

Operation Manual

relook 300S

World First LINUX O/S Twin Tuner PVR

Connecting People To Digital Home Entertainment

GENERAL INFORMATION

Thank you for purchasing relook 300S. relook 300S is the world's 1st 2 Tuner PVR based on LINUX O/S. This product is fully compliant with the DVB standards and transmits digital broadcasting service directly to your TV through the various satellites and record those programs and enjoying trick play.

You can notice that every operation of relook 300S is based on a dynamic and user-friendly user interface and menus. The relook 300S is easy to use and adaptable for future upgrade. The software of relook 300S is to be upgraded continuously to improve the functionality. Also new utilities for easy control of system setup and user manual are to be upgraded together.

SAFETY INFORMATION

Please read the following recommended safety cautions carefully for your safety.

- Main Supply: 90-240V AC 50/60Hz 30W
- Allow clear space around the relook 300S for sufficient ventilation.
- Never place the relook 300S on soft furnishing or carpet.
- Do not stack other electronic equipment on top of the relook 300S.
- Use a soft/dry cloth and a mild solution to clean the exterior of the relook 300S.
- Never allow liquids. The inside of the relook 300S shall not be exposed to dripping, spray or other objects filled with liquids.
- Do not use any attachments that are not recommended.
- Do not allow the unit to be exposed hot, cold or humid conditions.
- Service should be carried out only at a qualified service agent.
- Do not connect or modify cables when the relook 300S is plugged in.
- Do not remove the cover.

HOW TO USE THIS MANUAL

This manual provides complete instructions for installing and using relook 300S. The following symbols will serve as follows.

Symbol	Explanation
MENU (Capital)	Represents a button on the remote controller or on the front panel.
Main Menu (Bold Character)	Represents a menu item.
No. Menu Name Ex) 1. move	Indicates the subsidiary selectable option in certain menu.

Please do not open or change any part or option of this menu without full understanding or skillful installer's guidance.

Press the MENU key on the RCU (Remote Control Unit) to make the main menu appeared.

In some menus, you are asked to put the PIN (Personal Identification Number) code as a password.





Factory default password is '0000'. Press PIN code by numeric buttons on the RCU.

■ How to move the cursor

Use   or   (channel and volume up/ down)

buttons to move the cursor on the menu.





■ How to select an option

Some menus support examples or options with   indication. To scroll it, use   (volume up/ down)

buttons and select one by pressing **OK** button on the RCU.

■ How to use the virtual keyboard

In some menus, you are asked to put the alphabet by the virtual keyboard.

Move the cursor by   or   buttons to each alphabet character you want and press **OK** button on the RCU to type it. Once it is finished, select the **Enter** key on the virtual keyboard to save and exit.

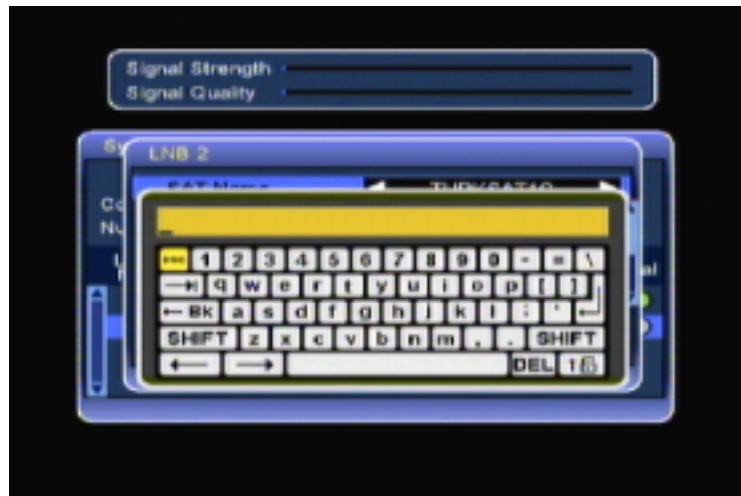


Table of Contents

General Information	1
Before you Begin	6
The contents of the box	7
Remote Control Unit	8
Front Panel	11
Rear Panel	12
INSTALLATION	13
Equipment Connection	13
Dish Connection	15
Before setting	19
Get started for the first time	19
USING HOT BUTTON	24
Tv or radio channel list	24
Edit in the channel list	25
Favorite channel list	27
Program guide	29
CMS / File	34
Channel info	35
RCL	35
Subtitle	36
Audio setting	36
PVR OPERATION	37
Recording	37
Recording file open	38
Record plan	39
Play back	39
Trick play in live signal	39
Book mark	40
Play	40
Repeat	41
Stop	41

Pause -----	41
Instant play -----	41
Quick Skip -----	42
Fast forward or random position jump & playback -----	42
Fast reverse or random position jump & playback -----	42
OSD teletext-----	42
Slow motion or frame by frame -----	43
USER'S OPTION-----	44
User's setting -----	44
Lock control -----	45
Langue -----	46
Local time -----	47
USB Mode -----	48
HDD management -----	47
SYSTEM SET UP -----	49
TV output -----	49
LNB setting -----	49
Channel search -----	52
DiSEqC 1.2 position -----	53
USALS setting -----	54
Restore factory setting -----	54
CI MODULE -----	55
ABOUT -----	56
SOFTWARE UPGRADE -----	57
Glossary of Terms -----	58
Trouble Shooting -----	59
Product Specifications -----	60

BEFORE YOU BEGIN

Advanced Features

■Application and Expansion

LINUX O/S enables ultimate applications and expansions to fulfill the customer's need

■Max. Two Channels Recording and One Prerecorded File Playback

Simultaneous Double Descrambling on Viaccess CAM

■Watching 1 Viaccess channel while recording another Viaccess channel with only 1 Viaccess CAM

Playback of prerecorded programs without Viaccess CAM

■Simultaneous two Descrambling on 2 CI CAMs

Watching 1 scrambled ch. while recording another scrambled channel by using 2 CAMs

Playback of prerecorded programs without CAMs

■Playback without CAM

Playback a prerecorded scrambled program without CAM

■Almost Unlimited Channel Memory 10,000 channels

■Variable HDD Size is Applicable for production up to 250GB or above

■Enhanced Search Channel Option

Search by all satellite

Search by satellite/ network

Search by all TP scanning

■Unlimited Trick Play

Unlimited trick play on any of Real Time Live Programs/ Recording Program/ Playback of Prerecorded Program

■Smart EPG

Automatically updates Program Info. EPG shows all Satellites' Program Guide

Search programs by Genre on the EPG

■Enhanced Recording Plan by timer setting/ EPG

■Enhanced Playback to skip commercials/ edit prerecorded files by PC

■USB Connection to PC for PC editor/ enhanced program utility

****Notice)**

Normally, a CI CAM works for one single channel descrambling at a time.

To descramble two different channels simultaneously, it requires two CAMs at same time.
(Proper CAM and smart card required for the channels you wish to watch, check the channel encryption and availability)

Exceptionally, Viaccess CAM works for dual descrambling simultaneously with only one VIACCESS CAM.

Notice that Double Descrambling is up to whether the CAM manufacture supports the function or not.

THE CONTENTS OF THE BOX

Please make sure that the following items are included in the Package.

