

PDP TV/MONITOR

User's Manual

Please read this manual carefully before using your plasma TV and keep the manual handy for future reference.



CAUTION

RISK OF ELECTRICAL SHOCK, DO NOT OPEN



Warning

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



The lightning flash with the arrowhead symbol, within an equilateral triangle, 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 an electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Warning:

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Still image (immovable) screen may cause permanent damage to PDP.

- 1) Lengthy displayed still images from Video games, banners, graphics and others may fatally damage the screen.
- 2) When using the PDP in 4:3 formats with sidebars for a long period of time, it may cause damage to the plasma panel. It is recommended that you use 16:9 or other formats.(Image Sticking can be avoided by using "Panel" function of the Setting's sub menu. However, once image sticking occurs, it may not disappear completely. An image will be dimmed as the image is displayed long time or repeatedly)

※ Any damage to the PDP caused by improper usage (such as image sticking) shall not be covered by the warranty.

Important safeguard for you and your new product

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this booklet can help you get many years of enjoyment and safe operation that are built into your new product.

1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

2. Follow Instructions

All operating and use instructions should be followed.

3. Retain Instructions

The safety and operating instructions should be retained for future reference.

4. Heed Warnings

All warnings on the product and in the operating instructions should be adhered to.

5. Water and Moisture

Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

6. Accessories, Carts, and Stands

Do not place this product on a slippery or tilted surface, or on an unstable cart, stand, tripod, bracket, or table.

The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product.

Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

7. Transporting Product

A product and cart combination should be moved with care.

Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



8. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

9. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

10. Power Sources

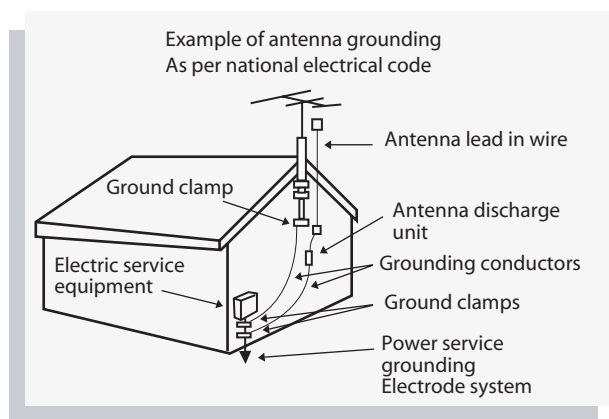
This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

For products intended to operate from battery power, or other sources, refer to the operating instructions.

< Safety Instructions continued >

11. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges.

**12. Lightning**

For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

13. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

14. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

14. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

15. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

16. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

17. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or the cabinet has been damaged in any way.
- When the product exhibits a distinct change in performance.

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Setup and Operation Checklist

See page 10~15 for available connection and operation setup options.

- ① Unpack the TV and all accessories.
 - ② Connect all external AV equipment. See page 10.
 - ③ Install batteries in remote controller.
 - ④ Turn the TV on.
 - ⑤ Turn AV equipment on.
 - ⑥ Select viewing source for the TV. See page 10.
 - ⑦ Fine-tune source image and sound to personal preference or as required by source. See pages 14~15.
 - ⑧ Additional features Setup. See contents above.
- ※ After reading this manual, Keep it handy for future reference.

1. Features and Package

1.1 Features

Various Input signals

- The display has a two tuner to input television RF signal (Only TV model), you can view two different channels at the same time.
- In addition to Video, S-VHS, SCART RGB, Component, Analog RGB(D-sub 15Pin) and Digital RGB(DVI) signals,
- Depending on the model, the display support video input for different color television system as follow: NTSC, PAL, SECAM, PAL-N, PAL-M, PAL-60, NTSC4.43.
- The display has a Component Video input terminal to receive signals, including 480i, 480p, 720p and 1080i.
- The display has an RGB (Analog and Digital) input terminal to receive signal, including VGA, SVGA, XGA and SXGA.

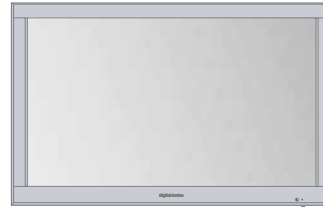
Intelligent Window

- The display perform High quality video enhancement as follow: Noise reduction, Motion adaptive de-interlacing, Digital Color/Luminance Transient Improvement, Film Mode Detection.
- PIP (Picture in Picture) & Double screen function
- Selectable Aspect Ratio (16:9, 4:3, Panorama, Zoom1/2)
- Zoom-in
- Freeze Picture

Powerful and easy function

- Menu driven On Screen Display (OSD) for all functions.
- 10 countries Language OSD
- IR Remote control for all functions

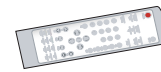
1.2 Package Contents



- 1 Plasma TV set



- 1 User's Manual



- 1 Remote control



- 2 "AAA"size batteries



- AV cable (1 RCA Cable, 1 RGB Cable)



- 1 AC power cord

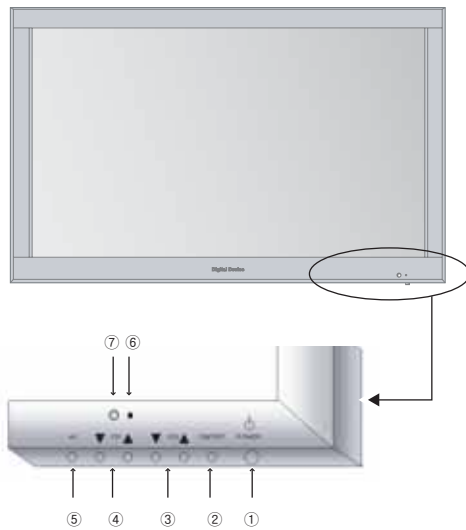


* Optional Accessory :
Speaker, Stand Unit, Wall Mount Bracket

* Operating position: Table top or Desk Top

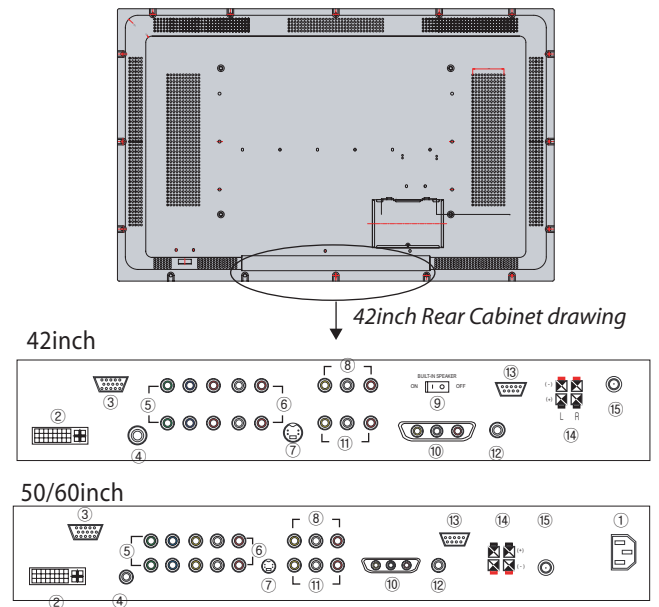
2. I/O Definitions

2.1 Front Panel Controls



- ① Main Power ON/OFF
Press to turn on(Standby Mode) and off.
- ② Standby Power ON
Press to turn on(Operation Mode) and off.
- ③ Volume UP/DOWN
Press to increase and decrease the volume.
- ④ Channel UP/DOWN
Press to change the channel at TV mode.
- ⑤ AV
Press to select all available source.
(TV - S-VHS - Video1 - Video2 - Analog RGB
- Digital RGB - Component1 - Component2)
- ⑥ Power Indicator
Red color (Standby mode),
Green color (Operation mode)
- ⑦ IR Receiver

