



Progressive Wide Plasma Display Operating Instructions

Model No.





Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

English



WARNING: To reduce the risk of electric shock, do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

WARNING: To prevent damage which may result in fire or shock hazard, do not expose this apparatus to rain or moisture.

Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

- **WARNING:** 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
 - 2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.

Important Safety Instructions

- 1) Read these instructions. All the safety and operating instructions should be read before the appliance is operated.
- 2) Keep these instructions. The safety and operating instructions should be retained for future reference.
- Heed all warnings.
 All warnings on the appliance and in the operating instructions should be adhered to.
- 4) Follow all instructions. All operating and use instructions should be followed.
- 5) Do not use this apparatus near water. For example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
- 6) Clean only with dry cloth.

Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Slots and Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

- 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.
 Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to

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

- 13) Unplug this apparatus during lightning storms or when unused for long periods of time. This will prevent damage to the product due to lightning and power-line surges.
- 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.
- 15) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new Plasma Display.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the rear cover of these instructions.

Table of Contents

Important Safety Instructions	. 3
FCC STATEMENT	
Safety Precautions	
Accessories	. 8
Accessories Supplied	. 8
Optional Accessories	. 8
Remote Control Batteries	. 9
Basic Controls	10
Connections	
Speakers connection	12
AV Input Terminals connection	
Video Out	
COMPONENT/RGB Input connection	14
PC Input Terminals connection	
SERIAL Terminals connection	17
Power ON/OFF and Input Signal Selection	18
AC cord conncection	
Power ON/OFF	18
Select the Input Signal	19
Selecting the ON-Screen Menu Language	19
On-Screen Menu Display from Remote Control	20
ASPECT Controls	
Adjusting PICTURE POSITION/SIZE	24
SOUND Adjustment	26

MUTE	26
SURROUND Controls	27
PICTURE Adjustments	28
ADVANCED SETTINGS	
SET UP TIMER	30
PRESENT TIME OF DAY Set	30
TIMER Set	31
SCREENSAVER (For preventing after-images)	32
Setup of SCREENSAVER Time	33
SIDE BAR ADJUST	
SET UP for MULTI DISPLAY	34
How to setup MULTI DISPLAY	34
How to set the Display location number for each Plasma Display	35
SET UP for Input Signals	36
COMPONENT/RGB/ IN SELECT	
3D Y/C FILTER – For NTSC Video images	36
COLOR SYSTEM / Panasonic AUTO	37
3:2 PULLDOWN	37
SYNC	38
H-FREQ. (kHz)/V-FREQ. (Hz)	38
Troubleshooting	
Specifications	
-	

FCC STATEMENT

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC CAUTION:

Pursuant to 47CFR, Part 15.21 of the FCC rules, any changes or modifications to this monitor not expressly approved by Matsushita Electric Corporation of America could cause harmful interference and would void the user's authority to operate this device.

Attach the ferrite core:

The ferrite cores provided as a supplied accessory must be used when connecting this Plasma Display to video equipment. (see page 15, 17)

FCC CAUTION:

To assure continued compliance and possible undesirable interference, the provided ferrite cores must be used when connecting this plasma display to video equipment; and maintain at least 40cm spacing to other peripheral devices. Refer to instructions on pages 15, and 17.

CANADIAN NOTICE:

This Class A digital apparatus complies with Canadian ICES-003.

Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent afterimage to remain on the High Definition Plasma Display.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
- S-VGA is a registered trademark of the Video Electronics Standard Association. Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

Safety Precautions

WARNING

Set up

Do not place the Plasma Display on sloped or unstable surfaces.

• The Plasma Display may fall off or tip over.

Do not place any objects on top of the Plasma Display.

• If water spills onto the Plasma Display or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma Display, please consult an Authorized Service Center.

Do not cover the ventilation holes.

• Doing so may cause the Plasma Display to overheat, which can cause fire or damage to the Plasma Display.

If using the pedestal (optional accessory), leave a space of $3 \frac{15}{16}$ " (10 cm) or more at the top, left and right, $2 \frac{3}{8}$ " (6 cm) or more at the bottom, and $2 \frac{3}{4}$ " (7 cm) or more at the rear. If using some other setting-up method, leave a space of $3 \frac{15}{16}$ " (10 cm) or more at the top, bottom, left and right, and $\frac{3}{4}$ " (1.9 cm) or more at the rear.

Avoid installing this product near electronic equipment that easily receives electromagnetic waves.

• It may cause interference in image, sound, etc. In particular, keep video equipment away from this product.

AC Power Supply Cord

The Plasma Display is designed to operate on 120 V AC, 50/60 Hz.

Securely insert the power cord plug as far as it will go.

• If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

Do not handle the power cord plug with wet hands.

• Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.

• Do not make any modifications, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damage to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

If the Plasma Display will not be used for a long period of time, unplug the power cord from the wall outlet.

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odor is detected from the Plasma Display, unplug the power cord immediately.

• Continuous use of the Display under these conditions might cause fire or permanent damage to the unit. Have the Display evaluated at an Authorized Service Center. Services to the Display by any unauthorized personnel are strongly discouraged due to its high voltage dangerous nature.

If water or foreign objects get inside the Plasma Display, if the Plasma Display is dropped, or if the cabinet becomes damaged, disconnect the power cord plug immediately.

• A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.

This Plasma Display is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury.

(All of the following accessories are manufactured by Matsushita Electric Industrial Co., Ltd.)

• Speakers ······· TY-SP42PWD3W, TY-SP42P5W-K

- Pedestal ······ TY-ST05-K
- Wall stand ······ TY-ST42PW1
- Wall-hanging bracket (vertical) TY-WK42PV1
 Wall-hanging bracket (angled) TY-WK42PR1
- Wall-hanging bracket (angled)
 Wall-hanging bracket (Drawer type)
- RGB(digital) Terminal Board ······· TY-42TM4D
- RGB active-through Terminal Board TY-42TM5G

Always be sure to ask a qualified technician to carry out set-up.

When using the Plasma Display

Do not bring your hands, face or objects close to the ventilation holes of the Plasma Display.

• Top of the Plasma Display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries can happen if any body parts are brought too close. Placing any object near the top of the display could also result in heat damages to the object as well as to the Display if its ventilation holes are blocked.

Be sure to disconnect all cables before moving the Plasma Display.

• Moving the Display with its cables attached might damage the cables which, in turn, can cause fire or electric shock.

Disconnect the power plug from the wall outlet as a safety precaution before carrying out any cleaning.

• Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it from becoming dusty.

• Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, soak a soft, lint-free cloth in a weak detergent solution and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth, of the same type, until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma Display. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

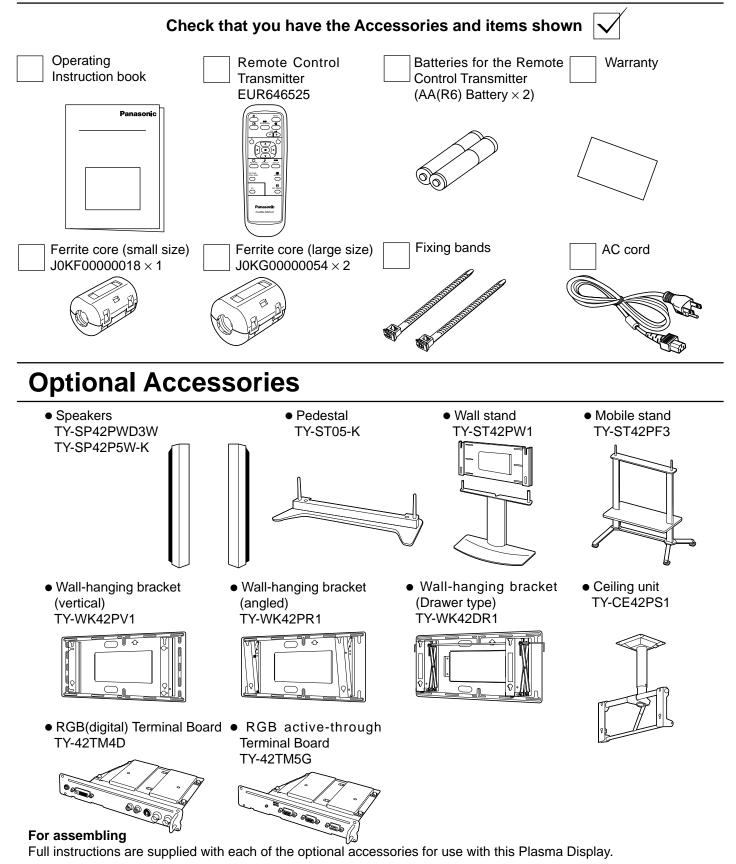
Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma Display.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Accessories

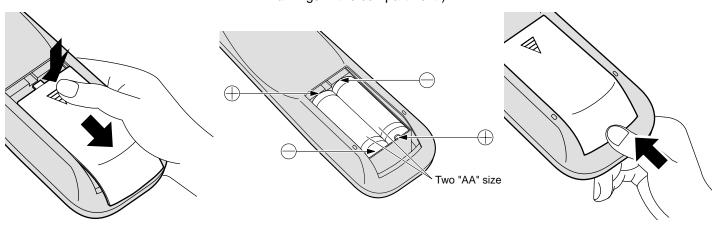
Accessories Supplied



Remote Control Batteries

Requires two AA batteries.

