

Transparent Video System

User's Manual

TVS-3000



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Trade Mark of the DVB Digital Video Broadcasting Project

SAFETY INSTRUCTIONS



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



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



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

- Read these instructions.
 - Keep these instructions.
 - Heed all warnings.
 - Follow all instructions.
 - Do not use this apparatus near water.
 - Clean only with a dry cloth.
 - Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
 - Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - Do not defeat the safety purpose of the polarized or grounding type plug.
- A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

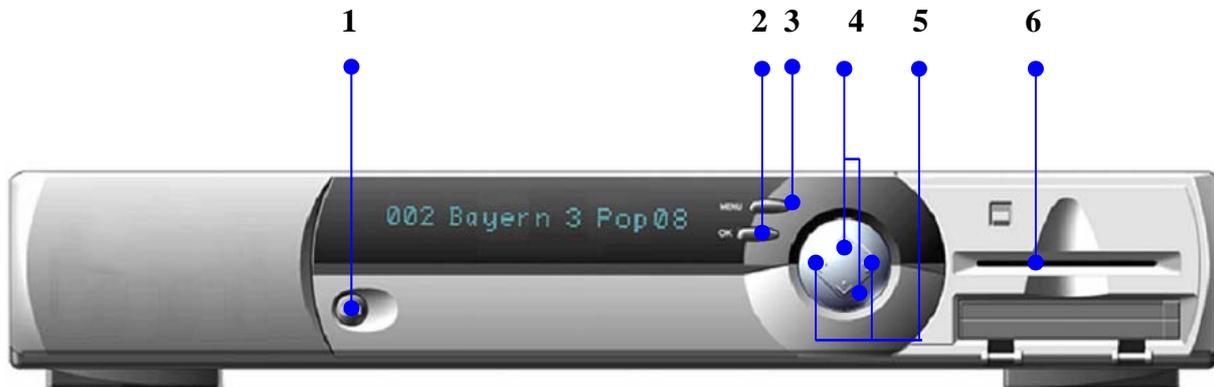


- Only use the attachments/accessories specified by the manufacturer.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction Manual.

The user could lose the authority to operate this equipment of an unauthorized change or modification is made.

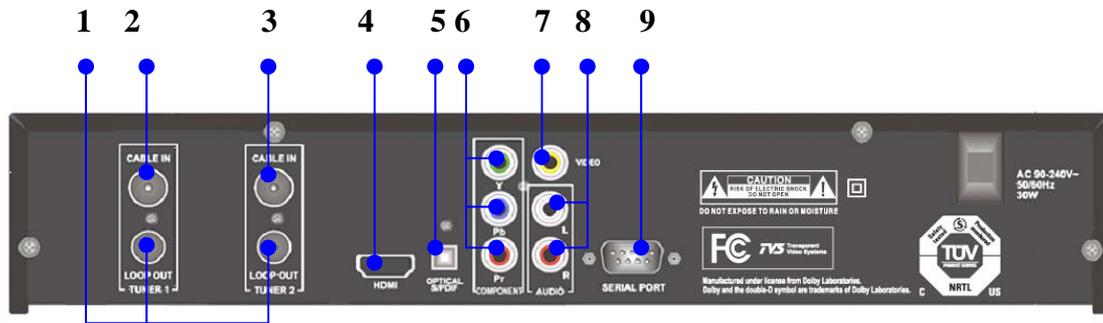
Front View



1. **On/ Stand-by**
: Switch the receiver between power-on and standby mode.
2. **OK**
: Select the menu item or confirm the selected operation or display the channel list during watching the TV.
3. **MENU**
: Get access to the menu.
4. **Up / Down**
: Move the TV/Radio channels up / down or the cursor up/down,
5. **Left / Right**
: Adjust the volume or move the cursor left/right.
6. **Smart Card Slot**
: insert a smartcard fully into the slot.

APPEARANCE

Rear View



1. LOOP OUT

Connect this Loop-through cable to the CABLE IN interface of other tuner (TUNER 2) of the device.

2. CABLE IN (TUNER 1)

Connect this to a cable antenna.

3. CABLE IN (TUNER 2)

Use this for Loop-through cable to connect to the first tuner's (TUNER 1) LOOP OUT interface.

4. HDMI

HDMI socket for digital AV selection.

5. S/PDIF (OPTICAL)

Connect this to Dolby Digital compatible audio equipment through optical S/PDIF cable.

6. COMPONENT VIDEO

Component video signal output socket for HD television or AV receiver.

7. VIDEO (RCA)

Connect this to the composite video input of the TV.

8. AUDIO (RCA)

Left/right stereo output sockets (cinch) for the hi-fi system.

9. SERIAL PORT

Serial interface for data transfer (RS-232 C).