- relook 300S main unit
- Remote Control Unit
- 2 Batteries (size AAA)
- Operation Manual



REMOTE CONTROL UNIT



For Power On / Off



For Mute



To toggle between TV and Radio mode



To recall previous channel when you watch live programs only OR Switch back and forth among a LIVE program and a RECORDING channel and a PLAYBACK of prerecorded program FILE



To record selected program



To make Page Up / Down



To go to Electronic Program Guide



To manage prerecorded programs(Files). You can see prerecorded TV/Radio program list and reserved recording plan by pressing this button



To see and manage Favorite channel list



To go to Main menu and go back to previous menu



To make channel Up / Down and move Up / Down in the menus



To exit from menu



To make volume Increased / Decreased and move Left/ Right



To make Bookmark on File progressing time bar(in Information banner)













To display program information banner\



To select options and call Channel List



To stop File playback / recording program

-  For Playback / Catch up for real time live program point
-  To pause the screen
-  For Instant Replay (Jump back to 15 sec. previous scene)
-  For Instant quick skip (Jump forward to 15 sec. after scene from current point)
-  For Fast reverse or Random play
-  For Fast forward or Random play or sort move
-  For Slow motion forward or Frame-by-Frame Play
-  For Section Repeat between the position by Bookmark in File playback and for teletext in program watching mode
-  To select alternative audio option
-  To display subtitle

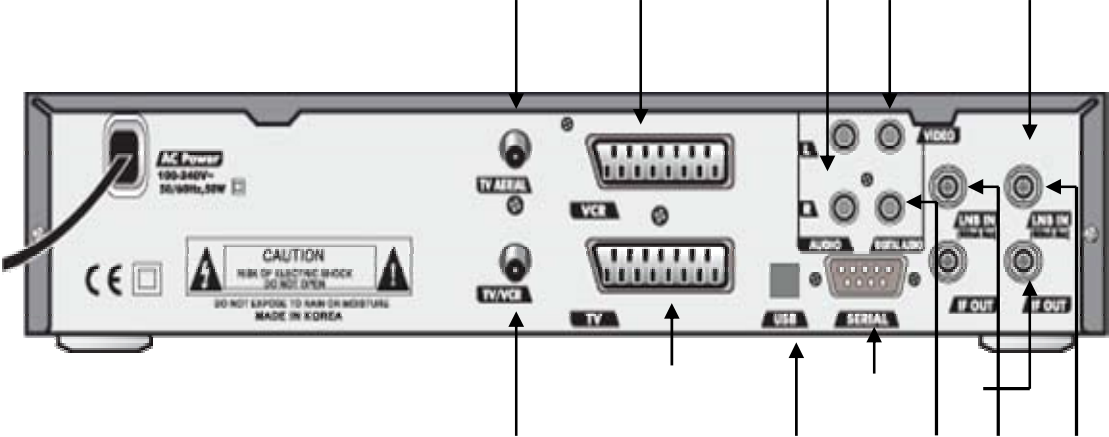


FRONT PANEL



- Slot for a smart card
- Displays channel number, error messages, current time and status and remote control commands
 - Menu
- EPG
- Power On/ Stand by
- Open the Lid for using slots
 - Slot for CAM
 - Push the button to eject CAM
- OK
- Volume Up
- Volume Down
- Channel Up
- Channel Down

REAR PANEL



- TV Aerial
- For a terrestrial TV antenna input
- VCR Scart
- Audio L/R
- RCA Audio outputs
- Video
- RCA Video output
- Digital Audio
- 5.1 channel audio output

LNB IN

LNB cable from satellite dish antenna input

Tuner1

Tuner2

RF cable connection to the TV or VCR

TV Scart

USB

To read and load the A/V data

Serial

RS232C

IF OUT

Loop through to another Set Top Box

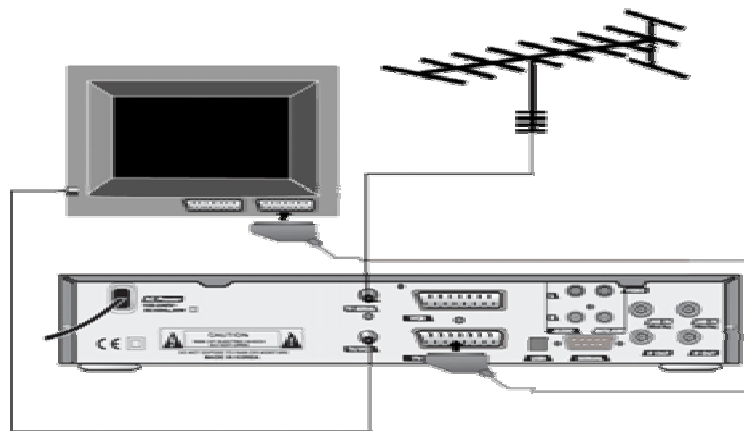
INSTALLATION

Most effective and common setting methods are suggested below. Please follow the instructions carefully.

Connection to TV, VCR and Hi-Fi

■ CONNECTION TO THE TV with a SCART cable

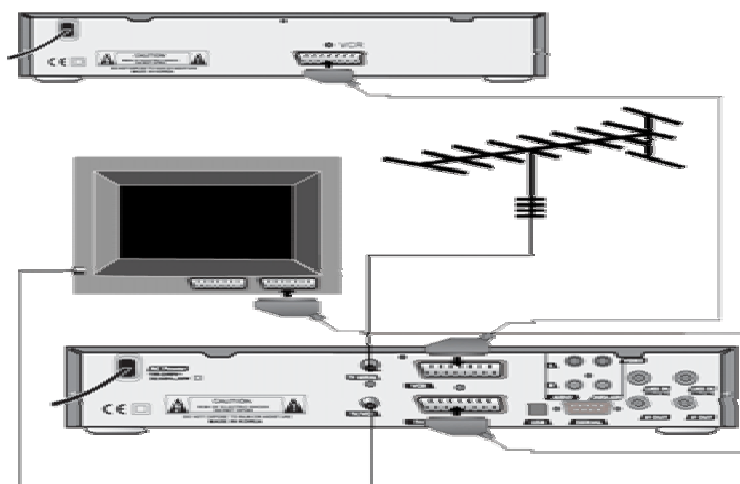
Connect the TV to the PVR with a SCART cable. One end of SCART cable goes into the TV SCART socket and the other end goes into to the SCART socket on the PVR.



■ CONNECTION TO THE VCR with a SCART cable

A. Connect the VCR with a SCART CABLE

After connecting the PVR to TV with a SCART cable, connect VCR to the PVR same way that the TV and the PVR connected with SCART cable.

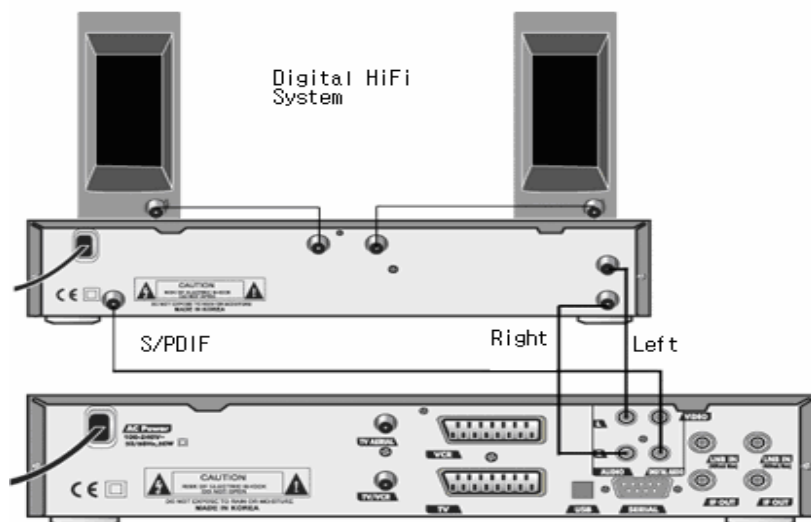


B. Connect the TV to the VCR with RCA cable

Connect one end of RCA (RED: Audio right, White: Audio left, and Yellow: Video) to PVR and the other end of RCA to the TV.

