SAMSUNG

PLASMA DISPLAY

Owner s Instructions

SPM4227

SAMSUNG ELECTRONICS

BN68-00326A-00(ENG)

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.

Thank You for Choosing Samsung

Thank you for choosing Samsung! Your new Samsung product represents the latest in television technology. We designed it with easy-to-use on-screen menus and closed captioning capabilities, making it one of the best products in its class. We are proud to offer you a product that will provide convenient, dependable service and enjoyment for years to come.

Important Safety Information

Always be careful when using your Monitor. 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 Monitor.
- Keep the safety and operating instructions for future reference.
- Heed all warnings on the Monitor and in the operating instructions.
- Follow all operating and use instructions.
- Unplug the Monitor 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 Monitor 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 Monitor on an unstable cart, stand, tripod, bracket, table, or floor where it can fall. A falling Monitor 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 Monitor. Follow the manufacturer's instructions when mounting the unit, and use a mounting accessory recommended by the manufacturer. Move the Monitor 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 Monitor. 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 Monitor on a bed, sofa, rug, or other similar surface. Do not place it near a radiator or heat register. If you place the Monitor on a rack or bookcase, ensure that there is adequate ventilation and that you've followed the manufacturer's instructions for mounting.
- Operate your Monitor 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 Monitor 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 Monitor 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 Monitor.

- Ground outdoor antennas. If an outside antenna or cable system is connected to the Monitor, 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 Monitor 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 Monitor has been exposed to rain or water
  - if the Monitor does not operate normally by following the operating instructions
  - if the Monitor has been dropped or the cabinet has been damaged
  - when the Monitor 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 Monitor 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 Monitor, ask the service technician to perform safety checks to determine that the Monitor is in a safe operating condition.

- The PDP can properly operate within the temperature range of 32~104˚F and humidity 80%.
  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 holding the speakers, it may result in a detachment of the PDP and cause any damage to the PDP and other personal injury.

FCC Information

User Instructions

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

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 .

Warning

This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
User must use shielded signal interface cables to maintain FCC compliance for the product.
Declaration of conformity for products marked with FCC Logo. 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 undesired operation.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive, Suite #290,
Irvine, CA 92612, U.S.A
Tel) 949-975-7310
Fax) 949-975-7328
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 110 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 230 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.

European Notice
Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022 : 1998 Class B
- EN55024 : 1998
- EN61000-3-2 : 1995
- EN61000-3-3 : 1995

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 Monitor) on the plasma monitor panel for more than several minutes as it can cause screen image retention. This image retention is also known as “screen burn”. To avoid such image retention, refer to page 28 of this manual to 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.

Altitude

The PDP will not operate normally at altitude above 6500 ft.

Warranty

Warranty Period: One year starting from the purchase of your Monitor.
Warranty does not cover any damage caused by image retention.

Table of Contents

Setup

Your New Plasma Display Panel 10
Remote Control Buttons 12
Turning the Monitor(PDP) On and Off 14

Connection (Connecting Speakers / Receiver)

Connecting Speakers 18
Connecting a VCR/Cable Box 19
Connecting a DVD 20
Connecting a Set-Top Box 21

Picture Control

Customizing the Picture 24
Using Automatic Picture Settings 25
Viewing the Picture-in-Picture 26
Changing the Screen Size 29
Freezing the Picture.....30

Sound Control

Customizing the Sound 32
Using Automatic Sound Settings 33
Using the Surround 34

Time Setting

Setting the Clock 36
Setting the Sleep Timer 37
Setting the Timers 38

Connecting PC and Operation

Connecting to a PC.....42
Adjusting the PC Screen 46
Changing the Position of the Image.....47
Changing the Size of the Image 48
Enlarging the Image (Zoom).....49
Moving the Zoom Picture 50
Picture Quality Adjustment 51
Information 54
Power Saver (PC mode only) 55

Function Description

Selecting a Menu Language.....58
Setting the Multi Control 59
Using the Key Lock 60
Setting up Your Remote Control 61

Appendix

Troubleshooting 64
Care and Maintenance 65
Specifications 66s

SAMSUNG

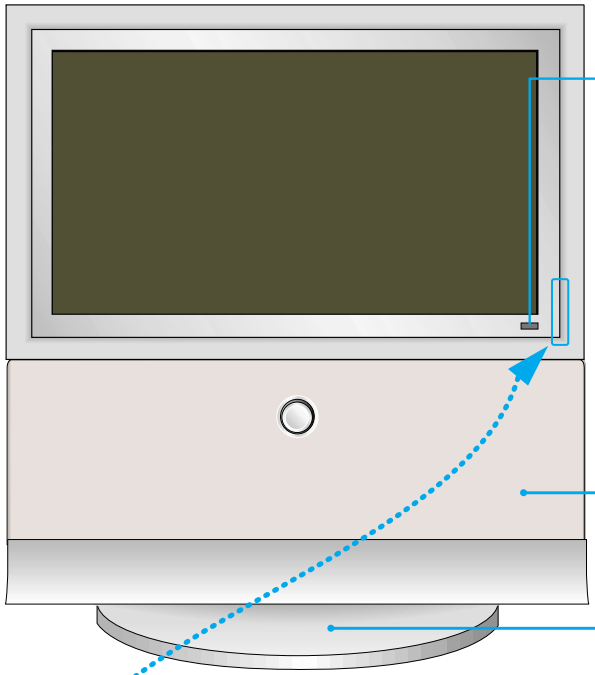
PLASMA DISPLAY PANEL

Setup

Your New Plasma Display Panel 10
Remote Control Buttons 12
Turning the Monitor(PDP) On and Off 14

Your New Plasma Display Panel

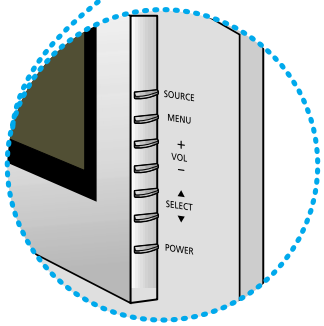
Front Panel



Remote Control Signal Receiver
Aim the remote control towards this spot on the Monitor.

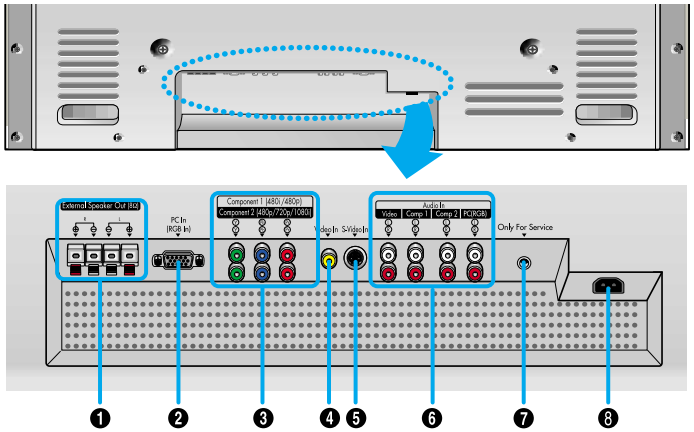
Speakers

Swivel Stand
This stand can turn left, right up to 25 degrees respectively. So you can adjust the set's angle while viewing.



- **SOURCE button**
  Press to display all of the available video sources (ie., Video, S-Video, Component1, Component2, PC).
- **MENU button**
  Displays the main on-screen menu.
- **VOL(+,-) button**
  Press to increase or decrease the volume. Also used to adjust items on the on-screen menu.
- **SELECT(▲,▼) button**
  Used to adjust items on the on-screen menu.
- **POWER button**
  Press to turn the PDP on and off.

Rear Panel



❶ External Speaker Out jacks
Connect external speakers.

❷ PC(RGB) Input jack (15pin)
Connect to the video output jack on your PC.

❸ Component Video Input jacks (Y / P_b / P_r)
Component 1 inputs are for 480i / 480p
Component 2 inputs are for 480p / 720p / 1080i.

❹ Video Input jack
Connect a video signal from external sources such as VCRs or DVD players.

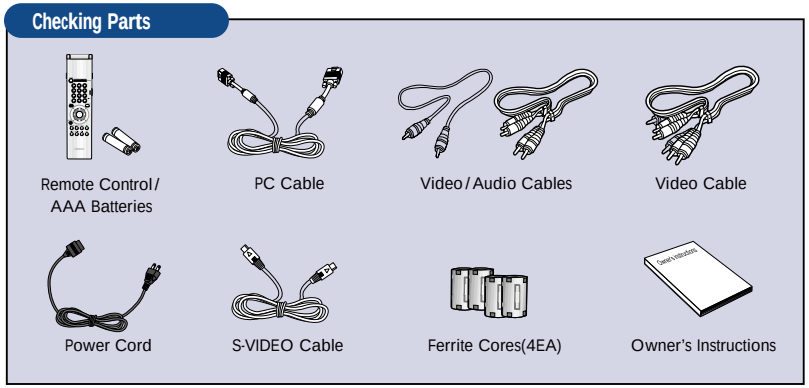
❺ S-Video Input jack
Connect a S-Video signal from an S-VHS VCR or DVD player.

