KRD500VA

Digital SET-TOP BOX for Embedded Viaccess

CONTENTS
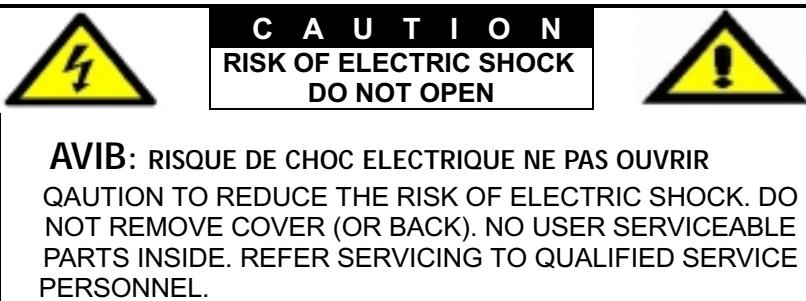
SAFETY INSTRUCTION

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT
EXPOSE THIS PRODUCT TO MAIN OR MOISTURE.

	C A U T I O N	
	RISK OF ELECTRIC SHOCK **DO NOT OPEN**	

AVIB: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
QAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK. DO
NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE
PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE
PERSONNEL.

The lightning flash with arrowhead symbol
within an equilateral triangle, is intended to
start the user to the presence of un insulated
"dangerous voltage" within the product'
enclosure that may be of sufficient magnitude
to constitute a risk of electric shock to persons.

The exclamation point within an equilateral
triangle is intended to start the user to the
presence of important operating and
maintenance (servicing) instruction in the
literature accompanying the product.

CAUTION

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

SAFETY INSTRUCTION

7) **Do not block any ventilation openings, install in accordance with the manufacture's instructions.**

8) **Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.**

9) **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.**

10) **Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.**

11) **Only use attachments/accessories specified by the manufacturer.**

12) **Use only with the cart. Stand, tripod, bracket, or table specified by the manufacture, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.**

13) **Unplug this apparatus during lightning storms or when unused for long periods of time.**

14) **Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been moisture, does not operate normally, or has been dropped.**

15) **The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.**

SAFETY INSTRUCTION

Please read and observe all safety instructions before operating the receiver.

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

Keep this sheet and any additional instructions for future reference.

INSTALLATION

+. OBSERVE WARNING

All warnings on the receiver in the operating manual should be carefully followed.

+. VENTILATION

Slots and openings in the cabinet are provided for necessary ventilation. This receiver should not be placed in a built-in bookcase, cabinet or other installation unless proper ventilations provided. Do not place the receiver on a bed, sofa, rug or other similar surface that may lock the openings.

+. WATER AND MOISTURE

Do not use or install this receiver near water. Severe electrical shock, personal injury or damage to the receiver may cause wrong operation.

+. HEAT

Do not install the receiver near heat sources such as radiators, stoves, heat registers and other appliances that emit heat.

+. IMPORTANT NOTE

connect the LNB before connecting to main. Otherwise, it may cause damage.

+. DISH ANTENNA AND LNB REQUIREMENTS

For the best performance, a voltage switching LNBF must be used. Feedhhorns with Mechanical or Magnetic polarizers are not recommended.

1. Set the LNBF so that only Horizontal channels may be received, when the H18VLNB power is applied.

2. Make sure LNBF is not cross polarized.

SAFETY INSTRUCTION

CARE & USE

+. POWER SOURCE

Connect the receiver to a power source only of the type as described in the operating instructions or as marked on the receiver.

+. ATTACHMENTS

Use attachments only recommended y your qualified satellite retailer.

+. POWER CORD PROTECTION

Power supply cords should be routed in order not to be pinched by items placed against them.

+. CLEANING

Unplug the receiver from the wall outlet before cleaning.
Do not use liquid or aerolso cleaners. Use a damp cloth for cleaning.

+. WHEN NOT IN USE

Unplug the power cord if the receiver is left unattended or unused for a ling time or during lightning storms. (Disconnect the cord by grasping the plug. Never pull the plug out by the cord)

+. REPLACEMENT PARTS

When replacement for parts are required for parts are required, use only replacement parts specified by the manufacturer or parts have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electrical shock or other hazard.

SAFETY INSTRUCTION

INFORMATION TO THE USER

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

-. Reorient or relocate the receiving antenna.

-. Increase the separation between the equipment and receiver.

-. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-. Consult the dealer or an experienced radio/TV technician for help.

WARNING

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

INTRODUCTION

This receiver is developed to provide advanced features and functions for high quality performance. It access every service of FTA(Free-to-Air) and Embedded Viaccess in any tuning parameter tables. It searches about Max. 4000 Channels (TV & Radio programmable).
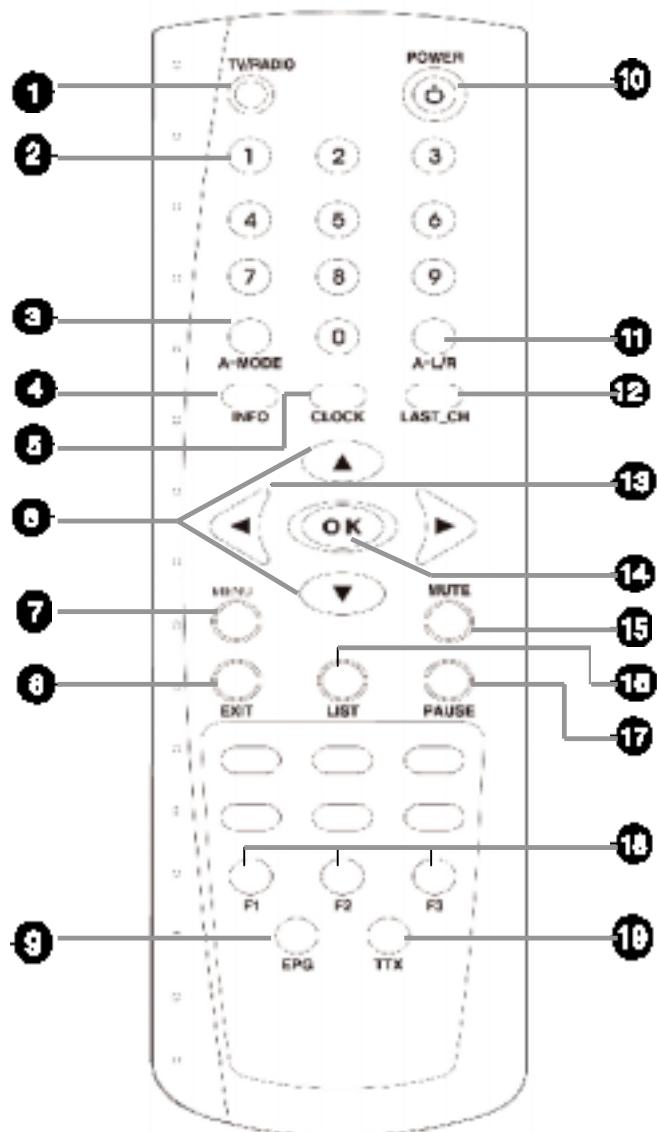
This user guides shows you how to install and operate the receiver with ease. Welcome to the digital broadcasting world !

