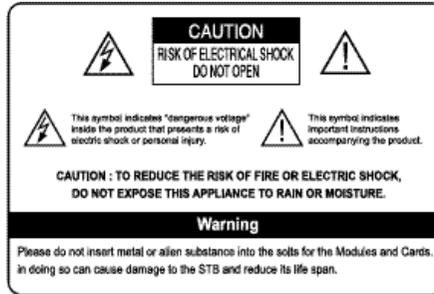


Safety Information

Caution Guide

Please read this safety information carefully and keep these instructions and heed all warnings. Always follow these instructions to avoid the risk of injury to yourself or damage to your equipment.



- **Placement:** Do not place the receiver on an unstable cart, stand, tripod, bracket or table. The receiver may fall to cause the serious personal injury and damage to the receiver. When a cart is used, use caution when moving the cart/Receiver combination to avoid injury from tip-over. Do not use or store the receiver where it is exposed to direct sunlight, or near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat. Never stack other electronic equipment on top of the receiver. Place the receiver at least 30mm from the wall.
- **Operating Power:** Operate the receiver using only the type of power source indicated on the marking label. Protect the power cord from being walked on or pinched. Particularly at plugs, convenience receptacles, and the point where they exit from the receiver.
Unplug the receiver during lightning storms or when unused for long periods of time.
- **Ventilation:** Do not block the receiver ventilation holes.
Ensure that free airflow is maintained around the receiver.
- **Cleaning:** Unplug the receiver from the AC power outlet before cleaning. Use only a dry cloth for cleaning the exterior of the receiver.
- **Attachment:** Do not use accessories or attachments not recommended by the receiver manufacturer as they may cause problems to the equipment and will void the warranty.

- **Water Proof:** Do not expose the receiver to the water or any liquids.
- **Grounding:** The ground of the LNB cable must be directly connected to the system ground for the satellite dish. The grounding system must comply with local regulations. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Service

Do not attempt to service the receiver by yourself as opening or removing cover may expose you to the dangerous voltage and will void warranty. Refer all servicing to qualified service personnel. Servicing is required when the receiver has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the receiver, the receiver has been exposed to rain or moisture, does not operate normally, or has been dropped. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Please contact the authorized service center and personnel.

Caution & Note for FCC Regulation

Caution: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limit 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 or more of the following measures.

