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USER'S MANUAL
VS PRO

VIEWSAT

VS PRO **VIEWSAT**

VIEWSAT

Table of Contents

* To enhance the product, functions are subject to change without notice.
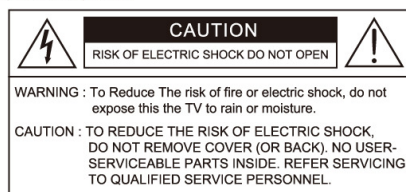
Important Safety Instruction

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 manufactureris 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 safely. 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

| CAUTION |
| RISK OF ELECTRIC SHOCK DO NOT OPEN |

Explanation of Safety Related Symbols

| CAUTION |
| RISK OF ELECTRIC SHOCK DO NOT OPEN |

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

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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.

The main socket-outlet for connecting mains plug shall be accessibly close to this apparatus

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 difference 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.

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

LOCATION : Locate the receiver indoor. Locate receiver away from potential hazards such as houseplants, lightning, rain, 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 the receiver, disconnect it 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.

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

LIGHTNING : If the receiver is installed in an area subject to intense lightning activity, protection devices for the receivers main 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 lightning storms.

1.1. ACCESSORIES

Check the following accessories when you open the box.

User's manual	**RCU**	**Batteries**
Serial cable	**DiSEqC S/W**	**RCA cable**

The device, packing material, and batteries should be disposed of properly.

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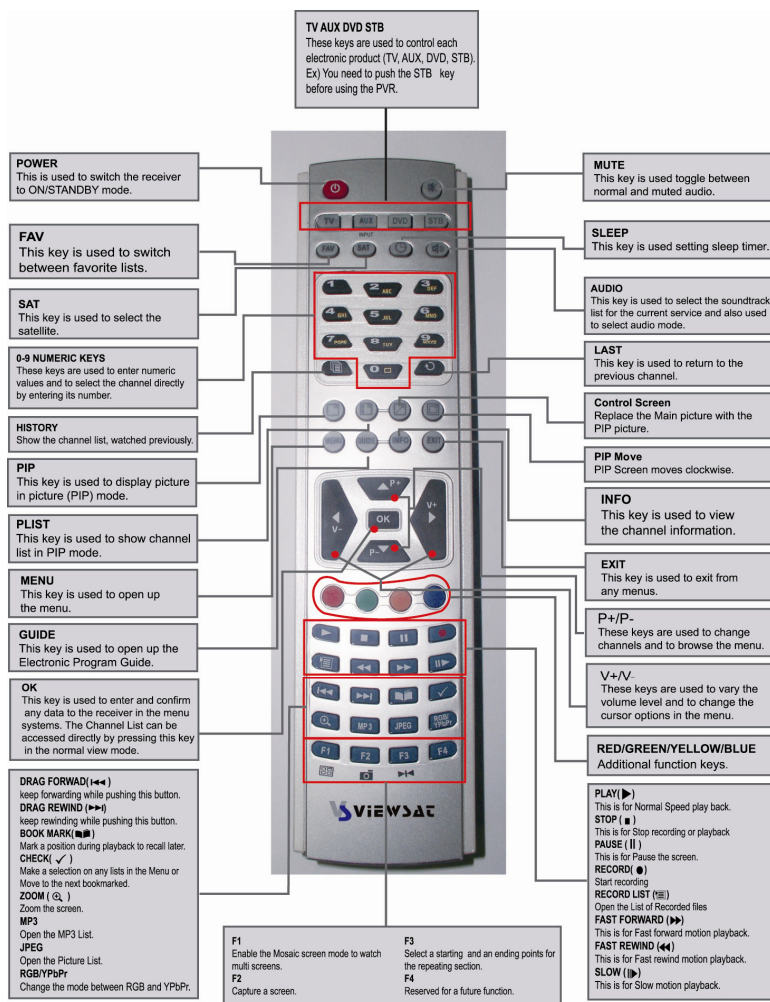
2. HARDWARE DESCRIPTION

2.1. 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) MENU : This key is used to open up the menu.

5) OK : This key is used to enter and confirm any data to the receiver in the menu systems.

6) INFRARED SENSOR : This is to receive the IR commands from the RCU. Do not block the view of the sensor.

7) DISPLAY : This display will show the current channel number(* Channel name) . While the receiver is in standby mode, the display will show the current time.
(* available for VFD model only)

8) USB HOST PORT: This is used to connect your USB Device to your receiver**.**
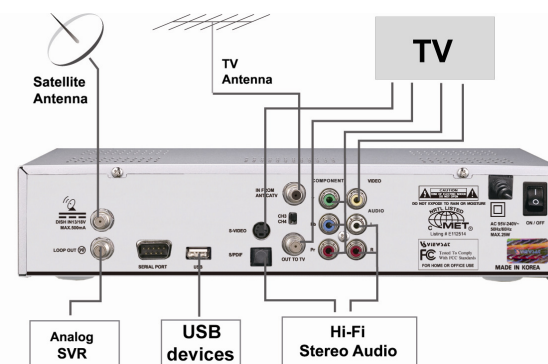 (Either front side USB port or rear side must be selected in the menu.)

2.2. 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 LNB IN port of the other receiver via RF Cable.

3) SERIAL PORT: Connect your receiver to a computer with a serial cable. This port can be used for upgrading software.

4) USB HOST PORT: This is used to connect your USB Device to your receiver.
 (Either front side USB port or rear side must be selected in the menu.)

5) S-VIDEO: Connect to your TV with a S-Video cable.

6) S/PDIF DIGITAL OUTPUT: This port is for the connection to the external Hi-Fi system which has an optical S/PDIF input interface **(Option)**.

7) IN FROM ANT/**CATV :** Connect your RF channels to your TV through Loop **(Option)**.

8) CH 3, 4 : The switch select RF 3, 4 channel number.

9) OUT TO TV: Connect to your TV with RF cable **(Option)**.

10) VIDEO, AUDIO R/L, COMPONENT(Y, Pb, Pr): These RCA connectors are used to connect any external video and audio.

11) POWER INPUT: This is the AC main power cord. The input AC volts range is 95V to 240V, 50Hz/60Hz supply.

12) POWER SWITCH: This is a switch to turn on and off the AC main power.

2.3. REMOTE CONTROL UNIT

TV AUX DVD STB
These keys are used to control each electronic product (TV, AUX, DVD, STB). Ex) You need to push the STB key before using the PVR.

POWER
This is used to switch the receiver to ON/STANDBY mode.

FAV
This key is used to switch between favorite lists.

SAT
This key is used to select the satellite.

0-9 NUMERIC KEYS
These keys are used to enter numeric values and to select the channel directly by entering its number.

HISTORY
Show the channel list, watched previously.