❻ Audio Input (Video / Component1 / 2 / PC(RGB)) jacks
Connect a audio signal from external sources such as VCRs, PC or DVD players.

❼ Service Jack
Only for service.

❽ Power Input jack
Connect the supplied power cord.

Checking Parts



Remote Control Buttons

Remote Control

Flip the cover open in the arrow direction.

❶ **Power button**
Turns the PDP on and off.

❷ **Number buttons**

❸ **Display button**
Press to display information on the PDP screen.

❹ **Menu button**
Displays the main on-screen menu.

❺ **CH (Channel) and VOL (Volume) buttons**
Channel and Volume buttons are used for selecting menu items in menu mode.

❻ **Mute button**
Press to mute the PDP sound.

❼ **P.Mode button**
Adjust the PDP picture by selecting one of the preset factory settings (or select your personal, customized picture settings.)

❽ **Aspect button**
Press to change the screen size.

❾ **Mode button**
Selects a target device to be controlled by the Samsung remote control (ie., VCR, Cable, or DVD players).

❿ **Clock Display button**
Press to display clock on the PDP screen.

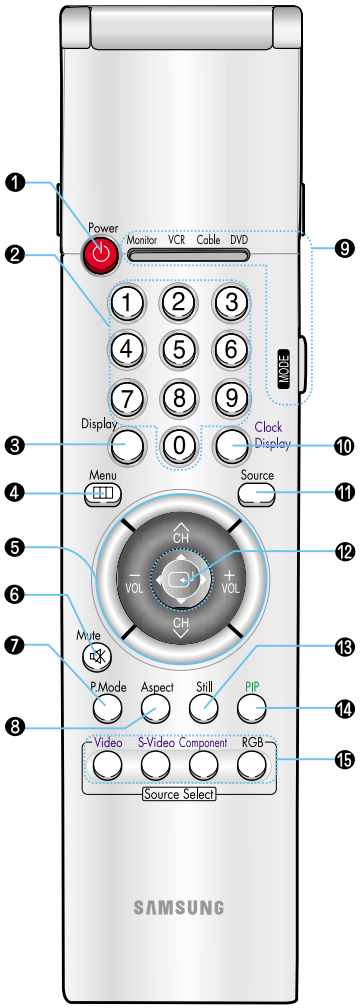
⓫ **Source button**
Press to display all of the available video sources (ie., Video, S-Video, Component1, Component2, PC(RGB)).

⓬ **Joystick button**
Use to highlight on-screen menu items and change menu values.

⓭ **Still button**
Press to pause the current screen.

⓮ **PIP button**
Activates picture in picture.

⓯ **Source selection buttons**
Press to directly select Video, S-Video, Component1, Component2 or PC(RGB).



⓰ **VCR control buttons**
Controls VCR tape functions: Stop, Rewind, Play/Pause, Fast Forward.

⓱ **SET button**
Used during setup of this remote control, so that it will work compatibly with other devices (VCR, cable box, DVD, etc.)

⓲ **Clock set button**
Press to set clock.

⓳ **PIP control buttons**
Source : Press to select one of the available signal sources for the PIP window.
S.Sel : Press to select the Audio (PIP or Main).
Locate : Press to move the PIP window to any on the screen.

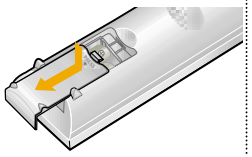
⓴ **PC control buttons**
Auto Adjust
Scaling
Zoom/Pan

㉑ **S.Mode button**
Adjust the PDP sound by selecting one of the preset factory settings (or select your personal, customized sound settings.)

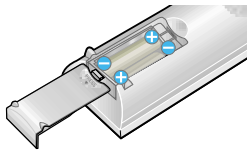
㉒ **Sleep button**
Press to select a preset time interval for automatic shutoff.

Installing the Batteries in Your Remote Control

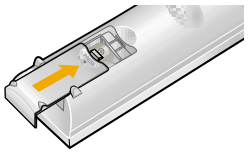
1 Slide the back cover to open the battery compartment of the remote control



2 Install two AAA size batteries. Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.



3 Slide the cover back into place.

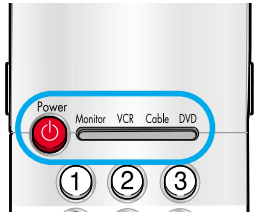


Remote Control Operation Range.
You can use your remote control within a distance of 23 feet and an angle of 30 degrees from the left and right sides of the remote control receiver of the monitor.

Turning the Monitor(PDP) On and Off

Turning the Monitor(PDP) On and Off

Press the Power button on the remote control.
The PDP will be turned on and you will be ready to use it's features.
You can also use the Power button on the front of the PDP.



Notes:

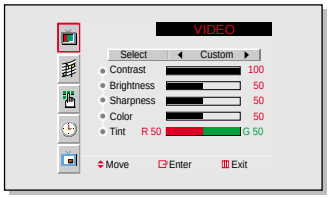
- If your Monitor isn't turned on when the power button is pressed: Press the MODE button to check if the Monitor mode has been chosen ( ).

Viewing the Menus and Displays

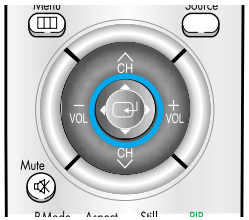
Your PDP has a simple, easy-to-use menu system that appears on the PDP screen. This system makes it convenient and fast to use features on the PDP. Your PDP also lets you display the status of many of your PDP's features.

Viewing the Menus

1 With the power on, press the Menu button on the remote control. The main menu appears on the screen. The Video menu is selected.

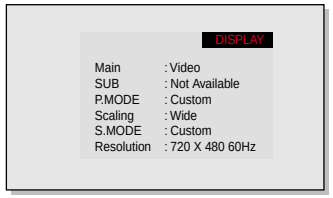


2 Use the joystick (up, down) button to move items in the menu. Use the joystick (left, right) button to display, change, or use the selected items.
Use the joystick ( ) button to enter items in the menu.
On screen menus disappear from the screen automatically after about thirty seconds, or you can press the Menu button on your remote control to exit the menu.



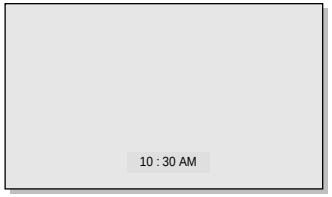
Displaying Status Information

Press the Display button on the remote control. The PDP will display the Screen size, Resolution, Current time, and screen mode.



Displaying Clock

Press the Clock Display button on the remote control.
The Current time will be displayed on the screen.



SAMSUNG

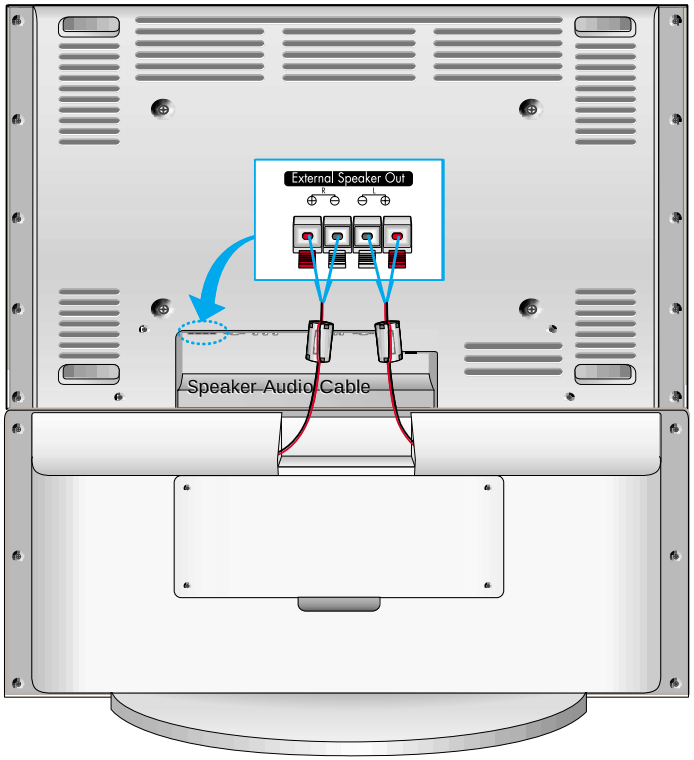
PLASMA DISPLAY PANEL

Connections

(Connecting Speakers / Receiver)

Connecting Speakers.....18
Connecting a VCR/Cable Box.....19
Connecting a DVD.....20
Connecting a Set-Top Box.....21

Connecting Speakers

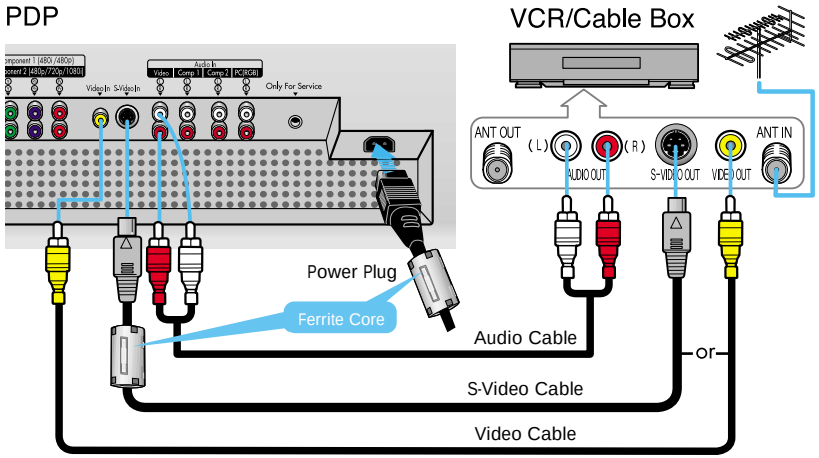


✶ External speakers MUST have a power handling capability of 7 watts minimum (impedance 8 ohm).