- 1. Turn the transmitter face down. Press and slide off the battery cover.
- 2. Install the batteries as shown in the battery compartment.
 (Polarity + or must match the markings in the compartment.)
- 3. Replace the cover and slide in reverse until the lock snaps.



Helpful Hint:

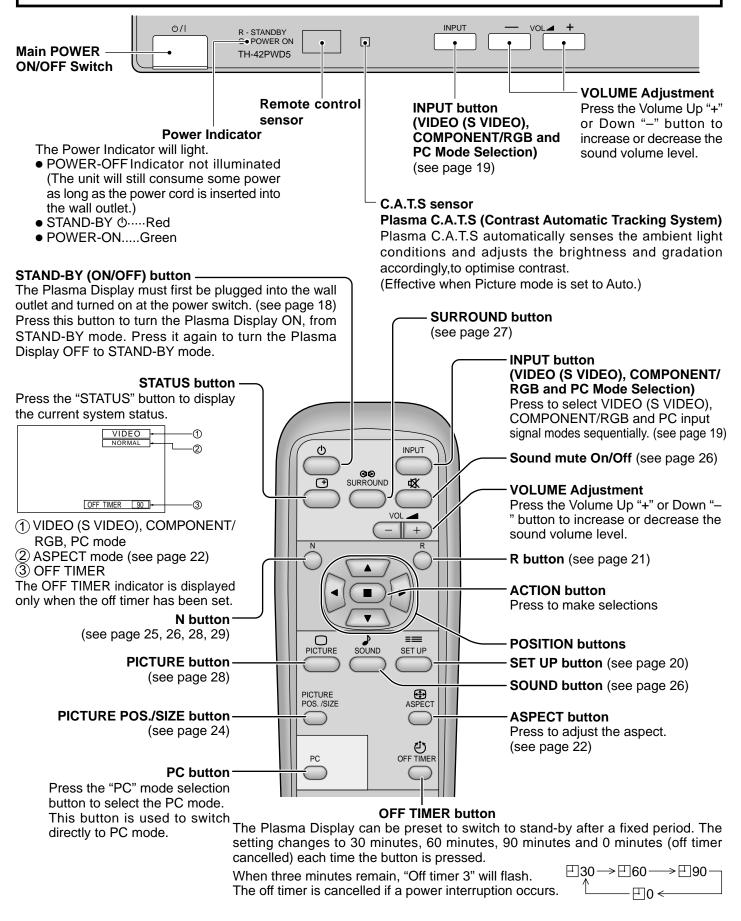
For frequent remote control users, replace old batteries with Alkaline batteries for longer life.

⚠ Precaution on battery use

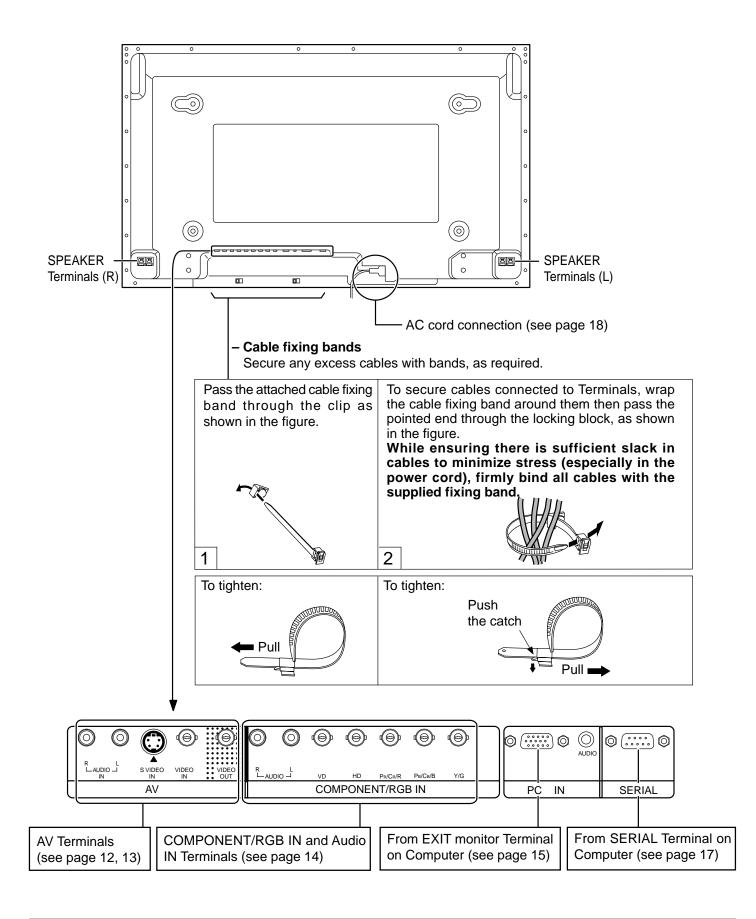
Incorrect installation can cause battery leakage and corrosion that will damage the remote control transmitter. **Observe the following precautions:**

- 1. Batteries should always be replaced as a pair. Always use new batteries when replacing the old set.
- 2. Do not combine a used battery with a new one.
- 3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
- 4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
- 5. Battery replacement is necessary when the remote control acts sporadically or stops operating the Plasma Display.

Basic Controls



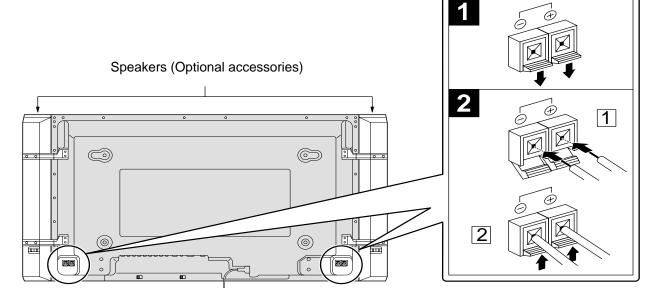
Connections



Speakers connection

When connecting the speakers, be sure to use only the optional accessory speakers.

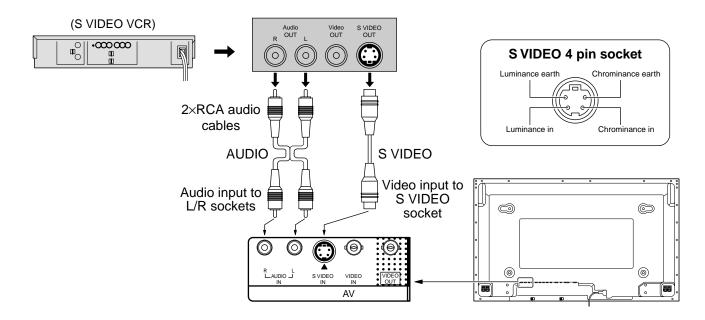
Refer to the speaker's Installation Manual for details on speaker installation.



AV Input Terminals connection

Connect the signal source equipment.

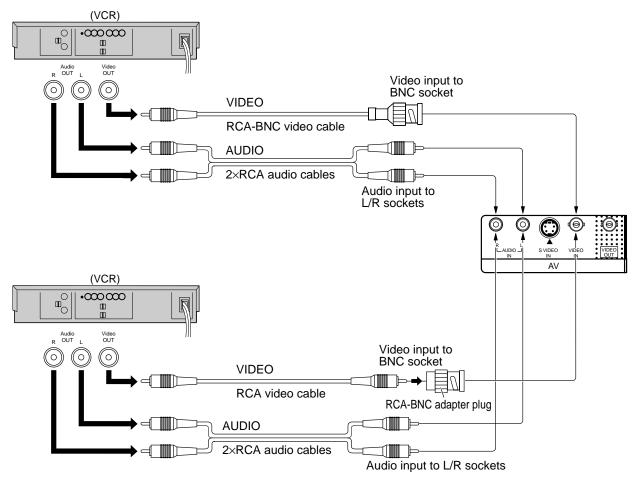
An S VIDEO VCR connection



Note:

Additional equipment and cables shown are not supplied with this set.

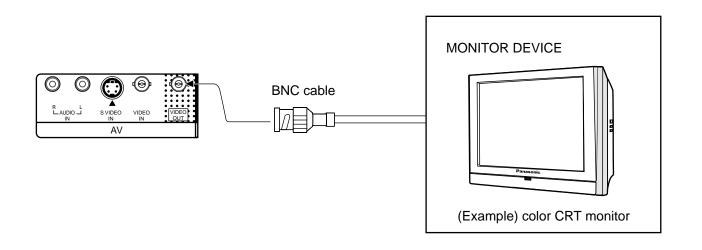
VIDEO signal connection



Notes:

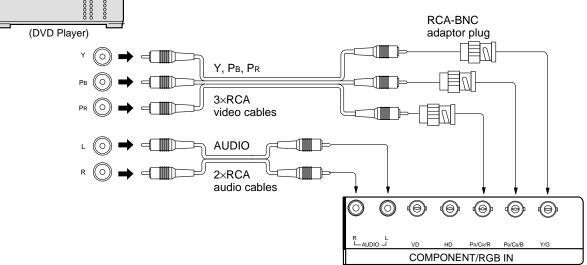
- (1) S-Video input will override the composite video signal when S-Video lead is connected.
- (2) Additional equipment and cables shown are not supplied with this set.