GENERAL FEATURES

+. Embedded Viaccess with one smart card

+. MPEG-2 Digital & Fully DVB Compliant

+. SCPC & MCPC Receivable from C/Ku-Band

+. Input Frequency 950 ~ 2150MHz Symbol Rate 2~31Ms/s

+. Supports user friendly and easy Main Menu

+. Electronic Program Guide (EPG) and Teletext

+. DiSEqC 1.0 and DiSEqC 1.2 are available

+. Sleep and wake-up timer functions

+. Receiver to Receiver program and data transmission

+. Receiver to Receiver S/W downloadable

+. RS232 port available

+. Parental Control

+. NTSC, PAL Conversion

RECIEVER CONTROL

Remote Control Unit

RECIEVER CONTROL

1. TV / RADIO
Press to switch between TV and Radio mode.

2. NUMERIC BUTTONS
Press to select a service, enter our PIN Code or numeric on the menu.

3. A-MODE
Press to change audio mode among stereo, mono.

4. INFO
Press to display the program information box on the screen.

5. CLOCK
Press to display the current time on the screen.
Press to reserve services on the information box or EPG.

6. Channel UP / DOWN
press to select TV and Radio channel or to move high light bar for selecting submenu in title menu mode.

7. MENU
Press to display the Main Menu on the screen or return to the screen from a sub menu screen.

8. EXIT
Press to return to the previous menu and screen.

9. EPG
Electronic Program Guide button displays the TV / Radio program guide.

10. STANDBY
Press to switch between operation and standby modes.

11. A-L / R
Press to select the Audio Left or Right

12. LAST CH
Press to select the service that was previously viewed.

13. VOLUME
Volume up / down buttons.
Press to increase or decrease the volume.

14. OK
Press to select program in list or select the item in menu mode.

15. MUTE
Press to temporarily cut off the sound.

16. LIST
Press to display the program list.
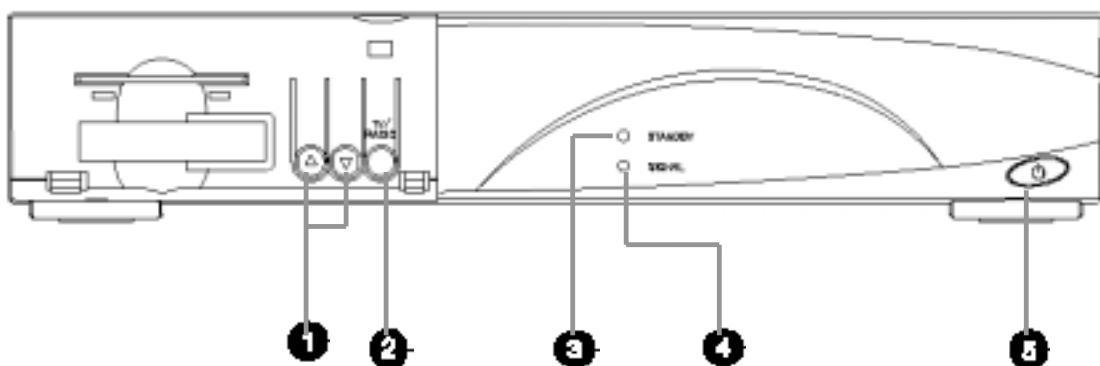
17. PAUSE
Press to pause the current screen you are watching.

18. TELETTEXT
Press to access Teletext function.

RECIEVER CONTROL

Front Panel

1. ▲ / ▼

Use to change services down / up.

2. TV / Radio

Please to switch between TV and Radio mode.

3. STANDBY LED

Indicates that the STB is under standby.

4. SIGNAL LED
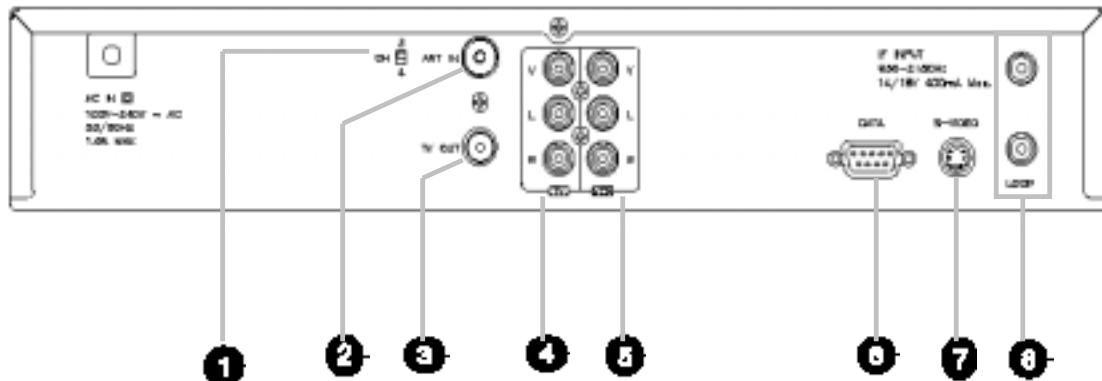
The SIGNAL LED is on when the receiver is synchronized with the incoming digital video signal. If no incoming signal is detected or recognized by the receiver, the SIGNAL LED is off.

5. ON / STANDBY

Press to switch between Operation and Standby mode.

RECIEVER CONTROL

Rear Panel

1. CH 3/4
Press to switch between TV and Radio mode.

2. ANT IN
Use to connect the normal aerial UFH TV antenna.

3. TV OUT
Use to connect the TV set UHF antenna input.

4. TV A/V OUTPUT
Audio / Video signal from your STB to TV.

5. VCR A/V OUTPUT
Audio / Video signal from your STB to VCR.

6. RS232C
Use to connect the PC when downloading Software for upgrade.
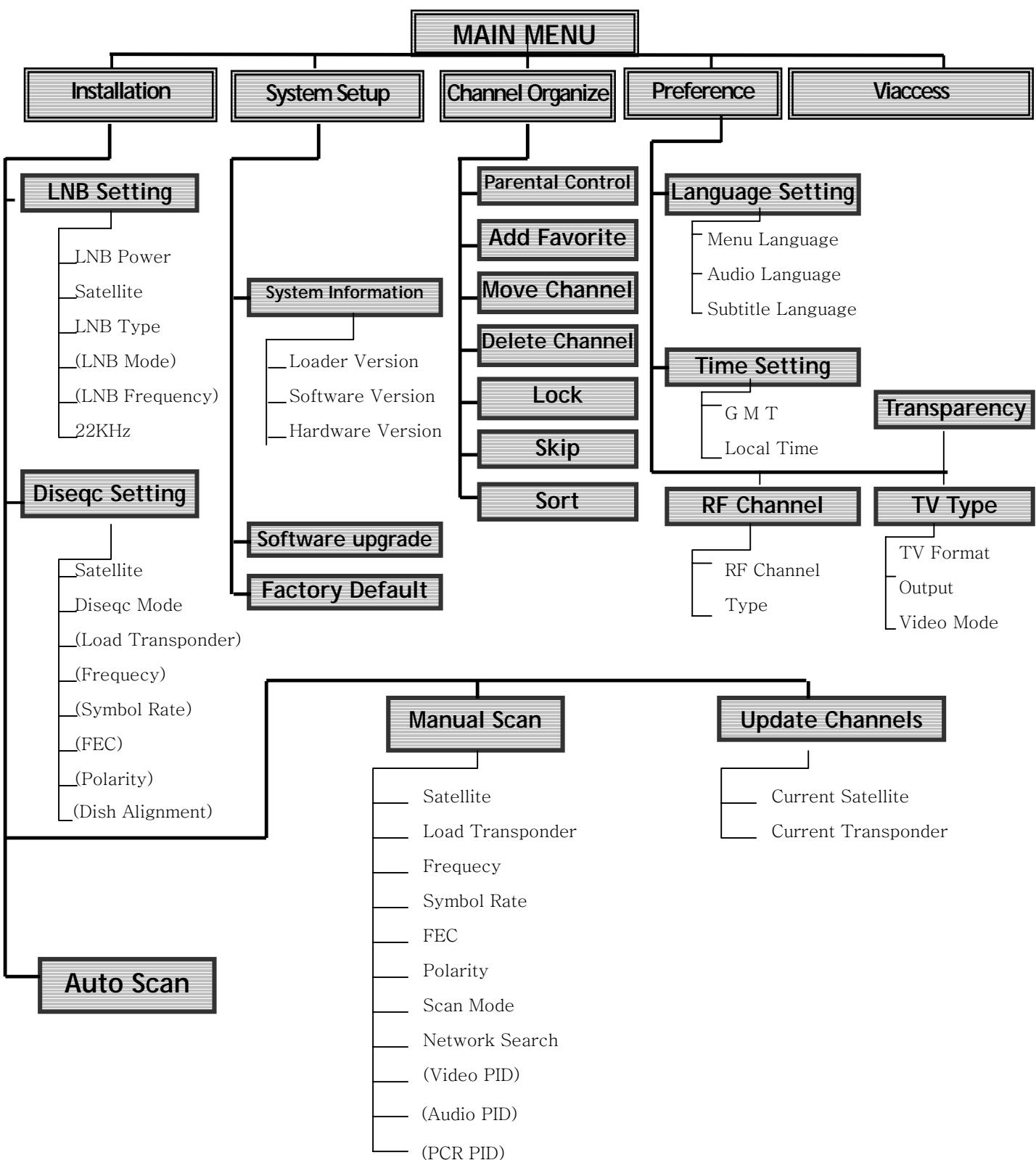
7. S-VIDEO
Use to connect TV or VCR for a high quality video signal.

