

VS VIEWSAT

DIGITAL SATELLITE RECEIVER

USER'S MANUAL

VS 2000 ULTRA



VS VIEWSAT

Table of Contents

1. SAFETY PRECAUTIONS	4
1.A. ACCESSORIES	5
2. GENERAL FEATURES	6
3. HOW TO CONNECT YOUR RECEIVER	7
4. HARDWARE DESCRIPTION	9
5. SYSTEM SET-UP	12
6. MENU STRUCTURE	14
7. MENU OPERATION	15
1. INSTALLATION	15
2. USER SETTING	19
3. CANNEL ORGANIZATION	22
4. SYSTEM INFORMATION	26
5. GAMES	28
6. CHANNEL LIST	28
7. CHANNEL GUIDE	29
8. AUDIO	29
9. ZOOM FUNCTION	30
10. MULTI PICTURE	30
11. COLOR SETTING MENU	31
8. TROUBLE SHOOTING	32
9. TECHNICAL SPECIFICATIONS	33
10. PROGRAMING THE REMOTE CONTROL	35
11. WARRANTY CARD	39

Important Safety Instruction

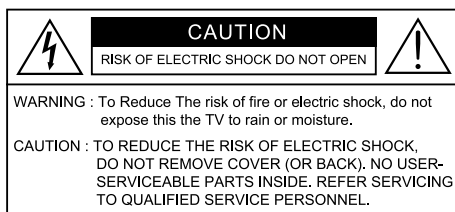
- 1) Read all of these instructions.
- 2) Save these instructions for later use.
- 3) Follow all warnings and instructions marked on the product.
- 4) Follow all instructions.
- 5) Do not use the apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer'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) Do not place the apparatus on an unstable cart, stand or table. The apparatus may fall, causing serious damage to the apparatus.
- 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.



Shock Hazard Marking and Associated Graphical Symbols



Explanation of Safety Related Symbols



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the appliance.

WARNING : To Reduce The risk of fire or electric shock, do not expose this the apparatus to rain or moisture.

Declaration of Conformity

**FCC Rule : TESTED TO COMPLY WITH FCC PART 15, CLASS B
OPERATING ENVIRONMENT : FOR HOME OR OFFICE USE.**

FCC COMPLIANCE STATEMENT :

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions :

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO USER:

This equipment has tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limit are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, user 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:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experience Radio / TV technician for help.

CAUTION : Changes or modifications not expressly approved by manufacturer responsible for compliance could void the user's authority to operate the equipment.

1. SAFETY PRECAUTIONS

*This receiver has been manufactured to satisfy the international safety standards.
Please read the following recommended safety precautions carefully.*

MAIN SUPPLY : AC 95V~240V 50 / 60 Hz

LOCATION : Locate the receiver indoor.

Locate receiver away from potential hazards such as houseplants, lighting, raining and direct sunlight.

OVERLOADING : Do not overload wall outlets, extension cords or adapters as this can result in fire or electrical shock.

LIQUIDS : Keep liquids away from the receiver.

CLEANING : Before cleaning, disconnect the receiver from the wall socket.
Use a cloth lightly dampened with water (no solvents) to clean the exterior.

VENTILATION : Do not block the receiver ventilation holes. Ensure that free airflow is maintained around the receiver.

Never set the receiver on soft furnishings or carpets. Do not use or store the receiver where it is exposed to direct sunlight, or near heater.

Never stack other electronic equipment on top of the receiver.

Place the receiver at least 30mm from the wall.

ATTACHMENTS : Do not use any attachment that is not recommended by the manufacturer, as it may cause a hazard or damage the equipment.

CONNECTION TO THE SATELLITE DISH LNB : The LNB connector cable has a voltage in its center core. It is therefore recommended that the receiver is disconnected from the mains power before connecting or disconnecting this cable.

FAILURE TO DO SO COULD DAMAGE THE LNB.

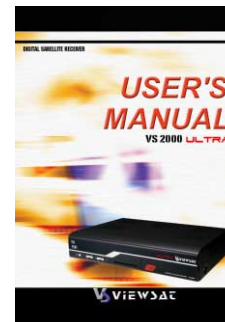
SERVICING : Do not attempt to service this product yourself. Any attempt to do so will make the warranty invalid. Refer all servicing to a qualified service agent.

LIGHTNING : If the receiver is installed in an area subject to intense lighting activity, protection devices for the receiver mains connector and modem telephone line are essential. The individual manufacturer's instruction for safeguarding other equipment, such as TV set, Hi-Fi, etc., connected to the receiver, must also be followed during lighting storms.

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.

1.A. ACCESSORIES

Check the following accessories when you open the box.



User's manual



RCU



RCA cable



Serial cable



DiSEqC S/W



Batteries

The device, packing material and batteries must never be disposed of with household.

Please obtain appropriate information about regulations in your community, and dispose of all in accordance with regulations at the separate locations provided.

2. GENERAL FEATURES

- Fully MPEG-2 & DVB Compliant
- Input Frequency 950~2150MHz
- Supports EPG, PIG
- Supports SCPC & MCPC from C / Ku-band
- 1 LNB Input Tuner with Loop Through IF Signal
- Tuner Symbol Rate : 1~45MS/s
- Fast Booting & Auto Scan
- Quick Channel Changing
- Max. 4000 Channels(TV & Radio) Programmable
- User Friendly 256 Colors OSD & Easy GUI
- A lot of OSD Language supported
- Radio Channel Background Display
- Favorite Channel List Programmable
- Master PIN Code Function & Parental Lock Function
- 100 Steps Volume Control
- Automatic Detection of Forward Error Correction
- Window based S/W Download Program Supported by RS232 Serial Port
- Set to Set Download (Main Program, Channel Data)
- 4:3, 16:9, Letter Box
- 7 Segment-4 Digit Display
- 5 Keys on the Front Panel (Power On/Off, Channel Up/Down, Volume Up/Down)
- Various LNB Polarity Control
 - 22KHz Switching Control
- 3 RCA Output for Video, Audio L/R
- 3 RCA Output for Component (Y, Pb, Pr)
- USB Host Interface (Only for USB Memory Stick)
- S/W Upgrade Supported by USB Port
- 7 Days EPG (Electronic Program Guide) Support
- S/PDIF Output for Digital Audio
- S-VIDEO Output
- RF-Modulator Output
- Zoom function
- Multi Picture
- Blind Scan
- USALS
- X Crypt CAS Embedded

3. HOW TO CONNECT YOUR RECEIVER

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

1) LOCATION OF THE RECEIVER

Your receiver should be placed under proper ventilation.

Don't put in completely enclosed cabinet that will restrict the flow of air, Resulting overheating.

The location should be safeguarded from direct sunlight, excess moisture, rough handling or household pets.

Avoid stacking other electronic components on the top of the receiver.

The location should be safely accessible by the cable from your antenna system.

2) CONNECTING THE RECEIVER WITH DISH SYSTEM

After installing your dish system, connect the coaxial cable from LNB of your dish antenna to "DISH IN" terminal marked at the rear of the receiver.

All cable connectors should be finger tightened ; do not use any kind of wrench on the cable over connectors.

