

OPTIBOX[®] *alligator*

MPEG4(H.264) HDTV Digital Satellite and Terrestrial Receiver

User's Manual

Optibox ALLIGATOR





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Please read the entire manual thoroughly and retain it for future reference.

Important safety instructions

Safety Warnings

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION : To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside. Refer any servicing to qualified Service personnel.		



This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Read this manual carefully before using the product. The cautions described below contain important information about safety, and are categorized into: Danger, Warning and Notice.

The company will not take any responsibility for accidents or damage resulting from careless handling by the user.



Danger

If the user mishandles the product, there is a risk of loss of life or critical injury.

- Connect the power cord only to A/C outlets as specified by the user manual or product specification.
If the power code is connected to a non-specified A/C outlet, it could result in fire or electric shock.
- The product must not be exposed to water or liquid of any sort, or be exposed to drips or splashes.
It could result in fire or electric shock.
- Do not place heavy objects, including the product itself, on top of the power cord. If it is damaged, it could result in fire or electric shock.
- Do not place metal objects on top of the apparatus. If metal objects fall into the apparatus, it could result in fire or electric shock.
- Do not repair, disassemble or modify this apparatus yourself. It might cause fire or electric shock.
If internal checking or maintenance is needed, please contact your service center or agency.
- Do not block or cover any ventilation opening. A fire might result from overheating.
- Turn off and unplug the power as quickly as possible during electric storms.
Failure to do so could result in fire or electric shock.
- Remove the antenna's power plug from the outlet as quickly as possible during electric storms.
Failure to do so could result in fire or electric shock.
- Do not drop the apparatus (for example by putting it in a place where it may fall) or subject it to impact.
The product might be damaged. If it is damaged, please turn off the power and remove the plug from the power outlet, or fire or electric shock may result.
- Never touch the power cord with wet hands. It could result in an electric shock.



Warning

If the product is mishandled, the user might receive a serious or minor injury.

Damage or loss to the user's property might also result.

- The product must not be exposed to water or liquid. If the apparatus is exposed to drips or splashes, it might cause a problem that cannot be repaired.
- Do not repair, disassemble or modify this apparatus yourself. It might be seriously damaged, possibly beyond repair.
- Turn off the power and unplug the power cord as quickly as possible during electric storms.
They might damage the apparatus.
- Remove the antenna's power plug from the outlet as quickly as possible during electric storms, or the apparatus might be damaged.
- Data recorded in the HDD might be lost due to a shock, lightening or electricity failure.
The user must back up his or her own data, and the company does not take any responsibility for failure to do so.



Notice

If the product is mishandled, it might cause minor damage.

- If the apparatus becomes marked, clean it gently with a soft cloth or towel. Never use chemical solvents such as benzene, thinner, acetone or other solvents. The surface of the apparatus might become discolored and the paint might peel.
- Do not place or keep the apparatus in the following situations. Doing so might cause problems.
 - Where it is too hot or cold.
 - Where there is high humidity.
 - Where there are excessive temperatures, for example in front of airconditioners or heating vents.
 - Where there is dust or soot.
 - In confined areas where the heat cannot be released.
 - Where it is exposed to direct sunlight.
- Turn the apparatus off or unplug the power cord if it is to remain unused for a long period of time.
- Do not place heavy objects on top of this apparatus. It might cause malfunction or damage.
- If the apparatus is so seriously damaged that it cannot be repaired, or has stopped working altogether, dispose of it properly in accordance with the local laws or regulations in your area.

Disposal

Batteries and packaging material do not belong in domestic waste. The batteries must be delivered to a collection center for old batteries. The separate disposal of packaging materials protects the environment.

Disposal old electrical & electronic equipment

(Applicable in the European Union and other European countries with separate collection systems)



This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product.

The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

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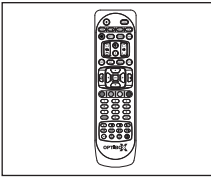
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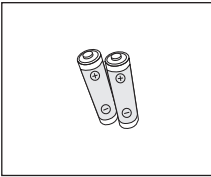
1. Getting Start

1.1 Package Contents

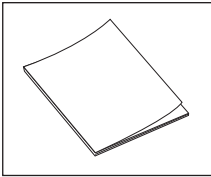
Make sure that the following accessories are supplied with your receiver.



Remote Control Unit



AAA Batteries (2 EA)



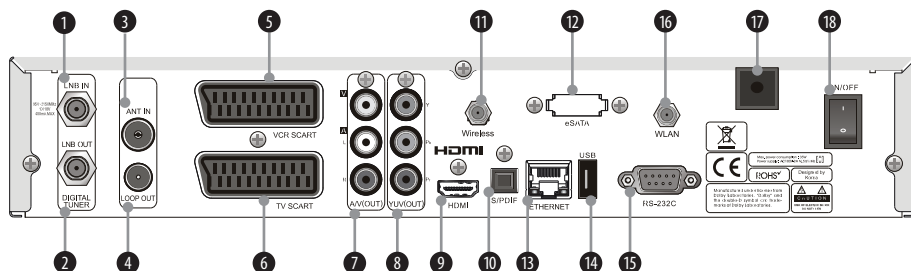
User's manual

1.2 Front Panel



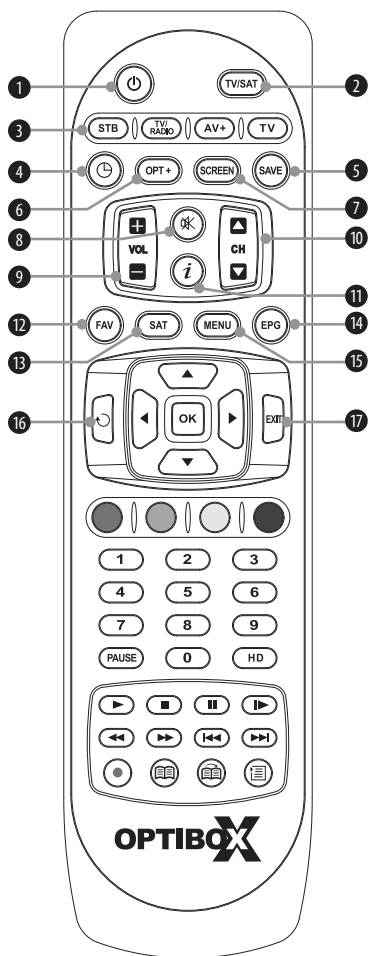
1	▲	Normal Mode	Change to the next channel.
		Menu Mode	Move to the upper item.
	▼	Normal Mode	Change to the previous channel.
		Menu Mode	Move to the lower item.
	➤	Normal Mode	Volume up.
		Change item	Change item.
	➤	Normal Mode	Volume down.
		Change item	Change item.
2	Menu	Normal Mode	Display the Main Menu.
		Menu Mode	Go to the sub menu.
3	Display window		Displays the current state such as channel, time, and massage.
4	POWER		Turn on & off the power.
5	Exit		Return from menu.
6	Smartcard Slot		Insert a Smartcard.

1.3 Rear Panel



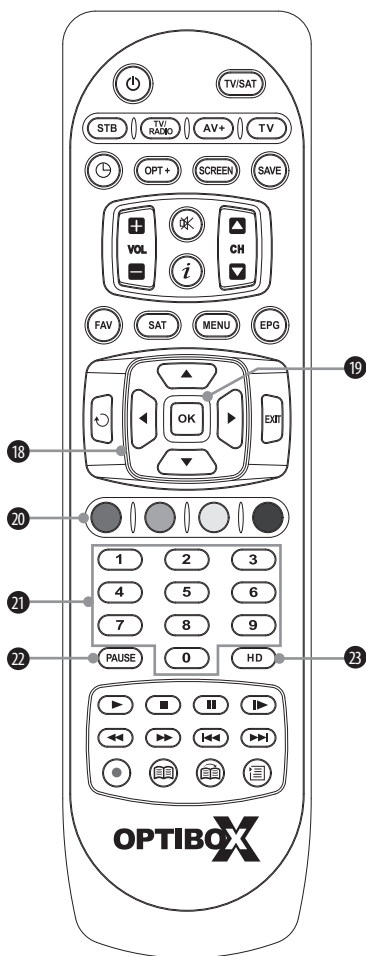
1	LNB IN	Connect satellite antenna.
2	LNB OUT	Connect to the other satellite receivers.
3	ANT IN	Connect TV antenna or CATV cable.
4	LOOP OUT	Connect TV.
5	VCR SCART	Connect VCR.
6	TV SCART	Connect TV.
7	A/V(OUT)	Connect TV (Left/Right)
8	YUV(OUT)	Connect TV through Y/Pb/Pr.
9	HDMI	Connect TV through HDMI.
10	S/PDIF	Connect TV Digital Amplifier (Optional).
11	Wireless	Internal Wireless Module(Optional).
12	eSATA	Support SATA hard disk for PVR.
13	ETHERNET	Connect TV LAN cable.
14	USB	Connect USB memory.
15	RS-232C	Connect PC for software upgrade.
16	WLAN	Wireless LAN(Optional).
17	POWER Supply	100~240V~, 50/60Hz, MAX 35W.
18	POWER SWITCH	Switch Power ON/OFF.

1.4 Remote Control Unit



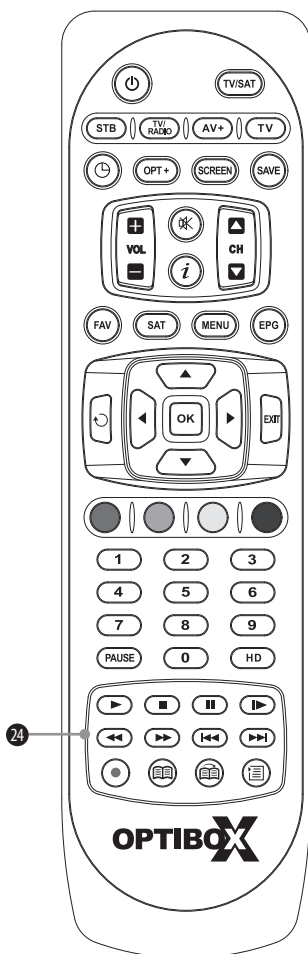
1	Power	Power On/Off.	
2	TV/SAT	Switch TV or SAT mode.	
3	STB	Select STB.	
	TV/RADIO	Switch TV/Radio mode.	
	AV+	Digital Audio, Teletext, Subtitle menu.	
	TV	Select TV.	
4		Sleep timer.	
5	SAVE	Save current volume & channel.	
6	OPT+	Show additional function menu.	
7	SCREEN	Set screen format.	
8		Mute the sound.	
9	VOL	Adjust the volume.	
10	CH	Normal mode	Change channel.
		Menu mode	Move menu item.
11	<i>i</i>	Show the current channel information.	
12	FAV	Show Favorite Channel List.	
13	SAT	Selects satellite.	
14	EPG	Show the Electronic Program Guide.	
15	MENU	Normal mode	Show the main menu.
		Menu mode	Return to the previous menu.
16		Go back to previous channel.	
17	EXIT	Return to the previous menu.	