2.2 Rear Cabinet I/O's

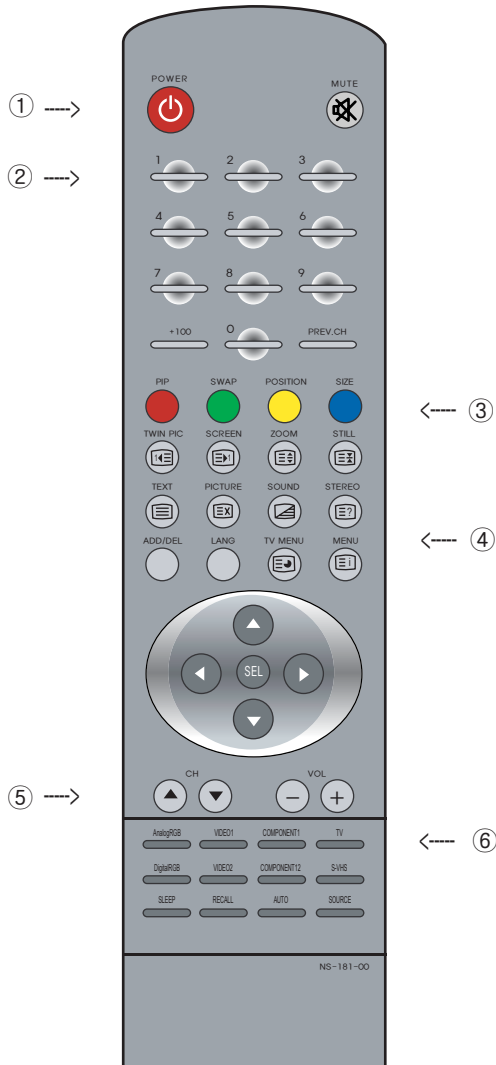


- ① AC Power Input
- ② Digital RGB(DVI-I) Input
- ③ Analog RGB(D-sub 15pin) Connector Input
- ④ Digital RGB/Analog RGB Audio Input
- ⑤ Component Video(480i ~ 1080i) Input
- ⑥ Component Line Level Audio Input
- ⑦ S-VHS Input
- ⑧ Video1 Input / Line Level Audio Input
- ⑨ Built-in Speaker Switch
- ⑩ SCART Input/Output-PAL/SECAM option
Video2 Input / Line Level Audio Input-NTSC option
- ⑪ Monitor Composite Video Output
/ Line Level Audio Output
- ⑫ IR Remote Control (Wired Remote Control)-option
- ⑬ RS-232C Port
- ⑭ Speaker Out put: Left, Right
- ⑮ RF(TV) connector for antenna Input. -option

[Note] See page 10 for available AV Input/Output Terminal.

3. Remote Control

3.1 Remote Control Basic



POWER : Switchs the TV between ON and Standby.

② Number & Prev.CH Button

Number Buttons : Used to enter channels selected.
Prev. CH : Selects the previous channel.

③ Layout Control Buttons

PIP : PIP mode On/OFF
TWIN PIC : Double window mode ON/OFF
SWAP : Interchange the main and the sub source
POSITION : Location selection of sub picture
SIZE : Size selection of sub picture

④ Menu Control Buttons

Menu : Displays the on-screen menu.
TV Menu : Displays the TV menu screen.
LANG : Changes the language of on-screen menu.
SEL : Select to the desired menu item.
Curser Buttons : Control the cursor in the menu.

⑤ CHANNEL & Volume Buttons

CH ▼/▲ : Select the DOWN/UP Channel.
VOLUME -/+ : Increases/Decreases sound level.

⑥ AV Source Selection Buttons

Directly Source Selection Buttons
SOURCE : Toggle source selection

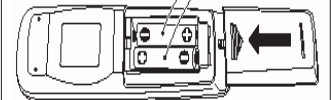
When handling the remote control unit.

- Do not drop or shake the remote control.
- Do not use the remote control unit in a location subject to direct sunlight, heat radiation from a heater, or in a place subject to excessive humidity.
- When the remote control units batteries begin to wear out, the operable distance will gradually become shorter. When this occurs, replace all batteries with new ones as soon as possible.

Installing the batteries in the remote control unit.



To Remove cover, Slide outwards while pressing down.



Place two batteries in the remote control, then close the cover.

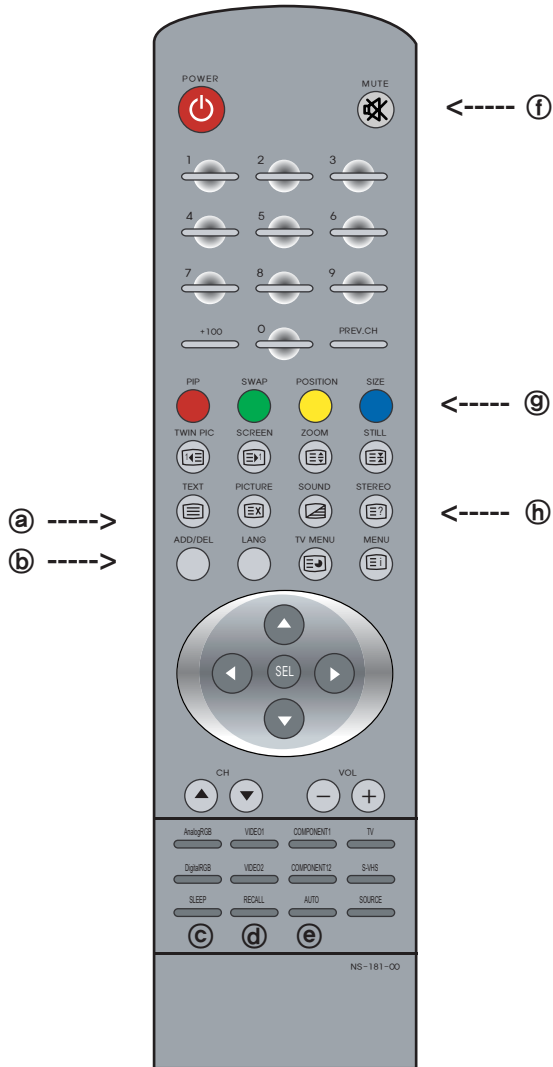


CAUTION

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

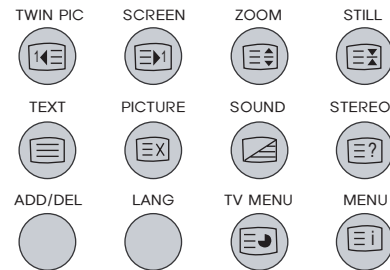
3. Remote Control

3.1 Remote Control Basic



ⒶTEXT : Selects TELETEXT mode.

See the page 24 in which the teletext function button is explained in detail.



ⒷADD/DEL

: Memories or Deletes the selected channel.

ⒸSLEEP : Sets the sleep timer.

ⒹRECALL : Displays the setting status of PDP.

ⒺAUTO : Optimizes the picture at Component and RGB mode.

ⒻMUTE : Switches the sound on or off.

ⒼScreen Control Buttons

SCREEN : Adjusts the size of the screen. (16:9, 4:3 etc.)

ZOOM : Enlarges or reduces the picture size.

STILL : Still the picture.

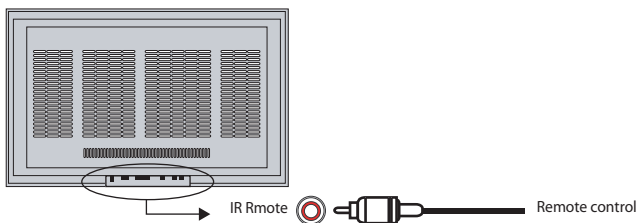
PICTURE : Selects the picture mode selection. (User-Soft-Dark-Bright)

Ⓗ Sound Control Buttons

SOUND : Selects the sound mode. (User- Movie-Music-News)

STEREO : Selects the MONO, STEREO or SAP mode at TV.

3.2 Wired Remote Control



① Connect as the drawing shown.

② Power on.

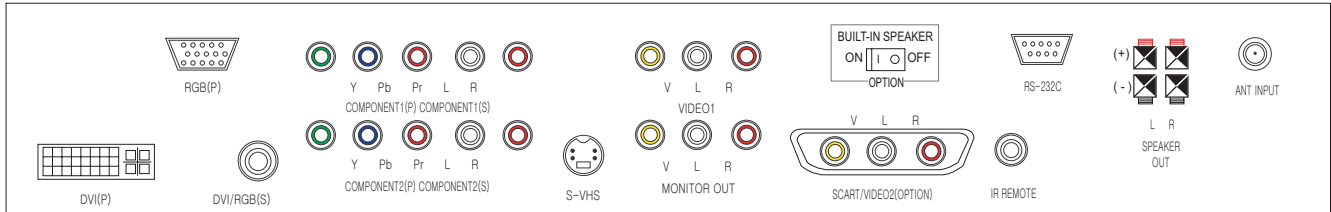
[Note] IR Remote Controller is not included in the product package.

