

ATTACHMENT E -2.

- USER'S MANUAL -



Resolutions Supported in PC

Resolution	Horizontal frequency	Vertical frequency
640 x 350	31.47	70.09
	37.86	85.08
640 x 480	31.47	59.94
	37.86	72.80
	37.50	75.00
	43.27	85.01
720 x 400	31.47	70.08
800 x 600	37.88	60.32
	48.08	72.18
	46.88	75.00
	53.67	85.06
832 x 624	49.72	74.55
1024 x 768	48.36	60.00
	60.02	75.03
	68.68	85.00

* Recommended Resolution is 1024x768@60Hz : HQP421HR / HQP501HR

* Recommended Resolution is 800x600@60Hz : HQP421SR



CONNECTIONS

Picture Setup



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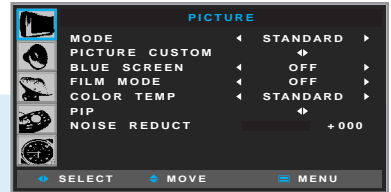


How to Select the Picture Mode

Users can adjust picture mode automatically according to the input mode(TV, Video, S-Video, F/H Scart, DVD, DTV).



Press Menu button.
Menu items appear on the screen.



1

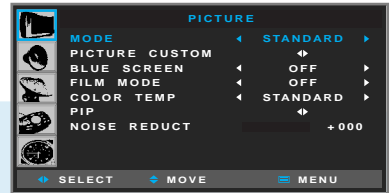


Press Up and Down buttons to move to "Picture" icon.

2



Press Left and Right buttons to select "MODE".



3



Press Left and Right buttons, then the menu changes in order below.
⇒ Standard ⇒ DYNAMIC ⇒ Movie
⇒ MILD ⇒ User ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

STANDARD : For general contents. It fits most video contents.

DYNAMIC : For a clear display.

MOVIE : For movies.

MILD : For a soft display.

USER : When the user wants to set the values → see the next page

PICTURE

How To Directly Select Picture Mode : Press button.

- Users can select Standard ⇒ Dynamic ⇒ Movie ⇒ Mild ⇒ USER, when the input mode is TV, S-Vedio, Scart 1/2, DVD, DTV.
- Users can select Standard ⇒ Low(Text Mode) ⇒ High(Movie), when the input mode is PC or DVI.


TIP

In the user's mode, the users can adjust at thier preference contrast, brightness, sharpness, color, tint at standard, dynamic, movie, or mild mode.

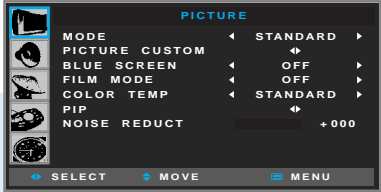
*Adjustments menu may be different according to the input source.

How to Set the Desired Picture


Users can manually adjust the picture in their own ways.



Press Menu button.
Menu items appear on the screen.




1

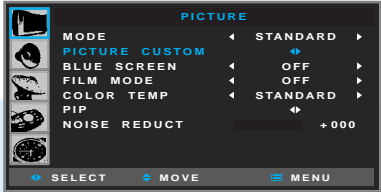


Press Up and Down buttons to move to "Picture" icon.


2



Press Left and Right buttons to select "PICTURE"




3




Press Up and Down buttons to move to "CUSTOM".


4




Press Left and Right buttons to select "CUSTOM".
Picture Custom menu appears.



5



Choose one of the items listed, then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

CONTRAST : Adjust the brightness and darkness of object and background.

BRIGHTNESS : Adjust the brightness of the entire picture.

SHARPNESS : Adjust clarity of outline of objects.

COLOR : Adjust colors into deeper or lighter colors.

TINT : Adjust colors naturally. ➔ This only applies to NTSC mode.



Setting of Color and Tint is not supported in PC, DVI and DTV input modes.

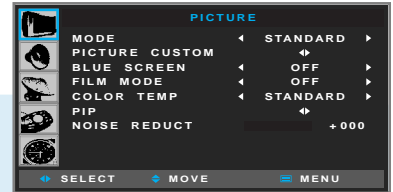


How to Set Blue Screen

If there is no broadcast or no signal from a connected external device, your PDP will show a blue screen.
If a broadcast signal comes in, the blue screen will be converted to a normal screen.



