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# Introduction

## 1.1 Overview

This receiver is designed for the reception of free-to-air channels. Depending on your location, enjoy the rich choice of up to 10,000 different channels broadcasting a large range of programs: culture, sports, cinema, news, events, etc. This receiver is assembled with high quality electronic parts.

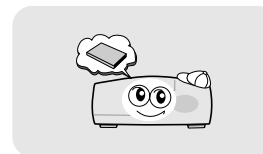
## 1.2 Main Features

- ▶ Digital Video Recorder with Twin Tuner
- ▶ Time Shift, Record & Playback (Max. 3 channels record)
- ▶ 2 X USB 2.0 Host for MP3 Playback, JPEG Viewing & Firmware Update
- ▶ Ethernet Port
- ▶ 10,000 Programmable Channels
- ▶ DVB-T, MPEG-2/MPEG-4 Compliant
- ▶ 1080i / 720p / 576p / 576i Video Resolution
- ▶ HDMI Output
- ▶ Component Video (Y, Pb, Pr) Outputs
- ▶ VFD Display
- ▶ Auto & Manual Channel Search
- ▶ Dolby Digital Optical Output
- ▶ Channel Sorting by Alphabet, Transponder or CAS
- ▶ 16 Favorite Channel Groups
- ▶ OSD in 12 Languages
- ▶ Multi Picture Display and Zoom
- ▶ 16:9 Full Screen, 4:3 Letterbox & Full Screen
- ▶ Electronic Program Guide
- ▶ Teletext/Subtitle
- ▶ Auto Voltage (AC 90 - 250V) SMPS
- ▶ Support MEPS (Minimum efficiency performance standard)
- ▶  **DOLBY DIGITAL PLUS** | Manufactured under license from Dolby Laboratories. "Dolby" and the double-D Symbol are trademarks of Dolby Laboratories.

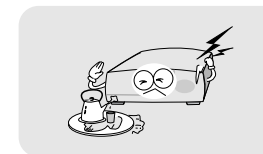
# Safety/Precautions

## 2.1 Safety

Be sure to read this user's manual before starting the operation of the unit.



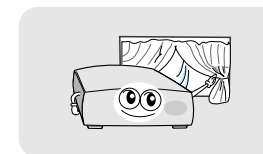
Do not touch the power cord with wet hands as it may cause electric shock.



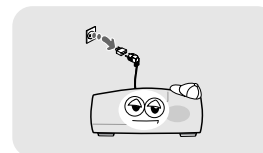
Never open the cover. It is very dangerous to touch the inside of the unit due to possible electric shock.



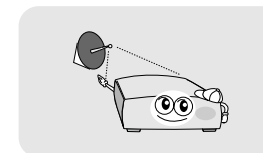
Place the unit in a well ventilated and no-heat environment.



When you do not use this unit for a long time, make sure that power cord is pulled out from the outlet. Also do not use a damaged power cord as it may cause fire or electric shock.



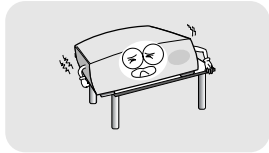
A professional installation is required. If reception is interrupted, contact your local service centre.



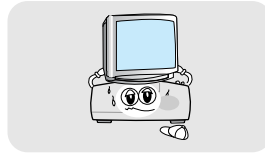
## 2.2 Precautions

### When installing the unit

Install the unit horizontally. An uneven installation may cause the unit to be damaged.



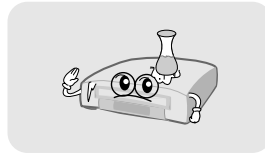
Do not put heavy items such as a TV set on the unit. That may damage the unit.



Do not leave the unit where the water drops or splashes.

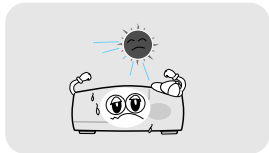


Do not put water holding items such as vases on the unit.

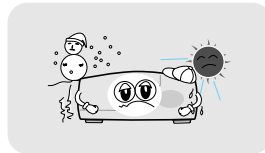


Do not install the unit:

- Where it is subject to vibrations
- Where it is exposed to direct sunlight
- Where there is humidity
- Where the temperature is too high or too low.
- Where there is no ventilation



Moving the unit to a hot area from a cold one will cause condensation. Do not operate the unit for one or two hours or until it has dried completely.



► The mains plug is used as the disconnect device. The disconnect device shall remain readily operable.

## Points to Check before Use

### 3.1 Accessories

The accessories below are included with this receiver:

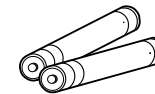
3.5CD Manual : 1



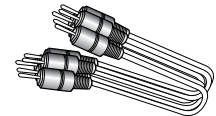
Remote Control : 1



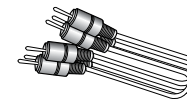
Batteries (AAA type) : 2



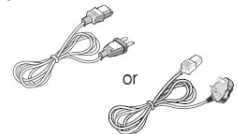
Component + Stereo Cable : 1



RCA Cable : 1



Power Cord : 1



Warranty Card : 1



Loop Cable : 1



► If any of the above-listed accessories is missing, contact your sales representative.

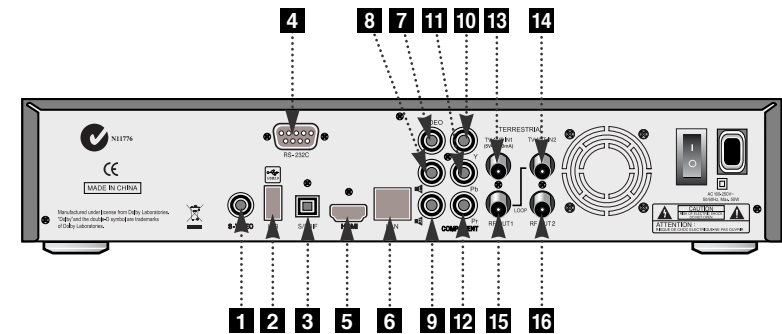
# Controls/Functions

## 4.1 Front Panel



- 1 Power** : Switches the receiver between "Standby" and "Power ON" modes.
- 2 Menu** : To enter or exit the main menu.
- 3 Select** : To show the Channel List in non-menu mode and select on item or confirm in menu mode.
- 4 - 5 VOL** (◀/▶) : To change the volume level in non-menu mode and modify a setting in menu mode.
- 6 - 7 CH** (▼/▲) : To switch channels or change the cursor position on the application screen.
- 8 USB** : To connect USB devices such as Memory stick or external Hard Disk Drive.