The cable should be 75Ω impedance coaxial twisted at the end with a "F" type connector.

3) CONNECTING THE RECEIVER TO TV

To connect the receiver with your television, you can follow three method ; through RF cable, RCA cable, COMPONENT cable and S-Video cable.

Connect the RF cable to the terminal marked "OUT TO TV" at the rear panel of the receiver and its other end to the TV RF input socket.

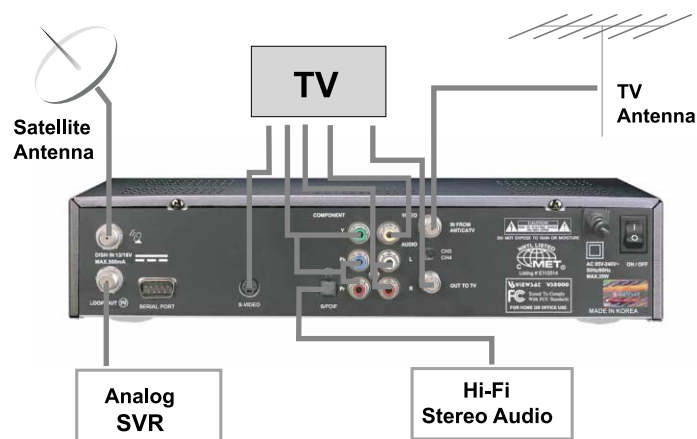
4) CONNECTING EXTERNAL AUDIO HI-FI SYSTEM

To connect any external Audio Hi-Fi system, the receiver has been provided with S/PDIF connector at the back of the receiver.

5) CONNECTING YOUR ANALOG RECEIVER

To facilitate the user using analog receiver to view analog channels, the receiver has been provided with a loop through terminal marked as "LOOP OUT".

Connect the coaxial cable from this terminal to the IF input terminal of your analog receiver. Now by keeping the receiver in standby, you will be able to tune and view analog channels from your analog receiver.



4. HARDWARE DESCRIPTION

4. A. FRONT PANEL



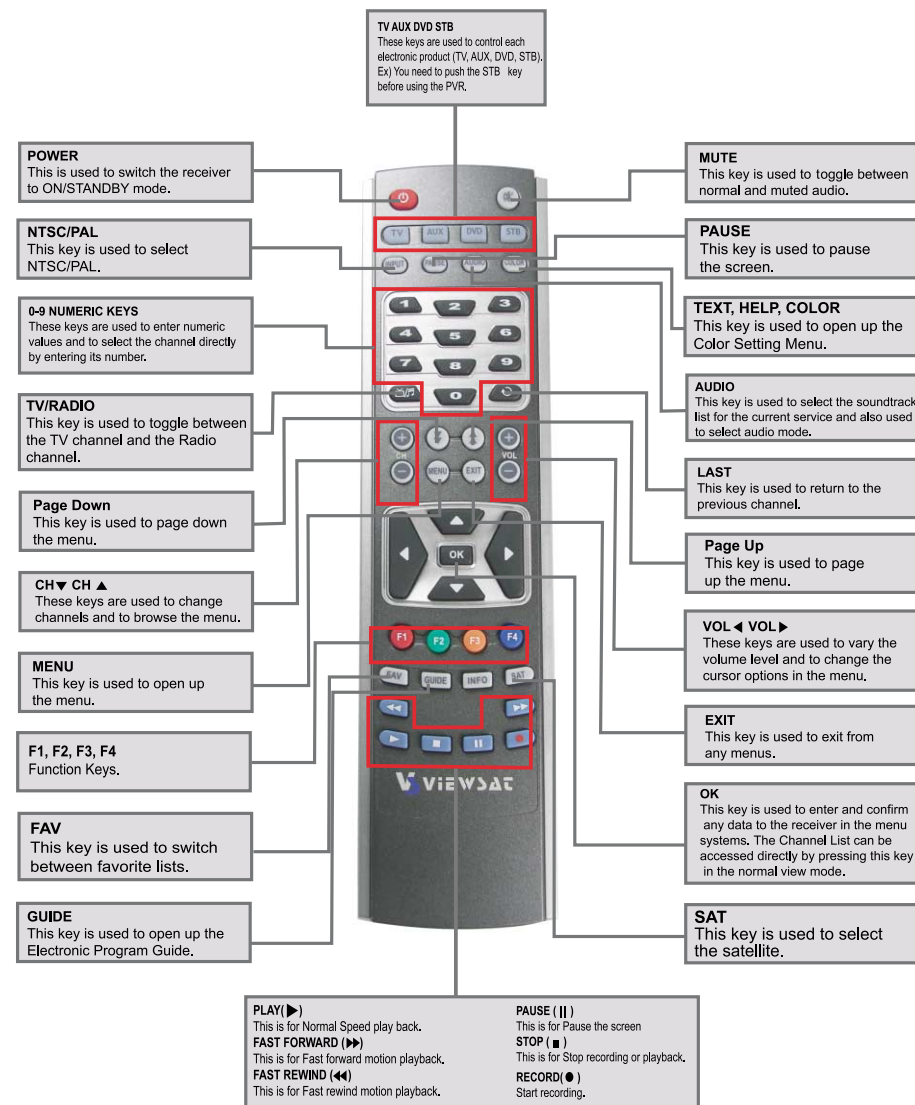
- 1) **POWER** : This key is used to turn the receiver on and off (stand by).
- 2) **CH** : These keys are used to change the channels.
- 3) **VOL** : These keys are used to increase and decrease the volume level manually.
- 4) **INFRARED SENSOR** : This is to receive the IR commands from the RCU. Do not block the view of the sensor.
- 5) **7 SEGMENT DISPLAY** : This SEGMENT display will show the current channel number. While the receiver is in stand by mode, the display will show the current time.
- 6) **SMART CARD INTERFACE SLOTS** : To watch scrambled channels you should insert a smart card into Smart Card Interface issued the service provider whom you subscribes to. Therefore you can watch only a specific range of channels with entitlements in smart card. The smart card includes information to decipher parameters necessary for descrambling the program. Please note that the gold chip on the smart card should face down and inward when you insert it into Smart Card Interface.
- 7) **USB** : Firmware upgrade using USB flash drive.

4. B. REAR PANEL

- 1) **DISH IN** : This port is to connect the coaxial cable from LNB of your Dish. The IF input is provided through this port and the input frequency range is 950~2150MHz. Also the voltage switching 13V and 18V is passed through this port.
- 2) **LOOP OUT** : To enable the connection of an analog receiver, the receiver is provided with this port. Connect this port to DISH IN(LNB IN) port of the other receiver via RF Cable.
- 3) **SERIAL PORT** : This is used to connect your receiver with computer through a serial cable. This port can be used for upgrading software.
- 4) **S/PDIF DIGITAL OUTPUT** : This port is for the connection to the external Hi-Fi system which has a optical S/PDIF input interface.
- 5) **VIDEO, AUDIO R/L, COMPONENT(Y ,Pb, Pr)** : These RCA connectors are used to connect any external video and audio.
- 6) **IN FROM ANT/CATV** : This is used to connect your local RF channels to your TV through Loop.
- 7) **OUT TO TV** : This is used to connect your TV through RF cable.
- 8) **POWER INPUT** : This is to plug in the AC main power cord. The input AC volts range is 95V~240V, 50/60Hz supply.
- 9) **S-VIDEO** : This is used to connect your TV through S-Video Cable.
- 10) **CH 3,4** : The switch select RF 3,4 channel number.
- 11) **POWER SWITCH** : This is a switch to turn on and off the AC main power.



