

Panasonic®

Operating Instructions High Definition Plasma Display

Model No. **TH-42PD12U**
TH-50PD12U



The illustration shown is an image.
Before connecting, operating or adjusting this product, please read these instructions completely.
Please keep this manual for future reference.

English

| | | |
|--|---|---|
|  | CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN |  |
| 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.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments / accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 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 as well, and record the model number and serial number of your set in the space provided on the rear cover of these instructions.

Visit our Panasonic Web Site <http://panasonic.net>

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FCC STATEMENT

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

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

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.

FCC CAUTION:

To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by Panasonic Corp. of North America could void the user's authority to operate this device.

FCC Declaration of Conformity

Model No. TH-42PD12U, TH-50PD12U

| | |
|--------------------|---|
| Responsible Party: | Panasonic Corporation of North America One Panasonic Way 1F-10, Secaucus, NJ 07094 |
| Contact Source: | Panasonic Professional Display Company Panasonic Plasma Concierge 1-800-973-4390 |

CANADIAN NOTICE:

This Class B 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 image retention to remain on the 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.
 - SVGA, XGA, SXGA and UXGA are registered trademarks 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



CAUTION

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 Panasonic Corporation.)

- Speakers TY-SP42P8W-K (for TH-42PD12U), TY-SP50P8W-K (for TH-50PD12U),
- Pedestal TY-ST08-K
- Mobile stand TY-ST58PF10
- Wall-hanging bracket (vertical) TY-WK42PV7
- Wall-hanging bracket (angled) TY-WK42PR7
- Wall-hanging bracket (drawer type) TY-WK42DR1
- Ceiling-hanging bracket TY-CE42PS7
- Touch Panel TY-TP42P10S (for TH-42PD12U), TY-TP50P10S (for TH-50PD12U)
- Anti Glare Filter TY-AR42P12W (for TH-42PD12U), TY-AR50P12W (for TH-50PD12U)

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

Small parts can present choking hazard if accidentally swallowed. Keep small parts away from young children. Discard unneeded small parts and other objects, including packaging materials and plastic bags/sheets to prevent them from being played with by young children, creating the potential risk of suffocation.

■ 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.

This Plasma Display radiates infrared rays, therefore it may affect other infrared communication equipment. Install your infrared sensor in a place away from direct or reflected light from your Plasma Display.

Note:

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

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

WARNING

■ Setup

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.

Transport only in upright position!

- Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

If using the pedestal (optional accessory), leave a space of 3 15/16" (10 cm) or more at the top, left and right, and 2 3/4" (7 cm) or more at the rear, and also keep the space between the bottom of the display and the floor surface. If using some other setting-up method, follow the manual of it. (If there is no specific indication of installation dimension in the installation manual, leave a space of 3 15/16" (10 cm) or more at the top, bottom, left and right, and 2 3/4" (7 cm) or more at the rear.)

An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.

■ AC Power Supply Cord

The Plasma Display is designed to operate on 110 - 127 V AC, 50/60 Hz.

Do not use any power supply cord other than that provided with this unit.

- Doing so may cause fire or electric shocks.

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.

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, wipe with a soft, lint-free cloth which has been soaked in pure water or water in which neutral detergent has been diluted 100 times, and 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, otherwise the surface may become damaged. 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.

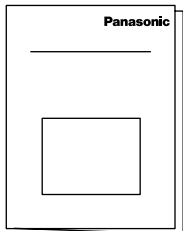
- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface 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.

Accessories

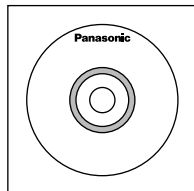
Accessories Supplied

Check that you have the Accessories and items shown ☒

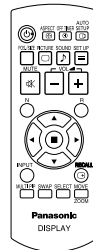
☐ Operating Instruction book



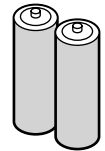
☐ CD-ROM (Operating instructions)



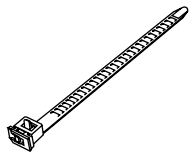
☐ Remote Control Transmitter N2QAYB000432



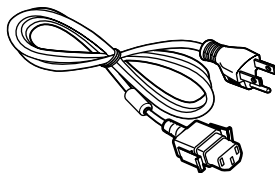
☐ Batteries for the Remote Control Transmitter (2 × AA Size)



☐ Fixing band × 1



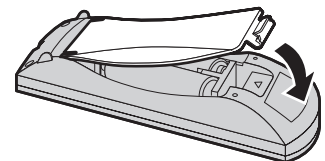
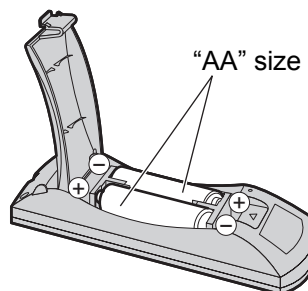
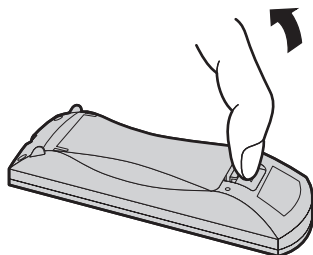
☐ AC cord



Remote Control Batteries

Requires two AA batteries.

1. Pull and hold the hook, then open the battery cover.
2. Insert batteries - note correct polarity (+ and -).
3. Replace the cover.



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. Disposal of batteries should be in an environment-friendly manner.