VIDEO OUT



COMPONENT/RGB Input connection

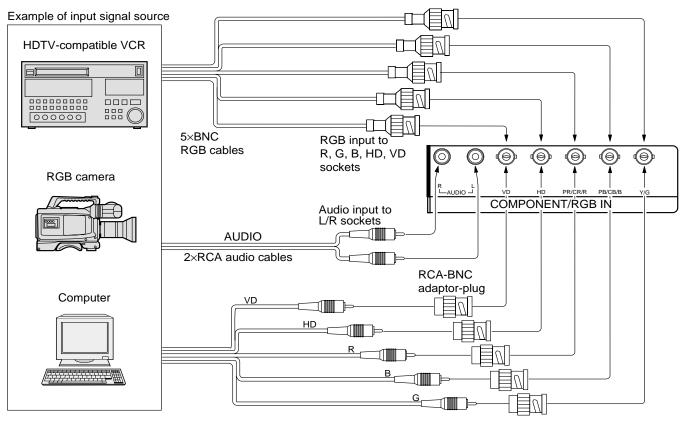
Component signals (Y, P_B, P_R) connection



Notes:

- (1) Change the "COMPONENT/RGB-IN" setting in the "SET UP" menu to "COMPONENT". (see page 36)
- (2) Additional equipment, cables and adaptor plugs shown are not supplied with this set.

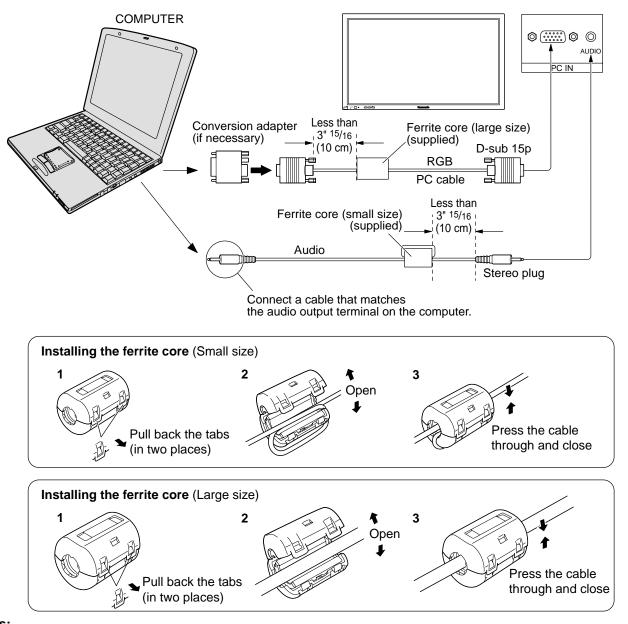
RGB signal (R, G, B, HD, VD) connection



Notes:

- (1) Change the "COMPONENT/RGB-IN" setting in the "SET UP" menu to "RGB". (see page 36)
- (2) Additional equipment, cables and adaptor plugs shown are not supplied with this set.

PC Input Terminals connection

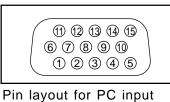


Notes:

- (1) Computer signals which can be input are those with a horizontal scanning frequency of 15.6 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- (2) The display resolution is a maximum of 640 × 480 dots when the aspect mode is set to "NORMAL", and 852 × 480 dots when the aspect mode is set to "FULL". If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- (3) The PC input terminals are DDC1/2B-compatible. If the computer being connected is not DDC1/2B-compatible, you will need to make setting changes to the computer at the time of connection.
- (4) Some PC models cannot be connected to the set.
- (5) There is no need to use an adapter for computers with DOS/V compatible D-sub 15P terminal.
- (6) The computer shown in the illustration is for example purposes only.
- (7) Additional equipment and cables shown are not supplied with this set.
- (8) Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

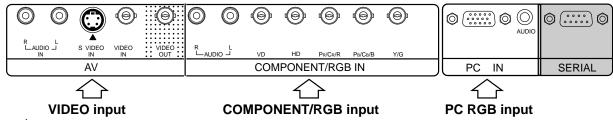
Connections

Signal Names for D-sub 15P Connector



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
	R	6	GND (Ground)	11	GND (Ground)
2	G	7	GND (Ground)	12	SDA
3	В	8	GND (Ground)	13	HD/SYNC
4	GND (Ground)	9	NC (not connected)	14	VD
5	GND (Ground)	10	GND (Ground)	15	SCL

VIDEO/COMPONENT/RGB/PC/DVI input signals



VIDEO input

terminal

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)
1	NTSC	15.734	59.95
2	PAL	15.625	50
3	PAL60	15.734	59.95
4	SECAM	15.625	50
5	Modified NTSC	15.734	59.95

* Mark:

Input signal can be displayed.

* Mark:

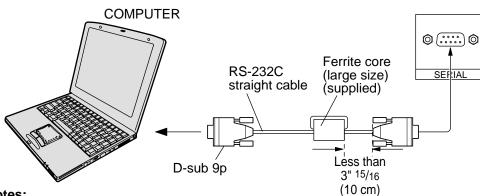
By installing the RGB(digital)Terminal Board(TY-42TM4D) to this set the PC input signal can be displayed.

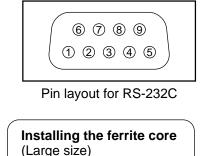
COMPONENT/RGB/PC/DVI input

COINE	ONENT/RGB/PC/DVI input						. ▼
	signal name	horizontal frequency(kHz)	vertical frequency(Hz)	COMPONENT	RGB	PC	DVI
1	525 (480) /60i	15.734	59.94	*	*	*	
2	625 (575) /50i	15.625	50	*	*	*	
3	525 (480) /60p	31.468	59.94	*	*		
4	625 (575) /50p	31.25	50	*	*	*	
5	750 (720) /60p	45	60	*	*	*	
6	1,125 (1,080) /60i	33.75	60	*	*	*	
7	1,125 (1,080) /50i	28.125	50	*	*	*	
8	1,125 (1,080) /24p	27	24	*	*	*	
9	1,125 (1,080) /24sF	27	48	*	*	*	
10	$640 \times 400 @70$	31.5	70		*	*	
11	$640 \times 480 @ 60$	31.5	59.94		*	*	*
12	Macintosh13" (640 $ imes$ 480)	35	67		*	*	
13	640×480 @75	37.5	75		*	*	
14	852×480 @60	31.7	60		*	*	*
15	$800 \times 600 @60$	37.9	60		*	*	*
16	$800 \times 600 @75$	46.9	75		*	*	
17	$800 \times 600 @ 85$	53.7	85		*	*	
18	Macintosh16" (832 $ imes$ 624)	49.7	75		*	*	
19	1,024×768 @60	48.4	60		*	*	*
20	1,024×768 @70	56.5	70		*	*	
21	1,024×768 @75	60	75		*	*	
22	1,024×768 @85	68.7	85		*	*	
23	Macintosh21" (1,152 × 870)	68.7	75		*	*	
24	1,280×1,024 @60	64	60		*	*	
25	1,280×1,024 @75	80	75		*	*	
26	1,280×1,024 @85	91.1	85		*	*	
27	1,600×1,200 @60	75	60		*	*	

SERIAL Terminals connection

The SERIAL terminal is used when the Plasma Display is controlled by a computer.





Open

Notes:

(1) Use the RS-232C cable to connect the computer to the Plasma Display.

(2) The computer shown is for example purposes only.

(3) Additional equipment and cables shown are not supplied with this set.

The SERIAL terminal conforms to the RS-232C interface specification, so that the Plasma Display can be controlled by a computer which is connected to this terminal.

The computer will require software which allows the sending and receiving of control data which satisfies the conditions given below. Use a computer application such as programming language software. Refer to the documentation for the computer application for details.

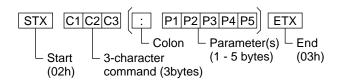
Communication parameters

RS-232C compliant
Asynchronous
9600 bps
None
8 bits
1 bit
_

RS-232C Conversion cable				
D-sub 9-pin female	Details			
2	R X D			
3	ТХD			
5	GND			
4 • 6	Non use			
(7) (8)	Shorted			
(1•9)	NC			

Basic format for control data

The transmission of control data from the computer starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. If there are no parameters, then the parameter signal does not need to be sent.



Notes:

- (1) If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- (2) If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.