How to Connect

Connect the speaker audio cable to the external speaker output jack on the rear of the PDP, matching the "+" and "-" ends of the cable with the diagram on the PDP.

Connecting a VCR/Cable Box



How to Connect

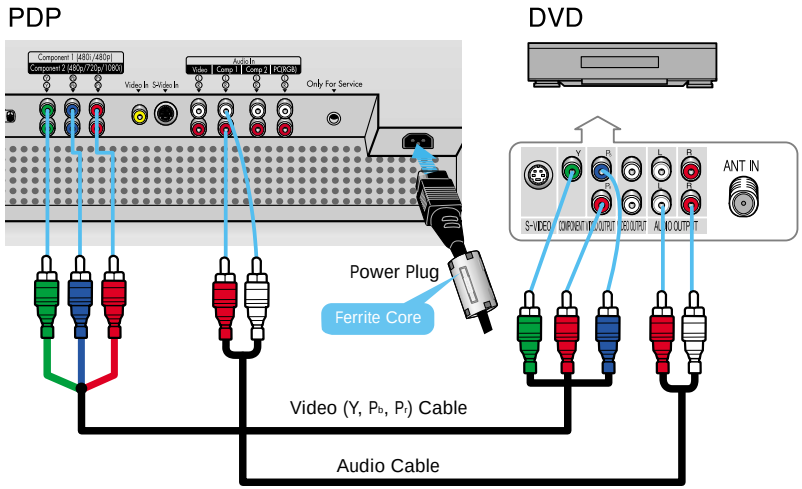
1 Connect Video / S-Video cable between the Video / S-Video Output jack on the VCR / Cable box and the Video Input jack on the PDP.
- For better video, use on S-Video cable.

2 Connect an Audio cable between the Audio Output jacks on the VCR / Cable box and the Audio Input jacks (Video) on the PDP.

Videotape Playback:

1. Turn on PDP and press the Video or S-Video(if S-Video jack is connected.) button on your remote control.
2. Turn on your VCR, insert a videotape and press the Play button.

Connecting a DVD (480i/480p)



How to Connect

1 Connect a Video cable between the DVD Output jacks on the DVD and the Component1 Video Input (Y,Pb,Pr) Input jacks on the PDP.

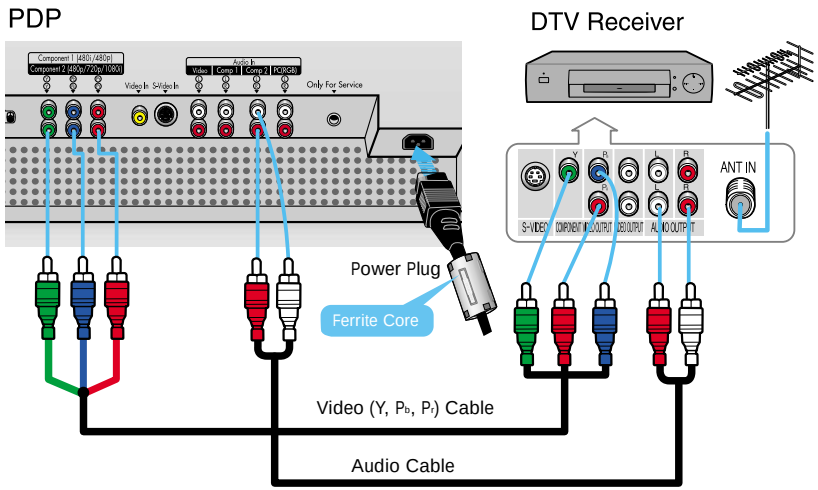
2 Connect an Audio cable between the Audio Output jacks on the DVD and the Audio Input jacks (Component 1) on the PDP.

Play to DVD:

1. Turn on PDP and press the Component button to select the Component1 mode.
2. Turn on your DVD, insert a DVD disc and press the Play button.

• For an explanation of Component video, see your DVD owner's instructions.

Connecting a Set-Top Box(480p/720p/1080i)



How to Connect

1 Connect a Video cable between the Set-Top Box (Y,Pb,Pr) Output jacks on the Set-Top Box and the Component 2 Video Input (Y,Pb,Pr) Input jacks on the PDP.

2 Connect an Audio cable between the Audio Output jacks on the Set-Top Box and the Audio Input jacks (Component 2) on the PDP.

To Watch DTV:

1. Turn on PDP and press the Component button to select the Component2 mode.
2. Turn on your DTV receiver.

• For an explanation of Component video, see your DTV receiver owner's instructions.

SAMSUNG

P L A S M A D I S P L A Y P A N E L

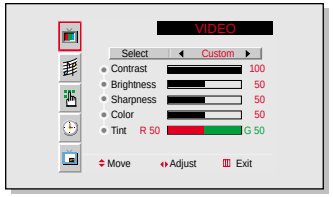
Picture Control

Customizing the Picture 24
Using Automatic Picture Settings 25
Viewing the Picture-in-Picture.....26
Changing the Screen Size 29
Freezing the Picture 30

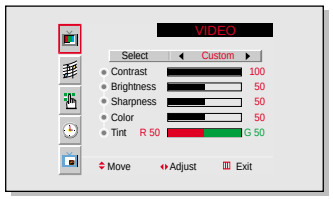
Customizing the Picture

You can use the on-screen menus to change the Brightness, Contrast, Sharpness, Color, and Tint settings of your PDP.

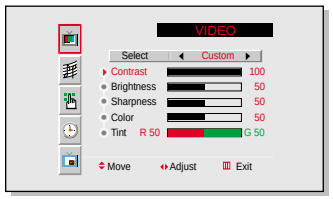
1 Press the Menu button, then press the joystick to enter.



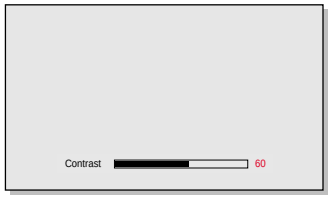
2 Move the joystick left or right to select “Custom”. You will also see the items “Contrast”, “Brightness”, “Sharpness”, “Color” and “Tint”.



3 Move the joystick up or down to select the item you wish to change.



4 Move the joystick left or right to change the value of the item.



5 Press the Menu button to exit.

Note

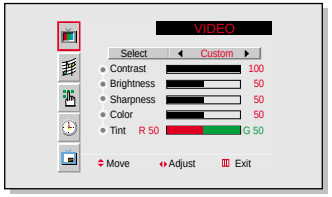
- In the PC mode, you can’t adjust the sharpness, color and tint.

Using Automatic Picture Settings

Your PDP has automatic picture settings that allow you to adjust the video display easily.

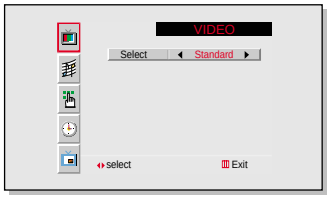
1 Press the Menu button, then press the joystick to enter.

> ! Quick way to access the picture setting: Just press “P.Mode” on the remote control.



2 Move the joystick left or right to select “Custom”, “Standard”, “Mild”, or “Dynamic” picture setting.

- You can select “High,” “Middle,” “Low,” or “Custom” in PC mode.



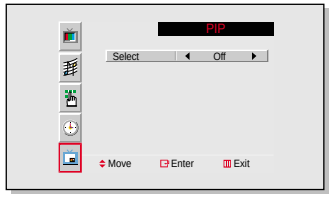
3 Press the Menu button to exit.

Viewing the Picture-in-Picture

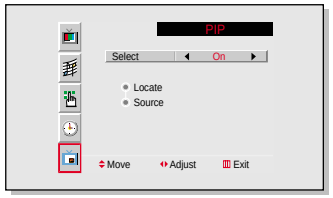
Selecting the PIP Screen

1 Press the Menu button. Move the joystick up or down to select “PIP”, then press the joystick to enter.

> Quick way to access the PIP: Just press “PIP” on the remote control.