## 4.2 Rear Panel



No.	Name	Connector	Function
1	S-VIDEO	MINI-DIN	S-VHS Output
2	USB	USB A-type	USB 2.0
3	S/PDIF	Fiber Optic	Digital audio output (Optical)
4	RS-232C	DB-9	Low speed serial port
5	HDMI	HDMI	Digital Video/Audio Output
6	LAN	RJ-45	10/100Mbps Ethernet
7	VIDEO	RCA cinch	Composite video output
8	AUDIO	L RCA cinch	Left audio output
9	AUDIO	R RCA cinch	Right audio output
10	Y	RCA cinch	Component video output(Y)
11	Pb	RCA cinch	Component video output(Pb)
12	Pr	RCA cinch	Component video output(Pr)
13	ANT IN1	IEC 169-2 FEMALE	Input from terrestrial antenna
14	ANT IN2	IEC 169-2 FEMALE	Input from terrestrial antenna
15	ANT OUT1	IEC 169-2 MALE	Loop-through output from digital tuner and Output to TV
16	ANT OUT2	IEC 169-2 MALE	Loop-through output from digital tuner and Output to TV

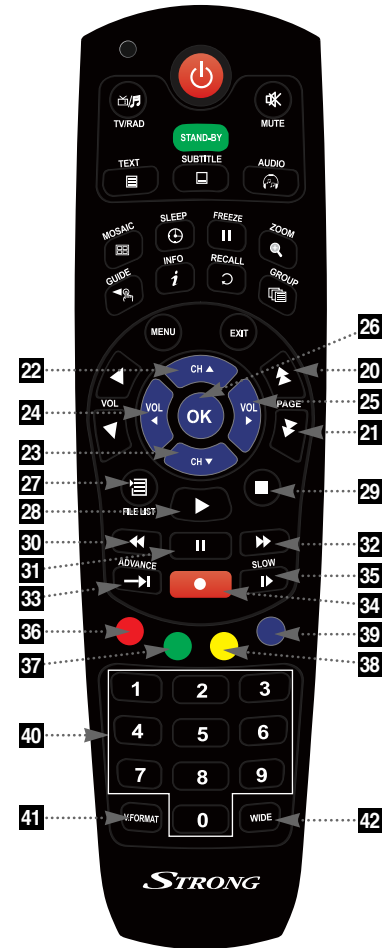


## 4.3 Remote controller

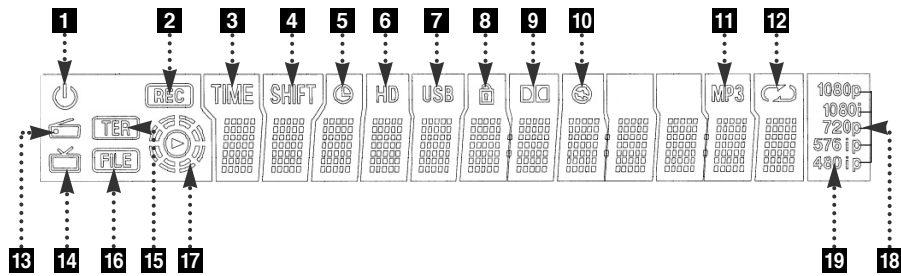


- 1 POWER** : To turn the receiver On/Off.
- 2 STAND BY** : Just turn the receiver off.
- 3 TV/RADIO** : To switch between TV and Radio.
- 4 MUTE** : To turn the sound On/Off.
- 5 TEXT** : To show the teletext contents if teletext is transmitted. Used for special functions in menu mode.
- 6 SUBTITLE** : To turn closed captions on or off.
- 7 AUDIO** : To show the Multi-language audio track, the stereo-mono mode and subtitle information. Used for special functions in menu mode.
- 8 MOSAIC** : To display multiple pictures.
- 9 SLEEP** : To set the STB off after minutes.
- 10 FREEZE** : To pause the video. Press again to resume the video.
- 11 ZOOM** : To zoom In/Out.
- 12 GUIDE** : To show the TV/Radio program guide.
- 13 INFO** : To show information about the current program. Press twice to show detail.
- 14 RECALL** : To move to the previous channel. Used for special functions in menu mode.
- 15 GROUP** : To change the channel favorite groups.
- 16 MENU** : To enter or exit the main menu.
- 17 EXIT** : To exit from the present menu and move to the previous menu.
- 18 - 19 Vol Up & Down** : To change the volume level in non-menu mode.

## 4.3 Remote controller



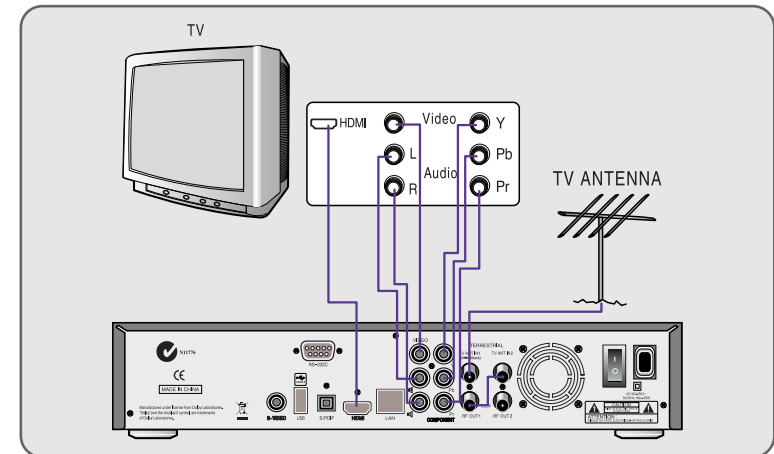
- 20 - 21 Double arrow Up/Down** : To move to the next or previous page when many pages are available.
- 22 - 23 Up & Down** : To switch channels in non-menu mode and move the cursor up/down in menu mode.
- 24 - 25 Left & Right** : To change the volume level in non-menu mode and modify a setting in menu mode.
- 26 OK** : To show the Channel List in non-menu mode and select an item or confirm in menu mode.
- 27 FILELIST** : To display the filelist.
- 28 PLAY** : Play Content.
- 29 STOP** : Stop Playback.
- 30 RWD** : Playback in rewind mode.
- 31 PAUSE** : Pause playback.
- 32 FWD** : Playback in forward mode.
- 33 ADVANCE** : Go to live channel.
- 34 REC** : Start recording.
- 35 SLOW** : Playback in slow mode.
- 36 - 39 Color Key** : Select the option such as View List, Select Disk, Rename.
- 40 Numeric Keys (0-9)** : To enter numerical settings (such as channel numbers) directly.
- 41 V.FORMAT** : To switch the resolution of video output.
- 42 Wide** : To select a TV aspect ratio with Pan Scan or Letter-Box(4:3) (Full screen or Pillar box(16:9)).