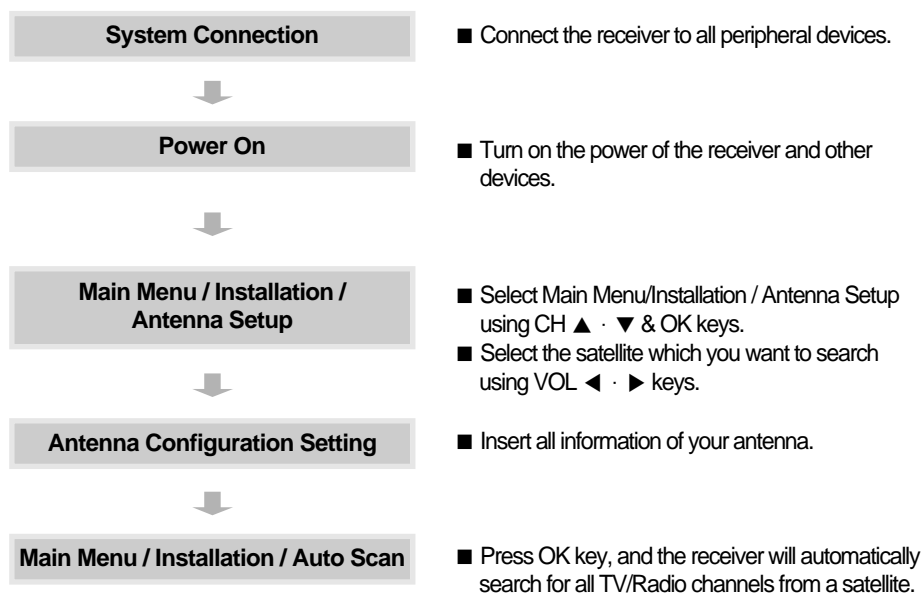
4.C. REMOTE CONTROL UNIT



5. SYSTEM SET-UP

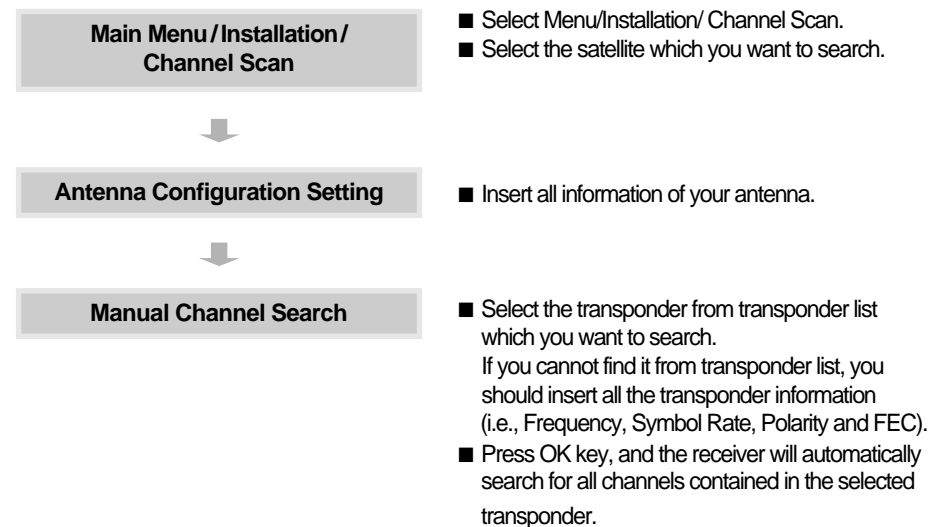
5.A. Automatic channel search for a satellite

You can automatically detect and save all TV and Radio channels of a satellite as follows :

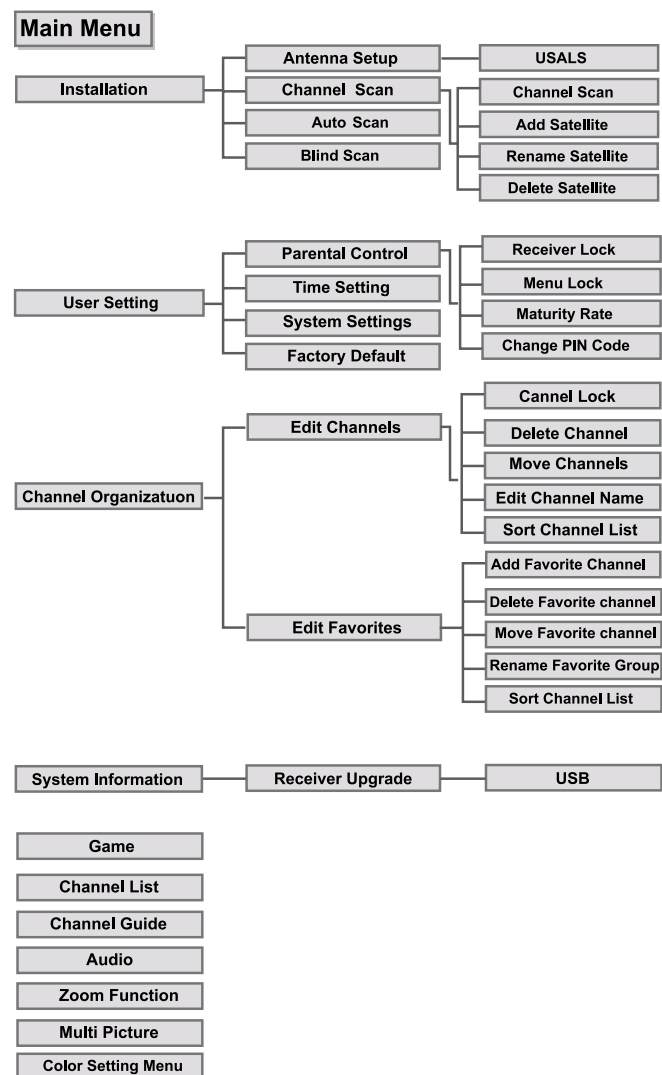


5. B. Manual channel search for a transponder

You can automatically search and save all TV and Radio channels of a transponder as follows :



6. MENU STRUCTURE



7. MENU OPERATION

The main menu is classified into several sub menus which will carry out the various operation individually.

MAIN MENU

After installing your dish system and receiver with appropriate connectors, plug in the AC main power and turn on the receiver.



Press the MENU key of the RCU. You will see the "Main Menu" on the TV screen as follow. You can move into the desired submenu using the "up/down" keys (▲ · ▼) or numeric keys. Press "OK" key to confirm your selection. If the "Main Menu" is locked, note that you should enter the PIN code in order to move into the corresponding submenu in case of "Channel Organization" menu, "User Setting" menu and "Installation" menu. The default factory PIN code is "0000". Press the "menu" key or "exit" key to return to previous menu.