1.4 Remote Control Unit



18	VOL ◀▶	Normal mode	Adjust the volume.
		Menu mode	Change the left/right item
	CH ▲▼	Normal mode	Change channel.
		Menu mode	Move menu item.
19	OK	Normal mode	Show the channel list.
		Menu mode	Execute the select item.
20	Color Key	Normal mode	Additional Menu Red - Fine tune menu. Yellow - Configure Diseq1.2 / Positioner. Green - Additional Menu.
		Menu mode	Selected function according to the Menu.
21	Numeric buttons	Normal mode	Select channel.
		Menu mode	Direct numeric key entry.
22	PAUSE	Pause screen.	
23	HD	Sort HD channel only.	

1.4 Remote Control Unit



24		PLAY <ul style="list-style-type: none"> • Change to normal speed in trick mode. • Show play navigation bar in normal speed.
		STOP <ul style="list-style-type: none"> • Stop file playback and watch live channel in time-shift or playback. • Stop recording.
		PAUSE <ul style="list-style-type: none"> • Pause or resume play.
		SFWD(Slow forward play) <ul style="list-style-type: none"> • Change to slow speed forward play. • Speed: 1/2x, 1/4x, 1/8x.
		FREV(Fast reverse play) <ul style="list-style-type: none"> • Change to fast speed reverse play. • Speed: -x2, -x4, -x8, -x16, -x32, -x64.
		FFWD(Fast forward play) <ul style="list-style-type: none"> • Change to fast speed forward play. • Speed: x2, x4, x8, x16, x32, x64.
		<ul style="list-style-type: none"> • Go to start position.
		<ul style="list-style-type: none"> • Go to end position.
		RECORD <ul style="list-style-type: none"> • Record current channel.
		BOOKMARK <ul style="list-style-type: none"> • Set Bookmark in time-shift or playback.
		BOOKMARK JUMP <ul style="list-style-type: none"> • Jump to bookmark.
		BROWSER <ul style="list-style-type: none"> • Show File List.

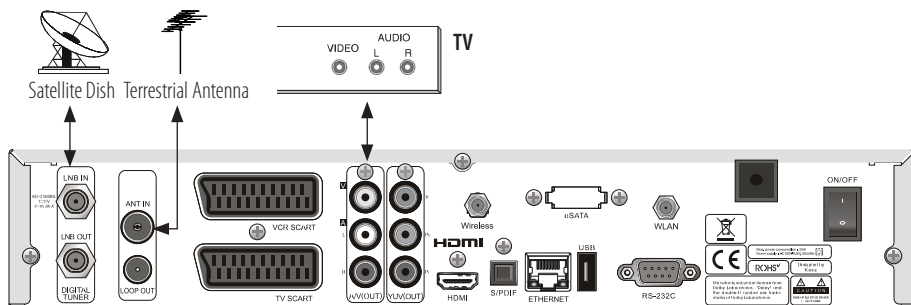
1.5 Connecting Your Equipment

Connect related equipments to STB as below.

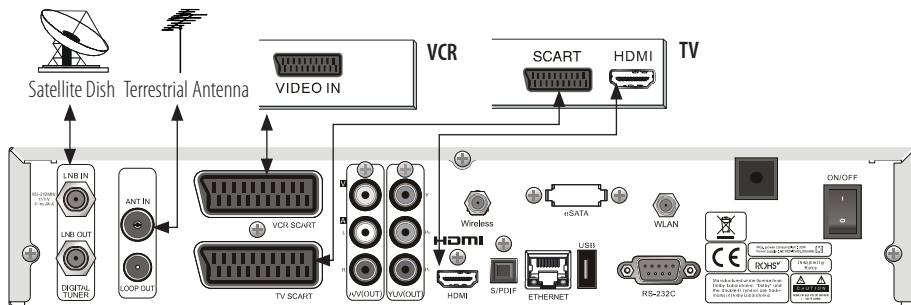
Note

When you connect STB to TV by using SCART, please fit the CLAMP FILTER near SCART jack.

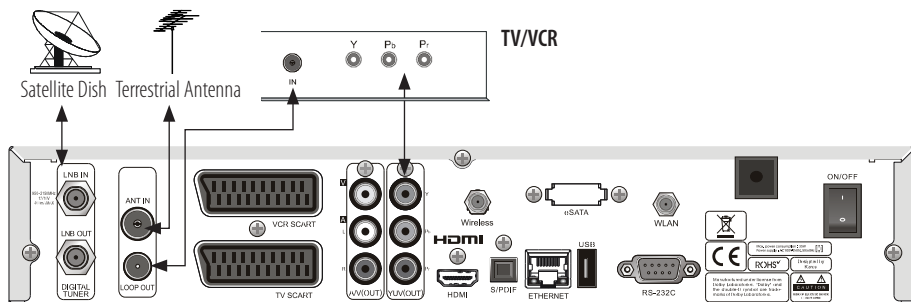
1.5.1 Connect TV with RCA cable



1.5.2 Connect TV/VCR with SCART / HDMI cable

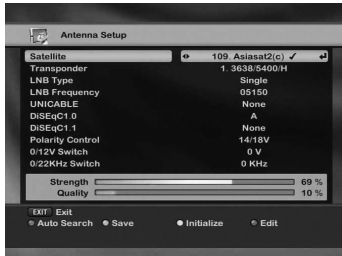


1.5.3 Connect TV/VCR with YUV/Terrestrial cable install



2. Installation

2.1 Antenna Setup



- **Satellite :** Select any satellite by pressing ◀▶ keys.
(Press blue key to edit the name of the satellite)
- **Transponder :** Select a transponder.
- **LNB Type :** Dual / Universal, Single, OCS, Wideband, Digiturk MDU1, Digiturk MDU2.
- **LNB Frequency :** Select a proper LNB frequency.
(Press blue key to input local frequency)
- **DiSeqC 1.0 & 1.1 :** Select between "None" or "DiSeqC1.0 A, B, C, D" and "DiSeqC1.1 1 ~ 16".
- **Polarity Control :** Select one out of "14/18V", "0/12V", "0/22KHz".
- **0/12V Switch :** Select between "0V", and "12V".
- **0/22KHz Switch :** Select between "0KHz", "22KHz", "Auto".

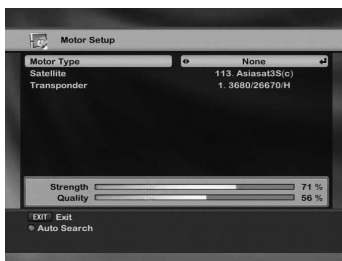
Note

Make sure to save searched channels before exit.

Press **YELLOW** button to initialize satellite value.

After Antenna setup, you can move to Auto search menu with **RED** button.

2.2 Motor Setup



You can Select "None", "DiSeqC1.2", or "USALS" by pressing ◀▶ keys.

- **Motor Type :** Select a motor type by pressing ◀▶ keys.
(Press blue key to edit the name of the satellite)
- **Satellite :** Select a Satellite.
- **Transponder :** Select a transponder.

2.2.1 Setting up DiSeqC1.2

In the Motor Setup Menu, select the DiSeqC1.2 then the following menu will be displayed.

- **Satellite :** Select a satellite by pressing ◀▶ keys.
(Press blue key to edit the name of the satellite.)
- **Transponder :** Displaying current TP value.
- **Nudge Size :** Motor move step (1-5).
- **Move Coarse :** Move west (◀ key), Move east (▶ key).
- **Move Fine :** Move by the value of Nudge size.
- **Motor Control I :** GOTO, SAVE, GOTOREF.
- **Limit Setup :** Setting limit.
 - **EAST LIMIT :** Confirming the setting of East Limit.
 - **WEST LIMIT :** Confirming the setting of West Limit.
 - **DELETE LIMIT :** Delete the setting of East & West Limits.

Note

Setting DiSeqC 1.2

1. Select DiSeqC 1.2 in the Motor setup menu.
2. Select satellite.
3. Move motor until you see good signal.
4. After searching satellite, SAVE current position.
5. Repeat this operation for other satellites.
6. Go to Auto search menu with RED key.

Setting USALS

1. Select USALS in the Motor setup menu
2. Enter longitude and latitude value
3. Save current setting in move control
4. Move motor to current satellite position and check signal.
5. Go to Auto search menu with RED key

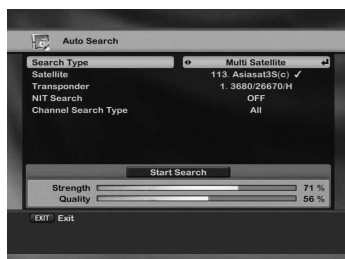
2.2 Motor Setup

2.2.2 Setting up USALS

Select the USALS in the Motor Setup menu, and press OK key to display following menu.

- **Satellite :** Select a satellite by pressing ◀▶ keys.
- **Transponder :** Displaying current TP value.
- **Satellite Position :** You can edit the position of satellite.
- **Longitude :** Setting the longitude position.
- **Latitude :** Setting the latitude position.
- **Move Coarse :** Move DiSeqC1.2 motor manually. Move west (▶), Move east (◀).
- **Move Fine :** Moves depending on the value of Nudge size.
- **Motor Control :** GOTO, SAVE, GOTOREF.
- **Limit Setup :** Setting limit.
 - EAST LIMIT : Confirming the setting of East Limit.
 - WEST LIMIT : Confirming the setting of West Limit.
 - DELETE LIMIT : Delete the setting of East & West Limits.

2.3 Auto Search



All channels will be searched if the selected satellite is properly assigned in the Antenna Setup menu.