Command

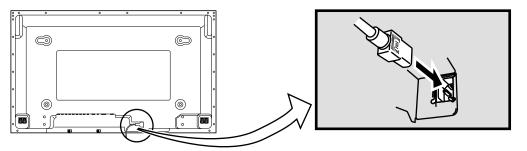
Command	Parameter	Control details
PON	None	Power ON
POF	None	Power OFF
AVL	**	Volume 00 - 63
ANAT	0	Audio MUTE OFF
AMT	1	Audio MUTE ON
IIS	None	Input select (toggle)
(When	VID	VIDEO Mode
Used RCA	YP1	COMPONENT / RGB mode (processed as
Terminal		a Y/PB/PR or RGB signals as set by this unit)
Board)	RG1	PC mode
DAM	None	Screen mode select (toggle)
	NORM	NORMAL (4:3)
	ZOOM	ZOOM
	FULL	FULL
	JUST	JUST
	SELF	Panasonic AUTO

With the power off, this display responds to PON command only.

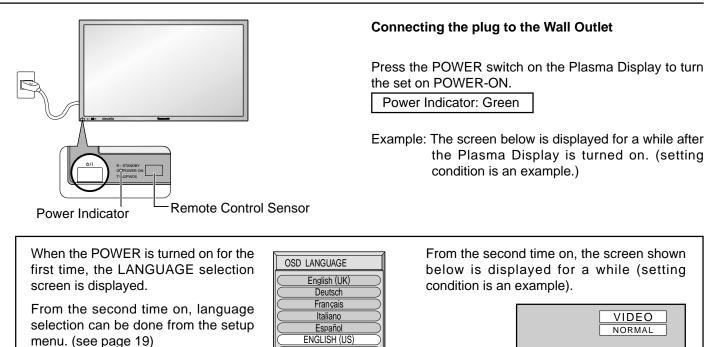
Power ON/OFF and Input Signal Selection

AC cord connection

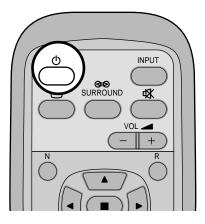
Connecting the AC cord plug to the Plasma Display.



Power ON/OFF



Select the desired language using the ▲ and ▼ keys and press the ACTION ● button.





SELECT

中文

BR

- 961

Press the \dot{O} button on the remote control to turn the Plasma Display off.

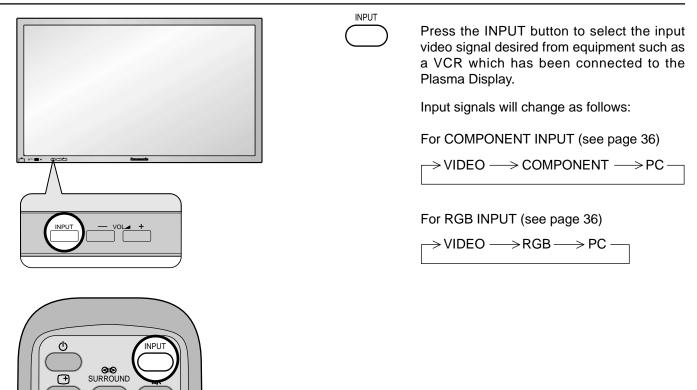
Power Indicator: Red (STAND-BY)

Press the $\ensuremath{\underline{0}}$ button on the remote control to turn the Plasma Display on.

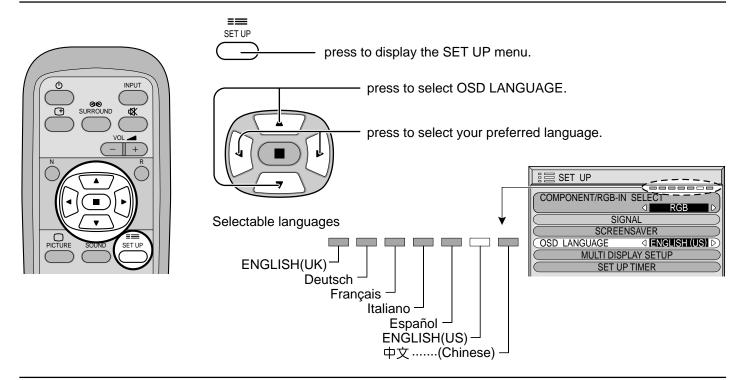
Power Indicator: Green

To turn the power for the Plasma Display off, press the \bigcirc switch on the Plasma Display, when the Plasma Display is on or in standby mode.

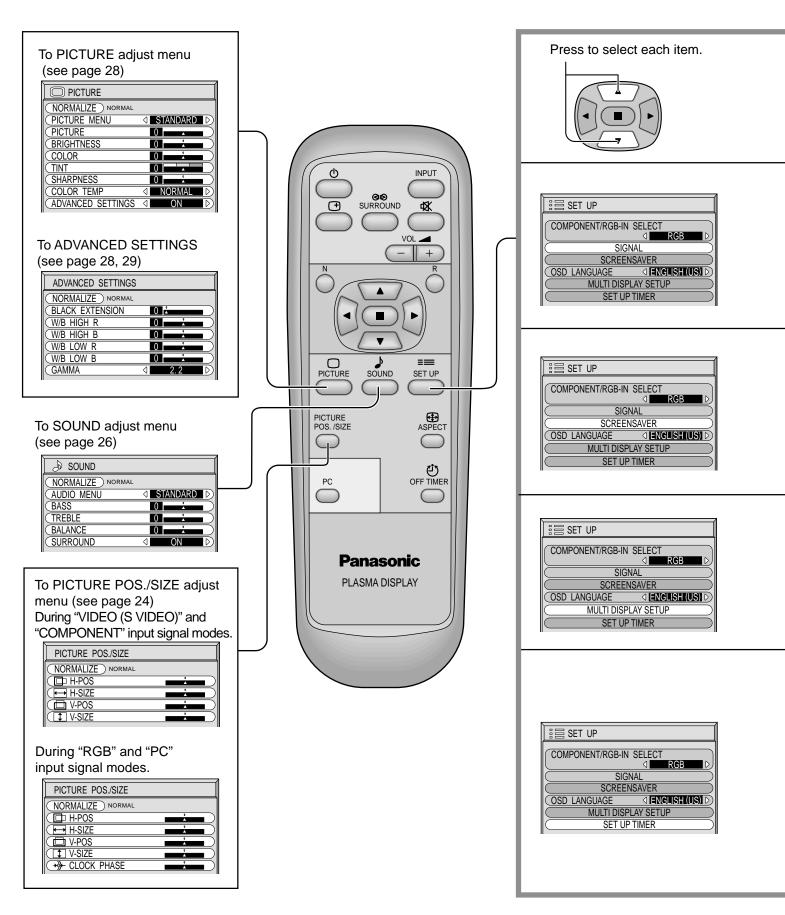
Select the Input Signal



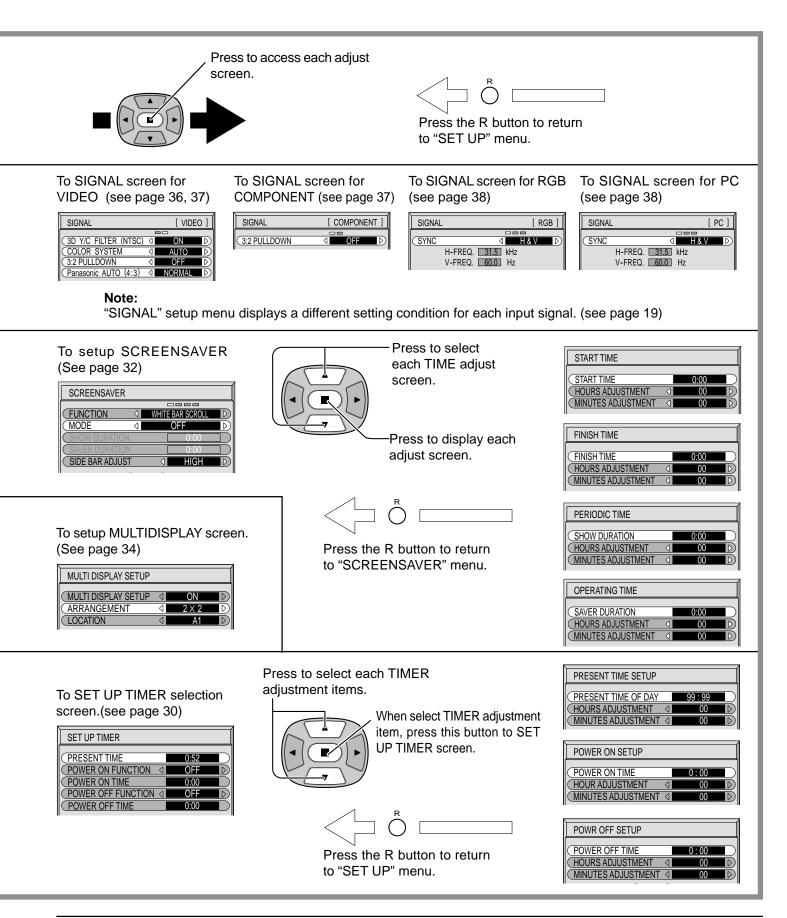
Selecting the On-Screen Menu Language



On-Screen Menu Display from Remote Control

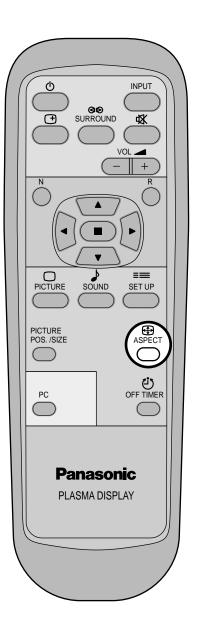


On-Screen Menu Display from Remote Control



ASPECT Controls

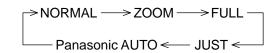
The Plasma Display will allow you to enjoy viewing the picture at its maximum size, including wide screen cinema format picture.