■ ADDITIONAL AUDIO CONNECTION WITH HI-FI SYSTEM

Connect one end of RCA stereo cable to the 'AUDIO L/ R' outputs on the PVR and the other end of RCA cable to the Audio L/R inputs on the Hi-Fi system.



DISH CONNECTION

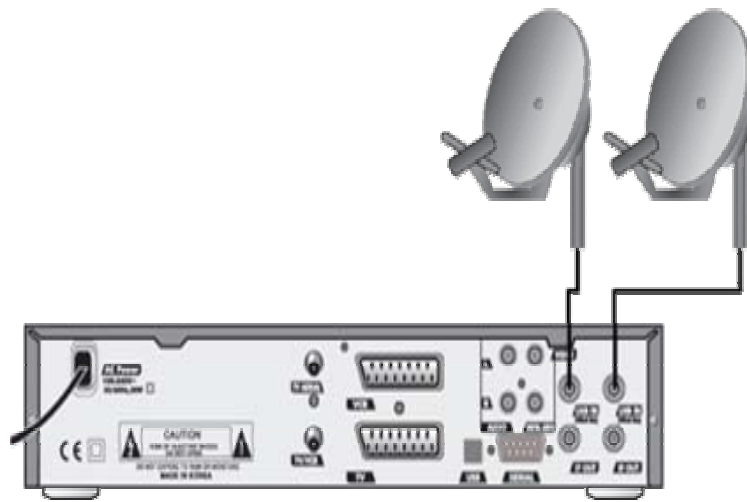
Most effective and common setting methods are suggested below. Please choose one of these ways to connect the dish-antennas and follow the instructions. Please carefully review the instructions before you install.

■ Installing the PVR with two separated antennas.

In the **LNB Setting** menu, the connection type should be set to “separated.”

Two Satellite antennas are installed separately with a single universal LNB each. While recording a channel from one Satellite, you can only watch or record channels from the other Satellite.

Caution) To descramble two channels simultaneously, 2 CI Modules are required.



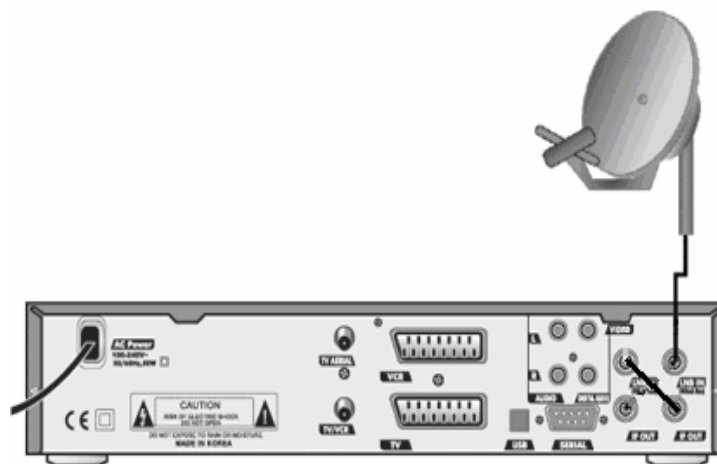
■ Installing the PVR with one antenna.

In the **LNB Setting** menu, the connection type should be set to” Loop Through”

Satellite Antenna has to be connected to the LNB IN (the first one from the right: see the picture below). The second LNB IN and IF OUT (the first one from the right) should be connected with coaxial cable. If the connection is done opposite way, the PVR will not be able to scan the channels.

A Satellite antenna is installed with one single LNB. When the tuner is reserved for a recording, only the channels from same Polarity group can be watched.

Caution) To descramble two channels simultaneously, 2 CI Modules are required.



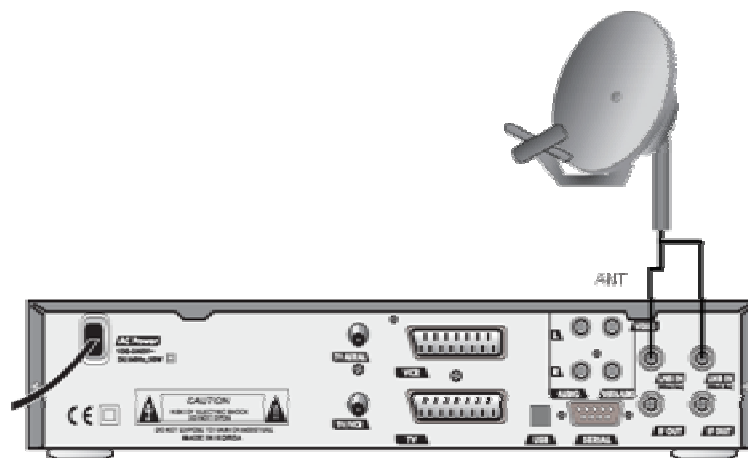
■ Installing the PVR with twin LNB Antenna

In the **LNB Setting** menu, the connection type should be set to “separated”

A Satellite Antenna is installed with twin/dual universal LNB.

While one tuner is reserved for a recording all other channels can be watched or recorded.

Caution) To descramble two channels simultaneously, 2 CI Modules are required.



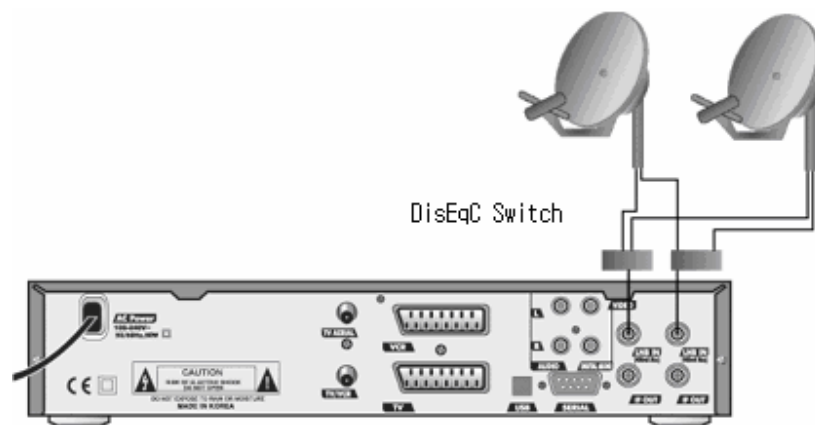
■ Installing the PVR with two separated antennas with twin LNB.

In the **LNB Setting** menu, the connection type should be set to “separated”

Each twin or dual universal LNB is connected to two different Satellite Antennas separately.

While one channel is recorded, all channels from two Satellites can be watched or recorded.

Caution) To descramble two channels simultaneously, 2 Modules are required.



BEFORE SETTING

■Menu Information

Selectable lines are generally activated(highlighted). No-activated lines cannot be selected.
Most of menus show short information at the bottom of the screen.