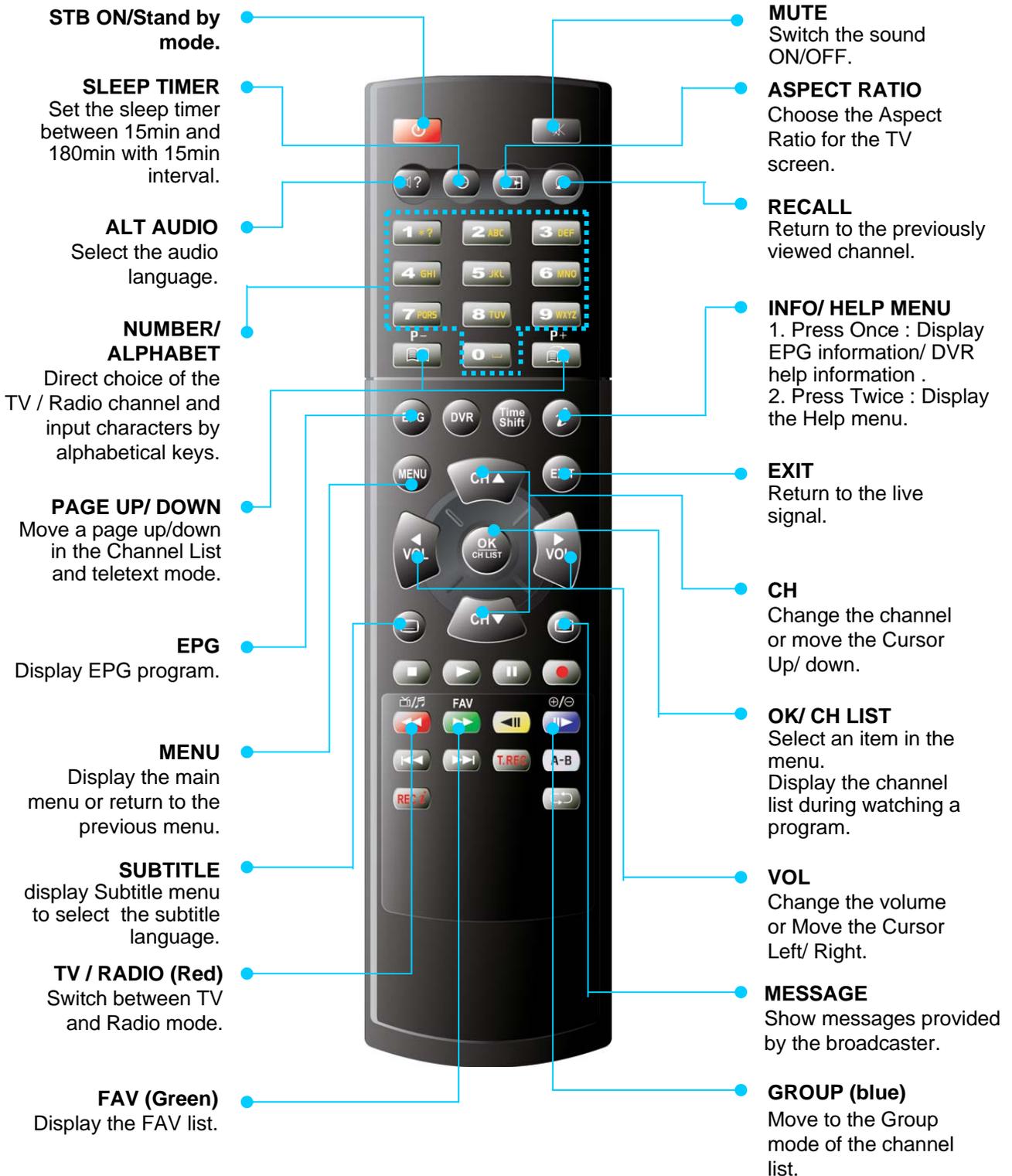
NOTE!

For successful recording, Tuner 1 and Tuner 2 must be connected with loop-through cable.

Manufactured under license from Dolby Laboratories.
Dolby and the double-D symbol are trademarks of Dolby Laboratories.