Contents

Front Panel 2

Rear Panel 3

Remote Control Unit 4

How to connect your equipment 6

Menu Tree 7

Set Up Procedure 8

Channel Information Bar 12

Channel List 15

Electronic Program Guide (EPG) 16

Teletext 17

Subtitle 18

Audio 19

Azan 20

Zoom 22

Multi-Picture 23

Find 24

Signal 26

Sleep 26

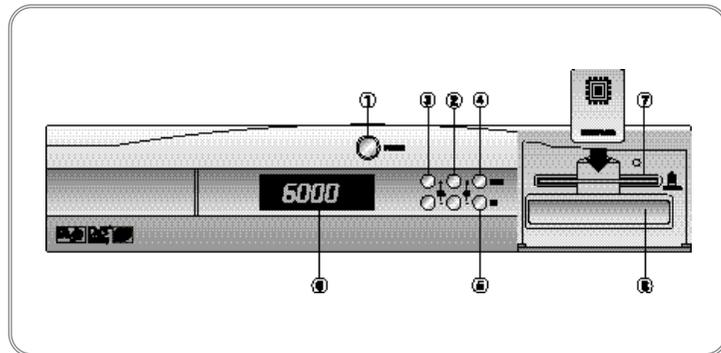
Miscellaneous Functions 27

Main Menu 28

Trouble Shooting 34

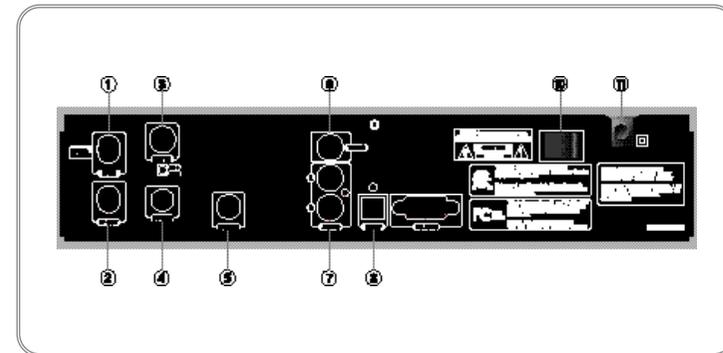
Technical Specification 35

Front Panel



- | | |
|---|--|
| 1) Power Key | Switch the receiver ON / OFF. |
| 2) CH Up/Down | Channel Up/Down or direction key |
| 3) VOL Up/Down | Volume Up/Down or direction key |
| 4) MENU | Call the main menu |
| 5) OK | Select the menu or its parameters |
| 6) Display | 4-Digit ,7-Segment Display |
| 7) Smart Card Slot
(Option on model) | Slot for the Smart Card |
| 8) CAM Slots
(Option on model) | 2 Slots for PCMCIA Common Interface CAM module |

Rear Panel

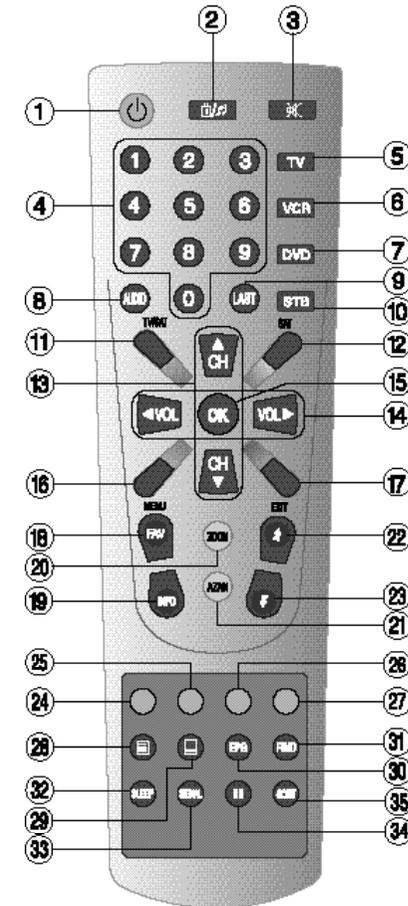


- | | |
|-----------------------|---|
| 1) IF IN | Connect antenna cable from LNB |
| 2) IF OUT | Connect RF signal from the STB to RF input on your television or to the STB |
| 3) ANT IN | Connect your local RF channels to your TV via loop |
| 4) TV OUT | Connect your TV by RF cable |
| 5) S-VIDEO | Connect VCR |
| 6) VIDEO | Video output jack for TV or others |
| 7) AUDIO | Audio output jack for TV or others |
| 8) S/PDIF | Digital audio output for digital amplifier |
| 9) RS-232C | Serial Port for software download by PC |
| 10) POWER | 95 ~250V ac, 50/60Hz |
| 11) Main power switch | |

Universal Remote Control Unit

- 1) POWER (🔌)
Power on/off
- 2) TV/Radio (📺/📻)
Switching TV / Radio programs
- 3) Mute (🔇)
Muting audio
- 4) 1-0
Numeric keys
- 5) TV (📺)
Switching to TV mode.
- 6) VCR (📼)
Switching to VCR mode.
- 7) DVD (📀)
Switching to DVD mode.
- 8) STB (📡)
Switching to STB mode.
- 9) LAST (🔙)
Recalling previous channels
- 10) AUDIO (🔊)
Audio type selection
- 11) TV/SAT (📺/📡)
Switching TV / STB mode
- 12) SAT (📡)
Selecting Satellite
- 13) CH Up/Down (📺/📺)
Channel up/down & moving up/down on the menu
- 14) VOL Up/Down (🔊/🔊)
Volume up/down & moving right/left on the menu
- 15) OK (👉)
Confirming selection
- 16) MENU (☰)
Calling main menu
- 17) EXIT (🔙)
Exiting the current menu
- 18) FAV (📌)
Calling favorite groups