Observe the following precautions:

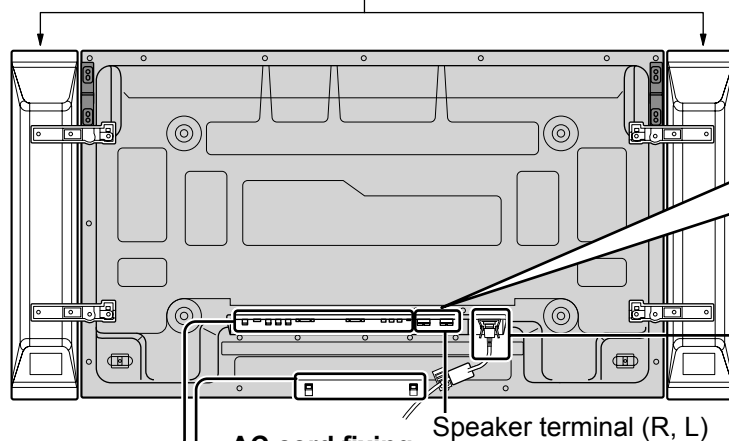
1. Batteries should always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.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

Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Connections

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.

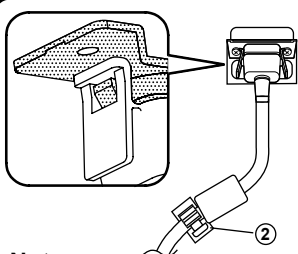
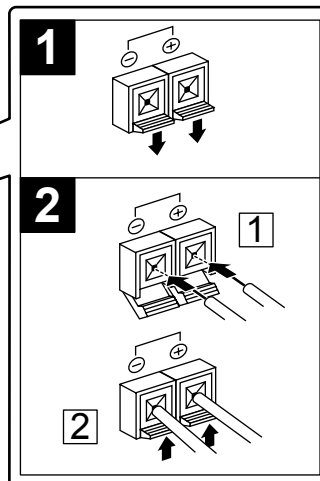
Speakers (Optional accessories)



AC cord connection
(see page 13)

Speaker terminal (R, L)

- AC cord fixing

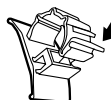


Note:
Make sure that the AC cord is locked on both the left and right sides.



- ① **Plug the AC cord into the display unit.**
Plug the AC cord until it clicks.
- ② **Fix the AC cord with the clammer which is attached to the unit.**

Close



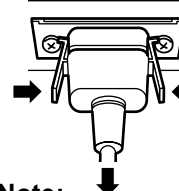
Push until the hook clicks.

Open



2. Pull off.
1. Keep the knob pressed.

Unplug the AC cord



Unplug the AC cord pressing the two knobs.

Note:
When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.

- Cable fixing band

Secure any excess cables with band as required.

Note:

One fixing band is supplied with this unit. In case of securing cables at two positions, please purchase it separately.

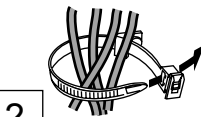
Pass the attached cable fixing band through the clip as shown in the figure.



1

To secure cables connected to Terminals, wrap the cable fixing band around them then pass the pointed end through the locking block, as shown in the figure.

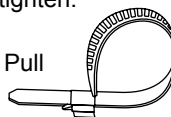
While ensuring there is sufficient slack in cables to minimize stress (especially in the power cord), firmly bind all cables with the supplied fixing band.



2

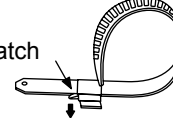
To tighten:

← Pull

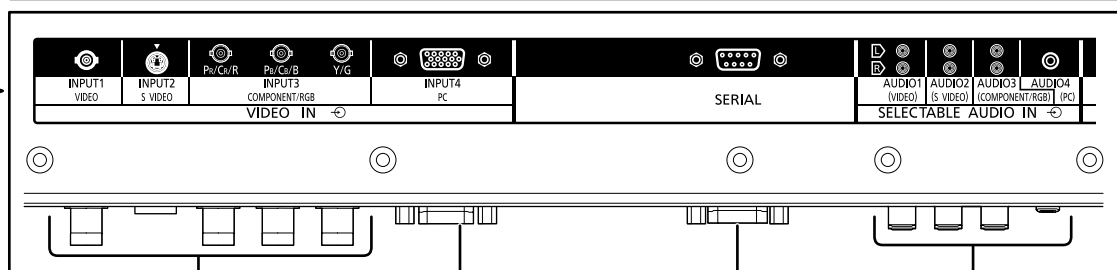


To loosen:

Push the catch



→ Pull



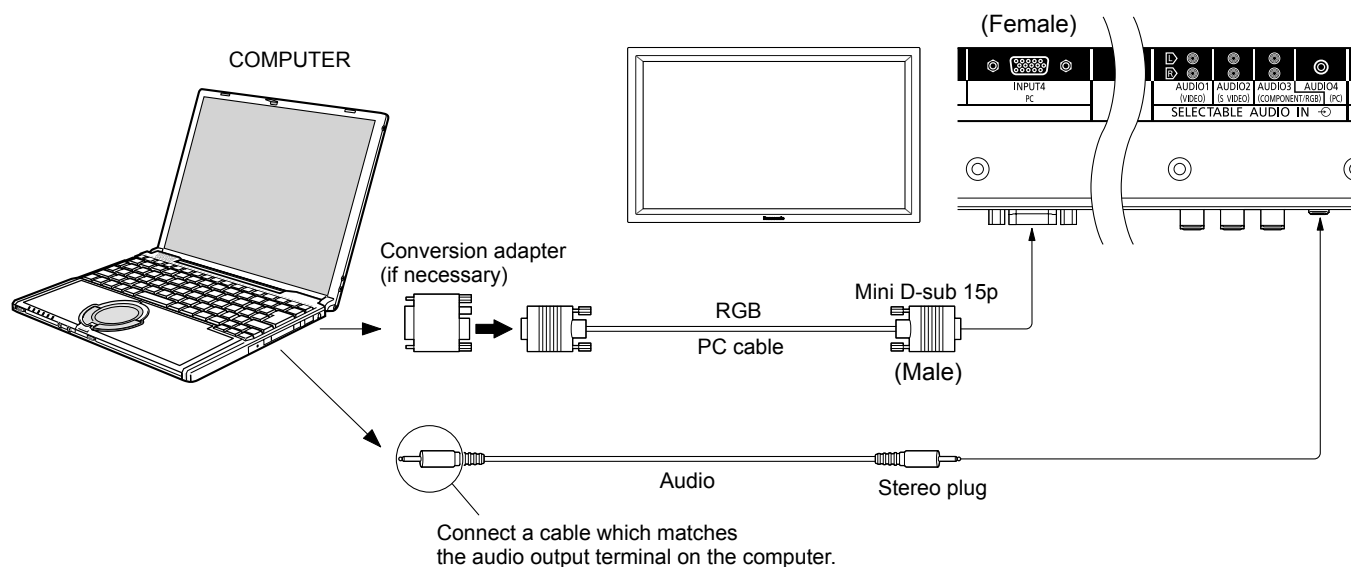
INPUT1: Video input terminal
INPUT2: S Video input terminal
INPUT3: Component/RGB Video input terminals
Connect a video device such as VCR or DVD player. (see page 12)