PIP
This key is used to display picture in picture (PIP) mode.

PLIST
This key is used to show channel list in PIP mode.

MENU
This key is used to open up the menu.

GUIDE
This key is used to open up the Electronic Program Guide.

OK
This key is used to enter and confirm any data to the receiver in the menu systems. The Channel List can be accessed directly by pressing this key in the normal view mode.

DRAG FORWAD(◄◄)
keep forwarding while pushing this button.
DRAG REWIND (►►I)
keep rewinding while pushing this button.
BOOK MARK(■I)
Mark a position during playback to recall later.
CHECK(✓)
Make a selection on any lists in the Menu or Move to the next bookmarked.
ZOOM (⊕)
Zoom the screen.
MP3
Open the MP3 List.
JPEG
Open the Picture List.
RGB/YPbPr
Change the mode between RGB and YPbPr.

MUTE
This key is used toggle between normal and muted audio.

SLEEP
This key is used setting sleep timer.

AUDIO
This key is used to select the soundtrack list for the current service and also used to select audio mode.

LAST
This key is used to return to the previous channel.

Control Screen
Replace the Main picture with the PIP picture.

PIP Move
PIP Screen moves clockwise.

INFO
This key is used to view the channel information.

EXIT
This key is used to exit from any menus.

P+/P-
These keys are used to change channels and to browse the menu.

V+/V-
These keys are used to vary the volume level and to change the cursor options in the menu.

RED/GREEN/YELLOW/BLUE
Additional function keys.

PLAY(►)
This is for Normal Speed play back.
STOP (■)
This is for Stop recording or playback
PAUSE (II)
This is for Pause the screen.
RECORD(●)
Start recording
RECORD LIST (▤)
Open the List of Recorded files
FAST FORWARD (►►)
This is for Fast forward motion playback.
FAST REWIND (◄◄)
This is for Fast rewind motion playback.
SLOW (II►)
This is for Slow motion playback.

F1
Enable the Mosaic screen mode to watch multi screens.
F2
Capture a screen.
F3
Select a starting and an ending points for the repeating section.
F4
Reserved for a future function.

VIEWSAT

3. HOW TO CONNECT YOUR RECEIVER

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

Satellite Antenna | TV Antenna | **TV**

Analog SVR | USB devices | Hi-Fi Stereo Audio

3.1. LOCATION OF THE RECEIVER
Your receiver should be placed under proper ventilation.
Do not place the unit in enclosed cabinets 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 top of the receiver.
The location should be safely accessible by the cable.

3.2. CONNECTING TO THE ANTENNA
After installing your Antenna system, connect the coaxial cable from LNB of your 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 cable over connectors.
The cable should be 75Ω impedance coaxial twisted at the end with an "F" type connector.

3.3. CONNECTING TO EXTERNAL DEVICES
 1) CONNECTING TO THE TV
   After installing your antenna system, connect the coaxial cable.
   To connect the receiver with your television, you can follow methods;
   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.
 2) CONNECTING EXTERNAL Hi-Fi AUDIO SYSTEM
   To connect any external Audio Hi-Fi system, the receiver is provided with two RCA connectors at the back of the receiver, marked with "L" and "R" respectively to connect the left and right audio.
 3) CONNECTING TO THE OTHER SATELLITE RECEIVER
   Connect the satellite antenna cable to the "DISH IN" socket on the receiver. With other connector, connect the "LOOP OUT" socket on the receiver to the "DISH IN" socket of the other receiver.

4. SYSTEM SET- UP

4.1. INSTALLATION WIZARD

When powering on your receiver for the first time, the installation Wizard will starts automatically.
Please follow the installation wizard. This will assist you to complete the set-up process. Without this process, the receiver will not work properly.

* Press the MENU key to return to the previous menu, while running the Installation Wizard.

4.1.1. Select Language

Select a language by using the left/right keys (◄•►) and up/down keys (▲·▼).
Press OK key to save the selected language as a default language.
This will also change the language for the menu.

* Yellow: Reset to settings from Factory
* Blue: Checking Receiver version

4.1.2. Time Setting

Set Mode, Date, GMT Offset, Time and Daylight-saving by using the left/right keys (◄•►) and up/down keys (▲·▼).

* Green: Go to the Next Step

4.1.3. Select Satellite

Select the appropriate Satellites from the list by using the up/down keys (▲·▼) and ok key.

* Green: Go to the Next Step
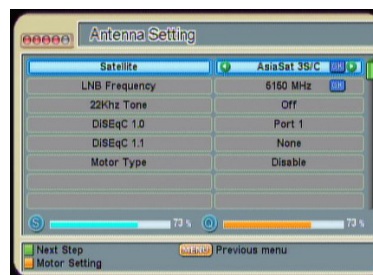
4.1.4. Antenna Setting

Set up the configurations on each satellites by using the left/right (◄•►) and up/down keys (▲·▼).
OK key will guide you to a list of options or the sub-menu.
After the configuration, move to the Channel Search menu by pushing the green key or select the channel search button.

(For the specific information, refer to the **7.2.INSTALLATION**).

* Green: Go to the Next Step
* Yellow: Motor Setting
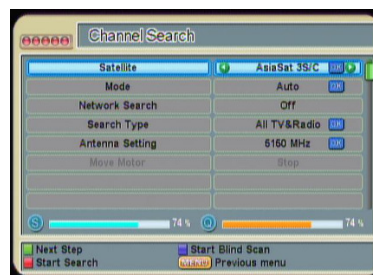
4.1.5. Channel Search

Select a mode; Auto, Manual or Advanced by using the left/right (◄•►) and up/down keys (▲·▼).
(Recommendation: Auto).
After the configuration, push the red key.

(For the specific information, refer to the **7.2. INSTALLATION**).

* Green: Go to the Next Step
* Blue : Start Blind Scan.