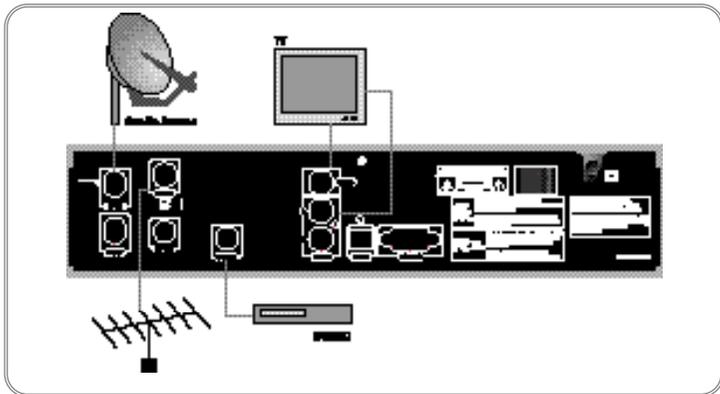
- 19) INFO (📰)
Displaying information bar and guide
- 20) ZOOM (🔍)
Zooming the video signal of channel
- 21) AZAN (🕌)
Changing to AZAN menu
- 22) Page Up (📄)
Paging up on the menu
- 23) Page Down (📄)
Paging down on the menu
- 24) RED
Red function key
- 25) Green
Green function key
- 26) Yellow
Yellow function key
- 27) Blue
Blue function key
- 28) Teletext (📰)
Calling teletext data
- 29) Sub-title (📄)
Calling sub-title data
- 30) EPG (📺)
Calling EPG menu
- 31) FIND (🔍)
Calling channel find menu
- 32) SLEEP (🔌)
Sleeping timer
- 33) SIGNAL (📶)
Showing signal meter
- 34) II (⏸)
Pausing video
- 35) SORT (📂)
Sorting channel list.



How to connect your equipment

You can connect your equipment, TV, VCR & Hi-Fi System with the STB. The following is the standard connection for your setting up your system. Contact your authorized dealer or service personal if you have any problem.

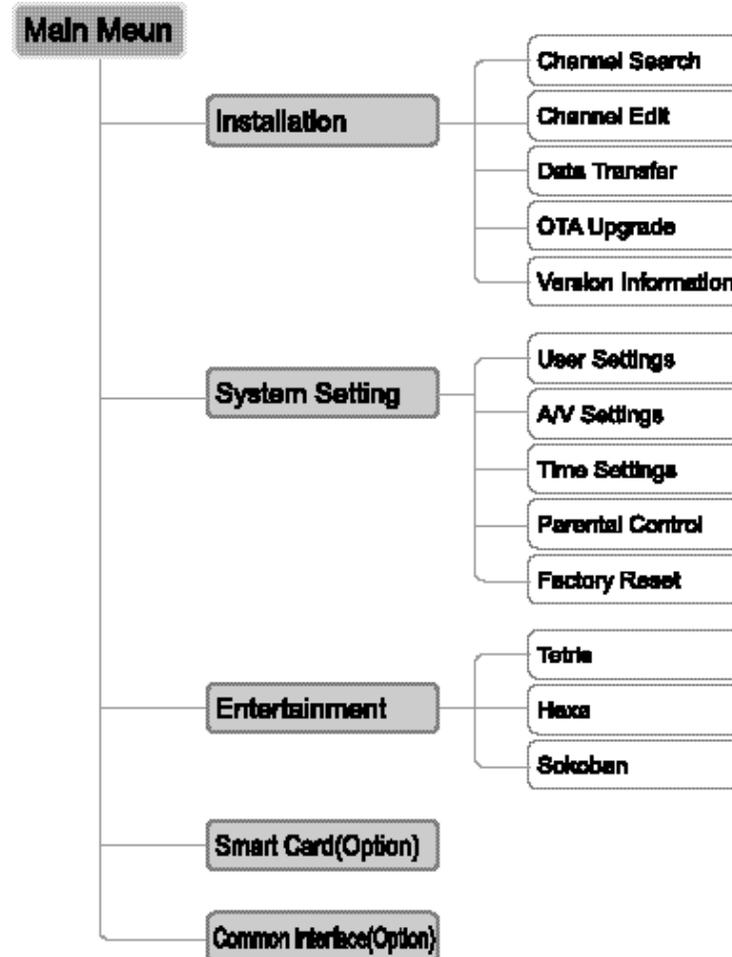
Please DO NOT plug in the power supply cord until you have finished all the connections !