1		Indicates Power (On/Off) mode
2		Lights when the current channel is recording
3		Lights when Time-Shift Mode is set to enable
4		Lights when Time-Shift Mode is set to enable
5		Lights when a timer setting in standby mode
6		Lights when the signal is HD
7		Lights when USB devices is connected
8		Indicates the current channel is set to Lock mode
9		Lights when the current channel is Dolby audio format
10		Lights when the current sound is set to Off
11		Lights when Mp3 player is enabled
12		Lights when loop mode is setting in Mp3 player
13		Lights when the current channel is Radio mode
14		Lights when the current channel is TV mode
15		Lights when the signal comes in via TV Antenna
16		Indicates when the current playback mode in file list
17		Lights when Media & Recorded file is playing and revolving on the outer circle
18		Indicates the resolution of video output
19		Indicates the Progressive or interlaced scanning mode

## How to Connect

- 1 Connect your terrestrial antenna to Tuner 1 input
- 2 Connect loop through cable Tuner 1 RF OUT1 to Tuner 2 input
- 3 When available, you may instead connect the Component Video of your TV to Component Video for best quality: connect the Y, Pb and Pr of your TV to Y,Pb and Pr respectively
- 4 Connect the HDMI of your TV to HDMI of STB

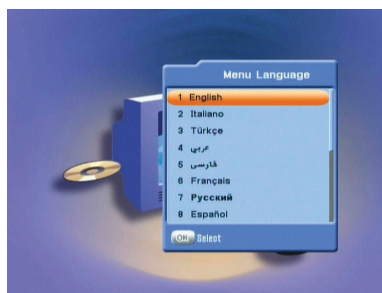


## 6.1 Getting Started

After your receiver is powered on, proceed with installation as follows :

### 1) Installation Wizard

- ❶ Turn on your TV and receiver.
- ❷ The pop-up menu for language selection will appear.<Figure 6.1.1>  
Select one language and press **OK** to proceed.
- ❸ A/V Output Settings menu appear after Menu Language menu. <Figure 6.1.2>  
See also Page19



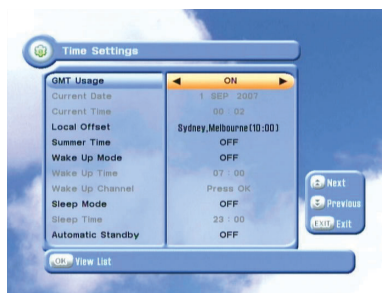
<Figure 6.1.1>



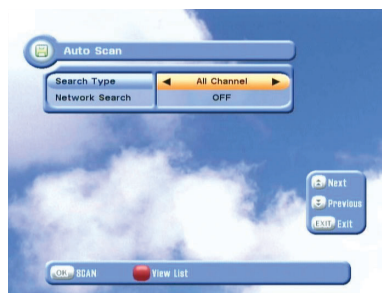
<Figure 6.1.2>

- ❹ Time Settings menu appear after A/V Output Settings menu. <Figure 6.1.3>  
See also Page18
- ❺ Auto Scan menu appear after Time Setting menu. <Figure 6.1.4> See also Page13

\* **Note : This menu also appear after factory Set.**



<Figure 6.1.3>



<Figure 6.1.4>

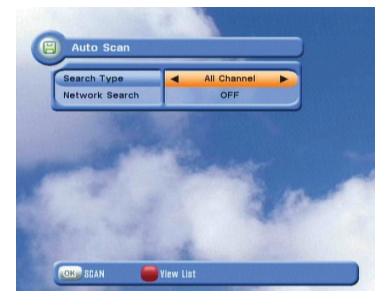
## 6.1 Getting Started

### 2) Terrestrial Scan

Through this function, the receiver searches for all the available channels and saves them in memory.

#### ► Auto Scan <Figure 6.1.5>

- ❶ Press the **OK** button when the selection bar is positioned on any item and "Scanning menu" will appear on the screen. <Figure 6.1.6>



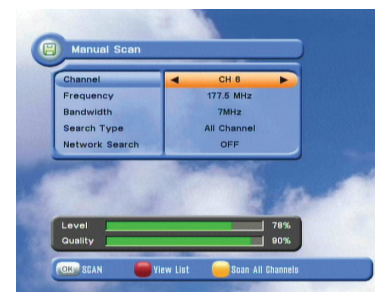
<Figure 6.1.5>



<Figure 6.1.6>

#### ► Manual Scan <Figure 6.1.7>

- ❶ Select the channel number or frequency you want to search for select the channel number by pressing **VOL ◀** or **VOL ▶** on the remote control, or specify a frequency by entering the frequency with the number keys. <Figure 6.1.8>
- ❷ For the **Bandwidth** choose either 7 MHz or 8 MHz.
- ❸ Select the Search Type (**All channel / FTA Only / TV Only**).
- ❹ Select the Network Search **ON / OFF**.
- ❺ Press **OK** to begin the scan.






<Figure 6.1.7>

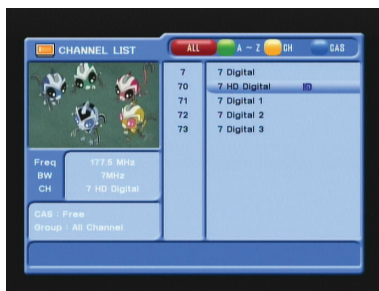


<Figure 6.1.8>






## 3) Channel Selection

You can use  /  to navigate between channels until you find the channel you want.

- ▶ If you know the channel number, you can enter it with the **NUMERIC** buttons and wait 2 seconds until the channel is changed.
- ▶ If you know the channel name or transponder or CAS, you can press  to display the channel list <Figure 6.1.9>





<Figure 6.1.9>

- ① In the left side of screen detailed information about the selected channel will be displayed. (Frequency, Bandwidth, Channel Name)
- ② You can use the following buttons to navigate between channels:
  -  /  : Moves one channel up/ down.
  -  /  : Moves one page up / one page down.
  - **RED** : Shows all channels in the current group.
  - **GREEN** : Shows all channels sorted alphabetically.
  - **YELLOW** : Shows all channels sorted by Transponder.
  - **BLUE** : Shows all channels sorted by CAS system.
- ③ Press  when the selection bar is positioned on the desired channel.

## 4) Other Functions of the Remote Control

## ▶ Volume Control

- ① While watching a program, press  or  to control the volume.
- ② You can press the **MUTE** button to remove the sound of the program: the mute icon will be displayed. Press the **MUTE** button again to turn the sound back on.

## ▶ Channel Information

- ① You can press the **INFO** button to display the information banner for a few seconds.
- ② If you then press the **INFO** button again, a detailed banner will be displayed.

## ▶ TV/ RADIO switching

You can press this key to change from a TV channel to a Radio channel or vice versa.

## ▶ RECALL

Press to return to the previous channel.

## ▶ Audio

Press to adjust the subtitle and/or audio status of the current channel:

- **Audio Mode** : Select between, Stereo → Mono-Left → Mono-Right
- **Audio Track** : Select between tracks available in this program
- **Audio Level** : Select between, High → Medium → Low

\* **Note** : *These subtitle and audio parameters are workable only when the desired channel supports these functions.*

## ▶ TEXT

The Teletext service is a text data service sometimes available from the Service Provider.

## ▶ FREEZE

You can press this key to freeze the video. Press it again to resume the video.

## ▶ GROUP


When watching TV or listening to Radio, you can press this button to view the list of favorite channel groups.

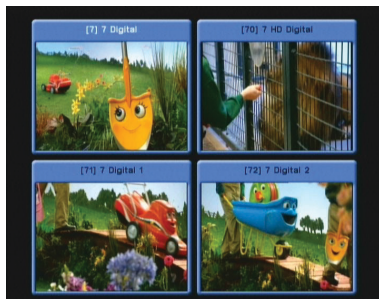
Only registered favorite groups are displayed.



## 6.1 Getting Started


### ► Multi Picture Display <Figure 6.1.10>



You can press  to display multiple pictures; you can choose the number of pictures such as 1X2, 2X2, 2X3 or 3X3.



