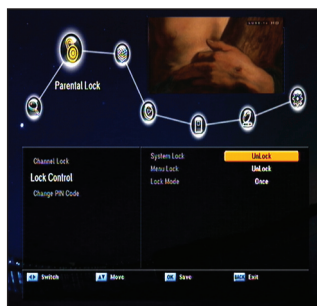
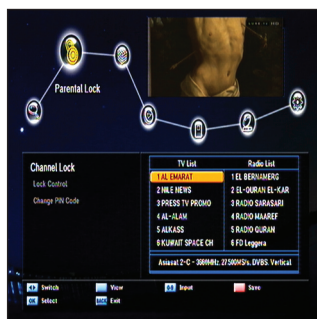
Whenever you want to use the locked system you will be prompted to enter the PIN Code in the request dialog box. Using **Arrow** (▲/▼) buttons and press **OK** button to select a lock status.

- **System Lock:** Select Lock or Unlock by using the **Arrow** (◀/▶) button. If Lock is selected, the front key function will be blocked.
- **Menu Lock:** Select Lock or Unlock by using the **Arrow** (◀/▶) button submenu Lock control will be available with **PIN code**.
- **Lock mode:** Select Once or Every time mode by using **Arrow** (◀/▶) button.
- **Once:** Input the pin code once on the channel change with Parental Lock.
- **Every time:** Input the pin code every time on the channel change with Parental Lock Save the changes with **OK** button Press the **Blue (SAT)** button to move PIG screen

Parental Lock >> Change PIN Code

Change PIN Code

You can create a new PIN code in this menu. "0000" is the default password.



- 1 Select **Change PIN Code** using the **Arrow (▲/▼)** buttons on the **Parental Lock, System Lock, Menu Lock** and press the **OK** button.
- 2 Enter the old PIN code.
- 3 Enter the new PIN code.
- 4 Enter the new PIN code again to confirm.

Note

- Please keep in mind that the PIN code must be a four-digit number. In case you forgot your PIN code, contact your local dealer.

Game

This product provides lots of games for your entertaining environment. Select Game using the **Arrow (◀/▶)** buttons on the main menu.

- 1 Select a game using the **Arrow (▲/▼)** buttons on the Game menu and press the **OK** button.
- 2 According to the instruction displayed on screen, you can enjoy games using the **Arrow, Numeric (0~9)**, and **OK** buttons.

Multimedia

You can access to the multimedia function with USB, SATA and Ethernet device.

- Whenever you connect or disconnect USB & SATA jack in the STB, You must keep the STB in Stand by mode. You can just use power button with RCU and front panel power key. Please don't switch off the main plug and on/off switch on the rear panel.

Multimedia >> USB

Connect USB stick or External HDD through USB connector.

Multimedia >> SATA (optional)

Connect the external HDD through SATA connector in the rear panel.

- HDD must be compatible with FAT 32 file system. If HDD is not compatible with FAT 32 File system, you need to change the file system. By using personal computer with the format function.

1 Playing the media files

Select the media file with channel up/down buttons and press OK button.

2 Software Update

Select S/W files with channel up/down buttons and press Red key (Mosaic).



3 Deleting files

Select the files with channel up/down buttons and press Green key (Sleep).

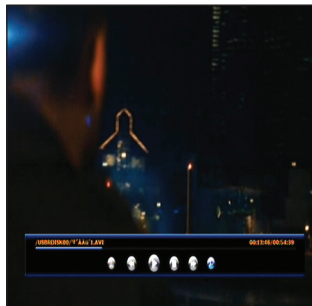
4 Format

Press yellow key (Audio) to delete all the files in the storage device.

- PVR function

In order to use PVR function, the storage device must be connected through SATA or USB connector.

- 1) Record: Press Rec button during watching channel
- 2) Stop: Press Stop button to finish recording channel
- 3) Play: Press Play button to play the recorded programs
- 4) Fast Forward: Press FFR button to play in Fast Forward mode to x16
- 5) Rewind: Press REW button to play in Rewind mode to x8
- 6) Pause: Press Pause button to stop the program for a while
- 7) Media player: press F2 to start the media player.
- 8) Time shift: Press F3 to start time shift function
- 9) File list: press text button to see the file list in the media player menu



Multimedia >> Ethernet (Optional)

- Before starting setup, please check if the Ethernet cable is connected to your receiver well.

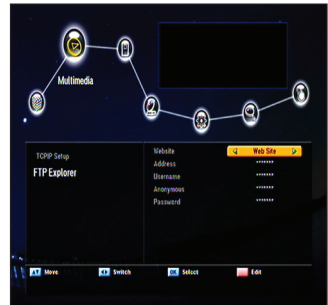
- 1) TCP/IP set up

Input the right information for the settings to the followings.