5. QUICK GUIDE TO MAJOR FUNCTIONS

USB Host

This product has two USB Host ports. With this port, you can connect external device. This connection will provides you with many different features. (Connection for HDD, Memory Stick, or Digital Camera)
Formatting should be done first in order to record and capture.
Please refer to
▶ **8.11 How to use USB(External storage)**

Recording

This product, with external storage installed, enables you to record desired programs to watch them for later. For simple recording or reserved recoding, please refer to
▶ **9.2 Quick Record** & **9.3 Reservation Record**

Time Shift

Time Shift is a very useful function in case you have to leave TV for a while but do not want to miss a live program. Simply push PAUSE before you leave, and push PLAYBACK after. Then you will be able to continue watching the live program. Please refer to
▶ **9.1 Time Shift**

PIP (Picture in Picture)

You can watch Two or Three programs at the same time. The possible combinations are;
  - Live + Live + Live : Same screen
  - Playback + Live + Live : Same screen
Please refer to
▶ **8.7 PIP (Picture in Picture)**

Useful Tips

A. Information Box
  Please try to familiarize yourself with the Information Box. It provides helpful tools and is also a way to control functions. Please refer to
    ▶ **8.1 Information Box**
B. Image Viewer
  You can watch pictures from your camera or storage. (JPEG files only). It also enables to capture image shots of a live program and watch them later. Please refer to
    ▶ **7.4.3 Picture List** & **7.4.4 Capture List**
C. MP3 Player
  To listen to music, push the MP3 Key on the Remote(RCU).
  Please refer to
    ▶ **7.4.2 MP3 List**
D. Sleep / wake up
  You can set a timer to turn on or off the receiver at a certain time. Please refer to
    ▶ **7.3.3 Timer List & 8.5 Sleep Mode**

6. MENU STRUCTURE

Main Menu

- **Edit Channels**
  - Edit Channel List
  - Edit Favorite Channels
- **Installation**
  - Select Satellite
  - Antenna Setting
  - Channel Search
  - LNB Power
  - Motor Setting
  - Edit TP List
  - Update Software
  - Factory default
- **Preferences**
  - Language Setting
  - Time Setting
  - Timer List
  - Parental Control
  - A/V Control
  - OSD Setting
- **Record**
  - Recorded Program
  - MP3 List
  - Picture List
  - Capture List
  - PVR Configuration
  - Hard Disk Information
  - Hard Disk Format
  - File Manager
  - USB Device Safe Remove
  - USB Port Select
- **Status**
  - Product Information
  - Calender
- **Entertainment**
  - Tetris
  - Sokoban

7. MENU OPERATION

7.1. EDIT CHANNELS

Select the Edit channels menu by using the left/right keys(◄·►).

Move into the desired submenu by using the up/down (▲·▼) and Ok key.
Press the MENU key to return to previous menu.
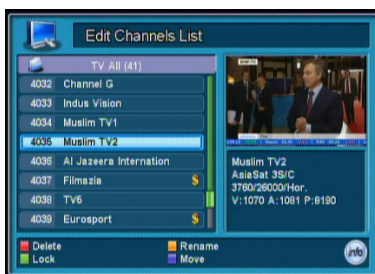
7.1.1. Edit Channels List

Select **Edit Channels List** menu in **Edit Channels** menu.

Entering into the Edit channel list, a PIN code may be required. The factory default PIN code is "0000".

Edit channels; delete, lock a channel, or edit the name of a channel etc.

To change between TV and Radio Channel lists, push the 🔘 Key.

* Red: Delete channel
* Green: Lock / Unlock channel by PIN code
  Once a channel is locked, every time you try to watch the program, you will be asked to enter PIN code.
* Yellow: Rename a channel
  It will show the keyboard, you can set a new channel name by using it.
* Blue: Change the position of the selected channel to an another position

* (INFO) key will pop up a menu for Sort, Skip
  Sort : Channels will be sorted by specific order.
  Skip: A skipped channel will be marked as grey and passed while changing channels.

7.1.2. Edit Favorite Channels

Select **Edit Favorite Channels** menu in **Edit Channels** menu

Entering this menu, a PIN code may be required. The factory default PIN code is "0000".

Edit a favorite channel list by adding or deleting channels.

The left list shows all available channels. The right list shows the channels in a favorite list.

8 favorite lists can be generated as Favorite1 to Favorite 8.
To change between TV and Radio Channel lists, push the 🔘 Key.

[Adding channels to a Favorite list]
- Point the cursor on the all channel list by using the Red key
- Push the Green key to add them to a favorite list

※ Tip :
- Adding a channel to several favorite lists :
  Use (FAV) key to select several favorite lists with OK key.
- Changing Favorite channel lists to be edited :
  Use the left/right keys (◄·►), pointing the cursor on the favorite list.

[Deleting an channel from a Favorite list]
- Point the cursor on the favorite channel list by using the Red key
- Select desired channels and push the Green key to delete from a favorite list

[Other functions]
- Sort : Sort the list by Alphabetical order
- Rename Group: Rename a Favorite channel list by using the pop-up keyboard

7.2. INSTALLATION

Installation menu helps you to setup a variety of parameters necessary for receiving signal, and reset the channel data, etc.

When you select each submenu in **Installation** menu you may be asked to enter your PIN code.

You can use submenus by entering it.

Push the MENU key to save it and return to previous menu.

7.2.1. Select Satellite

Select **Select Satellite** menu in **Installation** menu.
Your receiver is provided with preprogrammed information of transponders for various satellites.
Select desired satellites to activate by using the up/down keys (▲·▼) and OK key.

To deactivate satellites, push OK key again on the selected satellite.

* Blue : Add new name of satellite
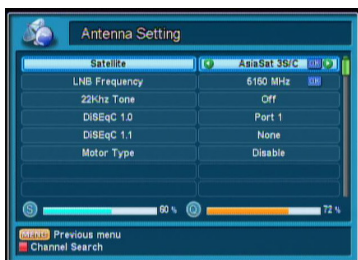
7.2.2. Antenna Setting

Select **Antenna Setting** menu in **Installation** menu.

Adjust the parameter at each submenu by using the up/down (▲·▼) and the left/right keys(◄·►) with checking the Quality and Signal strength.
※ When OK icon available, push the OK key to open the option list.

After setting up all parameters, push Red key to go to next step.
※ Refer to the following description for each parameter.

Satellite	: Select a Satellite to setup
LNB Frequency	: Select a LNB Frequency.
22 KHz Tone	: Turn on or off the 22KHz Tone out.
DiSEqC 1.0 & DiSEqC 1.1	: Using DiSEqC 1.0 or 1.1 select a port number. Otherwise, select None
Motor Type	: Select either 1.2 / USALS / Disable

7.2.3. Channel Search
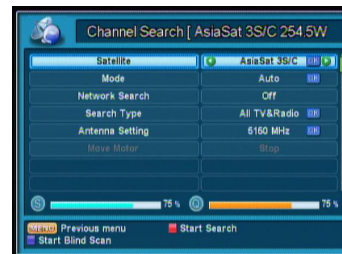
Select **Channel Search** menu in **Installation**. Adjust the parameters at each sub menu by using the up/down (▲·▼) and the left/right keys(◄·►) with checking the Quality and Signal strength.

After setting up all parameters, push Red key to start searching channels
※ Caution: In case Signal and Quality bar is colored in Grey, check the antenna connection and parameters.

*Blue: Start Blind Scan
: Blind Scan search the channel when you don't know the transponder information. That scan procedure may take a few minutes.

