


DVR (DIGITAL VIDEO RECORDING)

The extra recording time added to the existing setting equals the final recording time.

- 4 After adjusting the recording time, select **OK**. The progress bar will be displayed.



- Press the **EXIT** button to hide the Progress Bar. Press the **ENTER** button to display the progress bar.

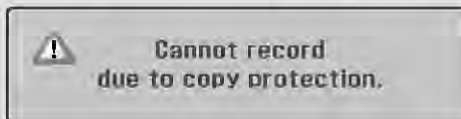
- 5 Recording stops when the selected duration is reached or when you press the  button.

Note: Although recording has stopped, the Timeshift feature remains active.

NOTE

- ▶ When recording, if the available storage space becomes low, the recording will be automatically stopped.
- ▶ Recordings of less than 10 seconds will not be saved.
- ▶ To save disk space while recording analog or digital broadcasts, no data is saved if there is no signal.
- ▶ The recording function will not initiate for a copy-protected program.
- ▶ The displayed time slightly differ from the actual time.
- ▶ In no signal or film source, the displayed time slightly differ from the actual time.

- ▶ The recording can not be used with content-protected programs on progressing Timeshift .



If you press Record while watching a broadcast (with content-protected program) using the Timeshift function, recording begins from that point.

- ▶ If you record for a long time, in a state of the Analog signal is weak, remained recording time may be short.

Watching & Record

While recording, you can change channels or inputs without disturbing the recording. The broadcast being recorded can be shown in the lower-right corner of the main screen.

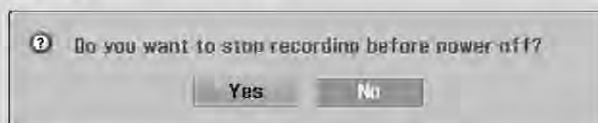
- 1 After starting an Instant Record or Reserved Record, change the channel or input.
 - You can check the show being recorded in the lower-right corner the main screen (as shown below).
 - Press the **PIP** button to cancel or show the program being recorded.
 - Press the **SWAP** button to return to the program being recorded in Watch & Record.
 - When changing to the channel being recorded in Watch & Record, the screen is changed to Instant Record state or Reserved Record state.

NOTE

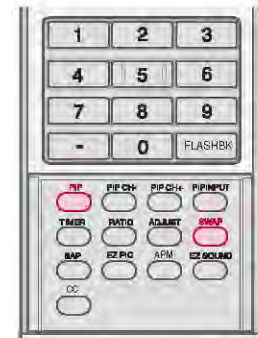
- ▶ When a digital broadcast is being recorded, another digital broadcast cannot be watched.

CAUTION

- ▶ if you turn the power off on recording, this message is displayed as shown below.



- ▶ If you selects Yes, recording stops and then power is off.
- ▶ If you selects No, recording continues and the power is turned off.



screen being recorded

Watch	Record	Digital	Analog	AV1	AV2
Digital		X	0	0	0
Analog		0	0	0	0
AV1		0	0	0	0
AV2		0	0	0	0
Component1		0	0	0	0
Component2		0	0	0	0
RGB-PC/DTV		0	0	0	0
HDMI1/DVI		0	0	0	0
HDMI2		0	0	0	0

Watch	Record	Component1	Component2
Digital		X	X
Analog		X	X
AV1		X	X
AV2		X	X
Component1		X	X
Component2		X	X
RGB-PC/DTV		X	X
HDMI1/DVI		X	X
HDMI2		X	X

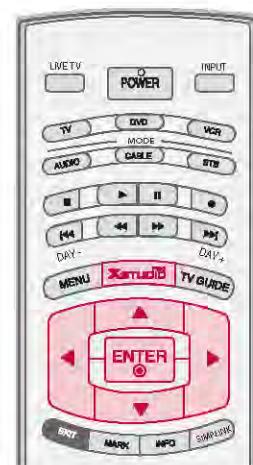
Watch & Record Input

DVR (DIGITAL VIDEO RECORDING)

PROGRAMMED RECORDING

This function is easy to register to reserved recording.

- In order to use this feature, you must first setup the TV Guide On Screen system.



- 1 Press the **XtremeHD** button to display HOME menu. Use the **▲** or **▼** button to select the **Manual Rec** and then use the **ENTER** or **▶** button.



- 2 **Manual Rec** screen is displayed as shown below. Use the **▲ ▼ ◀ ▶** button to set the **Input, Channel, Date, Start Time, End Time, Frequency**.

- ▶ **Input** : Select the input source from the available options (TV, DTV, CATV, CADTV, AV1, AV2, Component1,2).
- Note: If the TV Guide On Screen is Setup only for antenna : CATV and CADTV are not available, and if the TV Guide On Screen is Setup only for cable : TV and DTV are not available.
- ▶ **Channel** : Select either the current channel or a scanned channel.
 - ▶ **Date** : You can select a date up to one month in the future.
 - ▶ **Start Time /End Time** : Ensure you have set AM or PM correctly.
 - ▶ **Frequency** : Choose among Once, Daily and Weekly.



- 3 After setting the **Manual Rec**, press the **ENTER** button.