Press Menu button.
Menu items appear on the screen.



1

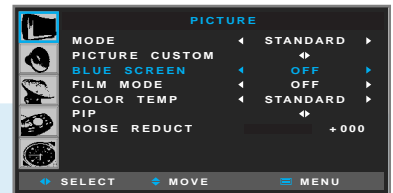


Press Up and Down buttons to move to
“Picture” icon.

2



Press Left and Right button to select
“PICTURE”.



3



Press Up and Down button to move to
“BLUE SCREEN”.

4



Press Left and Right button to “ON/OFF”.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

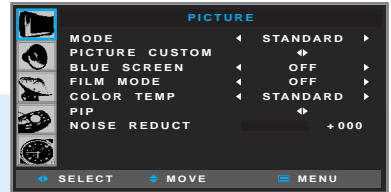
In the status of Blue Screen active, when the main picture receives no signal during watching a TV or VCR program as a main picture while viewing a VCR or TV program as a sub picture in PIP mode, the entire screen (including both main and sub pictures) will turn blue. When the main picture signal comes back, the both pictures will be restored to normal.

How to Set Film Mode

Set Film Mode to receive a crisp, clear picture without flickering.



Press Menu button.
Menu items appear on the screen.



1

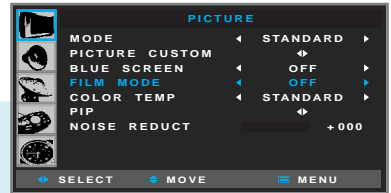


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE".



3



Press Up and Down button to move to
"FILM mode".

4



Press Left and Right button to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

You may experience the distortion of the screen edge during a DVD or VCR playback. This may be caused by bad edit of a film (a DVD title or tape). If you have come across this symptom, select OFF in the Film Mode.

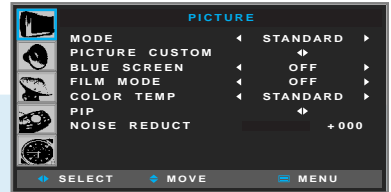


How to Select a Color Temperature

Users can adjust Color as users want.



Press Menu button.
Menu items appear on the screen.



1

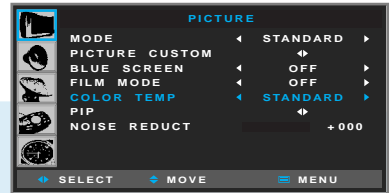


Press Up and Down buttons to move to
"Picture" icon.

2



Press Left and Right button to select
"PICTURE" icon.



3



Press Up and Down button to move to
"COLOR TEMP".

4



Press Left and Right button, then Mode changes in order below.
⇒ Standard ⇒ Cool ⇒ Warm ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : Colors for general picture.

COOL : Cool colors with bluish tone.

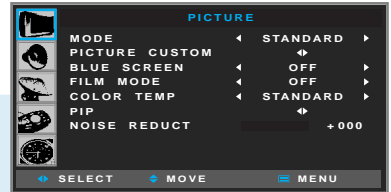
WARM : Warm colors with reddish tone.

How to Set PIP [Mode]

This is to set PIP(Picture In Picture) mode or Twin mode.



Press Menu button.
Menu items appear on the screen.



1

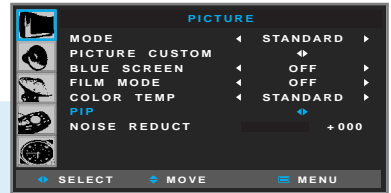


Press Up and Down buttons to move to "Picture" icon.

2



Press Left and Right button to select "PICTURE" icon.



3



Press Up and Down button to move to "PIP".



4



Press Left and Right button to select "PIP".
Menu items appear on the screen.

5



Press Up and Down button to move to "MODE".

6



Press Left and Right button, then Mode changes in order below.
⇒ PIP ⇒ TWIN ⇒ OFF ⇒



PIP : To watch the Sub screen in the main screen at once.



TWIN : To watch two screens in half and half.

After setting this, go to step 7 to set the SOURCE.