Mode	: Auto – All TPs to be searched (recommended). Manual – A specific TP to be searched.
Network Search	: Setting this on, unknown or new TPs to be searched.
Search Type	: Select kinds of channels to be searched.
Move Motor	: drive your motor with checking the signal strength.

Channel Search [AsiaSat 3S/C]
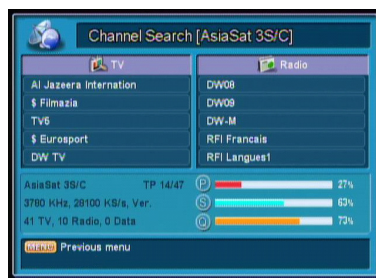
The channel searching process takes a few minutes.
It shows the searched TV channels on the left and Radio channels on the right.

When the Progress bar reaches 100%, searching process is done.

Push OK key to save and exit.

※ Tip : Exit key finishes searching anytime with saving channel info searched by that time.

7.2.4. LNB Power
Select **LNB Power** menu in **Installation** menu.

Set LNB Power ON or OFF
 (Available only for Splitter LNB)
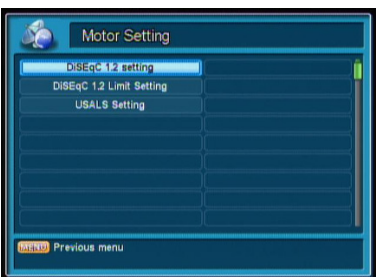
7.2.5. Motor Setting
Select **Motor Setting** menu in **Installation** menu.

If you have a DiSEqC 1.2 or USALS motorized system, then you can take advantage of the Motor control function.

You can drive your motor by using this menu. Adjust antenna direction using the left/right keys(◄►) with checking the signal strength.

Move Motor	: Move to East or West direction while pushing the left or right key.
Recalculation	: Apply the calibrated value to all Satellites.
East / West limit	: Set the limit position.
Save current limit	: Store the current position of the motor for the selected satellite.
Remove current limits	: Remove the previous limit information.
Motor central position	: Move to center.
1.3(USALS) only	
My Longitude	: Input a value of longitude by numeric keys and set West or East by the left/right keys(◄·►).
My Latitude	: Input a value of longitude by numeric keys and set West or East by the left/right keys(◄·►).
Goto the Position	: Move the motor to the position as the input value.
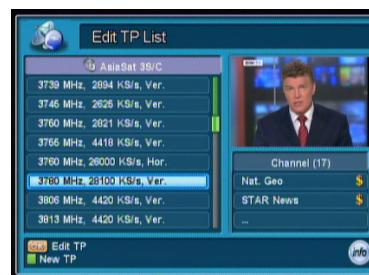
7.2.6. Edit TP List
Select **Edit TP List** menu in **Installation** menu.
You can select a satellite and edit the TP of that.
Select a TP by using the up/down keys (▲·▼) and push OK key.
Edit the TP data by using numeric keys.

* Green: Add New TP
* (info) key will pop up a menu for selecting satellite.
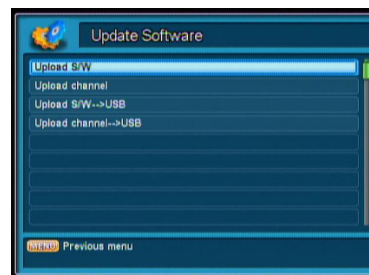
7.2.7. Update Software

You can upload your software and channel data from Receiver to PC or USB memory through a serial cable or a USB cable.

Please contact the distributor. They will provide you with useful information about this.

7.2.8. Factory default
Select Factory default menu in **Installation**

This is to initialize back to the factory default, in case of any problems after changing values of channel data and others.

For the factory default, select Yes and push Ok key. This process may take a few seconds.

7.3. PREFERENCES

Preferences menu helps you to set up Language, Time, Timer List, Parental Control, A/V Control, and OSD Setting. Push the MENU key to save and return to the previous menu.

7.3.1. Language Setting
Select **Language Setting** menu in the **Preferences menu**.
This menu helps you to set up Menu Language, Audio Language, Closed Caption.

Menu Language	: Choose a language for the menu.
Audio Language	: Choose a language for the primary Audio. If several audio languages are available on a certain event, this language shall be used as default.
Secondary Audio Language	: Choose a language for the secondary Audio.
Closed Caption	: Enable or disable the Closed Caption

7.3.2. Time Setting

Select **Time Settings** menu in the **Preference** menu.

Adjust the date and time.
Push the MENU key to return to the previous menu.

Time Setting	
Mode	Manual
Date	13/06/2007
GMT Offset	GMT+00:00
Time	12:00pm
Summer Time	Off

Previous menu

Mode	: Auto – Time will be set by broadcasting information.
	Manual – Set time manually.
Date	: The current date is indicated.
GMT Offset	: Set the time offset from the UTC (GMT).
Time	: The current time is indicated.
Summer time	: Enable or disable the summer time

7.3.3. Timer List

Select **Timer List** menu in **Preferences** menu.
This menu helps you to set sleep and wake up time or reserve a recording.
Push OK key to edit a reservation. In the submenu, set a reservation and push the red key to save.
Once, Daily, or Weekly options are available.

(**Please refer to the 9.3.1. Reservation record in Timer List**).

* Green : add a reservation
* Red: Delete a scheduled timer
* Yellow: Delete all timers

Timer List		
Timer List (3)		
1	DW TV	08:43 08/06/2007
2	DW TV	19:44 10/06/2007
3	Sleep	21:46 08/06/2007

Edit Timer   Add
Delete   Delete all

7.3.4. Parental Control

Select **Parental Control** menu in **Preferences** menu.
This menu helps you to set the age limit, change PIN code, lock menu and channels by using the up/down keys (▲·▼) and the left/right keys(◄·►).

PIN code shall be asked;
- on the menu, or channel which is locked.
- on the event that maturity rating is above the age limit.

Parental Control	
Age Limit	None
Change PIN Code	
Access Control	

Previous menu

Age Limit	: Set a limit of age to allow watching.
Change PIN Code	: Set a new PIN code.
Access Control	: Lock / unlock each menu or Enable / disable the channel lock function.
	To lock a channel, go to the Edit Channels List menu.

7.3.5. A/V Control

Select **A/V Control** menu in **Preferences** menu.
This menu helps you to control the characteristics of Audio and Video.