INPUT4: PC input terminal
From EXTERNAL monitor terminal on computer (see page 10)

From SERIAL terminal on computer (see page 11)

From audio output terminal on external equipment connected to INPUT1 to 4 (see page 10, 12)

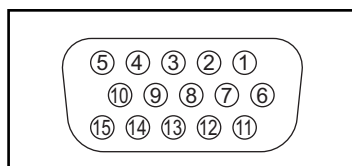
PC Input Terminals connection



Notes:

- Computer signals which can be input are those with a horizontal scanning frequency of 15 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.)
- The display resolution is a maximum of 768 × 768 dots (TH-42PD12U), 1,024 × 768 dots (TH-50PD12U) when the aspect mode is set to “4:3”, and 1,024 × 768 dots (TH-42PD12U), 1,366 × 768 dots (TH-50PD12U) 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.
- The PC input terminals are DDC2B-compatible. If the computer being connected is not DDC2B-compatible, you will need to make setting changes to the computer at the time of connection.
- Some PC models cannot be connected to the set.
- There is no need to use an adapter for computers with DOS/V compatible Mini D-sub 15P terminal.
- The computer shown in the illustration is for example purposes only.
- Additional equipment and cables shown are not supplied with this set.
- Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.
- Component Input is possible with the pin 1, 2, 3 of the Mini D-sub 15P Connector.
- Change the “COMPONENT/RGB-IN SELECT” setting in the “SET UP” menu to “COMPONENT” (when COMPONENT signal connection) or “RGB” (when RGB signal connection). (see page 35)

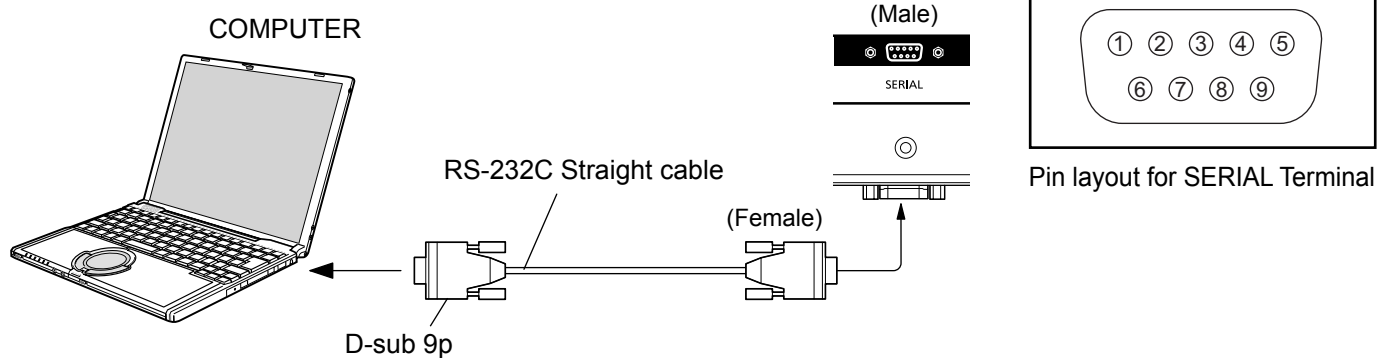
Signal Names for Mini D-sub 15P Connector



| Pin No. | Signal Name | Pin No. | Signal Name | Pin No. | Signal Name |
|---------|-------------------------------------|---------|--------------|---------|--------------------|
| ① | R (P _R /C _R) | ⑥ | GND (Ground) | ⑪ | NC (not connected) |
| ② | G (Y) | ⑦ | GND (Ground) | ⑫ | SDA |
| ③ | B (P _B /C _B) | ⑧ | GND (Ground) | ⑬ | HD/SYNC |
| ④ | NC (not connected) | ⑨ | +5 V DC | ⑭ | VD |
| ⑤ | GND (Ground) | ⑩ | GND (Ground) | ⑮ | SCL |

SERIAL Terminals connection

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



Notes:

- Use the RS-232C straight cable to connect the computer to the Plasma Display.
- The computer shown is for example purposes only.
- 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.

Signal names for D-sub 9P connector

| Pin No. | Details |
|---------|-----------------------|
| ② | R X D |
| ③ | T X D |
| ⑤ | GND |
| ④ • ⑥ | Non use |
| ⑦ ⑧ | (Shorted in this set) |
| ① • ⑨ | NC |

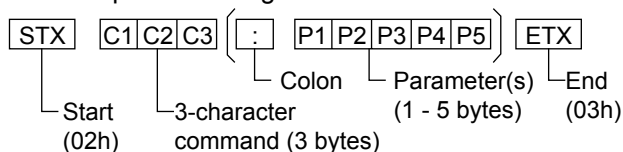
These signal names are those of computer specifications.