- 1) STB to TV Set
Please connect TV to TV out of modulator or RCA jacks.
- 2) STB to VCR Set
VCR connection is with S-VIDEO scart connector.
- 3) STB to Hi-Fi System
RCA audio R/L jack is for Hi-Fi system. If you have digital amplifier to support DOLBY digital system, please connect S/PDIF to it.
- 4) Loop Through
If you want to use the same LNB with other analog or digital satellite receiver, you can connect them via the loop through.

Menu Tree

Menu Tree helps you to understand the STB operation structure.



Set Up Procedure

Set up procedure is completed by the following process.

Main Menu => Installation Menu => Channel Search

1. Language Selection

When you plug in the receiver, you can see the **Select Language** menu on the screen. You can select the GUI language you want using the RCU direction keys and press the **OK** key. Only when the factory default is done, this menu appears.

After language selection, you see the black screen with the channel information bar that mentions "No TV Channel". Then, press the **MENU** key on the RCU and the **Main Menu** appears on the screen.

In case channel list is preset in the factory, you can see the No. 1 channel of the channel list after language selection. In this case you can change the channel list, if you want, using the Channel Search menu.

2. Channel Search



In the **Main Menu**, move to **Installation** menu and choose its sub-menu, **Channel Search** menu, pressing **OK** key and **Enter PIN Code** menu appears. The default PIN Code No. is "0000" and enter it using numeric keys on the RCU.

You can change PIN Code No. in the Parental Control menu of System Settings menu in the Main Menu.



(1) Satellite

You can choose the satellite you want to search pressing **Vol Up/Down** keys on the RCU.

Or press **OK** key and you can see all the preset satellite list with alphabetic-order. Multi-selection is available using **Blue** function key.

- Red** function key : Add new satellite.
- Green** function key : Delete the satellite
- Yellow** function key : Rename satellite
- Blue** function key : Add this satellite to multi selection.
- SORT** key : Sort satellite list by name or location.



(2) Transponder

You can choose the Transponder frequency you want to search pressing **Vol Up/Down** keys on the RCU.

Or press the **OK** key and you can see all the preset transponder list with alphabetic-order.

Red function key : Add new transponder

Green function key : Delete the transponder

Yellow function key : Edit current transponder parameters

Blue function key : Add user channel to this transponder.

(3) Search Option

3 modes are available.

All: FTA + Scrambled channels

FTA: FTA channels

Scramble: Scrambled channels

Network Search: On / Off

DiSEqC: Off / Mini-A, Mini-B, Port 1,2,3,4

(4) Channel Scan Start

4 modes are available.

Red function key : Start Satellite Scan

Green function key : Start Transponder Scan

Yellow function key : Start Multi-Satellite Scan

Blue function key : Start blind Scan

Before channel scan start, you can check the signal's strength and quality with Signal Meter and Strength & Quality Bar on the screen of Channel Search menu.



(5) Channel Scanning

After channel scan start, **Channel Scanning** menu appears.

During the channel scanning, you can see the parameters related to the scanning.

- Satellite name
- Scanning percentage bar
- Scanned TV channel name & quantity
- Scanned Radio channel name & quantity
- Data channel quantity
- Scanning time

After Channel Scanning is completed, "Channel Changed!" pop-up menu appears. If you select Yes, the scanned channel list is saved.

Then, press EXIT key and Channel Search is completed to move to the no.1 channel.

Channel Information Bar

Once Channel Search is finished, you can enjoy the scanned channels. During enjoying the TV & Radio programs, you can manage several functions with Channel Information Bar.



Whenever you change the channels, **Channel Information Bar** appears for a while at the bottom of screen and disappears. The program information is shown through this **Channel Information Bar**.

The Channel Information Bar consists of various icons and functions.

TV / Radio program

This shows that the current channel is either TV program or Radio program.

When you press TV / RADIO key on the RCU and it converts between TV & Radio program.

Current Time

Current time is shown.

Channel No. & Name

This is the channel no. and name that you are watching.

