

## Safety Instructions

- Be sure to read this User's Manual before starting the operation of the receiver
- Never open the cover. It is dangerous to touch the inside of the receiver due to possible electric hazard.
- When the receiver is unused for a long time, unplug the power cord from the wall outlet.
- Do not use a damaged power cord that may cause a fire or an electric shock.
- Do not touch a power cord with wet hand. It may cause an electric shock.
- Place the receiver in well ventilated and no-heat environment.
- When connecting cables, the receiver must have been powered off.
- Do not plug in/out CI module, when the receiver is powered on. But you can insert smart card to CI module with powered on.
- Do not stack the exposed firing device, such as candle, on top of the receiver.
- Do not expose the receiver to dripping or splashing and that no objects filled with liquids, such as vase, shall be placed on the apparatus.

## How to Use This Manual

This manual provides complete instructions for installing and using this receiver.



The following symbols will serve as follow.  
Indicates a warning information.



Indicates any other additional important or helpful information.

**MENU**  
(*Bold Character*)

Represents a button on the remote controller or the receiver.

*Move to*  
(*Italic Character*).

Represents a menu item within a window



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## 1. Before You Begin

### 1.1 Features

#### <Common Part>

- Easy Graphic MENU Interface
- RS232C Port for Updating Control Software and Additional Service
- Supports DiSeqC1.0/1.2, 13/18V, 22Khz Tone
- 2-SCART Connectors & 1-Component(YCbCr output)
- HDMI (High Definition Multimedia Interface) supported
- Multi-language Function (Menu, Audio)
- Last Channel Memory
- OSD : Transparency & Blending, 256Palette Colors
- Front Panel Buttons & IR Remote Controller User Interface
- VFD (Vacuum Fluorescent Display)
- Editing Functions (TV or Radio Channel, Channel Name, Favorite Name, Satellite Name)
- EPG for On Screen Channel Information
- Channels Memory for Multi-satellite (up to 64)
- 3 Operation Modes (Digital TV, Digital Radio, Favorite)
- PLL RF Modulator UHF21-69 with PAL-B/G, D/K, I
- Digital Audio output (S/PDIF)

#### <Digital Part>

- Receives QPSK Satellite Broadcasting RF Signal and Decodes the Digitally Encoded
- Digital Tuner with Loop-through out
- SCPC/MCPC Receivable from C/KU-band Satellite.
- MPEG-2 Main Profile at Main Level
- Teletext Supported Through VBI & OSD
- 4800 Channels Memory

#### <CI Part> (CI Model Only)

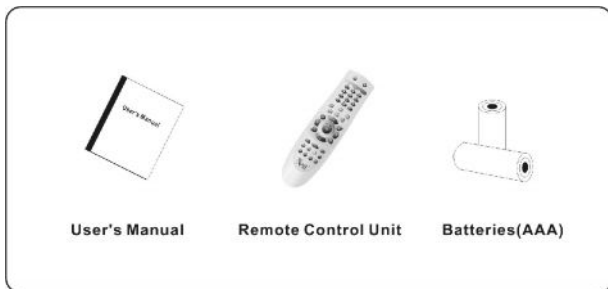
- DVB Common Interface (Viaccess, Nagra Vision, Conax, Irdeto, Cryptoworks, ASTON)

#### <SMART CARD>

- SMART CARD Interface(VIACCESS)

### 1.2 Accessories

- User's Manual
- Remote Control Unit
- Batteries(AAA X 2)



#### **Warning**

Please don't recharge, disassemble, electric short, and mix with used or other battery types

## 2. Quick Start - Easy Installation & Easy Configuration

It provides users with easy menu interface instead of complicated menu install in order to view TV more easily.

At the first time to use this receiver(or after Factory Reset) Easy Install Menu will be displayed.

And you press RED button to enter EZ Installation Menu and is started. Ez Install has three steps below. You press GREEN button on Main Menu to enter EASY Config Menu.

### 2.1 Easy Install

#### <Select Language>

If you select language you can view menu and messages as your favorable language.

If you press UP-DOWN button you can select language for your convenience.

Press BLUE button(Next button) when the selection is completed.

Pic-1



#### <Select Region>

In this menu if you select favorite region, Sat List will show you regional list as you select.

If you press LEFT/RIGHT button you can select Region for your convenience.

If the selection is completed press BLUE button(Next button), if you want to go to previous menu press YELLOW button(Previous button).

Pic-2



#### <Select Satellites>

Select satellites → LNB → DiseqC for your convenience  
In order to Scan press RED button. To go to previous menu press Previous button(Yellow button).

Pic-3



### 2.2 Easy Config(System Config)

#### Menu Language

: Select the desired language which indicates UI and Messages.

#### 1st Audio

: Set language which you want to displayed first in the Audio language.

#### Subtitle Language

: Select Subtitle language for your convenience.

#### HD Mode

: You can select the HD Mode(576p, 720p, 1080i)

#### Screen Mode

: Select the Screen Mode(Letter Box, Full Screen)

#### Daylight Saving

: You can select to use daylight savings or not.

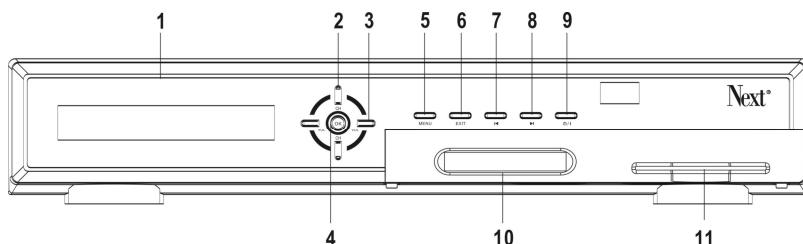
**YELLOW (PASSWORD):** Password changing menu screen will be opened by pressing Yellow key.