8. LNB IN / LOOP
LNB IN / Use to connect an antenna.
LOOP / Use it when connecting to another STB.

MENU MAP

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                                    MAIN MENU

   Installation      System Setup     Channel Organize    Preference            Viaccess


   LNB Setting                         Parental Control    Language Setting

      LNB Power                        Add Favorite          Menu Language
      Satellite        System Information                    Audio Language
      LNB Type                         Move Channel          Subtitle Language
      (LNB Mode)          Loader Version
      (LNB Frequency)     Software Version   Delete Channel   Time Setting
      22KHz               Hardware Version                                       Transparency
                                         Lock                  G M T
                                                               Local Time
   Diseqc Setting                        Skip
                                                         RF Channel            TV Type
                          Software upgrade  Sort
      Satellite                                            RF Channel            TV Format
      Diseqc Mode        Factory Default                   Type                 Output
      (Load Transponder)                                                        Video Mode
      (Frequecy)
      (Symbol Rate)
      (FEC)
      (Polarity)                 Manual Scan           Update Channels
      (Dish Alignment)
                                    Satellite              Current Satellite
                                    Load Transponder       Current Transponder
                                    Frequecy
                                    Symbol Rate
                                    FEC
                                    Polarity
   Auto Scan                        Scan Mode
                                    Network Search
                                    (Video PID)
                                    (Audio PID)
                                    (PCR PID)
```

FUNCTION GUIDES

Electronic Program Guide

+. Your STB has an Electronic Programme Guide (EPG) to help you navigate through all the possible viewing options.
The TV Guides supplies information such as programme listings and start and end times for all available services.
In addition, detailed information about the programme is often available in the EPG.
(the available and amount of these programme details will vary , depending on the particular broadcaster).

+. Press "EPG" button, and the screen will be displayed. It will give the titles of the current and next programmes on different channels. The information may include : current time / channel name, name of the current and next programme, the start and total time of the current programme, the start and total time of the next programme. Programme information will be available only when it is included in the transmission.

Teletext

+. The display of Teletext is based on transmitted data using the EBU teletext specification and DVB Bitmap and can only be viewed on a TV which supports Teletext.

+. Use your STB Remote Control Unit to control the Teletext service. When the service supports Teletext, use the "EPG" button on RCU.

FUNCTION GUIDES

TV / Radio Channel List

+. This menu helps you to easily select the channel that you want to watch. The channel list is separately constructed for each satellite. Press "OK" button and the screen will appear. You can get the information of channel number, channel name and whether the program is scrambled or locked.

+. Press the ▲/▼ buttons to select a specific satellite which you want to watch. You can alternatively select TV or Radio List when you press " ? " buttons.

+. Use the following color buttons to list various service lists :

* Yellow Button -
* Blue Button -
* Red Button -

Information Box

+. When "Info" button is pressed, the service and event parts will be displayed.

- Service Name, Service number
- Subtitle, Scrambling services symbol

(These are automatically displayed when the broadcasting station provides appropriate information)

- Event duration time & Description text of event.
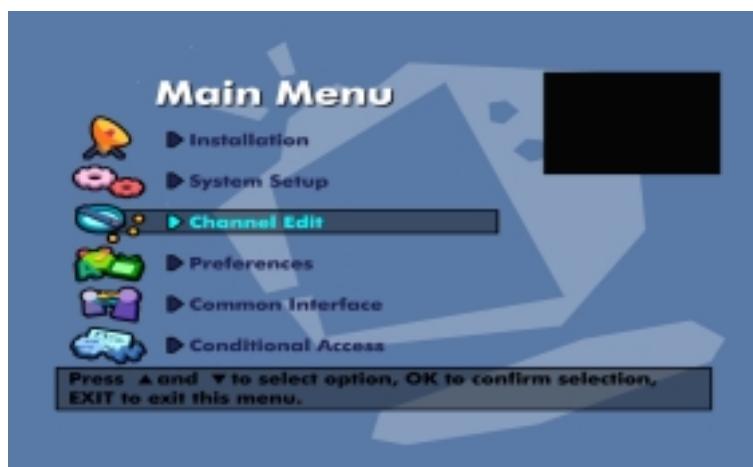
+ The information box shows the current and next event information.

- ▶ button : Use to move from the current event information to the next event information

- ◀ button : Use to move from the next event information to the current event information

MAIN MENU OPERATION

Main Menu

1. Installation
LNB and DiSEqC settings are organized for the selected Antenna. Furthermore, programs or transponders are searched by two different scan mode such as Auto Scan, Manual Scan.

2. System Setup
Access to services and programmes are controlled by a PIN Code(i.e., 4 digit secret code that is defined by the user). Later on, the user password is newly set up to contorl the use of this STB.

3. Channel Edit
TV and Radio program channels are edited in this mode.(Favorite, Move, Delete, Skip, Sort…)