- **Search Type**

- Multi Satellite : Search multiple satellites as you select in pop-up window.
- One Satellite : Search only the current satellite.
- Multi Transponder : Search multiple TS in transponder pop-up window.
- One Transponder : Search current transponder.

- **Satellite :**

Select one of Satellite.
(Select satellite in the auto search menu and press RED key to Multi Satellite Register)

- **Transponder :**

Select one of transponders in TP list.

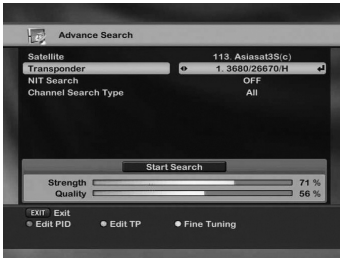
- **NIT Search :**

Activate network search mode.

- **Channel search Type :**

Select one of search Type between "ALL", "FTA", "Scramble", "All TV", "FTA TV", "RADIO", "Scramble TV", "All RADIO", "FTA RADIO", "Scramble RADIO".

2.4 Advanced Search



When a new satellite is launched or you want to search channels from a satellite which is not programmed, you can edit all of the transponders of the satellite by this function and then channels can be searched by "Advance Search".

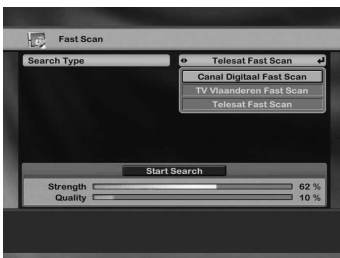
- **Edit TP :** When you press GREEN key, EDIT TP menu It will be displayed, The settings of "Frequency", "Symbol Rate", "Polarization", and the other of selected transponder will be displayed in each field.
- **Edit PID :** When you press RED key, Select any out of iDEC; i; HEX; i.
- **Find Tuning :** When you press YELLOW key, You can control iAGC Value; i; Bandwidth;.

2.5 Blind Search



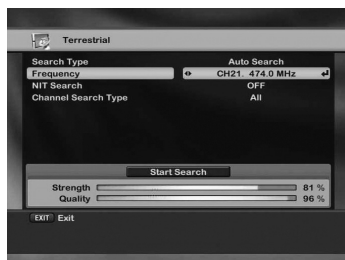
When a new satellite is selected or you want to search all Transponder from a satellite which is known or unknown transponder.

2.6 Fast Scan



You want to search channels from Canal Diditaal Fast Scan, TV Vlaanderen Fast Scan and Telesat Fast Scan.

2.7 Terrestrial



You can edit all of the Frequency of the Terrestrial by this function. And then channels can be searched by Terrestrial.

3. Channel / Event

3.1 Channel Control

Channel Control consists of TV channel control and Radio channel control.

All kinds of channel editing functions can be performed in this menu like Channel view, Edit Name, Set/Clear favorite, Lock/Unlock, Edit PID, Move and Delete.

Note

By default, there's no channel list for both TV and Radio.
Be sure to perform search channels before use.



3.1.1 Channel Mode

In order to control various channel lists, Channel Mode function keys assist users to organize many channels within their scope of action.

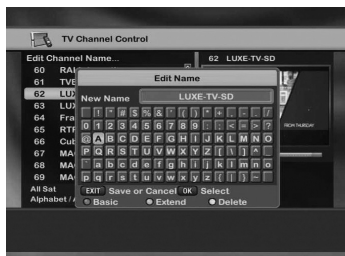
There are various keys to help you to perform channel control functions in help line.



3.1.2 Edit Mode

Press OK key then select channel Edit mode.

3.1 Channel Control



3.1.3 Edit Name

Edit the name of the selected Channel.

Select one channel and press OK key and then you can edit name.



3.1.4 Favorite Channels

Select Set/Clear FAV in the channel control popup menu, then another popup menu will appear on the right side of the screen (e.g. News, movie, drama).

Select one of them and press OK to add to your favorite list. Then favorite icon will appear beside the channel name To deselect, go to the selected channel and press OK.



3.1.5 Lock/Unlock Channels

Select Lock/Unlock in the channel control menu. Press OK on the channel that you want to change. Then lock icon will appear beside the channel name. It will confirm that the channel is locked.

To unlock the channel, use ◀▶ key on the remote, and press OK on the channel.



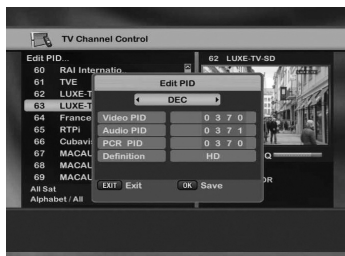
3.1.6 Hide Channel

Select Hide Channel in the edit channel popup menu.

Press OK on the channel that you want to set and clear hide channel.

To Show/disappear the Hide channel, you have to enter private password by pressing REC key.

3.1 Channel Control



3.1.7 Edit PID

Edit Video PID, Audio PID, PCR PID with Hex or decimal code.

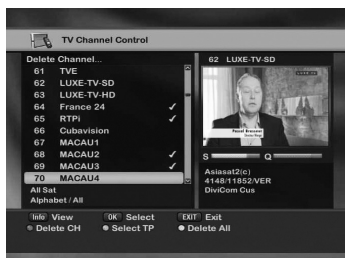
If you want to change PID number, press RED key to Enter value by yourself.



3.1.8 Move

Change the position of the selected channel in the channel list.

Select MOVE in the edit channel popup menu, Press OK on the channel that you want to move, use press UP/DOWN key to locate channel position and RED (move channel) key and then Press EXIT key to save.



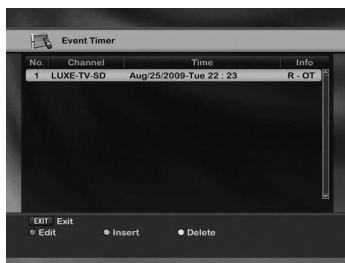
3.1.9 Delete

Delete the selected channel or TP.

Select delete in the edit channel popup menu, press OK on the channel that you want to delete, and RED(delete channel) key or Yellow (delete all)

3.2 Event Timer

Set the STB work in reservation mode to Wake up and Sleep using Timer.



Add the event in the list by the Green key, and edit the selected event in the list by the Red key.

To delete the event, press the Yellow key.

Ch View : Set the watching channel for turn ON/OFF time, cycle, etc.

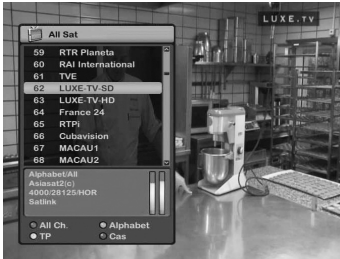
Wakeup : STB will be automatically powered on by setting of Wakeup time.

Sleep : STB will be automatically powered off by setting of Sleep time.

Record : Record the reserved channel.

4. Menu Guide

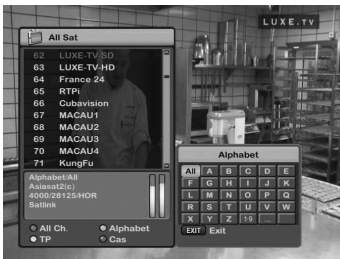
4.1 Channel List



Press OK key while watching video, then Channel List menu will be shown depends on channel mode (Sort mode). If the channel mode (Sort mode) is favorite mode, then Favorite channel list will be displayed. You can search the channel by sort function.

4.1.1 Satellite sort

If you want to change satellite select mode, press SAT key, and then Small pop-up window will be displayed, select one among them by pressing OK, and then select channel by pressing OK. Then the satellite select will be changed.



4.1.2 Alphabet Sort

If you want to change alphabetical mode, press Green key, and then Small pop-up window will be displayed, select among them by pressing LEFT/RIGHT/UP/DOWN, and then select alphabet by pressing OK. Then the alphabetical mode channel list will be changed.

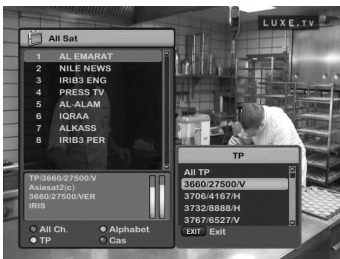
4.1.3 HD Sort

If you want to change into HD sort mode, press HD key.



4.1.4 Favorite Sort

If you want to change Favorite Sorting mode, press FAV key, and then Small pop-up window will be displayed, select among them by pressing UP/DOWN, and then select Fav. list by pressing OK. Then the Favorite channel list will be changed.



4.1.5 TP Sort

If you want to change TP (Transponder) Sorting mode, press Yellow key, and then Small pop-up window will be displayed, select among them by pressing UP/DOWN, and then select TP list by pressing OK. Then the TP channel list will be changed.

4.1.6 CAS sort

If you want to change into CAS Sorting mode, press Blue key, and then Small pop-up window will be displayed, select one among them by pressing UP/DOWN, and then select another CAS list by press OK. Then the CAS channel list will be changed.

4.2 Channel Guide



4.2.1 Channel Guide

Press EPG key while watching channel, then TV GUIDE menu will be shown.

The EPG menu consists of Channel number, Event name and the flag of extended event description.

Brief TV guide information of current channel will be displayed on the bottom of the screen.

By pressing RED key, select FULL TV Guide.



By pressing GREEN Key, 7-Days Guide will be displayed. And it is possible to move Now to guide and Next guide by pressing LEFT/RIGHT key.

Information consists of Event Name, Event Description and Extended Event Description



By pressing YELLOW button, you can easily set reservation schedule.

4.3 Normal Mode



For more detailed channel information, some channels are supporting Teletext/ Subtitle service.

There are two types of EBU Teletext service as follows:

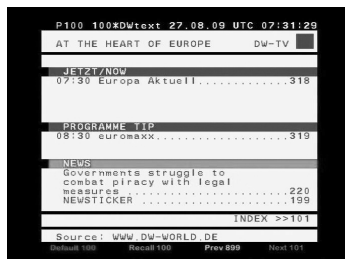
This satellite receiver supports the both types.

- **VBI** : Supported by TV and controlled by Teletext key on TV remote controller.
- **STB** : Supported by satellite receiver and controlled by receiver's remote controller.

4.3 Normal Mode

Press AV+ key in the normal mode.