2 Move the joystick left or right to select “On”.
The PIP image will appear in the corner of the screen.



3 Press the Menu button to exit.

Note

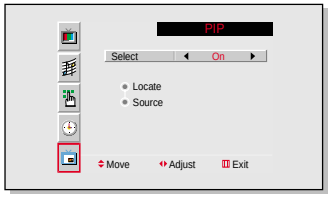
- The PIP function operates in PC mode or Component2 mode only.

Selecting an External Signal

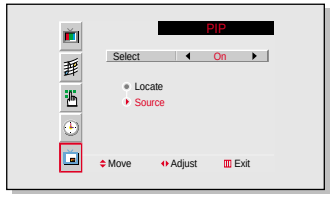
You can use PIP to view a signal from an external source, such as a VCR.

1 Press the Menu button. Move the joystick up or down to select “PIP”, then press the joystick to enter.

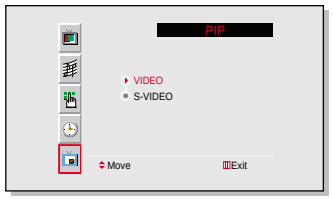
> Quick way to access the PIP source: Just press “Source” in the cover on the remote control.



2 Move the joystick up or down to select “Source”, then move the joystick left or right to enter.



3 Move the joystick up or down to select an external signal, then move the joystick left or right.

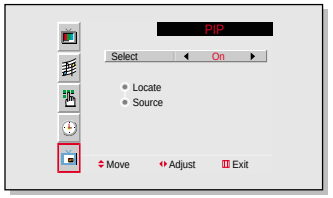


4 Press the Menu button to exit.

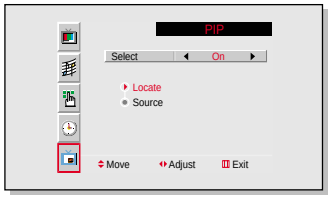
Changing the Location of the PIP Image

1 Press the Menu button. Move the joystick up or down to select “PIP”, then press the joystick to enter.

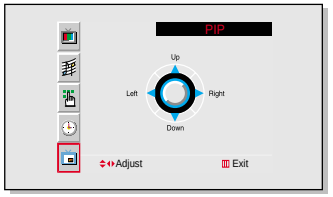
> Quick way to access the PIP location: Just press “Locate” in the cover on the remote control.



2 Move the joystick up or down to select “Locate”, then move the joystick left or right to enter.



3 Move the joystick to move the PIP screen where you want.



4 Press the Menu button to exit.

Changing the Screen Size

(When entering the Video mode)

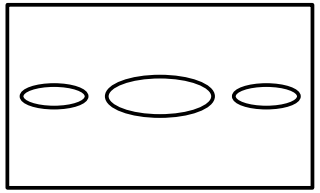
When you press the Aspect button on the remote control, the PDP’s screen mode should appear in sequence. The screen displays in this order: Wide, Panorama, Zoom1, Zoom2, Stretch, 4:3.

Note

- If you watch a still image or the 4:3 mode for a long time(over 2 hours), an image may be burned onto the screen, view the monitor in wide or panorama mode as much as possible.

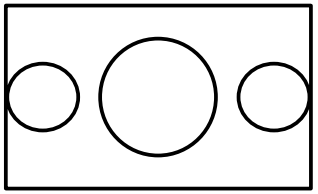
Wide

Sets the picture to 16:9 wide mode.



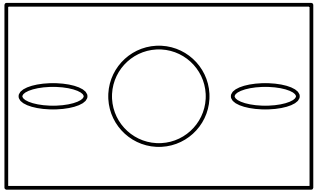
Zoom2

Magnifies the size of the picture more than Zoom1.



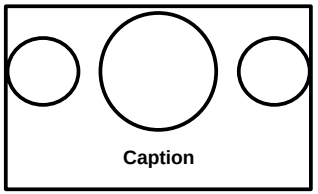
Panorama

Converts regular 4:3 aspect ratio screen to widescreen.



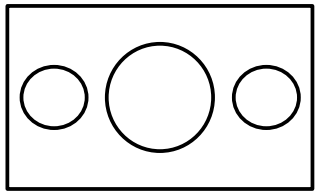
Stretch

Moves the Zoom2 picture up a little to fully show the bottom. Use this picture size if you want to view the Zoom2 picture along with captions when watching movies.



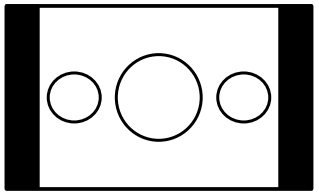
Zoom1

Magnifies the size of the picture vertically on screen.



4:3

Sets the picture to 4:3 normal mode. This is a standard PDP screen size.



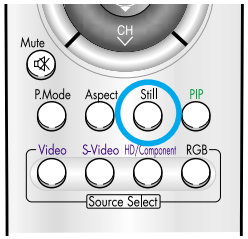
Note

- In VIDEO, S-VIDEO and Component1(480i) modes, all screen modes can be selected. (Wide → Panorama → Zoom1 → Zoom2 → Stretch → 4:3).

Freezing the Picture

Still

Press the Still button on the remote control to freeze a moving picture. Press again to cancel.



SAMSUNG

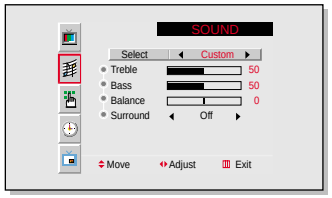
P L A S M A D I S P L A Y P A N E L

Sound Control

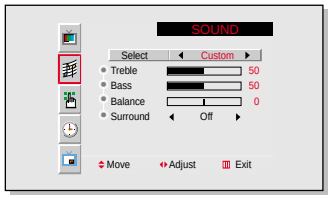
Customizing the Sound 32
Using Automatic Sound Settings 33
Using the Surround 34

Customizing the Sound

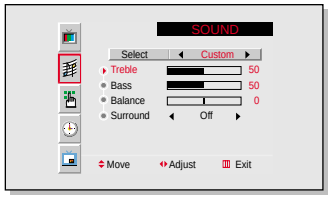
1 Press the Menu button. Move the joystick up or down to select "SOUND", then press the joystick to enter.



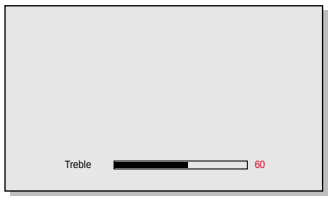
2 Move the joystick left or right to select "Custom". You will also see the items "Treble", "Bass", "Balance" and "Surround".



3 Move the joystick up or down to select the item you wish to change.



4 Move the joystick left or right to change the value of the item.

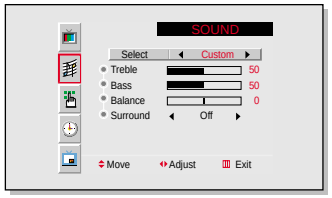


5 Press the Menu button to exit.

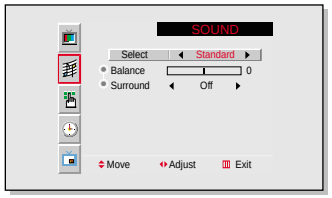
Using Automatic Sound Settings

1 Press the Menu button. Move the joystick up or down to select "SOUND", then press the joystick to enter.

> Quick way to access the sound setting: Just press "S.Mode" in the cover on the remote control.



2 Move the joystick left or right to select "Custom", "Standard", "Music", "Movie" or "Speech" sound setting.



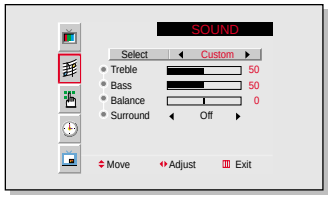
3 Press the Menu button to exit.

Note

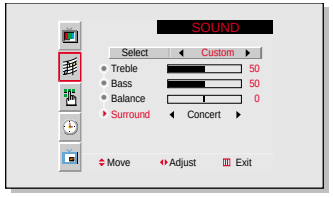
- The Automatic Sound Setting function doesn't operate in PC mode.

Using the Surround

1 Press the Menu button. Move the joystick up or down to select "SOUND", then press the joystick to enter.



2 Move the joystick up or down to select "Surround", then move the joystick left or right to select "Con -cert", "Hall" or "Stadium".



3 Press the Menu button to exit.

SAMSUNG

P L A S M A D I S P L A Y P A N E L

Time Setting

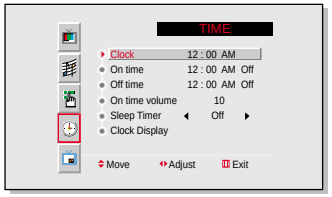
Setting the Clock 36
Setting the Sleep Timer 37
Setting the Timers 38

Setting the Clock

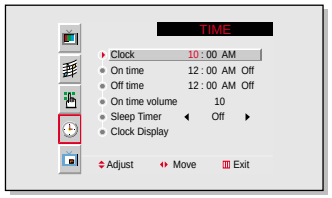
This PDP has a built-in clock that will appear on screen when you press the Clock Display button on the remote control.