■Basic Key Control

With the UP/DOWN button you can move upwards and downwards in the menus. In most of menus, you can search channels with the button.
When you have reached the required subject menu, press the OK button to confirm your choice.
In case of changing TV channel you can only press UP/DOWN button.
In most of menus, you can select menu items with REFT/RIGHT button.
When you want to return to the previous menu with saving the change, press the MENU button.
When you want to exit from current menu, press the EXIT button.

GET STARTED FOR THE FIRST TIME

If it is the first time using relook 300S, you should set parameters for system configuration and scan satellite.
Follow setup procedure for scanning the satellite. When you have finished the procedure, you can start watching TV or listening to Radio.



The HDD Preparing time is decided to as HDD size.

If the power off unexpected, then preparing time for HDD also need.

■ Turn on your TV and PVR.

■ The **Local Time** setting menu will appear automatically. Please adjust your local time at first. Press LEFT/RIGHT buttons to find your area on **Time Zone** and make **Daylight-saving**(summer time) **ON** or **OFF**. Also, you can adjust local time manually by using LEFT/RIGHT and UP/DOWN button on **Date** and **Time** menu.



- The **LNB Setting** menu will appear automatically after adjusting **Local Time** menu. You can select **Tuner** to set up by pressing LEFT/RIGHT button or RED and GREEN button. Go to **Connection** by pressing DOWN button and select one between **Separated** and **Loop Thru** as the tuner connected.

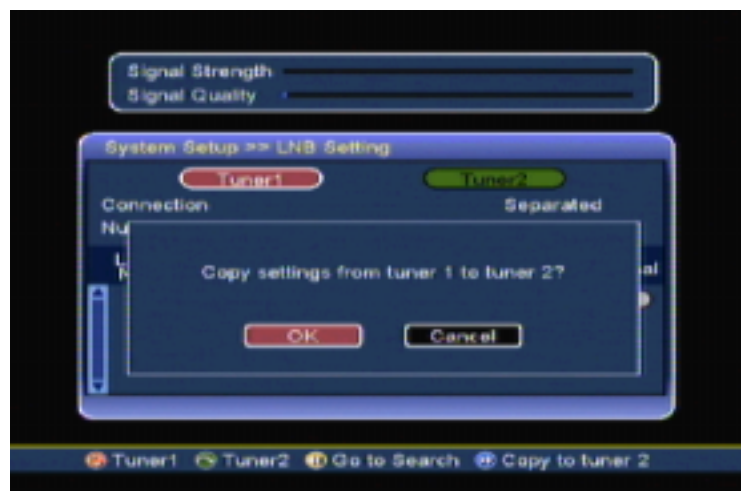
Make the **Number Of LNBs** by pressing LEFT/RIGHT button. Then you can see the LNB setup field some **LNB No.** as you set on **Number Of LNBs**. Then press OK to setup each LNB.

- Set LNB parameters of **SAT Name**, **LNB Type**, **Local Freq**, **DiSEqC Ver**, **DiSEqC No**, **22Khz**, **TP Freq** by pressing LEFT/ RIGHT button as your LNB and dish aimed. You can see whole values of each item if you press OK button.

Press MENU or EXIT button when you finish all setting. You can see the Signal indicator as green if all values are setup correctly. (Red color means incorrect setting.)



- You can setup Tuner 2 if **Connection** is **Separated**. To copy the values of **LNB 1** to **LNB 2**, just press **BLUE** button. Press **YELLOW** button to go to **Channel Search** menu.

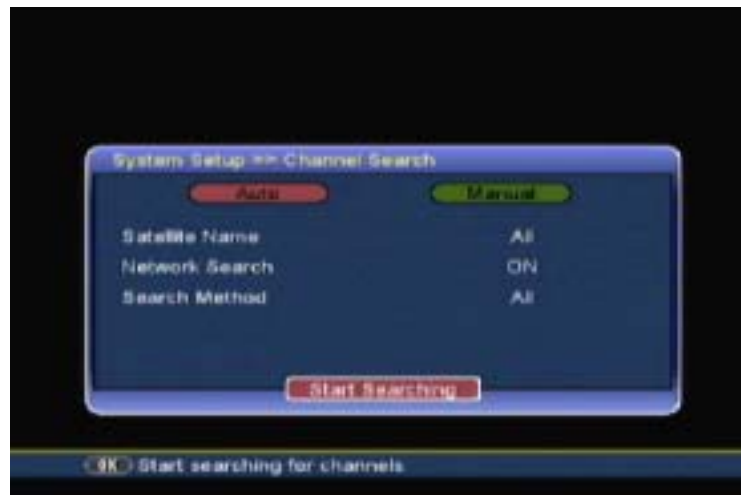


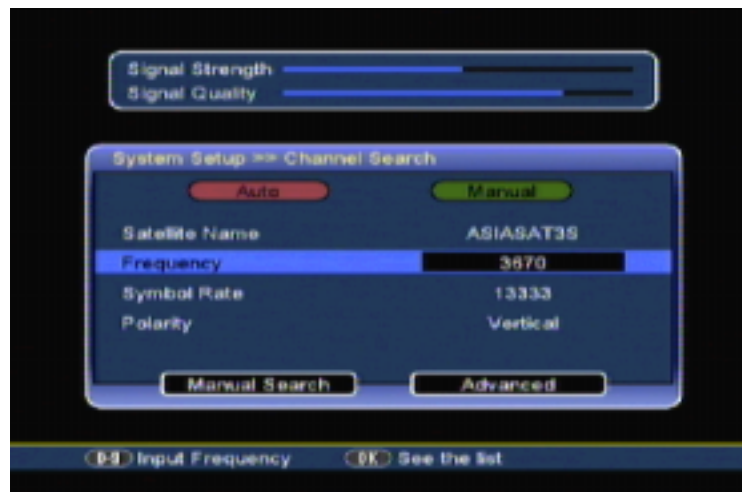
You can scan the channels by **Auto** or **Manual** by **LEFT/RIGHT** button.

Auto : This is to scan all channels in the satellites you setup in **LNB Setting** menu. Set **Satellite Name**, **Network Search** option and **Search Method** option by **LEFT/RIGHT** button and press **OK** on **Start Searching** to start scanning.

Manual : This is to scan channels on specific TP. Set **Satellite Name**, **Frequency**, **Symbol Rate**, **Polarity** values. You can press **OK** to check the values on **Frequency** and **Symbol Rate** menu or press **NUMERIC** buttons to input digit values directly. Press **OK** on **Manual Search** to

start scanning. If you input new TP data on this menu, the new data will be saved on the satellite.





You can do **Advanced** scanning option to scan channels with PID values.

■ Now, you can watch TV or listen to the Radio.

USING HOT BUTTON

This section explains various function while watching TV or listening to Radio. Below menus can be accessed by hot buttons on the remote controller.

■ TV or Radio Channel List



While watching TV or listening to Radio, you can get the 'TV or Radio Channel List' by pressing

OK button on the remote controller. Press  or  (UP/DOWN button) to change/select channel and Press OK to select channel.

There are 3 sorting options: First, '**Mode**' Second, '**Channel**' Third, '**Sort**' to help finding out required channel quickly.



1. Mode

Change to **TV** or **Radio**




2. Channel

Three options inside 'All' 'Favorite' 'Satellite'

3. Sort

Sorting function **A to Z**, **Z to A**, **FTA to CAS**, **CAS to FTA** and **Satellite**.


■Edit in the Channel List

Move to option, press  and right side option you select be high lighting.

Back to channel list again press  and the high lighting disappear.