Communication parameters

| Signal level | RS-232C compliant |
|------------------------|-------------------|
| Synchronization method | Asynchronous |
| Baud rate | 9600 bps |
| Parity | None |
| Character length | 8 bits |
| Stop bit | 1 bit |
| Flow control | - |

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:

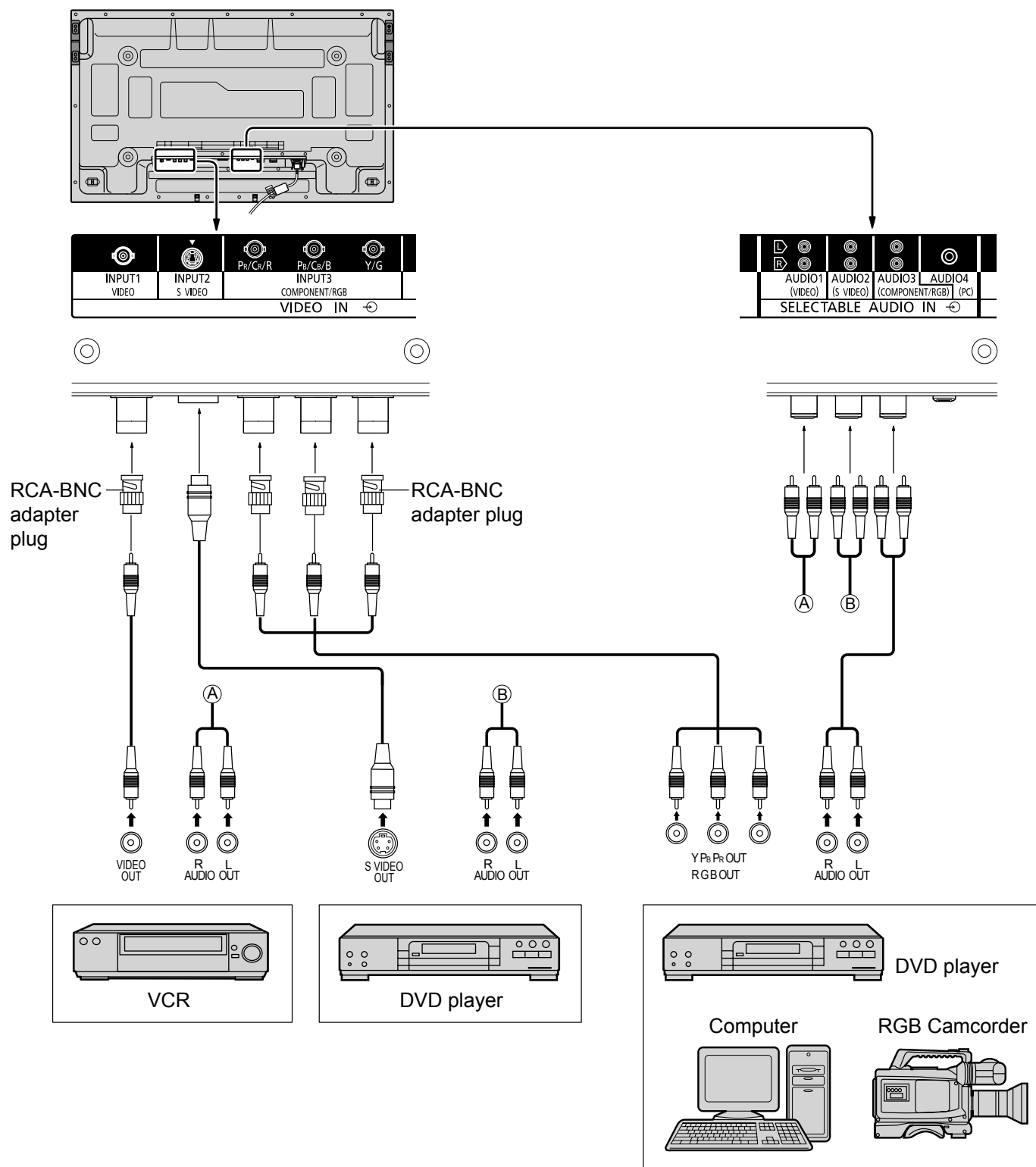
- If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.

Command

| Command | Parameter | Control details |
|---------|-----------|-------------------------------|
| PON | None | Power ON |
| POF | None | Power OFF |
| AVL | ** | Volume 00 - 63 |
| AMT | 0 | Audio MUTE OFF |
| | 1 | Audio MUTE ON |
| IMS | None | Input select (toggle) |
| | SL1 | INPUT1 (VIDEO) |
| | SL2 | INPUT2 (S-VIDEO) |
| | SL3 | INPUT3 (COMPONENT) |
| | PC1 | INPUT4 (PC) |
| DAM | None | Screen mode select (toggle) |
| | ZOOM | ZOOM (For Video/SD/PC signal) |
| | FULL | FULL |
| | JUST | JUST (For Video/SD signal) |
| | NORM | 4:3 (For Video/SD/PC signal) |
| | SJST | JUST (For HD signal) |
| | SNOM | 4:3 (For HD signal) |
| | SFUL | H-FILL (For HD signal) |
| | ZOM2 | ZOOM (For HD signal) |

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

AV connection



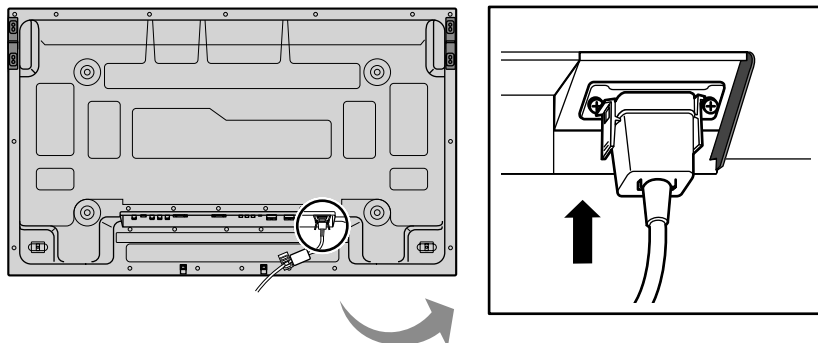
Notes:

- Additional equipment, cables and adapter plugs shown are not supplied with this set.
- Change the "COMPONENT/RGB-IN SELECT" setting in the "SET UP" menu to "COMPONENT" (when COMPONENT signal connection) or "RGB" (when RGB signal connection). (see page 35)
- SYNC ON G signal is needed. (see page 39)

Power ON / OFF

Connecting the AC cord plug to the Plasma Display.