Pic-4

### 3. Controls and Functions

#### 3.1 Front Panel



**1. Display**

VFD displays local time, selected channel, system status, etc.

**2. Channel UP/DOWN Button**

Moves the cursor up/down in Menu state.

Changes the current program to the previous/next program in No-menu state.

**3. Volume UP/DOWN Button**

Increases/decreases the volume levels in No-menu state.

Change the setting values in specific Menu item.

**4. OK Button**

Shows the System set-up menu in No-menu state. Activates the highlighted menu item in Menu state.

**5. Menu Button**

Shows the System set-up menu in No-menu state. Activates the highlighted menu item in Menu state.

**6. Exit Button**

Exits from the current menu or cancels the current progressing operation if applicable.

**7. 8. 9. 10. 11.**

Moves the menu table to another menu table in Menu state

Moves the main table of Main Menu

**9. Power Button**

Turns the receiver On/Off.

**10. CI Slot**

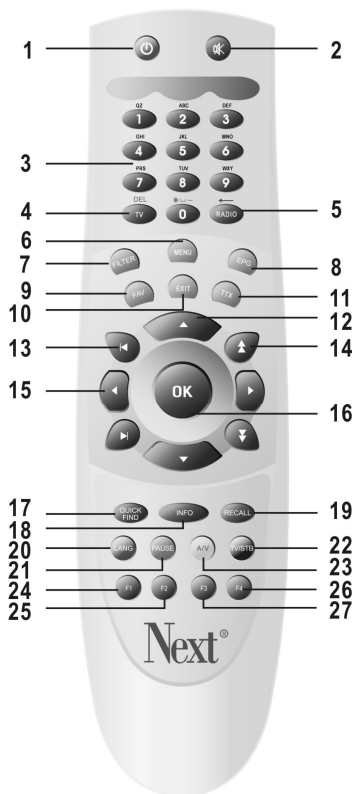
Insert CI module into CI slot for conditional access.

**11. CAS Slot**

Insert smart card.

## 3.2 Remote Control Unit

All features of the set-top box can be controlled with the remote controller.



### 1. POWER

Turns the receiver On/Off.

### 2. MUTE

Mutes audio output of the receiver.

### 3. NUMERIC KEY(0-9)

Controls the numerical operation and especially changes program directly.

### 4. TV

Shows the current digital TV program list.

### 5. RADIO

Shows the current digital Radio program list.

### 6. MENU

Shows the menu or sub-menu and cancels the processing function if applicable.

### 7. FILTER

Reorganizes the channel lists according to selected filter status

### 8. EPG

View the program guide in Live state.

### 9. FAV

Shows the current favorite program list.

### 10. EXIT

Exits from the menu or sub-menu and cancels the progressing function if applicable.

### 11. TTX

Shows the list of subtitle and teletext languages the current channel supports.

### 12. UP/DOWN

Change the current program to the previous/next program in Live state.

Moves the cursor to upward/downward in Menu state.

### 13. TAB +/-

You can move item in Menu.

### 14. PG +/-

Page up and down in menu list.

### 15. LEFT/RIGHT

Change the setting value in specific Menu item and volume strength in Live.

### 16. OK

Activates the highlighted menu item in menu state.

Display channel list according to TV/Radio Mode in Live Mode

### 17. QUICK FIND

Select favorable channels through channel name.

### 18. INFO

View Channel Information "Name, Number, CAS, SIGNAL, SOUND, TTX, SUB, etc."

### 19. RECALL

Shows previous channel.

### 20. LANG

Shows the list of the audio language available in the current channel.

### 21. PAUSE

Pause the video/audio output.

### 22. TV/STB

You can Set Loop Through output

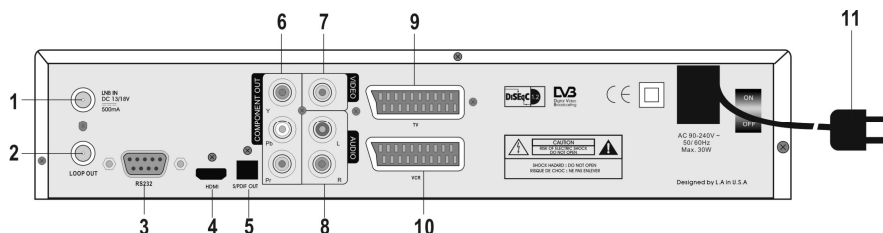
### 23. A/V

A/V 관련 메뉴 출력

### 24 - 27. F1 - F4

Function Keys(F1: Move to menu list)

### 3.3 Rear Panel



#### 1. LNB IN(Satellite)

Connect the digital signal from your LNB of your satellite dish to this connector.

#### 2. LOOP OUT(Satellite)

Gives you the possibility to connect an extra receiver(analogue or digital).

#### 3. RS232 Serial Port

This serial port can be used to connect your PC to your receiver, and enables you to download new versions of software into your receiver.

#### 4. HDMI

Connect HDMI input of TV set.

#### 5. S/PDIF

Output for connection to a digital audio amplifier.

#### 6. TV Component Out

Use this connector to connect your receiver to TV using a Component Out.

#### 7. VIDEO(Yellow RCA)

This connector has a constant video signal for additional VCR-connections

#### 8. AUDIO Right(Red RCA) and Left(White RCA)

These connectors give you the possibility to connect the audio signal to an external amplifier, or the audio input of your TV.

#### 9. TV Scart Connector

Use this connector to connect your receiver to your TV using a scart cable.

#### 10. VCR Scart Connector

Use this connector to connect your receiver to your video recorder using a scart cable.