1.To Favorite

Move to Favorite, press  first and press OK button, then you can see default group like Movie, Music, Sport, Drama and News. If you want to add the selected channel to favorite group, press OK button.

You can find the added favorite channel in the Favorite list 

You can make new favorite group and rename in the Favorite list too.

2.Hide

Select the channel you want to hide and press OK button and put password, then the channel be hidden. If you want to see the hidden the channel again, Move to Main menu  and select **Lock control** and make **Hide Channel OFF**.

Back to Channel list, You can see hidden channel with “H” beside channel name also the **Hide** option change to **Unhide** in your option.

If you want to remove the “H” beside channel name, move to **Unhide** press OK button and put password.

3.Lock

Select the channel you want to Lock and move to Lock and press OK button and put password A **lock image** will show beside channel name. If you want to un-lock the channel Press OK button and Put password again.

4.Rename

Change the selected channel name using virtual key board.

Move to **Rename** option and press OK button and you can see the virtual keyboard.

In the virtual keyboard you can change the letter to Capital or small with lock image key (beside **DEL** key) If you want to exit from virtual keyboard after change the channel name, select **ENTER** key.

If you want to exit from virtual keyboard without change the channel name, press OK button.



5.Delete


Select the channel you want to delete and move to **Delete** option and press OK button and put password.

■Favorite Channel Lists




When watching TV or listening to Radio, you can get the favorite group channel by pressing the FAV button on the remote controller. In the Favorite List, you can see the default favorite groups like Sports, Drama, News, Movie and Music.

1. Make Fav. List

Move to **Make Fav. List** press  and OK button to bring virtual key board and make new favorite group Using virtual keyboard.

To save and exit, select the enter key on the virtual keyboard.

2. Exclude

Move to **Exclude** press  and press OK button again, If you want to Remove selected channel & fav group select OK and press OK button.

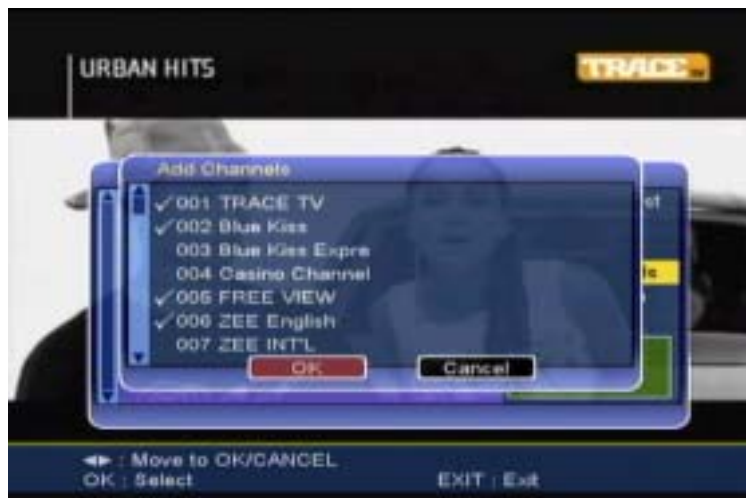
3. Rename


Move to **Rename** and press OK button to bring virtual keyboard and change selected channel & fav group name, then press OK button for change name and exit from virtual keyboard.

4. Add Channels

Move to Add Channels and press OK button, then showing all channel list you have.

For add channels, press OK button you want to add, then you can see check sign beside channel name.



If you want to add the selected channels, move to **OK button**  and press OK button.

5. Reorder Fav. List

Reorder selected channel & group

Select you want to moving file and Move to Reorder Fav. List and press OK button, then showing a indicator beside channel name or fav group, then press Up/ Down button you want to put position and press OK button again, then the channel or fav group moved.

To exit from Favorite Channel List without selection, press FAV button or EXIT button.




■ Program Guide

Press the EPG button on the remote controller, you can get the TV electronic program guide(EPG).


Search channels by UP/DOWN buttons and go to (or come back to channel list) program schedule by LEFT/RIGHT button.

You can see the extended EPG by pressing OK button on the program.


In the EPG menu, Press  to **EPG Search** and you can see subordinate menu for more detail.




1. MODE

Press  Change TV and Radio Channel list.

2. CHANNEL

Press  Select one from **All, Favorite and SAT** displays
EPG information

3. SEARCH

Press  Search programs by program specific information.

When the channel has a EPG data, The EPG displayed.


Category: Select genre of a programs to be searched.
(SF/ Fantasy/ Horror,,,))

Sub Cat: Select sub-category of programs to be searched (Adult movie / Romance / Comedy....)

Program name: Select the name of a specific program to be searched.

Rating: Select Maturity of programs to be searched.


4. ZOOM

Press  Select the time-grid of EPG display by **15 Min.**, **30 Min.**, **1 Hour**, or move to specific date maximum 7day.

Record reservation in the EPG





Under the EPG display, you can make recording reservation, Move to the displayed EPG and press  button you want to recording reservation and letter color change to red



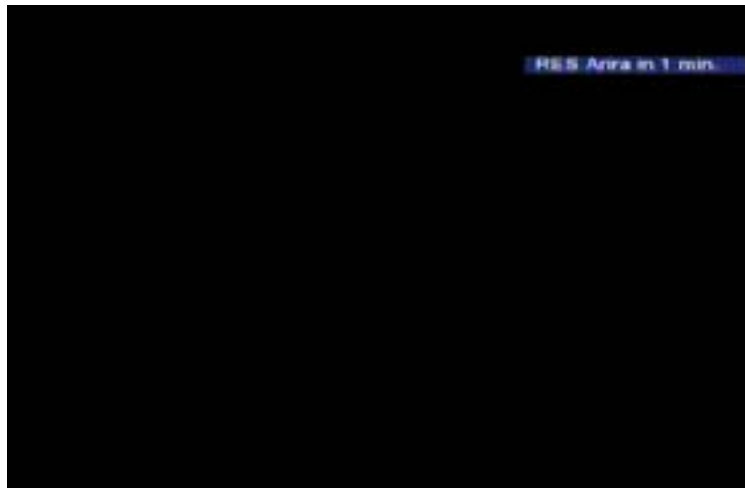
If you select the recording reservation channel, you can see the contents of the channel.



If the recording reservation time is duplicated at the same time, you have to adjust the recording time properly

***Recording reservation**

When you power off under recording reservation, and the recording time coming, then It automatically turns on before one minute of recording reservation time and check HDD.



After one minute lapse, Pop-up window appear whether you recording or not.



If you don't touch RCU, It recognizes as there are no people and carry out recording.

After recording, It turns off automatically.

But if you use RCU during recording, then it recognize that there are a people and does not turn it off automatically.

■CMS / FILE 

Press CMS/FILE button to display recorded file.



The Record Plan show the recording status.

Yellow color of channel shows on the recording channel now.

White color channel shows recording reservation channel.

Grey color channel shows failure to recording.

(If the PVR power off at the recording reservation time, then the reserved channel's color change to grey.)



You can get more detail information about recording reservation channel

If the recording reservation files are bigger than HDD size, then the PVR ask you which files be removed and you need to choose.

To exit from CMS / FILE press EXIT button.

■ Channel Information

Press the INFO button on the remote controller; you can see general information of the channel.

Press INFO or MENU button to exit.

Press button first shows channel info press button second shows SAT and TP info

Press third shows teletext info if it has.

■ RCL

In the live channel it shows previous channel.

Under Watching recorded file, RCL change to live channel, and the watching file will maintain it's status as you setting if you change to live channel.