A/V Control	
TV Standard	NTSC
Screen Ratio	16:9
Digital Dolby	Off
Adjust Video	

Previous menu

TV Standard	: Select Auto, PAL, or NTSC type.
Screen Ratio	: Select Auto, 4:3, 16:9, or Center mode.
Digital Dolby	: On – If a program supports Dolby Digital stream out, Dolby Digital will be selected automatically.
	Off – User has to select "Mono" & "Stereo" manually.
Adjust Video	: Adjust the Brightness, Color, or Contrast.
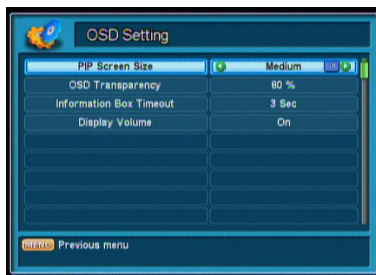
7.3.6. OSD Setting
Select **OSD Setting** menu in **Preferences** menu.
This menu helps you to control OSD setting.

PIP Screen Size	**:** Select PIP screen size (Extra Small, Small, Medium, or Large).
OSD Transparency	**:** Select transparency from 10% to 100%.
Information Box Timeout	**:** Select Timeout for the Information Box from 3 sec to 30 sec, or Always.
Display Volume	**:** You can select OFF or ON for the display of volume indicator.

7.4. RECORD (External Storage may need to be connected)
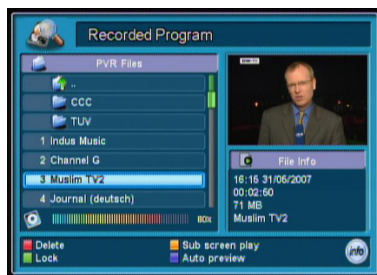
7.4.1. Recorded Program
Select **Recorded Program** menu in **Record** menu.

You can select the recorded data on the list by using the up/down keys (▲·▼) and OK key. Then you will see the recorded program on the main screen.

* Red: Delete each recorded program
* Green: Lock / Unlock recorded program
* Yellow: Play the recorded program in the PIP screen with the main live channel.
* Blue: Open/ close the recorded program on the small screen for a preview.

* (INFO) key will pop up a small window for the below functions
  - Sort: Sort the recorded data.
  - Rename : Edit name of folder or file.
  - Export: Export recorded program to FAT file system of your external storage. **Please refer to the 8.11 HOW TO USE USB(External storage)** .
  - Make folder : Make a new folder.
  - Move to folder : You can move a file to a desired folder.
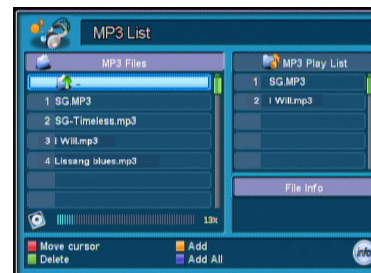
7.4.2. MP3 List
Select **MP3 List** menu in **Record** menu or push [MP3] key.
You can enjoy listening to music in this function. Select MP3 files on the list by using the up/down keys (▲·▼) and play music by pressing OK key. Or you can make a play list.

* Red: Move the cursor between the MP3 File list and the Play list.
< MP3 Files >
* Green : Delete a MP3 file on the list
* Yellow : Add the selected file to the Play list.
* Blue : Add all the files to the Play list.

< MP3 Play List >
* Green: Delete a MP3 file on the play list. * Yellow : Delete all MP3 files on the play list.
* Blue : Shuffle play list.

* (INFO) key will pop up
Repeat On/Off : Enable/disable repeating the play.
Sort : Sort the MP3 files on the list.

7.4.3. Picture List
Select **Picture List** menu in **Record** menu or press [JPEG] key.
Select a image file on the list by using the up/down keys (▲·▼) and push OK key for a full screen image.

* Red: Delete each JPEG image on the list
* Green: Show Slide JPEG image
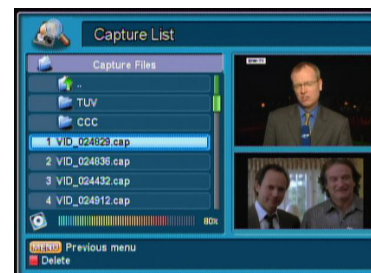
7.4.4. Capture List
Select **Capture List** menu in **Record** menu.

Select a captured file on the list by using the up/down keys (▲·▼) and press OK key for a Full screen image.

* Red: Delete each image on the list
.
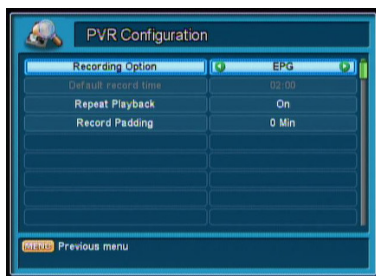
7.4.5. PVR Configuration
Select **PVR Configuration** menu in **Record** menu.

You can set the PVR Configuration by using this menu.

Recording Option	**:** Select EPG or Time for recording time. EPG – Recording will be finished automatically after a current program. Time –.Recording time will be decided by pre-selected time option.
Default record time	: Set default recording time.(Recording Option should be left as "Time" to use this feature.)
Repeat Playback	: Enable or disable repeating playback.
Record Padding	: Record Padding is to add additional recoding time to reservation time. (E.g.: Record from 19:00 to 20:00 and padding time is 5minutes. Then the actual recording time will be from 18:55 to 20:05)
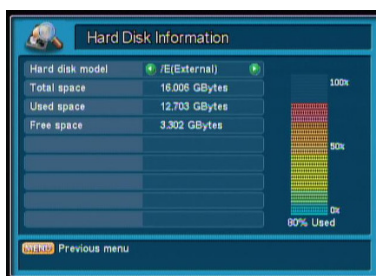
7.4.6. Hard Disk Information

Select **Hard Disk Information** menu to check installed hard disk information such as Hard disk model name, total space, used space, and free space.

7.4.7. Hard Disk Format
If you want to format your Hard Disk, push OK key.
The PIN code is required before formatting.

Formatting Hard Disk will delete all data and recorded files in Hard disk permanently.

A new Hard Disk should be formatted before use.

.
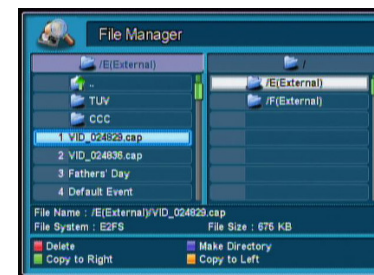
7.4.8. File Manager
Select **File Manager** menu in **Record** menu.

This function helps you to manage your files on the Hard Disk.

* Red: Delete file in the directory
* Green: Copy file from Left to Right
* Yellow: Copy file from Right to Left
* Blue: Make Directory

7.4.9. USB Device Safe Remove

Portable HDD, memory stick or MP3 player can be used as storage for the receiver. Simply connect the device to the receiver by using a USB cable. It will be automatically set up for use.

Firstly, connect your USB device to USB host port of the receiver.
Then device information will be displayed.