Your video signal will now be looped through to you TV.

#### 11. Power Cord

Your receiver requires a Input Voltage of 90~240V AC(Auto-selectable), 50~60Hz+/-5%.

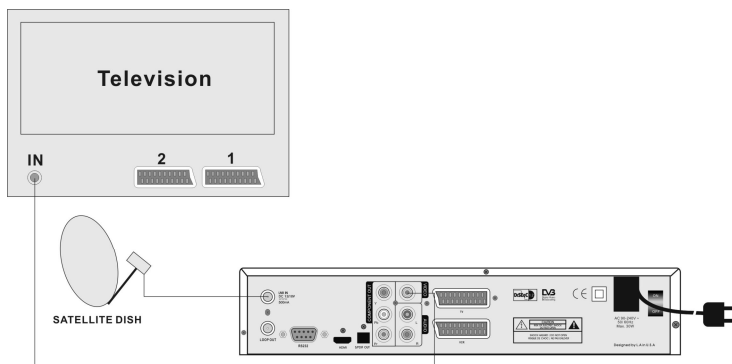
Make sure to check the power specification before connecting your receiver to the wall outlet.

## 4. CONNECTIONS

### 4.1 Connecting to TV & VCR

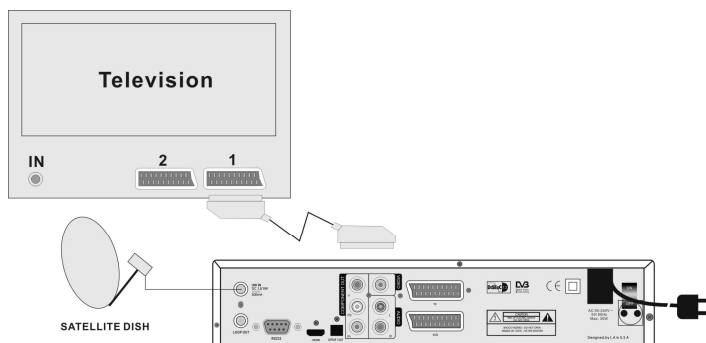
#### <Basic connection with a coax cable(Connect to the Antenna)>

1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV/VCR connector at the back of the receiver to the coax IN connector on your TV set.
3. Optional : connect an extra terrestrial or cable antenna to the ANT connector at the back of the receiver.



#### < Basic connection with a Scart cable >

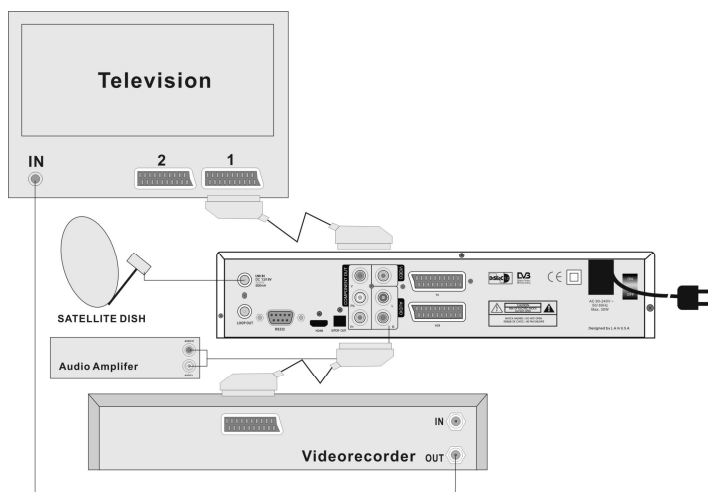
1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV scart connector at the back of the receiver to the scart-in connector on your TV set.
3. Optional: connect an extra terrestrial or cable antenna to the ANT connector at the back of the receiver.





## <Advanced connection of the receiver to the TV set, VCR and Audio amplifier>

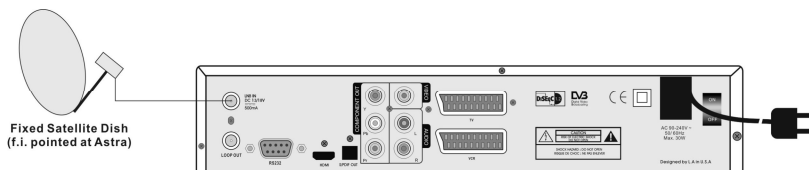
1. Connect the satellite signal from the LNB to the LNB IN connector.
2. Connect the TV scart connector at the back of the receiver to the scart-in connector on your TV set.
3. Connect the VCR scart connector at the back of the receiver to the scart-in connect on your VCR set.
4. Connect an extra terrestrial or cable antenna to the ANT connector at the back of the receiver.
5. Connect a coax cable to the TV/VCR connector at the back of the receiver.  
Connect the other end of this coax cable to the coax-in connector of your VCR.
6. Connect the coax-out connector of your VCR to the video-in connector of your TV set with a coax cable.
7. Optional: Connect the audio left and right RCA-plugs(Red and White) on the back of your receiver to the left and right input of an Audio amplifier, so you can enjoy the digital quality of the sound that is produced by your receiver.