■Subtitle

If the watching channel has a subtitle, show it and can select the subtitle language.



■Audio Setting



Press the AUDIO button on the remote controller; you can select the audio language and sound mode.

The window shows the input audio signal and you can select the audio language among options.

And you can select sound mode among **Stereo / Mono Left / Mono Right**.

Press the UP/DOWN button to move to another item and press LEFT/RIGHT button to select option.

Press AUDIO or MENU key to exit.


Under the recording or Trick play you can't select audio option, you have to select audio option before recording or Trick play.



PVR OPERATION


Maximum 2 channel recording and 1 channel playback.

■ Recording

Press  button to record now you watching, On TV screen recording channel info display.



In the channel list, Recording file change it's color to yellow

Press  button to stop recording .

The default recording time is two hour, and you can change the recording time maximum 23h 59min . **CMS-> Record plan->New-> Duration.**


The recording notice will be shown in two minute before.

When you make a recording reservation and the power is off, the PVR automatically turn on the power and make recording. When finish the recording, the PVR power also turn off automatically, But during recording If you operate RCU, then the power not off automatically.

During recording, if you turn off the power with RCU, then ask again which prevent unexpected RCU operation. If you want to stop the recording, the recorded file will not be saved.



■Recorded file open

Press  button , you can see your recorded files and your HDD information.

1. Video

Show recorded video files

2. Radio

Show recorded audio files.

3. Record Plan

Show recording file and reserved record list



■Record plan

Press  button and move to **Record plan** and select options

1. New

Select channel and other options.


2. Edit

Edit setting options.

3. Delete

Delete the Record Plan.

■Play back

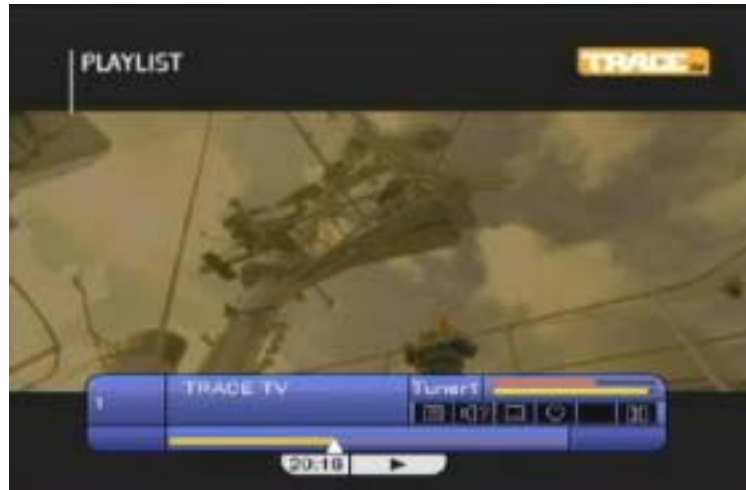
Press  button first In the CMS/File menu, Move to recorded file you want to watching and press OK button to playback.

■Trick play in live signal.


You can watch about 30min live signal trick play. After change channel, the recorded file Removed automatically.

If you change the channel, then start recording again the changed channel.


Under live signal, The PVR function compatible like a Pause, Jump back, Jump forward, rewind, Fast forward, slow, frame by frame.



■Book mark

Press  button make a book mark on the time bar as you want.

If you want to move next book mark, press PLAY button jump to next book mark

To remove book mark on the time bar, press  button again.




■Play 

Display time bar and press the button under the book mark to jump to the next book mark, then the

playback start at the marked position.



■Repeat 

Press repeat button to repeat in the pointed book marks

If you don't make book mark, The hole section be repeated.

White point show above time bar that indicate start and end point for repetition.

To exit repeat function, press repeat button again.



■Stop

Stop the watching file and back to live channel

■Pause


Pause the watching file and live signal. If you want to back normal play, press **play** button.

If you press the button under the recording, the recording continue and showing the procedure on the time bar.

■Instant replay


In the time bar, it make jump back about 15sec behind from now you watching.

Press PLAY button back to normal play.

■ Quick skip 

In the time bar, it make jump forward about 15sec ahead from now you watching.

Press PLAY button back to normal play.

■ Fast forward or random position jump & playback 


Move the time bar forward x2,x4,x8,x16 steps and press keep the button then, the time bar move fast as you desired position.

Press PLAY button back to normal speed.

In the default channel list, if you press the button the channel jump to 100 unit

If you Sort channel as CAS to FTA, the channel jump to CAS and FTA unit.

If you Sort channel as Satellite name, the channel jump to Satellite name unit.

■ Fast reverse or random position jump & playback 


Move the time bar backward x2, x4, x8, x16 steps and press keep the button the time bar move fast to backward.

■ OSD teletext. 

If you watching channel have a teletext, then you can see the Information.

According to color displayed in the teletext, press the color on the RCU like blue, yellow, green and red the subordinate menu will display



■ Slow motion or Frame by Frame 

Press the button 1~2sec and showing as you push the button show speed as x1/16, x1/8, x1/4, x1/2 steps.



Press the button less than 1sec it show still screen first, As you press the button, show frame by frame.

Press PLAY button to back normal play



USER'S OPTIONS

■USER'S SETTING



1. Aspect Ratio

Select 4:3 PS (Pan & Scan) or 4:3 LB (Letter Box) for Standard TV or 16:9 for wide screen TV.

2. Banner Time Out

Select the time-out for information banner display from 2 - 10sec.

3. Subtitle

Select subtitle display ON/ OFF. The selected Subtitle Language on the Language menu will be displayed.

4. Switch Smart EPG/CAM Update

Watching channel or on the process of recording. searched all channel's EPG save Automatically In side receiver though power off, the EPG still remain.

When you need update the CAM, You have to change from **Smart EPG** to **CAM Update**.



■ Lock Control

1. Maturity Control

Select the age limit (OFF, 5, 8, 10, 13, 15 and 18) for programs which have parental control information. If the contents have a parental guide information, it will be locked automatically according to the option.

2. System Lock

Select System Lock (ON or OFF). If you select ON, a password input box will be appeared when you enter the Main Menu. The default password is 0000.

3. Channel Lock

Select Channel Lock (ON or OFF). Each channel can be locked according to the option.

Refer to **Channel List** to lock specific channels

4. Hide Channels

Select Hide Channels (ON or OFF). The hidden channels will not be displayed on the Channel List.

Refer to **Channel List** to hide specific channels.



■ Language

1. Menu Language

Select a language for Menus, dialog boxes, and help messages.

2. Audio Language

Select an audio language for the program with multilingual audio.

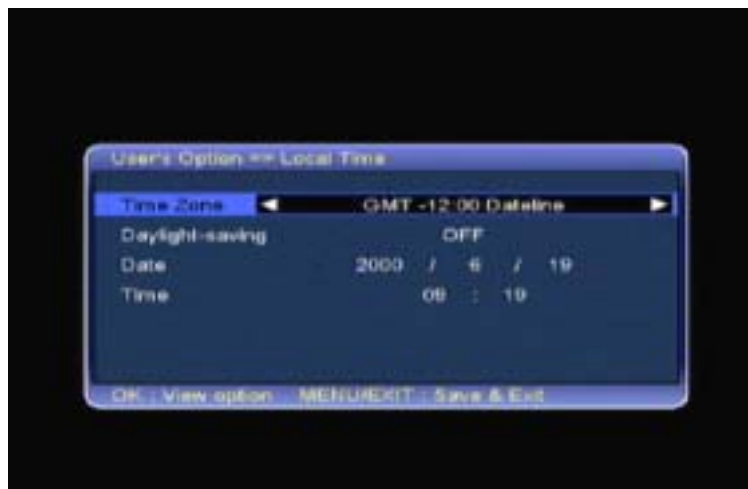
3. Subtitle Language

Select a subtitle language for the program with multilingual subtitle.