1. INSTALLATION



"Installation" menu helps you to setup a variety of parameters necessary for receiving signal, and add new service.

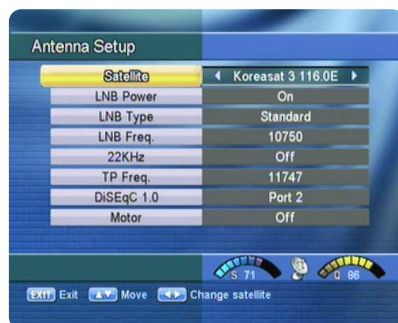
Select "Installation" menu in main menu, and you will be asked to enter your PIN code. You can find the following "Installation" screen by entering it.

1.A. ANTENNA SETUP

Your receiver includes the preprogrammed information of transponders contained in various satellites.

You can update the transponder list preprogrammed for a satellite by adding a new transponder to it or modifying the information of the existing transponder. (Refer to the Channel Scan described in section 1.B) Select "Antenna Setup" menu in "Installation" menu and the following screen will be displayed.

Select the desired satellite using the "left/right" keys(◀ · ▶). Set "LNB Power", "LNB Type", "LNB Freq", "22KHz", and "DiSEqC 1.0" fields to the appropriate value using the left/right keys(◀ · ▶) at each field.



1. A. 1 USALS



Please go to Antenna Setup and select USALS from motor.
Press the "OK" key then Pop-up will be appeared.
Press arrow button to write Longitude
Press arrow button to write Latitude, then OK to work.

1. B. CHANNEL SCAN

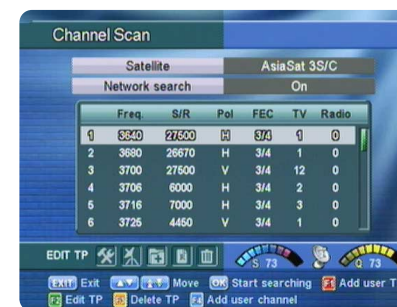
It will be more convenient to use "Channel Scan" procedure when you want to search channel for a specified transponder offered from the satellite. As in "Antenna Setup", "Channel Scan" also searches all channels broadcasted over a specific transponder using its predefined information. You can add a new transponder if you cannot find it on the predefined transponder list.

Select "Channel Scan" menu in "Installation" menu, and the following screen will be displayed.

1. B. 1 Channel Scan

Select the desired satellite using the "left/right" keys (◀ · ▶).

Select the "Antenna Configuration" icon using the browse keys(▲ · ▼, ◀ · ▶).



Press "OK" key, and set "LNB Power", "LNB Type", "LNB Freq", "22KHz", and "DiSEqC 1.0" fields to the appropriate value using the "left/right" keys(◀ · ▶) at each field. Check the signal strength and press "Exit" key.

Select the "Search/Edit TP" icon using the "left/right" keys(◀ · ▶). Press "OK" key, and select the desired transponder using the "up/down" keys (▲ · ▼). Press "OK" key to start the manual searching for selected transponder.

LNB Power	: Depending on the user's antenna LNB, you can supply either LNB power by setting "ON" or not by setting "OFF". Normally set this to "ON".
LNB Type	: You can select the LNB type.
LNB Freq.	: You can select the predefined LNB frequency or manually enter a specific frequency in MHz unit by pressing numeric keys.
22KHz	: In case you are using two antennas connected to a 22KHz tone switch box, you can supply either 22KHz by setting "ON" or off by setting "OFF" to select antenna.
DiSEqC 1.0	: If you have DiSEqC box, you can choose port by selecting port number. Otherwise, choose "none".
Motor	: If you have a DiSEqC 1.2 motorised system, then you can take advantage of the DiSEqC 1.2 functions available. Choose Installer as Motor and press "OK" key. After that, adjust antenna direction using browse keys.

You can see the progressive status of channel searching.

If you cannot find the desired transponder from the transponder list, you can add it by inputting appropriate parameter values for a new transponder using the "F1" key. When you want to change the parameter of an existent transponder, select the parameter using the "F1" key, change its value and press the "Exit" key. Correctly set various parameters.

Freq.	: Input the frequency of the transponder you want to find manually.
S/R	: Inputs the symbol rate of the transponder you want to find.
Pol.	: Select the polarization of the transponder you want to find. In the case of horizontal, 18V and in the case vertical, 13V are output through LNB line.
FEC	: Select the FEC of the transponder you want to find. You can select the value of 1/2, 2/3, 3/4, 5/6, 7/8 or auto.

1. B. 2 Add Satellite

You can add a new satellite. Select the "Add Satellite" icon using the "left/right" keys (◀ ▶), and press the "OK" key.

Select the "Search/Edit TP" icon using the "left/right" keys (◀ ▶). Press the "OK" key and add a new transponder using the "F1" key. You should set various parameters of the transponder. The default name of the added satellites is "UserSAT-No."

1. B. 3 Rename Satellite

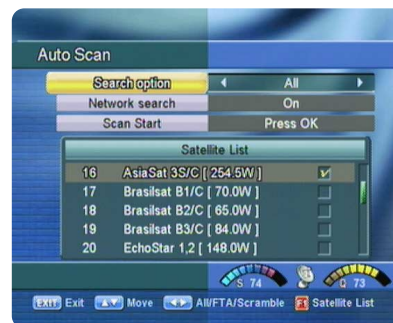
You can also change the satellite name. Select the "Rename Satellite" icon using the "left/right" keys (◀ ▶).

Press "OK" key and select the character which you want to edit using the browse keys (▲ ▼, ◀ ▶). Press the "OK" key to confirm. Save the character currently renamed using the "F2" key.

1. B. 4 Delete Satellite

You can also delete the user satellite. Select the satellite that you want to delete from the satellite list. Select the "Delete Satellite" icon using the browse keys (▲ ▼, ◀ ▶). Press the "OK" key, and the selected satellite will disappear.

1. C Automatic Scan



Check the signal strength. Press "OK" key to start the scan procedure. You can see the progressive status of channel searching. Please note that the scan procedure may take a few minutes.

Press the "menu" key or "exit" key to return to previous menu.

1. D Blind Scan



Blind Scan search the channel when you don't know the transponder information.

Press the "OK" key to start the blind scan procedure and the following screen will be displayed.

Please note that the scan procedure may take a few minutes.

Press the "menu" key or "exit" key to return to previous menu.

2. USER SETTING

This menu helps you to set up System. Select "User Setting" menu in "Main Menu", and you will be asked to enter your PIN Code.



2. A. PARENTAL CONTROL

This function prevents children or unauthorized persons from watching programs. Also you can change PIN(Personal Identification Number) code. Select "Parental Control" menu in "User Setting" menu, and the following screen will be displayed.

2.A.1 Receiver Lock

To lock receiver, select "Receiver Lock" in the "Parental Control" menu and change it to "On" mode using the "left/right" keys (◀ · ▶).

2.A.2 Menu Lock

To lock the Main Menu, select "Menu Lock" in the "Parental Control" menu and change it to "On" mode using the "left/right" keys (◀ · ▶).