## 4.2 Connecting to Dish

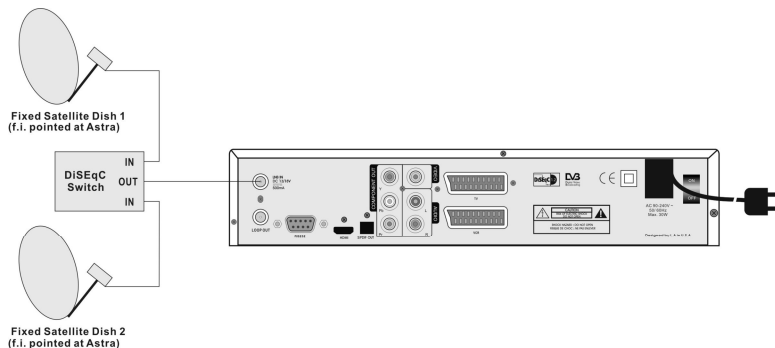
### <Fixed Single Satellite Connection>

1. Aim your dish towards preferred satellite.
2. Connect coax cable from LNB/F to LNB IN of the receiver.



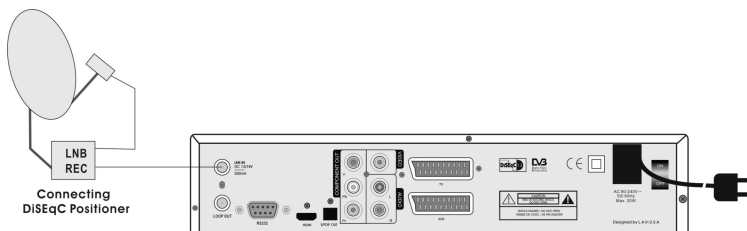
## <Fixed Multiple Satellites Connection>

1. Aim your dishes towards preferred satellites.
2. Connect LNB/Fs to the inputs of Switch (DiSEqC)
3. Connect cable from Switch output to your LNB IN connector of the receiver.



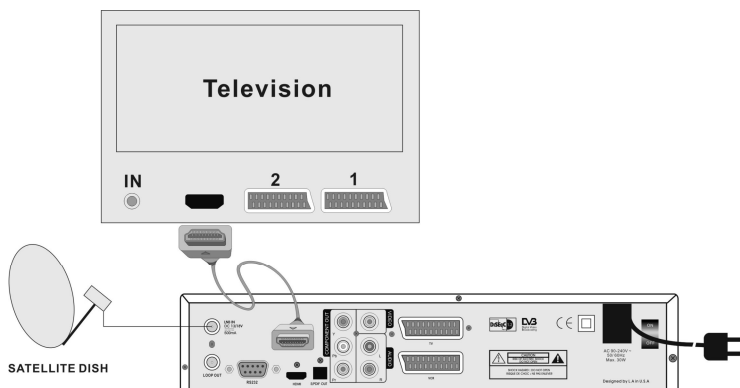
## <DiSEqC Positioner Connection>

1. Aiming to TRUE SOUTH  
Attach the antenna to the DiSEqC mount. Make sure it's at the center of the mounting tube. Rotate the mount together with the antenna toward TRUE SOUTH.(Use a compass to find TRUE SOUTH and calculate the magnetic offset)
2. Setting Elevation angle of the mount.  
Set the Elevation angle of the mount according to your coordinates (Latitude). Refer Manufactures references to set the Elevation angle by the Elevation scale on the antenna mount.
3. Setting Declination angle.  
Refer Manufactures references to set the declination angle by the scale on the antenna mount.
4. Connect the coax from LNB/F to DiSEqC positioner, and from positioner to LNB IN of the receiver.



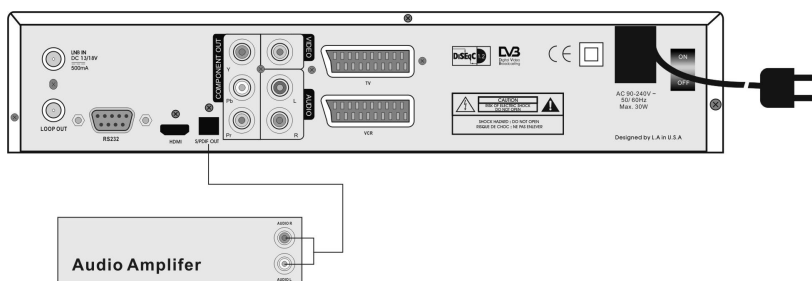
## <HDMI Connection>

Connect the HDMI OUT.



## <S/PDIF Connection>

Connect the S/PDIF OUT.



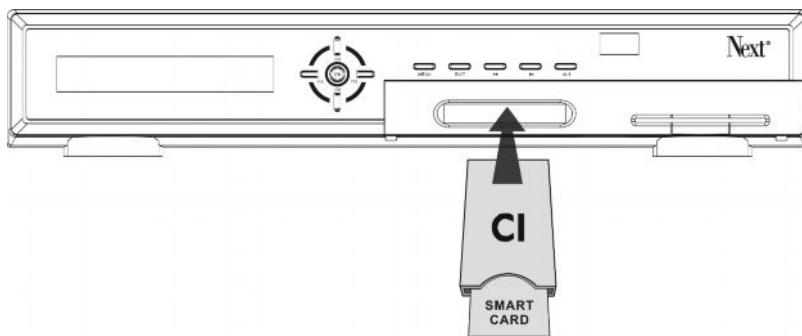
### 4.3 Connecting to CI Module (CI Model Only)

Insert CI module into CI slot for watching TV program from Service Provider.



#### Warning

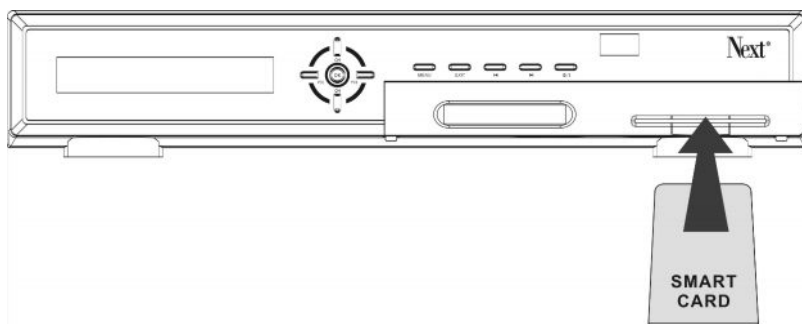
Do not plug in/out CI module when the receiver is powered on. But you can insert smart card to CI module with power on.



