PDP-TELEVISION
(PLASMA DISPLAY PANEL)

Owner's Instructions

Before operating the unit,
please read this manual thoroughly,
and retain it for future reference.

Important Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat source such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety.
If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Warning! Important Safety Instructions

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Note to CATV system installer: This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

Caution: FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

Caution: To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

Attention: pour eviter les chocs electriques, introduire la lame le plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

Important: One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws.

Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Important Safety Information

Always be careful when using your PDP. To reduce the risk of fire, electrical shock, and other injuries, keep these safety precautions in mind when installing, using, and maintaining your machine.

- Read all safety and operating instructions before operating your PDP.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the PDP and in the operating instructions.
- Follow all operating and use instructions.
- Unplug the PDP from the wall outlet before cleaning. Use a damp cloth; do not use liquid or aerosol cleaners.
- Never add any attachments and/or equipment without approval of the manufacturer. Such additions can increase the risk of fire, electric shock, or other personal injury.
- Do not use the PDP where contact with or immersion in water is a possibility, such as near bath tubs, sinks, washing machines, swimming pools, etc.
- Do not place the PDP on an unstable cart, stand, tripod, bracket, table, or floor where it can fall. A falling PDP can cause serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the PDP. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the PDP and cart with care. Quick stops, excessive force, and uneven surfaces can make the unit and cart unsteady and likely to overturn.

- Provide ventilation for the PDP. The unit is designed with slots in the cabinet for ventilation to protect it from overheating. Do not block these openings with any object, and do not place the PDP on a bed, sofa, rug, or other similar surface. Do not place it near a radiator or heat register. Do not place the PDP in a rack or bookcase.
  Ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your PDP only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.
- Use only a grounded or polarized outlet. For your safety, this PDP is equipped with a polarized alternating current line plug having one blade wider than the other.
  This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still does not fit, contact your electrician to replace your outlet.
- Protect the power cord. Power supply cords should be routed so that they won't be walked on or pinched by objects placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

- Unplug the PDP from the wall outlet and disconnect the antenna or cable system during a lightning storm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-line surges.

- Avoid overhead power lines. An outside antenna system should not be placed 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, be extremely careful to keep from touching the power lines or circuits. Contact with such lines can be fatal.

- Do not overload the wall outlet or extension cords. Overloading can result in fire or electric shock.

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts. Never spill liquid of any kind on the PDP.

- Ground outdoor antennas. If an outside antenna or cable system is connected to the PDP, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

- Do not attempt to service the PDP yourself. Refer all servicing to qualified service personnel. Unplug the unit 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 on the unit or if objects have fallen into the unit
  - if the PDP has been exposed to rain or water
  - if the PDP does not operate normally by following the operating instructions
  - if the PDP has been dropped or the cabinet has been damaged
  - when the PDP exhibits a distinct change in performance

- If you make adjustments yourself, adjust only those controls that are covered by the operating instructions. Adjusting other controls may result in damage and will often require extensive work by a qualified technician to restore the PDP to normal.

- When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorized substitutions may result in additional damage to the unit.

- Upon completion of any service or repairs to this PDP, ask the service technician to perform safety checks to determine that the PDP is in a safe operating condition.

- The PDP can properly operate in a temperature range of 32~104°F(0~40°C) and 80% humidity.
  Do not use in a hot and humid place.

- Before moving the PDP equipped with speakers, separate the speakers from the PDP. If you move the PDP with the speakers attached, it may result in damage or injury.

FCC Information

User Instructions

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 receptions, 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.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4 .

The party responsible for product compliance: Your dealer

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.
Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.
For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6015P type (tandem blades) plug cap.

IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Notice de Conformité IC

Cet appareil numérique de classe B respecte toutes les exigences du Règlement ICES-003 sur les équipements produisant des interférences au Canada.

VCCI

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numéique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause unesired operation.

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Important Warranty Information Regarding Television Format Viewing

Wide screen format PDP Displays (16:9,the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video.The images displayed on them should primarily be in the wide screen 16:9 ratio format,or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark side-bars on nonexpanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week.

Additionally,viewing other stationary images and text such as stock market reports, video game displays,station logos,web sites or computer graphics and patterns,should be limited as described above for all televisions. ***Displaying stationary images that exceed the above guidelines can cause uneven aging of PDP Displays that leave subtle,but permanent burned-in ghost images in the PDP picture.To avoid this,vary the programming and images, and primarily display full screen moving images,not stationary patterns or dark bars.*** On PDP models that offer picture sizing features,use these controls to view different formats as a full screen picture.

Be careful in the selection and duration of television formats used for viewing. Uneven PDP aging as a result of format selection and use,as well as burned-in images, are not covered by your Your dealer limited warranty.

User Instructions

- ***Screen Image retention***
  Do not display a still image (such as on a video game or when hooking up a PC to this PDP) on the plasma monitor panel for more than 2 hours as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, reduce the degree of brightness and contrast of this screen when displaying a still image.

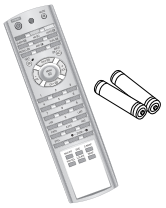
- ***Cell Defect***
  The plasma display panel consists of fine cells. Although the panels are produced with more than 99.9 percent active cells, there may be some cells that do not produce light or remain lit.

- ***Height***
  The PDP can normally operate only under 2000m in height. It might abnormally function at a place over 2000m in height and do not install and operate there.

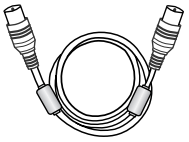
- ***Warranty***
  - Warranty does not cover any damage caused by image retention.
  - Burn-in is not covered by the warranty.

Checking Parts

Owner's Instructions

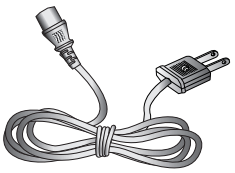


Remote Control/AAA Batteries



Antenna Cable

Speaker Cables



Power Cord

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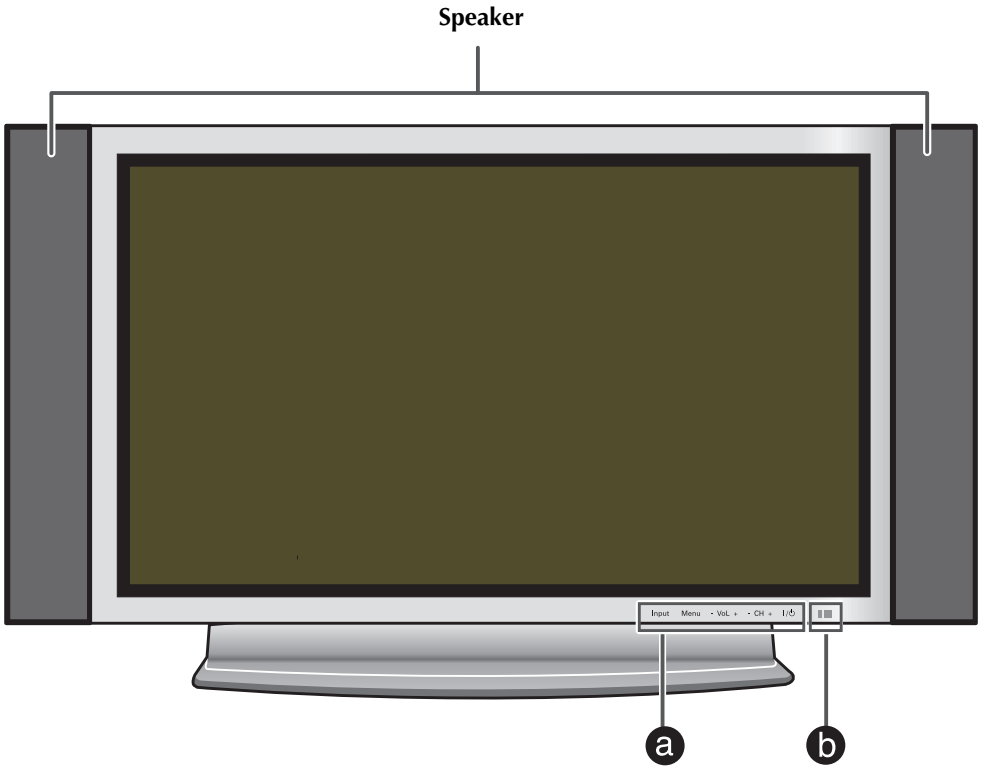
Your New Plasma Display Panel

Front Panel



a

Input

Press to display all of the available video sources (i.e., Video, S-Video, Component1, Component2, RGB)

Menu

Displays the main on-screen menu and exit the menu.

- Vol +

Press to increase or decrease the volume.

Also used to select or adjust items on the on-screen menu.

- CH +

Change channels. Also used to move up or down in the On-screen menu.

I / ⏻

Press to turn the PDP on and off.

b

Power Indicator

Power off : Red

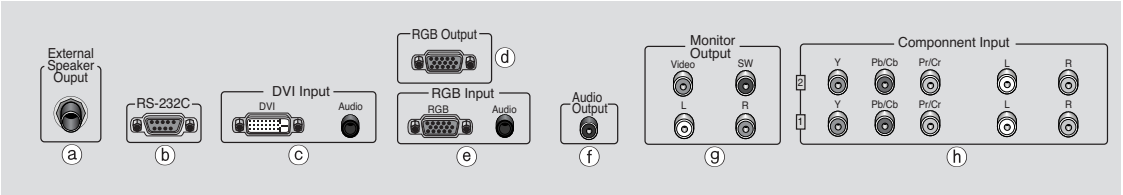
Power on : Green

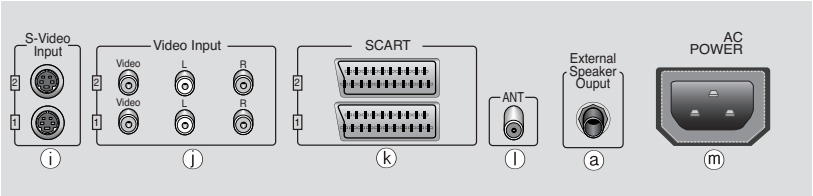
Remote Control Signal Receiver

Aim the remote control towards this spot on the PDP.

Your New Plasma Display Panel (continued)

Rear Panel





a) External Speaker Output
Connect the external speakers.

b) RS-232C
Connect your PDP to a computer for reading and loading data information.

c) DVI INPUT (DVI / Audio)
Connect to the digital video and audio output jack for device with DVI output.

d) RGB Output
Connect to the video input jack on your PC.

e) RGB Input (RGB / Audio)
Connect to the video and audio output jack on your PC.

f) Audio Ouput
Using standard stereo audio cable, this jack provides an A/V receiver capable of Dolby Prologic decoding with the left, right, center, and surround audio channel signals.

g) MONITOR OUT (VIDEO / AUDIO L,R,Sub-Woofer)
Outputs for external devices
Connect a built-in Sub-Woofer speaker with Amplifier.

h) Component Input 1, 2
Video (Y/Pb/Pr or Y/Cb/Cr) and audio (AUDIO L,R) inputs for Component.

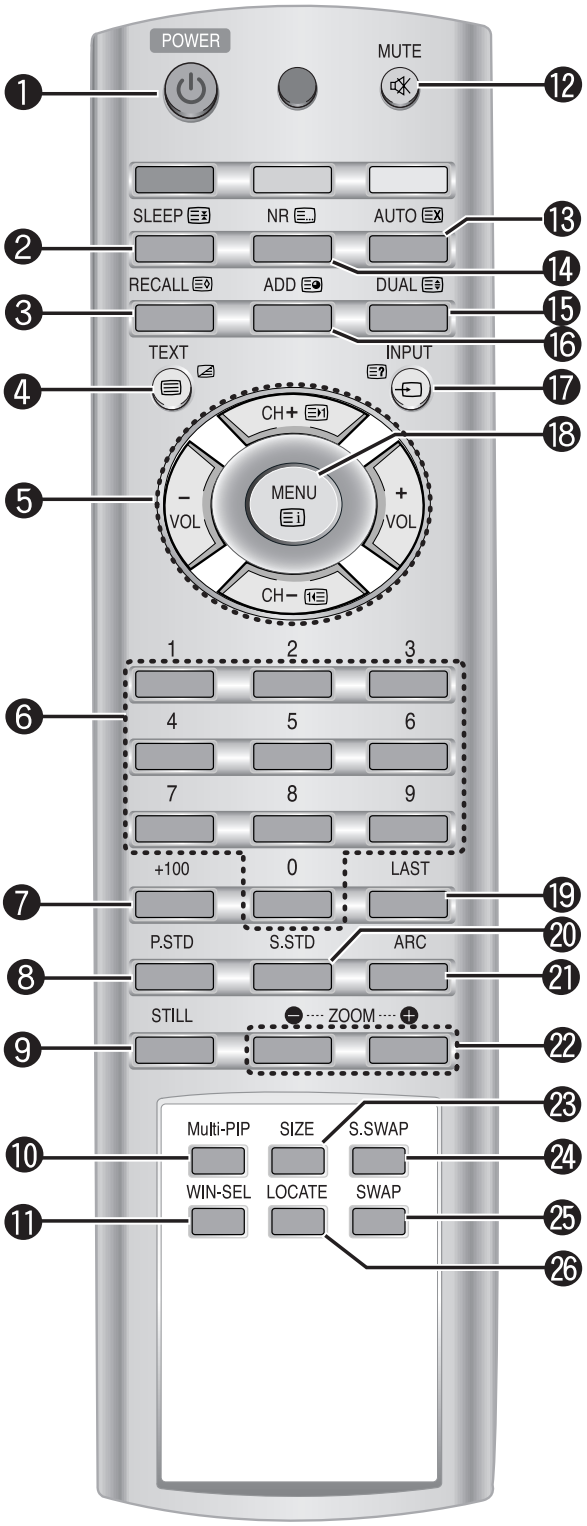
i) S-VIDEO Input 1, 2
Video inputs for external devices with an S-Video output, such as a camcorder or VCR.

j) Video Input 1, 2 (Video / Audio L,R)
Video and audio inputs for external devices, such as a camcorder or VCR.

k) ANT
75Ω Coaxial connector for Aerial/Cable Network.

l) AC Power
Connect the supplied power cord.