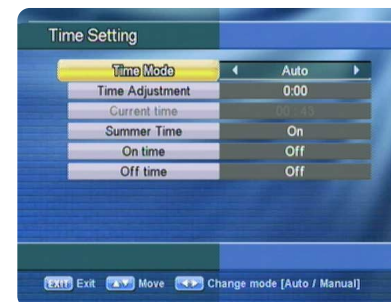
2.A.3 Maturity Rate

You can set the maturity rate of the receiver. If program rate is higher than the receiver, PIN code window will appear.

2.A.4 Change PIN Code

You can change your PIN code from factory default value "0000" as follow:
Select "Change PIN Code" in the "Parental Control".
Press "OK" key. Then you will be asked for a new PIN code.
Once you enter a new PIN code, the receiver will ask you to enter it in again.
After you enter a new PIN code twice, the PIN code is changed permanently.
If you forget the PIN code, you have to contact the distributor to find out it.

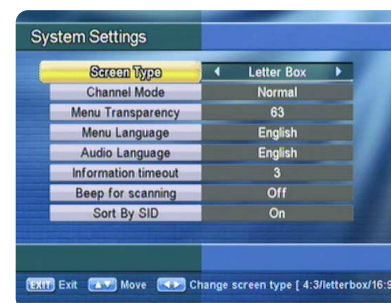
2. B. TIME SETTING



You can change the time of your receiver and also switch on/off the timer function in this menu.

Select "Time Setting" item in the "User Setting" menu and the following screen will be displayed.

Time Mode	: Select the time mode of your receiver. In Auto mode, your receiver will use the information from the satellite as time reference. In manual mode, you can set the time of your receiver manually.
Time Adjustment	: Set the time offset from the UTC (GMT). Useful in auto mode only.
Current time	: Set the current time manually. Useful in manual mode only.
Summer Time	: Enable or disable the Summer Time. Useful in auto mode only.
On time	: Set the time when the receiver will be automatically turned on
Off time	: Set the time when the receiver will be automatically turned off.



2.C. SYSTEM SETTINGS

This menu helps you to Set up mode, language, and screen type Select "System Settings" menu in "User Setting".

Screen Type	: You can choose either 4:3 or 16:9 according to the TV type.
Channel Mode	: You can select the channel mode when channel is changed.
Menu Transparency	: You can select the transparency of the menu.
Menu Language	: You can select the menu language.
Audio Language	: You can select the audio language.
Information timeout	: You can select the timeout of the "Channel Information menu".
Beep for scanning	: If this is "on", receiver will beep out the signal status.
Sort By SID	: If this is "on", channel list will sort by service ID.

Press the "menu" key or "exit" key to return to previous menu.

2. D. 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" menu in "User Setting" menu and press "OK" key.

If you want to continue, select option "Yes". The receiver will be reset to settings automatically.

Please note that the "Factory Default" procedure may take a few minutes.

3. CHANNEL ORGANIZATION

This menu helps you to edit the favorite Channel List and Channels.

Select "Chanel Organization" menu in "Main Menu", and the following Screen will be displayed.

3.A. EDIT CHANNELS



You can edit channels on various channel lists - channel lock, delete channel, move channel, edit the name of a channel, and sort the channel list.

Select "Edit Channels" menu in "Channel Organization", and you will be asked to enter your PIN code. You can find the following "Edit Channels" screen by entering it.

3. A.1. Channel Lock

Select the "Channel Lock" icon using the left/right keys (◀ · ▶). Select the channel that you want to lock

or unlock from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (⬆ · ⬇).

Press the "OK" key to confirm your selection.

Also, you can use the "↔/↵" key to select either TV channel list or Radio channel list.

Once the channel is locked, every time you try to watch the program, you will be asked to enter PIN code. Press the "menu" key or "exit" key to return to previous menu.

3. A.2 Delete Channel

Select the "Delete Channel" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to delete from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (⬆ · ⬇). Press the "OK" key to confirm your selection. Also, you can use the "↔/↵" key to select either TV channel list or Radio channel list.

Press the "menu" key or "exit" key to return to previous menu.

3. A.3 Move Channel

Select the "Move Channel" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to move from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (⬆ · ⬇). Press "OK" key to confirm your selection.

Move it to the position where you want to place it using the "up/down" keys (▲ · ▼) and the "page up/down" keys (⬆ · ⬇). Press the "OK" key to confirm. Also, you can use the "↔/↵" key to select either TV channel list or Radio channel list.

Press the "menu" key or "exit" key to return to previous menu.

3. A.4 Edit Channel Name

Select the "Edit Channel Name" icon using the "left/right" keys (◀ · ▶). Select the channel that you want to edit from the channel list using the "up/down" keys (▲ · ▼) and the "page up/down" keys (⬆ · ⬇). Press "OK" key to confirm your selection.

Select the character which you want to edit using the browse keys (▲ · ▼, ◀ · ▶). Press "OK" key to confirm. Save the character currently selected using the "F2" key. Also, you can use the "↔/↵" key to select either TV channel list or Radio channel list. Press the "menu" key or "exit" key to return to previous menu.

3. A.5 Sort Channel List

Select the "Sort Channel List" icon using the "left/right" keys (◀ · ▶). Press "OK" key to confirm.

Select the sort type which you want to sort using the "up/down" keys (▲ · ▼). Press the "OK" key to confirm. Also, you can use the "↔/↵" key to select either TV channel list or Radio channel list.

Press the "menu" key or "exit" key to return to previous menu.

3.B. EDIT FAVORITES

You can edit the favorite channel list, such as add/delete a channel or move its position, which facilitates you to easily find your favorite channel from the favorite channel list.

The favorite channel is classified into one of 8 favorite categories depending on its genre.

Select "Edit Favorites" menu in "Channel Organization", and you will be asked to enter your PIN code.

You can find the following "Edit Favorite" screen by entering it.

3. B.1 Add Favorite Channel

You can choose TV channel list or Radio channel list in an alternative way by pressing the "📺/📻" key on the RCU.



key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups. Select the "Add Channel" icon using the "left/right" keys(◀ · ▶). Select a channel that you want to add into the favorite channel list using the "up/down" keys(▲ · ▼) and the "page up/down" keys(⬆ ⬇). Press the "OK" key, and the selected channel will be added to the favorite channel list. Press the "menu" key or "exit" key to return to previous menu.

3. B.2. Delete Favorite Channel

You can choose TV channel list or Radio channel list in an alternative way by pressing the "📺/📻" key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Delete Channel" icon using the "left/right" keys(◀ · ▶).

Select a channel that you want to delete from the favorite channel list using the "up/down" keys(▲ · ▼) and the "page up/down" keys(⬆ ⬇). Press the "OK" key, and the selected channel will disappear from the favorite channel list.

Press the "menu" key or "exit" key to return to previous menu.

3.B.3. Move Favorite Channel

You can choose TV channel list or Radio channel list in an alternative way by pressing the "📺/📻" key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Move Channel" icon using the "left/right" keys(◀ · ▶).