The channel no. is decided during the channel scanning.

Program Information

The program information is described in this area.

Program Information

a. During the **Channel Information Bar** is appearing, you can press **INFO** key on the RCU.



Then, EPG (Electronic Program Guide) Information of the current channel is popped up above the **Channel Information Bar**.

b. When the Channel Information Bar disappears, You can press **INFO** key to recall the Channel Information Bar and press **INFO** key one more time to hide the Channel Information Bar.

Red key & Channel Group Indicator

When you are watching the program, you can choose channel group you want to see.

The channel group is 3 groups;

FTA Only : FTA Channel Group

CAS Only : CAS Channel Group

FTA & CAS : FTA & CAS Channel Group

If you press **Red** key on the RCU, the channel group is changed by circle and the program is also changed according to the channel group.

FAV Key & Favorite Channel Group Indicator

You can make favorite channel group in the **Channel Edit** menu. If you press FAV key, the list of all favorite groups is appeared, so you can select the group you want.



8 favorite channel groups are available in total. You can add current channel to the selected favorite list directly by pressing 'Red' function key.

Signal Strength & Quality Bar

These indicate the current channel's signal strength and quality.

Icons of Channel Features

These icons show the specialty of the current channel.

\$ icon(💰): Scrambled (CAS) channel

Lock icon(🔒): Channel is locked

Teletext Icon(📄): Channel contains teletext.

Subtitle Icon(📄): Channel contains subtitle.

Audio Icon(🔊): Channel contains multiple audio.

Dolby Icon(🎧): Channel contains Dolby digital audio.

When the channel has above specialties, the icons are on,

Channel Data

These indicate satellite name, channel frequency, symbol rate, polarity & FEC of the current channel.

Channel List

During watching the channels, Channel List menu helps you to select easily the channel you want to see. Also, you can see the channel list that you have searched before group by group.



1. During watching the channel, press **OK** key to move to the **Channel List** menu.
2. You can change the **Channel List** using **Red** key on the RCU channel group by channel group and its 8 favorite channel group can be listed by **FAV** key on the RCU.
3. The selected channel's video & audio are shown in the small frame.
4. Pressing **OK** or **EXIT** key, the channel is returned to the main frame.

You can sort the channel list using SORT key on the RCU.

1. Press **SORT** key on the RCU.
2. Then, the **Sort Channel List** window pops-up.
3. You can select 3 sort types.
Alphabetical / Satellite / Default, and press OK key.

In the Channel List press OK key, after selecting the channel you want to see, and the selected channel is shown in the small frame.

Also, you can enjoy the Multi-Picture function in the Channel List menu.

1. In the Channel List, you can Implement Multi-Picture function using **Blue key** on the RCU.
2. Pressing **Blue key**, Multi-Picture window pops-up and choose the mode you want.

In the Channel List, you can change TV Channel List to Radio Channel List to press the TV/RADIO key on the RCU.

Electronic Program Guide (EPG)

You can view program guide information in EPG menu.



1. During watching the channel, press **EPG** key to enter the **EPG** menu.
2. In **EPG** menu, press **VOL Up/Down** key to change channel. You can also enter channel number directly by number key. The **FIND** key is also available. You can select specific event by **CH Up/Down** key. If you want to view information about the selected event, press **OK** key. This information is also displayed in the right window with automatic scrolling feature.

You can also view the information about the current event immediately from channel information bar by pressing **INFO** key.

Teletext

Some channel contains text service called teletext.



1. When the current channel contains teletext data, the teletext icon in the channel information bar is activated. Pressing **TELETEXT** key in that case, teletext screen pops up.
2. By pressing **CH Up/Down** key, you can navigate through the teletext page. You can also enter page number directly by number key.
3. When you want to return to main video screen, press **EXIT** key or **TELETEXT** key again.

Subtitle

Some channel contains subtitle data.



1. When the current channel contains subtitle data, the subtitle icon in the channel information bar is activated. When press **SUBTITLE** key, the subtitle selection window pops up.
2. Initially the default subtitle language in **User settings** menu is automatically selected. You can change or disable subtitle for the current channel. Once changed, it remains as selected by user for this channel.