4. Preferences
The installation mode allows you to have the information of setting servecis and newly set services (Language Setting, Time Setting, RF Channel, TV Type…) Moreover, you can recognize the states of hardware and software versions and signals from your STB.
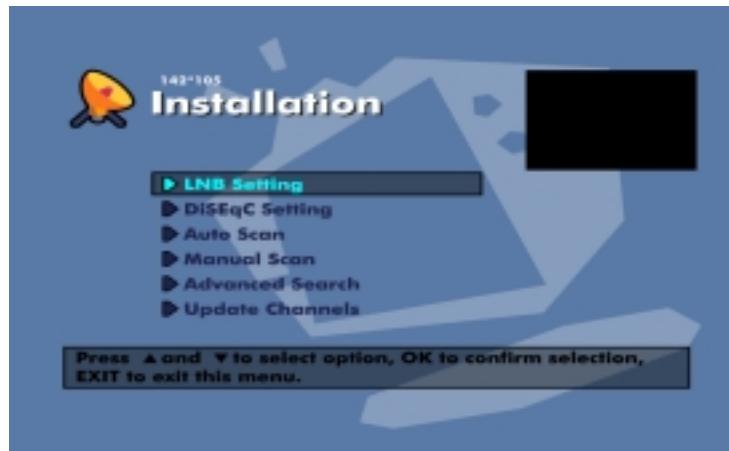
5. Common Interface

6. Conditional Access

this menu allows the user to view the information on the Smartcard and Viaccess

conditional access system such as general Smart Card Information, Service List,

Change Maturity Rating and Change PIN Code.

MAIN MENU OPERATION

1. Installaton

1. LNB Setting

Input the LNB Power on/off and select the Satellite(Antenna) for Service Search.

As you input the vallues for LNB Type, Frequency, 22KHz tone, 32Satellite (Antenna) settings are available for use. (Pleae refer to the page ?)

2. DiSEqC Setting

If you have a DiSEqC1.2 motorised system, then user can use the DiSEqC1.2 fucntions available.

3. Auto Scan

The user can search al the transponders from the Antenna with the information which the user adjusted in LNB Setting based on the preprogrammed channel data.

4. Manual Scan
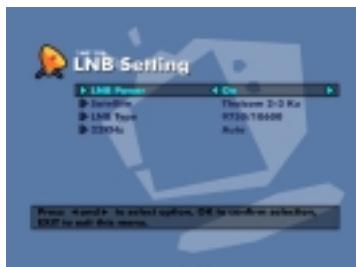
Set the search parameters(Frequency, Symbol Rate...) to manually find the services that you have selected in the transponder. The bar on bottom shows the Singal Quality and Level of the input parameters.

5. Update Channle
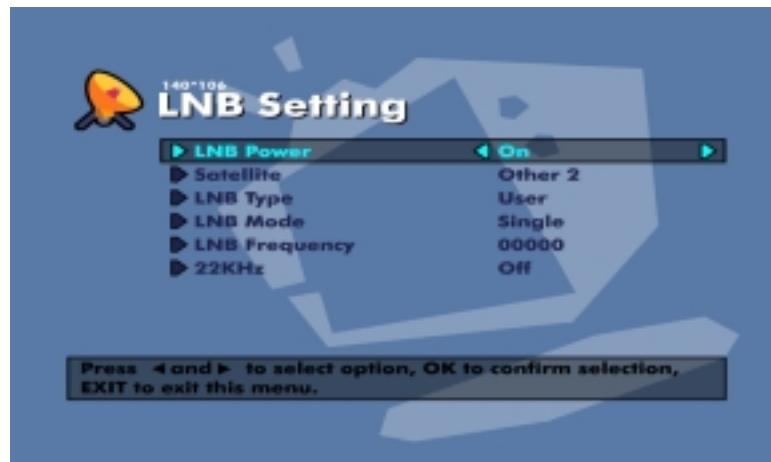
Update the satellite or transponder information when the default parameters are changed.

MAIN MENU OPERATION

1. Installaton / LNB Setting

1. LNB Power

Use the ◀ / ▶ buttons to select the LNB Power On or Off.

2. Satellite

Select the satelltie among the preset list using ◀ / ▶ buttons on the RCU.

3. LNB Type

Changes the current mode between Installer and User.

4. LNB Mode

Select the LNB Mode using ◀ / ▶ buttons or ener the frequecny directly with the numaric keys on the RCU. When you select Universal, both 9750 and 1006000MHz are supported at the same time. The 22KHz Tone setting is not necessary.

5. LNB Frequency

If the required LNB frequency is not available, then select "0" andenter the frequency manually using the numeric keys(0~9)

6. 22KHz

When you use a dual LNB or two antennas connected to a 22KHz Tone switch box, make 22KHz Tone switch enable or disable to select LNB or ANTENNA.

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting

If you have a DiSEqC1.2 motorised system, you can use the DiSEqC1.2 functions available. The followings describes how to use the DiSEqC1.2 functions to store the positions of the satellites and to search for the services.

1. Satellite
Select the name of the satellite you wish to use.

2. DiSEqC Mode
Select the four different Modes (Off, Tone Burst, Full, Positioner)
(1)"Off" Mode disable the DiSEqC input selection.

(2) "Tone Burst" is used for DiSEqC1.0 and cannot be used in conjunction with DiSEqC1.2

(3) "Full"

(4) "Positioner" is to use DiSEqC1.2.

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting
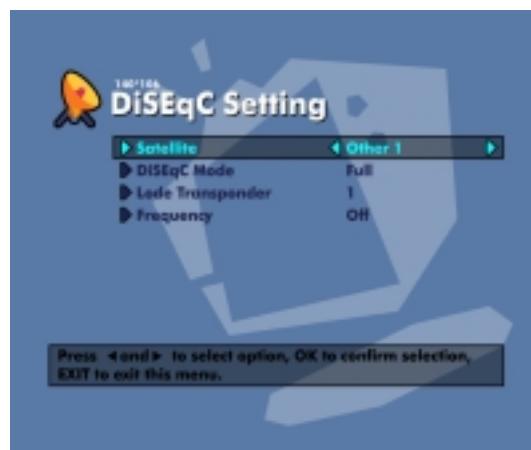
1. Satellite
Select the name of the satellite you wish to use.

2. DiSEqC Mode
"Tone Burst" is used for DiSEqC1.0 and cannot be used in conjunction with DiSEqC1.2

3. DiSEqC Position

1. Satellite
Select the name of the satellite you wish to use.

2. DiSEqC Mode
"Full" is used for

3. Load Transponder
?
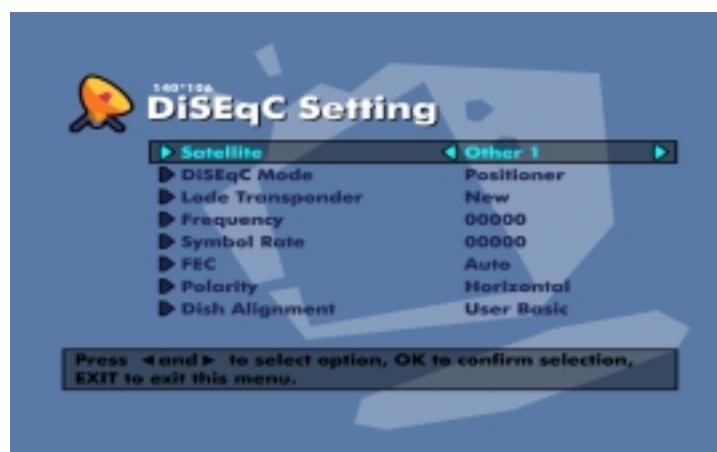
4. Frequency
?

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting

1. Satellite

Select the name of the satellite you wish to use.

2. DiSEqC Mode

Please refer to the page14

3. Frequecny

Use the Numeric buttons(0~9) on the remote control unit.

4. Load Transponder

?

5. Symbol Rate

Input the Symbol Rate of the transponder you want to find. Use the ◀ / ▶ buttons or Numeric buttons on the remote control unit.

6. FEC(Forward Error Correction)

Use the ◀ / ▶ buttons to select the Forward Error Correction of the transponder. You can select the value of Auto, 1/2, 2/3. 3/4, 5/6 and 7/8.

7. Polarity

Use the ◀ / ▶ buttons to select the Polarity of the transponder.

(Auto, Horizontal, Vertical)
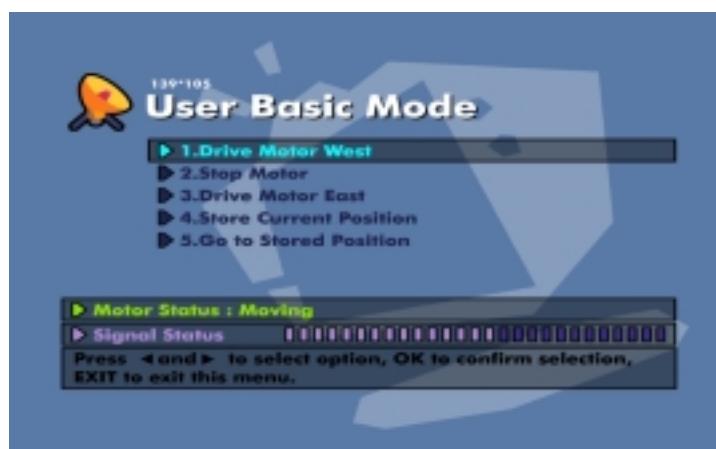
8. Dish Alignment

Use this option to set the East and West limits of the motor.

There are three different Modes (User Basic, User Advanced, Install).

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting / Dish Alignment

1. Driver Motor West

Moves the motor west to the stored position of the selected satellite name.

2. Stop Motor

Select the "Stop Motor" at the correct position.

3. Drive Motor East

Moves the motor east to the stored position of the selected satellite name.

4. Store Current Position

Press the "ok" button to store the current position as your East or West limit.

5. Go to Stored Position

Once you have stored the positions of the satellite you want, you can now search for the services transmitted from them.

+. When you have selected the satellite you wish to view, select "Go to Stored Position" and again using the ◀/▶ buttons select go to and press "ok"button.