Select a channel that you want to move using the "up/down" keys(▲ · ▼) and the "page up/down" keys(⬆ ⬇). Press "OK" key to confirm your selection. Move it to the position where you want to place it using the "up/down" keys(▲ · ▼) or, and the "page up/down" keys(⬆ ⬇).

Press the "OK" key to confirm.

Press the "menu" key or "exit" key to return to previous menu.

3.B.4. Rename Favorite Group

You can choose TV channel list or Radio channel list in an alternative way by pressing the "📺/📻" key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Rename Favorite Group" icon using the "left/right" keys(◀ · ▶).

Press the "OK" key and select the character which you want to edit using the browse keys(◀ · ▶, ▲ · ▼).

Press the "OK" key to confirm.

Save the character currently renamed using the "F2" key.

Press the "menu" key or "exit" key to return to previous menu.

3.B.5. Sort Channel List

You can choose TV Channel list or Radio channel list in an alternative way by pressing the "📺/📻" key on the RCU.

By pressing "FAV" key on the RCU, you can choose your favorite channel group out of 8 favorite groups.

Select the "Sort Favorite List" icon using the "left/right" keys(◀ · ▶). Press "OK" key to confirm.

Select the sort type which you want to sort using the "up/down" keys(▲ · ▼).

Press the "OK" key to confirm.

Press the "menu" key or "exit" key to return to previous menu.

4. SYSTEM INFORMATION

Distributor supports you useful information and new software for the receiver.

4. A. RECEIVER INFORMATION

This menu displays the information of S/W version.



4. B. RECEIVER UPGRADE

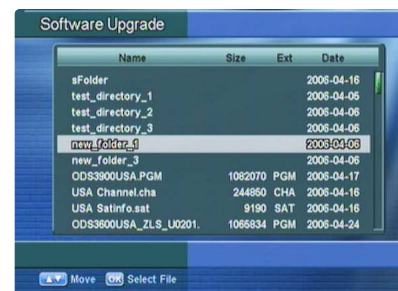
You can upgrade the software of this receiver through serial port or USB port when the new software is released.

Please contact the distributor for receiver upgrade.

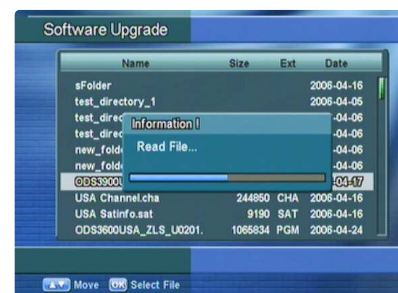
4. B.1. USB



Firmware upgrade using USB flash drive.
Copy the firmware upgrade file to a USB flash drive.
Connect the USB flash drive to USB port in a receiver.
Go to "System Information" then select " Receiver Upgrade" Select USB and press OK button.



Select the firmware upgrade file and press OK.



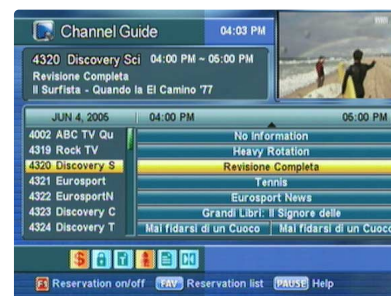
When file transfer is completed, the receiver will be automatically rebooted.

5. GAMES



This menu helps you play game called Tetris. In this game you can choose level from 1 or 9. Once you choose game menu from main menu, you can choose OK to start a game.

7. CHANNEL GUIDE



Press "GUIDE" key, and the following 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.

When you press the "TV/R" key, you can alternatively select TV or radio channel guide.

Press the "menu" key or "exit" key to return to previous menu.

6. 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" key, and the following screen will be displayed. You can get the information of channel number, channel name, and whether the program is scrambled or locked.

To watch a specific channel, first select it by pressing the "up/down" keys (▲, ▼) and the "page up/down" keys (▲, ▼). Then, press "OK" key. This enables you to move into that specific channel.

You can also select a specific satellite using the "SAT" key. When you press the "TV/R" key, you can alternatively select TV or radio channel list. When you press Press the "menu" key or "exit" key to return to previous menu.



When you press "GUIDE" key again, Daily Guide will be displayed. You can see all events for selected channel.

8. AUDIO

Press "AUDIO" key.

Select the audio mode which you want using the "left / right" keys(◀, ▶).

Some programs are broadcasted with one or more alternative language soundtracks.

You can select the preferred audio language for soundtrack using the "up/down" keys (▲, ▼).

9. ZOOM FUNCTION



On the live TV screen or paused TV screen, you can magnify some region of TV screen. Press "F4" key and the ZOOM box will be display. You can use following keys.

- Up/Down/Left/Right keys (▲ · ▼ · ◀ · ▶) : Move the ZOOM box
- Page Up/Page Down keys (▲ · ▼) : Increase or decrease the ZOOM box
- OK key (OK) : Watch the ZOOM box to full screen or return to ZOOM box
- Exit key (EXIT) : Return to the live screen

10. MULTI PICTURE



You can use the Multi-picture Function using F1 key. You can watch four, six or nine pictures at the same time using this function. And select the number of pictures using (▲, ▼) keys and press OK. After that, you can see the Multi-Picture Screen. Also you can select the channel using (◀, ▶, ▲, ▼) keys and OK key in the Multi-picture Screen. The channel of your selection is only live signal when you selected one channel of the several channels. The channels of which is not selected are just the pictures.



4 Picture



6 Picture



9 Picture

11. COLOR SETTING MENU



You can adjust the color setting to take the enhanced TV screen. Press "COLOR (F2 , TEXT)" key then below screen will display.

Mode	: You can select this to "Default" or "User" When "Mode" is "User", you can change each color value.
Brightness Contrast Saturation Sharpness	: If your receiver connected to TV by using "VIDEO" or "S-VIDEO" Connector, these items will change the color setting of TV screen.
M_B_Y M_G_U M_R_V	: If your receiver connected to TV by using "Component cable" "(Y-Pb-Pr)", these three items will change the color setting of TV screen. These options are for XTREME model only.

8. TROUBLE SHOOTING

Problem	Solution
About the Receiver	
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. - Check if the receiver is in standby mode.
No pictures on the screen	<ul style="list-style-type: none"> - 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 "MUTE" key.
Remote Control does not operate	<ul style="list-style-type: none"> - Point remote control directly towards the receiver. - Check and replace Alkaline batteries.
Poor picture quality	<ul style="list-style-type: none"> - Check the signal strength in the "Antenna Setup" menu. - If this is low, try adjusting the alignment of your dish.
On - Screen Error Messages	
Searching Signal	<ul style="list-style-type: none"> - Connect the antenna cable properly. - Check the LNB. Please replace LNB if necessary. - Check the position of the dish. Please realign dish if necessary. - Check the signal strength in the "Antenna Setup" menu.
Unrecognized smartcard	<ul style="list-style-type: none"> - Check the smartcard.
Please insert your smartcard	<ul style="list-style-type: none"> - Insert the smartcard.