How to Set Multi-Screen [Input Source/Position/Size]

This is to set the Input Source, Position and Size of the Sub-picture. (This function is available only when PIP mode active.)



Press Up and Down buttons to move to "SOURCE".



Press Left and Right button, then source changes in order below.

- ⇒ DTV ⇒ DVD ⇒ S-Video
- ⇒ TV ⇒ SCART 1 ⇒ SCART 2 ⇒ PC ⇒ DVI ⇒

In case of PIP mode, go to step 9 if you need to set the "SWAP" of Main and sub pictures.



Press Up and Down buttons to move to "SWAP".



Press Left and Right buttons.

In case of PIP mode, go to step 11 if you need to set the "SIZE" of Sub picture.



Press Up and Down buttons to move to "Size".



Press Left and Right buttons to set to "LARGE/SMALL".

In case of PIP mode, go to step 13 if you need to set the "POSITION" of Sub picture.



Press Up and Down buttons to move to "POSITION".

14



Press Left and Right button, then position changes in order below.

⇒ Right Down ⇒ Left Down ⇒ Left Up ⇒ Right Up ⇒



In case the Input source in Sub picture is TV, go to step 15 when you wish to change the channels of Sub picture.

15



Press Up and Down buttons to move to "Channel".



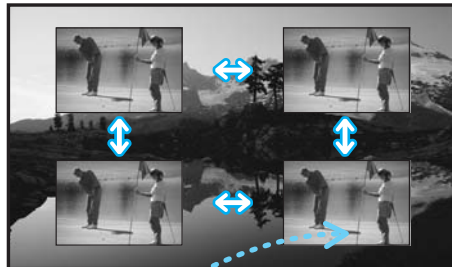
16



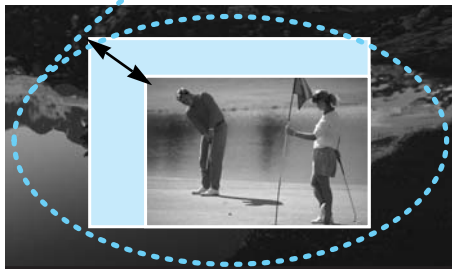
Press Left and Right button to select "Channel Number".



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.



▲ Adjust the location in PIP



▲ Adjust the size in PIP

For details on Hot-keys on the remote control, please go to the next page.



Hot-Keys on the Remote Control

How to Directly Turn PIP FUNCTION ON/OFF : Press  button.

To turn ON/OFF the PIP function

How To Directly Adjust PIP MODE & SIZE : Press  button.

To watch PIP/TWIN ways or to adjust the Size of Sub picture.

⇒ Large ⇒ Small ⇒ TWIN ⇒

How To Directly Change Sub Source : Press  button.

Press Up and Down buttons to move to the Sub Source.
And select using Left or Right button.

CURRENT : TV		
TV		
VIDEO		
SUB-VIDEO	NO	CABLE
S-CART 1	NO	CABLE
S-CART 2		
DVD		
DTV	NO	CABLE
PC	NO	CABLE
DVI	NO	CABLE

How To Directly Set The SWAP : Press  button.

To swap the Main picture and sub picture.

How To Directly Set The Sub Channel : Press  button.



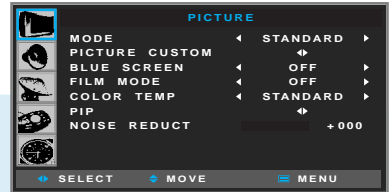
Main and sub pictures cannot have the same input source.

How to Set Noise Reduction

This is to eliminate some noise on the screen in Video mode.



Press Menu button.
Menu items appear on the screen.



1

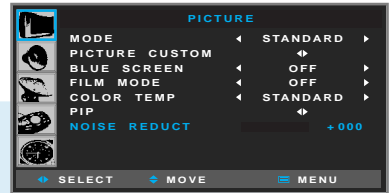


Press Up and Down buttons to move to "Picture" icon.

2



Press Left and Right button to select "PICTURE".



3



Press Up and Down button to move to "NOISE REDUCT".

4



Press Left and Right button to adjust Screen quality.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



In the Noise Reduction, the more you reduce the screen noise, the more the sharpness level of the pictures may become degraded.