Choosing a Teletext service, then it will display to Teletext from current channel



< Teletext Mode >

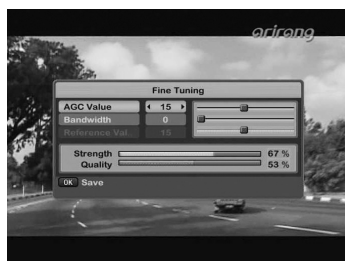


< Subtitle >



4.3.1 Audio Control

Press AV+ key, then you can see Audio pop-up window and you can select audio language and audio mode (Left, Right, Stereo).



4.3.2 Fine Tuning

When the signal is very poor, you can change the user value in fine tuning menu, for better reception.

Press RED key in the normal mode, then select Fine Tuning.



4.3.3 Auto Channel Change

Press UP/DOWN key for 2 ~ 3 seconds, then you can see auto Channel message on the channel information and you can change the time of auto channel change.

4.4 System Setup

4.4.1 OSD Setup

In Normal Mode, Press MENU key, then select System Setup Menu and select OSD menu.



4.4.1.1 Language

You can set language which will be used for displaying menu. You can select English, French, Russian, Arabic, Persian, Turkish, Italian, and German.

4.4.1.2 Audio Language

You can set the default audio language.

4.4.1.3 Subtitle Language

You can set the default subtitle language.

4.4.1.4 Banner Time

You can set the displaying duration of Banner menu.

- **Time Range** : From 1 to 30 seconds.

4.4.1.5 Transparency

You can set the transparency of menu screen. 9 levels of the transparency are supported.

Ranges from 0% to 80%.

4.4.1.6 Main Image

You can set the type of main still image for background.

4.4.1.7 Signal Visualize

You can set the display type of signal level in banner information.

4.4.2 Video

Press MENU key in Normal Mode, then select System Setup, and select Video submenu.



4.4.2.1 Screen Ratio

You can select the aspect ratio of TV screen according to your TV type. 4:3 and 16:9 modes are supported.

4.4.2.2 Screen Format

If the Screen Ratio is 4:3, there will be choices as Letter Box, Center, combined, and Full.

If the screen Ratio is 16:9, you will have choice as letter Box and Center and Full.

4.4 System Setup

4.4.2.3 Display Format

You can select Display Format according to your TV type.

"PAL", "NTSC", "SECAM", and "PAL & NTSC" modes are supported.

4.4.2.4 Display Size

1080i, 720p, 576p, 480p.

4.4.2.5 Deinterlacer

You can turn on/off the Deinterlacer.

If you set the deinterlacer value to ON, HDMI/YUV picture quality of SD channels will be improve.
but, channel change speed will be slower.

4.4.2.6 YUV Output

You can turn on/off TV Component output.

If you want to set the video mode for TV SCART(RGB), then turn off the YUV Output and change SCART Output to RGB.

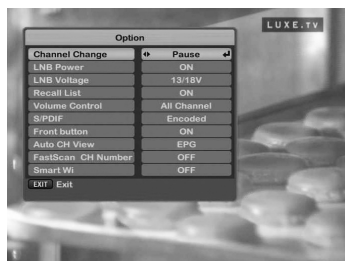
4.4.2.7 SCART Output

You can set the video mode for the TV SCART output, by pressing OK key, then press ▲▼ key on the remote control unit.

2 Video Output as RGV/CVBS are supported.

4.4.3 Option

Press MENU key in Normal Mode, then select System Setup menu, and select Option.



4.4.3.1 Channel Change

You can select the way of changing the channel by pressing OK key, then press ▲▼ key on the RCU.

Supported mode : Blank, Fade

4.4.3.2 LNB Power

You can set the LNB Power ON/OFF by pressing OK key, then press ▲▼ key on the RCU.

4.4.3.3 LNB Voltage

You can set LNB voltage by pressing OK key, then press ▲▼ key on the remote control unit.

Supported voltage : 13/18V, 14/19V.

4.4.3.4 Recall List

If you set it "ON", you will be able to see the "Recall List" when you press RCL button.

If you set it "OFF", you can go back to the previous channel only.

Note

Recall list is the menu in which you can see the channels you watched past.

4.4 System Setup

4.4.3.5 Volume Control

You can set the Volume Control by pressing OK key, then press ▲▼ key on the RCU.

Supported mode : All Channel – the volume value of all channel same value channel – every channel can have different volume value.

4.4.3.6 S/PDIF

You can set the S/PDIF output mode, Encoded and PCM.

4.4.3.7 Front Button

You can set ON/OFF

- **ON :** Front Key is working
- **OFF :** Front Key is not working

4.4.3.8 Auto CH View

You can set the channel change mode in Channel List and EPG Menu.

If you set the EPG or CH List, you can change channel by moving item in each menu.

4.4.3.9 FastScan CH Number

You can set the logical channel number mode. It is supported by the Program Provider.



4.4.4 Time

Mode, then select System Setup menu, and select Time menu.

• Time Offset

Press ◀▶ key to set the Current Time.

For your reference, when you scroll time zone, the name of city will be displayed.



4.4.5 Color Control

If you want fine tuning for color value, press MENU key in Normal Mode, then select System Setup menu, and select Color Control menu.

4.4.5.1 Color Mode

You can set the Color Mode.

Supported mode : User, Movie, News, Sports.

4.4 System Setup



4.4.6 Parental Control

You can prevent children from watching channels, which are unsuitable for them. Only the person who knows the password can watch the prohibited channels. In the parental control menu, you can select four password options.

4.4.6.1 Lock Grade

Change the password options by ◀▶, None, Menu, channel, Menu & Channel. Password is made up of 4 digit numbers; it is never shown on the screen. Only asterisks appears as you input password, when you select the locked channel in "Favorite TV/Radio" or "TV/Radio channel Control", you will find the following message "Key in Password" on screen. Then please insert your password.

4.5 Additional Function



4.5.1 Channel Information

• Basic Box

This is the information box containing "Program Number", "Program Name", "Signal Quality bar", "Current Time", and "Provider name" only.

• Extended Box

This has additional information like and Satellite, channel Frequency and CAS Type as well as basic Channel Information.

4.6 Module

4.6.1 CI Slots

The CI (Common Interface) is an interface for a standard PCMCIA module in receiver. If you want to watch a scrambled channel, you need CAM (Conditional Access Module) and Smart Card to the channel.

CI menu is provided by CAM and its Smart Card.

This menu will be activated if you insert the CAM In the slot CI menu varies according to the kind of CAM and its Smart Card.

The screenshot shows the 'Network Setup' menu with the 'Ethernet' option selected. The 'Method' is set to 'STATIC'. The configuration fields are as follows:

Field	Value
IP Address	192.168.010.132
Subnet Mask	255.255.255.000
Default Gateway	192.168.010.001
DNS Server	192.168.010.001
MAC Address	00:08:DC:00:71:16

Buttons at the bottom: EXIT, Exit, Ping, and a key number field.

4.6.2 Network Setup

• Static

Static IP address can be used by entering the reserved IP address.

• DHCP

If DHCP (Dynamic Host Configuration Protocol) is selected, IP address and all the basic TCP/IP protocols set automatically.

The screenshot shows the 'Network Setup' menu with the 'PPPoE' option selected. The configuration fields are as follows:

Field	Value
IP Address	192.168.010.132
Subnet Mask	255.255.255.000
Default Gateway	192.168.010.001
DNS Server	192.168.010.001
MAC Address	00:08:DC:00:71:16

Buttons at the bottom: EXIT, Exit, Ping, and Edit.

• PPPoE

It is one of the Ethernet communication protocol and it also can be controlled by ID and PW.

• Ping

Verify the status of network connection to the server.

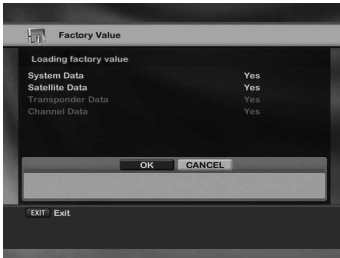
4.6.3 Software Upgrade

For Software upgrade, enter the server IP address which is defined by the Service Operator.

4.6.4 Embedded

This menu is for Free To Air + Embedded, and This menu allows you to view the information of the smart card such as available entitlements, Maturity Rating and PIN code.

4.7 STB Status



4.7.1 Factory Value

This function will reset all the parameters as factory default value. When this menu is selected, the message will be displayed on the screen. You can change each field into default data in Factory Value.

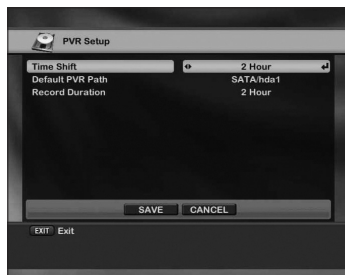


4.7.2 STB Information

STB Information shows STB software version, data, etc for your reference. At the top of the page you will see the software version of the STB.

5. eSATA PVR Guide

5.1 PVR Setup



You can change the PVR configuration in PVR Setup menu.

To enter this menu, press MENU key in normal mode, and go to Channel / PVR menu, then select PVR Setup.

- **Time Shift** : Configuration for recording the current channel automatically. If you set Time Shift to Enable(1 or 2 Hour), you can use time shift without recording a channel explicitly.
- **Default PVR Path** : Configuration for selecting the default recording device. If you attached the storage -SATA, USB-device, then you can select the default recording device.
- **Record Duration** : Configuration for default user record duration. If you select 2 Hour, then you can record a 2-Hour of channel when you record.

5.2 Media Setup



You can see the information of hard disk and format a hard disk in Media Setup menu. To enter this menu, press MENU key in normal mode, and go to Channel / PVR menu, then select Media Setup.

You can use an external SATA storage, external USB storage and USB memory stick. And it supports FAT16, FAT32, EXT2 and EXT3 file systems.

You can select the storage-SATA, USB- device in Media and select its partition. If your storage is not formatted or formatted with an unsupported file system, at first you have to format it. All data in the storage are removed when you format, so please backup your data before format. You can format hard disk by pressing OK key on Format item.

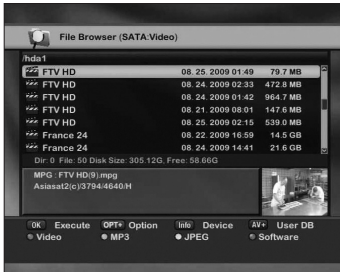
There are two ways of formatting hard disk - Media, Partition.

Media type is to format whole partition in hard disk and Partition type is to format the partition that you select in Partition item.

You can delete all files in partition that you select with RED key.