Fix the AC cord plug securely to the Plasma Display with the clamber. (see page 9)



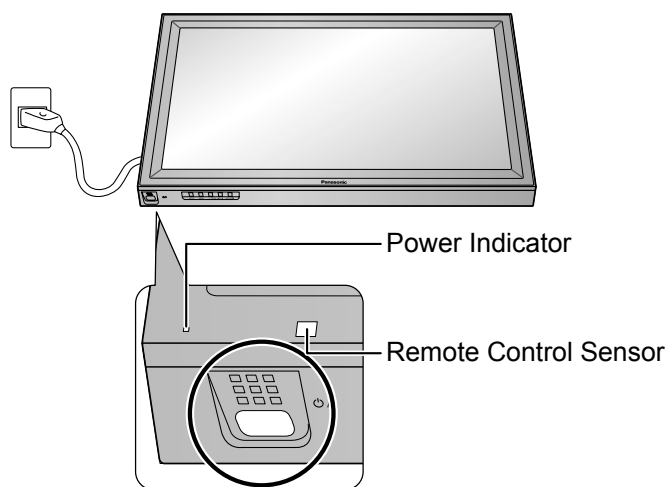
Connecting the plug to the Wall Outlet.


Note:

When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.


Press the Power switch on the Plasma Display to turn the set on: Power-On.

Power Indicator: Green




Press the  button on the remote control to turn the Plasma Display off.

Power Indicator: Red (standby)

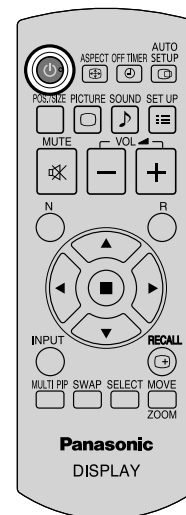
Press the  button on the remote control to turn the Plasma Display on.

Power Indicator: Green

Turn the power to the Plasma Display off by pressing the /I switch on the unit, when the Plasma Display is on or in standby mode.

Note:

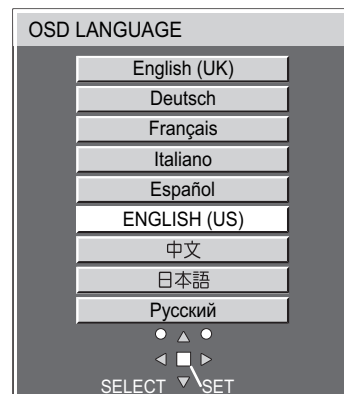
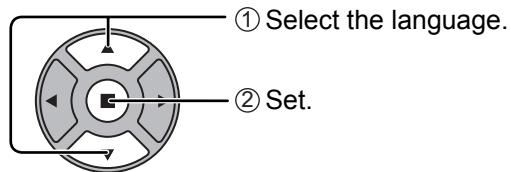
During operation of the power management function, the power indicator turns orange in the power off state.



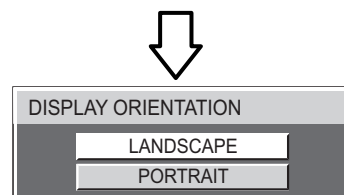
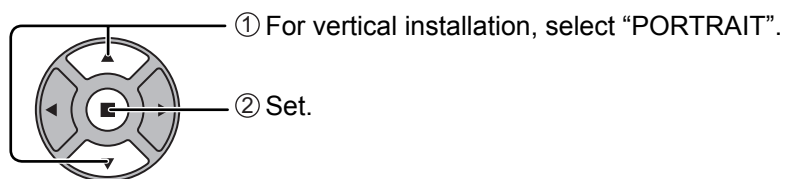
When first switching on the unit

Following screen will be displayed when the unit is turned on for the first time.
Select the items with the remote control. Unit buttons are invalid.

OSD LANGUAGE



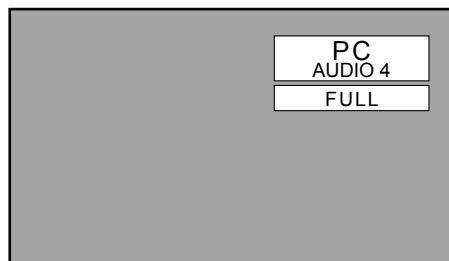
DISPLAY ORIENTATION



Notes:

- Once the items are set, the screens won't be displayed when switching on the unit next time.
- After the setting, the items can be changed in the following menus.
OSD LANGUAGE (see page 31)
DISPLAY ORIENTATION (see page 32)

From the second time on, the below screen is displayed for a while (setting condition is an example).



Selecting the input signal

INPUT



Press to select the input signal to be played back from the equipment which has been connected to the Plasma Display.

Input signals will change as follows:

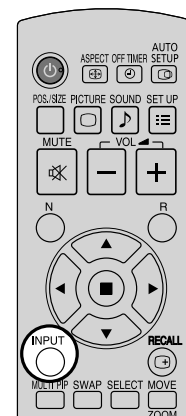
→ VIDEO → S-VIDEO → COMPONENT → PC

VIDEO: Video input terminal in INPUT1.

S-VIDEO: S Video input terminal in INPUT2.

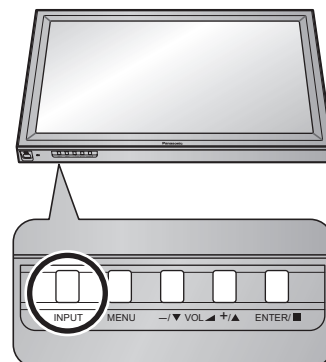
COMPONENT: Component or RGB input terminal in INPUT3.

PC: PC input terminal in INPUT4.