1 Press the Menu button. Move the joystick up or down to select “TIME”, then press the joystick to enter.

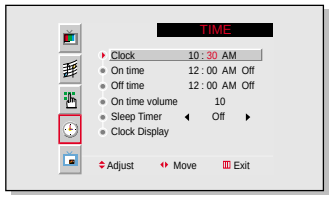
> Quick way to access the Clock Set : Just press “Clock Set” in the cover on the remote control.



2 Move the joystick left or right to select hour, then move the joystick up or down to select the correct hour.



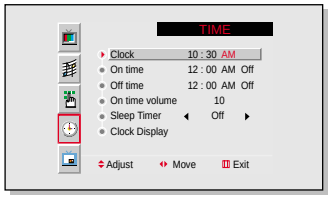
3 Move the joystick left or right to select minute, then move the joystick up or down to select the correct minute.



4 Move the joystick left or right to select “AM”, then move the joystick up or down to select “AM” or “PM”.

- If you want to display the Clock on screen, move the joystick down to select “Clock Display”, then move the joystick right.

> Quick way to access the clock display: Just press “Clock Display” on the remote control.



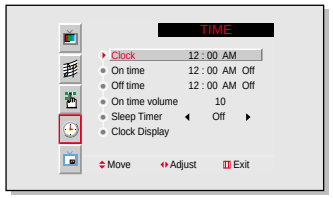
5 Press the Menu button to exit.

Setting the Sleep Timer

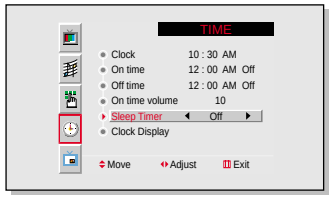
You can set your PDP to automatically turn off after a preset interval.

1 Press the Menu button. Move the joystick up or down to select “TIME”, then press the joystick to enter.

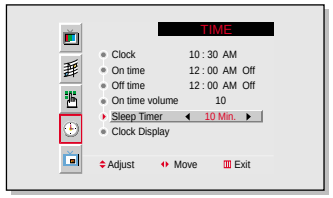
> Quick way to access the sleep timer: Just press “Sleep” in the cover on the remote control.



2 Move the joystick up or down to select “Sleep Timer”.



3 Move the joystick left or right to select the time interval for the PDP to stay on. The interval ranges from 10 to 360 minutes.



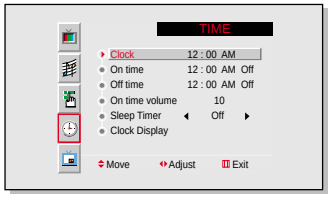
4 Press the Menu button to exit.

Setting the Timers

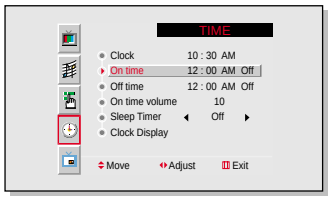
This PDP can be set to turn on or off automatically at specific times that you choose. Before using the timers, you must set the PDP's clock, as described previously.

Setting the On / Off Timer

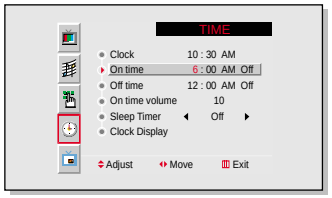
1 Press the Menu button. Move the joystick up or down to select "TIME", then press the joystick to enter.



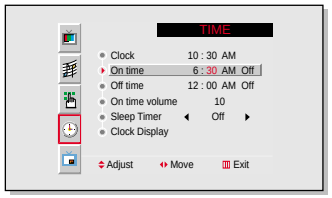
2 Move the joystick up or down to select "On time", then move the joystick left or right.



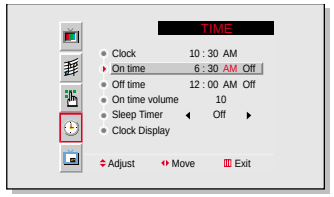
3 Move the joystick left or right to select hour, then move the joystick up or down to select the correct hour.



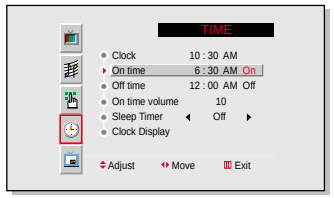
4 Move the joystick left or right to select minute, then move the joystick up or down to select the correct minute.



5 Move the joystick left or right to select "AM", then move the joystick up or down to select "AM" or "PM".

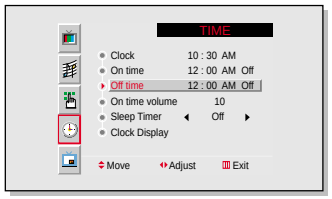


6 Move the joystick left or right to select "Off", then move the joystick up or down to select "On".



7 If you want to set the Off Time, move the joystick down to select "Off Time".
Set the "Off Time" just as you set "On Time".

- If you want to set the volume level when the PDP turns on, move the joystick down to select "On time volume". Move the joystick right to set the volume level you want when the PDP turns on.



8 Press the Menu button to exit.

SAMSUNG

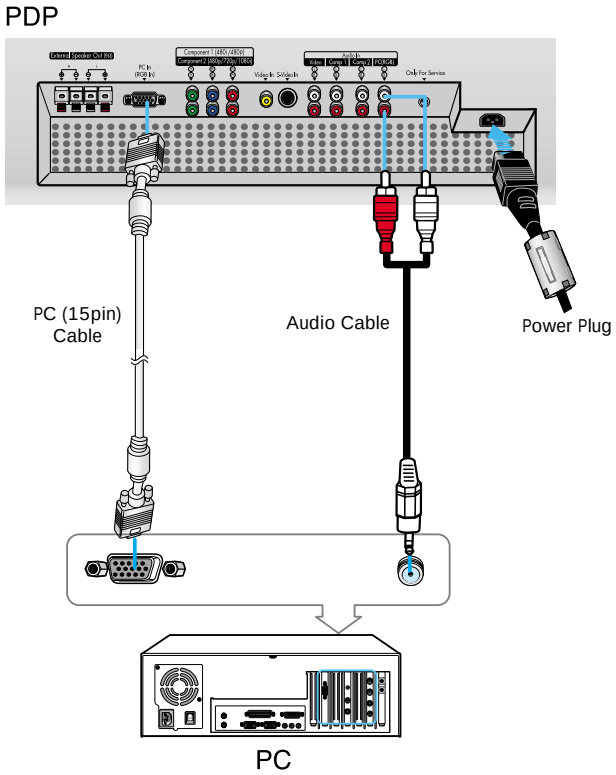
PLASMA DISPLAY PANEL

Connecting PC and Operation PC

Connecting to a PC 42
Adjusting the PC Screen 46
Changing the Position of the Image 47
Changing the Size of the Image 48
Enlarging the Image (Zoom) 49
Moving the Zoom Picture 50
Picture Quality Adjustment 51
Information 54
Power Saver (PC mode only).....55

PC Connecting to a PC

This PDP is not compatible with Macintosh PC.



Connecting a PC to the PDP

1 Connect a PC (15pin) cable between the Video Output jack on the PC and the PC Input jack (15p D-SUB) on the PDP.
- For an explanation of Component video, see your PC owner's instructions.

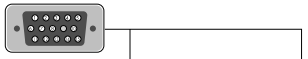
2 Connect a Audio cable between the Audio Output jack on the PC and the Audio Input (PC) on the PDP.

To watch the PC screen:

1. Turn on PDP and press the RGB button on the remote to select the PC mode.
2. Turn on PC and check for PC system requirements.
   (Refer to pages 48 and 49 for PC system requirements.)
3. Adjust the PC screen. (Refer to page 50.)

Pin Configuration

- 15Pin Signal Cable (based on protruded pin)



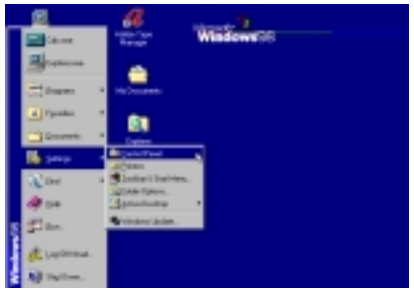
Pin No.	PC IN	PC OUT
1	Red (R)	Red (R)
2	Green (G)	Green (G)
3	Blue (B)	Blue (B)
4	Grounding	Grounding
5	Grounding (DDC)	Grounding (DDC)
6	Red (R) Grounding	Red (R) Grounding
7	Green (G) Grounding	Green (G) Grounding
8	Blue (B) Grounding	Blue (B) Grounding
9	Reserved	Reserved
10	Sync Grounding	Sync Grounding
11	Grounding	Grounding
12	Data (DDC)	Data (DDC)
13	Horizontal sync.	Horizontal sync.
14	Vertical sync.	Vertical sync.
15	Clock (DDC)	Clock (DDC)

Setting up Your Monitor (Plug and Play)

Our adoption of the new VESA® Plug and Play solution eliminates complicated and time consuming setup. It allows you to install your monitor in a Plug and Play compatible system, without the usual setup hassles and confusion. Your PC system can easily identify and configure itself for use with your display. This monitor automatically tells the PC system its Extended Display Identification data (EDID) using Display Data Channel (DDC) protocols.