You want to extract the hard disk, please do safe remove by pressing GREEN key.

5.3 File Browser

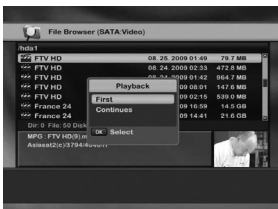


You can see the files that you recorded and other media files(ex JPEG) in File Browser. To enter this menu, press BROWSER() key in normal mode.

You can see the file information (size, date, duration etc) here.

You can play a media file by pressing OK key on a file that you want to play.

If you select a recorded channel, then you can select how to play.



- **First** : Playback from first position
- **Continues** : Playback from last stop position

Press EXIT key in File Browser, then you can watch a file playback in full screen. If the file is reached to end time, then file playback will be stopped and be changed to live channel

If you want to play other media file(Photo or Music), then please change the Media file type by pressing the color keys as follows.

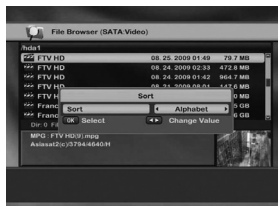
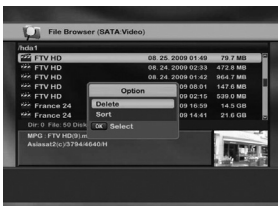
- **Red** : Video (Video Files List)
- **Green** : MP3 (MP3 Files List)
- **Yellow** : JPEG (JPEG Files List)
- **Blue** : Software (Software Files List)



You can select the storage device with INFO key.

You can do the additional functions with OPT+ key.

In these functions you can delete file and you can sort file lists by Alphabet, Date, or Size.



5.4 Instant Recording




You can start recording a channel that you are watching by pressing RECORD() key. You can record 3 channels in same transponder



The default duration is set in PVR Setup Menu and file name is derived from channel information. You can change duration by pressing RECORD() key one more.







To stop recording, press STOP() key then you can stop recording by pressing OK key on the list that you want to stop or stop all recording by pressing RED key.

While you are recording channel, you cannot enter some menu (such as Installation, Media Setup, etc..)

5.5 Time Shift

Time Shift is a time-delayed broadcast of the channel that you are watching. To use time shift, the channel must be recorded. In other word, Time Shift option must be set to 1 or 2 Hour in PVR setup menu or you have to record the channel explicitly.

- 1) Pause a channel by pressing PAUSE() key while you are watching a channel, then you can see the shifted time in message
- 2) Resume the channel by pressing PAUSE() or PLAY() key later, then you can watch the time-delayed channel.
- 3) If you want to jump to live channel, please press STOP() key.

5.5 Time Shift




You can also shift a time with trick play key in normal mode and seek key in the Play Navigation. Please refer to Trick Play and Play Navigation.

5.6 Trick Play

You can change the playback speed while you are in time shift mode or watching a file playback.

You can use trick function in normal mode or progress bar. Trick play function supports fast forward, fast reverse and slow forward as follows.

- **Slow Forward play** (): $\frac{1}{2}x$, $\frac{1}{4}x$, $\frac{1}{8}x$
- **Fast Reverse play** (): -x2, -x4, -x8, -x16, -x32, -x64
- **Fast Forward play** (): x2, x4, x8, x16, x32, x64

If you press trick key repeatedly, playback speed is changed to each step and speed is changed to normal speed in last step.

If you press PLAY () key in slow or fast speed playback, then playback speed is changed to normal speed also.

5.7 Play Navigation



You can change the time position of playback in Play Navigation Bar.

To enter Play Navigation Bar, press PLAY () key while recording a channel or watching a file in normal speed.

To change the previous or next position of playback, press LEFT, RIGHT key in Play Navigation Bar.

You can also use trick play key in this bar.

5.8 Getting Ready

Please follow below steps to get ready for recording function.

Preparation

This function works with external HDD with Serial ATA interface (eSATA HDD).

Connecting eSATA HDD to the Set Top Box

- 1) Ensure the power of both devices are turned off.
- 2) Connect STB and eSATA HDD with eSATA Cable.
- 3) Turn on the eSATA HDD.
- 4) Turn on the STB.

Formatting eSATA HDD with HDD Manager

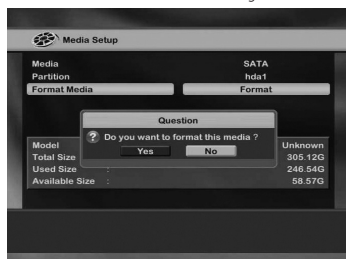
Media Setup



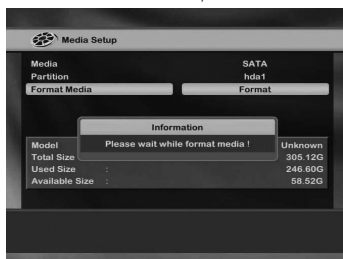
HDD information



Format confirmation message box



Format complete

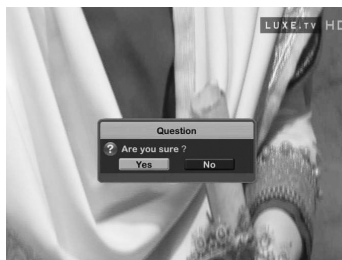


5.9 Recording

- 1) Press REC button on RCU.
- 2) Recording will be started with tiny message box on upper right side displaying recording time & channel name.
- 3) To stop recording, press STOP button on RCU.



- 4) **BACKGROUND RECORDING** : You can switch to other channel to watch it while recording (recording channel and watching channel should belong to same TP)
- 5) As you try to move channel in different TP, recording could be stopped with confirmation message box.



Recording CH : Luxe-TV-HD
Live Viewing CH : RAI Interna

5.10 Play Back

- 1) To browse recorded files in HDD, go to FILE MANAGER MENU.
- 2) Selecting one of them, small preview window opened and play automatically.

Recorded file lists



Small window preview
Rename, Delete, Sort option available

5.10 Play Back

- 3) For full screen playback, press OK button on RCU
- 4) For playback information, press **i** button on RCU

full screen playback



playback information



Pause by II button



2X speed playback by >>> button



- 5) **PLAYBACK while RECORDING** : You can playback recorded file while recording live channel.
Start recording and then follow No.3 PLAYBACK procedure.



Playback file : LUXE-TV-SD
Recording channel : LUXE-TV-HD

6. Appendix.

6.1 Troubleshooting

Problem	Solution
No display LED on the front panel. No power supply.	<ul style="list-style-type: none">• Power cord plug in correctly.
No picture.	<ul style="list-style-type: none">• Ensure that the receiver is switched on.• Check connection and correct.• Check channel and video output and correct.
Poor picture quality.	<ul style="list-style-type: none">• Check the signal level, if it is low.• Check that the RF cable is properly connected.
No sound.	<ul style="list-style-type: none">• Check the volume level of the TV and receiver.• Check the mute status of the TV and receiver.• Check the connection of audio cable.
Remote control does not operate.	<ul style="list-style-type: none">• Point remote control directly towards the receiver.• Check and replace batteries.• Check that nothing blocks the front panel.
Service is not running or scrambled.	<ul style="list-style-type: none">• Check that the smart card is appropriate for the selected service.
You have forgotten your secret PIN code.	<ul style="list-style-type: none">• Refer to change PIN code of this user's manual.

6.2 Remote Control TV Setting

6.2.1 Programing the Remote Control

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

6.2.2 Using Automatic Code Search

1. Turn on the component(TV) you want to control.
2. Press and hold the TV button until the LED on the remote control turns on, then release the key.
3. Point the remote at the component(TV), 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(TV) 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.

6.2.3 Using Direct Entry Method

1. Turn on the component(TV) you want to control.
2. Locate the enclosed Code List. Find your brand of the component you want to control.
3. Press and hold the TV button 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 reponse, repeat these steps using the next code listed for your brand until the component reponds to the remote control command.

6.2.4 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, 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 TV system ;

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

Unlocking volume control ;