■ Local Time

Select or change your **Time Zone, Year, Month, Date, Hour, Minute** and **Daylight-saving**.



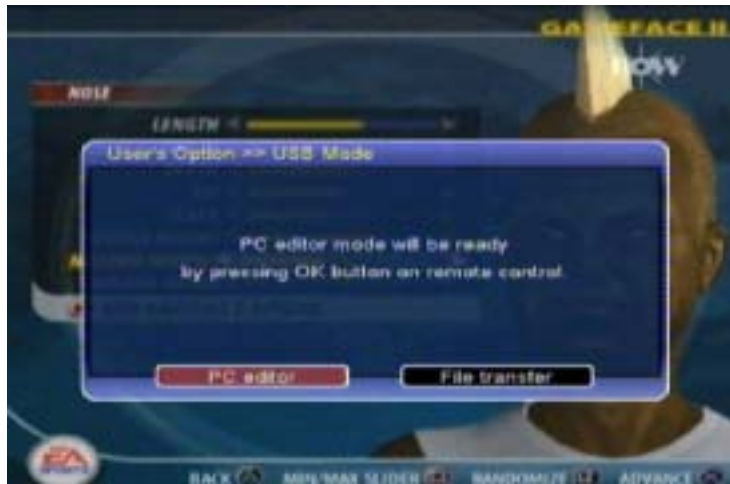
■ USB Mode

1. PC editor

Use PC editor to edit searched channel list

2. File transfer

Up load the recorder file to PC



■ HDD Management

Select HDD Format or HDD Exchange. When you select Format, the system will be restarted and current HDD will be formatted.



We strongly recommend you use the HDD for A/V or CE only. If you use the HDD for PC We will not guarantee the HDD performance.

When you select Exchange, current HDD will save recorded file and setting options.

SYSTEM SETUP

■ TV Output

1. Channel

Select a UHF TV channel for the TV connected to RF modulator output. The default channel is 38.

2. CH type

Select a proper TV broadcasting system.

Among **PAL B/G**, **PAL I** and **PAL D/K**



■ LNB SETTING

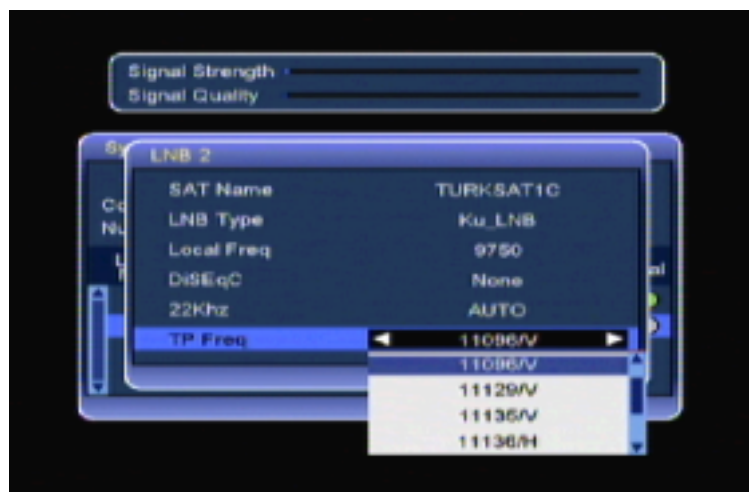
Tuner 1, Tuner 2

Select Tuner 1 or Tuner 2 first.

Make sure your tuner **Connection** is **Separated** or **Loop Thru**.

Loop through connection between tuner 1 and tuner 2.

It is not able to set up tuner 2.



In case that the receiver is connected both tuner 1 and tuner 2, select tuner 1 and set up first, then select tuner 2 and set up.

Hot Key

 : Tuner 1

 : Tuner 2

Copy LNB settings of Tuner 1 to Tuner 2

Once you complete LNB setting of tuner 1, switch connection type to **Loop Thru** and switch back to **Separated**.

You will see LNB setting of tuner 1 is copied to tuner2.

Connection

In case the 2 tuners are connected, select **separated**.

If the Tuner is connected by Loop through, select **Loop Thru**.

Switch Type

Select your LNB switch type.

Number of LNBs

Select the number of LNBs you have installed.

LNB set up

Move the cursor to each LNB No. for which you want to set up and press **OK** button on the RCU. In the pop up menu, select **LNB Type, Local Frequency, DiSEqC port No., Satellite Name** and **TP Frequency**.

(If you cannot find suitable Satellite Name or Frequency, you can register new satellite names or frequencies at the bottommost position of pull-down list.)

Once your setup is completed, press **EXIT** button to save and exit.

The Signal Indicator

It displays **Signal Strength** and **Signal Quality** that you receive a signal.

Make sure that LNB Setting is correct by this indication.

Go to Search

Once LNB setting is completed, select **Go to Search** to move to **Channel Search** menu.

■ Channel Search

You can select one of three Channel Search options such as **Auto** and **Manual Auto**

Searches channels automatically using the information the relook 300S has.

Satellite Name: Select each satellite name or All.

Network Search: Select Network Search ON/OFF

Search Method: Select **ALL**, **FTA**, or **Scrambled**.

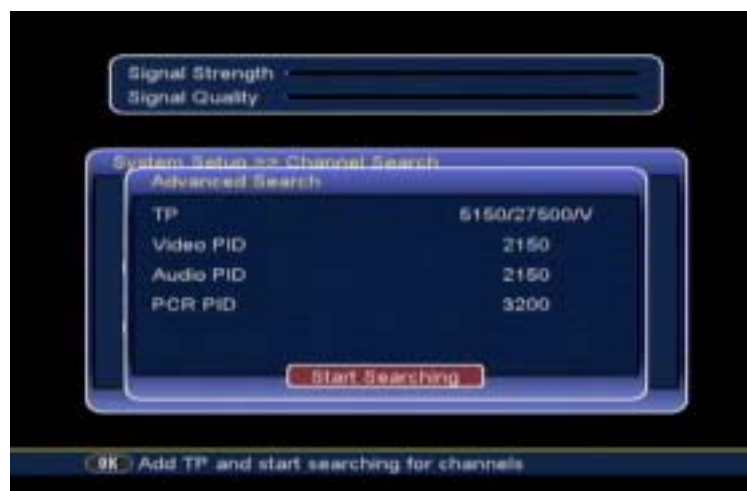
All: It detects and searches both FTA and Scrambled channels.

FTA: It detects and searches only the Free-To-Air channels.

Scrambled: It detects and searches only the Scrambled channels.

Manual

Select specific **Satellite Name**, **Frequency**, **Symbol Rate**, and **Polarity** and press **Manual Search** button



Advanced

Video PID: Enter the desired number using numeric buttons.

Audio PID: Enter the desired number using numeric buttons.

PCR PID: Enter the desired number using numeric Buttons.

Scan

Select Tuner 1 or Tuner 2 first.

Select LNB: Choose **Single/ Dual/ Universal**

Symbol Rate: Enter the Symbol Rate using numeric buttons.

Select **Start Searching** to search.