**Note :** This CI can be use only SAT program.

### 4.4 Connecting to CA Module(CA Model only)

Insert Smart Card into Smart Card slot for watching TV programmes from Service Provider.



**Note :** This CA can be use both of Terrestrial and SAT program.

## 5. Setting and Operations

### 5.1 Before Settings

#### <Starting up for the First Time>

1. Turn on your TV and receiver.
2. While using the receiver for the first time, you should set the parameters for system configuration. Press menu button of RCU to display Main Menu.

#### <Menu Information>

The menu consists of main-menu and sub-menu, as you see in the <Main Menu>.

Main-menu has 4 items and each main-item has its sub-menu items.

Main menu has 3 block. Top block has four main icon (install, system, preference, ca), Rightside- below block displays sub menu which is included main icons of each top window. Leftside-below Hot Key block for Easy Setting Menus.



Pic-5

You can move main menu(Install, System, Preference, CA) using TAP BUTTON(◀ ▶) on Remote control.

You can move the sub-menu in selected main menu using ARROW BUTTON(↑ ↓) on Remote Control

### 5.2 Basic Settings

#### <Sat Antenna>

With this menu, you can designate the satellite to search channels.

There are up to 64 satellites available. In this menu, you can set up antenna for each satellite.

1. If you press OK in Antenna Setup of Install in Main Menu, the <Sat Antenna> will appear.
2. Use the Up/Down button to select the item, and set up the parameter with the Left/Right button.
3. If you have completed the setting, use Yellow button to Save, Blue button to Scan

**Satellite** : For current satellite. Move the cursor to a satellite and press OK to select the satellite or press EXIT on the remote controller to cancel the setting.

**Transponder** : Select TP which you want to test current signal quality.

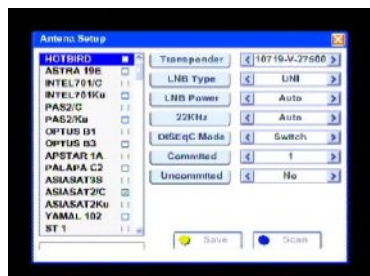
**LNB Type** : You can select one of the LNB types from Universal(9750~10600), 5150, 9750, 10000, 10050, 10600, 10750, 11200, 11475, or user defined type. You should input LNB value directly in user defined type. (default value is 0)

**LNB Power** : You can select 13V or 18V for LNB. Select Off if you want to off LNB power.

**22KHz** : Setup the 22KHz switch.

If you press F1 BUTTON on remote control, you can move to SAT LIST directly.

If you have connected to a dual LNB or two antennas connected to a 22KHz tone switch box, set it to "ON".



Pic-6



#### Tips

If you had set LNB Type to Universal, LNB Power and 22KHz switch options are disregarded. If you set LNB Dish to Moved, DiSeqC switch is disappeared and positioner item is appeared. On the other hand, if you set LNB Dish to Fixed, positioner item is disappeared and DiSeqC switch is appeared. Universal LNB : 9750 ~ 10600M.

## <DiSEqC Setting>

If you use DiSEqC digital positioner you can set dish position from Sat Antenna menu.

**DiSEqC Mode :** The default is Switch. You can set DiSEqC Mode "Switch, Motor, USALS."

**Move :** Use to move dish position to East or West direction. Whenever East button is pressed dish position is moved to east direction. And moved to west direction when West button is pressed.

**Command:** Set dish position's East or West limit, disable limit value. Change item with Left/Right button and press OK button to set/disable limit value.

**Latitude:** You can set Antenna's Latitude.

**Longitude:** You can set Antenna's Longitude.

**Committed:** To use the DiSEqC switch, set up DiSEqC.

**Uncommitted:** You can set Uncommitted DiSEqC.

If dish position is moved to the correct position to receive satellite signal, signal level and quality color changes(for example to Green), To save current dish position use YELLOW(Save).

Pic-8

## <Sat Scan>

In this menu you can scan search for specific TPs.

If you have already set the Antenna set up, you can scan the satellite. In this menu, there are Scan Mode, Network search and Radio.

1. If you press OK in Sat Scan of Installation Menu, the <Sat Scan> will appears.
2. Use the Up/Down button to select the item, and set up the parameter with the Left/Right button.
3. If you have completed setting, use BLUE button to Scan,

**Satellite :** You can select other satellite to scan channels using UP/DOWN or satellite list(if you press OK button, then the satellite list will be selected).

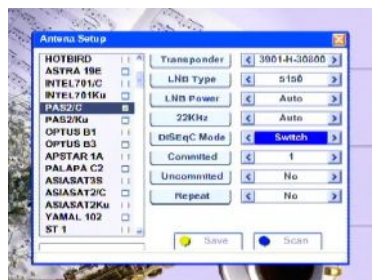
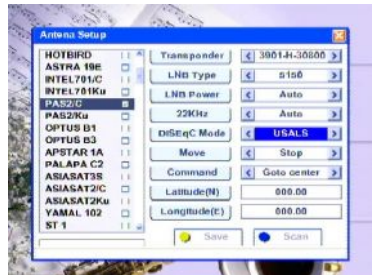
**Scan Mode :** You can designate scanned channel type as FTA channel only or All channels(FTA + Scrambled channel).

**Radio CH:** You can select Radio channel scan or not.

**NIT Scan :** You can select Network Information for added scan from the Stream or not.

If you press BLUE(Scan) button, all transponders of current satellite are scanned.