Infrared Remote Control



❶ **POWER**
Turns the PDP on and off

❷ **SLEEP**
Automatic switch-off

❸ **RECALL**
Picture Information Display

❹ **TEXT**
Close Caption On/Off /
Close Caption display

❺ **CH +**
Move to the required menu option /
TV Channel UP
CH -
Move to the required menu option /
TV Channel Down
VOL + / VOL -
Volume increase, decrease

❻ **NUMBER (0 ~ 9)**
Direct channel selection

❼ **+100**
Selects channels over 100

❽ **P.STD**
Picture Mode selection

❾ **STILL**
Picture still

❿ **Multi-PiP**
Multi-PiP On/Off

⓫ **WIN-SEL**
Main/Sub picture windows selection

⓬ **MUTE**
Temporary sound switch-off

⓭ **AUTO**
TV Channel Auto Search
Auto adjustment with RGB

⓮ **NR**
Noise Reduction

⓯ **DUAL**
TV Sound selection
(Mono, Stereo, Dual (I)/ Dual(II))

⓰ **ADD**
TV Channel memory

⓱ **INPUT**
Input Source Selection

⓲ **MENU**
Menu display / exit the menu

⓳ **LAST**
Previous channel

⓴ **S.STD**
Sound Mode selection

㉑ **ARC**
Picture Size(ratio)selection

㉒ **ZOOM - / ZOOM +**
Zoom down, up

㉓ **SIZE**
Sub-Picture size selection (PIP)

㉔ **S.SWAP**
Main/Sub sound swap(PIP, PBP)

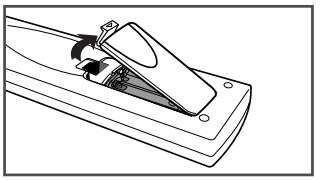
㉕ **SWAP**
Main-Picture and Sub-Picture Swap

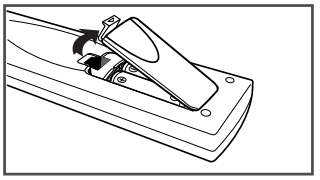
㉖ **LOCATE**
Sub-Picture location selection(PIP)

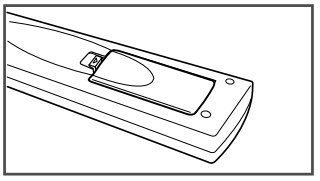
Inserting the Batteries in the Remote Control

You must insert or replace the batteries in the remote control when you:

- **Purchase the PDP**
- **Find that the remote control is no longer operating correctly**







1. Remove the cover on the rear of the remote control by pressing the symbol (▼) downwards and then pulling firmly to remove it.

2. Insert two R03, UM4, "AAA" 1.5V or equivalent batteries taking care to respect the polarities:
   - **–** on the battery against **–** on the remote control
   - **+** on the battery against **+** on the remote control

3. Replace the cover by aligning it with the base of the remote control and pressing it back into place.

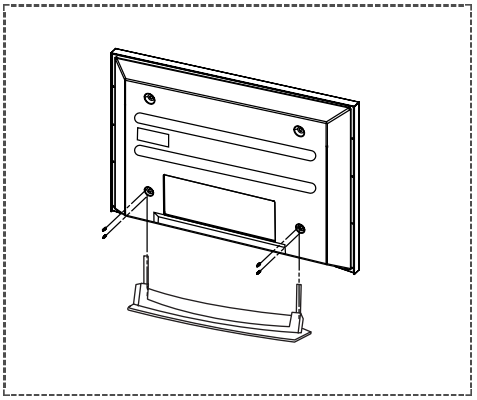
Assembling the Stand-Base

1. Assemble two support pins with the stand base and firmly secure both sides of the support pins using 2 screws provided.

2. Assemble the PDP with the stand and firmly secure the PDP using 2 screws provided.

NOTE: Two or more people should carry the PDP. Never lay the PDP on the floor because of possible damage to the screen. Always store the PDP upright.

(Depending on the model)



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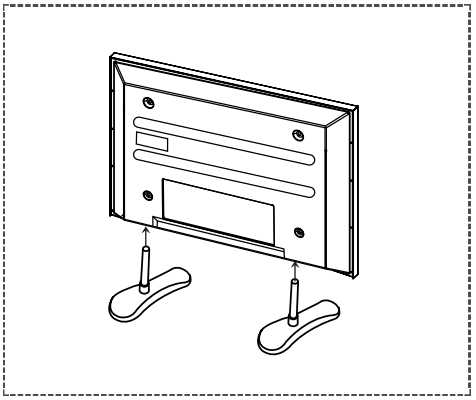


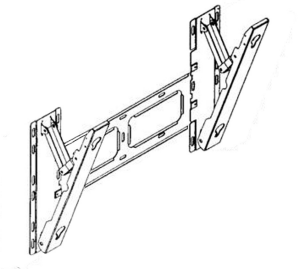
Installing the Display on the Wall Attachment Panel

Installation Notes

- Do not install the PDP on any place other than vertical walls.
- To protect the performance of the PDP and prevent troubles, avoid the followings:
  - Do not install next to smoke and fire detectors.
  - Do not install in an area subjected to vibration or high voltage.
  - Do not install near or around any heating apparatus.
- Use only recommended parts and components.

Mounting Kits

Wall Mount Bracket



Plastic Hanger

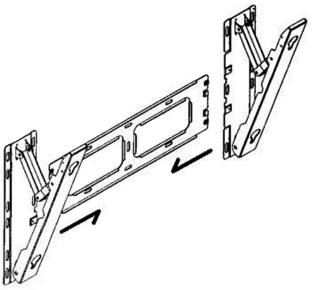
4 EA

Screws

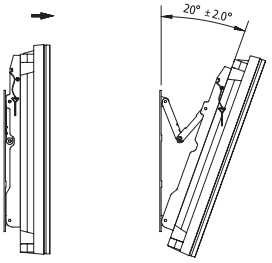
4 EA

How to Adjust Mounting Angle

(depending on your model)



The wall mount bracket is delivered separately. Please tighten the captive screw in the direction of the arrow after assembling the bracket.

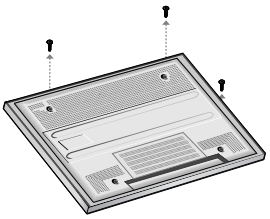


1. Secure the PDP to the wall mount bracket. (Please refer to the following instructions.)
2. Set the angle by pulling the upper end of the PDP attached to bracket in the direction of the arrow.
3. The angle can be adjusted up to 20°.

Installing the Display on the Wall Attachment Panel (continued)

The exterior of the PDP may be different than the picture.
(Assembly and installation of the plastic hanger is the same.)

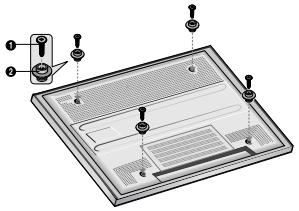
1 Remove the screws from the back of the PDP.



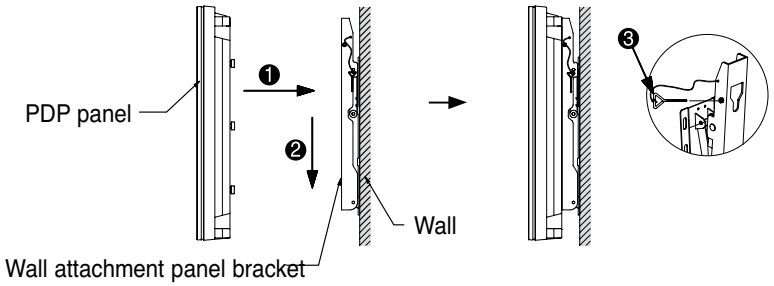
2 Use the screws and assemble the plastic hanger.

- Please ask the installers to install the wall mount bracket.
- Please be sure to check if the plastic hanger is completely secured on both the left and right side after hanging the PDP on the wall mount bracket.
- Please avoid catching your fingers while installing and adjusting the angle.
- Please tightly secure the wall mount bracket to the wall to avoid injury from a falling PDP.

3 Tighten the screws of the plastic hanger to the back side of the PDP.



4 Put the 4 pegs on the PDP in the grooves of the wall mount bracket and pull down on the PDP (①) to secure it to the wall mount bracket (②). Tighten the screws as shown (③) so that the PDP cannot be separated from wall mount bracket.



Connecting to an Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of the following sources:

- An outdoor aerial
- A cable television network
- A satellite network

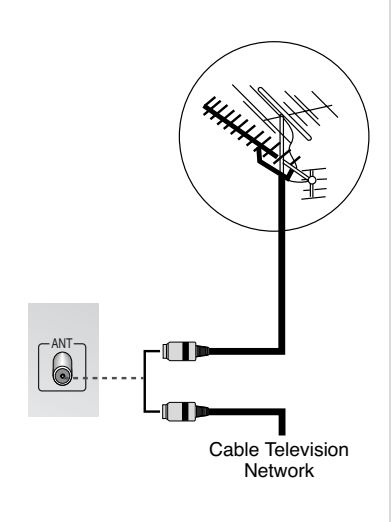
1 In the first three cases, connect the aerial or network input cable to the 75Ω coaxial socket on the rear of the PDP.

2 If you are using an indoor aerial, you may need to turn it when tuning your PDP until you obtain a picture that is both sharp and clear.

For further details, refer to:
- "Storing Channels Automatically" on page 22
- "Storing Channels Manually" on page 23

3 The angle can be adjusted up to 20°.

NOTE: When installing or re-installing your PDP, be sure to use the supplied coaxial antenna cable. If you connect using a different coaxial cable, there is risk of noise or interference to the screen image. (You must not use another general purpose cable. Use the 3M/5M/7M cable supplied by your dealer.)



Connecting a Satellite Receiver or Decoder

In order to watch television programmes broadcast via a satellite network, you must connect a satellite receiver to the rear of the PDP. Also, in order to descramble a coded transmission signal, you must connect a decoder to the rear of the PDP.

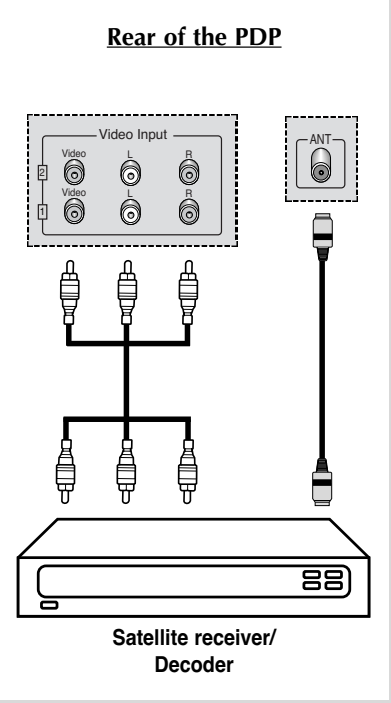
Using a Coaxial cable

Connect a coaxial cable to the:

- Receiver (or Decoder) output socket.
- Television aerial input socket.

NOTE: If you wish to connect both a satellite receiver (or decoder) and a VCR, you should connect the:
- Receiver (or Decoder) to the VCR
- VCR to the PDP

Otherwise, connect the receiver (or decoder) directly to the PDP.



Switching On and Off

The mains lead is attached to the rear of your PDP.