■ DiSEqC1.2 Positioner



If you have a DiSEqC1.2 motorized system, then you can use the DiSEqC function. Select the satellite name first, and change the DiSEqC th Enable and put other options. Select the TP to catch the strong **Signal Strength**.

■ USALS Setting



USALS is very convenient motorized DiSEqC system that support DiSEqC 1.3 command and also can get the satellite position automatically if you know your geographical location.

If you have USALS motorized system, then you can use the USALS as follows.

Select the tuner that is connected with USALS system.

Select Enable and Select the satellite name which will be used to identity a motor system.

Put your longitude and Latitude and press OK button start search satellite.

■ Restore Factory Setting

It removes **Channel List**, **FAV List**, **LNB Settings** and

restores original factory settings, but the file you saved still remain in HDD.



CI MODULE

■ CI Modules

This menu shows the status of CI Slots, CAMs, and Smart Cards inserted.

This information varies depending on the CAMs and Smart Cards inserted.



ABOUT

■ System Info

It displays Linux Version, Program Version, Boot Version, Channel List Version, the size of HDD and first operate date of your PVR.



SOFT WARE UPGRADE

Make sure that Hardware Driver and Flash Tools are completely installed on your PC.

-Driver installation

For the first time, follow the instructions from 1 to 10. This procedure is required for initial use for once.

1. Download the Flash tools on your PC
2. Connect PC and relook 300S by USB Cable
3. If relook is standby mode when it is connected by USB, skip the # 4, follow the # 5 to enter USB mode.
- 3-1. If the power is on, follow the instruction # 4 to enter Standby mode first then #5 to enter “USB” mode.
4. Press Power button more than 2seconds (to turn relook into Standby mode) to turn relook into Stand-by mode.
5. Press and Hold Power button until you see “USB” on the front display of relook.
6. PC detects new hardware device (important)
7. Driver Installation Wizard Appears
8. Click on proper (recommended) driver search.(the top choice)
9. Click on designate the folder
10. Designate the folder at C:/Programfiles/Flash_tools/VESTAUSB
11. Folder starts transfer
12. Click on Finish when it is done.

Important) The order of this procedure is very important, please do follow the instruction step by step.

When Driver is installed successfully, it is ready to download the latest image to relook(USB download instructions)

-Latest image downloading

1. Relook and PC have to be connected by USB cable.
2. Relook has to be “USB “upgrade mode (“USB” on the display of relook)
3. Run the Flash Tools
4. Click on USB? check the “USB connected” message at the bottom
5. Designate the image that you want to download to relook by pressing FILE
6. "DONE" on the front display. Press Power button on RCU. relook will be restarted!

Important) To enter “USB MODE” : Turn relook into standby mode(press the power button more than two seconds) then press and hold power button again until you see “USB” on the display of relook.

(For more detail, refer to [http:// www.dgstation.co.kr](http://www.dgstation.co.kr))



GLOSSARY OF TERMS

<p>CA Conditional Access. A system to control subscriber access to services/ programs.</p>	<p>RF Radio frequency (known as HF in some countries).</p>
<p>Common Interface DVB standard hardware and software architecture for Conditional Access systems.</p>	<p>SCART A 21-pin connector used for connection of the relook, VCR and TV. Also known as Euro connector</p>
<p>DVB The Digital Video Broadcast group was created to establish a technical framework for the introduction of digital video broadcasting systems.</p>	<p>S/PDIF Sony/Philips Digital Interface Format digital audio output.</p>
<p>EPG Electronic Program Guide. The programming information provided By the service provider that enables a viewer to find the much Information of programs.</p>	<p>Symbol Rate Speed of the digital transmission</p>
<p>LNB (Low-Noise Block Converter) An electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and coverts them to signals that can be used by satellite receiver</p>	<p>TS Transport stream.</p>
<p>Polarization Polarization allows several programs to be fit into the same frequency band. The signals from a satellite are transmitted either with linear (vertical or horizontal) polarization or circular (right or left) polarization.</p>	<p>CMS Contents Management System</p>

TROUBLE SHOOTING

Problem	Possible Causes	What ToDo
No display appeared on front	Power cord is not plugged in.	Check that power cord is Panel.
No Sound/ Picture	Wrong Audio/ Video output connection between the receiver and TV set. Mute Audio	Check Audio/ Video output connection between the receiver and TV set. Press Mute button to recover.
	TV Power off	Turn TV on
	No Signal	Check the cable connections, LNB and other equipment connected between the LNB and the receiver, or adjust the dish.
	Wrong direction of the dish	Adjust correctly the direction of the dish to the satellite
Remote controller does not	Batteries are not inserted correctly or low.	Check the batteries or replace with new batteries
CA module is not working	CA module is not inserted. CA module is not inserted correctly.	Check CA module is inserted correctly.
Recording is not working/ Recording is stopped	No HDD space is available.	Check HDD status.
Forgot PIN Code		Contact your local service provider/ dealer.
System Halt	System Halt or Error	Press & Hold OK and Power key on the front panel to return to stand by mode.

PRODUCT SPECIFICATION

Part	Type	Specification
CPU	Type	IBM's PowerPC405
	Speed	225MIPS
	Data/Instruction Cache	8KB/16KB
Tuner (Twin) & Channel	Input Connector	2 x IEC169-2 female
	Loop through Connector	2 x IEC169-2 male
	Frequency Range	950MHz to 2150MHz
	Waveform	QPSK
	Symbol Rate	1 ~ 45MS/s
	Loop through Out Impedance	75 ohms nominal
	Loop through Gain	0 dB Typical / 3dB Max
LNB Control	Band selection Switch Polarization	22 KHz tone DiSEqC 1.0/1.2/USALS 13/18V (400mA Max/per each)
MPEG Transport Stream & A/V Decoding	Transport Stream	ISO/IEC 13818-1 Specification
	Profile & Level	MPEG-2 MP@ML
	Input TS Data Rate	90Mbit/S max.
	Aspect Ratio	4:3, 16:9 with pan vector
	Video Resolution	720 x 576(PAL), 720 x 480 (NTSC)
	Audio Decoding	MPEG-1 Audio Layer 1,2
	Audio Mode	Stereo, Dual Channel, Joint Stereo, Mono

Part	Type	Specification
	Sample Rate	32, 44.1, and 48KHz
Memory	Flash Memory	8MB
	SDRAM	24MB
	EEPROM	0KB
Conditional Access System	Type	PCMCIA TYPE 2
	CI	DVB CI standard
	Number of Slot	2
A/V & Data In/Out	TV SCART	1 x SCART
	VCR SCART	1 x SCART
	RCA	Video x 1, Audio L/R X1
	Data Interface	9 Pin D-Sub, RS232C, Baud Rate 115200 Max
Local Storage	Type	ATA - 3
	Size	User selectable
Power Supply	Input Voltage	AC90-240V, 50Hz/60Hz
	Type	Linear PWM
	Power Consumption	50W max.(Under 7W max. at stand-by mode)
	Protection	- Separate Internal Fuse and Chassis, - Grounding The Input shall have lightning or Electric Shock Protection
Physical Specification	Size (W x H x D)	320mm x 58mm x 240mm
	Weight	About 4 .0kg
Environment	Operating Temperature	+ 5 C ~ + 45 c
	Storage Temperature	- 40 C ~ + 60 c



Connecting People To Digital Home Entertainment

Issue:relook 300S

2004. Dgstation Co., Ltd. - Korea

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