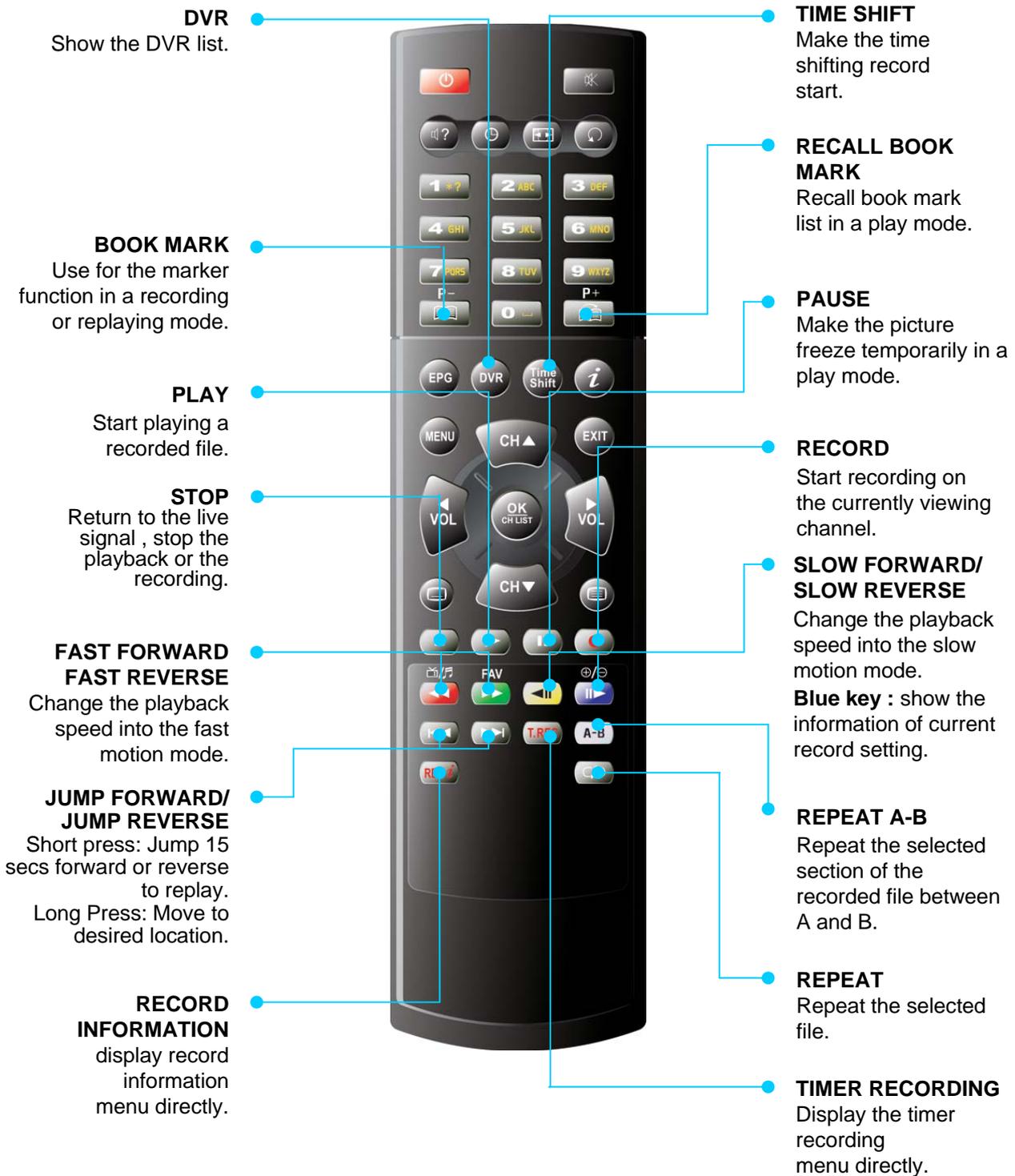
REMOTE CONTROL UNIT

BASIC I

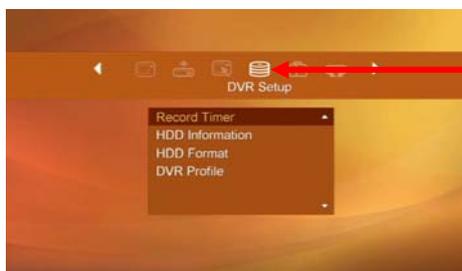


REMOTE CONTROL UNIT

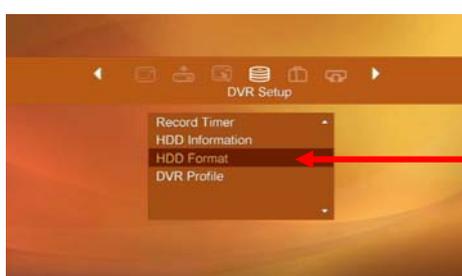
DVR MODE



HOW TO FORMAT THE HARD DISK DRIVE



1. Press the **MENU** key to go to the Main Menu screen.
2. Press the **OK** key on [DVR Setup].



3. Press the **OK** key on [HDD Format].
4. Select [ON] on [HDD Format].
If you want to delete all files of DVR, select [ON] on a parameter. Press the OK key on [Start].
5. Select [Yes] to confirm the HDD formatting.

INSERTING SMARTCARD



To watch payable program channels, a smartcard is necessary. You can ask for this to the shop which you had purchased the receiver.

When you subscribed to more than one service provider, you should insert proper Smartcard to get access to the bouquet. This receiver can accept one Smartcard.

If any Smartcard is not inserted in the receiver, only free (FTA; free-to-air) programs are available.

Here's how to get access to the pay channels after your subscription to the provider and your purchase of the Smartcard.

- The main plug must not be plugged in before inserting the Smartcard.
- Insert proper Smartcard fully into the slot behind the lid inside of the front door of the receiver, towards the IC chip on the smartcard facing upwards and inwards.
- Smartcard may give special menus or information which are not described in this manual.
- Smartcard can only give access to the program channels from specific service provider of your subscription.

RECEIVER CONNECTIONS



DO NOT PLUG the receiver into the Main Power Outlet, until you complete all the connections to the receiver.

CHECK !

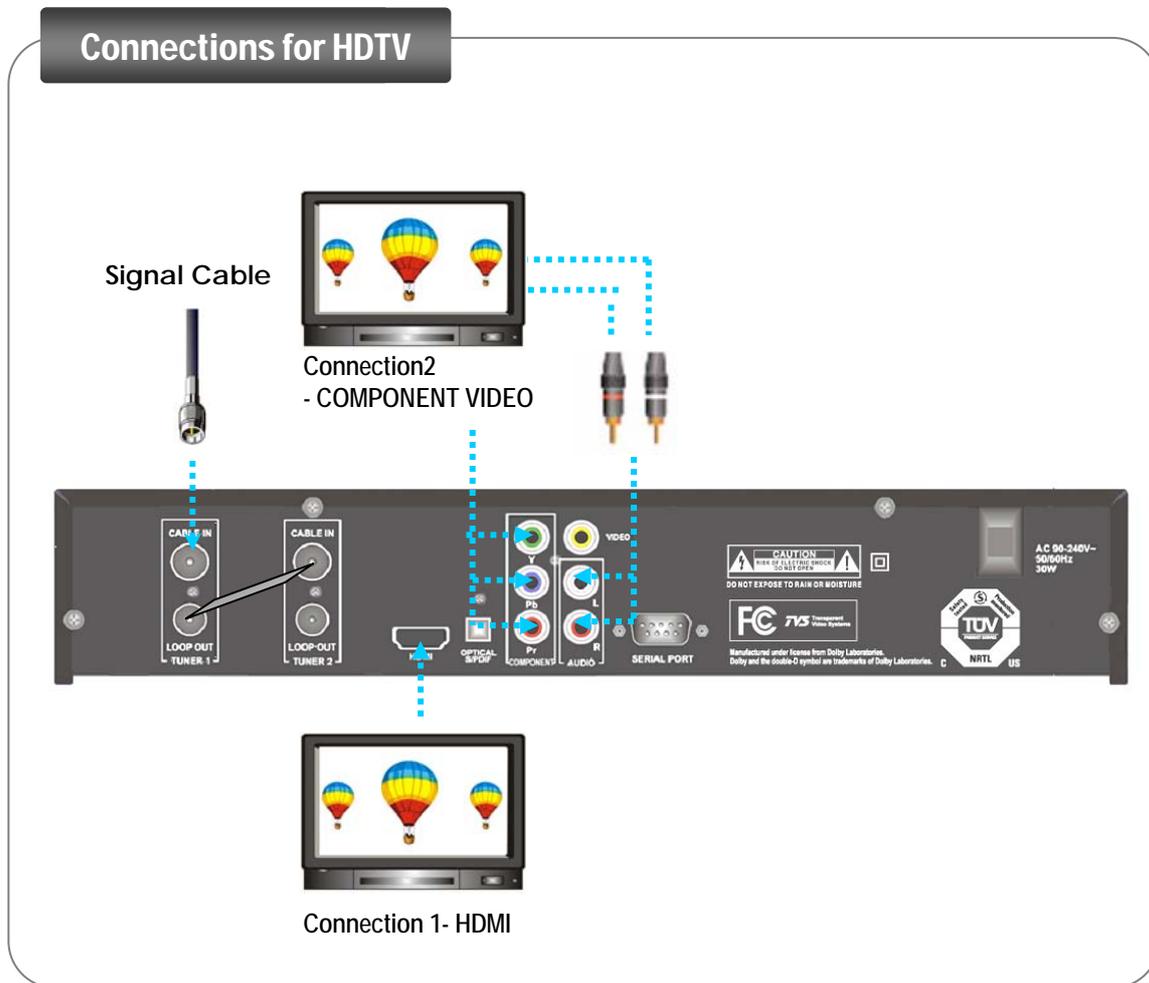
The HD receiver offers various display formats and multiple video outputs therefore you need to check below things before Connecting HD Cable Receiver to your TV :

- 1) Make sure your TV type that the HD Cable Receiver will be connected to, whether It is HDTV or Analog TV.
- 2) Make sure the output type of your TV that the HD Cable Receiver will be connected to, between HDMI and COMPOSITE.