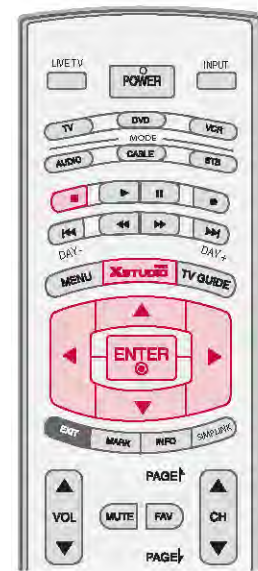
NOTE

- ▶ You can see scheduled detail information on the SCHEDULE menu of the TV Guide On Screen.
- You can also set the manual recording in the Schedule Options panel menu of the SCHEDULE.

(▶ p.60)

RECORDED TV PROGRAM LIST

You can watch the recorded program list at a glance.



- 1 Press the **Xtreme HD** button to display HOME menu.
Use the **▲** or **▼** button to select the **Recorded TV** and then use the **ENTER** or **▶** button.



Screen Components

- 1 Usable HDD



- 2 Folder List
- 3 Current page/Total pages
- 4 Marked thumbnail photo number
- 5 Direct Buttons

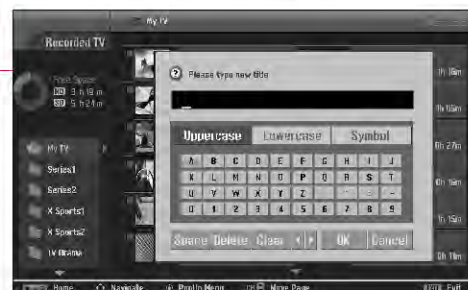


DVR (DIGITAL VIDEO RECORDING)

Folder List

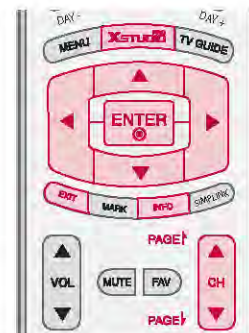
Select a desired folder in the folder list and then press the **ENTER** button to view the detailed menu.

- ▶ Create: Create new folder.
 - ▶ Delete: Delete folder (except 'My TV').
 - ▶ Rename: Edit folder name (except 'My TV').
- Use the **▲ ▼ ◀ ▶** and **ENTER** button to edit folder name.
- Move the cursor to OK and press the **ENTER** button to save.
- ▶ Cancel: Close the detailed menu.



Recorded program Selection and PopUp Menu

The thumbnail recorded list is shown above.



1 Use the **CH ▲** or **▼** button for page up/down navigation.

2 Use the **MARK** button to move or delete from the list. A is displayed next to the thumbnail photo if an item is marked.



3 Use ▲ ▼ ◀ ▶ button to navigate the appropriate thumbnail photo, then press the **ENTER** button to open the pop-up menu.

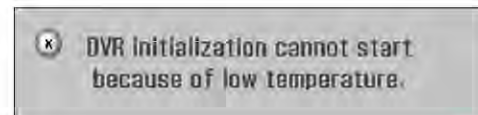
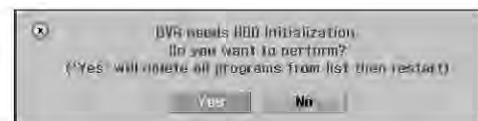
- ▶ **Play** : Begin playback of selected recorded program.
- ▶ **Mark All** : mark all recorded programs on the screen.
- ▶ **Unmark All** : Change marked recorded programs to unmarked recorded programs.
- ▶ **Move** : Move recorded program saved in HDD to a different folder.
- ▶ **Delete** : Delete the selected recorded programs.
- ▶ **Rename** : Edit recorded program title.
- ▶ **Cancel** : Close the Pop-up menu.



3

4 Repeatedly, press **EXIT** button to return to TV viewing or press **Source** button to return to the **HOME** menu.

- If the HDD has a problem performing a function (Recording) related to the DVR, select **Yes** or **No** to initialize HDD.
If you select **Yes**, the Recorded List (Recording) will be deleted. If you select **No**, the DVR may not function properly.
- If the temperature is below zero (0°), a warning message is displayed and you need to initialize the HDD.



4

DVR (DIGITAL VIDEO RECORDING)

Playing recorded programs

You can play the selected program in the recorded program list.

- 1 Play a recorded program.
- 2 While playing, You can see a diversified playback screen as shown below.
 - At first, an icon showing current playback mode is displayed as marking **PLAYING**. Then press the **ENTER** button to display the progress bar.
 - To stop displaying the recorded programs icon, press the **EXIT** button.





























The 'Progress Bar'?

This function indicates a possible DVR reshewing section, a current on-screen and real on-broadcasting position, a section of section-recording.

- 1 Indicates movement of recorded program.
- 2 Indicates status of recorded program.
- 3 Indicates elapsed playback time.
- 4 Indicates total playback time.
- 5 Indicates a quarter of program run-time.
- 6 Indicates current playback position.

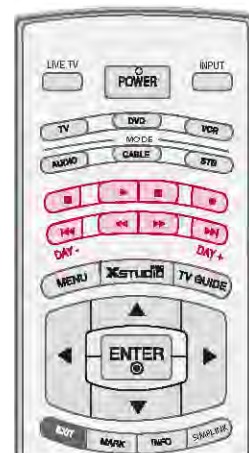
Using the remote control




You can shift playback to any point within the recorded program.