<Figure 6.1.10>

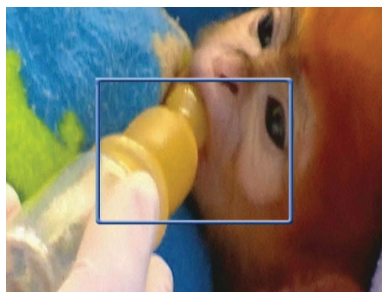
### ► ZOOM

You can press  to zoom in the video.

- 1 Press the PAUSE button and press . You can zoom in sections of Freezed Video <Figure 6.1.11>
- 2 While watching a program, press . You can zoom in sections of playing video. <Figure 6.1.12>
- 3 To cancel the freeze status, please release the zoom status.



<Figure 6.1.11>




<Figure 6.1.12>


## 6.1 Getting Started

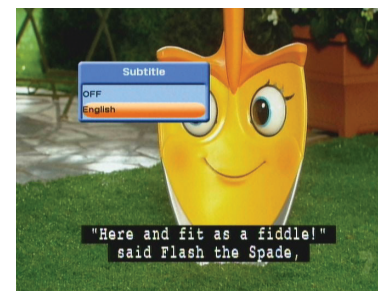
### ► SUBTITLE <Figure 6.1.13>

You can press  to select the subtitle language of current channel.

### ► SLEEP <Figure 6.1.14>

You can set the your receiver to turn off after a few minutes. Press  to set the sleep timer.

- To cancel the sleep timer, please press  until you set time as "0 min". (Disable, 10, 20, 30, 60, 100, 120 Minutes)




<Figure 6.1.13>



<Figure 6.1.14>

### ► V.FORMAT <Figure 6.1.15>

You can press  to change the video resolution Select between, 1080i → 720p → 576p → 576i

### ► WIDE <Figure 6.1.16>

You can press  to change the TV aspect ratio.

- 4:3 : Pan-Scan or Letter-Box
- 16:9 : Full-Screen or Pillar-Box





<Figure 6.1.15>

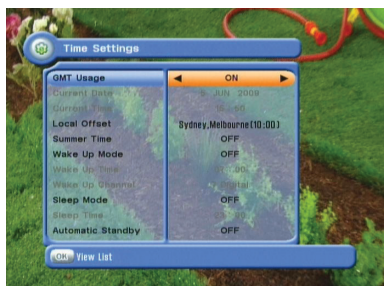


<Figure 6.1.16>

## 1) Time Settings

This submenu allows you to set your local time, wake up time, wake up channel and sleep time. <Figure 6.2.1>

- **GMT Usage** : Set this ON for the local time to be determined by adjusting the time difference with the GMT (Greenwich Meantime) according to your location.
- **Current Date** : If GMT Usage is OFF, you can modify the date by pressing .
- **Current Time** : If GMT Usage is OFF, you can modify the time using the **NUMERIC** buttons.
- **Summer Time** : Select the period during which Summer Time is in force.
- **Local Offset** : If GMT Usage is ON, Local time is GMT time + Local Offset.
- **Wake Up Mode** : Select the wake up frequency. (Off/Once/Daily/Mon~Fri)
- **Wake Up Time** : Set the wake up time using the **NUMERIC** buttons.
- **Wake Up Channel** : Press  to set the wake up channel.
- **Sleep Mode** : Select the Sleep frequency. (Off/Once/Daily/Mon~Fri)
- **Sleep Time** : Set the sleep time using the **NUMERIC** buttons.
- **Automatic Standby** : Select Automatic Standby time.(OFF/After 1~8Hour)

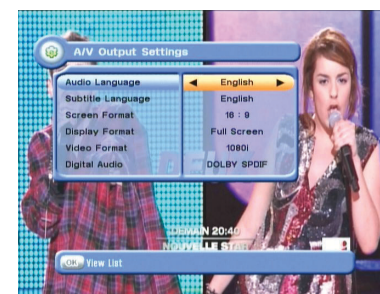


&lt;Figure 6.2.1&gt;

## 2) A/V Output Settings

This submenu allows you to specify the audio/video output. <Figure 6.2.2>

- **Audio Language** : Set the default audio language when selecting a channel.
- **Subtitle Language** : Set the default subtitle language.
- **Screen Format** : Select the screen format. (16:9 / 4:3)
- **Display Format** : Select the TV aspect ratio(Letter Box/Pan Scan, Full Screen/Pillar Box)
- **Video Format** : Select the Video format.(1080i, 720p, 576p, 576i)
- **Digital Audio** : Select the Audio output type.(DOLBY SPDIF/PCM/DOLBY HDMI)



&lt;Figure 6.2.2&gt;

### 3) OSD Settings

This submenu allows you to set the menu language, OSD transparency and Information and Volume timeouts. <Figure 6.2.3>

- **Menu Language** : Select the desired language for the menu.
- **Transparency** : Set the OSD transparency of the menu. (1% ~ 100%)
- **Information Timeout** : Select the display duration of the information banner. (1, 2, 3, 5 or 10 seconds)
- **Volume Timeout** : Select the display duration of the volume box. (1, 2, 3, 5 or 10 seconds)



<Figure 6.2.3>

### 4) Front Display Setting

This submenu allows you to specify the front displaying. <Figure 6.2.4>

- **Text Moving** : Turn the text moving ON/OFF.
- **Channel Number** : Turn the channel number ON/OFF.



<Figure 6.2.4>

### 5) Security Settings

This submenu allows you to set password options and to lock or unlock access to menus (Note: PIN code and password are the same). <Figure 6.2.5>

- **Receiver Lock** : Set ON to require entering a PIN code at powering on.
  - **Install Lock** : Set ON to require entering a PIN code to access the installation menu.
  - **Channel Lock** : Set ON to require entering a PIN code to access the channels menu.
  - **Lock Channel Confirm** : Set ON to require entering a PIN code to access a locked channel.
  - **Age Limit** : Set to prevent children or unauthorized people from watching programs. Select among (No Block / Block All / Block G & Above / Block PG & Above / Block M & Above / Block MA & Above / Block AV & Above / Block R & Above). When program information (age limit) is available from broadcaster and this age limit exceeds the selection, a PIN code is required to access the channel/program.
  - **Current Password** : To change your password, first enter your current password.
  - **New Password** : Enter the new password that you want to set.
  - **Verify Password** : Enter the new password again for confirmation.
- \* **Note** : The default password is '0000'.



<Figure 6.2.5>

### 6) Database Reset

This submenu allows you to restore the factory set values (useful when encountering problems after changing settings). <Figure 6.2.6>

- **Delete Radio Channels** : Erase all radio channels in the database.
- **Delete Scramble Channels** : Erase all scramble channels in the database.
- **Delete All Channels** : Erase all channels.
- **Factory Set** : Erase all channels and restore the factory default settings.