+. The motor will now move to the position of the selected satellite.

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting / Dish Alignment

1. Driving Mode

2. Driving Size

(1) Drive Motor West

Moves the Motor West to the stored position of the selected satellite name.

(2) Drive Motor East

Moves the Motor East to the stored position of the selected satellite name.

(3) Drive Motor Up

Moves the Motor Up to the stored position of the selected satellite name.

(4) Drive Motor Down

Moves the Motor Down to the stored position of the selected satellite name.

(5) Store Current Position

Press the "ok" button to store the current position as your East / West or Up/Down limit.

(6) Go to Stored Position

Once you have stored the positions of the satellite you want, you can now search for the services transmitted from them.

+. When you have selected the satellite you wish to view, select "Go to Stored Position" and again using the ◀/▶ buttons select go to and press "ok"button.

+. The motor will now move to the position of the selected satellite.

MAIN MENU OPERATION

1. Installaton / DiSEqC Setting / Dish Alignment

1. Driver Motor West

Moves the motor west to the stored position of the selected satellite name.

2. Stop Motor

Select the "Stop Motor" at the correct position.

3. Drive Motor East

Moves the motor east to the stored position of the selected satellite name.

4. Go to Reference Position

5. Set West Limit

Select "Set West Limit" until the motor is at the position you wish to use as your west limit.

6. Set East Limit
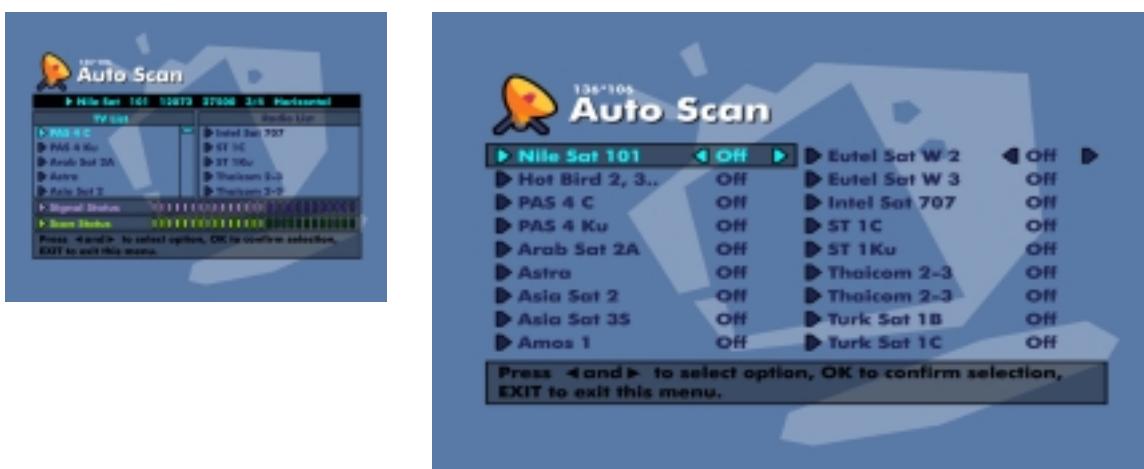
Select "Set East Limit" until the motor is at the position you wish to use as your east limit.

7. Enable Limit

8. Disable Limit

MAIN MENU OPERATION

1. Installaton / Auto Scan

+. When you enter the Satellite Name that is set in LNB & DiSEqC Setting menu, search all of the selected satellite without inputting the extra frequency.

+. Select the target antenna for Automatic Service Search. The Attribute of this antenna alternative number is already set in LNB & DiSEqC setting menu and the Satellite Name is helpful in the selection of the antenna, but in this menu you cannot change the Satellite Name.

+. It searches the service by search parameters that is preset and also searches the service through all field of tune(950~2150MHz).

**+. Press the "ok" button anywhere to start Auto Scan. The picture during searching is as follows :**

- The picture searches with varying frequency, Symbol Rate and FEC etc.

- The progress bar(%) appears on the bottom of the picture.

- During the search, services that are found dare displayed as follows :

(1) Press the "exit" button during Automatic Scan to stop search.

(2) After the search is finished, the appropriate message appears.

MAIN MENU OPERATION

1. Installaton / Manual Scan

1. Satellite
Select the target antenna for Manual Scan. The Satellite Name helps you select Antenna Alternatives. This is only for reference and cannot be changed on this menu.

2. Load Transponder

3. Frequency
Use the Numeric buttons(0~9) on the remote control unit.

4. Symbol Rate
Input the Symbol Rate of the transponder you want to find. Use the ◀/▶ buttons or Numeric buttons on the remote control unit.

5. FEC (Forward Error Correction)
Use the ◀/▶ buttons to select the Forward Error Correction of the transponder. You can select the value of Auto, 1/2, 2/3, 3/4, 5/6 and 7/8.

6. Polarity
Use the ◀/▶ buttons to select the Polarization of the transponder.
(Auto / Horizontal / Vertical)

7. Scan Mode

8. Network Search
- You can select Yes or No. When you select "Yes", you can find more transponder using the home network.
- As it refers to NIT during searching, it searches the other transponder besides the transponder that the user inputs.

MAIN MENU OPERATION

1. Installaton / Advanced Search

Performs a manual search with the ability to enter PID(Video/Audio/PCR) values. This mode is necessary when you search for the signal that has abnormal service information labels. The setting of the sub items is the same as Manual Search.

+. You can set PID to search for services.

(1) Use the ▼/▲ buttons to select PID input mode.

(2) Use the Numeric buttons(0~9) on the remote control unit to enter a decimal PID value.

* Note : If no PID is input(Auto is displayed), the Advanced Search functions same as Manual Search.

+. After the above mentioned value is set, press the "ok" button to start Service Service.

* Note : The picture and the found service list during Advanced Search are identical with the ones during Manual Search.

MAIN MENU OPERATION

1. Installaton / Update Channel

1. Current Satellite

This mode will display the Antenna adjustment menu on the screen and can adjust al required installation information for each selected Satellite.

You can rename a satellite, add a new satellite, delete the satellite and change the sequence of the satellite order.

When you select a satellite name in the list box, the required installation information is displayed. Press the "ok" button and adjust the items according to your system such as LNB, 22KHz and DiSEqC input.