	<p>CAUTION IR Remote Jack is not sound jack. Do not connect with any sound source</p>
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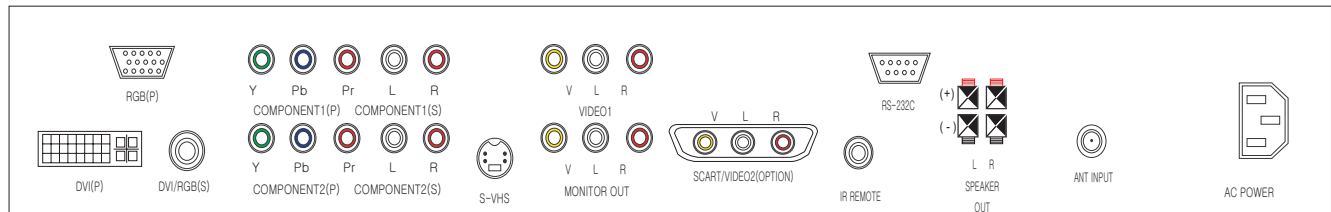
4. Installation

4.1 AV Input/Output Terminal

(42" /42" HD) AV Input/Output Terminal TV

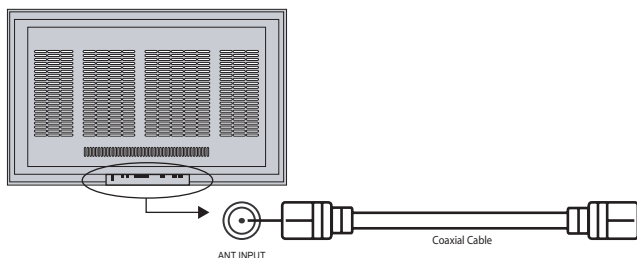


(50"/60") AV Input/Output Terminal TV



4.2 Connection

4.2.1) TV

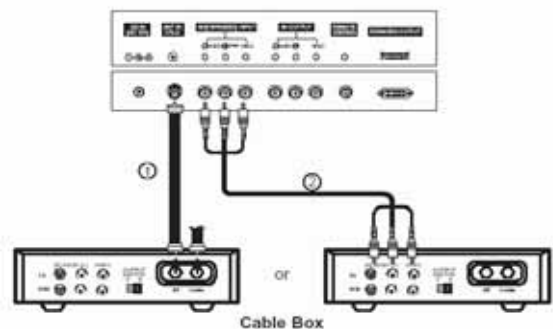


- ① Connect as the drawing shown.
- ② Power on.
- ③ Press the [TV] button.

[Note]

- In a poor signal area, purchase and install a signal amplifier for better quality.
- Coaxial Cable is not included in the product package.

4.2.2) TV with Cable TV Setup Box



Connection 1

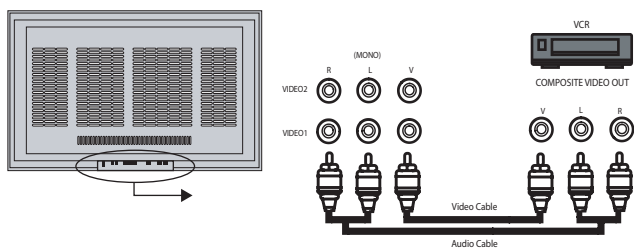
- ① Select 3 or 4 with channel switch on cable box.
- ② Tune the TV channel to the same selected output channel of cable box.
- ③ Select channels at the cable box or with the cable box remote control INPUT.

Connection 2

- ① Connect the audio and video cables from the cable box's output jacks to the TV input jacks, as shown in the figure.
- ② Press the Video 1 or 2
- ③ Select channels with the cable box remote control.

4. Installation

4.2.3) Video1/2



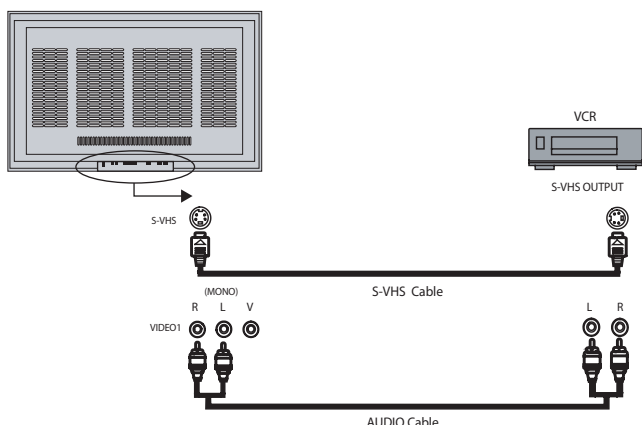
- ① Connect as the drawing shown.
- ② Power on.
- ③ Press the [VIDEO1]/[VIDEO2] button.

- When connecting the TV to external equipment, match the jack colors (Video= yellow, Audio Left = white, and Audio Right = red).

- To avoid picture noise (interference), leave an adequate distance between the External Video Equipment and TV.

- Use the ISM Method of Panel Function Menu to avoid having a fixed image remain on the screen for a long time. Typically a frozen still picture from a VCR. If the LetterBox picture format is used, the fixed image may remain visible on the screen.

4.2.4) S-VHS

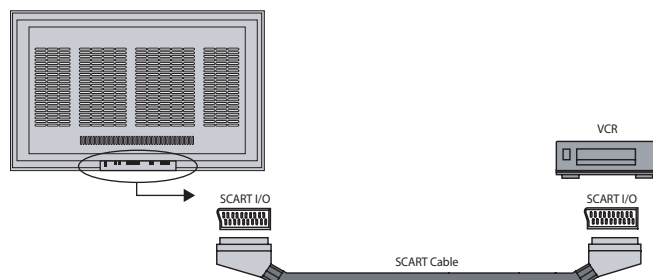


- ① Connect as the drawing shown.
- ② Power on.
- ③ Press the [S-VHS] button.

[Caution] Audio input must be connected with [Video1].

[Note] S-VHS cable is not included in the product package.

4.2.5) SCART connection



Connect as the drawing shown.

- ② Power on.
- ③ Press the [VIDEO2] button.

[Caution]

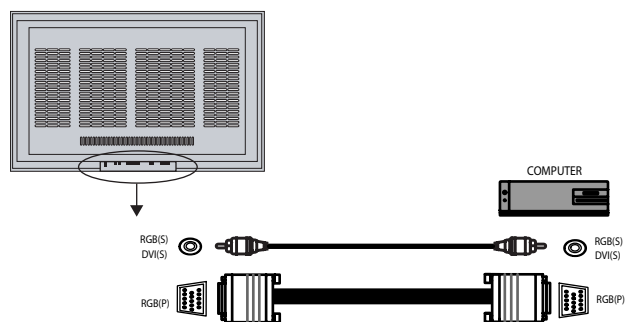
1. Do not use Scart and video2 port simultaneously.
2. Connected devices will not display properly in case both Scart and Video 2 ports are connected.
3. Mode switching between Scart-RGB and Scart-Composite is done automatically.

[Note] SCART cable is not included in the product package.

SCART PIN Description					
At the Video/TV			At the Cable		
Pin	Name	Description	Pin	Name	Description
1	AOR	Audio Out Right	11	G	RGB Green In
2	AIR	Audio In Right	12	DATA	
3	AOL	Audio Out Left + Mono	13	R GND	RGB Red Ground
4	AGND	Audio Ground	14	DATAGND	Data Ground
5	BGND	RGB Ble Ground	15	R	RGB Red In
6	AIL	Audio Left + Mono	16	BLNK	
7	B	RGB Blue In	17	VGND	Composite Video Ground
8	SWITCH	Audio/RGB Switch/16:9	18	BLNKGND	Blanking Signal Ground
9	G GND	RGB Green Ground	19	VOUT	Composite Video Out
10	CLKOUT		20	VIN	Composite Video In
21	SHIELD	Ground/shield(Chassis)			

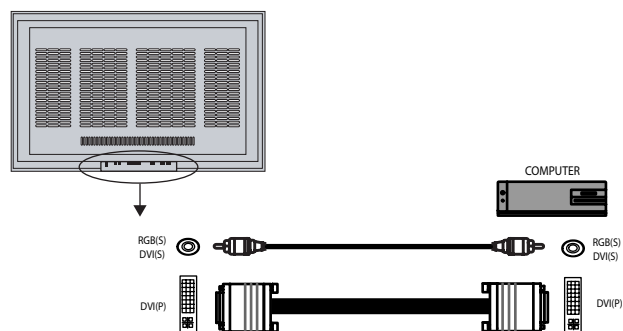
4. Installation

4.2.6) Analog RGB



- ① Connect as the drawing shown.
- ② Power on.
- ③ Press the [ANALOG RGB] button.

4.2.7) Digital RGB



- Connect as the drawing shown.
- ② Power on.
- ③ Press the [DIGITAL RGB] button.



Caution

There is only one Stereo Phone Jack for Analog RGB and Digital RGB. Only one Sound source is available at the same time.