Pic-7



Pic-9

## <TP Scan>

1. If you press OK in TP Scan of Installation Menu, the <TP Scan> will appear.
2. Use the Up/Down button to select the item, and set up the parameter with the Left/Right button.
3. If you have completed setting, use BLUE(TP Scan) button to scan current transponder channel, RED button to ADD TP, Green button to edit TP information.

**Satellite:** You can view selected SAT list in Sat Antenna.

**Scan Mode:** You can designate scanned channel type as FTA channel only or All channels(FTA + Scrambled channel).

**Radio CH:** You can select Radio channel scan or not.

**NIT Scan:** You can select Network Information for added scan from the Stream or not.

**TP List:** You can select TP to scan.

Pic-11a

If you press Blue (Scan) button, the screen is displayed as below. RED button to Add TP, Green button to edit BLUE button to scan.

**Add:** If you press RED button you can add new TP by setting Frequency ,Polarization, Symbol Rate. Red button to Save, GREEN button to cancel.

**Del :** If you press GREEN button, you can delete the TP.

**Edit :** If you press YELLOW button you can edit the TP by setting Frequency ,Polarization, Symbol Rate. Red button to Save, Green button to cancel.

**Scan :** If you press Green button, you can edit the TP value. The Modify item to change the current value.

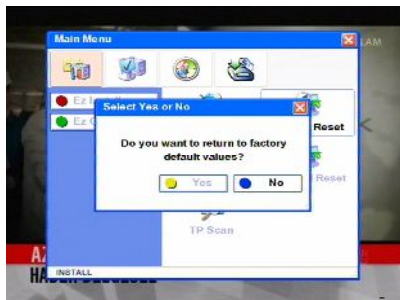
Pic-11b

## <Clear Data>

- **Factory Default :** Deletes all the data currently saved and returns the system to the Factory Default status.
- **Channel Reset :** Deletes only the saved channel data, other setting values are not deleted.

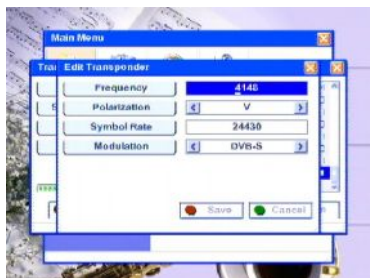


Pic-12a



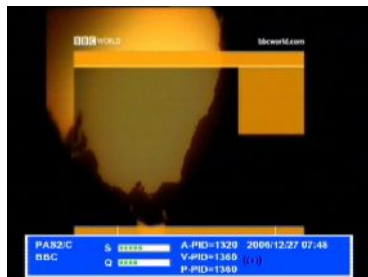
Pic-12b

Pic-10



## 5.3 Playing TV (or Radio)

In normal mode, various menus are displayed on the screen with remote control action. You can change the current status and mode with various buttons including the Up/Down, SAT, INFO and EPG button. <TV menu in the normal mode> shows the banner displayed when you press the INFO button.



Pic-13

- **MUTE** : Mutes the current channel audio.
- **POWER** : Turns the receiver power on/off.
- **SOUND** : Sets the current channel audio to stereo, left-mono, right-mono.
- **CH Mode** : Changes the current mode TV mode and radio mode.
- **Numeric Key(0-9)** : You can change channel by inputting channel number directly
- **Up/Down** : Moves to the previous/next channel.
- **Left/Right** : Adjusts volume.
- **LANG** : Shows the list of the audio language available in the current channel. (The selected audio language information is saved and applied when you watch the channel.)
- **F1** : Each button shows saved four Favorite channel.
- **MENU** : You can enter the Main Menu.
- **OK** : You can select an item in the SAT, SUBTITLE or LANG list. Program list is displayed according to TV/Radio Mode.
- **EXIT** : The button makes a banner or other lists including SAT, SUBTITLE and LANG disappears.
- **EPG** : The EPG menu of the current TP is displayed.
- **TTX** : Shows the list of subtitle languages the current channel supports.
- **PAUSE** : Pause the video/audio output of receiver, To clear pause press PAUSE button again.
- **INFO** : Press the INFO button once to display short and extended information. If you press the button again before the banner disappears, a new banner will be displayed showing the details of the current channel.
- **RECALL** : Shows previous channel.
- **TV/STB** : You can select output only RCA.
- **TUNER, PIP, CH MODE** : You can select current channel mode.(TV/RADIO/FAVORITE)

### <TV/Radio List in Live Mode>

If you press OK on the remote controller, at Live Mode state, the screen is displayed as follows.

You can preview the channel and move the channel fast with the PG UP/DOWN- button.



Pic-14



## <Favorite List>

The function is basically the same as the channel list menu in 4.5.

- **Sort:** You can sort the channel list by channel name(Button ABC) or scrambled(Button Cas).

Pic-15



## <Add Favorite List>

You can designate the channels of the current TV/Radio list as the favorite channels.

The default Favourite list names are Favorite 1 to 8. Move to the required channel with Up/Down PG UP/DOWN- button, and then press numeric button on the remote controller to set channel as favourites.

For example, if you press button '1', the channel is designated as Favourite 1 channel. If button '1' is pressed again, the selected channel is un-selected from Favourite 1 list. One channel can be selected into more than one Favourite list. You can see the favorite list if you press the Favorite(FAV) button while you are watching TV(or listening to Radio channel)in Normal State.



Pic-16



Pic-17



Pic-18

## 5.6 Channel List

Pic-19

You can change channel information in the "Channel List" of Main Menu. And else In normal live mode if press OK button, Channel manager will be displayed.