	<p>When playing, press the REW() or FF() button.</p> <ul style="list-style-type: none"> ▪ Press  ->  ->  ->  to speed up. ▪ Pressing these buttons repeatedly increases the fast forward/reverse speed.
	<p>Press the  or  button to move back and forth within the current program.</p> <ul style="list-style-type: none"> ▪ Press the  button to jump about 20 seconds forward. ▪ Pressing the  button to jump about 8 seconds backward.
	<p>During playback, press the Pause() button.</p> <ul style="list-style-type: none"> ▪ Still screen is displayed. ▪ Repeatedly press the Pause() button to advance frame by frame. ▪ Press the Pause() button and then the FF() button for slow motion (as showing the )
	<ul style="list-style-type: none"> ▪ After using  to rewind while playing, press the  button to return to the prior screen.
	<p>Press the PLAY() button to return to a normal playback.</p>
	<ul style="list-style-type: none"> ▪ If you want to return to the live broadcast, press the LIVE TV button.
	<ul style="list-style-type: none"> ▪ If you press the STOP() button, you can watch TV.

Editing a section

You can save the desired screen in the recorded program list after editing the recorded program.




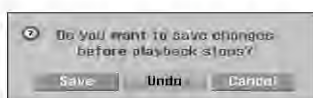
- 1 At the point you wish to start editing, press the  button.
 - ▀ The progress bar will show the edited section as red.
 - ▀ It is possible to search ( or ), and pause while editing the section.

- 2 When you wish to stop, press the  button.
 - ▀ Stop editing the section.

- 3 If you repeat steps 1,2, it is possible to edit more programs.




- 4 If you press the  button to stop the recorded program playback, this message is displayed as shown below.



- ▶ **Save** : Save contents of the edited section and finish the playback of the recorded program.
- ▶ **Undo** : Don't save contents of the edited section and finish the playback of the recorded program.
- ▶ **Cancel** : The screen returns to playback.

NOTE

- ▶ It is possible to play the recording / reserved recording.
- ▶ You may hear noise from the hard-disk during playback of the recorded program. This is normal and does not indicate a problem.
- ▶ When saving the content of the edited section, delete the portion not selected.
- ▶ When power fails during editing, the program may not be saved or edited. Press the **STOP** () button after checking the recording list.
- ▶ You can edit up to 10 programs.
- ▶ You must select at least 10 seconds for the edited portion to be saved.


DVR (DIGITAL VIDEO RECORDING)


On playing the recorded program, repeat a section

You can set the recording to repeat the same section.

- 1 At the point you wish to start, press the **MARK** button.





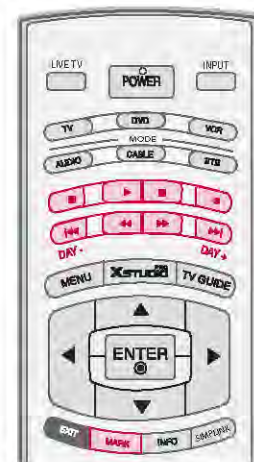
- The following symbol will appear: .

- 2 At the point you wish to finish, press the **MARK** button.
 - The following symbol appears: .
 - Repeatedly play the marked section.
 - You can not make sections of less than 5 seconds.
 - The progress bar for the repeated section will be shown in blue.

- 3 Press the **MARK** button to stop playing the repeat section.

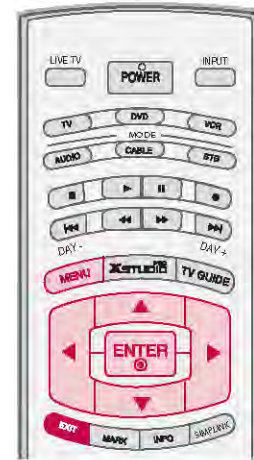
NOTE

- ▶ It is possible to search using ( / ).
- Pause to edit a section while repeating.

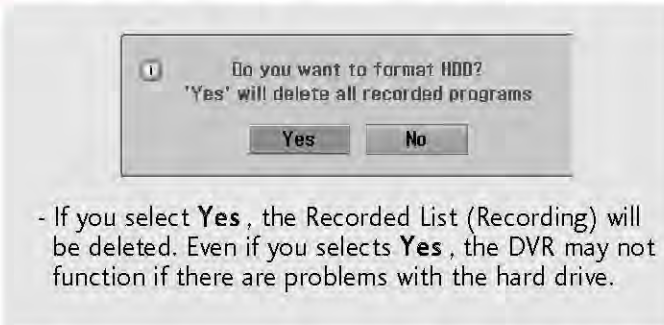


FORMAT HARD DISC

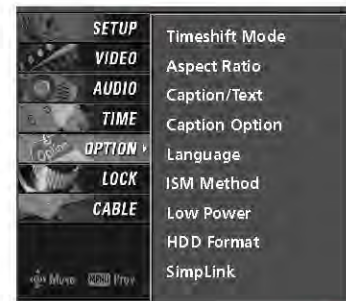
Erases all programs and initializes the hard drive.



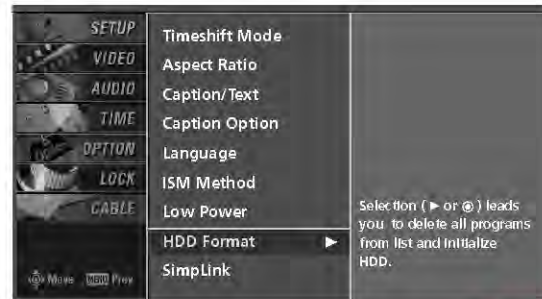
- 1 Press the **MENU** button and then use ▲ or ▼ button to select the **OPTION** menu.
- 2 Press the ► button and then use ▲ or ▼ button to select **HDD Format**.
- 3 Press the **ENTER** or ► button.
Select **Yes** or **No** to format HDD as shown below.



- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



1



2 3

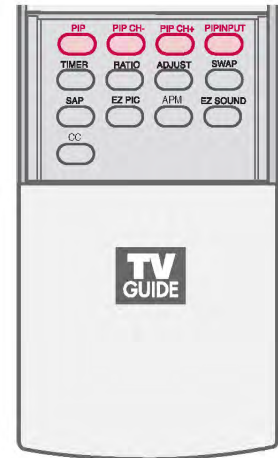
DVR (DIGITAL VIDEO RECORDER)

PICTURE CONTROL

WATCHING PIP (PICTURE-IN-PICTURE)/ POP(PICTURE-OUT-OF-PICTURE)/TWIN PICTURE

PIP lets you view 2 different inputs (sources) on your TV screen at the same time. One source will be large, and the other source will show a smaller inset image.

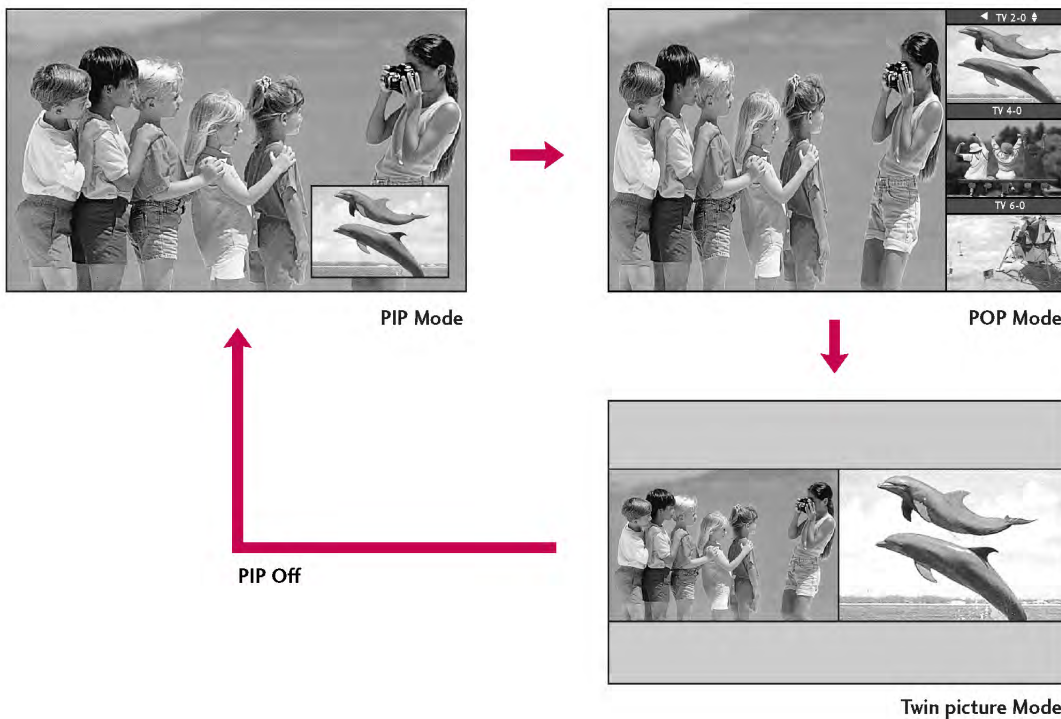
Twin Picture mode splits the screen into two images, allowing two picture sources to be shown on the TV screen at the same time. Each source is given half the screen.



Watching PIP/POP/Twin Picture

Press the PIP button to access the sub picture.
Each press of PIP changes the PIP options as shown below.

PICTURE CONTROL





Selecting an Input Signal Source for PIP/Twin Picture

Use the **PIP INPUT** button to select the input source for the sub picture. Each press of **PIP INPUT** button changes the PIP source. You can also select sources for the Sub Input in the **SETUP** menu.

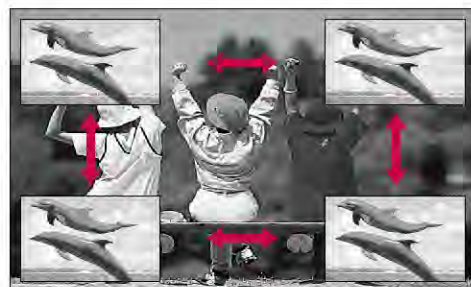
Main Picture Source	Available Sub Picture Sources
DTV/CADTV	Analog(TV/CATV), AV1, and AV2
TV/CATV, AV1, AV2, Component1, Component2, RGB-PC/RGB-DTV, HDMI1/DVI, HDMI2	DTV/CADTV, Analog(TV/CATV), AV1, and AV2

TV Program selection for PIP

- 1 Press the **PIP** button.
- 2 Select the Antenna or Cable option on the Sub input menu or with the **PIP INPUT** button.
Use the **PIPCH+** / **PIPCH-** button to select a channel for the sub picture.
(You can't select DTV for main and sub picture simultaneously).