Output Connection	Available Output Resolution
HDMI	1080i, 720p.
Composite	480i

- 3) Connect all the other connections before you connect the power cord to the power outlet.
- 4) Connect the antenna cable to the CABLE IN connector of the receiver.

RECEIVER CONNECTIONS



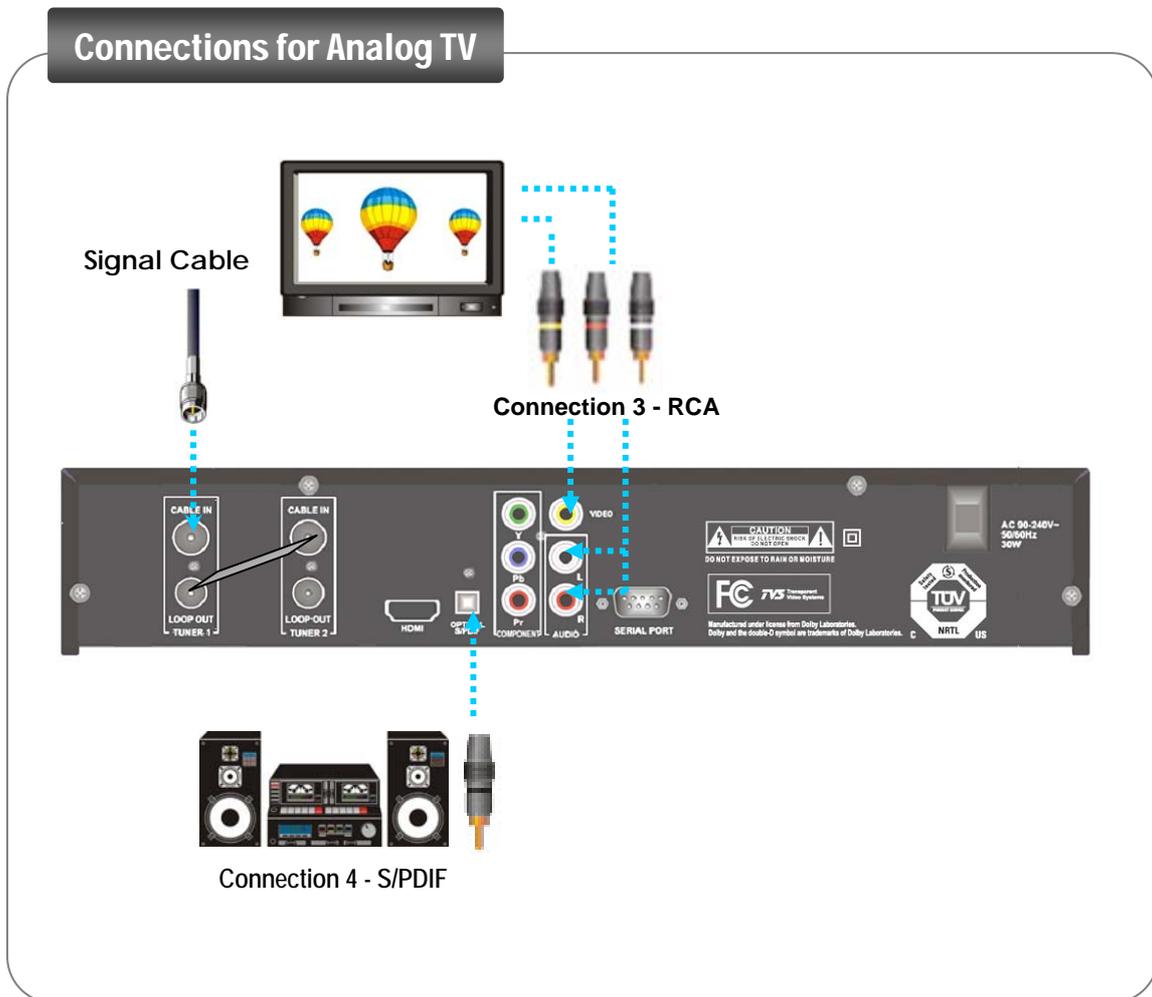
1. Connect the receiver to a HDTV with the HDMI

- Plug a HDMI-type connector into the HDMI socket on the receiver and the corresponding socket on the HD television.

2. Connect the receiver to a HDTV with the Component cable

- Plug a standard cinch cable into the COMPONENT VIDEO sockets (Y/Pb/Pr) on the receiver and the corresponding input sockets on the HD television.
- Plug a standard cinch cable into the **L R AUDIO** sockets (left/right) on the receiver and the corresponding input sockets on the HDTV or hi-fi system.

RECEIVER CONNECTIONS



3. Connect the receiver to a TV set with the RCA Cables

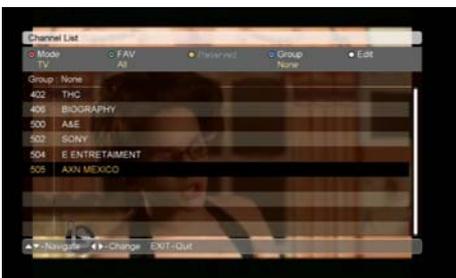
- Connect the Audio RCA connector of the receiver to the Audio RCA connector of a TV set.
- Connect the Video RCA connector of the receiver to the Video RCA connector of a TV set.

4. Connect the receiver to Hi-Fi system with the S/PDIF Cable

- Connect the receiver's optical S/PDIF connector to the S/PDIF connector of the Dolby Digital compatible home entertainment system's amplifier.

CHANNEL LIST

- Press the **OK** key to display the channel list while you are watching a channel.
- When completing the modification, press the **Menu** or **White** key and then move cursor to the **OK** key and press the **OK** key to save the changes.



In this channel list, you can have several possibilities to format the present channel list according to your choice.

The formation is done by using the color keys on the RCU.