The subtitle language is channel specific, which means you can select different subtitle language per channel.

Audio

Some channel contains multiple audio data.



1. When the current channel contains multiple audio data, the audio icon in the channel information bar is activated. Pressing **AUDIO** key, the audio selection window pops up.
2. Initially the default audio language in **User settings** menu is automatically selected. You can change audio language for the current channel. Once changed, it remains as selected by user for this channel.
3. You can change audio mode such as **Stereo, Mono, Left** and **Right** in this menu also.

The audio settings are channel specific, which means you can select different audio settings per channel.

Azan

This receiver has special function for informing prayer time. You need to setup information about your location and some settings to get correct Azan time. You can select the alarm type at Azan time and also it is possible to disable this function entirely.



1. Press **Azan** key to setup Azan function or view daily Azan time. If the current time is not correct, please set your correct time in **Time settings** menu. If you have already setup proper information, it will display correct time.
2. You can view Azan time of the other day by changing **Date** with **VOL Up/Down** key.



3. When you want to change information or settings, press **OK** button in **Setup** item. Then the **Setup** window appears. In this menu, you can setup following settings.

- **Country:** Press **VOL Up/Down** key to change your country. Or press **OK** button to view all preset country information. If your country is not here, select **USER** and enter **Latitude**, **Longitude** and **Time zone** manually.
- **City:** Press **VOL Up/Down** key to change your City. Or press **OK** button to view all preset city information.
- **Rule:** The rule that you are following.
- **Juristic Method**
- **Alarm:**
 - **Disable :** Disable Azan function.
 - **Message Only:** It will just display informing message at Azan time.
 - **Sound:** It will play Azan sound at time.
 - **Sound and Picture:** It will play Azan sound with some religious background display at Azan time.

From two minutes before Azan time, a small message will be displayed in the top of the screen.

Zoom

These functions are user-friendly functions to enjoy programs more usefully.



1. During watching TV program, press **ZOOM** key on the RCU.
Then, the zoom cursor appears.
2. Using **CH Up/Down & VOL Up/Down**, you can move the cursor where you want to move.
3. When you want to resize the cursor, please use **Page UP/Down** key on the RCU.
4. After moving the cursor, please press **OK** key and the zoom is active and returning to the main frame is to press **EXIT** key.
5. In the zoom mode, you can see the zoom indicator on the upper right side and can move the zoomed spot directly.

Zoom function is also workable in the Pause mode.

Multi-Picture

This function is to show multi-channels of Channel Group at the same time in one main frame.



1. During watching TV program, press **Blue** key on the RCU.
Then, the **Multi Picture** menu window pops up.
2. You can select how many picture you want to see among 4, 9, 16 pictures and press **OK** key.
3. Then, multi-pictures are shown from the channel of the TV program that you are watching to the same number of channels of the channel list.
4. In the multi-picture mode, the selected channel no. & name is blinked.
5. After multi-pictures are shown, only one channel is activated and others are in the still picture.
6. You can move the yellow flame cursor to select the TV program using **CH Up/Down & VOL Up/Down** key and press **OK** key to activate the TV program.



7. After activating the channel, press **OK** key and the channel becomes main frame.
8. In the main frame mode, you can see the multi-picture indicator on the upper left side. Using the indicator's cursor, you can change the channel directly in the main frame mode.

This Multi-Picture function can be implemented in the main frame and Channel List menu both.

Find

This function enables you to find the channel you want easily by its name.



1. During watching TV program, press **FIND** key on the RCU if you want to find channel by its name.
2. Using **CH Up/Down**, **VOL Up/Down** and **OK** button, enter the name of the channel you are looking for. Every time you enter the character, all the channels whose name contains the string are listed in the right window.



3. You can move to the **Channel List** window in the right side at any time by press **Green** button and select channel by pressing **OK** key.

This function is also available in channel list and channel edit menu.

Signal

This function shows the signal status of the current channel with a larger view.



1. During watching TV program, press the **SIGNAL** key on the RCU to view signal status such as signal strength and quality.
2. You can control DisEqC or USALS setting here.