1. Plug the mains lead into an appropriate socket.
   The Standby indicator on the front of the PDP lights up.

2. Press the " **I / ⏻** " button on the front of the PDP (or **POWER** (⏻) button on the remote control) to switch the PDP on.
   The programme that you were watching last is re-selected automatically.

   NOTE: If you have not yet stored any channels, No clear picture appears. Refer to "Storing Channels Automatically" on page 16 or "Storing Channels Manually" on page 17.

3. To switch your PDP off, press the " **I / ⏻** " button again.

Placing in Standby Mode

Your PDP can be placed in Standby mode, in order to reduce the Power consumption.

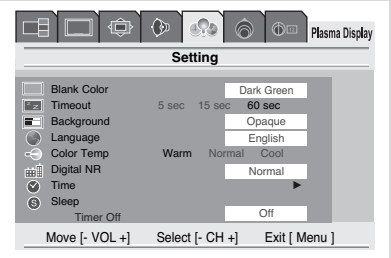
The Standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

1. Press the **POWER** (⏻) button on the remote control.
   The screen is turned off and the Standby indicator on the front of the PDP lights.

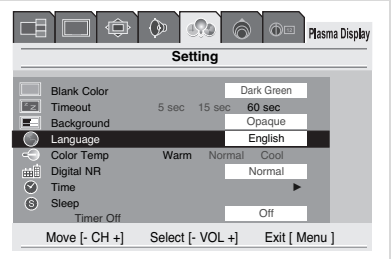
2. To switch the PDP back on, simply press the **POWER** (⏻) button again.

Choosing Your language

When you start using your television for the first time, you must select the language which will be used for displaying menus and indications.



1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.
3. Press the **CH-** button to select the options in the **Setting** group.
4. Press the **CH +** or **CH -** button to select **Language**.

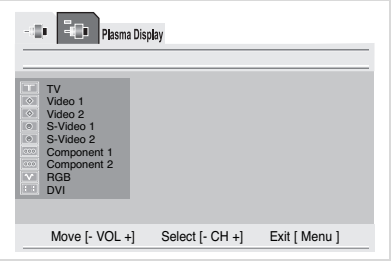


5. Select the appropriate language by pressing the **VOL -** or **VOL +** button.

   NOTE: In this model, the available language is English only.
6. When you are satisfied with your choice, press the **MENU** button to return to normal viewing.

Viewing an External Signal Source

Use the remote control to switch between viewing signal from connected equipment, such as VCR, DVD, Set-Top-box and the TV source (broadcast or cable)



1. Press the **INPUT** button.
   The options available in the Input group are displayed.
2. Select the signal source by pressing **CH +** or **CH -** button, then press the **VOL -** or **VOL +** button.
3. Set other signal sources (**TV**, **Video 1**, **Video 2**, **S-Video 1**, **S-Video 2**, **Component 1**, **Component 2**, **RGB** or **DVI**) using the same method as listed above.

   NOTE: If you change the external source while viewing, pictures might take a short period of time to be switched.

Storing Channels Automatically

You can scan for the frequency ranges available to you, (availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However you can sort numbers manually and clear any channels you do not wish to watch.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **TV Function 1**.
   The options available in the TV Function 1 group are displayed.

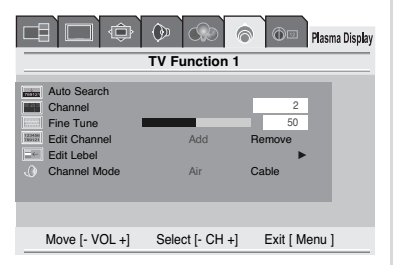
3. Press the **CH -** button to select the options in the **TV Function 1** group.

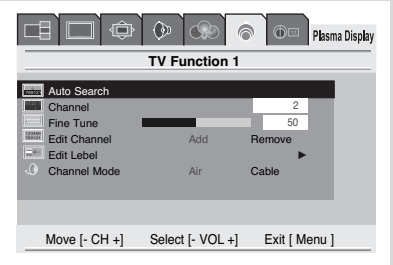
4. Press the **CH +** or **CH -** button to select **Auto Search**.

5. Press the **VOL -** or **VOL +** button to start the search.
   The search will end automatically. Channels are sorted and stored in an order which reflects their position in the frequency range, (with lowest first and highest last). The programme originally selected is displayed.

   NOTE: To stop the search before it has finished, press the MENU button.

6. After Manual Search is complete, the **TV Function 1** menu will appera. To store the searched channel in memory, select Edit Channel by using the **CH +** or **CH -** button. To Add or Remove the channel, press the **VOL -** or **VOL +** button.



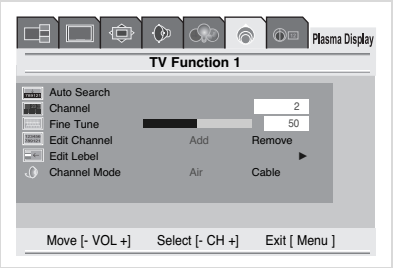


Storing Channels Manually

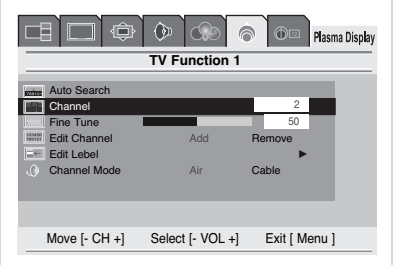
You can store up to 100 television channels, including those received via cable networks.

When storing channels manually, you can choose:

- Whether or not to store each of the channels found
- The programme number of each stored channel which you wish to identify
- You can change the channel name.

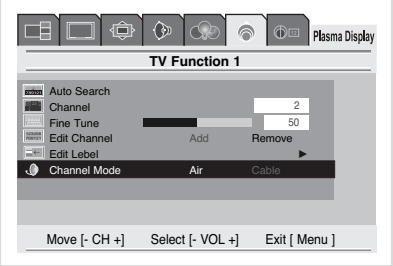


1. Press the **MENU** button.
   The main menu is displayed.



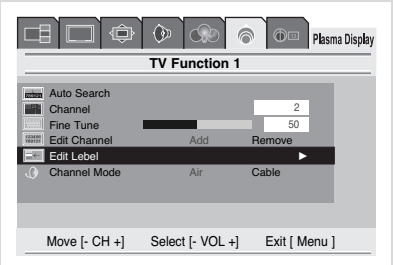
2. Press the **VOL -** or **VOL +** button to select **TV Function 1**.
   The options available in the TV Function 1 group are displayed.

3. Press the **CH -** button to select the options in the **TV Function 1** group.

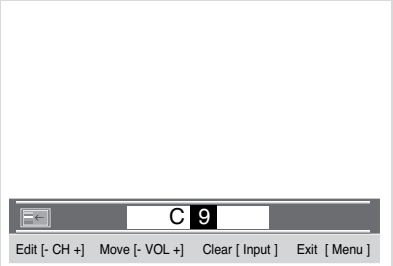


4. If you know the number of the channel to be stored, press the **CH +** or **CH -** button to select **Channel**.
   Press the **VOL-** or **VOL+** to select the number of the channel.
   The tuner scans the frequency range until the first channel or the channel that you selected is received on your screen.

5. Press the **CH +** or **CH -** button to select **Channel Mode**.
   Press the **VOL-** or **VOL+** button to select **Air** or **Cable**.



6. To change the channel name that has been completely searched, select **Edit Label** by using the **CH +** or **CH -** button. Press the **VOL -** or **VOL +** button to edit the channel name.
   The rename menu will be displayed at the bottom of the screen.



7. Press the **CH +** or **CH -** button to select a letter (A~Z), a number (0 ~ 9) or a symbol (-, space).
   Move on the previous or next letter by pressing the **VOL -** or **VOL +** button.

8. Press the **INPUT** button to clear the name you entered or existing name.
   The entered name will be cleared.

9. When you have finished entering the name, press the **MENU** button to confirm the name.

Using the Fine Tune

If reception is weak, you can fine tune a channel manually.

1. Press the **MENU** button.
   The main menu is displayed.

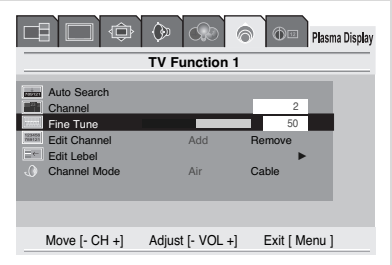
2. Press the **VOL -** or **VOL +** button to select **TV Function 1**.
   The options available in the TV Function 1 group are displayed.

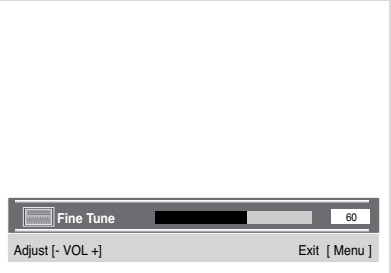
3. Press the **CH -** button to select the options in the **TV Function 1** group.

4. Press the **CH +** or **CH -** button to select **Fine Tune** and press the **VOL -** or **VOL +** button. The horizontal bar is displayed. Move the horizontal bar's cursor left or right by pressing the **VOL -** or **VOL +** button to reach the required setting.

5. Press the **VOL -** or **VOL +** button until the picture and sound are both clear and sharp.

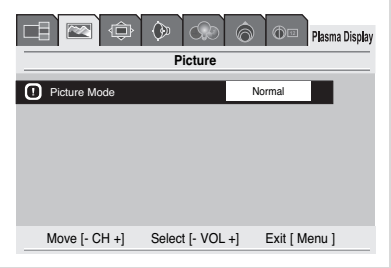
NOTE: If you are unable to fine tune a channel, check that the System settings are correct.





Changing the Picture Standard

You can select the type of picture which best corresponds to your viewing requirements.

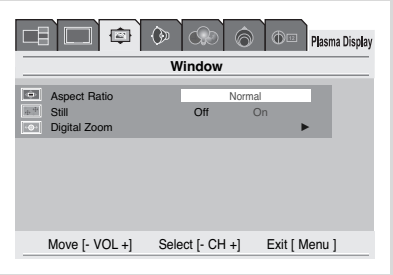


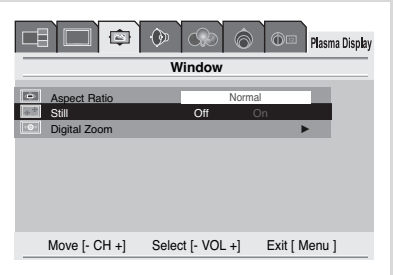
1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Picture**.
   The options available in the Picture group are displayed.
3. Press the **CH -** button to select the options in the **Picture** group.
4. Select the option by pressing the **VOL -** or **VOL +** button.
   The following modes are available depending on the input source.
   - Normal - Movie – Mild – Dynamic - User

   NOTE: You can also set these options simply by pressing the P.STD (Picture Mode) button.

Freezing the Current Picture

You can freeze the picture when watching a television programme.





1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Window**.
   The options available in the Window group are displayed.
3. Press the **CH -** button to select the options in the **Window** group.
4. Select the **Still** by pressing **CH +** or **CH -** button.
5. Press the **VOL -** or **VOL +** button to select **Off** or **On**.

   NOTE:
   - You can also set these options simply by pressing the STILL button. To return to normal viewing, press it again.
   - In the PIP mode, the main and sub pictures are stilled at the same time.

Adjusting the Picture Settings

Your television has several settings which allow you to control picture quality.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Picture**.
   The options available in the Picture group are displayed.

3. Press the **CH -** button to select the options in the **Picture** group.

4. Select the **User** by pressing the **VOL -** or **VOL +** button.
   The User options are listed.

5. Press the **CH -** button to select the options in the **User** group.
   - User : Brightness, Contrast, Sharpness, Color, Tint

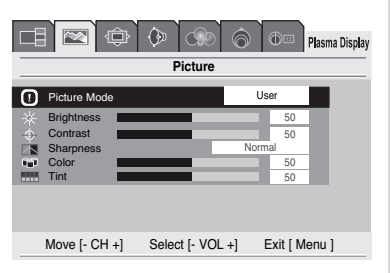
6. Press the **CH +** or **CH -** button to select the option you want to change.

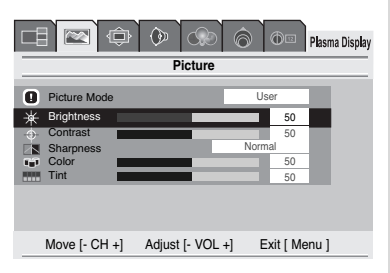
7. Press the **VOL -** or **VOL +** button to change the setting.
   The horizontal bar is displayed.

8. Move the horizontal bar's cursor left or right by pressing the **VOL -** or **VOL +** button.

9. When you are satisfied with the settings, press the **MENU** button to exit.

NOTE: When the User Picture Mode is set, the settings values may vary depending on the input source.