ASPECT button

The aspect mode changes each time the ASPECT button is pressed.



Notes:

- (1) During RGB and PC input signal modes, the mode switches between "NORMAL", "ZOOM" and "FULL" only.
- (2) For a 525p (480p) signal input during "COMPONENT" input signal mode, the mode switches between "ZOOM" and "FULL" only.
- (3) For a 1,125i (1,080i), 750p (720p) signal input during "COMPONENT" input signal mode, the mode is set to "FULL" mode, and switching is not possible.

For a 525i (480i), 625i (575i) signal input during "Component" input signal mode, "Panasonic Auto" can not be selected.

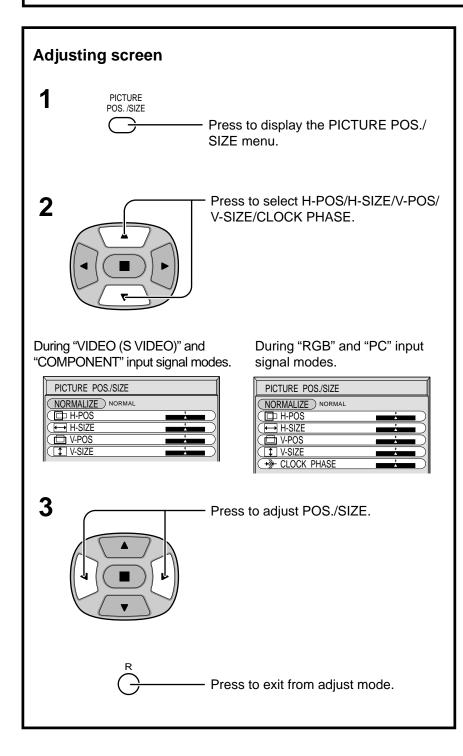
(4) The aspect mode is memorized separately for each input terminal (VIDEO, COMPONENT, RGB and PC).

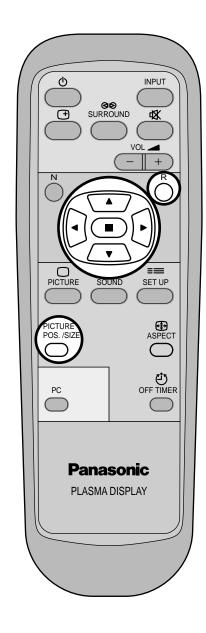
Mode	Picture	Explanation
NORMAL		NORMAL will display a 4:3 picture at its standard 4:3 size.
ZOOM		ZOOM mode magnifies the central section of the picture.
FULL		FULL will display the picture at its maximum size but with sight elongation.
JUST		JUST mode will display a 4:3 picture at its maximum size but with aspect correction applied to the center of the screen so that elongation is only apparent at the left and right edges of the screen. The size of the picture will depend on the original signal.
Panasonic AUTO	For an elongated image For a 4.3 image For a 4:3 image	The display will automatically become enlarged (depending on the picture source), allowing you to view the picture at its maximum size. Note: Panasonic AUTO mode is designed to automatically adjust the aspect ratio to handle a mix of 16:9 and 4:3 program material. Certain 4:3 program material, such as stock market data screens, may occasionally cause the image size to change unexpectedly. When viewing such programs, it is recommended that the ASPECT be set to NORMAL.

Note:

Do not allow the picture to be displayed in 4:3 mode for an extended period, as this can cause a parmanent after-image to remain on the Plasma Display Panel.

Adjusting PICTURE POSITION/SIZE





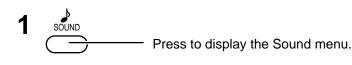
Notes:

- (1) Adjustment details are memorized separately for different input signal formats (Adjustments for component signals are memorized for 525i (480i), 625i (575i), 525p (480p), 1125i (1080i) and 625p (575p), 750p (720p) each, and RGB/PC signals are memorized for each frequency.)
- (2) If a "Cue" or "Rew" signal from a VCR or DVD player is received, the picture position will shift up or down. This picture position movement cannot be controlled by the PICTURE POS./SIZE function.

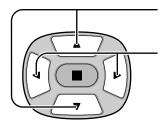
	When the Position Left " " " button is pressed	When the Position Right ">" button is pressed
H-POS		
	When the Position Left "◄" button is pressed	When the Position Right ">" button is pressed
H-SIZE	$ \begin{array}{c c} 0 & 0 \\ \hline 0 & 0 \\ 0 \end{array} $	
	When the Position Left " " " button is pressed	When the Position Right "▶" button is pressed
V-POS		
	When the Position Left " " " button is pressed	When the Position Right "▶" button is pressed
V-SIZE		
CLOCK PHASE (RGB/PC in Mode)	Flickering and distortion can be eliminated by us carry out adjustment.	sing the Position Left "◀" or Right "▶" button to

While the PICTURE POS./SIZE display is active, if either the N button on the remote control is pressed at any time or the (ACTION button) is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

SOUND Adjustment

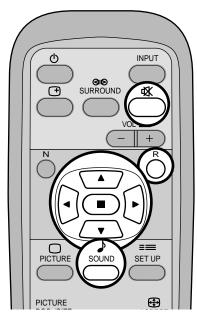


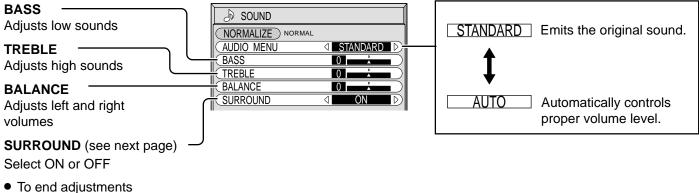
2 Select to adjust each item.



Press to select the desired adjustment menu.

Select the desired level by listening to the sound.





Press the R button

Note:

Press the SURROUND button to directly turn the surround effect ON and OFF. (see next page) BASS, TREBLE and SURROUND settings are memorized separately for each SOUND mode (STANDARD, AUTO).

While the "SOUND" menu is displayed, if either the N button on the remote control is pressed at any time or the (ACTION button) is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

MUTE

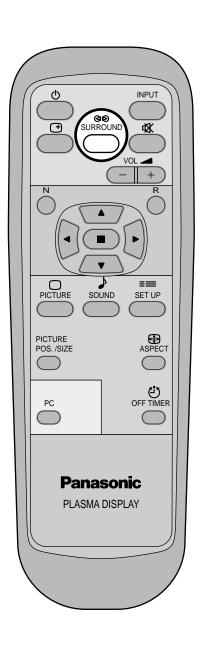
Useful when answering the phone or receiving visitors.



Press this button to mute the sound.

Press again to reactivate sound. Sound is also reactivated when power is turned off or volume level is changed.

SURROUND Controls

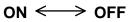


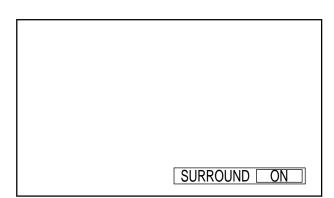


SURROUND Button

The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.

The surround setting switches ON and OFF each time the SURROUND button is pressed.





Note:

The surround settings are memorized separately for each SOUND mode (STANDARD, AUTO).

PICTURE Adjustments

20

0

Press the left \triangleleft or right \triangleright button to

ADVANCED SETTINGS ON

ADVANCED SETTINGS OFF Displays images with settings of the

ADVANCED SETTINGS

NORMALIZE NORMAL

BLACK EXTENSION

PICTURE menu.

W/B HIGH R

W/B HIGH B

W/B LOW R W/B LOW B GAMMA

select "ON". Press the down ▼ button

Enables fine picture adjustment at a

professional level (see next page).

to enter ADVANCED SETTINGS mode.

0 📩

0

NORMAI

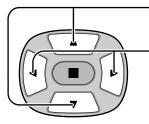
ON

1

- Press to display the PICTURE menu.

- Press to select the menu to adjust.

2 Select to adjust each item.



PICTURE
 NORMALIZE NORMAL

PICTURE MENU

PICTURE

COLOR

TINT SHARPNESS

BRIGHTNESS

COLOR TEMP

ADVANCED SETTINGS

Select the desired level by looking at the picture behind the menu.

NORMALIZE NORMAL	
PICTURE MENU	
PICTURE	20
BRIGHTNESS	
COLOR	
TINT	
SHARPNESS	
COLOR TEMP	
ADVANCED SETTINGS	

Press the left \triangleleft or right \blacktriangleright button to switch between modes.