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

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

6.2 Remote Control TV Setting

Brand List for TV

[A]							
ACER	415	APOLLO	381	BINATONE	253	CINERAL	219 282
A MARK	222	AR	433	BLACK DIAMOND	208 346	CITIZEN	205 209 215 216 219
AR.SYSTEM	208 286 409	ARCAM	252 253	BLACK PANTHER	329		242 267 273
ABEX	206	ARCHER	222	BLACK STRIP	394	CITY	224
ACCENT	208 286	ARDEN	208 286 387	BLACKSTRIP	242 296 298	CLAIRSTONE	266
ACCUPHASE	208	ARISTONA	208	BLACKTRON	274	CLARIVOX	208 286 323 324 329
ACTION	313 325	ARTHUR-MARTIN	410	BLACKWATZ	274		395
ACURA	224	ASA	360 361 370 373 378	BLAUPUNKT	250 251 269 389	CLATRONIC	208 224 253 270 286
ADMIRAL	230 244 270 275 309	ASBERG	395 397 398 399	BLUE SKY	208 254 274 286 346	CME	308 329 374 387 396
	323 397 410	ASORA	224		387 388 389 400	CLAYTON	346
ADYSON	206 253	ASTRA	208 286	BLUE STAR	274	CME	207 208 218 224 225
AEA	208 286	ASUKA	253 254 270 274	BOOTS	224 253		258 275 278 285
AGASHI	253 270	ATLANTIC	208 286 308	BOSCH-BAUER	308	CMS HIGHTEC	253
AGB	384	ATORI	224	BPL	208 274 286 409	CONCERTO	215
AGEF	397	AUCHAN	410	BRADFORD	262	CONCORDE	224
AIKO	208 218 219 224 253	AUDINAC	289	BRINKMANN	208 286 323 376 400	CONDOR	208 224 270 274 286
	270 286 307 394	AUDIOSONIC	208 224 253 270 286	BRIONVEGA	208 286 397 408		308 312 323 329 374
AIM	208 218 286 331	AUDIOTON	374 376 380 387 388	BRITANNIA	252 253		410
AIWA	348 349 393	AUDIOVOX	219 222 262 282	BROCKWOOD	229	CONIC	313
AKAI	205 208 218 224 229	AUMARK	216		222 257 283	CONRAD	208 286
	253 270 286 296 299	AUSIND	379 396	BROTHER	270	CONTEC	207 208 224 252 262
	307 309 325 346 377	AUTOVOX	253 258 275 307 378	BRUNS	328 380 397		266 270 286
	382 384 385 386 387		396 397 405	BSR	303 307 311 410	CONTINENTAL ECRON	351
	388 394 410	AWA	208 224 253 270 286		254	COSMEL	224 286
AKIBA	208 274 286 389		331 385	BUSH	207 208 224 253 254	CRAIG	262
AKITO	208 286	AXCENT	224		270 274 286 296 303	CRIPTOVISION	295
AKURA	208 224 254 270 274	AXXON	387		307 309 310 346 387	CROSLLEY	213 313 362 396 397
	286 331 400 407	[B]			400 401 405 410		
ALARON	252 261 265	BAIRD	218 253 296	[C]		CROWN	208 209 224 262 286
ALBA	207 208 224 254 286	BANG & OLUFSEN	397	CANDLE	205 215 267		296 323 329 374 376
	310 323 346 374 400	BARCO	284 410	CAREHART	325		385 387 388 396 404
	410	BASIC LINE	208 224 253 254 274	CAPSONIC	270	CS ELECTRONICS	252
ALCYON	396		286 389 400 410	CARAD	208 286 400	CTC	308
ALKOS	394	BASTIDE	253	CARENA	208 286 389	CURTIS MATHES	205 209 210 211 213
ALLORGAN	253 311	BAUR	208 285 286 287 292	CARNIVALE	205		215 216 226 230 236
ALLSTAR	208 286		298 307 309 405	CARREFOUR	207 208 286 395		239 242 246 282 296
AMBASSADOR	241	BAYSONIC	262	CARVER	213 248	CXC	262
AMPLIVISION	253 374	BAZIN	253	CASCADE	208 224 286	CYBERTRON	254
AMSTRAD	208 224 241 249 270	BEAUMARK	229 260	CASIO	208 286 405 410		
	286 331 346 355 384	BEC	309 313 325	CATHAY	208 286	[D]	
	408	BECEBRE	242 298 299 309 313	CCE	208 253 277 286	DAEWOO	208 209 219 224 229
ANAM	208 223 224 262 286	BEKO	208 286 374 376 380	CCI	318		253 282 286 333
ANAN NATIONAL	208 214 286	BELCOR	385 387 388 394	CENTRUM	346	DAINICHI	254
ANGLO	224 270	BELL & HOWELL	226 239 296	CENTURION	208 286	DANSAI	208 224 253 270 286
ANITECH	208 224 270 274 286	BEON	208 286 323	CENTURY	397		399
	329 396	BERTHEN	400	CGE	291 323 374 396 410	DANSETTE	331
ANSONIC	208 224 286 312 329	BEST	374	CIE	323	DANTAX	374 376 385 387 388
	374 380 398 400 410	BESTAR	208 286 374	CIMLINE	224 310		
AOC	205 222 229 266						
DATSURA	296 409	ELIN	208 224 286 307 398	FLUNT	208 218 270 286 389	GORENJE	374
DAWA	208 286		399 405 410	FNR	329	GPM	254
DAYTON	224	ELITE	208 242 254 286 296	FORMENTI	208 286 293 308 376	GRADIENTE	208 212 215 248 280
DAYTRON	208 209 229 286 298	ELMAN	329		396 397 410		286
DE GRAAF	296 410	ELTA	224 270	FORMENTI HONDA	362 379	GRADIN	308
DECCA	208 218 253 286 326	EMERSON	208 209 229 239 241	FORTRESS	397	GRAETZ	208 244 286 307 309
	384		257 260 261 262 263	FRABA	208 286 374		404 410
DEITRON	208 286		264 265 266 271 273	FRAC	208 224 286 329 374	GRANADA	208 218 253 286 296
DENKO	270		274 283 286 307 374	FRONTECH	224 244 253 270 309		299 325 381 384 396
DENON	236		376 395 396 397 410		405 410		404 406 407 410
DENVER	208 286 385	EMPEROR	274	FUJITSU	208 223 224 218 253	GRANDIN	208 224 274 286 387
DESMET	208 224 286 308 397	ENVISION	205		261 286 307 325 329	GRONIC	388 389 400 410
DIAMANT	208 286	ERRIS	208 286	FUJITSU GENERAL	410 422 423		253 329 410
DIAMOND	270 401	ESC	208 253 286	FUNAI	224 253 410	GRUNDIG	208 224 250 258 269
DIGATRON	208 286	ESTELLE	410	FUTURES	249 261 262 270 311		286 287 370 374 395
DIGILINE	208 286	ETRON	208 224 286 410	FUTURE	331 400		396 402
DIGITOR	208 286	EURO-FEEL	253 270		208 286	GRUNPY	261 262
DIGIVISION	307	EUROMANN	208 253 270 286 374	FUTURETECH	262	[H]	
DIK	208 286	EUROPA	208 286	GALAXI	208 286 307 329 410	HAIER	270 401
DIOL	208 224 253 286	EUROPHON	208 253 286 329 384	GALAXIS	208 286 323 329 352	HAILEX	270
	328 397		410		374	HALIFAX	253 270
DOMEOS	400	EXCEL	208 286	GALERIA	224	HALLMARK	260
DOMIC	405	EXPERT	410	GBC	224 309 362 410	HAMPTON	253
DTS	224	EXQUISIT	208 286	GE	224 307 362 410	HANSEATIC	208 224 253 274 286
DUAL	208 253 286 307 405	[F]			229 320 210 211 214		287 307 308 309 311
	410	FAGOR	208 286		229 320 235 260 274		312 362 374 380 397
DUAL TEC	253	FAMILY LIFE	208 286	GEANT CASINO	282		405 409 410 413
DUMINT	329	FENNER	224	GEC	410	HANTAREX	208 224 286 329 384
DUMONT	218 227 229 253 329	FERGUSON	208 218 224 252 253		208 218 253 286 305	HANOT	208 286
	395 397 398	FIDELITY	208 252 270 286 287	GELOSO	307 313 326 384 405	HARLEY DAWSON	261
DUNAI	410		294 307 331 410		410	HARMAN KARDON	213
DUX	208 286	FILSAI	253	GENERAL TECHNIC	224	HARVARD	262
D-VISION	208 286	FINLANDIA	218 296 307 373 407	GENESIS	224	HARWOOD	208 224 286 331
DYNATECH	253		410	GENESIX	208 224 244 254 286	HALLPAUGE	208 286
DYNATRON	208 286	FINLUX	208 218 253 261 286	GENEXXA	331 410	HCN	208 224 253 270 274
			303 312 323 326 329	GIANT	253		286 323 331
[E]			360 361 362 363 370	GIBRALTER	205 227 229	HEDZON	208 286
EB TELECOM	295		373 378 379 381 382		216	HEMA	224 253
ECTEC	289		383 384 385 386 387	GO VIDEO	261 270 286 333 346	HEMMERMAN	208 270 286
ELBE	208 253 286 307 312		388 395 396 397 398	GOLDFUNK	400	HIGHLINE	208 270 286
	319 374 384 408 410		399 410	GOLDSTAR	205 206 208 209 215	HINARI	207 208 224 254 261
	413		208 218 224 252 253		220 221 224 229 234		207 286 296 410
ELBE-SHARP	384	FIRST LINE	286 296 307 311 312		253 260 270 286 303	HISAWA	274 289
ELCIT	329 384 397 410		329 387 400 405 410		307 313 325 350 374	MIT	397
ELECTROBAND	266	FISHER	218 239 243 253 296	GOODMANS	207 208 218 224 253	HITACHI	206 207 208 215 218
ELECTROHOM	288 296 313		298 307 328 374 397		261 270 286 333 346		229 231 232 236 238
ELEKTA	208 224 270 274 286		398 405 410		382 384 394 400 412		240 244 253 256 286
ELG	208 286						