Adjusting the Picture Settings (RGB or DVI Mode)

Preset to the RGB or DVI mode by using the INPUT button.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Picture**.
   The options available in the Picture group are displayed.

3. Press the **CH -** button to select the options in the **Picture** group.

4. Select the **User** by pressing the **VOL -** or **VOL +** button.
   The User options are listed.

5. Press the **CH -** button to select the options in the **User** group.
   - User : Brightness, Contrast, Sharpness, Phase, Frequency.

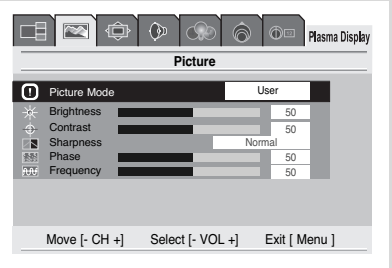
6. Press the **CH +** or **CH -** button to select the option you want to change.

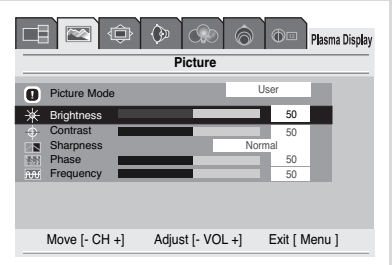
7. Press the **VOL -** or **VOL +** button to change the setting.
   The horizontal bar is displayed.

8. Move the horizontal bar's cursor left or right by pressing the **VOL -** or **VOL +** button.

9. When you are satisfied with the settings, press the **MENU** button to exit.

NOTE: When the User Picture Mode is set, the settings values may vary depending on the input source.

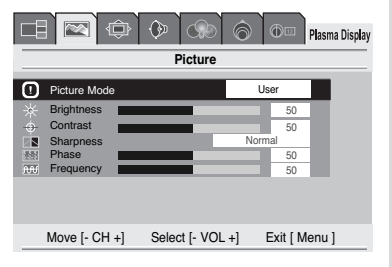


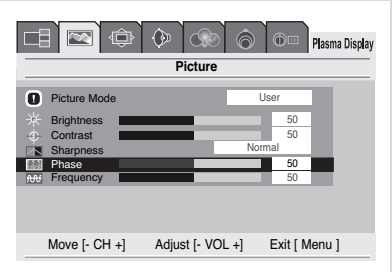


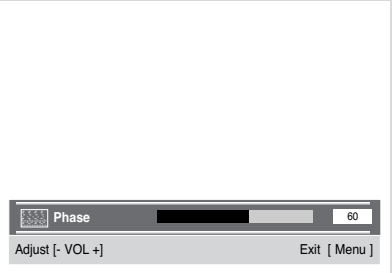
Setting the Picture (RGB or DVI Mode)

Preset to the RGB or DVI mode by using the INPUT button.

1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Picture**.
   The options available in the Picture group are displayed.
3. Press the **CH -** button to select the options in the **Picture** group.
4. Select the option (**Phase, Frequency**) by pressing the **CH +** or **CH -** button.
5. Press the **VOL -** or **VOL +** button to change the setting.
   The horizontal bar is displayed.
6. Move the horizontal bar's cursor left or right by pressing the **VOL -** or **VOL +** button.
7. When you are satisfied with the settings, press the **MENU** button to exit.







Adjusting the picture position (RGB or DVI Mode)

Preset to the RGB or DVI mode by using the INPUT button.

1. Press the **MENU** button.
   The main menu is displayed.

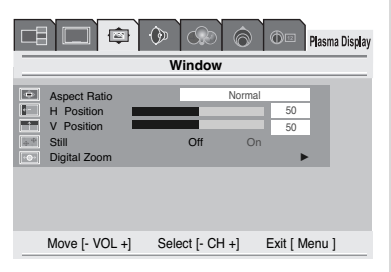
2. Press the **VOL -** or **VOL +** button to select **Window**.
   The options available in the Window group are displayed.

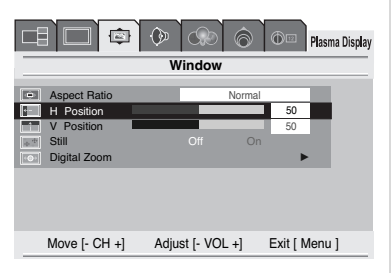
3. Press the **CH -** button to select the options in the Window group.

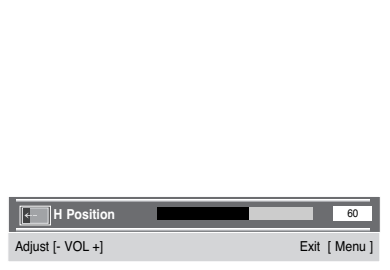
4. Press the **CH +** or **CH -** button to select the option (**H Position, V Position**) to be adjusted.

5. Press the **VOL -** or **VOL +** button.
   The horizontal bar is displayed. Move the horizontal bar's cursor left or right by pressing the **VOL -** or **VOL +** button.

6. When you are satisfied with the settings, press the **MENU** button.



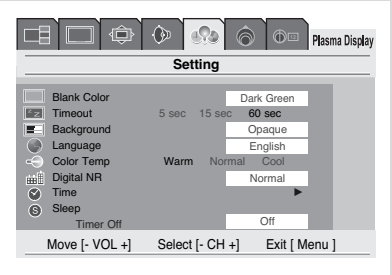


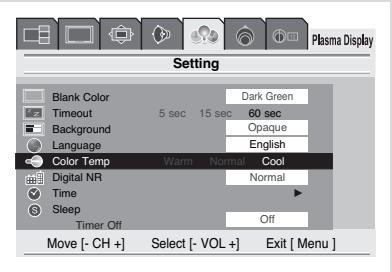


Adjusting the Color Temperature

Your television has several settings which allow you to control picture quality.

1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.
3. Press the **CH -** button to select the options in the **Setting** group.
4. Select the **Color Temp** by pressing **CH +** or **CH -** button.
5. Select the option (**Warm**, **Normal**, or **Cool**) by pressing **VOL -** or **VOL +** button.
6. When you are satisfied with the settings, press the **MENU** button.

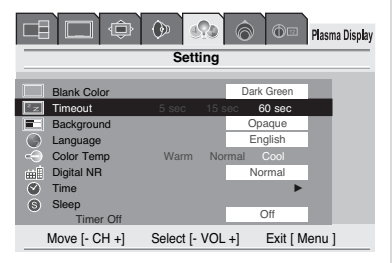




Setting the OSD Timeout

You can select for how long the OSD will be shown.

1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.
3. Press the **CH -** button to select the options in the **Setting** group.
4. Select the **Timeout** by pressing **CH +** or **CH -** button.
5. Select the option (**5 sec**, **15 sec**, or **60 sec**) by pressing **VOL -** or **VOL +** button.
6. When you are satisfied with the settings, press the **MENU** button.



Selecting the Picture Size

You can select the picture size which best corresponds to your viewing requirements.

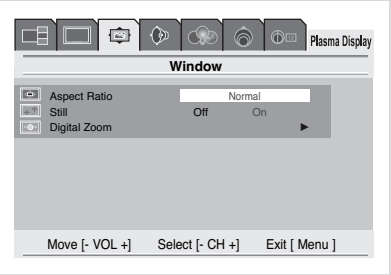
1. Press the **MENU** button.
   The main menu is displayed.

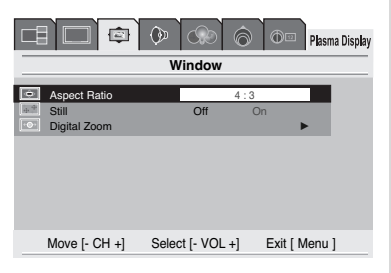
2. Press the **VOL -** or **VOL +** button to select **Window**.
   The options available in the Window group are displayed.

3. Press the **CH -** button to select the options in the **Window** group.

4. Select the **Aspect Ratio** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button to change the setting.





- **Normal**: Sets the picture to 16:9 wide mode.
- **4 : 3**: Displays the current picture on the 4:3 aspect ratio format screen.
- **Panorama**: Use this mode for the wide aspect ratio of a panoramic picture.
- **Letterbox**: Choose the letter box format, the 16:9 image is shrunk until the entire width of the program fits on your TV. Since the aspect ratio of the program is maintained, the image is no longer tall enough to fill your screen, so black/gray bars are seen at the top and bottom of the screen.
- **Letterbox Subtitles**: If subtitles are interrupted and not viewed when Letter box is selected, select this to view subtitles.
- **Zoom**: Magnify the size of the picture vertically on screen.
- **Video Game Zoom**: Select this to prevent any interruption at both sides of the screen in the Video Game mode.

NOTE:
- You can select these options by simply pressing the ARC button on the remote control.
- The picture size can not be changed in the PIP mode.
- Depending on the input source, the Aspect Ratio options may vary.

Using the digital zoom

You can minutely expand the picture to the desired size.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Window**.
   The options available in the Window group are displayed.

3. Press the **CH -** button to select the options in the **Window** group.

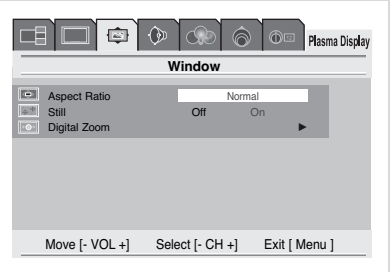
4. Select the **Digital Zoom** by pressing **CH +** or **CH -** button.

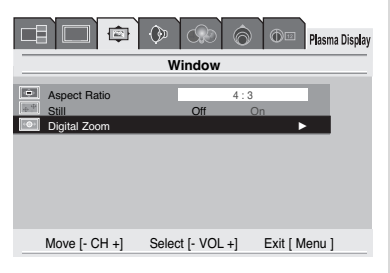
5. Press the **VOL -** or **VOL +** button to use the digital zoom function.
   The menu that allows you to adjust the Digital Zoom digit will appear at the bottom of the screen.

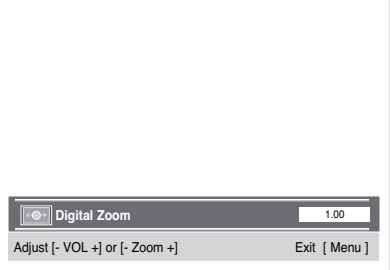
6. Press the **VOL -** / **VOL +** or **ZOOM -** / **ZOOM +** button to adjust the digital zoom.

7. When you are satisfied with the settings, press the **MENU** button.

   NOTE: You can also set this option simply by pressing the ZOOM - or ZOOM + button.

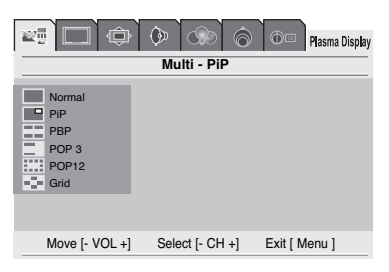






Viewing the Picture In Picture (PIP)

You can display a sub picture within the main picture of TV program or external A/V devices. In this way you can watch TV program or monitor the video input from any connected devices while watching TV or other video input.



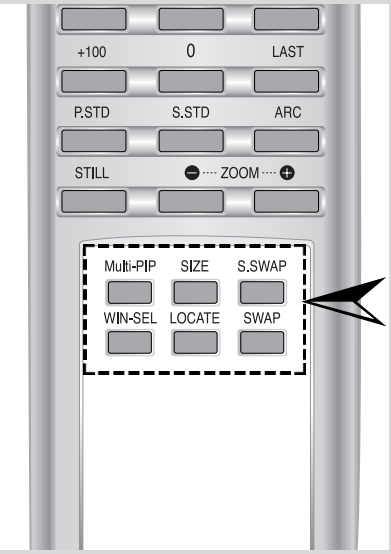
1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Multi-PiP**.
   The options available in the Multi-PiP group are displayed.

3. Press the **CH -** button to select the options in the **Multi-PiP** group.

4. Select the Multi-PiP option by pressing **CH +** or **CH -** button.
   The options are displayed in the following order:

   Normal PiP PBP POP 3 POP 12 Grid



5. Select a option of the sub picture by pressing the **VOL -** or **VOL +** button.

NOTE: If the sub picture has no signal and the main picture is output from a Component, RGB or DVI signal, the sub picture will be viewed in blank color as you set. For detailed instructions on Setting Blank Color, see page 41.

Easy functions of remote control.