1. Mode Switch (RED key)

: TV / Radio

2. FAV Group (GREEN key)

: FAV 1 Group ~ FAV 8 Group

3. Group (BLUE key)

: TP / CAS/ Lock / A to Z

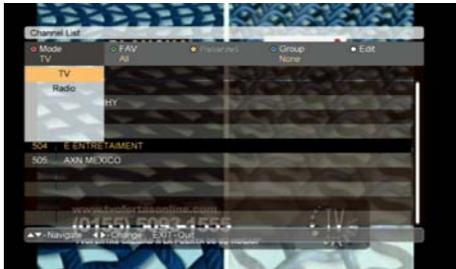
4. Edit mode (WHITE key)

- FAV Selection
- Lock/Unlock
- Volume Offset
- Skip Channel

When a color key is pressed, the pull down menu is shown with appropriate opens.

Press a color key and then choose one option to make a desired channel list formation.

CHANNEL LIST



1. Mode Switch :

- Press the **RED** key and select one mode out of TV/Radio.

2. FAV (GREEN) :

- Press the **GREEN** key and select one FAV group out of FAV 1 ~ FAV 8.

When you select a FAV group, appropriate channels to the FAV group display in the channel list.

Note>

To see the FAV channels, you have to set the FAV groups in the FAV Selection menu of the Edit mode previously.



In order to make or to rearrange the favorite list, select the FAV selection by pressing the **WHITE** key on the FAV mode.

1) FAV Edit :

You can modify the FAV group of the present FAV channels.

- How to modify is same as how to select the FAV group in the FAV Edit menu of the Edit mode.

2) Lock / Unlock :

You can make a lock on your desired channel.

- If you choose the Lock/Unlock mode, a message box requiring the PIN code is displayed. Enter the correct PIN code.
- Press the **OK** key on the channel you want to Lock, and the lock mark is displayed on the selected channel.
- If you press the **OK** key again on the locked channel in the Lock mode, you can cancel to lock the channel.

3) Volume :

You can regulate the volume level per channel.

- Use the **◀, ▶** keys to select the volume level per channel.

4) Move FAV :

- Press the **OK** key on the FAV channel which you want to move.
- Decide the position which you want to move with the **◀, ▶** keys.
- Press the **OK** key to confirm the new position.

5) Rename FAV List :

You can rename the name of present FAV group.

- Enter the new name with the alphabet keys or color keys.
- Press the **OK** key after all modification is done.



CHANNEL LIST

3. Group

You can reorganize the channel list according to your choice.

- Press the **BLUE** key and select one out of the TP / CAS / Lock / A to Z .



4. Edit Mode

Refer to the description of FAV CH.
(with the exception of the Move mode)

• Skip Channel :

If you set the skip channel in the channel you want to hide,
You can skip over the selected channel.

EPG



You can see Electronic Program Guide (EPG) information about the current program.

To view EPG while watching TV or listening to the radio, press the **EPG** button on the Remote Control Unit (RCU).

EPG window in the middle of the screen will show the programs of the channels as text banners. The bottom of the screen will show the date and time of each program.

- Use the **▲**, **▼** keys to switch the channel.
- Use the **◀**, **▶** keys to move within the channel.

Press the  key to view the start and end time, title and synopsis of the selected program.

You can set the timer for the selected program. Select the program using the arrow keys and press **REC**. Verify the information and save the timer setting by selecting [Save] and press **OK**.

The date and time interval of EPG display can be changed by using the **COLOR** Keys on the RCU, as follows:

- **Green** : change the date of EPG display from the current to the previous day.
- **Yellow** : change the date of EPG display from current to the next day.
- **Blue** : switch the time interval of EPG display to 30min, 60min or 120min.

The recording functions of the receiver:

The receiver supports several types of recordings as below.

Normal recording

Reserved recording

Time shifting recording

Watching another channel while recording/time shifting

Simultaneous recording and time-shifting

Playing back a recorded program while recording/time shifting



DVR LIST

If you push **DVR** button on RCU, a list of current recording or recorded programs will be displayed.

You can switch the mode or edit programs in the DVR list by using color keys.

- RED key: switch the mode DVR (All or Folder)
- Green key: delete the program that you want to remove.
- Yellow key: sort
A to Z/ date/ size
- Blue key: Edit programs
Delete/ Rename/ Lock/ Move / Create Folder

You can check the current process of recording in Helpline of DVR list.

To stop the recording that is being done in current situation, press the **stop** button.

NOTE >

- If there is a mark "\$" in the file, , you can't watch the recorded program without smart card. It means that the file needs to be descrambled.
- In that case, you should insert the smart card into the slot of receiver and then the file is executed.

How to Record

Multiple Recordings up to 4 Programs

The receiver can record four channels simultaneously. But depending on the numbers of TV programs in each frequency that is being used for recording, additional recording might be limited. In that case, please see the chart.

Current Condition		Available Operations		
Channels in frequency A	Channels in frequency B	Watch	REC	Time shifting
no REC	no REC	All channels are available to watch	Maximum four channels are available to be recorded in all channels.	Time shifting is available in all channels.
1 REC	no REC	All channels are available to watch	Maximum three additional recordings are available in all channels.	Time shifting is available in all channels.
1 REC	1 REC	Only channels in frequency A or B are available to watch	Two additional recordings are available in frequency A or B.	Time shifting is available only in frequency A or B.
2 REC	no REC	All channels are available to watch	Maximum two additional recordings are available in all channels.	Time shifting is available in all channels.
2 REC	1 REC	Only channels in frequency A or B are available to watch	One additional channel is available to be recorded in channels of frequency A or B.	Time shifting is available only in frequency A or B.
2 REC	2 REC	Only channels in frequency A or B are available to watch	Additional recording is not available.	Time shifting is not available in all channels.
3 REC	no REC	All channels are available to watch	One additional recording is available in all channels.	Time shifting is not available in all channels.
3 REC	1 REC	Only channels in frequency A or B are available to watch	Additional recording is not available.	Time shifting is not available in all channels.
4 REC	no REC	All channels are available to watch	Additional recording is not available.	Time shifting is not available in all channels.

I. Instant Record



Live Signal mode

1. If you want to record a current watching channel, press the **RECORD** key on the RCU.

2. Then, the record banner is displayed on the left top. The record banner shows the file name/ duration and recording time.

(The default record duration depends on the setting value of the record duration setting menu.)

3. When you press the **RECORD** key, the circle banner is displayed on the right top.

The circle banner shows the information of current mode.



Record Timer Setting

You can reserve 128 Timers for recording.