Supported PIP Table

PIP : 0 → Supported, X → Not Supported

Sub Main	PC	DVI	DTV	DVD	TV	S-Video	Video	Scart 2	Scart 1
PC	X	X	X	X	0	0	0	0	0
DVI	X	X	X	X	0	0	0	0	0
DTV	X	X	X	X	0	0	0	0	0
DVD	X	X	X	X	0	0	0	0	0
TV	0	0	0	0	0	0	0	0	0
S-Video	0	0	0	0	0	X	0	0	0
Video	0	0	0	0	0	0	X	0	0
Scart 2	0	0	0	0	0	0	0	X	0
Scart 1	0	0	0	0	0	0	0	0	X

Sound Setup



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How to Select the Audio Mode

Users can adjust sound mode automatically as users want.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "SOUND" icon.

2



Press Left and Right buttons to select "MODE".



3



Press Left and Right button, then the menu changes in order below.

⇒ Standard ⇒ Music ⇒ Movie
⇒ News ⇒ User ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

STANDARD : For the general sound. This fits most audio contents.

MUSIC : For enjoying original sound.

MOVIE : For grandiose sound.

NEWS : For the clear sound.

USER : When the user wants to set the value ➔ [see the next page](#)

SOUND

How To Directly Select Picture Mode : Press  button.

Users can select STANDARD ⇒ MUSIC ⇒ MOVIE ⇒ NEWS ⇒ USER in order.

How to Set the Desired Audio

Users can manually adjust the sound in their own ways.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "SOUND" icon.

2



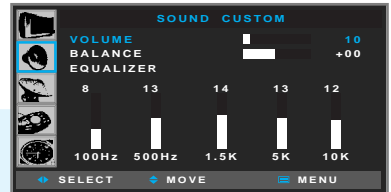
Press Left and Right buttons to select "SOUND".



3



Press Up and Down buttons to move to "SOUND custom".



4



Press Left and Right buttons to select "SOUND custom".
Sound Custom menu appears.

5



Choose one of the items listed,
then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

VOLUME : Adjusts the volume.

BALANCE : Adjusts the balance of left and right speakers.

EQUALIZER : Adjusts the audio output signal in the desired band.



How to Select AVL

This function automatically gives a similar volume size to each channel.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to
“SOUND” icon.

2



Press Left and Right buttons to select
“SOUND”.



3



Press Up and Down buttons to move to
“AVL”.

4



Press Left and Right buttons to “ON/OFF”.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How to Select SRS WOW(Surround)

You can enjoy the spectacular, clear and crisp sound.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "SOUND" icon.

2



Press Left and Right buttons to select "SOUND".



3



Press Up and Down buttons to move to "SRS WOW".

4



Press Left and Right buttons to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

The SRS WOW function is activated only when the audio input signal is Stereo.



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WOW technology is incorporated under license from SRS Labs, Inc.

Remarkable Enhancement for Mono or Stereo Playback

WOW™, is an award-winning, patented technology that significantly enhances the quality of mono and stereo audio material. It creates the perception of improved dynamics and bass performance over standard speakers or headphones.

WOW makes up for the limitations inherent in smaller speakers and headphones by providing a panoramic three-dimensional audio image that extends the sound in both the horizontal and vertical planes well beyond the speakers or headphones themselves. As a result, manufacturers of small audio devices, televisions, wireless and personal/portable products can dramatically improve their product's audio performance without enlarging the speaker size. The enriching effects of WOW are especially noticeable on digitally compressed mono or stereo audio in formats such as MP3, WMA and audio CD in which the "tinny" hollow sound is greatly reduced.



How to Select MTS(Multi-Channel Sound)

Depending on the particular program being broadcast, you can select to stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Sometimes SAP has unrelated information like news or weather.)



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "Sound" icon.

2



Press Left and Right buttons to select "Sound".



3



Press Up and Down buttons to move to "MTS".

4



Press Left and Right buttons, Repeatedly to select "MONO", "STEREO" or "SAP".



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

How To Directly Select MTS : Press  button.

Repeatedly to select "MONO", "Stereo" or "SAP".