Buttons	Feature
Multi-PiP	Multi-PiP On/Off
SIZE	Sub-Picture size selection (PIP)
S.SWAP	Main/Sub sound swap (PIP,PBP)
WIN-SEL	Main/Sub picture windows selection
LOCATE	Sub-Picture location selection (PIP)
SWAP	Main-Picture and Sub-Picture Swap

The Table of PIP Settings

Sub \ Main	TV	Video1, 2	S-Video1, 2	Component1, 2	RGB	DVI
TV	O	O	O	O	O	O
Video1, 2	O	O	O	O	O	O
S-Video1, 2	O	O	O	O	O	O
Component1,2	O	O	O	O	O	O
RGB	O	O	O	O	O	O
DVI	O	O	O	O	O	X

Using the Digital NR (Digital Noise Reduction) Feature

If the signal received by your television is weak, you can activate this feature to help reduce any static and ghosting that may appear on the screen.

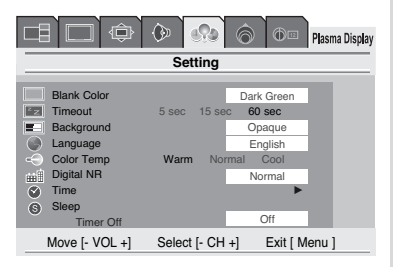
1. Press the **MENU** button.
   The main menu is displayed.

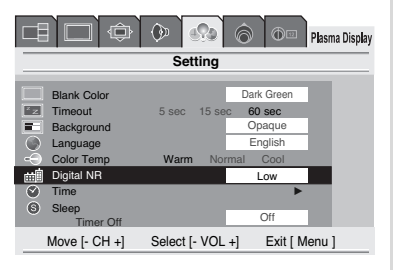
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.

3. Press the **CH -** button to select the options in the **Setting** group.

4. Select the **Digital NR** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button to select the options.
   The options are displayed in the following order:
   - Normal – Low – Medium – High – Highest





Changing the Sound Standard

You can select the type of special sound effect to be used when watching a given broadcast.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Sound**.
   The options available in the Sound group are displayed.

3. Press the **CH -** button to select the options in the **Sound** group.

4. Select the **Sound Mode** by pressing **CH +** or **CH -** button.

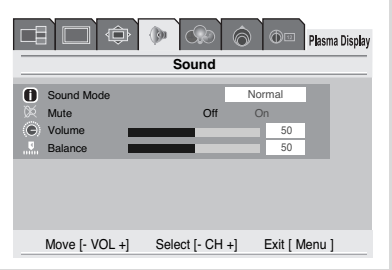
5. Press the **VOL -** or **VOL +** button to select the options.
   The sound effects are displayed in the following order.
   - Normal – Music – Movie – Speech – User

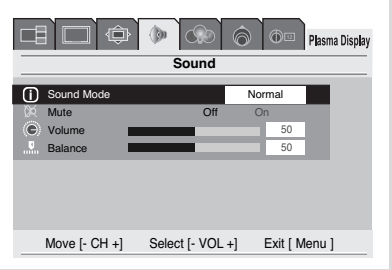
6. Press the **CH +** or **CH -** button to select the option (**Volume**, **Balance**).

7. Press the **VOL -** or **VOL +** button to reach the required setting.

8. When you are satisfied with the settings, press the **MENU** button.

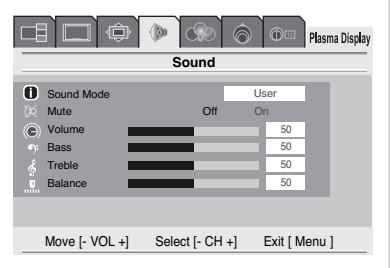
NOTE: You can also set these options simply by pressing the S.STD (Sound Mode) button.

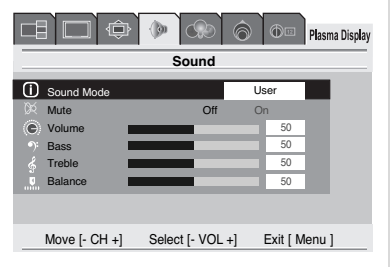




Adjusting the Sound Settings

The sound settings can be adjusted to suit your personal preferences.





1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Sound**.
   The options available in the Sound group are displayed.
3. Press the **CH -** button to select the options in the **Sound** group.
4. Select the **Sound Mode** by pressing **CH +** or **CH -** button.
5. Press the **VOL -** or **VOL +** button to select **User**.
   The User menu is displayed with the current option.
6. Press the **CH +** or **CH -** button to select **User**.
7. Press the **CH +** or **CH -** button to select the option (**Volume**, **Bass**, **Treble**, **Balance**).
8. Press the **VOL -** or **VOL +** button to reach the required setting.
9. When you are satisfied with the settings, press the **MENU** button.

NOTE: You can also set these options simply by pressing the S.STD (Sound Mode) button.

Selecting the Sound Mode (depending on the model)

The "DUAL" button displays/controls the processing and output of the audio signal. When power is switched on, the mode is automatically preset to either "Dual-I " or "Stereo", depending on the current transmission.

Type of broadcast	On-screen indication
Regular broadcast (Standard audio)	**Mono**
Bilingual or Dual-I/II	**Dual-I ↔ Dual-II**
Stereo	**Stereo ↔ Mono** (Forced mono)

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.

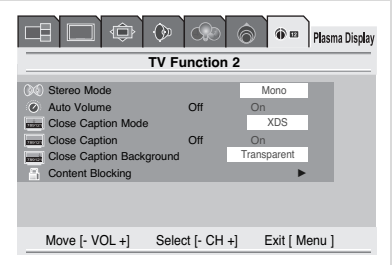
3. Press the **CH -** button to select the options in the **TV Function 2** group.

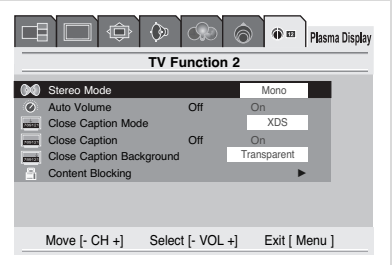
4. Select the **Stereo Mode** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button to select the option (**Mono**, **Stereo**, **Dual I**, **Dual II**).

6. When you are satisfied with the settings, press the **MENU** button.

NOTE: You can also set these options simply by pressing the DUAL button.





Adjusting the Volume Automatically

Each broadcasting station has its own signal conditions, and so it is not easy for you to adjust the volume every time the channel is changed. This feature lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

1. Press the **MENU** button.
   The main menu is displayed.

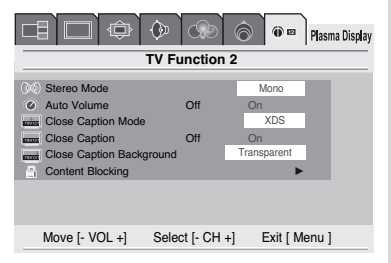
2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.

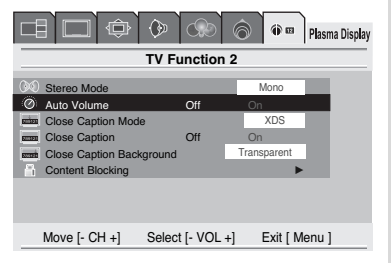
3. Press the **CH -** button to select the options in the **TV Function 2** group.

4. Select the **Auto Volume** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button to select **Off** or **On**.

6. When you are satisfied with the settings, press the **MENU** button.





Adjusting the Volume Manually

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Sound**.
   The options available in the Sound group are displayed.

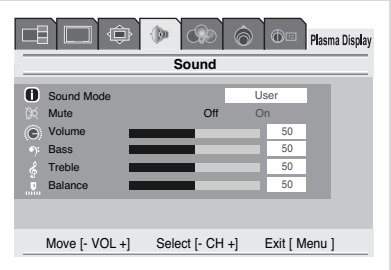
3. Press the **CH -** button to select the options in the **Sound** group.

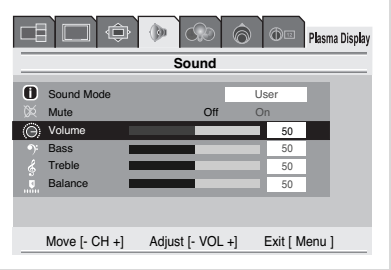
4. Select the **Volume** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button to reach the required setting.

6. When you are satisfied with the settings, press the **MENU** button.

NOTE: You can also set this option simply by pressing the VOL - or VOL + button.





Setting the Sleep Timer

You can select a time period of between 30 and 120 minutes after which the television automatically switches to Standby mode.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.

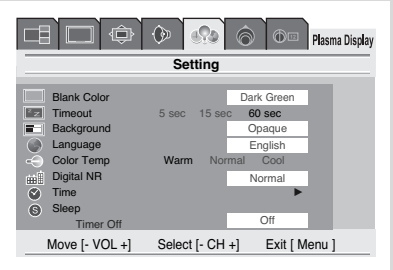
3. Press the **CH -** button to select the options in the **Setting** group.

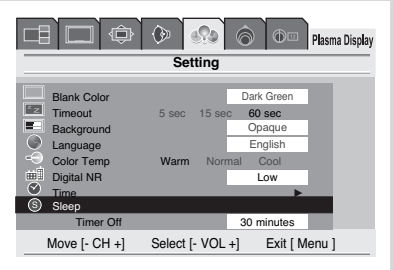
4. Select the **Sleep** by pressing **CH +** or **CH -** button.

5. Select the preset time intervals (**Off**, **30**, **60**, **90**,**120**) by pressing the **VOL -** or **VOL +** button.

6. When you are satisfied with the settings, press the **MENU** button.

NOTE:
- You can also set these options simply by pressing the SLEEP button.
- If the sleep timer is not yet set, Off is displayed. If the sleep timer is already set, the remaining time before which the television switches to Standby mode is displayed.





Setting and Displaying the Current Time

You can set the television's clock.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.

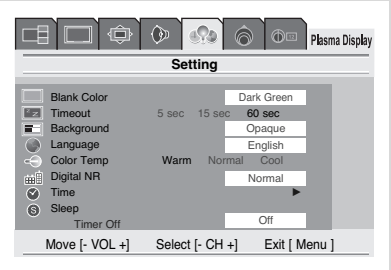
3. Press the **CH -** button to select the options in the **Setting** group.

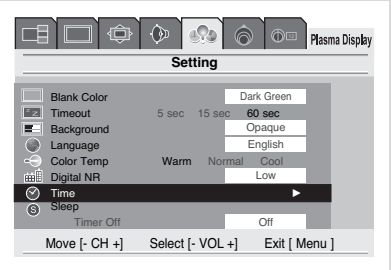
4. Select the **Time** by pressing **CH +** or **CH -** button.

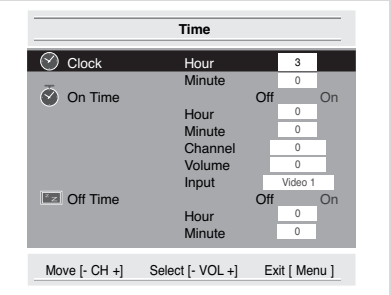
5. Press the **VOL -** or **VOL +** button.
   The options available in the Time group are displayed.

6. Press the **CH +** or **CH -** to move to the Hour or Minute in the Clock menu.
   Set the Hour or Minute by pressing the **VOL -** or **VOL +** button.

7. When you have finished, press the **MENU** button to exit.







Switching the Television On and Off Automatically

You can set the television's clock and set the On or Off timers so that the television will:

- Switch on automatically and tune to the channel of your choice at the time you select
- Switch off automatically at the time you select

NOTE: The first step is to set the television's clock (refer to "Setting and Displaying the Current Time" on the previous page).

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.

3. Press the **CH -** button to select the options in the **Setting** group.

4. Select the **Time** by pressing **CH +** or **CH -** button.

5. Press the **VOL -** or **VOL +** button.
   The options available in the Time group are displayed.

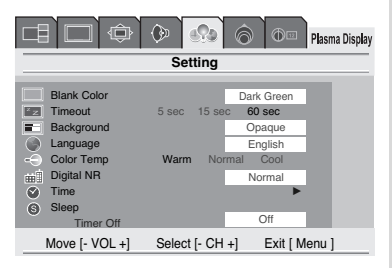
6. Press the **CH +** or **CH -** button to select **On Time**.
   Select **On Time** to **Off** or **On** by pressing the **VOL -** or **VOL +** button.

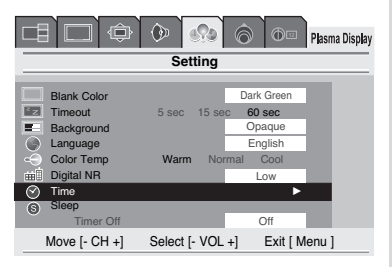
7. Press the **CH +** or **CH -** button to move to the option (**Hour**, **Minute**, **Channel**, **Volume**, **Input**).
   Set these by pressing the **VOL -** or **VOL +** button.