### <Channel Mode>

**TV** : Select TV mode using TV button on the RCU.

**Radio** : Select Radio mode using Radio button on the RCU.

**Favorite** : Select Favorite mode using FAV button on the RCU. See Favorite List(Section 5.9)

### <Sort>

You can sort the channel order of the channel list. Use the 'Sort' button.

**Name** : Sort channel order by channel name. Press one more sort by reverse order. Use the 'Name' button.

**Tp** : Sort channel orders by transponder order.

### <Filter>

This will remake the channel list by selected conditions, which are FTA/CAS, Satellite and Alphabet.



## 5.4 Time/Timer

You can set time and timer in this menu. If you want to save, press RED button

Pic-21

### <Time>

If a broadcaster provides GMT, you can set the time using GMT, or set your own time by yourself. If the GMT usage is on, Current time is automatically set and you can only set the time zone. If you set GMT Usage to OFF, "Set Data" and "Set Time" item are displayed. To set date value press OK button on the item then calendar window is displayed. You can select the date from the calendar. To set time value move cursor to time item and use numeric button on the remote controller.

**Time**: It shows current Time.

**GMT Usage**: GMT is the standard time from Satellite. If GMT is OFF you can input SET Date and SET Time. If GMT is ON it is the Time in the stream.

**Time zone**: It sets Time zone in GMT.

**DL Save**: It set Summer Time.



Pic-22

## <Timer>

You can set the time to make the receiver perform the designated actions including timer based and turn on/off the set-top-box with Wake Up/Sleep function.

**Index:** You can select up to 8 timers.

**Cycle:** You can set the cycle of the action designated in the timer mode.

**Mode:** You can set the mode of the action designated in the timer mode.

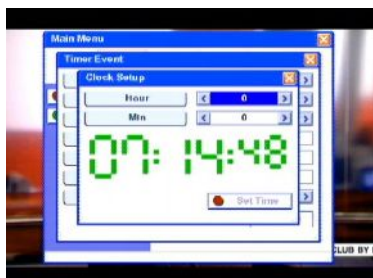
**Date:** You can set the starting date of the timer action. If you press OK calendar is displayed..

**Time:** You can input the time. If you press OK Clock Setup is displayed

**Duration:** You can input the Duration time. If you press OK Clock Setup is displayed

**Channel:** you can select the program Channel viewed when receiver is powered on by the wake up timer function. If you press OK Quick Find is displayed

Pic-23



Pic-24



Pic-25

## 5.10 Other Settings

### <TV Setting>

#### - HD Mode

You can select OSD & video display mode to one of Multi, PAL, NTSC. When PAL mode is selected, for example All screen is displayed as the PAL mode in spite of the current Programs transmission mode.

#### - TV Type

When program transmission is in 16:9 and you have a TV set with the 4:3 picture format.

#### - Screen Mode

When program transmission is in 16:9 and you have a TV set with the 4:3 picture format you can select Full screen or Letter Box picture format.

Pic-26



### <System Information>

Shows the system information including "Model, H/W Ver, S/W Ver, Last Update, Boot Ver".

Pic-27



### <Language Setting>

You can select OSD menu language, Audio language and subtitle language.

Use the Right or OK button to view language list.

**Menu** : Set language which indicates UI and messages.

**1st Audio** : Set language which you want to displayed first in the Audio language.

**2st Audio** : Set language in case of no 1<sup>st</sup> audio in the Audio language.

**Subtitle** : Select Subtitle language for your convenience.

Pic-28



### <OSD>

You can change menu concept for your convenience like color scheme, transparency, brightness and window size.

OSD Timeout is the duration time of information bar and volume bar.

**Color Scheme** : Set color of window, information bar.

**Transparency** : Set transparency of the window.

**Brightness** : Set brightness of the Screen..

**OSD Timeout** : Set time in the information bar and volume bar.

**Window Size** : Set window size.



Pic-29

## <Parental Lock>

Changes the Personal Identification Number(PIN) which is used to control the access to the receiver and individual channel.

### - Parental Lock/UnLock

If menu is set to Unlock, the receiver doesn't ask to input your PIN in the menu operation. Use the Left/Right button to change menu lock status. If the lock key message is inconvenient, set the key to UnLock.

### - Change PIN

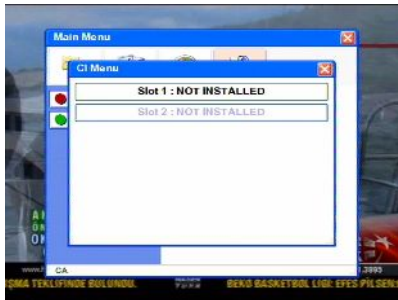
To change the current PIN, First you can input the current PIN and then input new PIN you want to use and then confirm this new PIN. After changing, you must save the PIN configuration using the Save button.



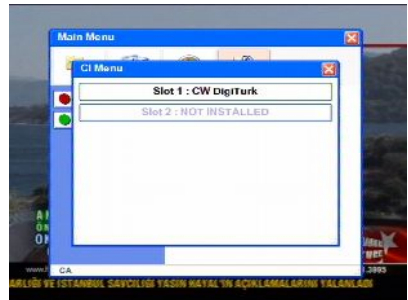
Pic-30

## <Common Interface>

You can navigate the menu, which is provided by CI Module. This information varies and depends on the service provider.