1. Select DVR Set-up | Record Timer Setting in the DVR set up menu.

2. Press the **YELLOW** key (more) to set the time for a new recording.

- Select the Channel with the the ◀, ▶ keys.
- Set the Start Date with the calendar.
- Set the Start Time with the numeric keys.
- Select the duration with the the ◀, ▶ keys.
- Check the information, select [Store] and press **OK**.

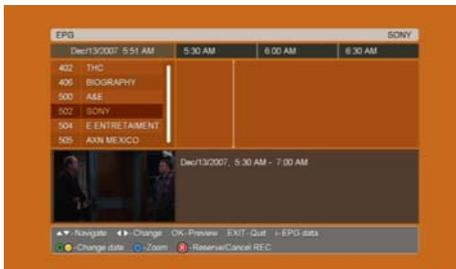
3. The information will be automatically determined according to the program information.

NOTE >

The programs may start or end later than expected.

If necessary, adjust the length of the recording to ensure that the entire program is recorded.

If you want edit timer settings that have been set at a later date, go to the Reserved Record List in the DVR Setup menu.



EPG mode

You can reserve recordings straight from the EPG. You can make 128 reserved recordings as maximum.

1. Open the EPG by pressing the **EPG** on the RCU.
 - ◀, ▶ : Select a program to be recorded from the channel
 - ▲, ▼ : Select a channel
2. Press **REC** button.
3. If you want to cancel the reserved recording, Press **REC** once again on the currently selected reserved recording.
4. The information will be automatically determined according to the program information.

NOTE >

The programs may start or end later than expected. If necessary, adjust the length of the recording to ensure that the entire program is recorded.

If you want edit timer settings that have been set at a later date, go to the Reserved Record List in the DVR Setup menu.



Record Information

You can see the Record Information.

1. In a case that recording is being done currently, if you press the button **RECORD INFORMATION**, the list of programs that are being recorded is displayed, and you can control functions described below.



2. Using the below keys, You can adjust the selected recording file.

- ▼, ▲ Change : If you want to find a specific program among the other programs that are being recorded, press this button.
- ▶ Edit : move to current record setup menu.
- || Pause: stop recording temporarily / restart the recording.
- ■ Stop : stop recording



Current Record Setup

1. If you press the **BLUE** key after you press the **RECORD information** key while you are recording, the menu which shows the information of current record setting is displayed.
2. You can modify the duration and file name in the menu.
3. Press the OK key on the save menu to save the changed information.
4. If you press the **EXIT** key, the menu will disappear.



Overlap Control

It is possible to record up to 4 channels simultaneously.

But additional recordings can be limited for below cases by showing the REC overlap control menu as left screen.

1. a recording time of a new recording is overlapped with one of your current recordings
2. you set one new additional recording even though it is already full with 4 recordings including a reserved recording.

When a new recording is overlapped, you should adjust the recording time of currently recorded event (or a new recording) by using ◀, ▶ keys.

When you want to set one new additional recording, you should cancel one of your current recordings.

- ◀, ▶ : You can adjust the recording time.
- **Yellow** : After you change the recording time, you should press the Yellow key in order to save the changed recording times.
- **Blue** : you can delete the selected recording.

NOTE >

1. If you switch the receiver into the stand-by mode while the recording is in progress, the receiver continues the recording in the active standby mode.

If the recording is completed, it is switched to the passive standby mode automatically.

2. If the receiver is powered off due to unexpected matters (outage or user's mistake) while the recording is in progress, it needs the file system checking during rebooting, therefore it may be possible to happen some delays for HDD detection or DVR functionality.

TIME SHIFTING



Time shifting enables you to pause the live signal and then continue watching the live signal from where the program was paused.

Time shifting time is basically set to 90 minutes, but after 90 minutes, the time will be increased up to 4 hours by recording in every 30 minutes automatically.

1. If you want to time-shift a program, press **TIME SHIFTING** while watching the live signal.

- The receiver displays the frozen picture and starts recording the live signal on the HDD.

- The live signal can be time-shifted for up to 90 or so Minutes.

2. When you would like to continue watching the program, press **PAUSE** or **PLAY**.

3. If you would like to stop time-shifting the program, press **STOP**.

A message will be displayed on the screen requesting that you confirm your decision for stopping the time shifting recording.

- If you want to save the time-shifted program as a file, select [Save].

- If you do not want to save the program, select [Discard].

- If you do not want to stop time-shifting, select [Cancel].

Note>

If you move channels while time-shifting with **▲, ▼** keys, the current time-shifting will stop.

You can watch the program that has been saved during time-shifting from any point during the program you would like.

While time-shifting, the following functions are available:

- Play
- Slow Forward/ Slow Reverse
- FF/ REW

If the time of timeshifting is equalized with the time of live signal through using the FF trick play in the timeshifting mode, the timeshifting will be ended automatically and it will be switched with the live signal mode.

In this case, the file of timeshifting will be saved in the HDD automatically.

- Pause
- Jump Forward/ Jump Reverse (15-second intervals)

It is possible to simultaneously use time-shifting and normal recording.



Start time of the recording

End time of the recording

Current timepoint

Clock

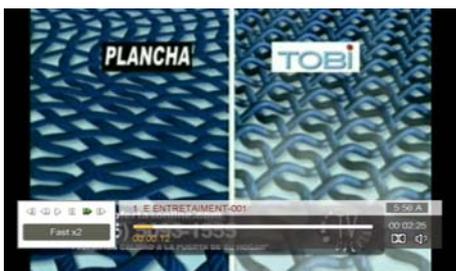


How to play Recorded Files



Select a file from the DVR list

1. Press the **DVR** key to open the recorded file list.
2. Select the recorded file you want to play and press the **OK/PLAY** key. When it starts to play, the DVR info banner will be displayed on the screen.
3. If you do not want the recording to play anymore, press the **STOP** key.
4. If you want to play some other file, press the **OK** key to display the DVR list. Select the file that you would like to play.



1. Various Trick mode

While you are watching the recorded file, you can fast forward at various speeds (2x, 4x, 6x, 8x). Press **FAST FORWARD** or **FAST REVERSE** as follows:

- Press once – 2 times the playback speed
- Press twice – 4 times the playback speed
- Press third – 6 times the playback speed
- Press fourth – 8 times the playback speed

Note > In case of the recorded files of HD contents, only 2 and 4 times of trick modes are supported.



2. Jump Forward and Jump Reverse

Within a recorded program, you can jump approximately 15 seconds forward or back (reverse).