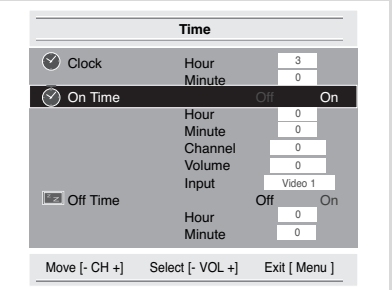
8. Press the **CH +** or **CH -** button to select **Off Time**.
   Select **Off Time** to **Off** or **On** by pressing the **VOL -** or **VOL +** button.

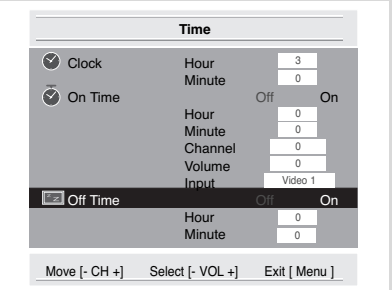
9. Press the **CH +** or **CH -** button to move to the option (**Hour**, **Minute**). Set these by pressing the **VOL -** or **VOL +** button.

10. When you have finished, press the **MENU** button to exit.





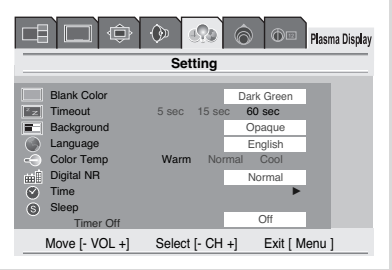


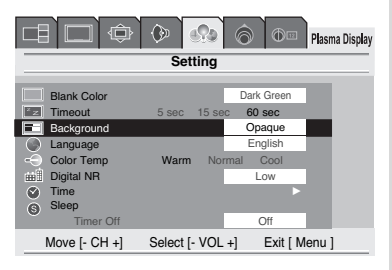


Adjusting the Background

You can give the transparency OSD background in this menu.

1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.
3. Press the **CH -** button to select the options in the **Setting** group.
4. Select the **Background** by pressing **CH +** or **CH -** button.
5. Select **Background** to **Translucent** or **Opaque** by pressing the **CH +** or **CH -** button.
6. When you have finished, press the **MENU** button to exit.

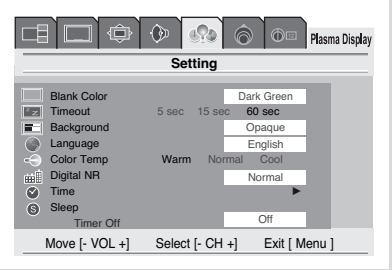


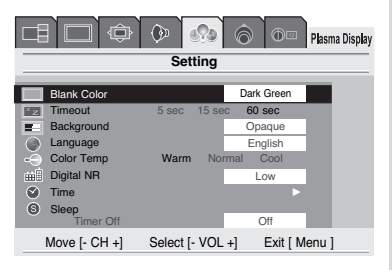


Using the Blank Color

If no signal is being received or the signal is very weak, a blank color as you set automatically replaces the noisy picture background.

1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **Setting**.
   The options available in the Setting group are displayed.
3. Press the **CH -** button to select the options in the **Setting** group.
4. Select the **Blank Color** by pressing **CH +** or **CH -** button.
5. Select the option by pressing the **VOL -** or **VOL +** button.
   The options are displayed in the following order :
   - Black – White – Red – Green – Blue – Dark Blue – Dark Green – Dark Red.
6. When you have finished, press the **MENU** button to exit.

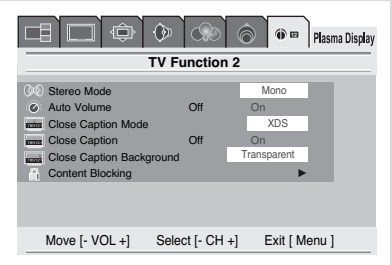




Viewing Closed Captions

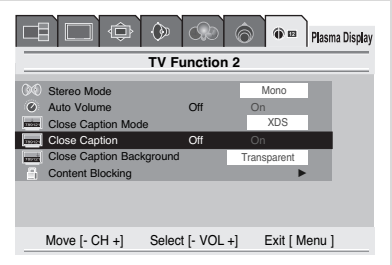
Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging: CC

NOTE: The Caption feature does not work with DVD or DTV signals.



1. Press the **MENU** button.
   The main menu is displayed.

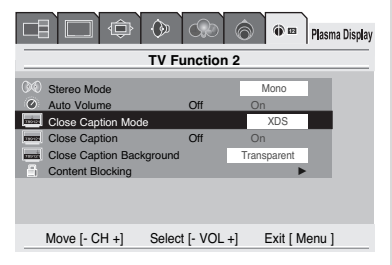
2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.



3. Press the **CH -** button to select the options in the **TV Function 2** group.

4. Press the **CH +** or **CH -** button to select **Close caption**.

5. Press the **VOL -** or **VOL +** button to turn close caption (**Off** or **On**).



6. Press the **MENU** button, then select **Close Caption Mode** by pressing the **CH +** or **CH -** button.

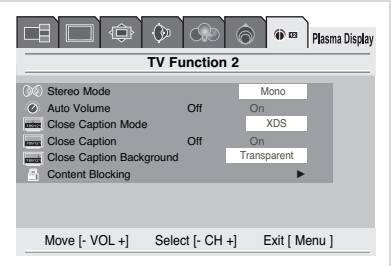
7. Press the **VOL -** or **VOL +** button to select option (**CC1**, **CC2**, **T1**, **T2**, or **XDS**).

8. Press the **MENU** button to exit.

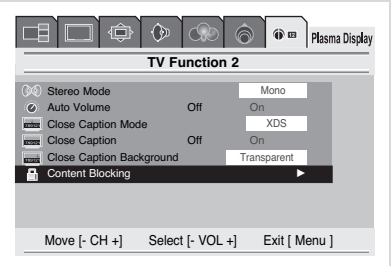
Using the Content Blocking

The V-Chip feature automatically locks out programs that are deemed inappropriate for children. The user must enter a password before any of the Content Blocking are set up or changed.

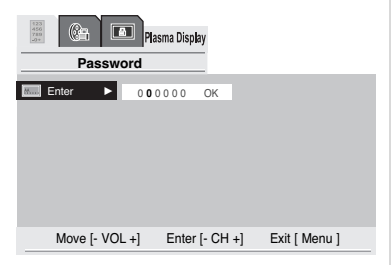
Setting Up Your password



1. Press the **MENU** button.
   The main menu is displayed.
2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.
3. Press the **CH -** button to select the options in the **TV Function 2** group.
4. Press the **CH +** or **CH -** button to select **Content Blocking**, then press the **VOL +** button.



5. Press **CH -** button to select **Enter**, then press the **VOL +** button.
6. Press the **CH +** or **CH -** button to choose 6-digit number. Press the **VOL -** or **VOL +** button to move to the each digit.
7. Press the **VOL -** or **VOL +** button to move **OK**, then press the **INPUT** button. The option available in the **Password** group are displayed.



8. Press the **CH -** button to change the password, then press the **VOL +** button.
9. Choose any 6 digits for your password by using **CH +** or **CH -** button. Press the **VOL -** or **VOL +** button to move to the each digit.
10. Press the **VOL -** or **VOL +** button to move **OK**, then press the **INPUT** button.
11. Press the **MENU** button to exit.

Using the Content Blocking (continued)

How to Set up Restrictions using the "TV Blocking"

Parental restrictions can be set up using either of two methods: The TV Blocking or the Movie Blocking.

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.

3. Press the **CH -** button to select the options in the **TV Function 2** group.

4. Press the **CH +** or **CH -** button to select **Content Blocking**.

5. Press the **VOL +** button to select the options in the **Content Blocking** group.

6. Press **CH -** button to select **Enter**, then press the **VOL +** button.

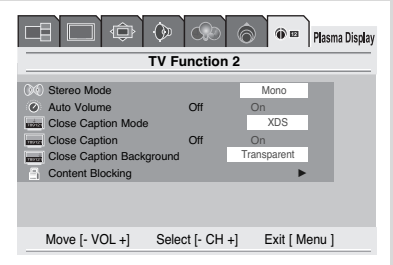
7. Press the **CH +** or **CH -** button to choose 6-digit number. Press the **VOL -** or **VOL +** button to move to the each digit.

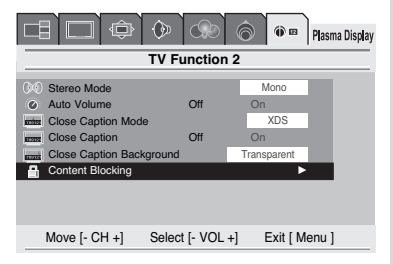
8. Press the **VOL -** or **VOL +** button to move **OK**, then press the **INPUT** button. The **Content Blocking** options are activated.

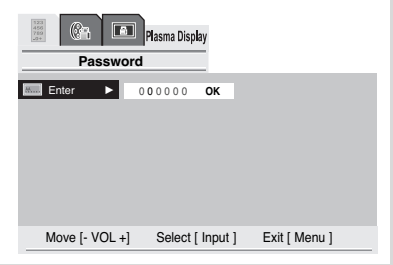
9. Press the **CH +** button, then select TV Blocking by using the **VOL +** button. The TV Blocking screen will appear.

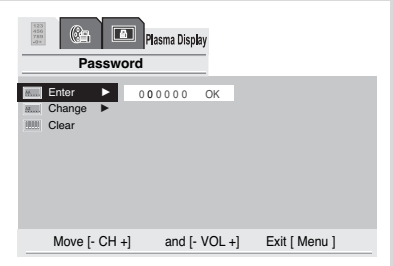
10. Press the **CH -** button to adjust the TV Blocking option, then press the **CH +** or **CH -** button to select one of the six ages based categories :

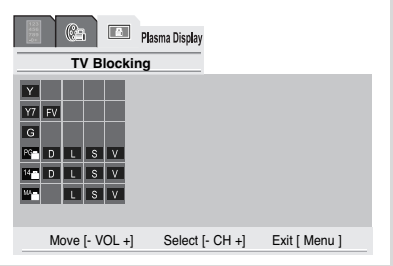
    Y Young children
    Y7 Children 7 and over
    G General audience
    PG Parental guidance
    14 Viewers 14 and over
    MA Mature audience









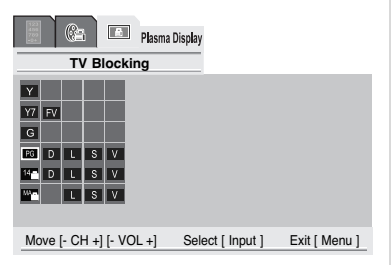


Using the Content Blocking (continued)

11 At this point, one of the TV-Ratings is selected.
Press the **INPUT** button. Depending on your existing setup, a symbol " 🖶 " will be selected.
To select a different TV-Rating, press the **CH +** or **CH -** button and then repeat the process.

NOTE1: The Y7, PG, 14 and MA have additional options. See the next step to change any of the following sub-ratings:
FV: Fantasy violence
D: Sexually Suggestive Dialog
L: Adult Language
S: Sexual situation
V: Violence

NOTE2: The Blocking TV will automatically block certain categories that are "more restrictive". For example, if you block "Y" category, then Y7 will automatically be blocked. Similarly, if you block the G category, then all the categories in the "young adult" group will be blocked (G, PG, 14 and MA). The sub-ratings (D, L, S, V) work together similarly. (See next section.)



12 How to set the FV, D, L, S and V sub-ratings. First, select one of these TV-Ratings: Y7, PG, 14 or MA (See Step 4, on previous page), and press **INPUT** button.

A symbol " 🖶 " will be displayed for each sub-rating.
While " 🖶 " is selected, press the **CH +** or **CH -**, **VOL -** or **VOL +** button to change the sub-rating. To select a different TV-Rating, press the **CH +** or **CH -** button and then repeat the process.

NOTE: The V-chip will automatically block certain categories that are "More restrictive". For example, if you block "L" sub-rating in PG, then the "L" sub-ratings in 14 and MA will automatically be blocked.

13 Press the **INPUT** button to clear the screen. (Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

NOTE: These categories consist of two separate groups: Y and Y7 (young children through age 7), and G through MA (everybody else). The restrictions for these two groups work independently: If a household includes very young children as well as young adults, the TV guidelines must be set up separately for each age group.

How to Set up Restrictions using the Blocking Movie(MPAA): G, PG, PG-13, R, NC-17, X

The Blocking Movie (MPAA) rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies. When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either Movie Blocking or TV Blocking).

1. Press the **MENU** button.
   The main menu is displayed.

2. Press the **VOL -** or **VOL +** button to select **TV Function 2**.
   The options available in the TV Function 2 group are displayed.