<Figure 6.2.6>

### 7) IP Setting

If the Network supports DHCP, IP settings can be allocated automatically. If the Network does not support DHCP, the Addresses must enter manually (Static IP).<Figure 6.2.7>

- **DHCP Usage** : On/Off to receive IP settings automatically
- **IP Address** : Here enter the IP address
- **Subnet Mask** : Here enter Subnet Mask Number from your Network
- **Gateway** : Here enter IP address of Gateway (e.g. router)
- **DNS** : Here Enter IP address of main DNS Server
- **Mac Address** : Mac Address display



<Figure 6.2.7>

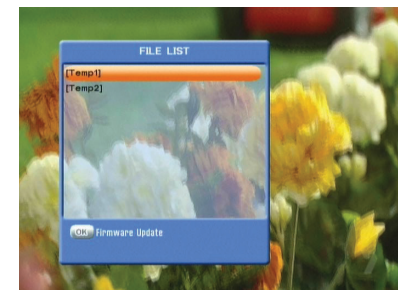
- **Firmware update** : Support download from a LAN.

- 1 BLUE button, appear input target IP address.
- 2 button to connect after input a target IP.
- 3 Choose a update software and button for downloading.

\* **Note** : *Have to run PC tool before connect PC.*



<Figure 6.2.8>



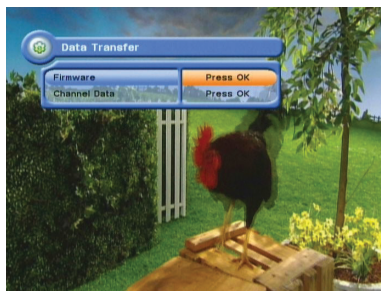
<Figure 6.2.9>



## 8) Data Transfer

This submenu allows you to transfer the software from a receiver to another receiver. You can select and transfer Firmware/ Channel Data/ Games. <Figure 6.2.10>

- **Firmware** : Transfer the firmware of a receiver to another receiver.
- **Channel Data** : Transfer the channel data of a receiver to another receiver.

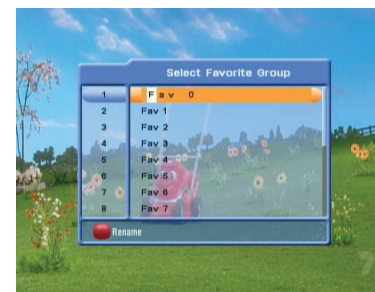


&lt;Figure 6.2.10&gt;

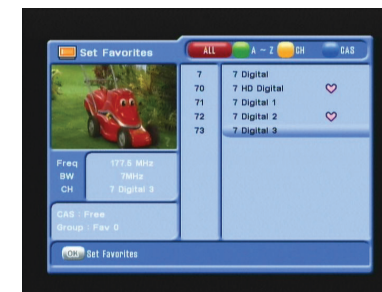
## 1) Set Favorites

This submenu allows you to set up favorite groups of channels. You can select **TV** or **Radio** channels in an alternative way by pressing the **TV/RADIO** button. The receiver supports 16 favorite groups.

- 1 Press **OK** on 'Set Favorites'. The list of groups will be displayed. <Figure 6.3.1>
- 2 Press **Left** / **Right** and **OK** to choose a group. The following menu will be displayed. <Figure 6.3.2>  
If you want to change the name of a favorite group, press the **RED** button.
- 3 Press **OK** to add (or remove if previously added) the selected channel to/from the favorite channel group.
- 4 Press the **EXIT** button to return to the previous menu.



&lt;Figure 6.3.1&gt;



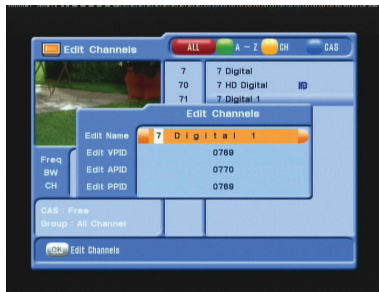
&lt;Figure 6.3.2&gt;

## 2) Edit Channels

This submenu allows you to rename channels and input user PID. You can select **TV** or **Radio** channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

- 1 Press **OK** on 'Edit Channels'. The following menu will be displayed. <Figure 6.3.3>
- 2 Press **OK** on the channel that you want to edit.
- 3 Press **OK** on 'Edit Name' to rename the channel; the keypad will be displayed.
- 4 Similarly, you can edit the PID data using the **NUMERIC** keys.

\* **Note** : The **VIDEO PID**, **AUDIO PID** and **PCR PID** are very important for optimal signal reception. We recommend you get professional advice where available.



&lt;Figure 6.3.3&gt;

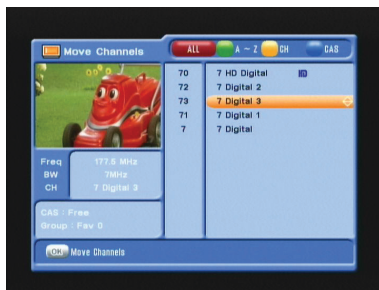
### 3) Move Channels

This submenu allows you to move channels.

You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button.

You can choose a channel list group by pressing the **GROUP** button.

- 1 Press **OK** on 'Move Channels'. The following menu will be displayed.<Figure 6.3.4>
- 2 Press **OK** on the channel that you want to move; a 'move' icon will be displayed.
- 3 After press **INFO**, use the **Left** / **Right** / **Up** / **Down** / **NUMERIC** buttons to move the selected channel.
- 4 Press **OK** again to place the channel.
- 5 Press the **EXIT** button to return to the previous menu.



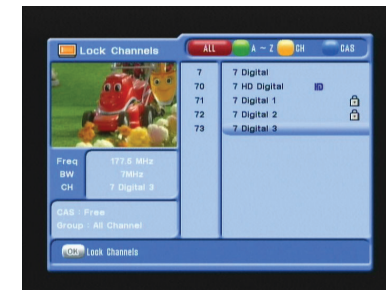
&lt;Figure 6.3.4&gt;

### 4) Lock Channels

This submenu allows you to lock channels to control access to them. Once a channel is locked, you will be asked to enter a password whenever you try to watch it. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

**\* If you set 'Lock Channel Confirm' (refer to <6.2>security setting) to OFF, you will not be asked to enter a password even if the channel is locked.**

- 1 Press **OK** on 'Lock Channels'. The following menu will be displayed. <Figure 6.3.5>
- 2 Press **OK** on the channel that you want to lock/unlock; the lock icon will be displayed/removed.
- 3 Press the **EXIT** button to return to the previous menu.



&lt;Figure 6.3.5&gt;

## 5) Skip Channels

This submenu allows you to skip channels. Once a channel is set to be skipped, it will be whenever you navigate channels using / in non-menu mode. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

**\* Note : You can still access a 'skipped' channel if you enter its number using the NUMERIC buttons in non-menu mode.**

- 1 Press on 'Skip Channels'. The following menu will be displayed. <Figure 6.3.6>
- 2 Press on the channel that you want to skip/un-skip; the skip icon will be displayed / removed.
- 3 Press the **EXIT** button to return to the previous menu.



<Figure 6.3.6>

## 6) Delete Channels

This submenu allows you to delete channels. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

**\* Note : Be careful! If you delete a channel, you will not be able to access it again until you rescan.**

- 1 Press on 'Delete Channels'. The following menu will be displayed. <Figure 6.3.7>
- 2 Press on the channel that you want to set/unset for deletion; the delete icon will be displayed/removed.
- 3 Press the **INFO** button to delete all channels in the current list; you will be asked to enter your password.
- 4 Press the **EXIT** button to return to the previous menu and confirm deletion.