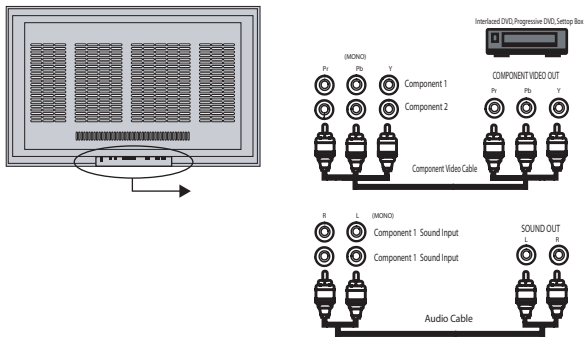
[Note] DVI jack not support HDMI.
DVI Cable and Phone Cable is not included in the product package.

* The table below shows all of the display modes that are supported.

R G B	D V I	Resolution (Pixel)	Vert Refresh (Hz)	H Freq (KHz)	H Sync Polarity	V Sync Polarity	Comment	R G B	D V I	Resolution (Pixel)	Vert Refresh (Hz)	H Freq (KHz)	H Sync Polarity	V Sync Polarity	Comment
○	○	640x350	85	37.9	pos	neg	Standard	○	○	1024x768	60	48.4	neg	neg	Guideline
○	○	640x440	85	37.9	neg	pos	Standard	○	○		70	56.5	neg	neg	Standard
○	○	720x400	85	37.9	neg	pos	Standard	○	○		75	60	pos	pos	Standard
○	○	640x480	60	31.5	neg	neg	Ind standard	○	○		85	68.7	pos	pos	Standard
○	○		72	37.9	neg	neg	Standart				90				
○	○		75	37.5	neg	neg	Standard	○	○	1152x864	60	67.5	pos	pos	Standard
○	○		85	43.3	neg	neg	Standard				70				
○	○	800x600	56	35.1	pos	pos	Guideline				75				
○	○		60	37.9	pos	pos	Guideline	○	○	1280x960	60	60	pos	pos	Standard
○	○		72	48.1	pos	pos	Standard	○	○		75	85.9	pos	pos	Standard
○	○		75	46.9	pos	pos	Standard	○	○	1280x1024	60	64	pos	pos	Standard
○	○		85	53.7	pos	pos	Standard	X	○		75	80	pos	pos	Standard
X	○		75	80	pos	pos	Standard								

4. Installation

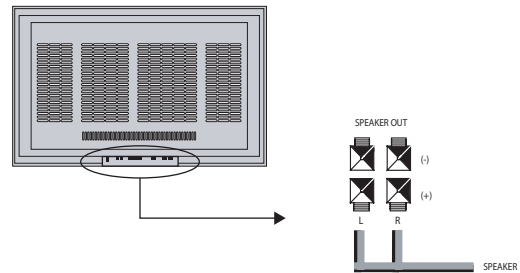
4.2.8) COMPONENT 1/2 Video



Connect as the drawing shown.

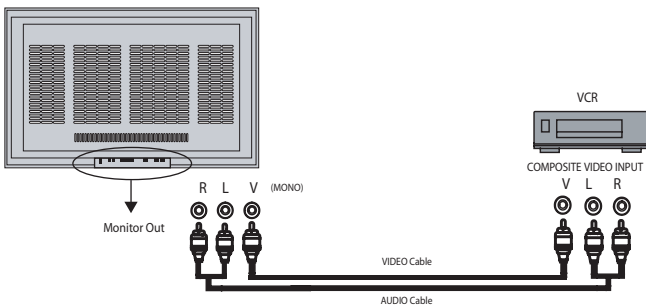
- ② Power on.
- ③ Press the [COMPONENT1]/[COMPONENT2] button.

4.2.10) Speaker out



- ① Power off.
- ② Connect as the drawing shown.
- ③ Power on.
- ④ Adjusting audio setting.

4.2.9) MONITOR output



Connect as the drawing shown.

- ② Power on.

[CAUTION]

Monitor output can view [TV]/[VIDEO1]/[VIDEO2].

5. Basic Operation

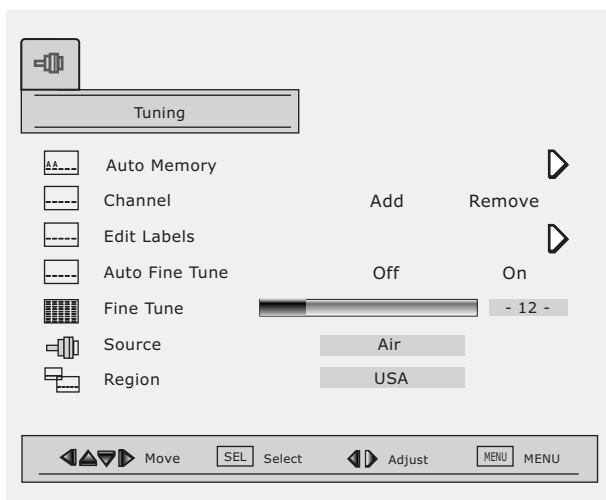
5.1 TV Channel Memory

5.1.1) Auto Channel Memory

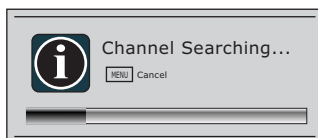
Follow these steps for setting the Channel Memory automatically:



- ① Press the [TV MENU] button.
- ② Select [Source] by using the [▲/▼] button.
- ③ Select TV signal input mode by pressing the [◀/▶] button.
- ④ Select [Auto Memory] by using the [▲/▼] button.



- ⑤ Press the [▶] button to start the channel search.



If you want to stop auto memory, press the [MENU] button. Only the channels searched up to that time are memorized.

5.1.2) Manual Channel Memory at NTSC

Follow these steps for setting the Channel Memory manually:

- ① Select the channel by pressing the number button(s).
- ② Press the [TV MENU] button.
- ③ Select [Auto Fine Tune] by using the [▲/▼] button.
- ④ Select [Off] by using the [◀/▶] button.
- ⑤ Select [Fine Tune] by using the [▲/▼] button.
- ⑥ Press the [◀/▶] button for the tuning adjustment.
Select [Channel] by using the [▲/▼] button.
- ⑧ Select [Add] or [Remove] by pressing the [◀/▶] button.
- ⑨ Press the [Menu] button to exit the Channel Memory setting.



If the [Auto Fine Tune] mode would be set [On], [Fine Tune] mode should not be adjusted.

[Note] HRC and IRC are two special NTSC cable standards in the US.

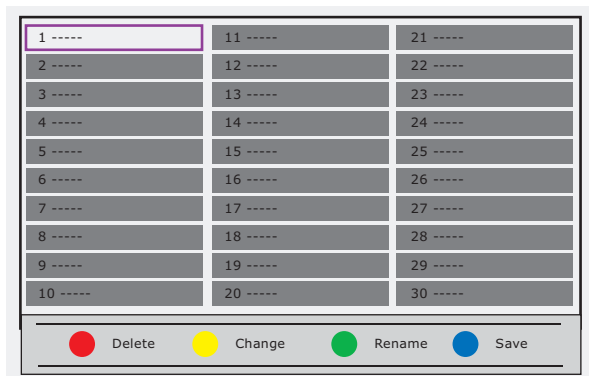
5. Basic Operation

5.1.3) Manual Channel Memory at PAL Mode

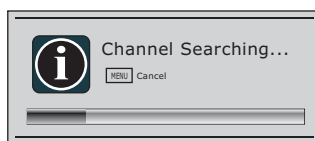
Follow these steps for setting the Channel Memory manually:



- ① Select the channel which you want to start manual tuning.
- ② Press the [TV MENU] button.
- ③ Select [Manual Search] by using the [▲/▼] button.



- ④ Press the [▶] button to search the next channel.



- ⑤ Select [Program Table] by using the [▼/▲/◀/▶] button.
- ⑥ Press the [●] button to select Save mode.
- ⑦ Press the [MENU] button to exit the Manual Search setting.

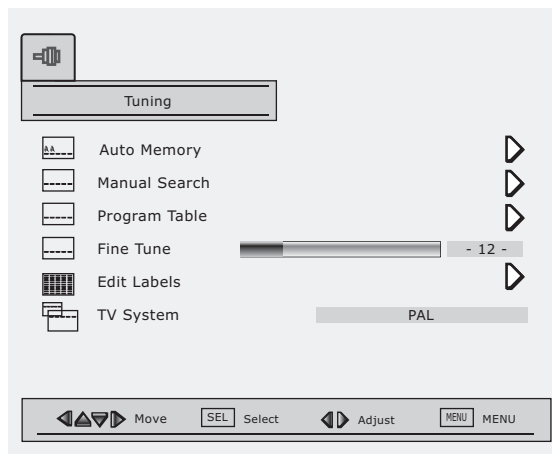
TV System

PAL : This setting is mainly used in European Countries and includes PAL/SECAM BGH, I, DK.
PAL + SECAM : This setting is mainly used in FRANCE and includes PAL/SECAM L/L' BGH, I, DK.