Moving the PIP sub picture

- 1 In PIP mode, press the **▲ ▼ ◀ ▶** button to move the sub picture to a different location on the screen.

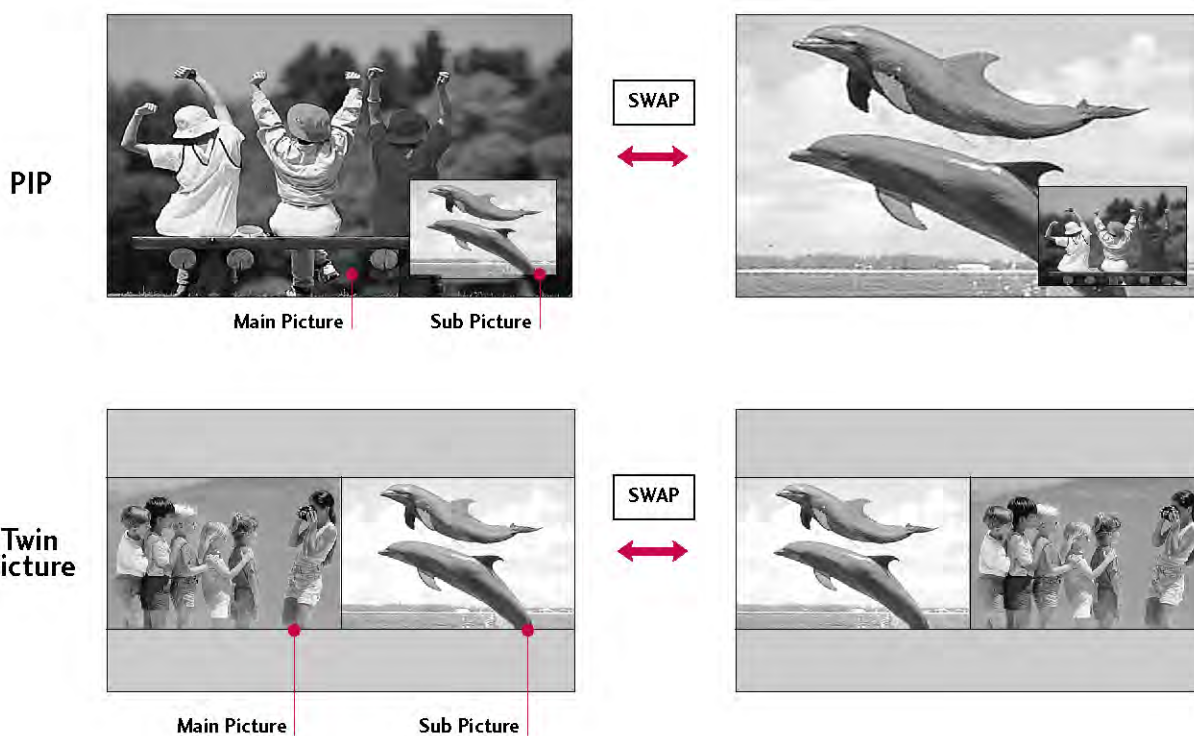


PICTURE CONTROL

Swapping the PIP/Twin Picture

1 Repeatedly, use the **SWAP** button to switch the main and sub pictures.

- Component 1, Component 2, RGB-PC (or RGB-DTV), HDMI1/DVI, HDMI2 input sources for the main picture can't be used to swap the main and sub pictures.



Adjusting Main and Sub Picture Sizes for Twin Picture

1 Use the ▲ ▼ ◀ ▶ button to change main and sub picture sizes in Twin Picture mode.

- If screen is adjusted to the maximum size, the large screen is filled with entire screen vertically as shown.





POP (Picture-out-of-Picture : Channel Scan)

Use POP to search the programs of all the memorized channels one-by-one on the 3 PIP screen display, (while the main picture source remains the current channel). The pictures of all the programmed channels are searched with the 3 POP screens.

- 1 Press the **PIP** button to activate the **POP mode** while in **PIP mode**.
 - **Channel selection** : Use ◀ button to Enlarge the selected channel being searched on the PIP screen to shift it for viewing on the Main screen.
 - **PIP selection** : Use ▲ or ▼ button to select one of 3 PIP screen pictures in **POP** mode.
 - When watching TV/CATV, TV/DTV or CATV/CADTV Sub pictures are scanned. However, when watching DTV/CADTV , only TV/CATV Sub pictures are scanned.



- 2 Press the **EXIT** button to cancel POP mode.

! NOTE

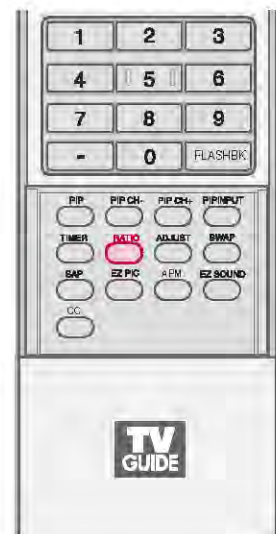
- ▶ Run EZ Scan channel search before using POP mode.
- ▶ When Sub pictures are changed from the TV/DTV to CATV/CADTV in POP mode, you may hear a noise from the Tuner switch.

PICTURE CONTROL

PICTURE SIZE (ASPECT RATIO) CONTROL

This feature lets you choose the way an analog picture with a 4:3 aspect ratio is displayed on your TV. When you receive an analog picture with a 4:3 aspect ratio on your 16:9 TV, you need to specify how the picture is to be displayed.