- Choose "Stereo" for channels that are broadcasting in STEREO.
- Choose "MONO" for channels that are broadcasting in MONO, or if you are having difficulty receiving a STEREO signal.
- Choose "SAP" to listen to the separate audio program, which is usually a foreign-language translation.

TIP

If the signal reception conditions deteriorate, setting to Mono will make your listening condition better.

How to Set the Output of Subwoofer

You can set this function when you wish to install your subwoofer speaker system.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "SOUND" icon.

2



Press Left and Right buttons to select "SOUND".



3

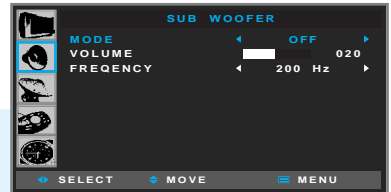


Press Up and Down buttons to move to "SUB WOOFER".

4



Press Left and Right buttons to select "SUB WOOFER".
Sub Woofer menu appears.



5



Choose item, then Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

- The frequencies in the entry are the subwoofer's frequency range.
- You make sure to use a subwoofer speaker system with built-in amplifier.



Channel Setup



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Memorizing the Channels

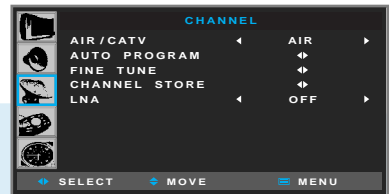
Your PDP can memorize and store all of the available channels for both “off-air” (antenna) and cable channels. After the available channels are memorized, use the CH and CH buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).



Press Menu button.
Menu items appear on the screen.



1

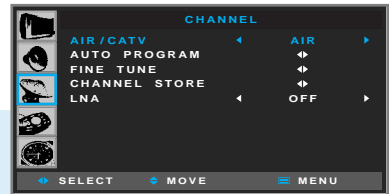


Press Up and Down buttons to move to “CHANNEL” icon.

2



Press Left and Right buttons to select “CHANNEL”.
AIR/CATV is highlighted.



3

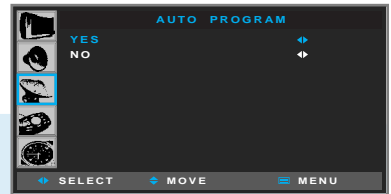


Repeatedly press the Left/Right buttons to cycle through these choices :
⇒ STD ⇒ HRC ⇒ IRC ⇒ AIR ⇒

4



Press Up and Down buttons to move to “AUTO PROGRAM”.



5



Press Left and Right buttons to select “AUTO PROGRAM”.
AUTO PROGRAM menu appears.

6



Press Left and Right buttons to select “YES”, then store the selected channels.

CHANNEL SETUP



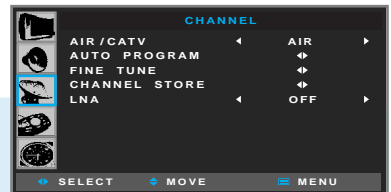
- STD, HRC and IRC identify various types of cable TV systems. contact your local cable company to identify the of cable system that exists in your particular area.
- The PDP automatically cycles through all available channels and stores them in memory.
- If you press the MENU button in the middle of AUTO STORE, the first stored channel will be displayed, and the AUTO STORE stops.

Fine Tuning Channel Reception

If the reception is clear, you do not have to fine tune channels, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.



Press Menu button.
Menu items appear on the screen.



1

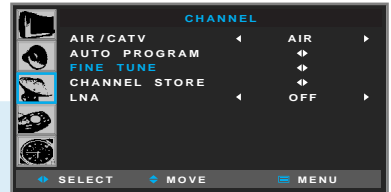


Press Up and Down buttons to move to "CHANNEL" icon.

2



Press Left and Right buttons to select "CHANNEL".



3



Press Up and Down buttons to move to "Fine Tune".

4



Press Left and Right buttons to select "Fine Tune".
New Menu items appear.



5



Press Left and Right buttons to adjust Screen.
*Channel number is current channel.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



OSD for the fine tuned channels is highlighted in blue.
On INFORMATION active, MFT (Manual Fine Tune) after the channel number will be displayed.