5.1.4) Editing Program

Step 1. Selection Program Table

- ① Press the [TV MENU] button.
- ② Select [Program Table] by using the [▲/▼] button.
- ③ Press the [▶] button to search the next channel.



Step 2. Editing Program

A. Delete

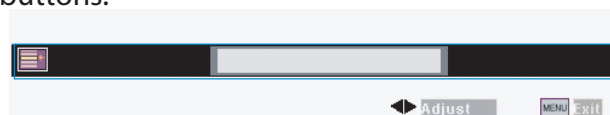
- ① Select the deleting channel by using the cursor buttons.
- ② Press the [●] button to delete channel.

B. Change

- ① Select the changing channel by using the cursor buttons.
- ② Press the [●] button to select channel changing mode
- ③ Select the changing channel position by using the cursor buttons.

C. Rename

- ① Select the channel by using the cursor buttons.
- ② Press the [●] button to select Rename mode
- ③ Rename the channel by using the cursor buttons.



D. Save

- ① Select the saving channel by using the cursor buttons.
- ② Press the [●] button to save channel.

5. Basic Operation

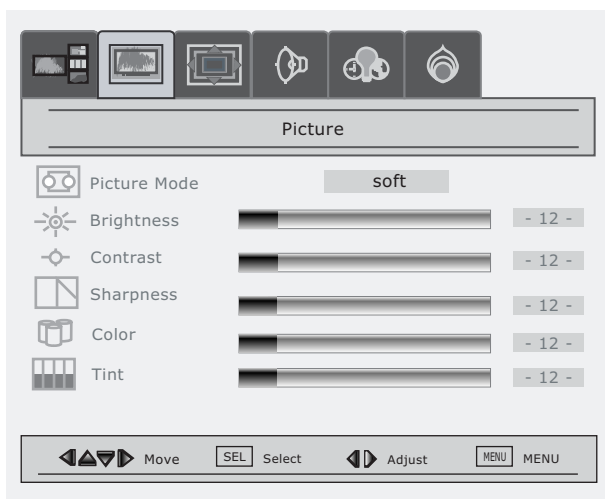
5.2 Picture Control

5.2.1) At Full Screen Mode

Follow these steps to adjust the Picture at Full Screen Mode:



- ① Press the [MENU] button.
- ② PSelect the [Picture] mode by using the [◀/▶] button.
- ③ Move the desired mode by using the [▲/▼] button.



- ④ Press the [◀▶] button for a adjusting the picture.
- ⑤ Press the [MENU] button to exit the adjustment menu.

* Picture menu are different to each input source mode. You can see the difference at right chart.

	TV, Video 1/2 S-VHS, SRGB	Component 1/2	Analog RGB	Digital RGB
Picture Mode	○	○	○	○
Brightness	○	○	○	○
Contrast	○	○	○	○
Sharpness	○	○	○	○
Color	○	○	-	-
Tiint	○	○	-	-
Phase	-	○	○	-
Frequency	-	○	○	-

5.2.2) At PIP or Twin Screen Mode

Follow these steps to adjust the Picture at PIP or Twin Screen Mode

- ① Select the adjusting picture's layer by using [▲/▼] button.
- ② Press the [MENU] button.
- ③ Move the desired mode by using the [▲/▼] button.
- ④ Press the [◀▶] button for a adjusting the picture.
- ⑤ Press the [MENU] button to exit the adjustment menu

Conventional Function

Picture Mode

Press the [PICTURE] button or Selection [Picture Mode] at MENU.

You can select the desire mode. (Soft, Bright, Dark, User)



[Note] If the Picutre Mode would not be set User, Brightness and Contrast should not be adjusted.

Calibration Mode

Corrects the picture balance at Component 1/2. You can select the desire preset.



5. Basic Operation

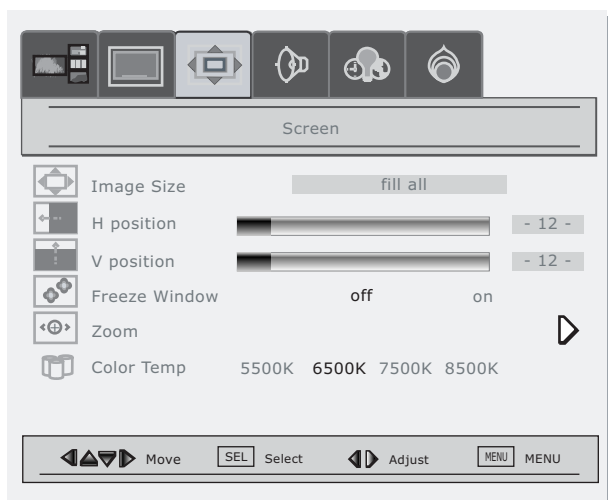
5.3 Screen

5.3.1) At Full Screen Mode

Follow these steps below to set Screen Menu:



- ① Press the [MENU] button.
- ② Select the desired mode using the [◀/▶] / [▲/▼] button.
- ③ Press the [▲/▼] button to select the desired menu.
- ④ Press the [◀/▶] button to adjust the desired menu.
- ⑤ Press the [MENU] button to exit the adjustment menu.



5.3.2) At PIP or Twin Screen Mode

Follow these steps to adjust the Picture at PIP or Twin Screen Mode

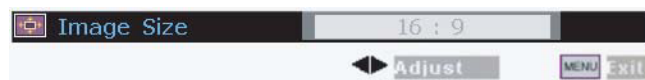
- ① Select the adjusting picture's layer by using [▲/▼] button.
- ② Press the [MENU] button.

- ③ Move the desired mode by using the [▲/▼] button.
- ④ Press the [◀/▶] button for a adjusting the picture.
- ⑤ Press the [MENU] button to exit the adjustment menu.

Conventional Function

Image Size

This function allows to adjust the aspect ratio of the screen, Press the [SCREEN] button or Selection [Image Size] at MENU.



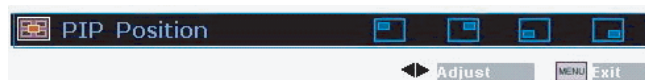
PIP Size

This function allows to adjust the size of the pip screen, Press the [SIZE] button or Selection [PIP Size] at MENU



PIP Position

This function allows to adjust the size of the pip position, Press the [POSITION] button or Selection [PIP Position] at MENU



Zoom

This function allows to enlarge or reduce the picture size, Press the [ZOOM] button or Selection [Zoom] at MENU.

Press the [Curser]/[SEL] buttons to adjust the zoom ratio or position.



5. Basic Operation

5.4 Sound Control

5.4.1) Sound Control

Follow these steps to adjust the Sound:



- ① Press the [MENU] button.
- ② Select the [Audio] mode by using the [◀/▶] button.
- ③ Move the desired mode by using the [▲/▼] button.
- ④ Press the [◀/▶] button for adjusting the picture.
- ⑤ Press the [MENU] button to exit the adjustment menu.



Bass

: Changes the level of low frequency sound.

Treble

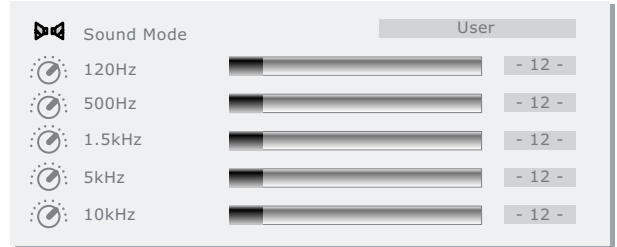
: Changes the level of high frequency sound.

Balance

: Changes the balance of the left and right channels.

5.4.2) At Equalizer mode

Follow these steps to adjust the Equalizer Mode:



- ① Select the User mode by using the [◀/▶] button.
- ② Press the [▲/▼] button to select the desired menu.
- ③ Press the [◀/▶] button to adjust the desired menu.
- ④ Press the [MENU] button to exit.

***Note :** When the change sound mode, off the Bass and Treble values. If the Sound mode would not be set User, Equalizer should not be adjusted.