<Figure 6.3.7>

## 1) EPG

This submenu allows you to access the electronic program guide when available.

- 1 Press the **GUIDE** button to display the guide menu. <Figure 6.4.1>
- 2 Press / to see the previous/next guide.
- 3 Press / / / to select another channel. <Figure 6.4.1>
- 4 Press to watch the selected channel and access its EPG data.

If you press in the right side of the screen (Event display list).

- If the current time EPG is selected, you will return to the previous menu and get signal from the selected channel.
- If a future time (next) EPG is selected, the selected program will be reserved and the event color will change.

- 5 You can select TV or Radio channels by pressing the **TV/RADIO** button
- 6 You can choose a channel list group by pressing the **GROUP** button.
- 7 You can access the timer menu by pressing the **RED** button. <Figure 6.4.2>

## 2) Timer

This sub menu allows you to set the on/off time of your receiver.

- 1 This submenu allows you to set on/off times of your receiver. To display the timer menu, press the **RED** button while in the guide menu. <Figure 6.4.2>
- 2 Press to select a timer's parameter.
- 3 Press / to change the parameter.
  - **Timer No** : Select the timer that you want to modify. (1- 8)
  - **State** : Select the timer frequency. (off/once/daily/Mon~Fri/weekly)
  - **Date** : Press to display a Calendar pop-up; Select a date
  - **Start Time** : Input the time for your receiver power-on; use the **NUMERIC** buttons
  - **End Time** : Input the time for your receiver power-off; use the **NUMERIC** buttons
  - **Channel** : Press to display a Channel list pop-up; Select a channel
  - **Record** : Select the record or timer. (ON/OFF)
  - **Power Off** : Select operation of Power-Off after you finish recording.



&lt;Figure 6.4.1&gt;



&lt;Figure 6.4.2&gt;

- If you want to record a program in the right side of the screen, you can select a program by using . The selected program will be reserved and the event color text will change to red. <Figure 6.4.3>.

- You can also see change the timer menu. <Figure 6.4.4>











&lt;Figure 6.4.3&gt;



&lt;Figure 6.4.4&gt;

## 1) Tetris

- ❶ Press  on 'Tetris'. The following menu will be displayed. <Figure 6.5.1>
- ❷ You can choose a skill level using  / .
- ❸ Press  to start the game <Figure 6.5.2>, or press the **EXIT** button to return to the previous menu.
- ❹ Press  to rotate a block.
- ❺ Press  /  to move a block.
- ❻ Press  to drop a block.
- ❼ You can see the next block in the top-right small window.
- ❽ Press the **EXIT** button to quit the game.









&lt;Figure 6.5.1&gt;



&lt;Figure 6.5.2&gt;

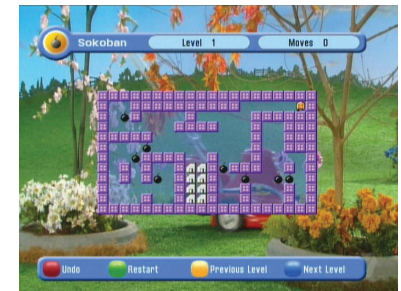
## 2) Sokoban

How to play Sokoban: you have to push the balls to their correct positions. The balls can only be pushed, never pulled, so you have to be careful not to push them into a corner where you can't get them out from. You can only push one ball at a time.

- ❶ Press  on 'Sokoban'. The following menu will be displayed. <Figure 6.5.3>
- ❷ You can choose a skill level using  / .
- ❸ Press  to start the game <Figure 6.5.4>, or press the **EXIT** button to return to the previous menu.
- ❹ Press  /  to move.
- ❺ Press the **RED** button to undo the previous move. You can undo only one step.
- ❻ Press the **GREEN** button to restart the game.
- ❼ Press the **YELLOW/BLUE** buttons to jump to the previous/ next level. You can jump only between completed levels.
- ❽ Press the **EXIT** button to quit the game.



&lt;Figure 6.5.3&gt;



&lt;Figure 6.5.4&gt;

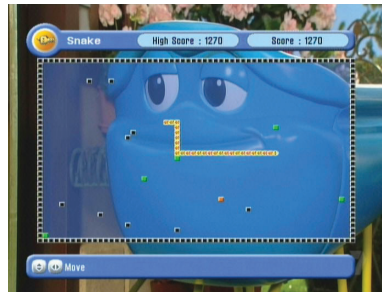


3) Snake

- 1 Press on 'Snake'. The following menu will be displayed. <Figure 6.5.5>
- 2 You can choose a skill level using / .
- 3 Press to start the game <Figure 6.5.6>, or press the **EXIT** button to return to the previous menu.
- 4 Press / / / to move.
- 5 Pass through the **BLUE** icon to increase your score; the length of the snake increases.
- 6 Pass through the **RED** icon to decrease the snake's length.
- 7 Avoid the **BLACK** icons. If you hit a **BLACK** icon (block), the game ends.
- 8 Press the **EXIT** button to quit the game.



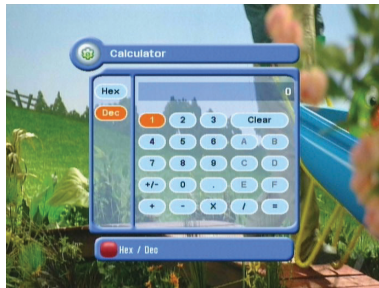
<Figure 6.5.5>



<Figure 6.5.6>

4) Calculator

- This submenu allows you to use a calculator on the screen. <Figure 6.5.7>
- You can switch between Hex (Hexadecimal) and Dec (Decimal) basis for arithmetic with the **RED** button of the remote control unit.
  - Use the Numerical and the / / buttons on the remote control unit.



<Figure 6.5.7>

This submenu allows you to play various MP3 files, view JPG files or download a new software by connecting your USB flash drive.

1) MP3 menu

- 1 Select the MP3 file you want to play back by using / , in the file list. <Figure 6.6.1>
- 2 Press the EXIT button to hide the file list. You can then select an option using / , . <Figure 6.6.2>
- 3 You can then change the volume by pressing / .
- 4 Press on **LIST** to display the MP3 file list.
- 5 Press on **INFO** to display information about the selected MP3 file.
  - **FILELIST** : Shows/Hides the MP3 file list
  - **INFO** : Shows information about the MP3 file you selected.
  - **YELLOW** : Choose the Hard disk volume or usb device with USB hub.






<Figure 6.6.1>



<Figure 6.6.2>




## 2) JPG menu

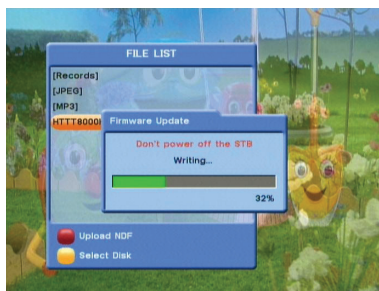
- 1 Press  /  to select a picture. <Figure 6.6.3>
- 2 Press  to show the picture you want to display.
  - **RED** : Sets the time interval between slides.
  - **GREEN** : Selects slide show.
  - **YELLOW** : Choose the Hard disk volume or usb device with USB hub.
  - **FILELIST** : Shows/Hides the JPEG file list.