2. Current Transponder
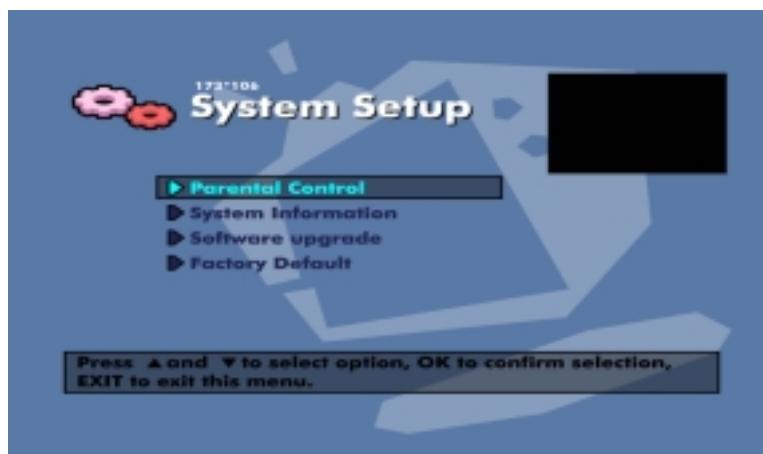
The information to enter in this menu is available in magazines covering satellite TV reception or from your service provider.

You can use this menu if you are looking for some special channels (i.e. non DVB standard channels) which can only be found when you have entered the necessary settings.

+. Transponder Frequency   : Specify the frequency in MHz

+. Symbol Rate   : Enter with the numeric keys

+. Polarization   : Select Horizontal or Vertical

+. FEC   : Select the FEC value

MAIN MENU OPERATION

2 System Setup

1. Parental Control (The default PIN Code is 0000)
+. When the "ok" button is pressed after selecting the highlighted parental control on the initial menu screen a display window for entering the PIN Code will appear on the center of screen.
+. Enter the PIN Code on the display widow.
+. Set the parental guidance rating of highlighted censorship classification. The parental level is given as age-based numbers:
no block, 6, 10, 14, 18 and total block. Enter PIN Code to unlock or lock programes.

2. System Information
You can refer to the Loader version, Hardware version, Software version and Eurostar Website.
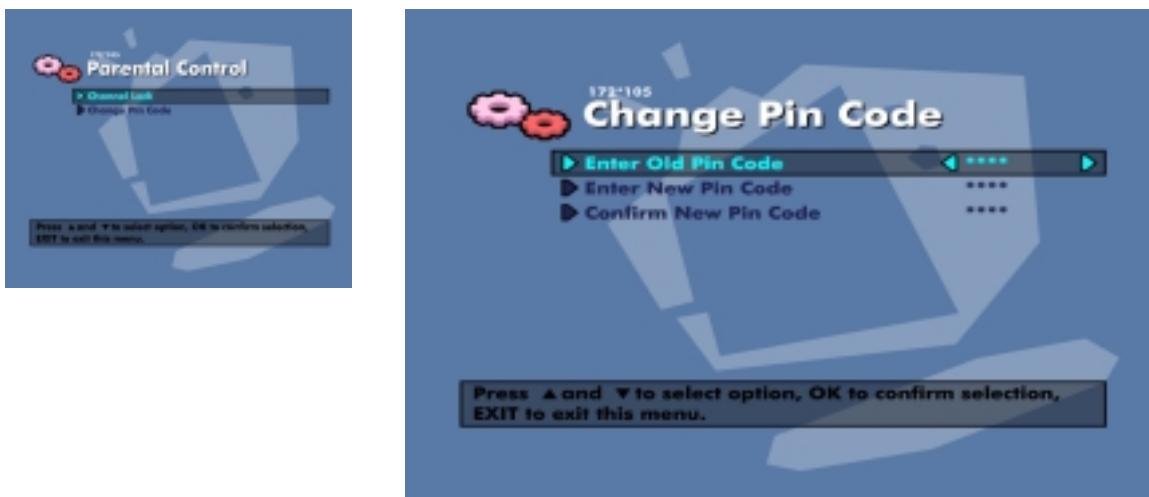
3. Software Upgrade
You can upgrade the software of this receiver through serial port when the new software is released. Please contact the distributor for receiver upgrade. Distributor supports you useful information and new software for the receiver.

4. Factory Default
This is to restore the factory set values in case the user has encountered some problems after changing any new values of channel data and others which may be in error. Select Factory Default mode and press "ok" button. If you want to continue, select "Yes". The receiver will be reset to settings automatically. Lease note that the "Factory Default" procedure may take a few minutes.

MAIN MENU OPERATION

2. System Seutp / Parental Control

1. Enter Old PIN Code

Select the highlighted Old PIN Code using the ▲/▼ buttons and then enter your Old PIN Code.

2. Enter New PIN Code

Enter a New PIN Code in the highlighted New PIN code using the ▲/▼ buttons.
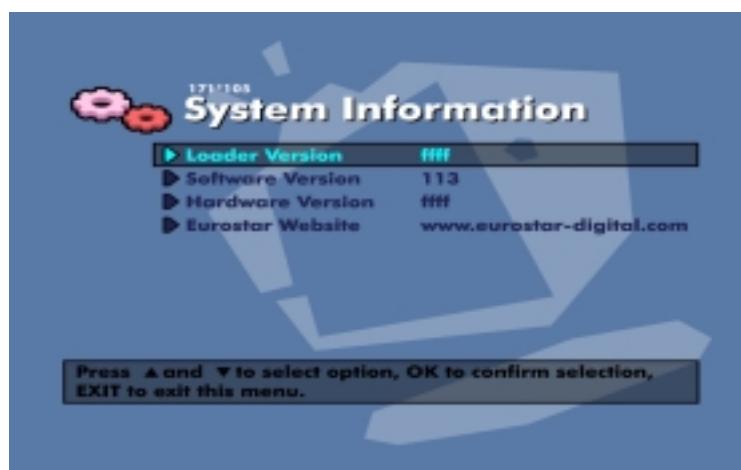
3. Confirm New Pin Code

To verify the New PIN Code, re-enter a New PIN Code in the highlighted Verify Changed PIN Code.

+. If the PIN Code is wrong, the message "PIN Code mismatch" is pressed at this time, the Old PIN Code is valid and the cursor is located in the first position of this menu.

MAIN MENU OPERATION

2 System Setup / System Information

1. Loader Version

Displays the information of Loader version of STB.

2. Software Version

Displays the information of Software Version of STB.

3. Hardware Version

Displays the information of Hardware Version of STB.

4. Eurostar Website

+. You can download and upgrade the software of this STB via Eurostar satellite when the software of new version is released.

+. Do not turn off the STB during downloading.

+. When the power is switched OFF, turn on the STB and the process will be continued.

MAIN MENU OPERATION

3. Channel Organize / Add Favorite

This menu gives users access to options that allow them to organize their TV services and Radio services. ++. The default PIN Code is 0000.

1. Add Favorite

Each of TV and Radio have four Favorite groups. Each Favorite group contains up to 100 services. Move, Delete, Skip and Sort each TV and Radio services in a Favorite TV and Radio group and regroup them into your Favorite TV and Radio group.

+. To select the Favorite group :
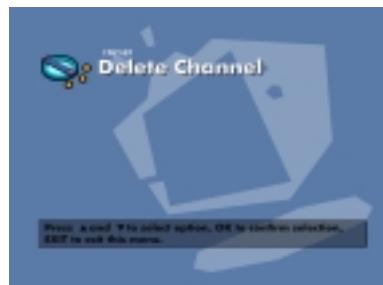
    (1) Use the ◀ button to move the cursor to group plate(left).

    (2) Select the favorite group.

+. To group the services into Favorite

    (1) Use the ▶ button to move the cursor to services plate(right).

    (2) Select the service you want to group into Favorites.

    (3) Press the "ok" button.

    (4) Use the ◀ button to move the cursor to "Favorites" plate(left).

    (5) Press the "ok" button to save the selected group.

MAIN MENU OPERATION

3. Channel Organize / Move Channel

2. Move Channel

+. Select the Move Channel mode and move the service to where you want to locate.

+. Use the ▲/▼/◀/▶ buttons to select a new location.

+. Press the "ok" button to fix the location.

+. Press the "exit" button to return to the original location.

3. Delete Channel

+. Select the Delete Channel mode and delete unwanted services.

+. Highlight the services that you want to delete in grey.

+. Press the "ok" button to confirm.

+. Press the "exit" button to cancel the delete.

4. Skip

+. Select the Skip mode to skip services. Then, the symbol⌒ will be displayed at the right side of the service name.

+. Use Numeric buttons(0~9), service list or "EPG" buttons to view the skipped services when selecting channesl.

MAIN MENU OPERATION

3. Channel Organize / sort

5. Sort

The Sort mode allows the user to Move / Delete / Skip a service in the selected genre. Available genre is Movie, News, Show, Sports, Children, Art, Education etc.