TCP/IP Type/ IP Address/ Net mask / Gateway/ DNS Type/ DNS Server



- 2) FTP Explorer
Press O.K. to connect the FTP Server
Select file and press Red Key (Mosaic) for S/W
update.



Conditional Access

You can enjoy not only scrambled services using the Conditional Access Modules (CAM), but also free-to air services, Types of common interface module and smart card differ depending on the service provider. If you want to use conditional access modules, contact your service provider or distributor.

- Without using the Conditional Access (CA) Modules, free-to-air services are available.

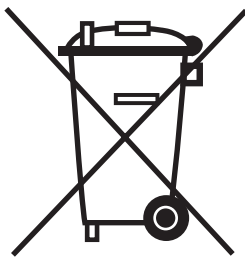
Troubleshooting

Problem	Solution
No display LED on the front panel. No power supply	Plug the power cord correctly.
No picture.	Ensure that the STB is switched on. Check the connection status. Check channels and Video output status.
Poor picture quality.	Check the signal level If this is too low, try adjusting the alignment of your dish.
No sound.	Check the volume level of the TV and STB Check the mute status of the TV and STB Check the connection of audio cable.
Remote Control does not operate.	Point remote control directly towards your receiver. Check and replace batteries. Check if anything blocks the front panel.
Service is not running or scrambled.	Make sure the smart card is appropriate for the selected service.
You have forgotten your PIN code.	See chapter 5, "Parental Lock" in this User's manual.

Specifications

TUNER & CHANNE		
Satellite(DVB-S2)	Input Frequency	950-2150MHz
	Input connector	F-type, IEC 169-24, Female
	Symbol Rate	DVB-S2:10-30Ms/s(QPSK),10-31Ms/s(8PSK) 2-45Ms/s
	Demodulation	QPSK, 8PSK
	Convolution code rate	DVB-S2: Auto1/2,2/3,3/4,3/5,4/5,5/6,8/9,9/10(8PSK) Auto 2/3,3/4,3/5,5/6,8/9,9/10(8PSK) DVB-S: Auto1/2,2/3,3/4,5/6,7/8
	LNB Power & Polarization	Vertical: DC13.5V Horizontal: DC18V Current: MAX. 500mA Overload Protection
	22KHz Tone DiSEqC Control	Frequency : 22KHz +/- 1KHz Amplitude : 0.6V +/- 0.2V Version 1.1,1.2,USALS & Uncable
Switching Mode Power Supply		
Satellite	Input Voltage	AC100-250V~,50/60Hz
	Power Consumption	MAX.50W (Standby: Less than 3W)
MPEG TS A/V Decoding		
Transport Stream	MPEG-2 ISO/IEC 1318-1	
Profile Level	MPEG-2 MP@ML MPEG-2 MP@HL, MPEG-4 AVC/H.264 HP@L4	
Aspect Ratio	4:3, 16:9, Letter Box	
Video Resolution	1080i, 720p, 576p	
Audio Decoding	MPEG-1, Musicam Layers 1 & 2	
Audio Mode	Single channel/Dual channel/Joint Stereo/Stereo	
Sampling Rate	32,44,1& 48KHz	
System Resources		
Main Processor	ST40 CPU core: 266MHz(STI7101)	
Flash Memory	8 Mbyte (Optional Expand)	
Video DDR SDRAM	64 Mbyte (Optional Expand)	
System DDR SDRAM	64 Mbyte (Optional Expand)	
EEPROM	8Kbyte	
A/V & Interfaces		
Digital output(HD)	HDMI(TMDS main video output) YPbPr	
TV-Scart & RCA(SD)	Video : CVBS / RGB output Audio : L/R output	
VCR-Scart(SD)	Video : CVBS output / CVBS input bypass Audio : L/R output / L,R input bypass	
Digital Audio output	Digital AC-3 Decoding output Digital Audio Bitstream output(S/PDIF)	

S-Video	Video : S-Video output
RS-232C	Transfer rate 115.2Kbps, 9 pin D-sub type
PVR Ready(Optional)	USB2.0 High speed host controller
Conditional Access System	
PCMCIA (Optional)	2 Slot of DVB-CI
Smart Card(Optional)	2 Smart card Reader for Embedded CAS like
Front panel	
Display	Dot-Matrix VFD (Vacuum Fluorescent Display)
Keys	Touch pad 7Keys
Accessories	
RCU	IR(Freq. : 38Khz), Battery : 2x1.5V AAA
HDMI Cable	1.5M
Manual	
Physical Specification	
Size (W x H x D)	375 x 60 X 230mm
Net Weight	3.5Kg
Operation Temperature	0~50 C
Storage Temperature	-10~+60 C



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, Please separate this from other types of wastes and recycled it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of

where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.