&lt;Figure 6.6.3&gt;


## 3) Data Transfer menu

- 1 Select the software you want to download by using  /  in the list <Figure 6.6.4>
  - 2 Press  to start software downloading
    - **YELLOW** : Choose the Hard disk volume or usb device with USB hub.
    - **FILELIST** : Shows/Hides the file list
- \* Warning : Please do not switch off your receiver before software downloading is completed.**



&lt;Figure 6.6.4&gt;

## 4) Disk Manager

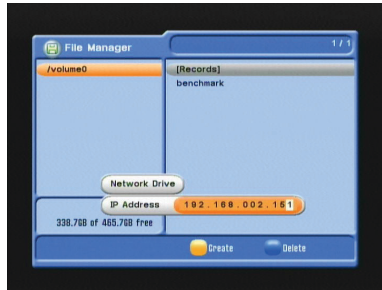
- **Default Disk** : Set the DVR disk.
  - **Disk Information** : Choose the Hard disk volume or usb device with USB hub. You can view a information of usb devices (used size, total size, free size)
  - **Chck Disk** : Choose the Hard disk volume or usb device with USB hub. You can check the usb devices.
  - **Format Disk** : You can format the usb devices.
- \* Warning : All data will be lost to the disk.**
- **Testing USB Speed** : Press  to test usb speed for DVR.
  - **Timeshift Rec Time** : Set the Timeshift Recording Time.(10Min/30Min/60Min)



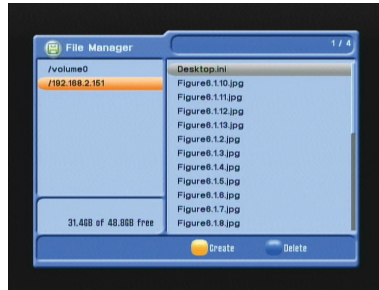
&lt;Figure 6.6.5&gt;

### 5) File Manager

- ❶ Press **YELLOW** button for connect PC.
- ❷ Press **OK** button after input IP address of PC.
- ❸ Press **OK** button after choose target.



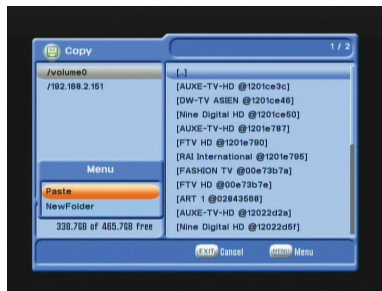
<Figure 6.6.6>



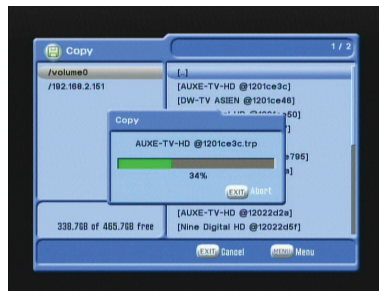
<Figure 6.6.7>

**\* Note :** Have to run PC tool before connect PC.

- ❹ Press Right button and Press **RED** for chooses files.
- ❺ Press **OK** button to choose Copy/Move/NewFolder/Delete/Rename after press **MENU** button.
- ❻ If select copy or move, press button to move target for paste.
- ❼ Press **MENU** button to paste target.
- ❽ Select a Paste for Copying or Moving files.



<Figure 6.6.8>



<Figure 6.6.9>

### 6) Timer Manager

- ❶ Press the **MENU** button, after moved wanted timer number.
- ❷ Press **Left** / **Right** to select a timer's parameter.
- ❸ Press **Left** / **Right** to change the parameter.

- **State** : Select the timer frequency. (off/once/daily/weekly)
- **Date** : Press to display a Calendar pop-up; Select a date
- **Start Time** : Input the time for your receiver power-on; use the **NUMERIC** buttons
- **End Time** : Input the time for your receiver power-off; use the **NUMERIC** buttons
- **Channel** : Press to display a Channel list pop-up; Select a channel.
- **Record** : Select the record or timer. (ON/OFF)
- **Power Off** : Select operation of Power-off after you finish recording.



<Figure 6.6.10>

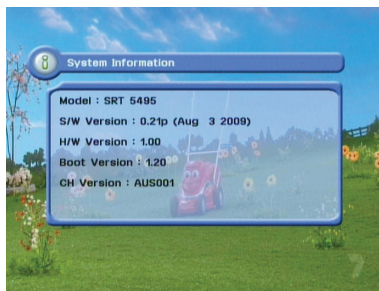


## 6.7 System Information

You can check the current information about your receiver such as receiver model name, S/W (software) version, H/W (hardware) version, manufacturing date, etc.

<Figure 6.7.1>

\* **Note** : This information is useful to download new software and/or repair the receiver.



<Figure 6.7.1>

## 6.8 DVR

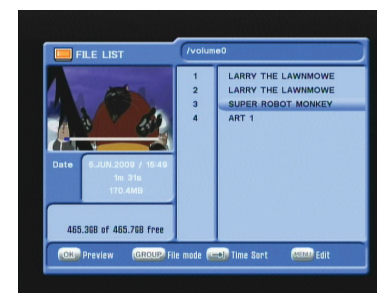
### 1) File List

#### ► File Playback

① Press to show the file list. Select the file you want to play back by using / .

② Press . In the left side of screen, detailed information about the selected file will be displayed. (Recorded Date/Time, Used size, Total Size) <Figure 6.8.1>

- To see a full screen, press once more. And then the following time-bar will appear. <Figure 6.8.2>




<Figure 6.8.1>




<Figure 6.8.2>


### ► Edit Menu

You will be asked to enter a password whenever you try to enter it. Press . The pop-up menu for selection will appear <Figure 6.8.3>.

Select the item that you want to edit, and set its parameters as desired

① Normal Mode : Press  on the file that you can see the preview of a selected file.


② Lock Mode : Press  on the file that you want to lock/unlock.

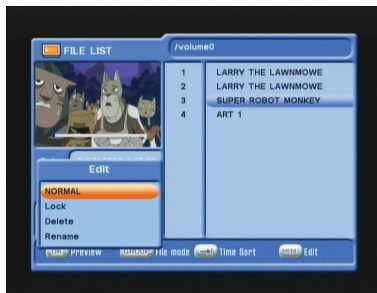
③ Delete Mode : Press  on the file that you want to delete.

- **GROUP** : Select between, File Mode ↔ Dir Mode

- **ADVANCE** : Shows all sorted files. Select between, Sort by name ↔ Sort by time.

**\* If you set 'Channel Lock' (refer to <Figure 6.2.4>security setting) to OFF, you will not be asked to enter a password even if the channel is locked.**

④ Rename Mode : Press  on the file that you want to rename.




<Figure 6.8.3>



### 2) Trick Mode

You can operate the trick mode while you are playing the recorded files. These functions are available in playback mode or time-shift mode powerfully.

#### ► PLAY


This button will display a time- banner. If you want to show the play list while playing the file by using .

#### ► PAUSE

This button will pause the playing file until you play again with  or . <Figure 6.8.4>

#### ► ADVANCE

- If the time-shift mode is enabled, You can press  to jump the live program.

- If the playback mode is enabled, You can press  to stop the current playing file and then jumping the live program.