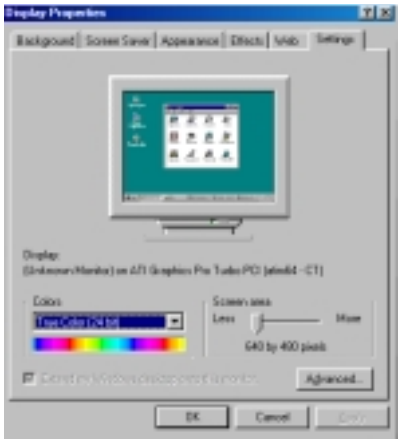
How to Set up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below. However, 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 Samsung 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 PDP-PC interface are “resolution” and “colors.” The correct settings for these two variables are:

- Size (sometimes called “resolution”): 640 x 480 pixels.
- Color: “24-bit” color (might also be expressed as “16 million colors”)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” or “60 Hz.” Otherwise, just click “OK” and exit the dialog box.

Continued…

Notes:

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:

Video signal	Dot X Line	Vertical Frequency (Hz)	Horizontal Frequency (KHz)	Vertical polarity	Horizontal polarity
IBM PC / AT Compatible	640 X 350	70.086	31.469	N	P
		85.080	37.861	N	P
	640 X 400	85.080	37.861	P	N
	720 X 400	70.087	31.469	P	N
		85.039	37.927	P	N
	640 X 480	59.940	31.469	N	N
		72.809	37.861	N	N
		75.000	37.500	N	N
		85.008	43.269	N	N
	800 X 600	56.250	35.156	N/P	N/P
		60.317	37.879	P	P
		72.188	48.077	P	P
		75.000	46.875	P	P
		85.061	53.674	P	P
	1024 X 768	60.004	48.363	N	N
		70.069	56.476	N	N
		75.029	60.023	P	P
		84.997	68.677	P	P

- The interlace mode is not supported.
- The PDP operates abnormally if a non-standard video format is selected.

Notes:

- When this PDP is used as a PC display, 24-bit color is supported (over 16 million colors).
- Depending on the manufacturer, your PC display screen might appear different. (and depending on your particular version of Windows).
  Check your PC instruction book for information about connecting your PC to a PDP.
- 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 Source button to enter the VIDEO mode. Also, make sure that the PC is connected.
- Connect only a PC monitor to the monitor output port while viewing the PC screen. (Otherwise, random signals might appear).

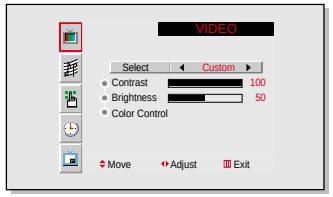
PC Adjusting the PC Screen

Adjusting the R.G.B

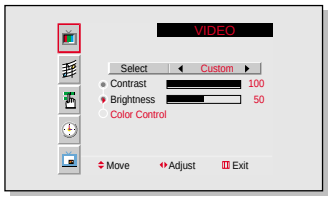
Preset:

- Press the RGB button to select the PC mode.

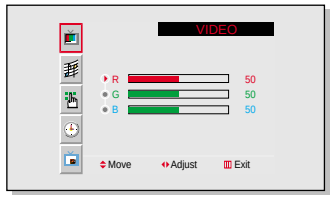
1 Press the Menu button, then press the joystick to enter.



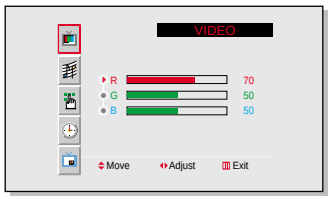
2 Move the joystick up or down to select "Color Control", then move the joystick left or right to enter.



3 Move the joystick up or down to select the item you want to change.



4 Move the joystick right or left to change the value of the item, using the on-screen gauge as your guide.



5 Press the Menu button to exit.

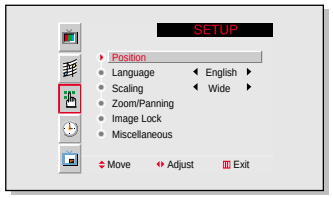
PC Changing the Position of the Image

After connecting the PDP to your PC, adjust the position of screen if it is not well-aligned.

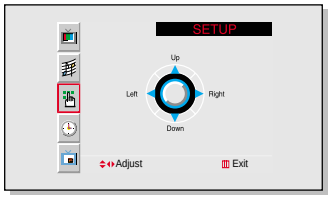
Preset:

- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select "SETUP", then press the joystick to enter.



2 Move the joystick left or right to select "Position", then adjust the position of screen by using the joystick button.



3 Press the Menu button to exit.

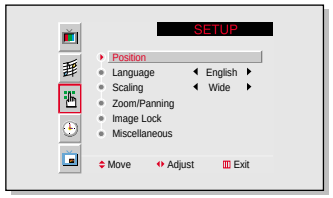
PC Changing the Size of the Image

Preset:

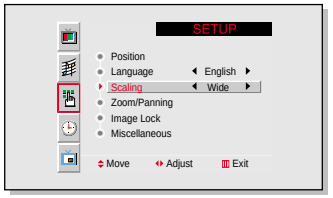
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

> Quick way to access the Size: Just press “Scaling” in the cover on the remote control.



2 Move the joystick up or down to select “Scaling”, then move the joystick left or right to select “Wide” or “4:3”.



3 Press the Menu button to exit.

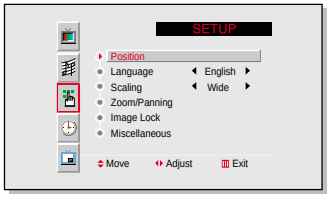
PC Enlarging the Image (Zoom)

Preset:

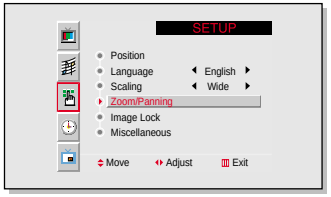
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

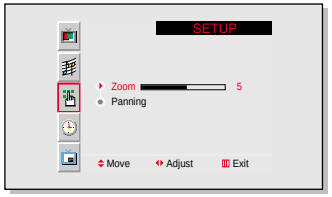
> Quick way to access the Zoom: Just press “Zoom/Pan” in the cover on the remote control.



2 Move the joystick up or down to select “Zoom/Panning”, then move the joystick left or right to enter.



3 Move the joystick left or right to enlarge the image.
- The picture can be expanded 0 to 10 in Zoom mode.



4 Press the Menu button to exit.

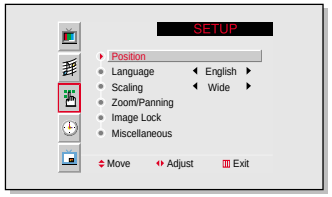
PC Moving the Zoom Picture

Preset:

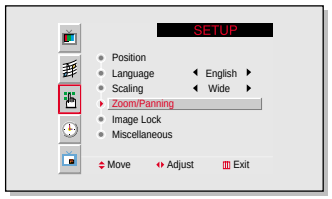
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

> Quick way to access the Panning : Just press “Zoom/Pan” in the cover on the remote control.

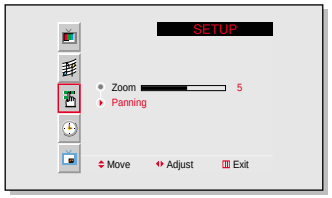


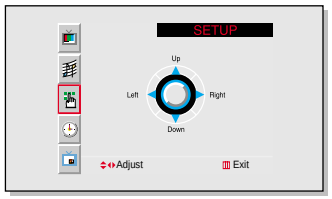
2 Move the joystick up or down to select “Zoom/Panning”, then move the joystick left or right to enter.



3 Move the joystick up or down to select “Panning”, then move the joystick left or right to enter.
Adjust the position of screen by using the joystick button.

- The Panning feature operates only when the picture is in Zoom mode.