 \rightarrow AUTO \iff STANDARD \iff CINEMA \iff DYNAMIC \iff

AUTO

Automatically selects the mode that best suits the brightness of the environment.

STANDARD

For viewing in standard (evening lighting) environments. This menu selects the normal levels of BRIGHTNESS and PICTURE.

DYNAMIC

For viewing in brighter environments. This menu selects higher than normal levels of BRIGHTNESS and PICTURE.

CINEMA

Ideal for movies.
Can be selected for VIDEO/COMPONENT.

Note:

If you would like to change the picture and color of the selected PICTURE menu to something else, adjust using the items in the PICTURE menu. (see page 29)

Press the left \blacktriangleleft or right \blacktriangleright button to switch between modes.

- Helpful Hint (N / NORMALIZE Normalization)

While the "PICTURE" menu is displayed, if either the N button on the remote control is pressed at any time or the (ACTION button) is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

Item	Ef	fect	Adjustments
PICTURE	Less	More	Adjusts the proper picture contrast.
BRIGHTNESS	Darker	Brighter	Adjusts for easier viewing of dark pictures such as night scenes and black hair.
COLOR	Less	More	Adjusts color saturation.
TINT (NTSC only)	Reddish	Greenish	Adjust for natural flesh tones.
SHARPNESS	Less	More	Adjusts picture sharpness.

Notes:

- (1) "COLOR" and "TINT" settings cannot be adjusted for "RGB" and "PC" input signal modes.
- (2) You can change the level of each function (PICTURE, BRIGHTNESS, COLOR, TINT, SHARPNESS) for each PICTURE menu.
- (3) The setting details for STANDARD, DYNAMIC and CINEMA respectively are memorized separately for each input mode (VIDEO (S VIDEO), COMPONENT, RGB and PC).
- (4) The "TINT" setting can be adjusted for NTSC signal only during "VIDEO (S VIDEO)" input signal.

Note:

In PICTURE, there is nor a noticeable change even when contrast is increased with a bright picture or reduced with a dark picture.

ADVANCED SETTINGS

Item	Eff	ect	Details
BLACK EXTENSION	Less	More	Adjusts the dark shades of the image in gradiation.
W/B HIGH R	Less	More	Adjusts the white balance for light red areas.
W/B HIGH B	Less	More	Adjusts the white balance for light blue areas.
W/B LOW R	Less	More	Adjusts the white balance for dark red areas.
W/B LOW B	Less	More	Adjusts the white balance for dark blue areas.
GAMMA	Down	Up	$2.0 \iff 2.2 \iff 2.5$

Notes:

(1) Carry out "W/B" adjustment as follows.

- Adjust the white balance of the bright sections using the "W/B HIGH R" and "W/B HIGH B" settings.
- **B** Adjust the white balance of the dark sections using the "W/B LOW R" and "W/B LOW B" settings.
- C Repeat steps (A) and (B) to adjust.
- Steps (A) and (B) affect each other's settings, so repeat each step in turn to make the adjustment.
- (2) The adjustment values are memorized separately for each input mode (VIDEO(S VIDEO), COMPONENT, RGB and PC).
- (3) The adjustment range values should be used as an adjustment reference.

- Helpful Hint (N / NORMALIZE Normalization)

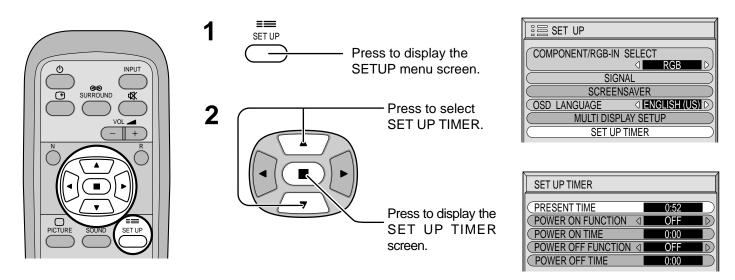
On the remote control unit, while the "ADVANCED SETTINGS" menu is displayed, if either the N button is pressed at any time or the
(ACTION button) is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

SET UP TIMER

The timer can switch the Plasma Display ON or OFF.

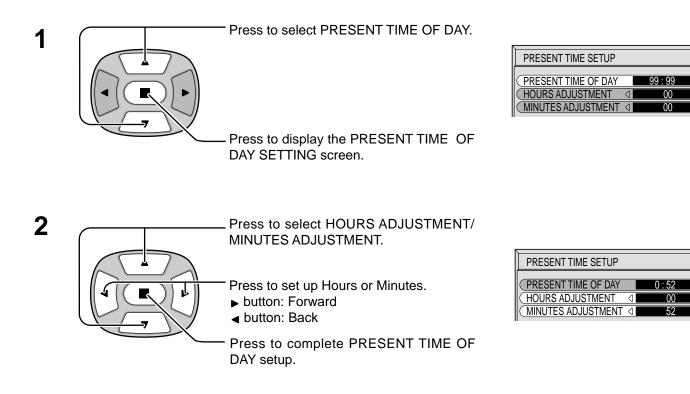
Before attempting Timer Set, confirm the PRESENT TIME OF DAY and adjust if necessary. Then set POWER ON TIME/POWER OFF TIME.

Display the SET UP TIMER screen.

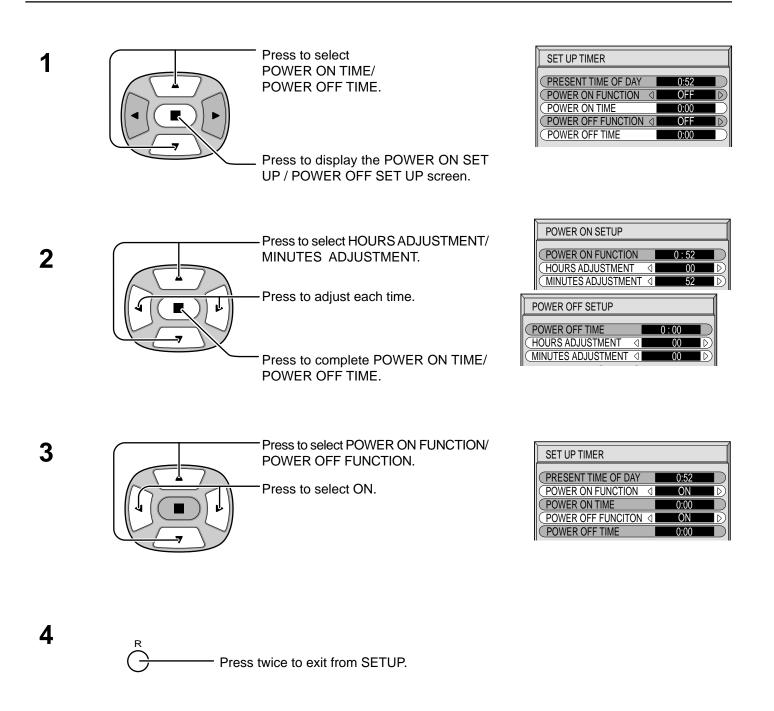


PRESENT TIME OF DAY Set

To set up PRESENT TIME, follow the procedure described below.



TIMER Set

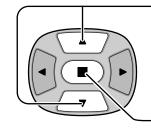


SCREENSAVER (For preventing after-images)

Do not display a still picture, especially in 4:3 mode, for any length of time. If the display must remain on, a SCREENSAVER should be used.

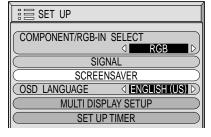
1 SET UP Press to display the SETUP menu screen.



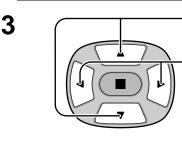


- Press to select the SCREENSAVER.

Press to select the SCREENSAVER screen.



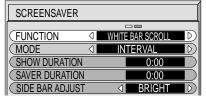
NEGATIVE / SCROLL selection



Press to select the FUNCTION.

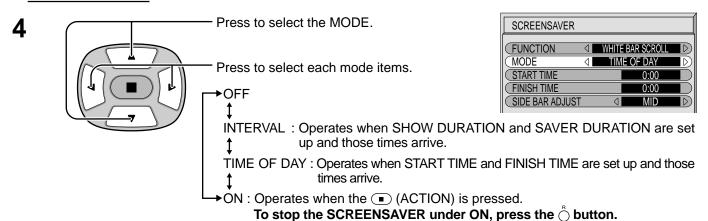
Press to select the desired function.

WHITE BAR SCROLL - NEGATIVE



WHITE BAR SCROLL: A white bar will scroll from left to right.NEGATIVE: A negative image will be displayed on the screen.