+. When you delete a service in the selected genre, it will be available again on the All TV services list at the right side. At that time, the genre for the deleted service becomes "etc".

+. You can move the service only in the selected genre.

+. To select the Genre :

(1) Use the ◀ button to move the cursor to group plate(left).

(2) Select the wanted genre.

+. To group the services into a Genre :

(1) Use the ▶ button to move the cursor to services plate(right).

(2) Select the service you want to group into Genre.

(3) Press the "ok" button.

(4) Use the ◀ button to move the cursor to Genre plate(left).

(5) Press the "ok" button to save the selected group.

4. Preferences / Language Setting

Select the language for menu, audio or subtitle.

1. Select the highlighted language setting using the ▲/▼ buttons in the system setting mode and then press the "ok" button.

2. Select the highlighted Menu Language and press the ◀/▶ buttons and the language list will be displayed.

3. Use the ▲/▼ buttons to move to a language you want and then press the "ok" button to finish setting.

1. Menu Language

Select a language for the menu or banner OSD in this mode. You can choose the language from a selection of English and Korean. When a broadcasting information is transmitted, the selected Menu Language will be displayed.

2. Audio Language

Select the default language for audio when changing services. If you change the current service, your STB will initially select the previously memorized Audio Language. If the Audio Language of current service is not provided, you should reselect a language on the Audio Language menu. If no language is provided, then the default language of current service will be automatically selected.

3. Subtitle Language

Select the default language for subtitle when changing services.

MAIN MENU OPERATION

4. Preferences / Time Setting

1. GMT
To se the current time, enter the Offset value using the standardized information of current service area. The time setting will be used as the standardized time for the Wakeup and Sleet Time.

2. Timer
You can select nine kinds of Timer like 1, 2, …..8 and disabled. If you select "Disabled", then the other timers will not work. Press the "ok" button at timer option to display the Timer table. The Timer determines the on/off time and can also be used for VCR recording.

3. Wakeup Time
Select the time when STB is turned on. Use the Numeric buttons on the remote control unit to enter your Wakeup Time.

4. Wakeup Service No.
Use the ◀/▶ buttons to set the service number provided for the set Wakeup Time. Use the TV/Radio button on the remote control unit to toggle TV/Radio service.

5. Service Name
The Service Name that has been determined by the Wakeup Service No. will be shown.

6. Sleep Time
Depending on Time Setting, select the time when STB is turned off.

MAIN MENU OPERATION

4. Preferences / RF Channel

You select the STB output by using the UFH channel.

1. RF Channel
Select an UHF channel. The range of channels and frequency value are different for each PAL Standard ;

PAL I/G for Europe	**:**	**CH21~CH69**
PAL B for Europe/Australia	**:**	**CH28~CH69**
PAL D for China	**:**	**CH13~CH62**
PAL K for Russia	**:**	**CH21~CH69**
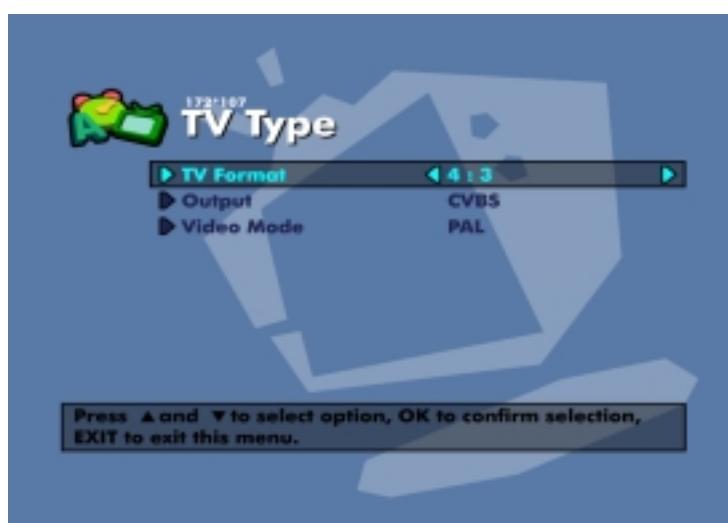
2. Type
Select a PAL standard according to the above range of channels.

3. Offset
Adjust the fine tuning value. The Offset ranges from – 4 to + 4 and each Offset represents 1MHz.

MAIN MENU OPERATION

4. Preferences / TV Type

1. TV Format

Select the format which the video is to be displayed on screen. When your TV set is 4:3 and video source is 16:9, STB will display in Letter-box or Centre mode as selected. When your TV set is 16:9 and video source is 4:3, STB will display in the Pillar-box or Full mode as selected.

2. Output (CVBS / S-Video / RGB)

Set the video mode for the TV SCART output.

3. Video Mode

Select the aspec ratio of TV which is connected to STB(4:3 or 16:9)

MAIN MENU OPERATION
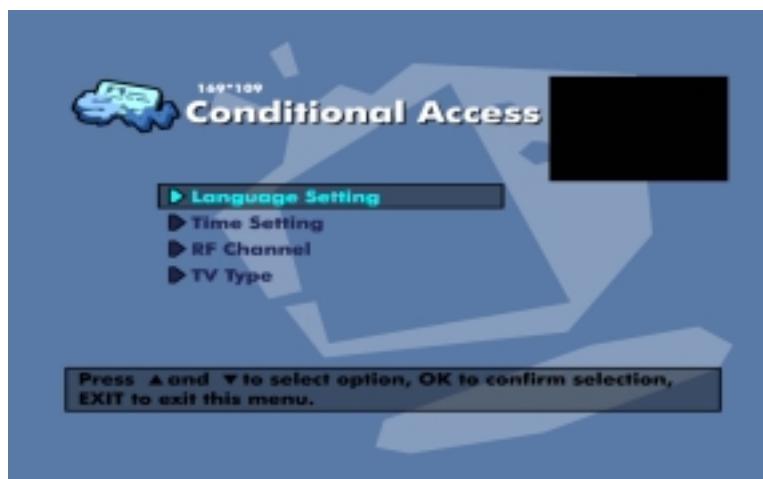
5. Common Interface

+. **This receiver is equipped with one PCMCIA slot. Select "Common Interface" mode in Main Menu, and the following screen will be displayed.**

+. **When a common Interface CAM is inserted inside the PCMCIA slot, the receiver detects the type of the CAM automatically and display in the Main Menu.**

+. **On choosing this mode, you can access the different options available with the type of the CAM like Authorizations, pre-booking and package details etc.**

6. Conditional Access

This menu allows the user to view the information on the Smart Card and Viaccess conditional access system such as general Smart Card Information, Service List, Change Maturity Rating and Change PIN Code.

1. General Smart Card Information
You can see the Unique Address, so user Address, Current Maturity Rating of the Smart Card.

2. Service List
Service or Bouquets are encrypted by Viaccess and operators name, like TPS or Absat , are displayed on the TV screen.