3. Press the **CH -** button to select the options in the **TV Function 2** group.

4. Press the **CH +** or **CH -** button to select **Content Blocking**.

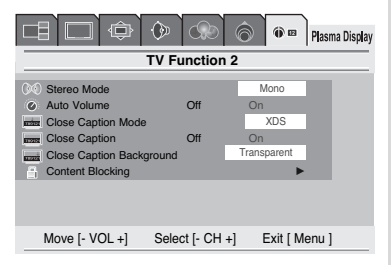
5. Press the **VOL +** button to select the options in the **Content Blocking** group.

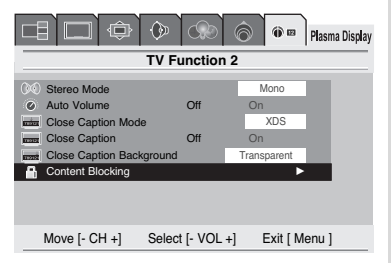
6. Press **CH -** button to select **Enter**, then press the **VOL +** button.

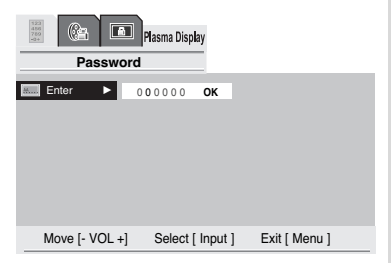
7. Press the **CH +** or **CH -** button to choose 6-digit number. Press the **VOL -** or **VOL +** button to move to the each digit.

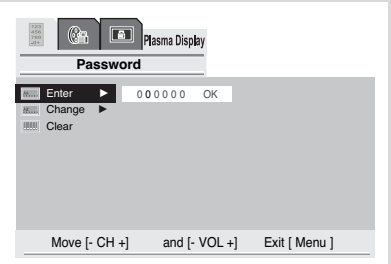
8. Press the **VOL -** or **VOL +** button to move **OK**, then press the **INPUT** button. The **Content Blocking** options are activated.

9. Press the **CH +** button, then select Movie Blocking by using the **VOL +** button. The Movie Blocking screen will appear.





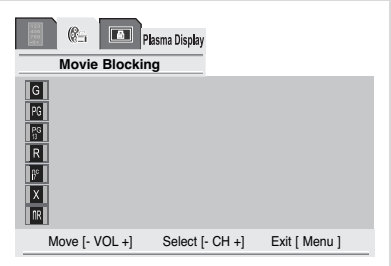




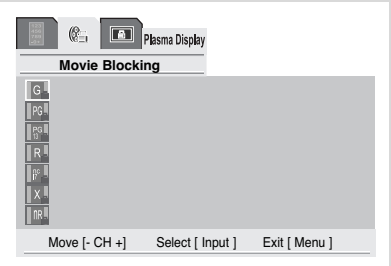
How to Set up Restrictions using the Blocking Movie(MPAA): G, PG, PG-13, R, NC-17, X (continued)

10 Press the **CH +** or **CH -** button to select a particular Movie Blocking category. Pressing the **CH +** or **CH -** button will cycle through the Movie Blocking categories :

G General audience (no restrictions).
PG Parental guidance suggested.
PG-13 PG-13 (Parents strongly cautioned).
R R (Restricted. Children under 17 should be accompanied by an adult).
NC-17 No children under age 17.
X (Adults only).
NR Not rated.



11 While a particular category is selected, press the **INPUT** button to activate it. A selected symbol " " will be displayed. Press the **CH +** or **CH -** button to select " ".

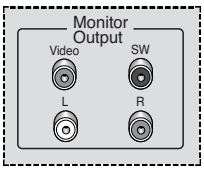


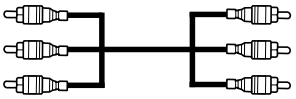
NOTE1: The V-Chip will automatically block any category that is "more restrictive". For example, if you block the "PG-13" category, then "R", "NC-17" and "X" will automatically be blocked also.

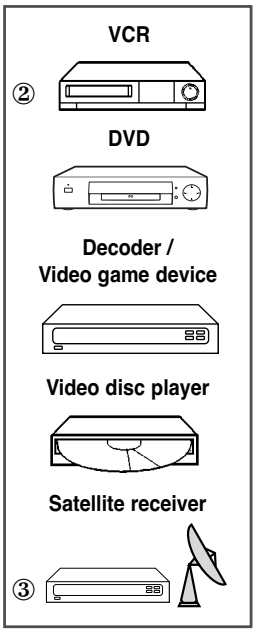
Connecting to the External Devices

The MONITOR OUT are used for the equipment with an RGB output, such as video game devices or video disc players.

Rear of the TV
(Input/Output)



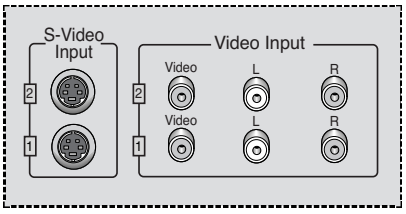


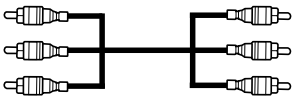


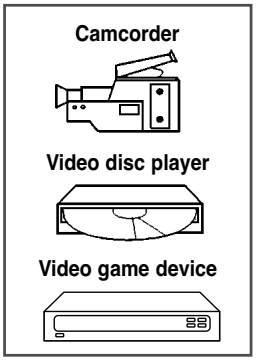
① This end can be fitted with:
- ◆ Four RCA connectors (VIDEO + AUDIO-L/R + SUB WOOFER)

② If you have a second VCR and wish to copy cassettes tape, connect the source VCR to "**Video Input 1**" and the target VCR to "**Monitor output**" so that you can redirect the signal from "**Monitor output**" to "**Video Input 2**".

Rear of the TV
(Input/Output)

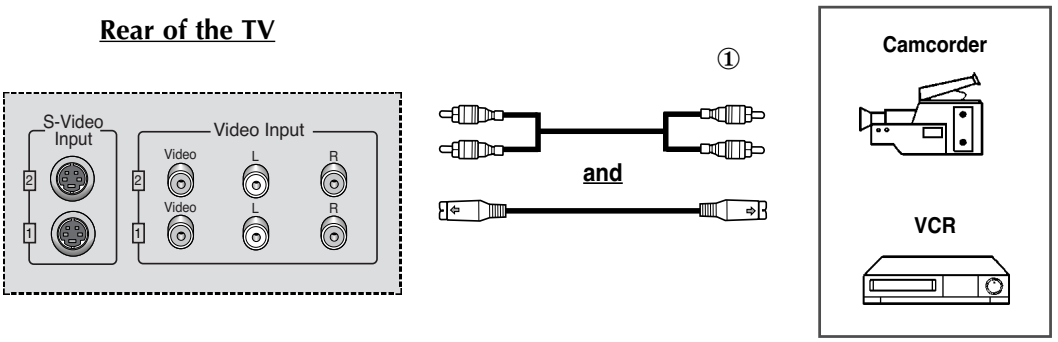






Connecting to the S-Video Input

The S-VIDEO1 and RCA (AUDIO-L/R) connectors are used for equipment with an S-Video output, such as a camcorder or VCR.

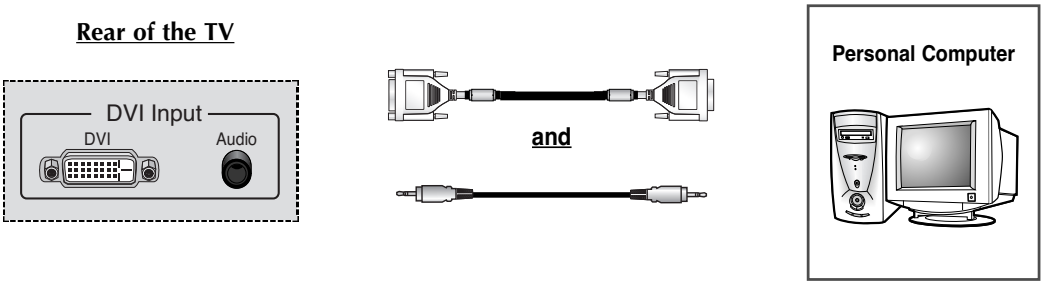


① To play picture and sound, both the S-VIDEO and RCA connectors must be used.

Whenever you connect an audio or video system to your television, ensure that all elements are switched off. Refer to the documentation supplied with your equipment for detailed connection instructions and associated safety precautions.

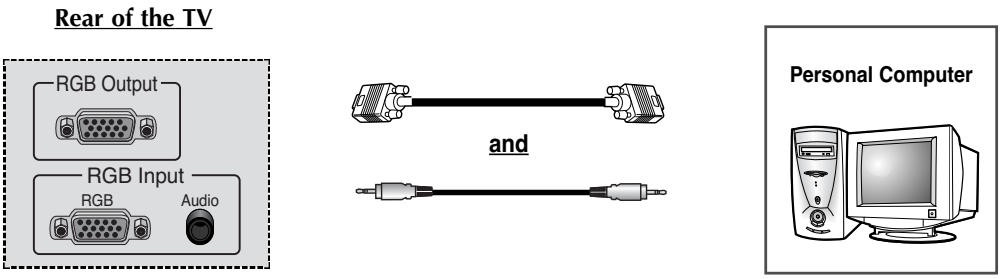
Connecting to the DVI Input

The DVI (video) **and L-AUDIO-R connectors are used for equipment with a DVI output.**

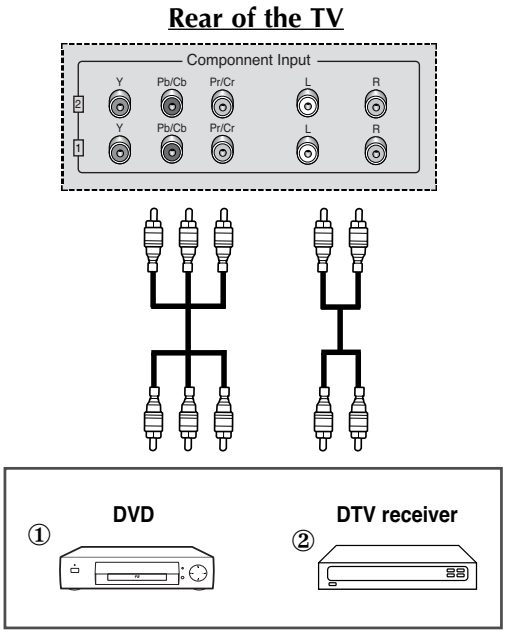


Connecting to the RGB Input

The RGB (video) **and AUDIO connectors are used for interfacing with your PC.**



Connecting to the Component Input

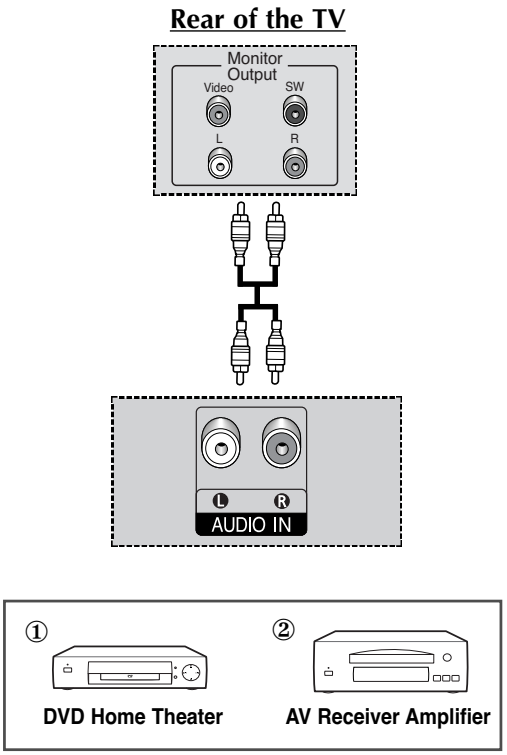


① The **Component Input 1** connectors are used for equipment with a DVD output.

② The **Component 2** connectors are used for DTV receiver.

Connecting and Using the Home Theater System

Use the Monitor Out ports of the PDP for Home Theater System Connections.



Connecting the Home Theater System

① Connect the monitoring audio out L, and R jacks of the Monitor Output on the rear-side connection panel of the PDP TV to the AUDIO IN jacks of the DVD Home Theater System (or AV Receiver) using the audio cable.

② Press the **INPUT** button to select the desired external device connected to the PDP TV.