6.2 Remote Control TV Setting

Brand List for TV

HITACHI	287 292 298 299 300 301 304 305 306 307 309 313 314 315 316 317 325 328 367 381 382 383 384 399 405 406 407 410 411	INTERVISION	208 224 253 270 274 286 329 354 374 376 389 410	KLOSS	202	LUMATRON	208 253 270 286 307 408 410
HITSU	224 389	IRRADIO	208 224 286 379 396	KMC	234	LUX MAY	208 224 286
HMV	397	ISUKAI	208 254 274 286 389	KNEISEL	208 286 312 374 408 413	LUXMAN	215
HORNYPHONE	208 286	ITC	253	KOLSTER	208 286 329 305	LUXOR	253 258 261 292 296 304 307 309 325 367 373 377 381 382 383 386 405 406 410 411 412
HOSHAI	389	ITS	208 224 270 274 286	KONIG	207 208 224 225 244 251 258	LXI	210 213 227 229 239 242 260 296
HUANYU	252	ITT	244 261 296 298 307 309 373 381 382 404 405 410	KONKA	208 286 323 387	[M]	
HUSTELETRONIK	323	ITT-NOKIA	261 296 307 368 373 377 381 382 385 386 404 405 410	KORPEL	208 286	MAGNADYNE	307 329 362 384 397 410
HYGASHI	253	ITV	208 270 286	KORTING	308 374 397	MAGNAFON	329 379 384 396
HYPER	224 253	[J]		KOSMOS	208 286	MAGNASONIC	296
HYPERVISION	307 334	JACSON	326	KOTROM	270 331	MAGNAVOX	200 202 204 205 207 208 213 261 267 268 286 313
HYSSON	208 253 270 274 286 387 388 389	JBL	213	KOYODA	224	MAGNUM	208 286 387 388
HYUNDAI	208 286	JCB	337	KTV	205 209 253 262 265 266 273	MAIDSON	208 286
[I]		JEC	242 394	KUBA	405 410	MAJESTIC	226
IBERIA	208 286	JMB	208 286	KUBAELECTRONIC	307 405 410	MANDOR	270
ICE	208 224 253 270 286	JOCEL	403	KURO	409	MANESTH	208 253 270 286 308 310 394 410
ICES	254	JUBILEE	208	KYOSHU	270 323 331	MANHATTAN	208 286 346 400 410
ICT	208 286	JVC	207 212 247 264 323 385	KYOTO	253 410	MARANTZ	205 208 213 286 287 331
IMPERIAL	208 286 291 302 307 309 312 323 374 396 405 410	[K]		[L]		MARELLI	397
INDESIT	258	KAISUI	208 224 252 253 254 274 286 389	LASAT	374 376	MARK	208 224 253 286 387 388
INDIANA	208 286	KAMP	252	LEADER	224	MASUDA	208 224 253 270 286 288
INFINITY	213	KAPSCH	244 305 307 309 398 410	LECSON	208 286	MATSUI	208 218 224 225 241 253 286 296 302 307 310 384 389 394 405 410
INGEKEN	339	KARCHER	208 270 274 286 329 374 410	LEMAIR	312	MATSUSHITA	211 279
INGELEN	244 307 387 410	KATHREIN	208 286 287	LENCO	208 224 270 286 333 356 398 410	MCMICHAEL	313
INGERSOLL	224	KAWASHO	252 276	LENOIR	224	MEDIATOR	208 286
INNO HIT	208 218 224 253 274 286 325 329 384 396 412	KE	262	LEVIS AUSTRIA	208 286	MEDION	208 286 287 400 401
INNOVA	208	KENDO	208 286 287 309 310 312 329 374 380 408 410	LEYCO	208 218 270 286 311 325	MEGATRON	222 229 236 260 299
INNOVATION	208 286	KENWOOD	362 410	LG	208 215 224 229 253 286 307 344 374 385 387 410 412	MEI	266
INTEQ	227	KINGSLEY	252	LESEN & LTER	208 286	MELETRONIC	208 224 244 253 286 287 307 312 373 382 383 398 399 405 410 215 216 224 226 229 237 239 260 270
INTERACTIVE	208 286 287 307 374 397 410	KITON	208 286	LESSENKOTTER	208 286	MEMOREX	224 237 239 260 270 279 296
INTERBUY	208 224 270 286 287	KLH	325	LIFETEC	208 224 270 286 287 346 400		
INTERFUNK	208 244 286 287 305 307 309 368 374 377 397 405 410			LLOYD'S	224		
INTERNAL	208 286			LYOITRON	206		
				LOEWIE	208 213 286 287 346 347 371 372 374 375 390 397 408 413		
				LOGIK	208 220 226 286 401		
				LOGIX	400		
				LUMA	208 224 286 309 312 408 410		
MEMPHIS	218 224 325	NESCO	261	OTTO VERSAND	207 208 224 253 269 274 285 286 287 292 298 303 307 308 309 310 311 362 380 384 405 409	POLICOM	258 307 329 395 397 410
MERCURY	208 224 286	NETSAT	208 286	[P]		POLYTRON	270
METZ	208 286 346 397 400	NEWFUNK	208 224 274 286 387	PACIFIC	208 286	POPPY	224
MGA	205 208 229 233 237 260 286 398	NEWTECH	208 224 253 286	PAEL	379	PORTLAND	209 219 229
MICROMAXX	208 286 346 400	NIKKAI	206 208 218 224 242 252 253 254 270 286 325 394	PALLADIUM	208 253 286 309 312 323 374 397 405 410	PORPHY	224
MIDLAND	206 209 210 211 227 235	NIKKO	205 210 219 227 229 239 242 260	PALSONIC	208 253 270 286 331 401 434 435	POTTER	222 229 260
MINATO	208 286	NISATO	289	PANAMA	208 224 253 270 286	PRECISION	307 309 379 384 396
MINERVA	258 384 395 396	NOBLEX	281	PANASONIC	208 210 211 212 213 214 216 220 230 236 237 239 242 244 245 255 258 260 278 279 286 307 309 384 410	PREFIER	251
MINOKA	208 286 331 407	NOBLIKO	329 379 395 396	PANAVISION	208 286 312	PRIMA	224 242 270 296 331
MINUTZ	201	NOKIA	261 270 296 298 304 305 306 307 309 353 373 381 382 383 385 386 404 405 407 410	PATHE CINEMA	252 308 374 405 410 413	PRINZ	218 307 325 405 411
MITSUBISHI	207 208 229 230 233 237 258 260 286 287 296 397	NORDIC	253	PAUSA	224	PRISM	211
MITSUBISHI GENERAL	410	NORDMENDIE	208 286 387 410	PCE/PEC	242 296 298	PROFEX	224 307 396 410
MIVAR	252 253 370 374 384 396 412 413	NORFOLK	410	PENNY	201 203 205 206 209 210 211 215 216 221 222 228 229 235 242 260	PROFI	224
MONACO	224	NORMREL	208 286	PERDIO	208 218 274 286 410	PROHTRONIC	208 286 329
MORGAN'S	208 286	NOSHI	228	PERFECT	208 286	PROLINE	208 218 286 312
MOTION	396	NOTATRONIC	208 286 399	PHASE	200 202 204 205 208 213 229 236 267 268 283 286 323 362 374 396 397 410	PROSCAN	205 210
MOTOROLA	214 230	NURNBERG	307 410	PHILEX	208 286 309 312 397 410	PROSONIC	208 286 374 387 400
MTC	205 215 216 229 252 266 287 307 374 405 410	[O]		PHILHARMONIC	253	PROTEC	309 329
MULTISTANDARD	329	OCEANIC	244 296 307 309 311 377 381 382 410	PHILIPS	200 201 202 203 204 208 209 213 227 228 229 266 287 313 325 338 340 349 397 414 421 427 428 429 431	PROTECH	208 224 253 270 274 286 323 376 400 405 410
MULTITECH	208 286 346 376 400 208 224 252 253 262 270 286 309 329 374 376 396 405	ODEON	270	PHILCO	200 202 204 205 208 213 229 236 267 268 283 286 323 362 374 396 397 410	PROTON	222 229 260
MURPHY	218 398 410	OMEGA	270	PHONOLA	208 286 308 397	PRO-VISION	208 286 346
MUSIKLAND	208 286	ONWA	262 329	PILOT	205 208 209 229 286 403	PULSAR	227 229 313 325
MULTIMEDIA	332	OPERA	208 286	PIONEER	208 244 246 286 287 307 374 376 380 410	PYE	208 286 331 397 405
MYRYAD	208 286	OPTIMUS	230 239 245 246 279	PLANTRON	208 224 270 286	PYMI	224
[N]		ORBIT	208 286	PLAYSONIC	253 387	[Q]	
NAD	229 242 246 260 307 410	ORION	208 224 241 257 261 270 283 286 307 308 310 311 329 331 384 387			QUASAR	211 214 224 245 279
NAIKO	208 286 385	ORLINE	208 286			QUELLE	208 224 225 257 270 285 286 287 298 303 307 309 310 311 360 361 368 370 373 377 378 379 395 398 399 400 405 412
NAKIMURA	208 286	ORMOND	208 346 400			QUESTA	207
NAONIS	309 410	ORSOWE	384			[R]	
NATIONAL	258	OSAKI	206 208 218 253 254 270 276 325 331	PHOENIX	208 218 286 374 376 397 410	R-LINE	208 286 410
NEC	205 207 208 215 224 229 248 253 286 389	OSIO	208 286 412	PHONOLA	208 286 308 397	RADIALINE	208 286 410
NECKERMANN	205 207 208 215 224 229 248 253 286 389	OSO	254	PILOT	205 208 209 229 286 403	RADIO SHACK	205 206 208 209 210 215 229 239 245 260 262 286 296
NEI	208 286 410	OSUME	208 286 218 286 325	PIONEER	208 244 246 286 287 307 374 376 380 410	RADIOLA	208 253 286
				PLANTRON	208 224 270 286	RADIOMARELLI	208 286 384 397
				PLAYSONIC	253 387	RADIOTONE	208 224 270 286 323 331 374 380 400

6.2 Remote Control TV Setting

Brand List for TV

RADIX 298	SAMSUNG 205 206 208 209 215	SIAREM 329 362 384 397 410	STENWAY 274
RANK 395	216 218 224 229 253	SCATEL 320	STERN 244 270 275 309 312
RANK ARENA 207 395 416 417 418	260 270 277 286 287	SIEMENS 208 250 251 269 286	410
RBM 395	296 325 337 374 410	307	STRATO 208 224 270 286
RCA 210 211 228 229 230	SAMSUX 209	SIERA 208 286	STYLANDIA 253
235	SANDRA 252 253	SIESTA 374	SUNIC LINE 208 286
REALISTIC 205 206 209 215 229	SANSEI 282	SIGNATURE 226 242	SUNKAI 208 286 310 311 389
239 245 260 262 296	SANSUI 208 283 286 389 402	SILVA 208 286 307	SUNSTAR 208 224 270 286
RECOR 208 286	SANTON 224	SILVER 207 208 261 286 307	SUNWOOD 208 224 286
RECTILIGNE 208 286	SANYO 207 208 218 223 224	388 389 410	SUPERLA 253 384
REDIFFUSION 307 373	225 239 243 253 264	SIMPSON 267 268	SUPRETECH 208 224 286 307
REDSTAR 208 286	286 296 297 298 325	SINGER 208 224 286 329 362	SUPRA 215 224
REFLEX 208 286 346 400	326 361 374 376 398	397 410	SUSUMU 254
REKORD 359	404 409 410 413 420	SINUDYNE 208 241 286 307 329	SUTRON 224
REKOC 387	424 425 426 432	286	SYDNEY 253
REVOX 208 286 374	SAVE 208 286	SKANTIC 309 406	SYLVANIA 200 202 204 205 213
REX 244 270 275 309 312	SBR 307 309 376 385 387	SKY 208 286	267 268 288
410	SCHNEIDER 208 253 254 270 286	SKYMASTER 399	SYMPHONIC 249
RFT 218 270 286 328 374	307 336 346 353 357	SLX 400	208 286
RHAPSODY 380 397 413	362 387 400 405 410	SOGERA 308	[T]
RICHY 252 265 266	SCIMITSU 229	SOLAVOX 206 208 218 244 286	TADNDY 325
RIPOH 208 286	SCOTCH 260	307 410	TANDBERG 307 312 408 410
ROADSTAR 208 224 254 270 274	SCOTLAND 410	SONIKO 208 286	TANDY 218 230 244 253 254
286 523 346	SCOTT 229 257 260 261 262	SONITRON 253 296 298 374 404	410
ROBOTRON 397	SEARS 210 213 215 229 239	SONNECLAIR 208 286	TASHIKO 207 253 313 407 410
RODEX 208 286	242 243 249 260 261	SONOKO 208 224 253 270 274	TATUNG 208 214 218 222 253
ROWA 253 270 401 403	296	286	286 325 384
ROYAL LUX 331 374	SEG 207 208 224 253 270	SONOLOR 244 274 296 307 410	TCM 387
RTF 208	286 328 329 346 396	SONTEC 208 224 286 374	TEAC 208 224 229 253 270
RUKOPR 208 286	400 405 408 410	SONY 206 207 208 225 230	274 286 287 307 323
RUMCOR 205 227	SEI 208 241 286 329 384	264 272 285 286 329	331 346 362 389 400
[S]	397 405 410	424 426 430	401 402 403 405
SABA 244 305 307 309 397	SEI-SINUDYNE 208 286 307 309 310	SOUND & VISION 208 286 329	TEC 208 224 253 286 307
384 410	311 329 384 397	SOUNDSEIGN 229 260 261 262 267	333 410
SAGEM 274 339 389	SELECO 244 270 275 290 309	SOUNDWAVE 208 286 323	TECHLINE 208 286 329 400
SAISHO 224 225 241 253 270	312 321 322 373 408	SPECTRA 224 333	TECHNEMA 308
310 384 410	410	SPECTRON 222	TECHNICS 210 211 227 279
SAVOD 208 286 410	SEMIVOX 262	SQUAREWAVE 249	TECHNISAT 208 286 330 410
SAKIO 270	SEMP 242	SR2000 296	TECHNOLACE 261
SALORA 244 292 296 304 307	SENCORA 224	SSANGYONG 224	211 215 222
309 325 364 365 366	SERINO 389	SSS 229 262	208
367 368 369 377 384	SHARP 207 209 230 245 384	STAKSONIC 224	TEDELEX 208 224 253 286 296
391 392 404 405 406	SHIRATOSHI 208 286	STANDARD 208 224 253 254 286	385
407 409 410 411 412	SHIKAKI 208 286	308 346	TEIRON 224
329 379 384 396	SHOGUN 229	STARLITE 208 224 262 270 286	
SAMBERS 205 206 209	SHORAI 261 311	331 410	
SAMPO			