MODE selection

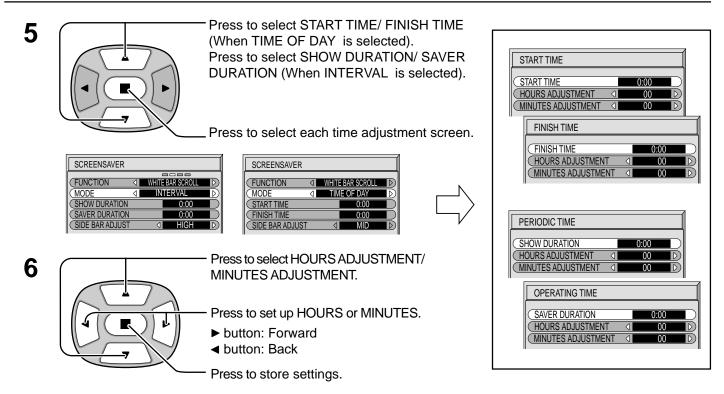


If the MODE is at ON, the menu screen will disappear and the SCREENSAVER will be activated.

After selecting TIME OF DAY or INTERVAL, the relevant SET UP TIME will become available for selection and the OPERATING TIME may be set. (Time cannot be set when "MODE" is "ON" or "OFF.")

SCREENSAVER	SCREENSAVER	SCREENSAVER
FUNCTION I WHITE BAR SCROLL		FUNCTION I WHITE BAR SCROLL
(MODE		CHODE OFF SHOW DURATION 0:00
FINISH TIME 0:00 (SIDE BAR ADJUST Implementation	SAVER DURATION 0:00	SAVER DURATION 0:00 SIDE BAR ADJUST I HIGH

Setup of SCREENSAVER Time



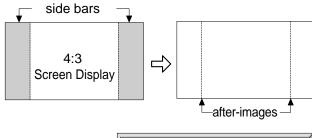
Note : Timer function will not work unless "PRESENT TIME OF DAY" is set.

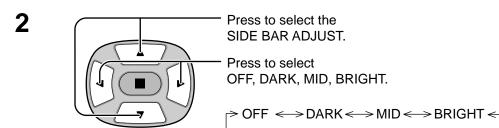
SIDE BAR ADJUST

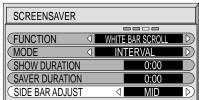
Do not display a picture in 4:3 mode for an extended period, as this can cause an after-image to remain on the side bars on either side of the display field. To prevent the appearance of such an after-image, change the 4:3

To prevent the appearance of such an after-image, change the brightness of the side bars. To display the SCREENSAVER screen.

(Refer to page 32, operation guide steps 1 and 2)









Press to exit from SCREENSAVER.

Notes:

- Setting the side bar to bright mode for an extended period may result in occurence of after-images.
- The side bar may flash (alternate black/white) depending on the picture being shown on the screen. In such an occurrence, use the Cinema mode.

Setup for MULTI DISPLAY

- (1) By lining up Plasma Displays in groups of 4 or 9 as illustrated below, an enlarged picture may be displayed across all screens.
- (2) For this mode of operation, each plasma display has to be set up with a DISPLAY number to determine its location.

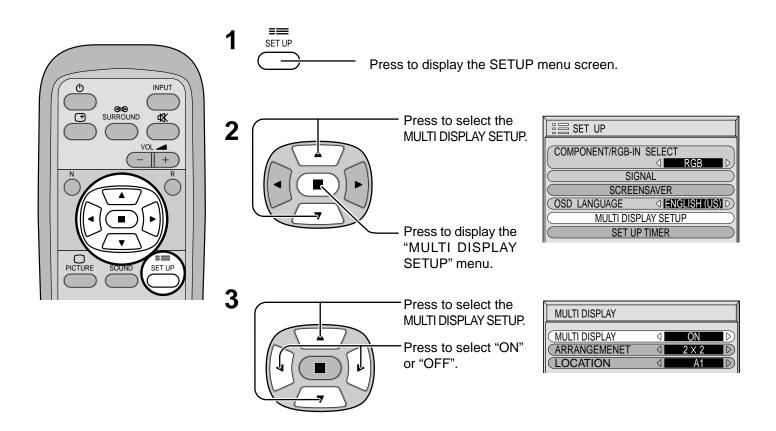
group of 4 (2×2)



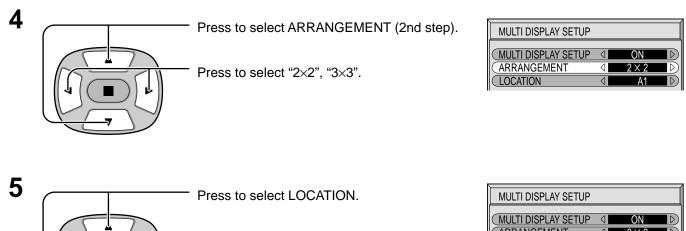
group of 9 (3×3)



How to setup MULTI DISPLAY

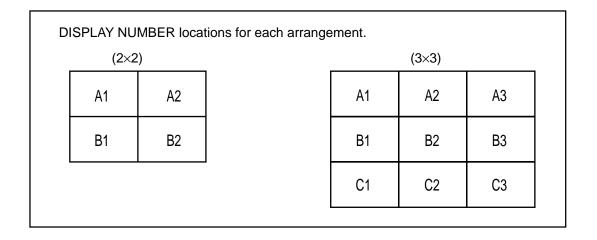


How to set the Display location number for each Plasma Display



Press to select the required arrangement number. (A1-C3 : Refer to the following)

MULTI DISPLAY SETUP			
MULTI DISPLAY SETUP	4	ON	
ARRANGEMENT	\triangleleft	2 X 2	
LOCATION	\triangleleft	B1	\triangleright



6 Press twice to exit from SETUP.

Notes:

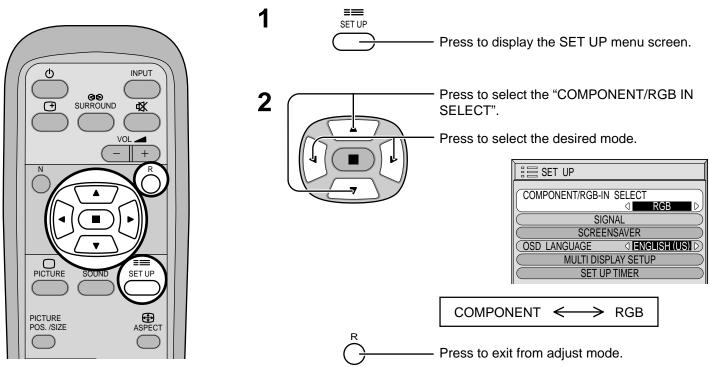
- (1) For PC or RGB input signals, normal multi-display magnification is only available at the VGA resolution.
- (2) The multi-display capability is not functional for component signals.
- (3) The MultiDisplay (multiskærmdisplay) function does not display certain input signals from the terminals of the installed option boards listed below:
 - Digital RGB input signals from the DV1 terminal of RGB (Digital) Terminal Board (TY-42TM4D)

SET UP for Input Signals

COMPONENT/RGB IN SELECT

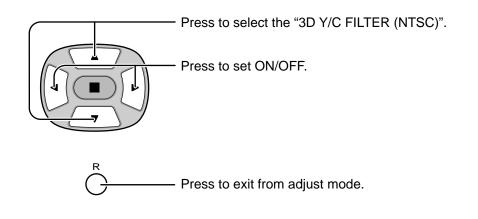
Select to match the signals from the source connected to the COMPONENT/RGB input terminals. Y, P_B, P_R signals \implies "COMPONENT"

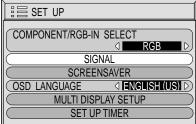
R, G, B, HD, VD signals \implies "RGB"



3D Y/C FILTER – For NTSC Video images

Select "SIGNAL" from the "SET UP" menu during VIDEO (S VIDEO) input signal mode. ("SIGNAL [VIDEO]" menu is displayed.)





SIGNAL		[VIDEO]
(3D Y/C FILTER (NTSC)		ON D
COLOR SYSTEM	0	AUTO D
3:2 PULLDOWN	\triangleleft	OFF D
Panasonic AUTO (4:3)	\triangleleft	NORMAL D

Note:

When ON, this setting only affects NTSC input signals.

COLOR SYSTEM / Panasonic AUTO

Select SIGNAL from the "SET UP" menu during VIDEO (S VIDEO) input signal mode.("SIGNAL [VIDEO]" menu is displayed.)

Press to select the "COLOR SYSTEM" or "Panasonic AUTO". Press to select each function.

If the image becomes unstable:

With the system set on Auto, under conditions of low level or noisy input signals the image may in rare cases become unstable. Should this occur, set the system to match the format of the input signal.

E SET UP			
COMPONENT/RGB-IN	SELECT		
	⊲ RGB D		
SIGNAL			
SCREENSAVER			
OSD LANGUAGE			
MULTI DISPLAY SETUP			
SET UP TIMER			

🛭 Press 🗩 (ACTION) button

SIGNAL		[VIDEO]
3D Y/C FILTER (NTSC)	\triangleleft	ON 🛛	D
COLOR SYSTEM	4	AUTO 🛛	\mathfrak{D}
3:2 PULLDOWN	\triangleleft	OFF 🛛	D
Panasonic AUTO (4:3)	\triangleleft	NORMAL D	Ð

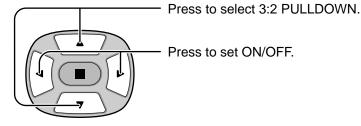
Mode	Function
Color system	Set the color system to match the input signal. If set to "AUTO", the color system is determined automatically.
	>AUTO <> PAL <> SECAM <> M.NTSC <> NTSC <_
Panasonic	Set to "NORMAL" to view 4:3 images in an unchanged format when Panasonic AUTO
AUTO (4:3)	is selected. If you would like to view 4:3 images in "Just" format, set to "JUST".