Sleep



1. Press the **SLEEP** key on the RCU to set time the receiver will be turned off.
2. You can select time by **VOL Up/Down** and **OK** button.
3. Once sleep timer set, a small icon appears on the left top corner of the screen.

Miscellaneous Functions

- **PAUSE**

When you press **PAUSE** key, the video stops temporarily until you press **PAUSE** key again or press **EXIT** key.

- **MUTE**

When you press **MUTE** key, the audio is changed between mute and un-mute state.

- **TV/RADIO**

When you press **TV/RADIO** key, the current channel list is switched between TV channels and Radio channels.

- **LAST**

The receiver remembers up to 8 recent channels. When press **LAST** key the 8 recent channels are listed, and you can select one of those channels. You can also erase this list by pressing **RED** key in the list.

- **FAV**

Once the favorite group is made in **Channel Edit** menu, you can select one of the favorite list by pressing **FAV** key.

- **TV/SAT**

You can feed TV input from this receiver or other A/V device such as VCR by pressing **TV/SAT** key. The device should be connected to the SCART port to make this function work.

- **SAT**

You can list channels in specific satellite by pressing **SAT** key.

Main Menu

This section describes each item in the main menu. Please note that some items in the menu are protected by PIN code to prohibit unauthorized modification. You can change PIN code in Parental Control menu.

1. Installation

A. Channel Search

You can search available channels in this menu. You can also add, delete or modify satellite and transponder information here.

(Please refer to the previous section for more information.)

B. Channel Edit

You can delete, rename, lock or unlock the scanned channels in this menu.



Delete Channel: Press **Green** button.

Rename Channel: Press **Yellow** button.

Lock/Unlock Channel : Press **Blue** button.

Move Channel: Press **INFO** key after selecting the channel to be moved and press **CH Up/Down** key to move. After moving the channel, press **OK** button to place the channel at new location. Multiple channels can be moved at a time.

You can also make, edit or delete favorite channel groups in this menu.



Change current favorite group: Whenever press **FAV** key, current favorite group changes in rotation.

Add favorite channel: Press **FAV** key to select the favorite group you want to add new channel. And press **OK** button to add selected channel to this group.

Delete favorite channel: After select channel in the left window, press **OK** button to remove this channel from any favorite group. Or press **Green** button in the right favorite group window.

Rename favorite channel: Move cursor the favorite group window, and press **Yellow** button.

C. Data Transfer

You can upload software or data in this receiver to other receiver for set-to-set upgrade.

**D. OTA Upgrade**

You can make your receiver up to date via satellite if there is a newer software available.

E. Version Information

You can check the current software version in your receiver in this menu.

2. System Settings**A. User Settings**

You can modify various properties of your receiver in this menu.



Menu Language: The language displayed in menu.

Audio Language: The default language for audio. If there are multiple audio in the current channel, this default language will be automatically selected initially. When the user selects other language in some channel, it remains till user change it again.

Subtitle Language: The default language for subtitle. If there are multiple subtitles in the current channel, this default language will be automatically selected initially. But when the user changes selection for some channel, it remains till user change it again.

Information Timeout: It specifies the displaying time of channel info bar.

Channel Change Mode: It specifies the mode for changing channel. There are three types of channel changing as followings.

Black Out: Video goes black during shifting channel.

Freeze: Video remains still during shifting channel.

Fade In/Out: Video fades out slowly, and fades in again with new channel.

Menu Blink Effect: In some menu such as main menu, channel list and channel edit, selected item blinks for visual effect. You can enable or disable this function with this setting.

Remote Control Beep: You can enable or disable beep sound of the RCU.

Beep Frequency: You can change tone of beep sound of the RCU. Lager value means higher tone.

Beep Volume: You can change the volume of the RCU beep.

B. A/V Settings

The settings related audio and video outputs can be modified in this menu.



TV Type: You can select the type of your TV set such as NTSC, PAL and AUTO.

Screen Type: You can select the type of your TV set such as 4 : 3 or 16 : 9.

Closed Caption: You can enable/disable closed caption.

C. Time Settings



Time mode: There are two time modes.

- Auto
- Manual

Time offset: In automatic time mode, you can set the time offset from GMT for your location.

Current Time: In manual time mode, you can enter current time directly.