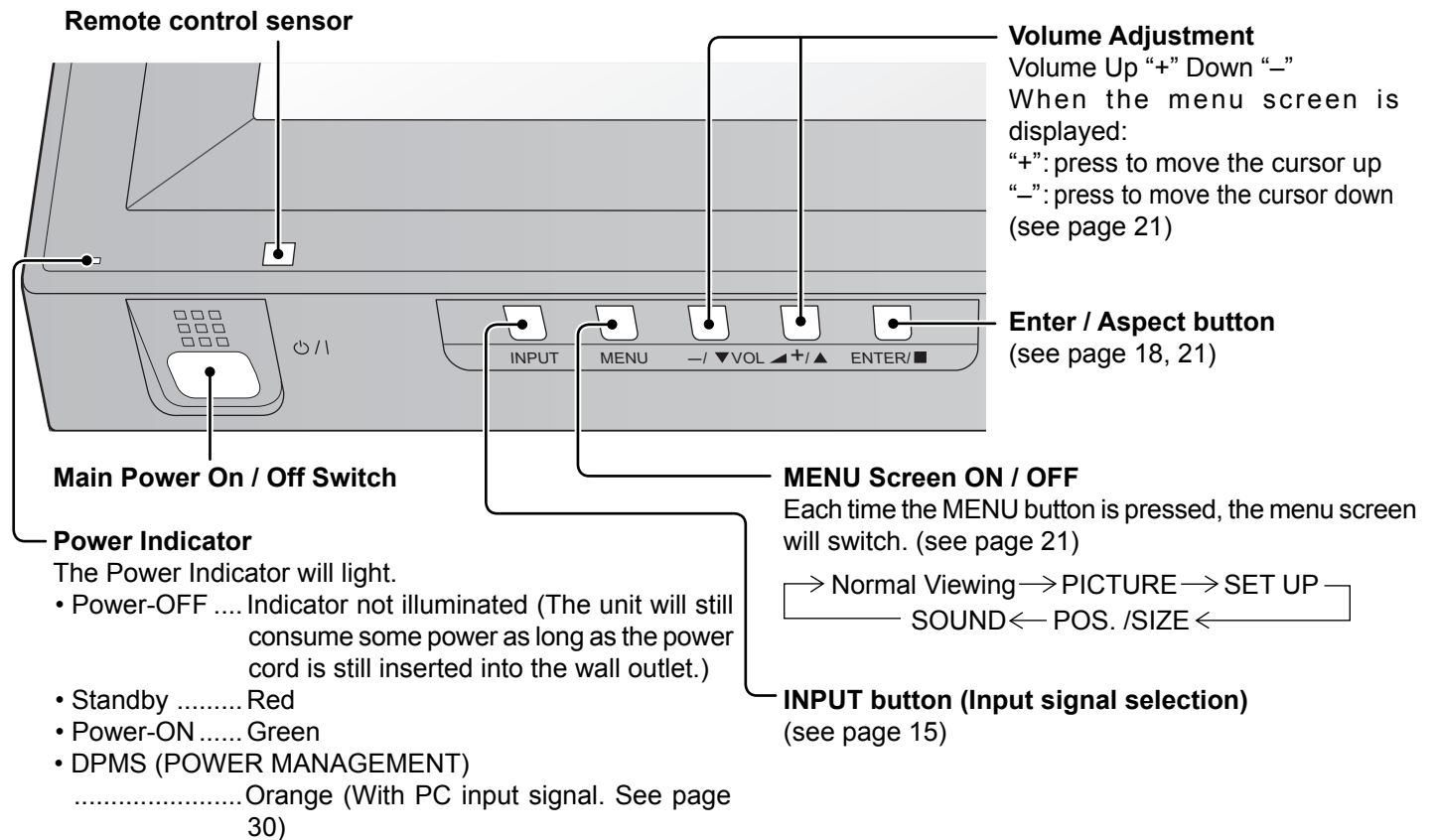
Notes:

- Selecting is also possible by pressing the INPUT button on the unit.
- The sound set with "AUDIO INPUT SELECT" is output. (see page 32)
- Select to match the signals from the source connected to the component/RGB input terminals. (see page 35)
- In 2 screen display, the same input mode cannot be selected for the main picture and sub picture.
- Image retention (image lag) may occur on the plasma display panel when a still picture is kept on the panel for an extended period. The function that darkens the screen slightly is activated to prevent image retention (see page 44), but this function is not the perfect solution to image retention.



Basic Controls

Main Unit



Remote Control Transmitter

ACTION button

Press to make selections.

ASPECT button

Press to adjust the aspect.
(see page 18)

Standby (ON / OFF) button

The Plasma Display must first be plugged into the wall outlet and turned on at the power switch (see page 13). Press this button to turn the Plasma Display On, from Standby mode. Press it again to turn the Plasma Display Off to Standby mode.

POS. /SIZE button

(see page 22)

PICTURE button

(see page 24)

Sound mute On / Off

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.

N button

(see page 23, 24, 25, 26)

POSITION buttons

INPUT button

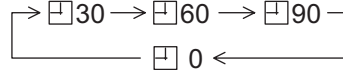
Press to select input signal sequentially.
(see page 15)

MULTI Window buttons

(see page 19)

OFF TIMER button

The Plasma Display can be preset to switch to stand-by after a fixed period. The setting changes to 30 minutes, 60 minutes, 90 minutes and 0 minutes (off timer cancelled) each time the button is pressed.



When three minutes remain, "OFF TIMER 3" will flash. The off timer is cancelled if a power interruption occurs.

AUTO SETUP button

Automatically adjusts the position/size of the screen. (see page 22)

SET UP button (see page 21)

SOUND button (see page 26)

Volume Adjustment

Press the Volume Up "+" or Down "-" button to increase or decrease the sound volume level.

R button (see page 21)

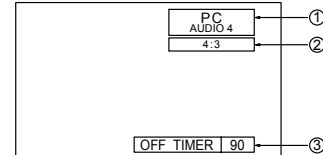
Press the R button to return to previous menu screen.