You can check data in the device with **File Manger** (refer to the **7.4.8. File Manager).**

To remove USB device from your receiver, please select **USB Device Safe Remove** menu in **Record** menu before you remove it.

This menu helps you to remove USB device safely.

*Note: If you do not practice this step before removing your USB device, the device might not be recognized next time.
Then, reboot your receiver.

7.4.10. USB Port Select

The USB will not recognize any other device if it is not identical between selected one in the menu and inserted one in the receiver.
Rear side selected at the factory production.

7.5. STATUS
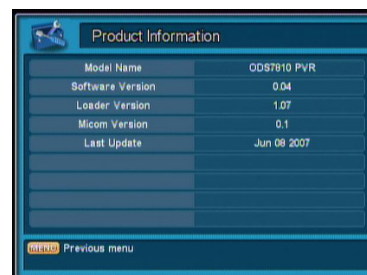
7.5.1. Product Information
This menu helps you to check model name, current version of S/W, loader, micom, and last updated date.

7.5.2. Calendar

This calendar can be used with the up/down keys (▲·▼) and left/right keys(◂·▸).

* Green: Previous month
* Yellow: Next month

7.6. ENTERTAINMENT
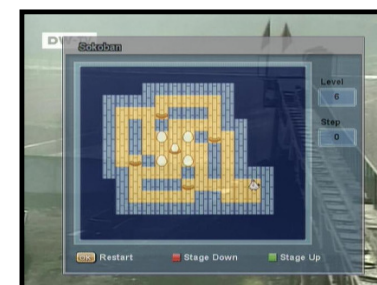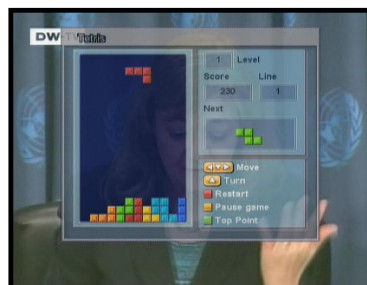
Two arcade games are provided;
- Tetris
- Sokoban

8. ADDITIONAL OPERATION

8.1. INFORMATION BOX

When channel changes, information box will show up and disappear after 3 secs (To change the duration of show-up, please refer to 7.3.6 OSD Setting).
To open the information box, push the (INFO) key.
While information box is open, extended information will be available with the (INFO) key.
Exit key can be used to close the information box or the extended information window.

1. Channel No. and Name
2. Name of Event
3. Information icons
  : These icons give you the current channel information. Each icons indicate status or availability as followings;
  1) Status of recording   5) Dolby
  2) Parent control (age limit)   6) Secondary Audio
  3) Scrambled Channel   7) Next event information
  4) Locked Channel
4. Progress of Event
5. Signal and Quality strength
6. Current Time
7. Event information
8. Antenna information
9. Additional service status
  : The icons show the currently running services. To check each service information, push the colored button.
  Refer to the following descriptions for each icons;

	Live channel
	PIP channel
	Timeshift channel
	Recording 1 & 2
	Playback 1 & 2
	MP3 Play

8.2. PROGRAM GUIDE
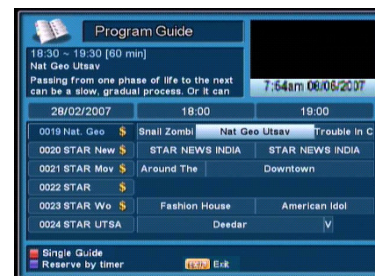
To check the program information, push the key.

Program information will be available only when it is being provided by broadcasters.

The detailed description of programs such as start/end time and title of events will be displayed.

To change the channels, use the up/down keys (▲·▼)
To change the time, use the left/right keys(◄·►).

Push key to change between TV or Radio guide.
* Red: Change into the single channel guide of the current channel
* Blue: Reserve the selected event for Wake-up or Recording
(Please **refer to the 9. HOW TO RECORD & PLAYBACK**)
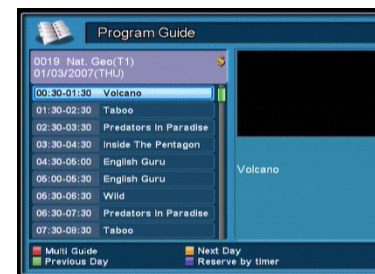
The left is the single channel guide.

To change the channel, use the left/right keys(◄·►).
To change the time, use the up/down keys (▲·▼)

Push key, MENU key or EXIT key to return to TV or previous menu.

* Red: Return to the multi channel guide
* Green: Show schedules of previous Day
* Yellow: Show schedules of next day
* Blue: Reserve the selected event for Wake-up or Recording.

8.3. CHANNEL LIST

This menu helps you to easily select the channel that you wish to watch.
Push OK key on live channel, and the channel list will be displayed.

The list provides information such as channel number, channel name, and if the program is scrambled or locked.

To watch a specific channel, select it by using the up/down keys (▲•▼). Then push OK key.
If you push OK key again, the list disappears.
To change the list between TV and Radio, use the (📺/📻) key.

* Red: Sort the channels by Alphabet
* Green: Find a channel name manually
* Yellow: Sort out Free or Scrambled channels only

8.4. AUDIO LANGUAGE

Push (🔊) key on live channel and the Audio list will be displayed.
Select a desired audio level by using the left/right keys (◄•►).

Select a desired audio language from the list by using the up/down keys (▲•▼) and OK key.

You push (🔊) key once more, the cursor moves to another window. It enables you to select an audio mode by using the left/right keys (◄•►).

8.5. SLEEP MODE

Push (🕐) key on the live channel to set the sleep timer.
Use left/right keys(◄•►) and push the Save button by using up/down keys (▲•▼) and OK key.

8.6. ZOOM FUNCTION

You can zoom in on the screen by using (🔍) key. To move the zooming part, use (◄•►, ▲•▼) key. Zoom size increases as two steps, x4 and x16.
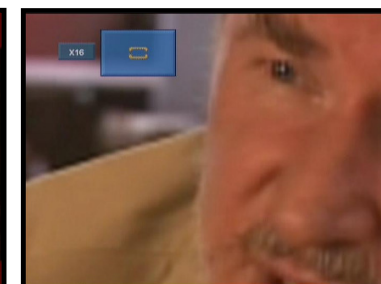
8.7. PIP (Picture In Picture)
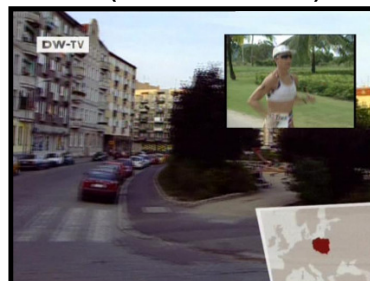
You can watch two channels(or three channels from a same TP) at the same time.
To use this function, push (🔲) key.
Pushing this key again, two channels will be showed as the same size.
You can record PIP channel.
Select the PIP screen by using a color key from the channel information box.
Push (📹) key to record.