3:2 PULLDOWN

When ON, the display attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second.

If the picture is not stable, turn the setting to OFF.

Select "SIGNAL" from the "SET UP" menu during VIDEO (S VIDEO) or COMPONENT input signal mode.("SIGNAL [VIDEO]" menu is displayed.)



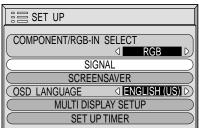
Note:

When ON, this setting only affects the following signal input:

- NTSC signal input during "VIDEO (S VIDEO)" input signal mode.
- 525i(480i) signal input during "COMPONENT" input signal mode.

R_____

Press to exit from adjust mode.



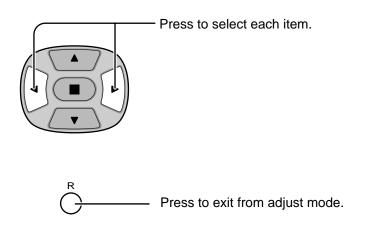
∬ Press 🗩 (ACTION) button

SIGNAL		[VIDEO]
	c	
3D Y/C FILTER (NTSC)	4	ON D
COLOR SYSTEM	\triangleleft	AUTO D
3:2 PULLDOWN	4	OFF D
(Panasonic AUTO (4:3)	\triangleleft	NORMAL D

SIGNAL	[COMPONENT]
(3:2 PULLDOWN	

SYNC

Select SIGNAL from the "SET UP" menu during RGB or PC input signal mode.



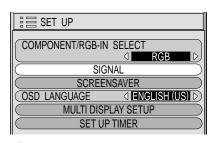
Setting RGB sync signal

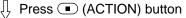
Confirm that the input is set to RGB INPUT (this setting is valid only for RGB INPUT).

- H & V: The H and V sync signals are input from the HD/VD connector.
- ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.
- ON VIDEO: The composite video signal input from the VIDEO input terminal is used by dividing the sync signals.

Confirm that the input is set to PC INPUT (this setting is valid only for PC INPUT).

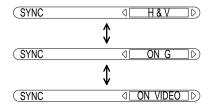
H & V: The H and V sync signals are input from the HD/VD connector.





SIGNAL				[RGB]
SYNC		0	— — — — Н 8	
	H-FREQ.			
		00.0	112	

SIGNAL	_ [PC]
SYNC	
	H-FREQ. 31.5 kHz
	V-FREQ. 60.0 Hz



SYNC I H&V D SYNC I ON G D

ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.

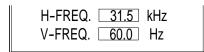
Setting PC sync signal

H-FREQ. (kHz)/V-FREQ. (Hz)

Displays the H (Horizontal)/V (Vertical) frequencies.

This display is valid only for RGB input and PC input. Display range:

Horizontal 15.6 - 110 kHz Vertical 48 - 120 Hz



Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Sym	otoms	Checks
Picture	Sound	Checks
	Noisy Sound	Electrical Appliances Cars/Motorcycles Fluorescent light
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the remote control.)
? No Picture	No Sound	Not plugged into AC outlet Not switched on PICTURE and BRIGHTNESS/Volume setting (Check by pressing the power switch or stand-by button on the remote control.)
? No Picture	Normal Sound	If a signal with a non-applicable color system format, or frequency is input, only the input terminal indication is displayed.
No Color	Normal Sound	Color controls set at minimum level. (see page 28, 29) COLOR SYSTEM (see page 37)

Plasma Display panel

Symptoms	Check	
Some parts of the screen do not light up.	The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.	
Panasanic	Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.	
After-images appear	Note: The permanent after-image on the Plasma Display resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.	

Specifications

		TH-42PWD5		
Power Source		120 V AC, 50/60 Hz		
Ро	wer Consumption			
• Maximum		395 W		
Stand-by condition		2.3 W		
Pov	ver off condition	0.8 W		
Pla	sma Display panel	Drive method AC type		
		42-inch, 16:9 aspect ratio		
ĺ	Contrast Ratio	300	00:1	
Sc	reen size	920 mm (W) $ imes$ 518 mm (H) $ imes$ 1,056 mm (diagonal)		
		No. of pixels		
		408,960 (852 (W) × 480 (H)) [2,556 × 480 dots]		
Ор	erating condition			
Temperature		34 °F - 104 °F (0 °C - 40 °C)		
Hur	nidity	20 % - 80 %		
Ар	plicable signals			
	Color System	NTSC, PAL, PAL60, SECAM, Modified NTSC		
-	Scanning format	525i (480i), 625i (575i), 525p (480p), 625p (575p), 750p (720p), 1,125/60i, 50i, 24p,		
		24sF (1,080/60i, 50i, 24p, 24sF) SMPTE 274M		
	PC signals	VGA display		
		VGA		
		SVGA, XGA, SXGA, UXGA (compressed)		
		Horizontal scanning frequency 15.6 - 110 kHz		
		Vertical scanning frequency 48 - 120 Hz		
Co	nnection terminals			
	AV	VIDEO IN/OUT (BNC)	1.0 Vp-p (75-ohm or high impedance)	
		S VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)	
		AUDIO IN (RCA PIN JACK \times 2)	0.5 Vrms (high impedance)	
	COMPONENT/RGB	Y/G (BNC)	1.0 Vp-p/composite (75-ohm)	
			0.7 Vp-p/non-composite (75-ohm)	
		P _B /B (BNC)	0.7 Vp-p (75-ohm)	
		Pr/R (BNC)	0.7 Vp-p (75-ohm)	
		HD (BNC)	1.0 - 5.0 Vp-p (high impedance)	
		VD (BNC)	1.0 - 5.0 Vp-p (high impedance)	
		AUDIO IN (RCA PIN JACK × 2)	0.5 Vrms (high impedance)	
	PC	(HIGH-DENSITY D-SUB 15PIN)	R,G,B/0.7 Vp-p (75-ohm)	
			HD, VD/1.0 - 5.0 Vp-p (high impedance)	
	050111	AUDIO IN (M3 JACK)	0.5 Vrms (high impedance)	
	SERIAL	EXTERNAL CONTROL TERMINAL (D-SUB 9PIN)	RS-232C COMPATIBLE	
	SPEAKERS (6 Ω)	16W [8 W + 8 W] (10 % THD)		

	TH-42PWD5	
Accessories Supplied		
Remote Control Transmitter	EUR646525	
Batteries	2 × AA Size	
Fixing bands	(TMME203 or TMME187) × 2	
Ferrite core	J0KF00000018 \times 1, J0KG00000054 \times 2	
Optional Supplied		
Speakers	TY-SP42PWD3W	
	TY-SP42P5W-K	
Pedestal	TY-ST05-K	
Wall stand	TY-ST42PW1	
Mobile stand	TY-ST42PF3	
Wall-hanging bracket (vertical)	TY-WK42PV1	
Wall-hanging bracket (angled)	TY-WK42PR1	
Wall-hanging bracket (Drawer type)	TY-WK42DR1	
Ceiling unit	TY-CE42PS1	
RGB(digital) Terminal Board	TY-42TM4D	
RGB active-through Terminal Board	TY-42TM5G	
Dimensions	40.2" (1,020 mm) × 24" (610 mm) × 3.5" (89 mm)	
$(W \times H \times D)$	3.5" 40.2" (1,020 mm) (89 mm)	
Mass (Weight)	approx. 62.7 lbs (main unit only) approx. 72.0 lbs (with speakers)	

Note:

Design and specifications are subject to change without notice. Weight and dimensions shown are approximate.

Customer' Record

The model number and serial number of this product can be found on its back cover. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

Panasonic Broadcast & Television Systems Company

Unit of Matsushita Electric Corporation of America

Executive Office :

One Panasonic Way 4E-7, Secaucus, NJ 07094 (201) 348-7000

EASTERN ZONE : One Panasonic Way 4E-7 Secaucus, NJ 07094 (201) 348-7621 Mid-Atlantic/New England : One Panasonic Way 4E-7 Secaucus, NJ 07094 (201) 348-7621 Southeast Region : 1225 Northbrook Parkway, Ste 1-160 Swanee GA 30024 (770)338-6835 Central Region : 1707 N Randall Road E1-C-1, Elgin, IL 60123 (847)468-5200

WESTERN ZONE : 3330 Cahuenga Blvd W., Los Angeles, CA 90068 (323) 436-3500 Dallas Region : 6226 Abington Way, Houston, TX 77008 (713) 802-2726 No. CA/Northwest Region : 5870 Stone Ridge, #3, Pleasanton, CA (925) 416-5108

Government Marketing Department : 52 West Gude Drive, Rockville, MD 20850 (301) 738-3840