Conventional Function

Sound Mode

Press the [SOUND] button or Selection [Sound Mode] at MENU

You can select the desire mode. (User, News, Movie, Music)



5. Basic Operation

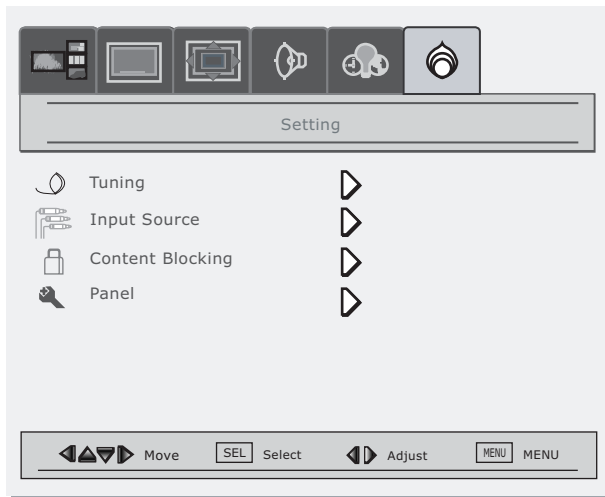
5.5 Setting

5.5.1) Setting

Follow these steps to adjust the Setting:



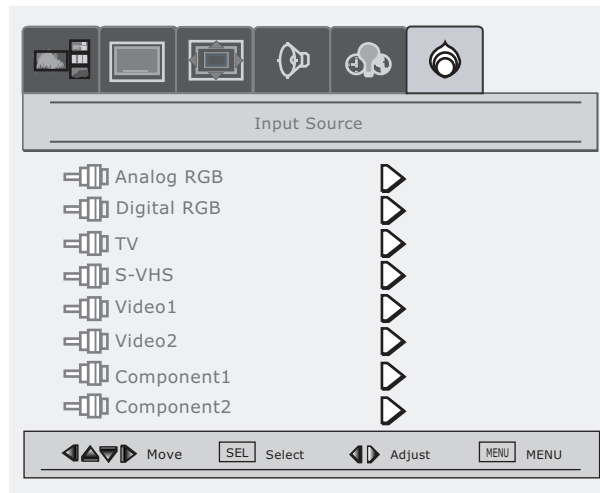
- ① Press the [MENU].
- ② Select the desired mode by using the [◀/▶]/[▲/▼] button.
- ③ Press the [▲/▼] button to select the desired menu.
- ④ Press the [◀/▶] button to adjust the desired menu.
- ⑤ Press the [MENU] button to exit.



Tuning (TV mode Only): See the 14 ~ 15 page.
Contents Blocking (NTSC system only)
 :This menu automatically locks out programs that are deemed inappropriate for children. See the 25 page.

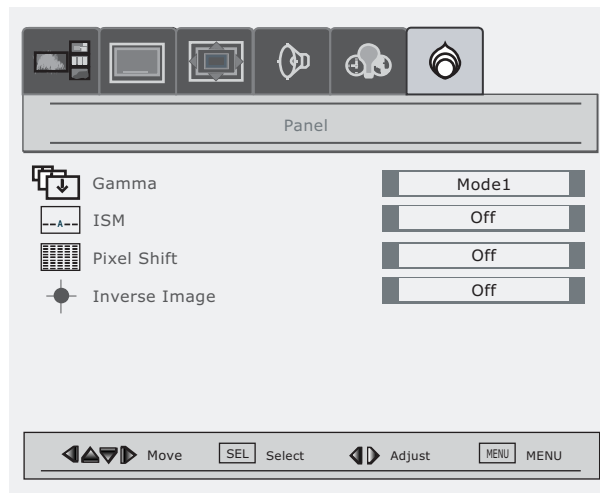
5.5.2) Input Source

Select desire Input Source by using the [◀/▶]/[▲/▼] button:



5.5.3) Panel Function

Select desire Panel function by using the [◀/▶]/[▲/▼] button.



Gamma : Select desire gamma mode. (Mode1, Mode2, Mode3, mode4) Please use follow functions to prevent image sticking.

ISM (Image Sticking Minimization mode)
 : When the fixed patterns are displayed for a long time, the brightness will be reduced gradually.

Pixel Shift : This function scrolls the screen automatically.

Inverse Image : This function inverts the screen.

5. Basic Operation

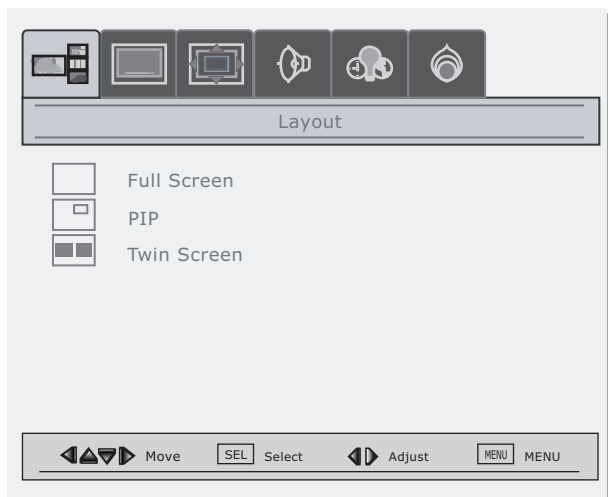
5.6 Layout Control

5.6.1) Setting

Follow these steps below to set Screen Layout Menu:



- ① Press the [MENU].
- ② Move to the Layout by using the [◀/▶] button.
- ③ Move to desired mode by pressing the [▲/▼] button.
- ④ Press the [▶] button to select the desired mode.



5.6.2) Layer Description

Full Screen

You can view full screen by select this menu

PIP

You can view large and small screen at the same time by select this menu

Twin Screen

You can view 1:1 screen at the same time by

5.6.3) PIP and Twin Screen Control

Select desire Input Source by using the [◀/▶]/[▲/▼] button:

Input Source Selection

- ① Select the changing picture's layer by using [▲/▼] button.
- ② Select the Source by using the Source Selection Buttons.

Selecting Speaker out

Select the changing picture's layer by using [◀/▶] button.

Swaping the source

Press the [SWAP] button.

Possible PIP Mode

This Chart describe possible PIP or Twin PIC mode.

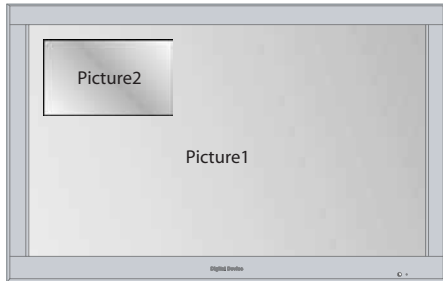
Picture2 Picture1	TV	Video1	Video2	S-video	Component1	Component2	AnalogRGB	Digital RGB
TV	○	○	○	○	○	○	○	○
Video1	○	○	○	○	○	○	○	○
Video2	○	○	○	○	○	○	○	○
S-Video	○	○	○	○	○	○	○	○
Component1	○	○	○	○	X	X	X	X
Component2	○	○	○	○	X	X	X	X
Analog RGB	○	○	○	○	X	X	X	X
Digital RGB	○	○	○	○	X	X	X	X

5. Basic Operation

5.6.3) PIP Modes

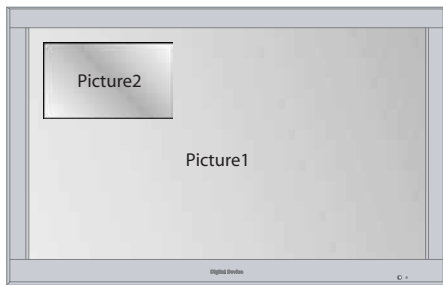
Watching PIP Screen

Press the [PIP ON/OFF] button.



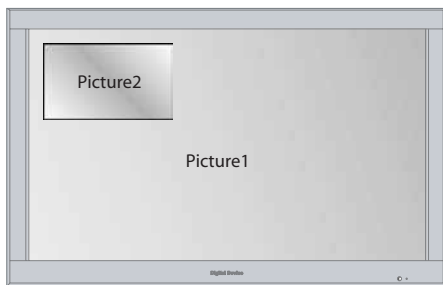
Selecting Picture

Select the Picture1/Picture2 by pressing [▲/▼] buttons.



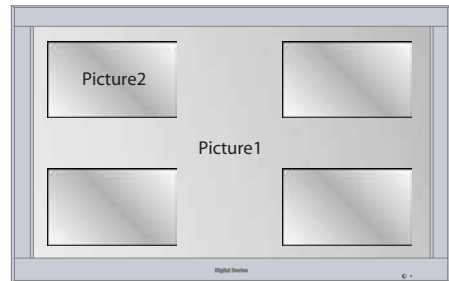
Changing the size

Press the [SIZE] button and Adjust by pressing [◀▶] button.



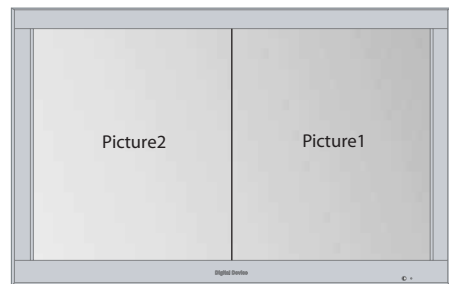
Change the screen2 position

Press the [POSITION] button and Adjust by pressing [◀▶] button.