9. TECHNICAL SPECIFICATIONS

1. Power Supply

Type	: SMPS
Input Voltage	: AC 95V~240V 50Hz / 60Hz
Fuse Rating	: 250V/T2A

2. Tuner

Input Frequency	: 950~2150MHz
Input Signal Level	: -65~-25dBm
Input Impedance	: 75Ω Unbalanced
Connector Type	: 'F' Type Female
LNB Power Supply	: 13V/18V, Max 500mA with Short Circuit Protection
22KHz Tone	: Frequency 22 ± 4 KHz, Amplitude 0.6 ± 0.2 Vpp
DiSEqC	: 1.0 & 1.2 Version Compatible
Channel Selection	: PLL Frequency Synthesizer

3. Demodulator

Type	: QPSK Demodulation(DVB-S)
Symbol Rate	: 1~45 MS/s
Inner FEC	: Viterbi Convolutional Coding Rate 1/2, 2/3, 3/4, 5/6, 7/8
Outer FEC	: Reed Solomon Coding(204,188) T=8

4. Video Decoder

System Decoding	: MPEG-2 ISO/IEC 13818-2
Profile and Level	: MPEG-2 MP@ML
Data Rate	: 1~15 MB/s
Video Formats	: 4:3(Normal) & 16:9(Widescreen)

5. Audio Decoder

System Decoding	: MPEG-1 ISO/IEC 11172-3 Layer I & II
Audio Mode	: Mono, Dual, Stereo, Joint Stereo
Sampling Frequency	: 32, 44.1, 48 KHz

6. Audio/Video Output

Audio Output	: 2 × RCA Cinch
Video Output	: 1 × RCA Cinch
Digital Audio	: 1 × S/PDIF (Optical)
S-Video	: 1 × S-VIDEO
COMPONENT	: 3 × RCA Cinch

7. RF Modulator

Modulator Output	: CH3~4
Video Type	: NTSC
Output Connector	: "F" Type Female
Ant. IN Connector	: "F" Type Female

8. Serial Data Interface

Signal	: RS-232, Max. 115200 bps
Connector Type	: 9 Pin D-Sub(male)

9. USB Interface

USB	: USB Host Port
Data rate	: 12M bps

10. Embedded Descramble

X Crypt Conditional Access System

10. PRORAMING THE REMOTE CONTROL

Programing The Remote Control

There are two ways to program the remote control; Automatic Code Search or Direct Entry

Using Automatic Code Search

1. Turn on the component you want to control (**TV**, **VCR** or **DVD**)
2. Press and hold the component key you want to program. Holding the component key until the LED on the remote control turns on, then release the key.
3. Point the remote at the component, press and release the **UP** (▲) button, then wait three seconds or until the LED stops flashing.

At this point the remote control is searching for the correct code to program. If, after three seconds, the component you want to control does not turn off, press and release **UP** (▲) button again to tell the remote to search the next set of codes.

Continue pressing and releasing **UP** (▲) button until the component turns off.

4. If the component you want to control **does** turn **off**;
Press and release **OK** button, then the LED blinks three times.

Using Direct Entry Method

1. Turn on the component you want to control (**TV**, **VCR** or **DVD**)
2. Locate the enclosed Code List. Find your brand of the component you want to control.
3. Press and hold the component key you want to program. Holding the component key until the LED on the remote control turns on, then release the key.
4. Enter 3-digit code from the code list, then the LED blinks three times.
5. If you get no response, repeat these steps using the next code listed for your brand until the component responds to the remote control command.

Changing Volume Lock

Locking the volume controls to a single device makes it easier to control volume, without having to guess whether the volume will change. If you lock the remote's volume controls to the TV (for example), you will always be able to change the volume to the level you want, without having to adjust it on multiple devices.

If you want to lock the volume for the DVD component;

1. Press and hold the DVD component key until the LED on the remote control turns on.
2. Enter 3-digit code, **9 9 9**.
3. Press and release the DVD component key, then the LED blinks three times.

Unlocking volume control ;

If you want to unlock the volume for the DVD component;

1. Press and hold the DVD component key until the LED on the remote control turns on.
2. Enter 3-digit code, **9 9 9**.
3. Press and release the DVD component key, then the LED blinks three times.

STB Power Macro

It realizes users to switch on/off both STB & TV simultaneously, to relieve extra efforts with adjusting device key on the RCU.

If you want to lock the power macro function;

1. Press and hold the STB component key until the LED on the remote control turns on.
2. Enter 3-digit code, **8 8 8**.
3. Press and release the STB component key, then the LED blinks three times.

Unlocking power macro function ;

If you want to unlock the power macro function;

1. Press and hold the STB component key until the LED on the remote control turns on.

Brand List for TV

A Mark	151				
Abex	130				
Admiral	013	131	166		
Aiko	009				
Akai	014				
Alleron	056				
Amtron	030				
Anam National	015	030			
AOC	016	017	018	019	140
	141	169			
Apex	181				
Audiovox	030				
Belcor	016				
Bell & Howell	013	042	058		
Broksonic	016	182			
Brokwood	016				
Candle	016				
Carver	012				
Celebrity	014				
Citizen	009	010	016	018	030
	042	096	139	173	
Colortyme	011	016	018		
Concerto	016				
Contec / Cony	005	006	007	030	
Coronado	151				
Craig	030				
Crosley	012				
Crown	030				
Curtis Mathes	008	012	016	018	042
	045	058	096	139	172
	173				
Daewoo	000	001	009	016	017
	018	116	139	151	167
	016	018	139		
Daytron	045				
Dimensia	016	125			
Dumont	016				
Dynatech	016				
Electroband	014				
Electrohome	002	003	014	015	016
	018				
Emerson	004	005	016	018	020
	021	022	023	024	025
	026	027	028	029	030
	031	032	033	034	035
	036	037	038	039	042
	056	058	114	139	142
	143	151	167	178	
Envision	016	018			
Fisher	042	057	058	059	144
Fujitsu	056				
Funai	030	056			
GE	003	015	016	018	045
	060	061	062	078	132
	147	148	149	174	
Gilbralter	016				
Grundig	056				
Hallmark	016	018			
Hitachi	005	006	007	016	018
	067	068	069	100	101
	102	103	104	105	106
	107	108	109	119	123
	124	143	151	161	171
	179				