#### ► FF(Fast Forward)

- When playing the file, you can press  to adjusting the playing speed. <Figure 6.8.5>

- The speed will change to x2, x4, and x8.




<Figure 6.8.4>




<Figure 6.8.5>

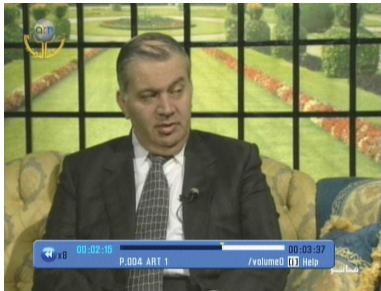
### ► RWD(Rewind)

When playing the file, you can press  to adjusting the playing speed. <Figure 6.8.6>

The speed will change to x2, x4 and x8.

### ► Slow(1/2x, 1/4x)

When playing the file, you can press  to adjusting the playing speed. <Figure 6.8.7>





<Figure 6.8.6>





<Figure 6.8.7>

### ► Jump

- You can locate the control position to the desired position by using the  / .
- If you press this key continuously, You can locate the control position to the desired position very quickly.

### ► Skip

- You can skips and forward in 15 seconds using the .
- You can skips and backward in 15 seconds using the .

**\* Note : Jump & Skip used only playing at the time-bar.**

### ► Bookmark

To mark a specific place in a file for later retrieval. <Figure 6.8.8>







- **RED** : Press this button and red small triangle cursor will be placed at that position. If you want to delete the bookmarked position, press a this button once more when red small triangle cursor appear.
- **GREEN** : Press this button and the current position will jump to the next bookmarked position and playback starts from this point.
- **YELLOW** : Press this button and the current position will jump to the pre-bookmarked position and playback starts from this point.

**\* Note : The maximum number of the bookmark is 20 in a file.**



<Figure 6.8.8>

### 3) Instant Recording

- ❶ You can record a current channel by using . If you then press , a time-banner will be displayed. <Figure 6.8.9>
- ❷ Press  once more. The following picture shows that you can select item when you record a current channel. <Figure 6.8.10>
  - **Channel** : It shows a current channel.
  - **Name** : It shows a current recording name.
  - **Duration** : You can change the duration of recording time by using the  / . And current recorded time appear.
  - **Stop** : If you stop the recording, Press .






&lt;Figure 6.8.9&gt;



&lt;Figure 6.8.10&gt;

\* **Note** : 1. Do not remove the USB device while recording a program.


### 4) Recording Stop

- ❶ Press the  button on the remote to stop the recording then Record Stop will be displayed.
- ❷ Select the recording file by  /  button.
- ❸ Press EXIT button then selected recording is stopped.




&lt;Figure 6.8.11&gt;

### 5) Timer Recording

This function is available when USB device is connected. You can choose a channel to record the Program Guide menu by using . (Refer to 6.4 Electric Program Guide, 2)Timer)

### 6) Time Shift

- ❶ If you want to pause and resume live TV channel, press **PAUSE** button. The default time of Time-Shift is 30 min in your STB. <Fig 6.8.12>
- ❷ If you want to resume live TV channel, press **PLAY** button. <Figure 6.8.13>
- ❸ The trick-mode operations are provided. If you want to jump to live channel, please press .



&lt;Figure 6.8.12&gt;



&lt;Figure 6.8.13&gt;

# Troubleshooting

There may be various reasons for the abnormal operation of the unit. Therefore, if the unit does not work properly, check it according to the procedures shown in the table below:

Problem	Possible causes	Remedy
<b>No Picture or sound.</b>	Wrong connection of the video/audio output to the TV input terminal.	Connect the two terminals correctly with RCA or RF cable(s), HDMI cable(s).
	Wrong connection of the terrestrial cable.	Connect the antenna cable correctly.  Adjust the direction of the antenna.
	No signal or weak signal.	Check the cable connections
	Wrong setting of channel information in the MENU screen.	Type the setting values correctly.
<b>Black-and-white screen or V-Hold.</b>	Your TV mode (PAL/NTSC) is different from the terrestrial broadcasting mode.	Use a TV of the same mode.  Connect a NTSC/PAL converter between the receiver and the TV.
<b>The remote controller is not working.</b>	Batteries are exhausted.	Change the batteries.
	Fluorescent light is interfering with the remote controller.  Remote controller is incorrectly aimed.	Switch off the light.  Aim the remote control at the receiver.

# Specifications

<b>System capabilities</b>	Fully DVB compliant	
<b>TERRESTRIAL</b>	Input connector	IEC 169-2, Female
<b>System capabilities</b>	Loop-through out	IEC 169-2, Male
<b>Tuner</b>	Frequency range	170 ~ 230 MHz, 470 ~ 862MHz
<b>&amp; Channel Decoder</b>	Input impedance	75 Ohms Nominal
	Signal level	7,8MHz(-78dBm~-25dBm) switchable by software
	IF Bandwidth	7,8MHz(-3dB) switchable by software
	Waveform	OFDM
	Carrier Mode	2k and 8k hierarchical/non-hierarchical
	Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
	Guard Interval	1/4, 1/8, 1/16, 1/32
<b>System resource</b>	Processor	32bit processor (266MHz)
	DDR SDRAM	64Mbyte X 2, 32Mbyte X 2
	FLASH	8Mbyte
	EEPROM	256Kbit
<b>Video decoder</b>	MPEG 2	MPEG-2, MPEG-4, H.264
	Data Rate	up to 15M bits/s
	Resolution	1920 X 1080i, 1280 X 720P, 720 X 576P/i
	Video format	PAL
	Aspec Ratio	4:3,16:9
<b>Teletext</b>	DVB compliant	
<b>MPEG Audio</b>	MPEG 1 layer I/II, MPEG 2 layer II, AC3 Dolby Digital	
	Type	Mono, Stereo, Joint Stereo
	Sampling rates	32, 44.1 and 48 KHz
<b>Serial data interface</b>	Connector	9pin D-sub male, Max 115K bps
<b>Remote control</b>	Code	NEC-IR
	Operating condition	up to 7 Meter
<b>USB</b>	USB Supply	DC 5V Max 500mA
<b>Terrestrial ant input</b>	Antenna Supply	DC 5V Max 100mA

<b>Power supply</b>	Power consumption	max 50W	
	Passive standby	<1W(Compliance with MEPS)	
	Supply voltage	100V ~ 250V	
	Supply frequency	50Hz ~ 60Hz	
<b>Rear Panel connectors</b>	Video	1 X RCA cinch	
	Audio L/R	2 X RCA cinch	
	Component(Y/Pb/Pr)	3 X RCA cinch	
	Serial data	9pin D-sub	
		IEC 169 - 24	
		IEC 169 - 24	
	Terrestrial ant input	IEC 169 - 2	
	Terrestrial ant output	IEC 169 - 2	
	S/PDIF	Fiber Optic	
	HDMI	Digital Video/Audio Output	
	USB	USB A-type	
	S-VIDEO	MINI-DIN	
LAN	RJ-45		

<b>Physical Specification</b>	Size (W X H X D)	335 X 58.5 X 247(mm)
	Weight (Net)	3 Kg




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**Disposal of 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.