RECALL button

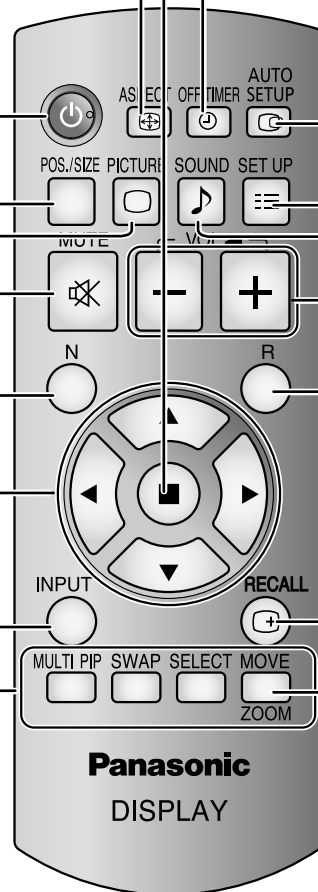
Press the "RECALL" button to display the current system status.

- ① Input label (video, audio)
- ② Aspect mode (see page 18)
- ③ Off timer

The off timer indicator is displayed only when the off timer has been set.



Digital Zoom (see page 20)



ASPECT Controls

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

ASPECT



Press repeatedly to move through the aspect options:

For details about the aspect mode, please see "List of Aspect Modes" (page 45).

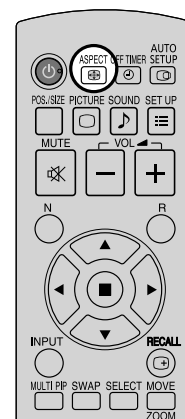
For VIDEO (S VIDEO) signal input:

→ 4:3 → ZOOM
JUST ← FULL ←

[from the unit]



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



For PC signal input:

→ 4:3 → ZOOM → FULL

For SD signal input (525 (480) / 60i • 60p, 625 (575) / 50i • 50p):

→ 4:3 → ZOOM → FULL → JUST

For HD signal input [1125 (1080) / 60i • 50i • 60p • 50p • 24p • 25p • 30p • 24sF, 1250 (1080) / 50i, 750 (720) / 60p • 50p]:

→ 4:3 → H-FILL → ZOOM → FULL → JUST

[During MULTI PIP Operations]

- Picture and Picture, Picture in Picture : → 4:3 → FULL
- Others : Aspect switching is not possible.

Notes:

- The aspect mode is memorized separately for each input terminal.
- Do not allow the picture to be displayed in 4:3 mode for an extended period, as this can cause a permanent image retention to remain on the Plasma Display Panel.

All Aspect mode

Set "All Aspect" to "On" in Options menu to enable the extended aspect mode (page 42). When All Aspect mode, the aspect mode of pictures is switched as follows. For details about the aspect mode, please see "List of Aspect Modes" (page 45).

For VIDEO (S VIDEO) signal input:

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For PC signal input:

→ 4:3 → Zoom → 16:9

For SD signal input (525 (480) / 60i • 60p, 625 (575) / 50i • 50p):

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For HD signal input [1125 (1080) / 60i • 50i • 60p • 50p • 24p • 25p • 30p • 24sF, 1250 (1080) / 50i, 750 (720) / 60p • 50p]:

→ 4:3 Full → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just1 → Just2 → 4:3 (1) → 4:3 (2)

MULTI PIP

MULTI PIP



Press repeatedly.

Each time pressing this button main picture and sub picture will be displayed as follows below.

SWAP



Press to swap main picture and sub picture.

SELECT



Press to select the input mode.

Under main Picture and sub picture display, select the picture which you would like to change input modes.

Notes:

- The sub picture sound is heard while a sub picture operation is underway.
- The sub picture operation automatically returns to the main picture operation if a sub picture operation has not been performed for about 5 seconds or if any of the remote control buttons is pressed (except INPUT button).

INPUT



Press to change input signal.

MOVE



ZOOM

Press to move the sub picture.

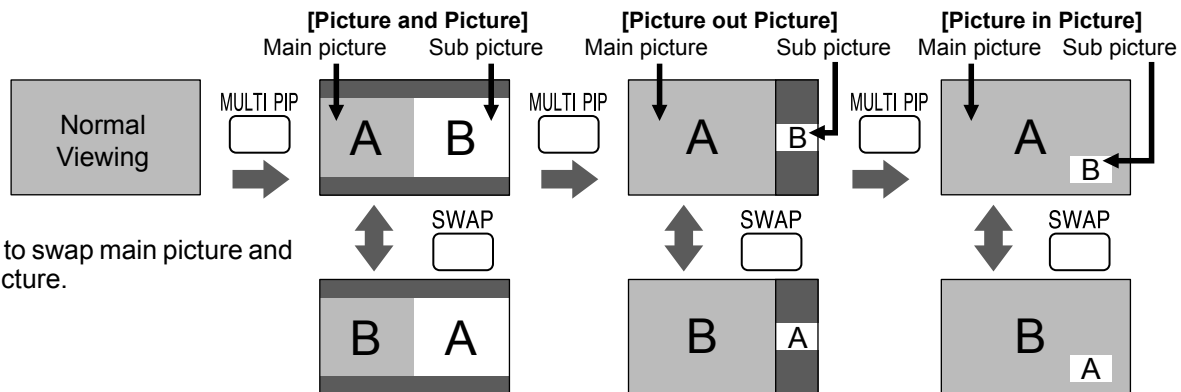
Each time the location of the sub picture will be moved.