1. Press **JUMP FORWARD / REVERSE** to go 15 seconds forward/ reverse.

It is possible to go directly to the scene which you would like to play and the recording will start to play from this scene.

2. Press and hold **JUMP FORWARD/REVERSE** and pressing till you encounter the scene when you want to replay.



Repeat

If you want to repeat the current playing file in the wanted section, use this function.

1. Press **REPEAT** while playing the recorded file. The arrow symbol on the DVR info bar indicates that the repeat mode has been activated.
2. Press **REPEAT** again to deactivate the repeat mode.



Repeat A-B

If you want to repeat the current playing file between A and B section, use this function.

1. Press **REPEAT A-B** while playing the recorded file to set "A", the start point of the loop.
2. Press **REPEAT A-B** again to set "B", the end point of the loop. The receiver will play the section of the recording between "A" and "B".
3. If you want to deactivate the repeat A-B functionality, press the repeat A-B key. The "A" and "B" symbols will be removed from the time bar.



Slow Motion

You can play the recorded file in slow motion.

1. Press **SLOW FORWARD** while playing the recording. The recording can be viewed at 1/2x, 1/4x, 1/6x and 1/8x slower than the normal speed.
2. Press **SLOW REVERSE** to play the recorded program in slow motion in reverse. The recording can be viewed at 1/2x, 1/4x, 1/6x and 1/8x slower than the normal speed.



Book Mark

It is possible to set bookmarks while recording or watching.

The bookmarks can be used to find the scene directly.

The bookmarks can be set while recording the program as well as while watching the file. Ten bookmarks can be set.

1. Press **BOOK MARK**  to set the bookmark while recording or watching the program.
2. If you want to see the marker info submenu while you are watching a recorded file, press **RECALL BOOK MARK LIST** .
3. Use the arrow keys to select the bookmark and press **OK**.
4. Press the **RED** key to delete the selected bookmark. Confirm your selection and leave the menu by pressing **EXIT**.



Frame by Frame

It is possible to watch a recorded program frame by frame.

1. Press **PAUSE** while playing the file.
2. Press **PAUSE** again to display the next frame.
 - Every time you press **PAUSE** again, the next frame will be displayed.
3. Press **PLAY** to be able to watch the recording in normal mode.

Playback while Recording

It is possible to playback the file which is currently being recorded or a file that has already been recorded.

Playing a program while it is being recorded.

1. Press **DVR** to display the DVR list on the screen.
2. Select the program from the list that is currently being recorded (the name of the program is written in red) and press **PLAY**.

Playing a program that has already been recorded.

1. Press **DVR** to display the DVR list on the screen.
2. Select the program from the list and press **OK** or **PLAY**.

- If you want to stop playing the recording, press **STOP** once.
- If you want to stop an on-going recording, press **STOP** once more time. Confirm this by selecting [Yes] and pressing **OK**.

DVR List



Mode

You can select the Folder of the Device you want.
Press the RED  key to select the folder.

Press the Edit(BLUE) key and select the Create folder in order to make the new folder.



Sort (A to Z/ Date/Size)

You can sort the DVR list according to A to Z, Date and Size.
Press the YELLOW  key and select the sort mode.

Edit (Delete/Rename/Lock/Move/Create Folder)

1. Press the BLUE  key to select the edit mode.

1) Delete (removing recordings)

- Press **OK** key for a selected recording and then press **EXIT** to confirm.

2) Rename (changing the name of a recording)

- Press **OK** key for a selected recording. You can rename the recording using the number and alphabet keys in the menu that is displayed.

3) Lock (locking recordings)

4) Move

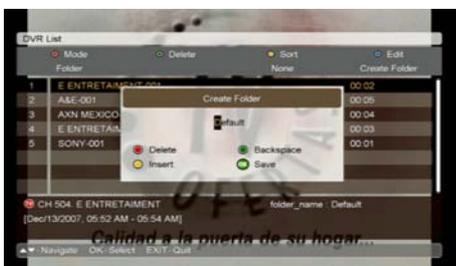
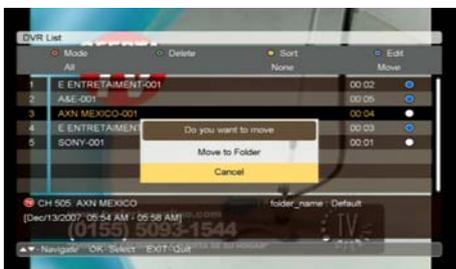
- If you move the selected recording to the other folder, press the **OK** key for a selected recording file and then press **EXIT** to confirm.

5) Create Folder

- You can add the new Folder in Mode menu and you can save the recording channel in the new folder.

2. Select the program to be locked and then press **OK** key.

3. Press **EXIT** to confirm the locking.



Last Play

You can continue watching the recorded program from the scene that you stopped watching it at. Press the **WHITE** key to start replaying it.

MENU GUIDE

NOTE

- Use the ◀, ▶ keys (left, right) to move between the main menu and submenu.
- Use the ▲, ▼ keys (up, down) to move other menu item within the main menu or the submenu.
- Press the OK to select or confirm the changes.
- Press the MENU to save your selections and then to go to the previous menu.
- Press the EXIT key to return to the live signal.



The main menu consists of 6 submenus.

- User Setting
- Installation
- Edit
- DVR Setup
- System Information
- Smart card

User Setting

Language Setting

To select the language of your choice for the Menu, Main Audio, Second Audio, Main Subtitle, Second Subtitle and Teletext.

1. Press the ◀, ▶ buttons to move to the desired language or use the pull down menu by pressing the OK key on the language bar you want to select.
2. When using the pull down menu, press the OK key on the selected language.
3. Use the ▲, ▼ buttons to move to the next language settings.

Parental Lock

In order to restrict the channel viewing with the parental rating, you can set the parental rating from the options (all blocked, 13+, 16+, 18+, unblocked) by using the ◀, ▶ keys or the pull down menu.

By setting the each Parental Lock as ON, you can prevent an unauthorized change in the installation from being performed or the receiver setting from being changed.

And you can change the PIN code in this menu.

Note >

1. To enter the Parental Lock menu, enter the correct PIN code first.
The initial PIN code is set as [1234].
2. Select [Yes] or [No] with the ◀, ▶ keys.

MENU GUIDE

TV Output

Aspect Ratio

You can select the aspect ratio of the TV screen.