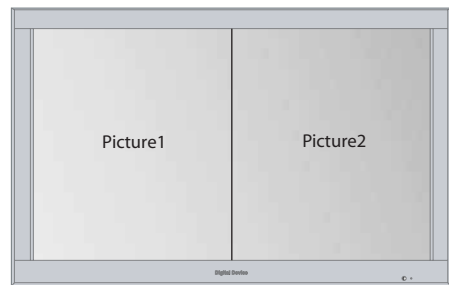
Twin PIC

Press the [Twin PIC] button.



Swapping

Press the [SWAP] button.



5. Basic Operation

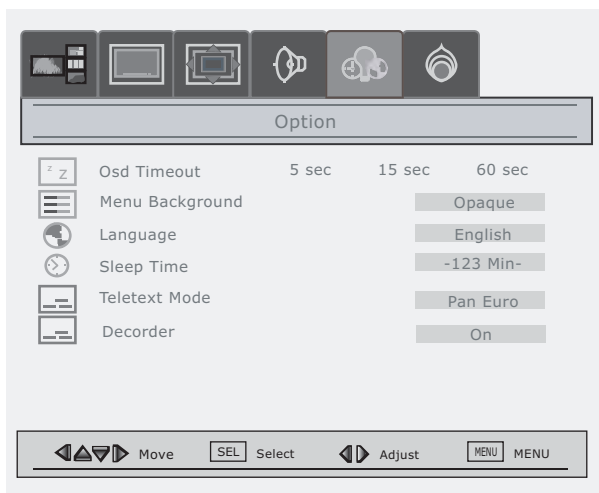
5.7 Options & Caption

5.7.1) OSD Setting

Follow these steps for setting the OSD:



- ① Press the [MENU] button.
- ② Select the [Option] mode by using the [◀/▶] button.
- ③ Move to the setting OSD Function by pressing the [▲/▼] button.



- ④ Select the desired mode by using pressing the [◀/▶] button.
- ⑤ Press the [MENU] button to exit.

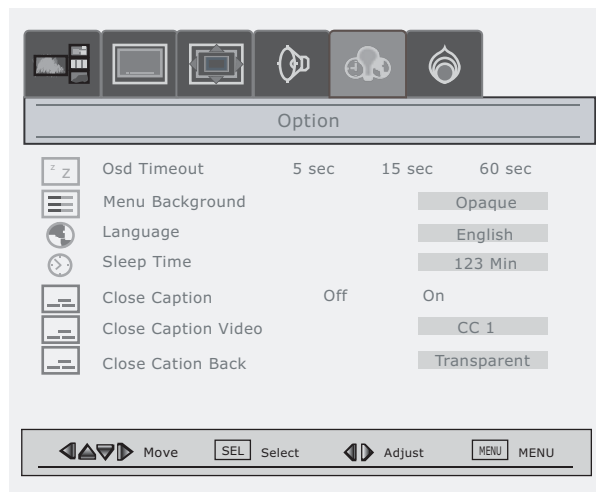
[Note] (Pal Only)

Teletext Mode : Select the Teletext character set.
 Decoder : If a decoder or a descrambler is connected, Input Source will be changed to SCART automatically.

5.7.2) Closed Caption Setting

Follow these steps for setting the closed Caption

- ① Press the [MENU] button.
- ② Select the [Option] mode by using the [◀/▶] button.



- ③ Step1. Caption On/Off Selection
 - a. Move the [Closed Caption] by using the [▲/▼] button.
 - b. Select to [On] by using the [◀/▶] button.
- ④ Step2. Caption Mode Selection (CC1, CC2, T1, T2, XDS)
 - a. Move the [Closed Caption Mode] by using the [▲/▼] button.
 - b. Press the [◀/▶] button to select the desired mode.
- ⑤ Step3. Caption Background Selection (Opaque, Translucent)
 - a. Move the [Closed Caption Back] by using the [▲/▼] button.
 - b. Press the [◀/▶] button to select the desired mode.
- ⑥ Press the [MENU] button to exit the Option menu.

[Note] In the event you receive a poor signal, an empty black box may appear and disappear, even when the text mode is selected. This is normal function in such an event.

5. Basic Operation

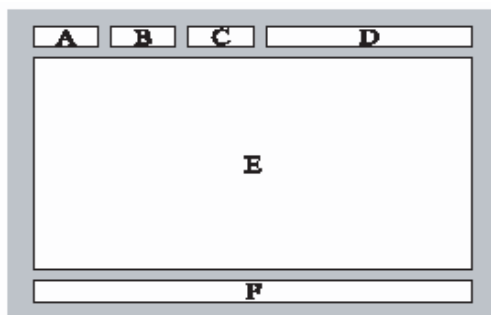
5.8 Teletext (PAL Only)

5.8.1) Teletext Feature

Most television channels provide written information services via teletext. Information provided includes:

- > Television programme times
- > News bulletins and weather forecasts
- > Sports results
- > Travel information

This information is divided into numbered pages (see diagram).



Part	Content
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information./ FASTEXT information.

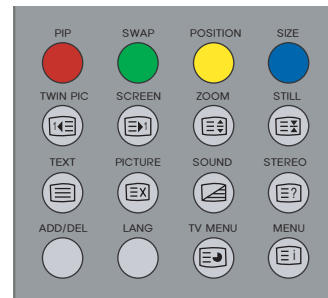
Teletext information is often divided between several pages displayed in sequence, which can be accessed by:

- > Entering the page number
- > Selecting a title in a list
- > Selecting a coloured heading(FASTEXT system)

You can display Teletext information at any time on your television. For Teletext information to be displayed correctly, channel reception must be stable; otherwise:

- > Information may be missing
- > Some pages may not be displayed.

5.8.2) Displaying the Teletext Information



- ① Press the [≡] button to enter the Teletext mode.
- ② To exit from the Teletext display, Press the [≡] button again.

5.8.3) Selecting a Text Pages

- ① Using the Number Buttons.

Enter the three-digit page number given in the content by pressing the corresponding Number buttons. : The selected Page number appears at the top of the screen and page appears after a short time.

- ② FASTTEXT System

If the FASTTEXT system is used by the broadcasting company, the different topics covered on a Teletext page are color-coded and can be selected by pressing the coloured buttons on the remote control.

Press the coloured button corresponding to the topic that you wish to select; the available topics are given on the status line.

- ③ Display the Previous or Next page.
- ④ Sub-page can scrolled by using the [←]/[→] buttons.
- ⑤ To exit from the Teletext display, Press the [≡] button.

5. Basic Operation

5.8.4) Selecting Display Options



Index Page []

① You can switch directly to the programmed preview or the overview page of the station you are currently viewing by pressing the INDEX button.

Page Hold []

① Some Teletext pages contain more information than can be displayed simultaneously and are therefore sub-divided into a series of two or more pages.

② The first sub-page of a series of four sub-pages will, for example, be indicated by a 1/4 displayed on the top right hand side of the text page.

③ These sub-pages are automatically rotated, each page being displayed for a set time before being replaced by the next page. If you need to read a certain page for longer than is allowed, or retain a particular sub page, then the HOLD button should be pressed. The HOLD symbol will be displayed on the top left hand side instead of the page number and page acquisition will be stopped.

④ Normal operation is restored by pressing the HOLD button again or by entering a new page number.

Subcode []

① For Teletext information that is longer than one page, it may take some time for the automatically changing of sub-pages to reach the sub-page you require. It is possible, however, to enter the sub-page you require and continue watching a normal TV program until the correct sub-page has been reached.

② Press SUBCODE button.

③ Enter the desired sub-page number.

④ When the requested sub-page is reached, the main page number will be superimposed on the normal TV picture.

⑤ Press the Teletext button to display the stored sub-page.

Reveal []

① Some Teletext pages play a role in concealing part of the display in, for example, a quiz page with concealed answers.

② The REVEL button release the concealed text as long as the Reveal button is not pressed again.

Size []

① By pressing the SIZE button, either the top half or the bottom half or the bottom half of the Text display can be expanded.

② Press the Size button once and the top half of the display expanded.

③ Press again and the bottom half is expanded.

④ Press again and the display return to normal size characters.

Cancel []

① The CANCEL button suppress the Text display and restores the normal TV picture while the receiver remains in the Teletext mode.

② This function allows you to request Teletext pages and alter Teletext controls without interrupting a TV program.

③ If a new page is requested while Teletext is cancelled, the page header is displayed in a box on the screen for 5 seconds.