- RGB-PC/DVI-PC input source use 4:3 or 16:9 aspect ratio.



- 1 Press the **RATIO** button repeatedly to select the desired picture format. You can also adjust **Aspect Ratio** in the **OPTION** menu.

Set by program

Selects the proper picture proportion to match the source's image.

(4:3 → 4:3)



(16:9 → 16:9)



4:3

Choose 4:3 when you want to view a picture with an original 4:3 aspect ratio.



16:9

Adjust the picture horizontally, in a linear proportion to fill the entire screen.



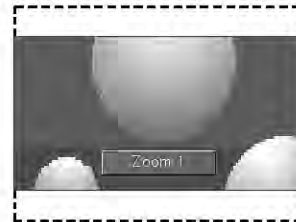
Horizon

The screen size is, more enlarged at both sides, to create a spectacular view.



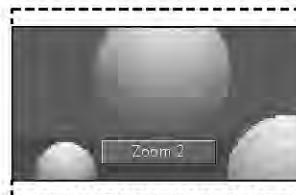
Zoom 1

Choose Zoom 1 when you want to view the picture without any alteration. However, the top and bottom portions of the picture will be cropped.



Zoom 2

Choose Zoom 2 when you want the picture to be altered, both vertically extended and cropped. The picture taking a halfway trade off between alteration and screen coverage.



Cinema Zoom

Choose Cinema Zoom when you want to enlarge the picture in correct proportion. Note: When enlarging or reducing the picture, the image may become distorted.



- The adjustment range is 1-16.

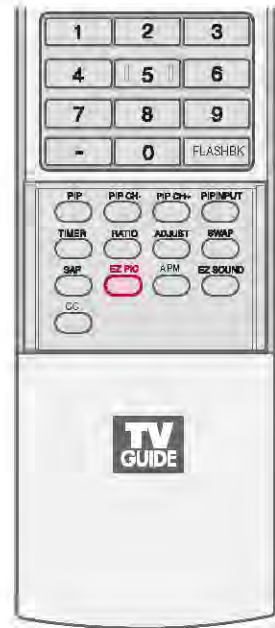
PRESET PICTURE SETTINGS

EZ Picture - Preset

EZ Picture adjusts the TV for the best picture appearance. Select the preset value in the EZ Picture menu based on the program category.

Daylight, Normal, Night Time Settings are preset for optimum picture quality at the factory and are not adjustable.

In the User 1, and User 2 modes only, user can directly adjust the contrast, brightness, color, sharpness, tint.



1 Press the **EZ PIC** button repeatedly to select the picture appearance setup option as shown below : **Daylight, Normal, Night Time, User1, and User2**(your own settings).

2 Press the **EXIT** button to save and return to TV viewing.

■ You can also use the **VIDEO** menu to adjust EZ Picture.



PICTURE CONTROL

PICTURE CONTROL

Adaptive Picture Mode (APM)

Allows you to select your preferred picture mode after comparing the four different picture (Daylight, Normal, Night Time, User 1 and User 2) settings.

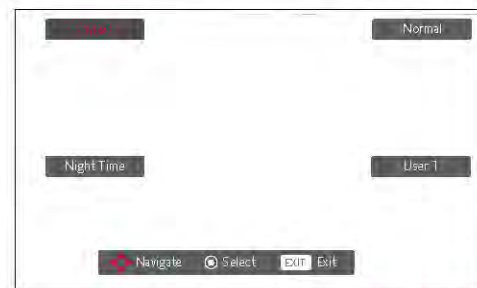


1 Press the **APM** button at once. As shown below, the screen is divided to 4-split.

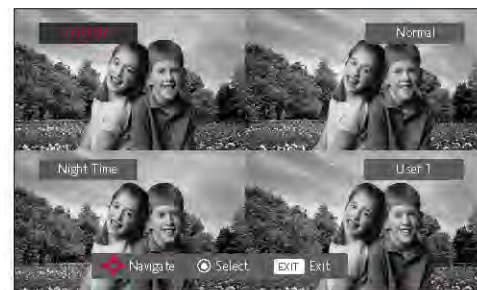
2 Use the **▲▼◀▶** button to navigate 4 EZ Pictures. By pressing the **ENTER** button, you can select the desired mode.

3 Press the **APM** button twice times. The 4-same screens are displayed. You can easily compare with 4 modes.

4 Use the **▲▼◀▶** button to navigate 4 EZ Pictures. By pressing the **ENTER** button, you can select the desired mode.



1 2 3



4 5 6

NOTE

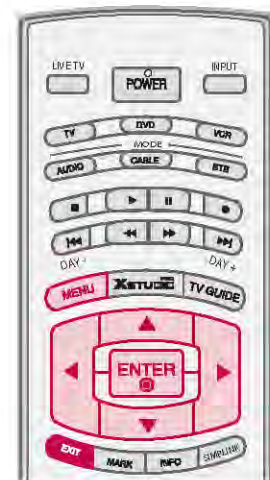
- ▶ While operating the 4-split, any button except **APM, ENTER, EXIT, VOLUME ▲ or ▼, MUTE** or **▲▼◀▶** button on the remote control are not usable.