To get more detailed information of viewing rights of services or Bouquets, Press "ok" button.

3. Change Maturity Rating
The STB is required by Viaccess to include a parental control facility for the viewing of restricted services.
This can be set to "No block" or for ages ranging from 4 to 18.
The correct PIN code is required to change this option.

4. Change PIN Code
When you buy a new Smart Card, the initial PIN Code is set to "NULL". Therefore, it is recommended that this PIN code should be changed.
This PIN Code is available only on Conditional Access Menu.
Enter this PIN Code to see the blocked Viaccess Service.

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE & SOLUTION
About STB	
No Picture and Sound No Indicator Lights	+. No power : Make certain that your receiver is plugged into an operation AC outlet. +. Power switch is off : Press power button
No Signal	+. Poor cable connections : Check all the cable connections and connectors. +. Antenna is not pointed at a satellite : Verify that the antenna is aimed at an operating satellite. +. Excessive Signal Loss BETWEEN LNB and Receiver : Install a line amflifier.
TV Screen displays the frozen picture on some channels	+. Excessive signal loss between LNB and Receiver : Install a line amplifier
Ghost appear in the TV picture	+. Television is not on the correct channel, or fine tuning on TV is not properly adjusted. +. Video fine tuning is not properly adjusted : Re-adjust video fine tuning.
Picture is good, but no sound	+. Volume is improperly adjusted and muted on the receiver, TV set, monitor.
Remote Control Unit does not operate or has poor range	+. Weak battery in Remote Control : Replace the battery. (TYPE : AAAM 1.5V)
On-Screen Error Message	
No or Bad Siganl	+. Check the LNB : Replace LNB if necessary. +. Check the cable from the LNB. +. If you are using DiSEqC1.0 switch, check that you have connected the LNBs to the correct connections on the switch.
Service is not running or scrambled / No access to the service slot	+. Check whether the Smart Card is correctly inserted. +. Check whether the Smart Card is appropriate for the selected service.
Please check the card / No right for this service / No smart card in slot and please insert your card	+. Check that the Smart Card is correctly inserted. +. Check the Smart Card is appropriate for the selected service. +. Check the subscription rights of the Smart Card.
Time Display	
The front panel does not display the time.	+. Make sure you have switched on the STB. +. Switch the STB on and tune to a service to allow the STB to receive the time sent with the signal by the service provider.
Time displayed on the front panel is not correct.	+. Front panel will only display the time in Standby mode. +. Adjust the time in the Time Settings menu.
Front Panel Error Messages	
Incorrect data block(CRC-16)	+. Try switching STB power Off and On.
Invalid system ID	+. Check whether the system ID is different for Software and STB.
UART RX / TX time out	+. Try switching STB power and ON.

SPECIFICATION

1. Tuner & Channel	
Input Connector	1x F type with Loop through
Output Connector	1x F type 75 Ohm, IF signal out
Frequency Range	950MHz to 2150MHz
Input Impedance	75 Ohm
Signal Level	-25 to –65 dBm
IF Frequency	zero IF
IF Bandwidth	8 or 45 MHz
LNB Power	Vertical +13.5 - +14.5V
Polarity Control	Horizontal +17.5 - +18.5V
22KHz Tone	Frequency 22kHz +- 2kHz
	Amplitude 0.6V p-p +-0.2V p-p
Demodulation	QPSK
Input Symbol Rate	2 – 32 Msps
FEC Decoder	Convolutional Code Rate 1/2, 2/3, 3/4, 5/6, and 7/8 with constraint. Length K = 7

2. MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile & Level	MPEG-2 MP@ML
Input T/S Data Rate	90Mbit/S max
Aspect Ratio	4:3, 16:9 with pan vector
Video Resolution	720 x 576(PAL), 720 x 480(NTSC)
Audio Decoding	MPEG audio laer 1&2, musicam
Audio Mode	Stereo, Dual Channel, Joint Stereo, Mono
Sampling Rate	32, 44.1, and 48kHz

3. Memory	
Flash Memory	Up to 2M bytes
Program SDRAM	8 Mbytes
EEPROM	64 Kbytes

4. A/V & Data Input	
SCART	TV x 1, VCR x 1(Optional)
RGB video out	TV SCART x 1(Optional)
CVBS Video Out	RCA x 1 SCART(TV, VCR) (Optional)
Analog Audio Out	RCA x 2 (L-CH x 1, R-CH x 1) SCART (TV, VCR)(Optional) Resolution 16bit DAC Output Level 2Vrms Max Volume & Mute Control
Data Interface	RS232C, BAUC Rate 9600 ~ 115200, 9 Pin D-SUB

5. Conditional Access	
Embedded Viaccess	1 Smart Card Reader

6. RF Modulator	
RF-Connect	75Ohm, IEC169-2, Male/Female
Output Frequency	470MHz to 860MHz
Output Channel	CH21 – 69(Optional)
TV Standard	PAL D/K, PAL B/G, PAL I, PAL M (Optional)
Output Channel	CH 3,4
TV Standard	NTSC

7. Power Supply	
AC Power Switch	Push lock type(toggle)
Input Voltage	AC90 – 240V, 50/60Hz (Receiver & Positioner)
Type	RCC
Power Consumption	40W Max. (Below 7W Max. For stand-by Mode)
Protection	Separate Internal Fuse and Chassis Grounding and the Input shall have lighting or Electric Shock Protection

8. Physical Specification	
Size(W x H x D)	320mm x 60mm x 220mm
Weight	about 2 Kg

9. Environment	
Operating Temperature	+5℃ ~ +55℃
Storage Temperature	-40℃ ~ +65℃

KIRYUNG ELECTRONICS