5. Basic Operation

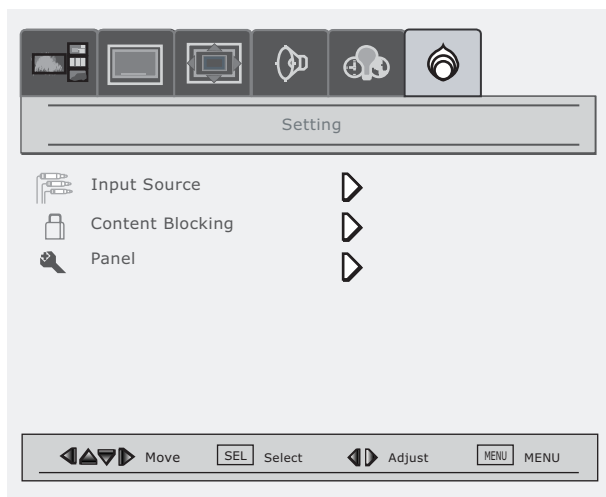
5.9 Contents Blocking(V-Chip) : NTSC Only

5.9.1) Contents Blocking

Follow these steps for setting the Contents Blocking:

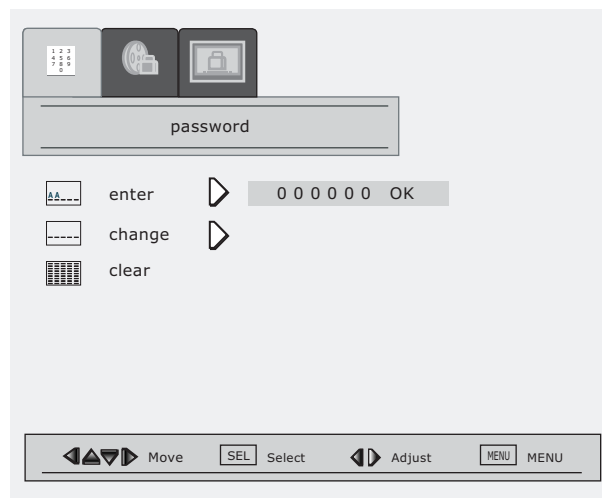


- ① Press the [MENU] button.
- ② Select the [Setting] mode by using the [◀/▶] button.
- ③ Move the [Content Blocking] mode by using the [▲/▼] button.
- ④ Select the [Content Blocking] mode by pressing the [▶] button.
- ⑤ Step1. Input Password.



- ⑥ Step2. Setting the Movie Blocking Grade.
- Step3. Setting the TV Blocking Grade.
- ⑧ Press the [MENU] button to exit the Content Blocking Controls.

5.9.2) Input Password



A. Input

You have to input the password for the setting the Contents Blocking Function.

- ① Move the [Enter] mode by using the [▲/▼] button.
- ② Select the [Enter] mode by pressing the [▶] button.
- ③ Input the Password by using the cursor buttons.
[◀/▶]: Move the position of password number.
[▲/▼]: Increase or Decrease number.
- ④ Press the [SEL] button to enter the sub menu.

B. Change

- ① Move the [Change] mode by using the [▲/▼] button.
- ② Select the [Change] mode by pressing the [▶] button.
- ③ Change the Password by using the cursor buttons.
- ④ Press the [SEL] button to change password.

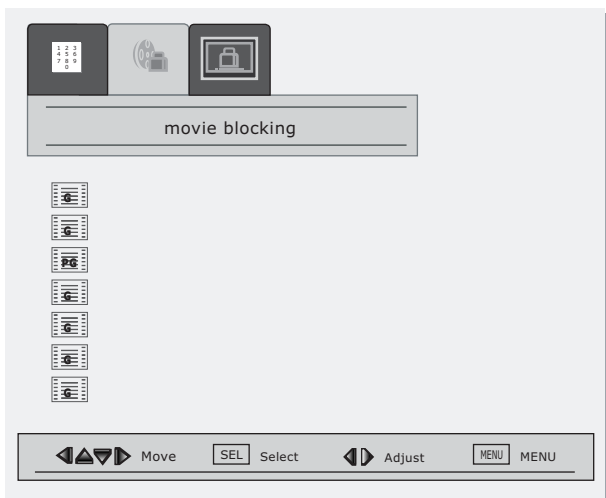
C. Clear

Resetting the password to default number. Default password is 000000.

- ① Move the [Clear] mode by using the [▲/▼] button.
- ② Select the [Clear] mode by pressing the [▶] button.

5. Basic Operation

5.9.3) Movie Blocking



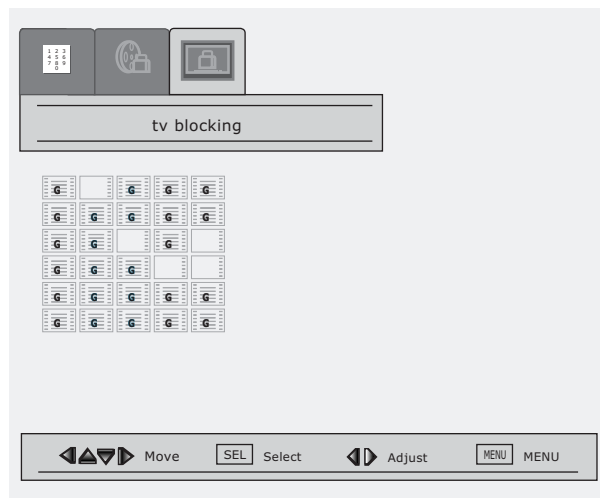
- ① Input the password.
- ② Press the [Menu] button to exit the [Password] Mode.
- ③ Select the Movie blocking mode by the using [◀/▶] button.
- ④ Set the Movie Blocking categories by using the cursor buttons.
 [▲/▼] : Move the desired blocking category.
 [SEL] : Lock or Unlock the category.
- ⑤ Press the [Menu] button to exit the [Movie blocking] Mode.

[Note] Contents Blocking is automatically block certain categories that are "more restrictive". For example, if you select G category, all categories will automatically be blocked.

MPAA(Motion Picture Association of America) Guide Line.

Category	Descripton
G	General audience. (on restrictions)
PG	Parental guidance suggested
PG-13	Parents strongly cautioned
R	Restricted.
NC-17	No children under age 17
X	Adult only.
NR	Not rated

5.9.4) TV Blocking



- ① Input the password.
- ② Press the [Menu] button to exit the [Password] Mode.
- ③ Select the [TV blocking] mode by the using [◀/▶]button.
- ④ Set the TV blocking categories by using the cursor buttons.
 [◀/▶][▲/▼] : Move the desired blocking category.
 SEL : Lock or Unlock the category.
- ⑤ Press the [Menu] button to exit the [TV blocking] Mode.

TV Guide Line	Additional Option
Y: Young Children	FV: Fantasy violence
Y7: Children 7 and over	D: Sexually Suggestive Dialog
G: General audience	L: Adult Language
PG: Parental guidance	S: Sexual situation
14: Viewers 14 and over	V: Violence
MA: Mature audience	

6. Trouble Shooting

Symptom	Cause	Possible Solution
The power does not turn on.	Power to the TV is not plugged in.	Check source of power to the TV.
The remote control does not work.	Sensor is blocked. Batteries in remote control are weak.	Clear path for sensors. Clean sensor lens. Replace batteries.
No signal is displayed.	Video source incorrect.	Check video source connection. Make sure TV is set to correct video source.
Picture scrolls or is fuzzy.	Antenna type or location.	Change antenna. Try antenna in different location.
Picture appears but No sound.	Volume set at the minimum. Speakers aren't connected. Audio input set incorrectly.	Increase the Volume. Connect the speakers properly. Check Audio input connection.
Part of picture is cut off Or picture is not centered.	Improper Position setting. The signal is unstable.	Adjust the Position properly. When RGB, DTV/HD mode, Set to the proper resolution and Adjust the Freq. And Phase setting. (Refer to page 22.)
Picture is too large or Too small.	Improper the screen size Setting.	Adjust the screen size setting. (Refer to page 20, 23.)
The brightness is reduced gradually.	Fixed patterns are displayed for a long time.	Image Sticking Minimization Mode.

7. Cleaning & Maintenance

Identifying Problems

- Do not put the PDP near extremely hot, cold, humid or dusty places.
- Do not put the PDP near appliances that create magnetic fields.
- Keep the ventilation openings clear.

Liquids

- Do not place liquids near or on the PDP.

Cabinet

- Never open the cabinet or touch parts inside.
- Wipe your PDP with a clean, dry cloth, Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

- If your PDP is suddenly moved from a cold to a warm place, unplug the power cord for at least two hours so that moisture that formed inside the unit can dry completely.

FCC Compliance Statements

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Warning : You are cautioned that any change or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate such equipment.