2. Enter 3-digit code, **8 8 8**.

3. Press and release the STB component key, then the LED blinks three times.

Infinity 012
JBL 012

JC Penney	003	006	010	016	017	Radio Shack / Realistic	005	016	018	030	042
	018	041	045	055	060		045	058	075	130	139
	061	064	078	095	096	RCA	002	015	016	017	018
	117	130	132	139			019	045	090	091	092
Jensen	016	018					093	094	099	118	132
JVC	005	006	007	046	047		135	136	143	153	162
	048	061	068	128	129		167	172	176	180	
	133	158	178			Realistic	042	058			
Kawasho	014	016	018			Runco	125				
KEC	151					Sampo	016	018	130	139	
Kenwood	002	016	018			Samsung	000	002	005	008	016
Kloss Novabeam	030	049	065				017	018	095	096	097
KMC	151						130	139	151	163	
KTV	030	066	139	142		Sansui	168				
LG(Goldstar)	002	005	016	017	018	Sanyo	016	042	053	057	058
	055	063	064	120	127		085	098	137	144	
	130	139	151			Scott	005	016	018	021	030
Logik	013						032	056			
Luxman	016	018				Sears	002	006	007	012	016
LXI	012	018	040	041	042		018	040	041	042	045
	045	058	132				047	056	057	058	059
Magnavox	002	010	012	016	018		086	087	132	144	151
	043	044	049	050	065		160				
	079	110	111	112	151	Sharp	005	016	018	023	026
Majestic	013						075	080	088	089	113
Marantz	012	016	018	051	067		131	139	151		
Megatron	018	067				Shogun	016				
Memorex	013	017	018	042	056	Signature	013				
	058					Sony	014	150	157	159	164
MGA	002	003	016	017	018		170	177			
	052	053	059			Soundesign	010	016	018	030	056
Midland	130					SSS	016				
Mitsubishi	002	003	016	017	018	Starlite	030				
	052	053	054	059	115	Sylvania	002	010	012	016	018
Montgomery Ward	013						043	044	049	050	065
Motorola	015	131					079	081	146		
MTC	016	017	018	096		Symphonic	020	030	056	160	
Multitech	030					Tandy	131				
Multivision	076					Tashiko	041				
NAD	018	040	041	134	171	Tatung	015				
NEC	011	015	016	017	018	Technics	061				
Nikko	009	018				Techwood	016	018	061		
Onwa	030					Teknika	005	006	007	009	010
Optimus	134	171					012	013	016	017	018
Optonica	075	131					030	044	056	096	138
Orion	032	168					139	151	175		
Panasonic	015	061	138	152	175	Telecaption	082				
Philco	002	005	010	012	015	Tera	016				
	016	017	018	043	049	Thomson	154				
	050	065	151			TMK	016				
Philips	002	005	010	012	015	Toshiba	040	041	042	058	082
	016	043	049	065	070		083	086	096	145	146
	077	078	079	151			155	156	183		
Pilot	016					Totevision	139				
Pioneer	016	018	071	072	134	Universal	060	078			
	143	171				Vidikron	012				
Portland	009	016	017	018	139	Vidtech	016				
	151					Wards	002	012	013	016	017
Price Club	096						018	020	021	043	044
Prism	061						045	049	056	060	065
Proscan	045	132					075	078	079	084	151
Proton	005	016	018	073		Yamaha	002	016	017	018	
Pulsar	016					Zenith	013	016	121	122	125
Quasar	015	061	066	074	175		126	165			
Radio Shack	042	058									

Brand List for AUX

- PVR/DVR -

AT&T	009
PANASONIC	009
PHILIPS	001 002 004
RCA	010
Sonic Blue	009
SONY	003 006
TIVO	002 003 004 005 006
TOSHIBA	005

- CD -

ADC	013
AIWA	018
AKAI	014
EMERSON	019
FISHER	020
GE	016
HITACHI	021
JVC	022
KENWOOD	023
MARANTZ	025
MITSUBISHI	017
NAKAMICHI	034
NEC	024
ONKYO	026
PANASONIC	027
PIONEER	028
RCA	029
SEARS	015
SHERWOOD	035
SONY	030
TECHNICS	031
TOSHIBA	033
YAMAHA	032

- Receiver/AMP/Tuner -

AIWA	058	059	060	061	062
	072	078			
CARVER	058				
Harman Kardon	058	071			
JBL	071				
JVC	063				
KENWOOD	064				
LINN	058				
MAGNAVOX	058				
MARANTZ	058				
ONKYO	073				
PANASONIC	074	075			
PHILIPS	058				
PIONEER	070				
RCA	065				
SANSUI	058				
SHERWOOD	077				
SONY	066	067	076		
TECHNICS	074	075			
WARDS	058	070			
YAMAHA	068	069	070		
Cool Sat	007				
ECHOSTAR	000				
PANSAT	008				
Replay TV	009				

Brand List for DVD

- CABLE -

ABC 046 052
 Colour Voice 039 054
 DISHNET 046
 ECHOSTAR 051
 GE 042 047 049
 GEMINI 046
 General Instrument 047
 HITACHI 047
 JERROLD 046 047
 MOTOROLA 046 051
 PHILIPS 040 054
 PIONEER 048 055
 PROSCAN 043 048 050
 RCA 044 051
 SAMSUNG 055
 Scientific Atlanta 036 038 041 045 052
 053 056
 SIGNATURE 048
 STARCOM 046
 STARGATE 046
 TOCOM 053
 ZENITH 037 057

Aiwa 000 019
 Allegro 099 100
 Alpine 001
 Apex 004 006 008 009
 Blaupunkt 003 041
 Bose 093
 Broksonic 007 101
 Clarion 022
 Classic 023
 Daewoo 010
 Denon 005 011 036 037
 Emerson 038 039
 Fisher 040
 Funai 039
 GE 002 041 048
 Go Video 094 100
 GPX 049
 Hitachi 018 042 043 050 051
 JVC 014 029 032 095
 Kenwood 033
 Konka 017 024
 Magnavox 026 034
 Memorex 035
 Mintek 044
 Mitsubishi 015
 NAD 038
 Nakamichi 045
 Norcent 046 047
 Onkyo 052
 Oritron 081
 Panasonic 025 053 054 055 059
 060 061
 Philips 026 031 056
 Pioneer 016 057 058 077 078
 Proscan 002 079
 Qwestar 080 081
 RCA 002 003 067 092 096
 Sampo 068
 Samsung 069 070 071 097
 Sansui 072
 Sanyo 020 073 098
 Sharp 074 075
 Sherwood 076
 Sony 012 021 027 062 063
 064 065 066
 Sylvania 039
 Teac 084
 Technics 085
 Techwood 086
 Toshiba 013 028 087 088 089
 102
 Yamaha 082 090 091
 Zenith 030 083 099

11. WARRANTY CARD



Viewtech Inc. Return Merchandise Authorization Form

In order to return defective product for repair or replacement, this form must be filled out completely and included with your return. Any product returned without this completed form will be shipped back at the customer's expense.

RMA# _____ *You will need to call Tech Support to get this number.

Name _____

Address _____

Phone _____

E-mail _____

Item Returned _____ Purchase Date _____

Product Serial # (s) _____

Company Purchased From _____

Address _____

Website Purchased From _____

Conditions and terms:

- The Viewsat warranty is valid for a period of one year from the date of purchase.
- Product must have official Viewsat factory firmware only (No 3rd Party firmware). Copy of receipt showing date of purchase and company purchased from must be included with return.
- Proper packaging must be used to prevent further damage to unit.
- If product is damaged due to user error, warranty is void. Damage caused by lightning, water, fire, acts of war, public disturbances, incorrect ventilation or any other cause beyond the control of the distributor are not covered under warranty.
- Products where label bearing the serial number has been removed, defaced, or is illegible are not covered under warranty.
- Illegal copies, counterfeits, or clones of our product will not be covered under warranty and product may be seized and used as evidence in legal action against seller.
- If product does not meet warranty requirements, customer agrees to pay \$25 to have product shipped back.
- If Viewtech agrees to repair a unit that is not covered under warranty, there will be a \$50 service charge.

Customer must sign here. _____

By signing, customer agrees to all of the above terms and conditions.