TEKNIKA 209 213 215 216 219	TRIAD 208 286	[W]	
226 229 237 261 262	TRIDENT 253 384	WALTHAM 208 253 286 304 309	
267	TRISTAR 270	323 400 406	
TELECO 335	TRIUMPH 208 241 259 286 373	WARDS 200 201 203 204 205	
TELECOR 208 253 286 410	384	213 215 226 229 235	
TELEFUNKEN 208 215 286 376	TSOSCHI 274	242 245 260 261 268	
TELEGAZI 208 270 286 410	TVTEXT 287	WATSON 208 224 286 308 346	
TELEMASTER 208 286 308	TVTEXT 95 208	400 410	
TELESONIC 208 286	[U]	WATT RADIO 307 329 362 405 410	
TELESTAR 208 286 331	UIHER 208 286 308 323 329	WEGA 207 208 286 397	
TELETTECH 208 224 286 400	374 376 396	WEGAFOX 208 224 286	
TELETON 207 253 267 309 405	410	WELTBlick 208 253 286	
410	ULTRA 289 325	WESTON 208 286	
TELEVIDEON 308 410	ULTRAVOX 208 286 329 362 397	WHARFEDALE 208 286	
TELEVIEW 208 286	410	WHITE HOUSE 208 252 286 296 308	
TELEXA 329	UNIC LINE 208 286 381 389 405	WINDSOR 400	
TEMPEST 208 224 286	UNITED 208 286 387 388	WINDSTAR 274	
TENNESSEE 208 286	UNIVERSAL 201 203	WINDY SAM 208	
TENSAI 208 224 253 254 286	UNIVERSUM 208 224 253 270 286	WINTEL 387	
303 308 311 388 398	397 381 382 383 386	WORLD-TECH 333	
399 410	395 396 398 399 400		
224	405 408 410 412	[X]	
TENSON 335	208 286 397 410	XRYPTON 208 286	
TESLA 208 286 400	UNIVOX 410		
TEXET 224 252 253 254	UTAX 208 286 397 410	[Y]	
THOMAS 313 325	[V]	YAMAHA 205 229	
THOMSON 208 258 286 345 405	VECTORRESEARCH 205	YAMASHI 208 253 274 286 389	
THORN 208 218 242 285 286	VESTEL 208 253 286 346 400	YOKAN 208 286	
287 297 298 307 313	410	YOKO 208 224 253 270 286	
315 326 327 394 398	VEXA 208 224 286	333 374 404 409	
407	VICTOR 212	298	
THORN-FERGUSON 307 394 398	VIDEOSYSTEM 208 286	[Z]	
TMK 215 229 241 260	VIDEOLOGUE 253	ZANUSSI 253 275 309	
TOKAI 208 224 253 286 325	VIDEOTECHNIC 253	ZENITH 219 226 227	
400 410	VIDEOTON 304 406 410	ZENOR 404	
TOKYO 394	VIDIKRON 213 329	ZONDA 222	
274	VIDIOTECH 207 229 260		
TOSHIBA 207 216 239 242 253	VISA 207 208 224 225 244		
259 296 298 329 370	258		
394 395	VISION 208 253 286 308		
266	VISTAR 307		
TOTEVISION 209	VORTEC 208 286		
TOWADA 253 309 329 405	VOKSON 208 244 286 309 323		
TOYODA 224	396 397 410		
TRAKTON 270	VTQ 328		
TRANS 208 253 286 400			
TRANS CONTINETS 208 270 286 287 389			
TRANSONIC 401 403			

6.3 Specification

DVB-S/S2 Tuner And Channel

RF Input Range	950MHz ~ 2150MHz
Input Connector	F-Type Female (With Loop-Through Output)
Input Impedance	75[Ohm]
Input Dynamic Range	-65dBm ~ -25dBm
Multi Demodulation Standard	DVB-S, DVB-S2 : QPSK, 8PSK
Symbol Rate	DVB-S : QPSK Maximum 45Msps @ 2~45Msps DVB-S2 : 8PSK/QPSK Maximum 30Msps @ 10~30Msps
Multi Decoding Method Standard	LDPC/BCH DVB-S2(1/2, 2/3, 3/4, 3/5, 4/5, 5/6, 8/9, 9/10)

DVB-S/S2 MPEG TS A/V Decoding

Transport Stream Format	MPEG-4 Part10 AVC/H.264 HD HP@L4.1 1920x1080@50Hz(ISO/IEC 13818 MPEG-2 TS Specifications)
Profile Level	MPEG-2 MP@HL, MPEG-4 Part10 AVC/H.264 HD HP@L4.1
Input Rate	Maximum 90Mb/s
Video Aspect Ratio	4:3, Letter Box, 16:9, Pan & Scan
Video Display Resolution	1920x1080i, 1280x720p, 720x576i/p, 720x480i/p @ 50/60Hz
Audio Decoding Format	Dolby Digital bit-streams, MPEG-1 Layer 1,2,3
Audio Output Mode	Mono, Left, Right, Stereo, Dolby Digital bit-streams(PCM 5.1 Channel, Stereo down-mixed Dolby ProLogic)

DVB-T Tuner And Channel

RF Input Range	VHF-High Band 149.5MHz ~ 426MHz, VHF-Low Band 50.5MHz ~ 142.5MHz, UHF-Band 434MHz ~ 858MHz
Input/ Loop-Through Output Connector	1 x Din Jack for DVB-T, 1x Din Jack for DVB-T Loop-Through Output (IEC 169-2 Female/Male)
Input Impedance	75[Ohms] Nominal
Input Signal Level	-80dBm ~ -5dBm(64QAM, Code Rate 2/3, Guard Interval 1/32, Gaussian Channel)
Digital Modulation Scheme	QPSK, 16-QAM, 64-QAM(Constellation)
Guard Interval	1/4, 1/8, 1/16 and 1/32
Modulation Mode	2K, 4k, 8K modes
Supporting System	DVB-T(COFDM) Compliant (Frequency Band Modulation) ETSI 300 744
IF BandWidth	6/7/8MHz channel
FEC Code Rates	1/2, 2/3, 3/4, 5/6, 7/8

6.3 Specification

DVB-T MPEG TS A/V Decoding

Transport Stream Format	MPEG-4 Part10 AVC/H.264 HD HP@L4.1 1920x1080@50/60Hz(MPEG-2 ISO/IEC 13818 Transport Stream Specification)
Profile Level	MPEG-2 MP@HL, MPEG-4 Part10 AVC/H.264 HD HP@L4.1
Input Rate	Maximum 31.668450Mb/s, 27.709893Mb/s
Video Aspect Ratio	4:3, Letter Box, 16:9, Pan & Scan
Video Display Resolution	1920x1080i, 1280x720p, 720x576i/p, 720x480i/p @ 50/60Hz
Audio Decoding Format	Dolby Digital bit-streams, MPEG-1 Layer 1,2,3
Audio Output Mode	Mono, Left, Right, Stereo, Dolby Digital bit-streams(PCM 5.1 Channel, Stereo down-mixed Dolby ProLogic)

A/V And Data Output

Analog Component YPbPr	1 Set(3xRCA Vertical Array Type)
CVBS(Composite Video), Stereo Audio	1 Set(3xRCA Vertical Array Type)
S/PDIF Dolby Digital Interface	1 Optical(Fiber Optic Type)
HDMI (with HDCP Option)	1 Connector
SCART Interface	TV/VCr
USB2.0 Host Interface	2 USB A-Type Connector
Ethernet	1 Connector RJ-45 10/100 Base-T
RS-232C Data Port D-Sub9 Interface	Transfer Rate 115,200bps(Firmware Upgrade Port)

Conditional Access Interface

PCMCIA	2 Slots For DVB Common Interface Standard
Smart Card	2 Smart Card Support

Storage Device

SATA(Serial ATA)	1 External eSATA Port
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System Resource Information

Main Processor	300MHz MIPS32TM/16-e class CPU
Flash ROM	Default 32Mbytes
DDR SDRAM	Default 256Mbytes

Power Supply

Input Voltage	AC 100-240V ~ 50/60Hz
Power Consumption	Maximum 35Watts
Protection	Separate Internal Fuse
Type	SMPS(Switching Mode Power Supply)
Safety And EMI	For Country Regulation

Physical Specification

Dimension(WxDxH)	340x268x60[mm]
Net Weight	About 3.0Kg
Operation Temperature	5°C ~ 50°C
Storage Temperature	-40°C ~ 65°C