Summer Time: It enables summer time (day light savings) option.

Wakeup Time: It specifies the time when the receiver turned off every day.

Sleep Time: It specifies the time when the receivers turned off every day.

Sleep Time and Sleep Timer.

D. Parental Control



Receiver Lock: To lock receiver

Menu Lock: To lock menu

Scramble Lock: To lock scrambled channel

Adult Channel Lock: To lock known adult channels at a time

Change PIN Code: To change PIN code, press OK button and enter new PIN code

E. Factory Reset

You can reset all settings and data to the initial state. Please note that all data will be erased and unrecoverable.

3. Entertainment

There are a few games for amusement. Please select game and enjoy it.

4. Common Interface / Smart Card (Optional)

In case of CI model or smart card embedded model, you can find information about your CAM or smart card in this menu. To view the information, select item and press **OK** button.

Trouble Shooting

Problem	Solution
Does not display LED on the front panel or the receiver has no power	<ul style="list-style-type: none"> • Connect the power cord to the power outlet properly.
No pictures on the screen	<ul style="list-style-type: none"> • Check if the receiver is in standby mode. • Check if the video output port is firmly connected to the TV. • Check if you have selected the correct channel or video output on your TV.
No sound	<ul style="list-style-type: none"> • Connect the audio cords properly. • Check the volume level of the TV. • Press X key.
Remote Control does not operate	<ul style="list-style-type: none"> • Point remote control directly towards the receiver. • Check and replace batteries.
Poor picture quality	<ul style="list-style-type: none"> • Check the signal strength in the "Automatic Channel Search" menu. If this is low, try to adjust the alignment of your dish.

Technical Specification

Tuner & Band Switching	
• Input Frequency	950 -150MHz
• Input Impedance	75 Ohm Unbalanced
• Connector	2 x F-Type
• LNB Power Supply	13/18V/OFF, Max. 500mA With Short Circuit Protection
• 22KHz Tone	Frequency : 22 ± 4KHz Amplitude : 0.6 ± 0.2V
• DiSEqC	1.0 & 1.2 Version Compatible
Demodulator	
• Waveform	QPSK
• Symbol Rate	1-45MS/s
• Outer Decoder	Reed Solomon (204,188,8)
• Inner Decoder	Convolutional, Length K=7
• Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
• SCPC and MCPC Capable	
Video Decoder	
• Video Decoder	MPEG-2 ISO/IEC 13818-2
• Profile Level	MPEG-2 MP @ ML
• Video Format	4:3, 16:9 (Letterbox)
• Video System	PAL <-> NTSC Converter
• RF Output	CH3-4(NTSC-M)
Audio Decoder	
• Audio Decoder	MPEG-1 Layer I and II (Musicam Audio)
• Audio Channel	Mono, Dual Channel, Stereo, Joint Stereo
• Audio Volume Control	40 Steps Level
Chip & Memory	
• CPU	32 Bit RISC CPU
• Memory	16M Byte SDRAM/2M Byte Flash 16K Bit EEPROM

Demultiplexer	
• ISO/IEC 13818-1 Compliant	
Common Interface (Option)	
• PCMCIA Module	2 x Slots
Serial Data Interface	
• Connector	9-Pin D-Sub(Male)
• Signal	RS-232C Max. 115000bps
Smart Card Interface (Option)	
• ISO 7816	1 x Smart Card Reader
Audio/Video Connectors	
• S-VIDEO	Y,C output
• Audio Output	2 X RCA Cinch (L/R)
• Video Output	1 X RCA Cinch
• Digital Audio Output	1 X SPDIF Optical Connector
Power Supply	
• Input Voltage	AC 90 to 250V, 50/60Hz
• Type	SMPS
• Power Consumption	Max. 15W
Physical Specification	
• Operating Temp.	+5 to +40
• Gross Packed	2.4 Kgs / Unit
• Weight	12Kgs / Carton
Dimensions	
• Set	300(W) x 210(D) x 60(H)mm
• Gift Box	315(W) x 75(D) x 315(H)mm
• Carton Box	335(W) x 415(D) x 335(H)mm

MEMO.....

DIGITAL SATELLITE RECEIVER

User's Manual