4 Press the Menu button to exit.

PC Picture Quality Adjustment

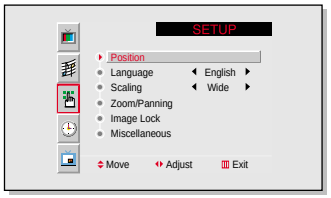
Picture Automatic Adjustment On/Off

Preset:

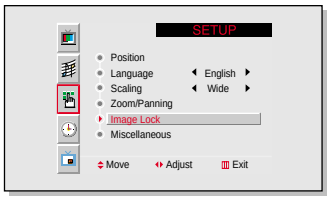
- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

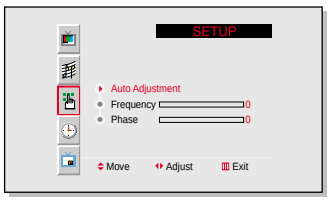
> Quick way to access the Auto Adjust: Just press “Auto Adjust.” in the cover on the remote control.



2 Move the joystick up or down to select “Image Lock”, then move the joystick left or right to enter.



3 Move the joystick up or down to select “Auto Adjust”, then move the joystick left or right.
The message “Auto in progress” appears on the screen and the picture adjustments are automatically activated.



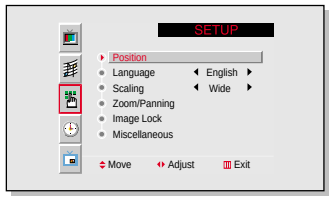
4 Press the Menu button to exit.

Frequency Adjustment

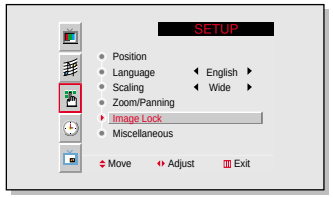
Preset:

- Press the RGB button to select the PC mode.

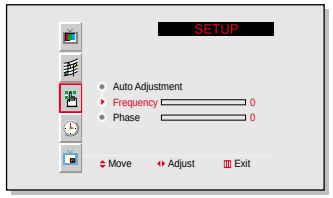
1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

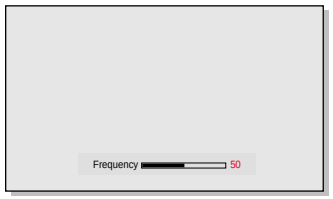


2 Move the joystick up or down to select “Image Lock”, then move the joystick left or right to enter.



3 Remove picture noise (vertical stripes) on the screen by moving the joystick left or right.
(If frequency is not set properly, vertical stripes will appear on the screen.)





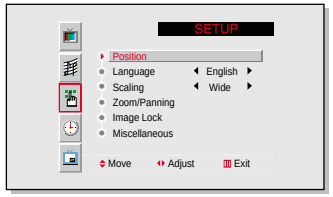
4 Press the Menu button to exit.

Fine Tuning (Phase)

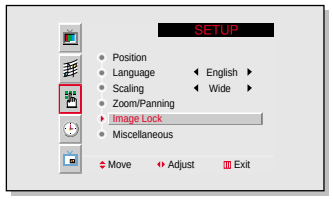
Preset:

- Press the RGB button to select the PC mode.

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

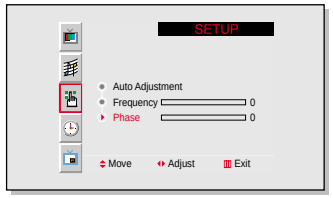


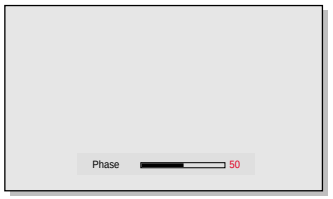
2 Move the joystick up or down to select “Image Lock”, then move the joystick left or right to enter.



3 Move the joystick up or down to select “Phase”.

Remove picture noise (vertical stripes) on the screen by moving the joystick left or right.
(If phase is not set properly, the picture may be blurry.)





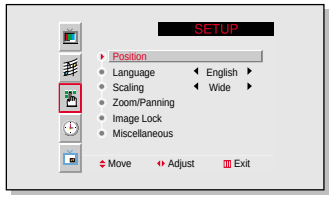
4 Press the Menu button to exit.

PC Information

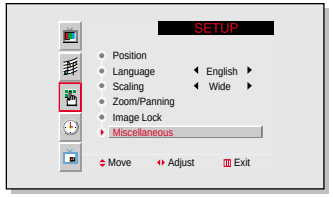
Preset:

- Press the RGB button to select the PC mode.

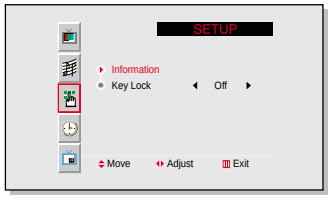
1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.

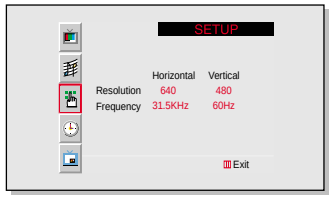


2 Move the joystick up or down to select “Miscellaneous”, then move the joystick left or right to enter.



3 Move the joystick up or down to select “Information”, then move the joystick left or right to enter.





4 Press the Menu button to exit.

PC Power Saver (PC mode only)

This monitor has a built-in power management system called Power Saver. This power management system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. This power management system operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature. See the table below for details.

Table 1. Power-saving modes

State	Normal Operation	Power-saving Function Mode		
		Standby Mode	Suspend Mode Position A1	Power-off Mode Position A2
Horizontal Sync	Active	Inactive	Active	Inactive
Vertical Sync	Active	Active	Inactive	Inactive
Video	Active	Blanked	Blanked	Blanked
Power Indicator	Green	Red Blinking (1 sec Interval)	Red Blinking (1 sec Interval)	Red Blinking (1 sec Interval)

Notes:

- This monitor automatically returns to normal operation when horizontal and vertical sync return.
- This occurs when moving the computer’s mouse or pressing a key on the keyboard.
- For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

SAMSUNG

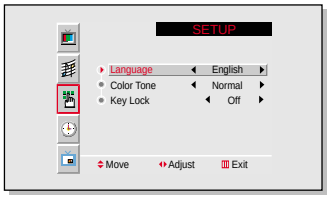
PLASMA DISPLAY PANEL

Function Description +α

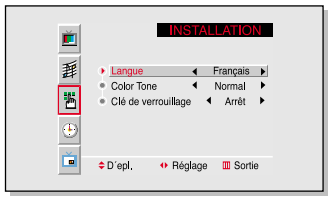
Selecting a Menu Language 58
Setting the Multi Control 59
Using the Key Lock 60
Setting up Your Remote Control 61

+α Selecting a Menu Language

1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.



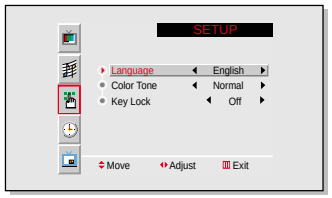
2 Move the joystick left or right to select the appropriate language: English, Spanish, or French.



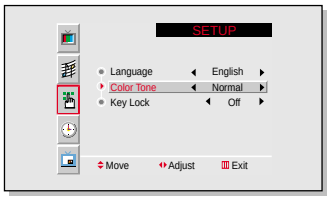
3 Press the Menu button to exit.

+α Setting the Color Tone

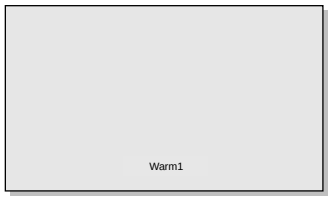
1 Press the Menu button. Move the joystick up or down to select “SETUP”, then press the joystick to enter.



2 Move the joystick up or down to select “Color Tone”.



3 Move the joystick left or right to select the Color Tone : Normal, Warm1, Warm2, Cool1, Cool2.



4 Press the Menu button to exit.

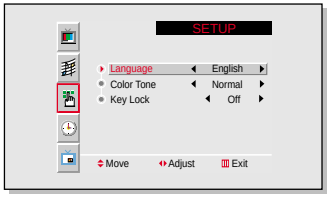
Note

- In the PC mode, you can’t adjust the Color Tone.

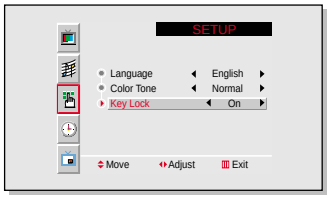
+α Using the Key Lock

When Key Lock is set to ON, the buttons (SOURCE, MENU, VOLUME, SELECT, MUTE, POWER) on the front of the PDP will not operate. However, these buttons will operate when setting Key Lock OFF.

1 Press the Menu button. Move the joystick up or down to select "SETUP", then press the joystick to enter.



2 Move the joystick up or down to select "Key Lock", then move the joystick left or right to select "On" or "Off".



3 Press the Menu button to exit.

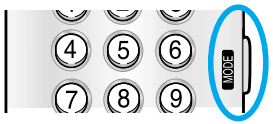
+α Setting up Your Remote Control

This PDP's remote control can operate almost any VCR, cable box, or DVD. After it has been set up properly, your remote control can operate in four different modes :Monitor, VCR, Cable, or DVD. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.