Color Tone -Preset

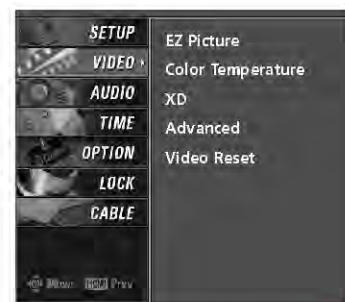
Choose one of three automatic color adjustments. Set to warm to enhance hotter colors such as red, or set to cool to see less intense colors with more blue.

When selecting EZ Picture options (Daylight, Normal and Night Time), Color Temperature is automatically change.

When selecting EZ Picture options (User 1 and User 2), you can choose the Color Temperature.



- 1 Press the **MENU** button and then use ▲ or ▼ button to select the **VIDEO** menu.
- 2 Press the ► button and then use ▲ or ▼ button to select **Color Temperature**.
- 3 Press the ► button and then use ▲ or ▼ button to select either **Cool, Medium, Warm** or **User**.
- 4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

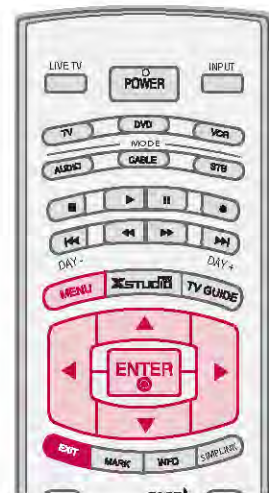


PICTURE CONTROL

MANUAL PICTURE ADJUSTMENT

EZ Picture -User Mode

Adjust the picture appearance to suit your preference and viewing situations.



1 Press the **MENU** button and then use **▲** or **▼** button to select the **VIDEO** menu.

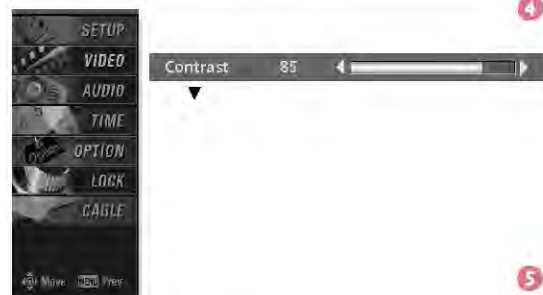
2 Press the **▶** button and then use **▲** or **▼** button to select **EZ Picture**.

3 Press the **▶** button and then use **▲** or **▼** button to select **User 1** or **User 2**.

4 Press the **▶** button and then use **▲** or **▼** button to select the desired picture option (**Contrast**, **Brightness**, **Color**, **Sharpness**, or **Tint**).

5 Press the **▶** button and then use **◀** or **▶** button to make appropriate adjustments.

6 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.

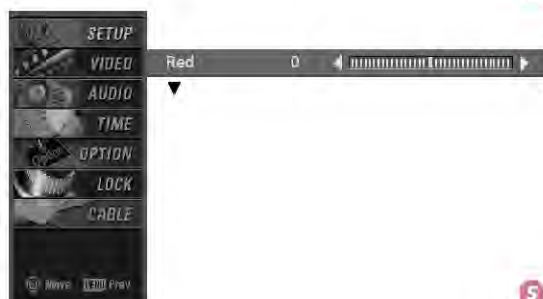
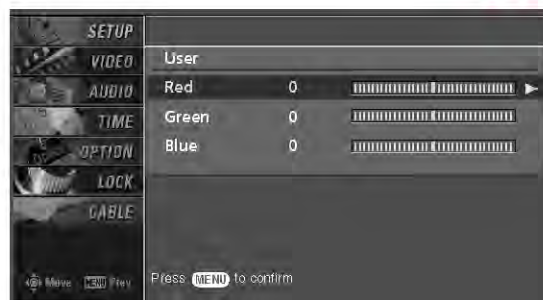
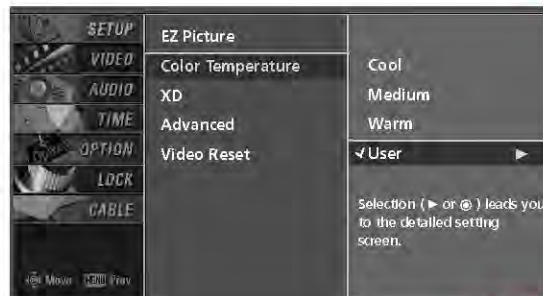
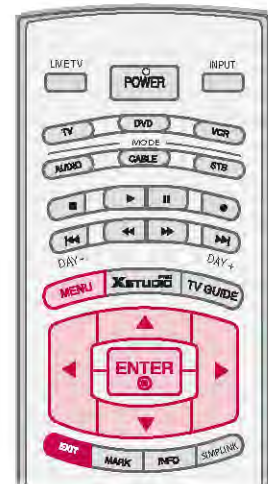




Color Tone -User Mode

You can also adjust the detailed settings(Red, Green, Blue) by selecting the **User** menu.