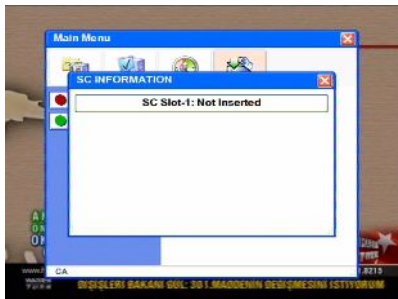
Pic-31



Pic-32

## <Conax>

You can navigate the menu, which is provided by smart card. This information varies and depends on the service provider



Pic-33



Pic-34

## 5.5 EPG

EPG shows the event information on the current TP channel by time Zone. EPG is divided into Daily mode,. The event is displayed only for the channel that have EPG information. If you press EPG, the daily mode is displayed as a default.

### OK Button

Shows the designated channel in Picture in Graphic, and displays the channel event in detail.



## 5.6 Teletext

Press TXT Button. You can watch the Teletext contents if it is available.





## A.1 Trouble Shooting

There may be various reasons for the abnormal operation of the receiver.

Check the receiver according to the procedures shown below.

If the receiver does not work properly after checking it, please contact the dealer.

Don't open the receiver cover. It may cause a dangerous situation.

Symptom	Cause	Remedy
The display on front panel does not light up.	The power cord is not plugged in.	Check that the power cord is plugged in to the wall outlet.
No picture or sound	Wrong connection of the Audio/Video output of the receiver to TV. Audio muting. TV power off.	Connect the Audio/Video output of the receiver to TV correctly.  Press the MUTE button. Turn TV on.
No picture	The receiver can't receive the signal.  Incorrect values of some tuner parameters.  Wrong direction of the dish	Check the antenna cable, replace the cable, or connect the cable to the receiver tightly. Set the values of tuner parameters correctly in installation menu. Check the signal strength with a spectrum analyzer and adjust your dish correctly.
The remote controller does not working	The batteries of the remote controller are not inserted or exhausted	Check whether the batteries are inserted correctly in your remote controller Check the batteries, and if exhausted replace the batteries of the remote controller



## A.2 Specifications

### 1. Conditional Access Interface (CI Model Only)

<b>PCMCIA</b>	2 Slot(type I or type II) DVB Common Interface Standard (Viaccess, Nagra Vision, Conax, Cryptoworks, Reader, ASTON)
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### 2. Conax Embedded


<b>SMART CARD</b>	1 Slot ISO 7816, GSM11.11 and EMV(Payment Systems) Compatibility
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### 3. Tuner & Demodulation

Transmission Standard	DVB-S, DVB-S2
Network Interface Module	LG TDQR-C003F - ZIP PLL IC : Conexant CX24118A - Demodulation IC (8PSK, QPSK) : Conexant CX24116
RF-in Connector Type	IEC 60169-24, Female, 75Ω nominal
Loop Through Output	IEC 60169-24, Female, 75Ω nominal
Input Frequency Range	950MHz to 2150MHz
Input Signal Level	-65dBm ~ -25dBm
Modulation Modes	QPSK, 8PSK
FEC Modes	DVB-S: Auto, 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2: Auto, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 (QPSK) Auto, 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (8PSK)
LNB Power	Vertical:+13V, Horizontal:+18V, Max 500mA
22kHz Tone	22±4kHz / Amplitude 0.65±0.25Vpp
DiSEqC	Version 1.0, 1.2 Compatible

### 4. MPEG Transport Stream & A/V Decoding

Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile Level	MPEG-4 part10 (H.264) Level 4 MPEG-2 MP@ML, MP@HL
Input Rate	Max. 15MB/s
Aspect Ratio	4:3, 16:9, Letter Box
Frame Rate	25Hz for PAL, 30Hz for NTSC
Video Resolution	SD Video : 720x576(PAL), 720x480(NTSC) HD Video : 1280x720@50Hz Progressive, 1920x1080@50Hz Interlaced
Audio Decoding	MPEG-1 Layer I & II Dolby Digital down mixing
Audio Mode	Single channel / Dual channel joint stereo / Stereo
Audio Sampling Rate	32, 44.1, 48KHz



## 5. A/V In/Out & Connectivity

HDMI	Output: Digital Video & Audio
TV SCART	Output: CVBS, Audio L/R with Volume control
VCR SCART	Output: CVBS, Audio L/R Input: RGB, CVBS, Audio L/R
RCA Out	Output: CVBS, Audio L/R with Volume Control Component video(Y, Pb, Pr)
SPDIF(RCA X 1)	Optical
Smart card	One
CI	Two
RS-232	RS-232 (Bit Rate: 115200baud, Connector: 9-pin D-sub Male type)
Front Keys & Display	10-Keys, 14 digit VFD

## 6. Power Supply

Input Voltage	90Vac ~ 240Vac(SMPS)
Type	SMPS
Power Consumption	Max 40W
Protection	Separate Internal Fuse

## 6. Physical Specification

Size (WxHxD)	340mm x 60mm x 245mm Excluding the foot. Foot height is 6mm.
Weight	2 Kg

## 7. Environmental Condition

Operating Temperature	0~40°C
Storage Temperature	-10°C~+80°C
Operating Humidity Range	10~85% RH, Non-condensing
Storage Humidity Range	5~90% RH, Non-condensing



## A.3 Glossary of Terms

### **C band**

3.7 ~ 4.2 GHz Frequency.

### **DiSEqC**

Digital Satellite Equipment Control.

### **Ku band**

11 ~ 18GHz Frequency.

### **LNB(Low-Noise Block converter)**

The LNB is an electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and converts them to signals that can be used by Satellite receiver.

### **PID**

Package Identifier.

### **PIN Code**

Personal Identification Number. A four-digit code that is used for locking/unlocking. e.g. with the parental control feature.

### **Polarization**

Polarization allows several program to be fitted into the same frequency band. The signals from a satellite are transmitted either with linear(vertical or horizontal) polarization or circular(right or left) polarization.

### **RS232**

Serial data port.