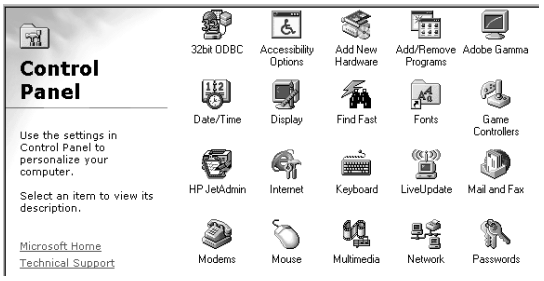
③ If you want to hear the sound through separate speakers, cancel the internal amplifier.

- Refer to corresponding user's manual from the manufacturer for wiring the speakers to the DVD Home Theater System (or AV Receiver).
- Disable the PDP TV internal speaker to enjoy the rich sound through the speakers of your Home Theater System.
- In this case, enjoy the sound from the Home Theater System while the PDP TV does not produce the audio.

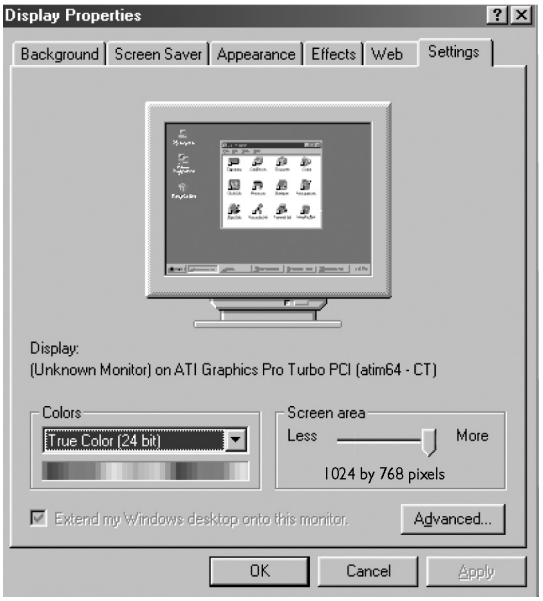
Setting up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. But the actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. But even if your actual screens look different, the same, basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or your dealer Dealer.)

On the windows screen, select in the following sequence: **Start → Settings → Control Panel.**



When the control panel screen appears, click on **Display** and a display dialog-box will appear.



Select the **Settings** tab in the display dialog-box.

The two key variables that apply the television-PC interface are “Resolution” and “Colours”.
The correct settings for these two variables are:

- Size (sometimes called “Resolution”)
  - **800 x 600 pixels**
- Colour
  24-bit colour (might also be expressed as “16 million colours”)
  Shown at left is a typical screen for “Display” dialog box.

If a vertical-frequency option exists on your display settings dialog box, the correct value is **60 Hz**. Otherwise, just click **OK** and exit the dialog box.

Input Mode (RGB/DVI)

Both screen position and size will vary depending on the type of PC monitor and its resolution. The table below shows all of the display modes that are supported:

DVI/RGB Mode Table

Mode	Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)	Pixel Clock Frequency (MHz)
VGA	640 x 350	31.460	70.000	25.170
	640 x 400	37.861	85.000	31.500
	720 x 400	31.469	70.000	28.320
	640 x 480	31.460	50.000	25.170
		31.500	60.000	25.175
		37.700	72.000	31.500
		37.500	75.000	31.500
		43.300	85.000	36.000
SVGA	800 x 600	35.100	56.000	36.000
		37.900	60.000	40.000
		48.100	72.000	50.000
		46.900	75.000	49.500
		53.700	85.000	56.250
	832 X 624	49.720	75.000	57.280
XGA	1024 X 768	48.400	60.000	65.000
		56.500	70.000	75.000
		60.000	75.000	78.750
SDTV 480p	720 x 480	31.470	59.940	27.000
SDTV 575p	720 x 576	31.250	50.000	27.000
HDTV 720p	1280 X 720	45.000	60.000	74.250
		44.960	59.940	74.180
		37.500	50.000	74.250
HDTV 1080i	1920 X 1080	33.750	30.000	74.250
		33.720	29.970	74.180
		31.250	25.000	74.250
		28.125	25.000	74.250

Component Mode Table

Mode	Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)	Pixel Clock Frequency (MHz)
EDTV 480i	720 x 480	15.730	29.970	13.5000
EDTV 575i	720 x 576	15.630	25.000	13.5000
SDTV 480p	720 x 480	31.470	59.940	27.000
SDTV 575p	720 x 576	31.250	50.000	27.000
HDTV 720p	1280 x 720	45.000	60.000	74.250
		44.960	59.940	74.180
		37.500	50.000	74.250
HDTV 1080i	1920 x 1080	33.750	30.000	74.250
		33.720	29.970	74.180
		31.250	25.000	74.250
		28.125	25.000	74.250

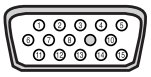
Input Mode (RGB/DVI) (continued)

Notes

- The PC text quality is optimum in **VGA** mode (800 x 600@60Hz).
- When this television is used as a PC display, 24-bit colour is supported (over 16 million colours).
- Your PC display screen might appear different depending on the manufacturer (and your particular version of Windows). Check your PC instruction book for information about connecting your PC to a television.
- If a vertical and horizontal frequency-select mode exists, select 60Hz (vertical) and 31.5kHz (horizontal). In some cases, abnormal signals (such as stripes) might appear on the screen when the PC power is turned off (or if the PC is disconnected). If so, press the **INPUT** button to enter the Video mode. Also, make sure that the PC is connected.
- When connecting a notebook PC to the television, make sure that the PC screen is displayed through only the television (Otherwise, random signals might appear).
- When horizontal synchronous signals seem irregular in RGB mode, check PC power saving mode or cable connections.
- The Display Settings Table above complies to the IBM/VESA standards, and based on the analog input.
- The DVI support mode is regarded as same to the PC support mode.
- The best timing for the vertical frequency to each mode is 60Hz.

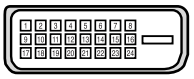
Pin Configurations

RGB Input Connector (15Pin)



Pin	RGB IN
1	Red (R)
2	Green (G)
3	Blue (B)
4	Grounding
5	Grounding (DDC)
6	Red (R) Grounding
7	Green (G) Grounding
8	Blue (B) Grounding
9	Reserved
10	Sync Grounding
11	Grounding
12	Data (DDC)
13	Horizontal sync.
14	Vertical sync.
15	Clock (DDC)

DVI Input Connector (24Pin)



Pin	Signal
1	T.M.D.S. Data2-
2	T.M.D.S. Data2+
3	T.M.D.S. Data2/4 Shield
4	T.M.D.S. Data4-
5	T.M.D.S. Data4+
6	Clock (DDC)
7	Data (DDC)
8	Not Connected
9	T.M.D.S. Data1-
10	T.M.D.S. Data1+
11	T.M.D.S. Data1/3 Shield
12	T.M.D.S. Data3-
13	T.M.D.S. Data3+
14	+5V Power
15	5V Grounding
16	Hot Plug Detect
17	T.M.D.S. Data0-
18	T.M.D.S. Data0+
19	T.M.D.S. Data0/5 Shield
20	T.M.D.S. Data5-
21	T.M.D.S. Data5+
22	T.M.D.S. Clock Shield
23	T.M.D.S. Clock+
24	T.M.D.S. Clock-

Troubleshooting: Before Contacting Service Personnel

Before contacting your dealer after-sales service, perform the following simple checks.

If you cannot solve the problem using the instructions below, note the model and serial number of the television and contact your local dealer.

No sound or picture	● Check that the mains lead has been connected to a wall socket. ● Check that you have pressed the " **I** " button (On/Off) and the **POWER** ( ) button. ● Check the picture contrast and brightness settings. ● Check the volume.
Normal picture but no sound	● Check the volume. ● Check whether the volume **MUTE** ( ) button on the remote control has been pressed.
No picture or black and white picture	● Adjust the colour settings. ● Check that the broadcast system selected is correct.
Sound and picture interference	● Try to identify the electrical appliance that is affecting the television, then move it further away. ● Plug your television into a different mains socket.
Blurred or snowy picture, distorted sound	● Check the direction, location and connections of your aerial. This interference often occurs due to the use of an indoor aerial.
Remote control malfunctions	● Replace the remote control batteries. ● Clean the upper edge of the remote control (transmission window). ● Check the battery terminals.

Technical Specifications

Item				Specifications
Display		Screen Size(Active Area)		42" (932.94 mm(H) x 532.80 mm(V))
		Aspect ratio		16:9
		Number of Pixels		852 (H) x 480 (V)
		Pixel Pitch		1.095 mm (H) x 1.110 mm (V)
		Displayable Colors		16.77 million colors
		Brightness		1000 cd/m²
		Contrast Ratio		3000:1
		Color Temperature		9500 K
		Viewing Angle		Over 160 degrees
In / Out Terminals	Basic	DVI Input	DVI 24-pin x 1	Digital RGB : TMDS 1024 X 768/75 Hz (XGA)
		RGB Input	D-Sub 15-pin x1	RGB : 0.7V[p-p](75Ω), H/CS/V : TTL (2.2 kΩ), SOG : 1V[p-p](75Ω) 1024 X 768/75 Hz (XGA)
		RGB Output	D-Sub 15-pin x1	RGB : 0.7V[p-p](75Ω), H/CS/V : TTL (2.2 kΩ), SOG : 1V[p-p](75Ω) 1024 X 768 / 75 Hz (XGA)
		Audio Input	Ear Jack x 2	0.5V[rms] (L+R)
		Audio Output	Ear Jack x 1	0.5V[rms] (L+R)
		Speaker Output	Internal Speaker	10W(L) + 10W(R) [RMS] / 8Ω 2 Way 2 Speaker
			External Speaker	10W(L) + 10W(R) [RMS] / 8Ω 2 Way 6 Speaker System
		RS-232C	D-Sub 9-pin x 1	TXD/RXD
	Video Card (Optional)	Video Input	RCA-pin x 2	1V[p-p] (75Ω) NTSC/PAL/SECAM
		S-Video Input	Mini DIN 4-pin x2	Y : 1V[p-p] (75Ω), C : 0.286V[p-p] (75Ω)[NTSC] C: 0.3V[p-p] (75Ω)[PAL/SECAM] NTSC/PAL/SECAM
		Component Input	RCA-pin x 2	Y : 1V[p-p](75Ω), Pb/Cb : 0.7V[p-p](75Ω), Pr/Cr : 0.7V[p-p](75Ω) EDTV : 525i(480i) , 625i(576i) SDTV : 625p(576p), 525p(480p) HDTV : 750p(720p), 1125i(1035i,1080i)
		Video Output	RCA-pin x 1	1V[p-p] (75Ω)
		Audio Input	RCA-pin x 4	0.5V[rms] (L + R)
		Audio Output	RCA-pin x 1	0.5V[rms] (L + R + Sub-woofer)
	Tuner Card (Optional)	Antenna Input	F - Type x 1	Analog Air/Cable (75Ω) [Unbalanced] NTSC/PAL - M/N
General		Power Supply		AC 100V ~ 240V, 50/60Hz
		Power Consumption (Typical)		290W
		Dimensions (W x H x D)	Without Stand	1028 mm x 625 mm x 89.8 mm
			With Stand	1028 mm x 692.5 mm x 270 mm
		Weight	Without Stand	35 kg
			With Stand	40.5 kg
Environment Condition		Temperature	Operational	0 ~ 40 ˚C
			Storage	-5 ~ 50 ˚C
		Humidity	Operational	20 ~ 70% (Without condensation)
			Storage	20 ~ 75% (Without condensation)
		Pressure	Operational	800 ~ 1114 hPa (Altitude : 0 ~ 2,000 m)
			Storage	

◆ The specifications are subject to change without notice

Technical Specifications (continued)

External Speaker (Optional)

Item	Specifications
Dimensions (W x H x D)	113 mm x 75 mm x 627.5 m
Weight	5 kg (L + R)
Type	2 Way 6 Speaker System
Input	10 W (RMS)
Impedence	8 Ω
Output Sound Pressure	87 dB/W/M
Frequency Response	45 Hz ~ 20 KHz

◆ The specifications are subject to change without notice

Internal Speaker (Optional)

Item	Specifications
Type	2 Way 2 Speaker System
Input	10 W (RMS)
Impedence	8 Ω
Output Sound Pressure	88 dB/W/M
Frequency Response	140 Hz ~ 10 KHz

◆ The specifications are subject to change without notice

Accessories

Standard	Owner's Instructions, Remote Controller/AAABatteries, Antenna Cable, Power Cord, Speaker Cable
Optional	Foot Stand, Table-Top stand, Wall-Mount Bracket, Ceiling-Mount Bracket, Internal Speaker System, External Speaker System, Speaker Stand, Woofer Speaker System, DVI Cable, VGA(D-SUB) Cable, Audio Cable, Component Cable, RCA Video Cable, RCA Audio Cable, S-Video Cable, Speaker Extension Cable

◆ The specifications are subject to change without notice