- 1 Press the **MENU** button and then use ▲ or ▼ button to select the **VIDEO** menu.
- 2 Press the ► button and then use ▲ or ▼ button to select **Color Temperature**.
- 3 Press the ► button and then use ▲ or ▼ button to select **User**.
- 4 Press the ► button and then use ▲ or ▼ button to select **Red, Green, or Blue**.
- 5 Press the ► button and then use ◀ or ▶ button to make appropriate adjustments.
 - The adjustment range of **Red, Green, or Blue** is -20~ +20.
- 6 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



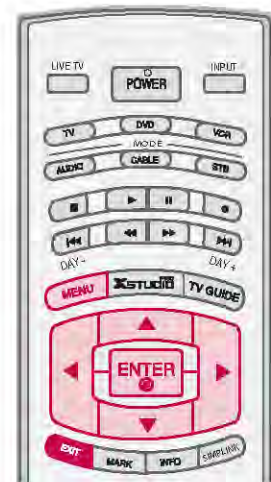
PICTURE CONTROL

XD - PICTURE IMPROVEMENT TECHNOLOGY

XD is LG Electronics unique picture improving technology to display a real HD source through an advanced digital signal processing algorithm.

When selecting EZ Picture options (Daylight, Normal and Night time), XD is automatically change to Auto.

When selecting EZ Picture options (User 1 and User 2), you can choose the Auto / Manual and when selecting Manual, you can adjust the XD Contrast, XD color and XD Noise.



1 Press the **MENU** button and then use **▲** or **▼** button to select the **VIDEO** menu.

2 Press the **▶** button and then use **▲** or **▼** button to select **XD**.

3 Press the **▶** button and then use **▲** or **▼** button to select **Auto** or **Manual**.

* Selecting the Manual

1. Press the **▶** button and then use **◀** or **▶** button to select **XD Contrast**, **XD Color** or **XD Noise**.

- **XD Contrast** : Optimizing the contrast automatically according to the brightness of the reflection.
- **XD Color** : Adjusting the colors of the reflection automatically to reproduce as closely as possible to the natural colors.
- **XD Noise** : Removing the noise up to the point where it does not damage the original picture.

2. Use the **▲** or **▼** button to select **On** or **Off**.

4 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



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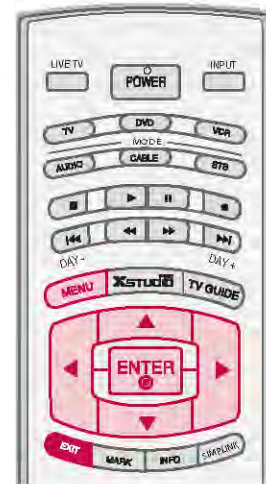


2 3 4

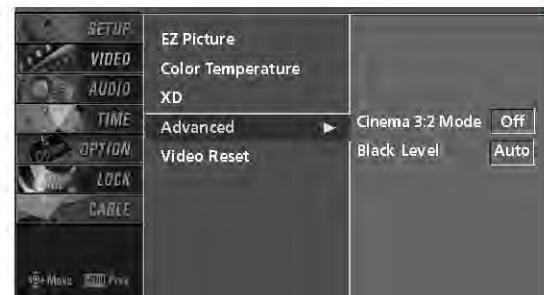
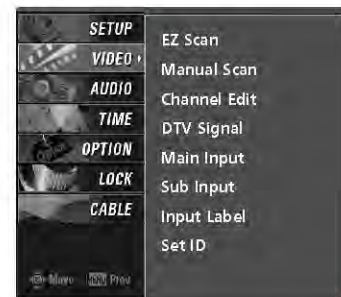
ADVANCED -CINEMA 3:2 PULLDOWN MODE

Set up the TV for the best picture appearance for viewing movies.

When you operate Cinema (3:2 Pull-Down Mode or Cinema Correction Mode), the TV will adjust 24 fps video from movies to 30 fps video for display (This function is only available in Analog, AV1, AV2, Component 480i mode.)



- 1 Press the **MENU** button and then use ▲ or ▼ button to select the **VIDEO** menu.
- 2 Press the ► button and then use ▲ or ▼ button to select **Advanced**.
- 3 Press the ► button and then use ▲ or ▼ button to select **Cinema 3:2 Mode**.
- 4 Press the ► button and then use ▲ or ▼ button to select **On** or **Off**.
- 5 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



2 3 4

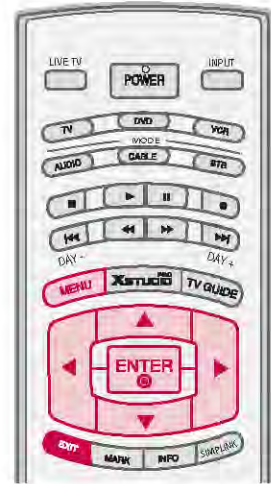
PICTURE CONTROL

PICTURE CONTROL

ADVANCED-BLACK(DARKNESS) LEVEL

Adjusting the contrast and the brightness of the screen using the black level of the screen.

This feature operates only in HDMI1/DVI, HDMI2 or AV1, AV2 mode.



1 Press the **MENU** button and then use **▲** or **▼** button to select the **VIDEO** menu.

2 Press the **▶** button and then use **▲** or **▼** button to select **Advanced**.

3 Press the **▶** button and then use **▲** or **▼** button to select **Black level**.

4 Press the **▶** button and then use **▲** or **▼** button to select **Auto, Low, or High**.

- **Auto**
Realizing the black level of the screen and set it to High or Low automatically.
- **Low**
The reflection of the screen gets darker.
- **High**
The reflection of the screen gets brighter.

5 Press **EXIT** button to return to TV viewing or press **MENU** button to return to the previous menu.



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2 3 4