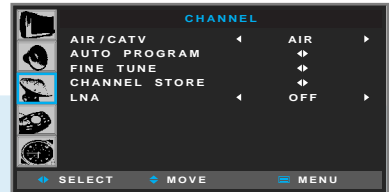


Storing Channels Manually

You can exclude the channels of your choice from the channel scan operation. When you scan through the stored channels, those that you have chosen to skip are thus not displayed. All channels that you do not specifically choose to skip are displayed during scanning.



Press Menu button.
Menu items appear on the screen.



1

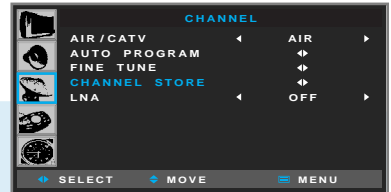


Press Up and Down buttons to move to "CHANNEL" icon.

2



Press Left and Right buttons to select "CHANNEL".



3



Press Up and Down buttons to move to "CHANNEL STORE".

4



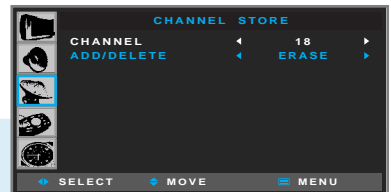
Press Left and Right buttons to select "CHANNEL STORE".
Channel Store menu appears.



5



*The displayed channel number indicates a current channel.
Press Left and Right buttons to select Channel Number.



6



Press Up and Down buttons to move to "ADD/DELETE".

7



Press Left and Right buttons, then select ADD or ERASE.



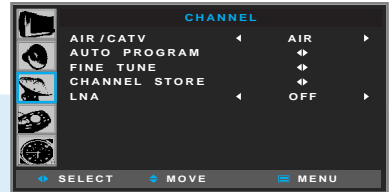
Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

Using the LNA(Low-Noise-Amplifier) Feature

If the reception is clear, you don't have to use this feature.
If the signal is weak or distorted, try the followings.



Press Menu button.
Menu items appear on the screen.



1

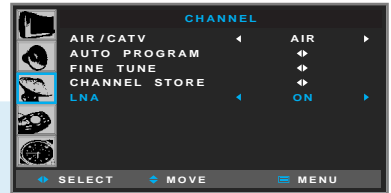


Press Up and Down buttons to move to "CHANNEL" icon.

2



Press Left and Right buttons to select "CHANNEL".



3



Press Up and Down buttons to move to "LNA".

4



Press Left and Right buttons to ON/OFF.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



Function Setup



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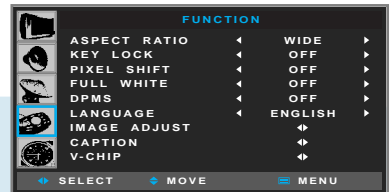


How to Select the Aspect Ratio

Users can adjust Aspect Ratio as users want.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to "FUNCTION" icon.

2



Press Left and Right buttons to select "FUNCTION".



3



Press Up and Down buttons to move to "ASPECT RATIO".

4



Press Left and Right buttons to select "ASPECT RATIO".

5



Press Left and Right buttons, then the menu changes in order below.
⇒ Wide ⇒ Normal ⇒ Panorama ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

ASPECT

How To Directly Select Aspect Ratio : Press button.

OSD menu displays the current aspect ratio.

If you press the ASPECT button second time, aspect ratio will be changed according to Input mode as follows :

- Under DTV, DVD inputs : Users can select Wide ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide in order.
- Under PC, DVI inputs : Users can select Wide ⇒ Normal ⇒ Auto Wide in order.
- Under other inputs : Users can select Wide ⇒ Normal ⇒ Panorama ⇒ Zoom1 ⇒ Zoom2 ⇒ Zoom3 ⇒ Auto Wide in order.

WIDE / AUTO WIDE

General broadcast picture is adjusted to 16:9.



NORMAL

General picture size.



PANORAMA

Picture size for panorama video.



ZOOM1

Zoom in 16:9 in vertical direction.



ZOOM2

The picture enlarged to 16:9 format. This mode is recommended in letter box format.



ZOOM3

This Mode is used to display 4:3. The picture using the full surface of the screen leaving the Sub-title visible.