Check the aspect ratio of TV screen (TV type) to be connected with the receiver.

If the aspect ratio of received broadcasting program is different from TV screen's aspect ratio, you can change the aspect ratio in various ways.

If your TV screen's aspect ratio is 4:3, you have three options to choose your screen setting : [4:3 letter box], [4:3 center], [4:3 full].

If your TV screen's aspect ratio is 16:9, you can choose ; [16:9 Wide], [4:3 Normal], [Zoom].

This is for selecting the aspect ratio of TV screen (width to height).

1. Press the ◀, ▶ keys or use the pull down menu.

1) 4 : 3 for normal screen TV

2) 16: 9 for wide screen TV



[4:3 Center]



[4:3 Full]



[4:3 Letter Box]



[16:9 Wide]



[4:3 Normal]



[Zoom]

2. When you complete the settings, press the menu button to move to the previous screen.

Contrast : You can adjust the screen brightness only when your receiver is connected with composite.
(0 : Darkest, 10 : Brightest)

Dolby Digital : If this parameter is set as [On], you can enjoy the Dolby Digital sound on the channel which provides this function.

Note> To enjoy the sound, you should connect the S/PDIF socket of the receiver to Digital Audio Amplifier.

Video Output : You can set the resolution of your HDTV screen out of 1080i, 720p.

Local Time Setup

1. Set the time zone where you are located with the ◀, ▶ keys or **OK** key in the pull down menu.

2. Set the "Summer Time" as ON or OFF with the ◀, ▶ keys or OK key in the pull down menu.

3. You can adjust the time in the Time Offset option (-59 min ~ +59 min) with the ◀, ▶ keys.

Timer Setup

You can reserve the [Turn ON] or [Turn OFF] time. Also you can set the [Sleep timer] in this menu.

1. Select ON/OFF with the ◀, ▶ keys.

2. Set the time with ◀, ▶ keys.

MENU GUIDE

Installation

Auto Search

All necessary parameters are pre-set so press OK key on [Start Search].
When search channel is finished, press OK key.



Manual Search

Search Channel is performed by entering search parameters. Set frequency, search type according to the network parameters.

If the search mode is set to network, the receiver will search for all the channels in the network (recommended).

- If the search mode is set to RF channel, the receiver will only search for the multiplex channels according to the parameters.

You can monitor the progress of the search during the channel search function. The TV and radio services found with the channel search appear on the channel list as the search advances.

DVR Setup

Record Timer Setting

You can see the reserved record list.

You can also edit and delete the reserved channels and reserve a new record with the color keys.

Edit

1. Select a reserved channel which you want to edit with the ▲, ▼ keys.
2. Press the **GREEN** key, and the information of the channel is displayed.
3. After modifying the information, press the **OK** key on [Store].

Add

You can add up to 128 Timers.

1. Press the **YELLOW** key to reserve a new record, and the Add menu is displayed.
 - Set the channel with the ◀, ▶ keys. • Set the Start Date with the calendar.
 - Set the Start Time with the numeric keys. • Set the Duration with the ◀, ▶ keys.
 - Select the type out of Once/ Daily/ Weekly with the ◀, ▶ keys. • Select the Lock ON/OFF.
 - If you want to edit the file name, press the **OK** key on the file name. Then, the edit submenu is displayed.
Edit the file name with the alphabet keys and color keys.
2. After setting all the parameters, press the **OK** key on [Store].

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Delete

1. Press the **BLUE** key.
2. Press the **OK** key on the channel which you want to delete, and the blue mark is displayed on the selected channel.
3. Before exit the delete mode, the message box is displayed to make a confirmation of your decision.
4. Press the **OK** key on [Yes] to delete the selected channel.

HDD Information

You can find the HDD (Hard Disk Drive) information.

Model no./ Total Capacity/ System reserved/ DVR/ Remaining Time.

HDD Format

1. If you want to format HDD (Hard Disk Drive), select [On] on **the HDD format parameter**.
2. After selecting [On] on the HDD Format,, press the **OK** key on [Start].

Note> You have to format the HDD for the initial use.

DVR Profile



Record Duration

You can set the time of the Record Duration (15~180min.).

HDD Sleep Time

If the HDD doesn't need to operate for the time being, you can set the receiver going to the HDD sleep mode automatically, when you set the option as [ON] and your desired time.

It will help to avoid a noise of HDD spinning, to lower power consumption and to save the lifetime of HDD.

Note >

Press the ◀, ▶ keys or use the pull down menu to select the banner time out.

MENU GUIDE

System Information

Software Upgrade

You can upgrade the receiver's software through the cable network. If new software version is available, the upgrade will automatically launch once you have switched the receiver over to standby-by and have rebooted it. The receiver can also be upgraded manually according to the instructions below.

Factory Reset

You can reset the receiver to its original settings. All changes made to the settings will be removed.

1. Select [On] or [Off] with the ◀, ▶ keys.
2. Press the **OK** key on the [Start], and a message confirming your selection will appear.

Upgrading the receiver software may also reset the channel list settings to their default values.

STB Version

You can find the detailed information of the Hardware (H/W) version and Software (S/W) version of the receiver.

SMARTCARD



Insert the smart card into the Smart Card slot on the Front Panel. The chip should be faced upwards.

TROUBLESHOOTING

Problem	Possible Cause	Solution of the problem
Forget your secret PIN code.		Contact your Service Provider.
Time Setting is wrong.	The time is not set properly.	Adjust the Time on the Menu.
No display LED on the front panel / No power supply	Power cord not plugged in correctly.	Power cord plug in correctly.
No picture on the screen.	receiver in Standby mode	Set the receiver to [ON]
	AV Output not connected tightly to video output of TV	Check the connection and correct.
	Incorrect channel or video output selected on TV.	Check channel and video output and correct.
No Sound	Audio cord connected incorrectly.	Check connection and correct.
	Volume level is 0.	Increase volume on TV set.
	Muting active.	Press the MUTE key.
Remote Control dose not operate directly.	Incorrect operation	Point remote control towards the receiver.
	Batteries dead or inserted incorrectly.	Replace batteries or inset correctly.
Poor picture quality.	Signal strength to low.	Check the signal strength in the [Installation] menu, check the signal cable from cable network.
The smart card is not working.	The smart card is not installed properly.	Check that the smart card has been correctly inserted.