Note:The remote control may not be compatible with all DVD Players, VCRs, Cable boxes.

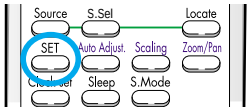
Setting Up the Remote to Operate Your VCR, Cable box, or DVD players

1 Turn off your VCR. (or Cable box, DVD player.)

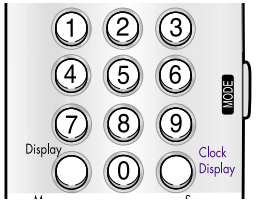


2 Press the MODE button and make sure that the VCR (or Cable box, DVD) LED is illuminated.

3 Press the Set button on your PDP's remote control.



4 Using the number buttons on your remote control, enter three digits of the VCR (or Cable box, DVD) code listed on page 64 of this manual for your brand of VCR (or Cable box, DVD player). Make sure you enter three digits of the code, even if the first digit is a "0".
(If more than one code is listed, try the first one.)



5 Press the Power button on the remote control.
Your VCR (or Cable box, DVD player) should turn on if your remote is set up correctly. If your VCR (or Cable box, DVD player) does not turn on after set up, repeat steps 2, 3, and 4, but try one of the other codes listed for your brand of VCR (or Cable box, DVD player).
If no other codes are listed, try each code, 000 through 089 (or Cable box: 0000 through 077, DVD player: 000 through 008).

Notes

- When your remote control is in "VCR" mode, the VCR control buttons (Stop, REW, Play/Pause, FF) still operate your VCR.
- When your remote control is in "Cable box" or "DVD" mode, the VCR control buttons (Stop, REW, Play/Pause, FF) still operate your VCR.

Remote Control Codes

VCR Codes

Admiral	006, 079	KLH	073	RCA	000, 005, 007, 008, 028, 035, 037, 054, 069
Aiwa	015	LG	009, 014, 046, 060	Samsung	007, 013, 022, 032, 042, 077
Akai	017, 022, 023, 027, 030	Lloyd	015	Sansui	016
Audio Dynamics	014, 016	Logik	031	Sanyo	002, 012
Bell & Howell	002	LXI	015	Scott	013, 041, 049, 068
Broksonic	010	Magnavox	008, 029, 053, 056	Sears	002, 005, 009, 012, 018, 019, 035, 043, 048
Candle	007, 009, 013, 045, 046, 052	Marantz	002, 008, 014, 016, 029, 030, 046, 061	Sharp	006, 027, 039, 045
Cannon	008, 053	Marta	009	Shintom	017, 026, 031, 055
Citizen	007, 009, 013, 045, 046, 052	MEI	008	Signature	015
Colortyme	014	Memorex	008, 009, 012, 015	Sony	017, 026, 038
Craig	007, 012	MGA	027	Sylvania	008, 015, 029, 053, 056
Curtis-Mathes	000, 007, 008, 014, 015, 046, 053, 064, 067	Midland	032	Symphonic	015
Daewoo	013, 045, 076	Minota	005, 035	Tandy	002, 015
DBX	014, 016	Mitsubishi	005, 027, 035, 040	Tashiko	009
Dimensia	000	Montgomery ward	006	Tatung	030
Dynatech	015	MTC	007, 015	Teac	015, 030, 069
Electrohome	027	Multitech	007, 015, 031, 032	Technics	008
Emerson	008, 009, 010, 013, 015, 020, 023, 027, 034, 041, 042, 047, 049, 057, 062, 065, 067, 068, 070	NEC	002, 014, 016, 030, 046, 061, 064	Ternika	008, 009, 015, 021
Fisher	002, 012, 018, 019, 043, 048, 058	Optimus	006	TMK	067
Funai	015	Panasonic	008, 053, 075, 077	Toshiba	005, 013, 019, 048, 049
GE	000, 007, 008, 032, 053	Pentax	005, 035	Totevision	007, 009
Go Video	007	Pentex Reserch+	046	Unitech	007
Harman Kardon	014	Philco	008, 029, 053, 056	Vector Research	014, 016
Hitachi	005, 015, 035, 036	Philips	008, 029	Victor	016
Instant Replay	008	Pioneer	005, 016, 033, 050	Video Concepts	014, 016
JC Penney	002, 005, 007, 008, 014, 016, 030, 035, 051, 053	Portland	044, 045, 052	Videosonic	007
JCL	008, 002, 014, 016, 030, 046	ProScan	000	Wards	005, 006, 007, 008, 009, 012, 013, 015, 027, 031, 035
JVC	002, 014, 088, 089	Quartz	002	Yamaha	002, 014, 016, 030, 046
Kenwood	002, 014, 016, 030, 046	Quasar	008, 053	Zenith	011, 017, 026, 079
		Radio Shack/Realist	002, 006, 008, 009, 012, 015, 019, 027, 045, 053		

Cable Box Codes

Anvision	007, 008	NSC	009	Signature	046
Cablestar	007, 008	Oak	016, 038	Sprucer	027
Eagle	007, 008	Osk Sigma	016	Starcom	046
Eastern Int.	002	Panasonic	003, 027, 039, 061, 073, 074	Stargate 2000	058
General Instrument	046	Philips	007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041	Sylvania	011, 059
GI	004, 005, 015, 023, 024, 025, 030, 036, 067, 068, 069	Pioneer	018, 020, 044, 074, 077	Texscan	011, 059
Hamlin	003, 012, 013, 034, 048	Randtek	007, 008	Tocom	017, 021, 049, 050, 055, 073
Hitachi	037, 043, 046	RCA	000, 027, 066	Unika	031, 032, 041
Jerroid	004, 005, 015, 023, 024, 025, 030, 036, 046, 062, 065	Regal	003, 012, 013	Universal	051, 052
Macom	037, 043	Regency	002, 033	Viewster	007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041
Magnavox	007, 008, 019, 021, 026, 028, 029, 032, 033, 040, 041	SA	070, 071, 072	Warner Amex	044
		Samsung	044, 003, 022, 063, 064	Zenith	014, 042, 057, 061, 075, 076

DVD Codes

Philips	001
Proscan	002
RCA	002
Toshiba	003
Panasonic	004
Sony	008
Samsung	000

SAMSUNG

PLASMA DISPLAY PANEL

Appendix

Troubleshooting.....64
Care and Maintenance.....65
Specifications.....66

Troubleshooting

Before you call a service technician, please scan this list of problems and possible solutions. It may save you time and money.

Problem	Possible Solution
Poor picture.	Check all wire connections.
The power indicator is blinking.	The monitor is using its power management system. Check the power management utility on your computer.
Your Remote control does not operate the monitor.	Press the “Mode” button to put your remote control in the “Monitor” mode.
The monitor won’t turn on.	Make sure the wall outlet is working.
There is no screen image.	Check to see that both the monitor and the source are plugged in and turned on.
The image is too light or too dark.	Adjust the Brightness or Contrast settings.
The image is too large or too small.	Adjust the Size settings.
The message "Check Temp" blinks on the screen and then the picture switches OFF.	The PDP is overheated. Power off the PDP and let it cool for a while.

Care and Maintenance

With proper care, your PDP will give you many years of service. Please follow these guidelines to get the maximum performance from your PDP.

Identifying Problems

- Do not put the PDP near extremely hot, cold, humid or dusty places.
- Do not put the PDP near appliances that create magnetic fields.
- Keep the ventilation openings clear.
- Do not place the PDP on a rough and slanted surface, such as cloth or paper.

Liquids

- Do not place liquids near or on the PDP.

Cabinet

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

Temperature

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

Specifications

Exterior design and product specifications are subject to change without prior notice to improve the performance of this product.

This PDP applies to Class B digital device.
(Note: Class B system is for home use.)
This PDP has been registered for residential use in terms of EMI. So it can be used in all areas as well as residential areas.

Model		SPM4227
Dimensions	Display	1153 (W) X 78 (D) X 759 (H) mm ; 43.39 (W) X 3.07 (D) X 29.88(H) inches
	Stand	1153 (W) X 160 (D) X 530.6 (H) mm ; 45.39 (W) X 6.3 (D) X 20.39 (H) inches
	Remote Control	54 (W) X 31.5 (D) X 220 (H) mm ; 2.13 (W) X 1.24 (D) X 8.66 (H) inches
Weight	Display	35kg ; 77316lbs
	Stand	30.2kg ; 66.58lbs
	Remote Control	150g (including batteries) ; 0.33lbs
Voltage		100-240V~, 50/60Hz, 4A
Power Consumption		300 Watts
Number of Pixels		852(H) x 480(V)
Screen Size		106 Cm/42 inches
AUDIO input		VIDEO / S-VIDEO COMPONENT 1 COMPONENT 2 PC (RGB)
AUDIO output		7W + 7W (8 Ω)
VIDEO input		VIDEO S-VIDEO COMPONENT 1 - 480i / 480p COMPONENT 2 - 480p / 720p / 1080i RGB : D-SUB 15P

Memo