To change the channel in the PIP screen, you can use the up/down keys (▲·▼) after changing the channel information box into PIP mode by using color keys, or select a channel in the PIP channel list. To open the PIP channel list, use the ⟐ key.

Only channels on the same TP with the main channel are available for PIP mode.

Main channel can be replaced with the PIP channel by using the ⟐ key, You can change the location of PIP screen by using the ⟐ key.

* Red: Sort the channel by Alphabet
* Green: Find channel name manually

8.8. HISTORY & PREVIOUS CHANNEL

You can recall the channels watched previously. The list will show 10 channels by using ⟐ key.

Select a desired channel to watch by using up/down keys (▲·▼) and OK key.

The ⟐key change channels between the current and the previous.
.

8.9. MOSAIC

Mosaic function enables having 4 or 9 screens by using ⟐ key on the RCU. Select 4 or 9 screens and push OK key.

Only the first three channels from the same TP are updated. And rest of the channels will be shown with still pictures.

You can change into a certain channel from Mosaic by OK key on the selected screen.

8.10. CAPTURE

Push ⟐ key to capture the screen.

Captured images will be saved into the **Capture List** menu in **Record** menu.

8.11. HOW TO USE USB(External Storage)

- External HDD / External Memory (connected to USB Host port)
1) External HDD can be used with two file systems named with Drive E(E2FS system) and F(FAT system). You can decide the size of each drive during formatting.
2) E2FS system is used for PVR function such as recording and capturing of program. FAT system is used for MP3 and Jpeg files.
3) The recorded and captured file can be used in the Recorded Program Menu and Capture List Menu respectively. MP3 files and Jpeg files can be used in the MP3 List Menu and Picture List Menu.
4) To transfer files between two systems, use the File Manager Menu.
   Only the files in FAT system can be used in the computer.
5) To remove the device, use USB Device Safe Remove menu before disconnecting. (refer to the 7.4.9. USB Device Safe Remove)

* The External Storage which has only FAT system unformatted by Set-top box doesn't support recording and capturing functions. (refer to the 7.4.7. Hard Disk Format)

# 9. HOW TO RECORD & PLAYBACK

9.1. TIME SHIFT

If you have to walk away from your TV but do not want to miss the show, you can make a live channel pause for a while with the Time Shift function.
Simply push the [ ] key, then you will be able to watch the event from the time it was pause when you are back to TV.
(Caution! Channel change erases the recorded program.)

1) Push the [ ] key, Time shift will be started on the live channel(freeze live channel).
2) Push [ ] key for playback.
3) For slow motion playback, push [ ] key.
4) For Rewind, push [ ] key. For forward, push [ ] key.
5) To return to the present time for live, push [ ] key.

9.2. QUICK RECORD

* Note: If recording time is less than 30 seconds, the event will not be saved. This is to avoid the unexpected start of recording.
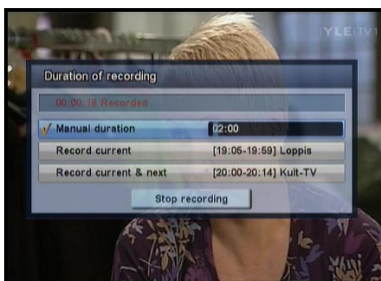
9.2.1. Quick Record
Push the [ ] key. And the current channel will be recorded. If you want to stop the record, push the [ ] key.
The recorded program can be found in the **Recorded Program** in **Record** menu.

[ ] Key will also guide you to the list of the recorded program. (**Refer to 7.4.1 Recorded program**).
During recording, push the [ ] key on the recording channel once more to select the duration of recording.
(Option : Manual, Current, Current & Next)

Manual duration	: Total recording time, you can adjust the duration manually.
Record current	: Only current program will be recorded.
Record current & next	: The current and next program will be recorded.

9.2.2. Two Records
While recording one channel, the second channel can be recorded simultaneously.
Press [ ] key on another channel which you want to record.
You can check the status of recordings with the Recording Icon numbered as 1 or 2 in the information Box.
You can change into the recording channels by using the color keys in the Information Box.

You can also the record PIP channel after moving to PIP mode by using the color key. Press [ ] key on the PIP channel for recording. Recording Icon will be added on the Information Box.

9.3. RESERVATION RECORD

There are 2 ways for Reservation Record. One is the manual recording by setting the date, time, and duration of the event in the Timer. The other is a recording from the Program Guide.
For reservation record, the current time of your receiver should be set exactly same as your local time or the satellite time. You must have synchronized the reservation's time and your local time. (Please refer to the 7.3.2. TIME SETTING).

### 9.3.1. Reservation record in Timer List

Select **Timer List** menu in **Preferences** menu.
Set and check all recording schedule. Push OK key on your selection No. in Timer List. Then Edit or add reservation table in the following screen.

Set appropriate value to all fields and push the Red key to save it.
Push the MENU key for previous menu to check the reserved programs in the Timer List.
If the current reservation is overlapped with the previous reservations, it will not be saved.

No	: Select the No. from 1 to 35.
Mode	: Record – you can set time to record a channel.
	Sleep – you can set time to be on standby of the receiver.
	Wakeup – you can set time to turn the receiver on.
Channel	: Select the recording channel.
Date	: Select the date of activating with OK key.
Cycle	: Once/Daily/Weekly – you can select the reservation cycle.
Start Time	: Enter Start Time of reservation record, wakeup, and sleep mode.
Duration	: Enter duration of reservation record.

9.3.2. Reservation Record in Program Guide
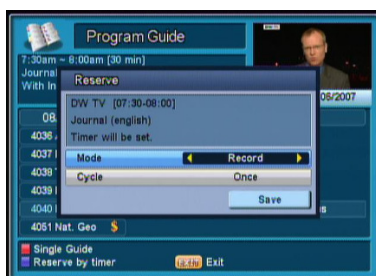
Open the **Program guide** by pushing key.
Select an event to be recorded by using Left/Right/Up/Down keys.
Push the Blue key on the selected event and set the cycle. To record an event, press the OK key while on Save and the event will be recorded at the scheduled time.

You can check reservations in the Timer List.
* In case you reserve three events for the same period, only two shall be recorded.

9.4. PLAYBACK

To watch the recorded program, follows the next;
1. key opens the **Recorded Program** List.
2. Select a recorded program to watch by using up/down keys (▲·▼) and push OK key.
   (**Please refer to the 7.4.1. Recorded Program**)
3. When the Playback is starting, **Playback Box** is shown as the left picture.
   You can control Playback easily and check the Recorded file name, Progress Time, Book Mark, and Repeat status etc.
4. To stop the Playback, push key.

9.4.1. Two Playbacks
For the second playback in PIP during one playback, open the recorded program list by , and select one to play and push the yellow key.

* If you push key, you can switch the main screen with the PIP screen.

9.4.2. Bookmark
You can mark a point on the progress bar while the playback as a bookmark, and watch from the marked point.

1) Push key to make a bookmark.
2) Use key to move to the position from where to watch.

To open the bookmark list while watching a recorded program, push OK key.

You can move to the bookmarked position by selecting the Ok key.

The bookmarks will be saved into the recorded program for future use.

9.4.3. Repeat

You can watch a certain defined section repeatedly.
 1) In Playback**,** push ⬛ key to set a starting point of section to repeat.
 2) Move the section by using ⬛ & ⬛ key.
 3) Push ⬛ key to set the ending point of section to repeat.
* For canceling the repeat, push ⬛ key once more.

9.4.4. Fast Forward

 Fast forward during playback is available. Also see 9.4.8. Drag Forward.
 1) In Playback, push ⬛ key.
 2) In order to increase playback speed, push ⬛ key several times.
 3) For returning to normal speed, push ⬛ key.
* 4 steps of speed are available for Fast forward.

9.4.5. Fast Rewind

 Fast rewind is available during playback. Please also see 9.4.9. Drag Backward.
 1) In Playback, push ⬛ key.
 2) In order to increase rewind speed, push ⬛ key several times.
 3) For returning to the normal speed, push ⬛ key.
 * 5 steps of speed are available for Fast rewind.

9.4.6. Slow Motion

 For slow motion playback,
 1) In playback, push ⬛ key.
 2) For returning to normal speed, push ⬛ key.
* Two steps of speed are available for Slow motion.

9.4.7. Pause

 To pause the screen, push ⬛ key.

9.4.8. Drag Forward

 You can move fast forward while pushing the ⬛ key. .

9.4.9. Drag Backward

 You can move fast backward while pushing the ⬛ key.

10. TROUBLE SHOOTING

Problem	Solution
About the Receiver	
Does not display LED on the front panel or the receiver has no power	- Connect the power cord to the power outlet properly.
No pictures on the screen	- Check if the receiver is in standby mode. - Check if the video output port is firmly connected to the TV. - Check if you have selected the correct channel or video output on your TV.
No sound	- Connect audio cords properly. - Check volume level of the TV. - Press ⊗ key.
Remote Control does not operate	- Point remote control directly towards the receiver. - Check and replace batteries.
Poor picture quality	- Check the signal strength in the **Channel Search** menu. If this is low, try to adjust the alignment of your antenna.
Frequent Rebooting after Power-on	- Turn on after removing the signal cable from LNB: - If the rebooting does not occur; check the LNB! (possible cause is LNB short-circuit)
Abnormal operation when two STBs are connected by "LOOP OUT"	- Turn off one of the two STBs.
On - Screen Error Messages	
Searching Signal	- Connect the antenna cable properly. - Check the signal strength in the **Channel search** menu.

11. TECHNICAL SPECIFICATIONS

Power Supply

- **Input Voltage** : AC 95V~240V 50Hz / 60Hz
- **Type** : SMPS
- **Power Consumption** : Max. 25 W, stand-by 12 W

Demodulation

- **Waveform** : QPSK
- **Input Symbol Rate** : 1~45 Mbit/s
- **FEC Decoder** : Convolutional Code Rate
  1/2, 2/3,3/4,5/6,7/8

Tuner & Channel

- **Input Connector** : F-type, IEC 169-24, Female
- **Output Connector** : F-type, IEC 169-24, Female
- **Frequency Range** : 950MHz ~ 2150MHz
- **Signal Level** : -65 ~-25 dBM
- **LNB power & Polarization** : Vertical (+13.5V), Horizontal(+18V)
  Current (Max. 500mA)
- **22 KHz Tone** : Frequency : 22.4KHz
  Amplitude : 0.6 0.2V
- **DiSEqC Control** : Version 1.0/1.1/1.2 Compatible

System Resources

- **Flash memory** : 4Mbyte
- **Graphic DDR Memory** : 64Mbyte

Video Decoder

- **Transport Stream** : MPEG-2 ISO/IEC 13818
- **MPEG-2 profiles/levels** : Main profile @ main level (MP@ML)
- **Input Rate** : Max. 15Mbit/s
- **Video Formats** : 4:3, 16:9
- **Video Output** : CVBS,Y/Pb/Pr(Component),S-Video

Audio Decoder

- **Audio Decoding** : MPEG-1 layersI/II, MP3, Dolby Digital
- **Audio Mode** : Single / Dual mono / Stereo / Joint stereo

RCA

- **Video RCA** : RCA/Cinch, Video Output (CVBS)
  Audio (Left / Right)
- **Component RCA** : YPbPr Output

S-VHS, S/PDIF

- **S-VHS** : Y, C
- **S/PDIF** : Digital Audio Output

RF Modulator

- **RF/ Loop through Output Connector** : F-Type, IEC male/Female
- **TV Standard** : NTSC
- **Preset Channel** : 3/4 CH

Data port

- **USB(host)** : USB 1.1/2.0 compatible
- **RS-232C** : 9-pin D-sub, Transfer rate
  115 Kbps

Front

- **Buttons** : 7 Buttons Stand by, Menu, Exit,
  CH+, CH-, VOL+, VOL-
- **Display** : 7SEGMENT LED (Green, 4Digit)
- **USB** : Host, A-type (available either
  front or rear)

Rear

- **Main Power Cable**
- **RF (Antenna Input and Output) 1 Input, 1 output**
- **TUNER (1 RF Input & 1 Loop through)**
- **2 RCA(CVBS, AUDIO L/R, YPbPr)**
- **S-VHS, S/PDIF(Optical Output)**
- **RS232(9pin-DSUB)**
- **USB (HOST,A-type) (available either front or rear)**

Physical Specification

- **Size** : 300(W) X 62(H) X 220(D) mm
- **Weight** : About 1.9kg
- **Operating Temperature** : 0°c ~ +45°c
- **Storage Temperature** : -10°c ~ +70°c

12. PROGRAMING 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.
2. Enter 3-digit code, **8 8 8 .**
3. Press and release the STB component key, then the LED blinks three times.

Brand List for TV

Brand	Codes
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
Daytron	016 018 139
Dimensia	045
Dumont	016 125
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
Grundy	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
Infinity	012
JBL	012

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

Brand List for AUX

– PVR/DVR –

Brand	Codes
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 –

Brand	Codes
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 –

Brand	Codes
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

13. WARRANTY CARD

VIEWSAT®

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 lightening, 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.