Notes:

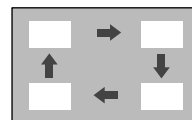
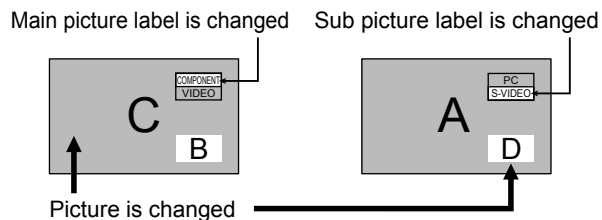
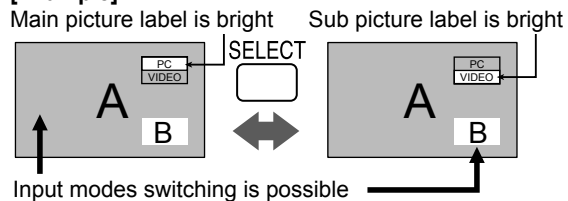
- This button is effective only in the picture in picture.
- The sub picture may be hidden by the on screen display, depending on its position.

Notes:

- If "INPUT lock" in Options menu is set to other than "Off", MULTI PIP function isn't available.
- Sound output is from the picture which is selected in AUDIO OUT (PIP) (see page 26).
- In 2 screen display, the same input mode cannot be selected for the main picture and sub picture.
- The main picture and sub picture are processed by different circuits, resulting in a slight difference in the clarity of the pictures. There may also be a difference in the picture quality of the sub picture depending on the type of signals displayed on the main picture and depending on the 2-picture display mode.
- Due to the small dimensions of the sub pictures, these sub pictures cannot be shown in detail.
- Computer screen picture is displayed in a simplified format, and it may not be possible to discern details on them satisfactorily.
- Following combinations of two signals cannot be displayed simultaneously;
INPUT1 (Video) - INPUT2 (S Video), INPUT3 (Component) - INPUT4 (PC)
- Be aware that if you put the display in a public place for commercial purposes or a public showing and then use the MULTI PIP function to make a composite screen display, you may be violating the copyright under copyright law. It is prohibited to show or alter the copyrighted materials of other people for commercial purposes without the prior permission of the copyright holder.



[Example]



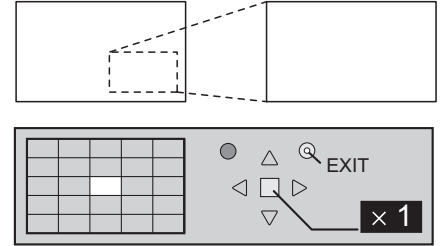
Digital Zoom

This displays an enlargement of the designated part of the displayed image.

1 Display the operation guide.

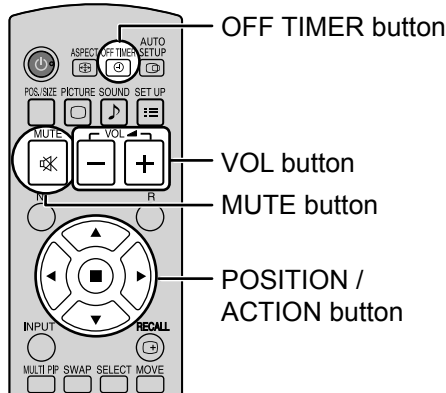


Press to access Digital Zoom.
The operation guide will be displayed.

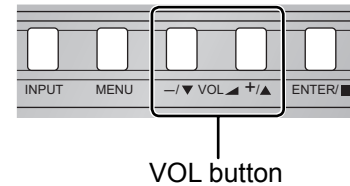


During Digital Zoom, only the following buttons can be operated.

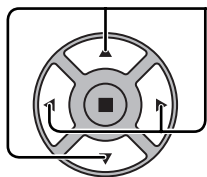
[Remote control]



[Unit]

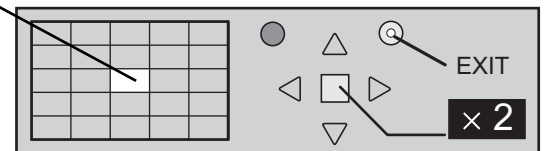
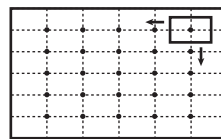


2 Select the area of the image to be enlarged.

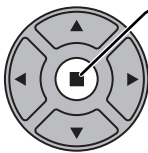


Press on the enlargement location to select.

The cursor will move.



3 Select the magnification required for the enlarged display.



Each time this is pressed, the magnification factor changes.
This is shown in the image being displayed.



4 Return to normal display (quit Digital Zoom).



Press to exit from the Digital Zoom.

Notes:

- When power goes OFF (including "Off Timer" operation), Digital Zoom terminates.
- The Digital Zoom function cannot be selected while in the following operation state:
"Multi-viewer" (Picture in Picture, Picture out Picture, Picture and Picture) operation. (see page 19)
When MULTI DISPLAY SETUP is ON (see page 33).
When SCREENSAVER (except for NEGATIVE IMAGE) is running. (see page 27)
- While Digital Zoom is in operation, "Adjusting POS. /SIZE" cannot be used.

On-Screen Menu Displays

1 Display the menu screen.

Remote Control



Press to select.
(Example: PICTURE menu)

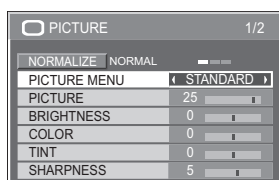
Unit

Press several times.

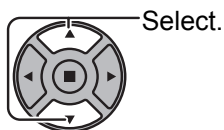
Each time the MENU button is pressed, the menu screen will switch.

→ Normal Viewing → PICTURE →
SOUND ← POS. /SIZE ← SET UP ←

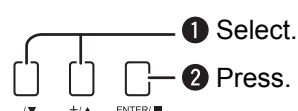
2 Select the item.



(Example:
PICTURE menu)



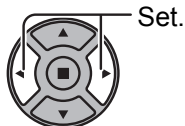
Select.



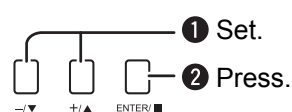
1 Select.

2 Press.

3 Set.



Set.



1 Set.

2 Press.

4 Exit the menu.



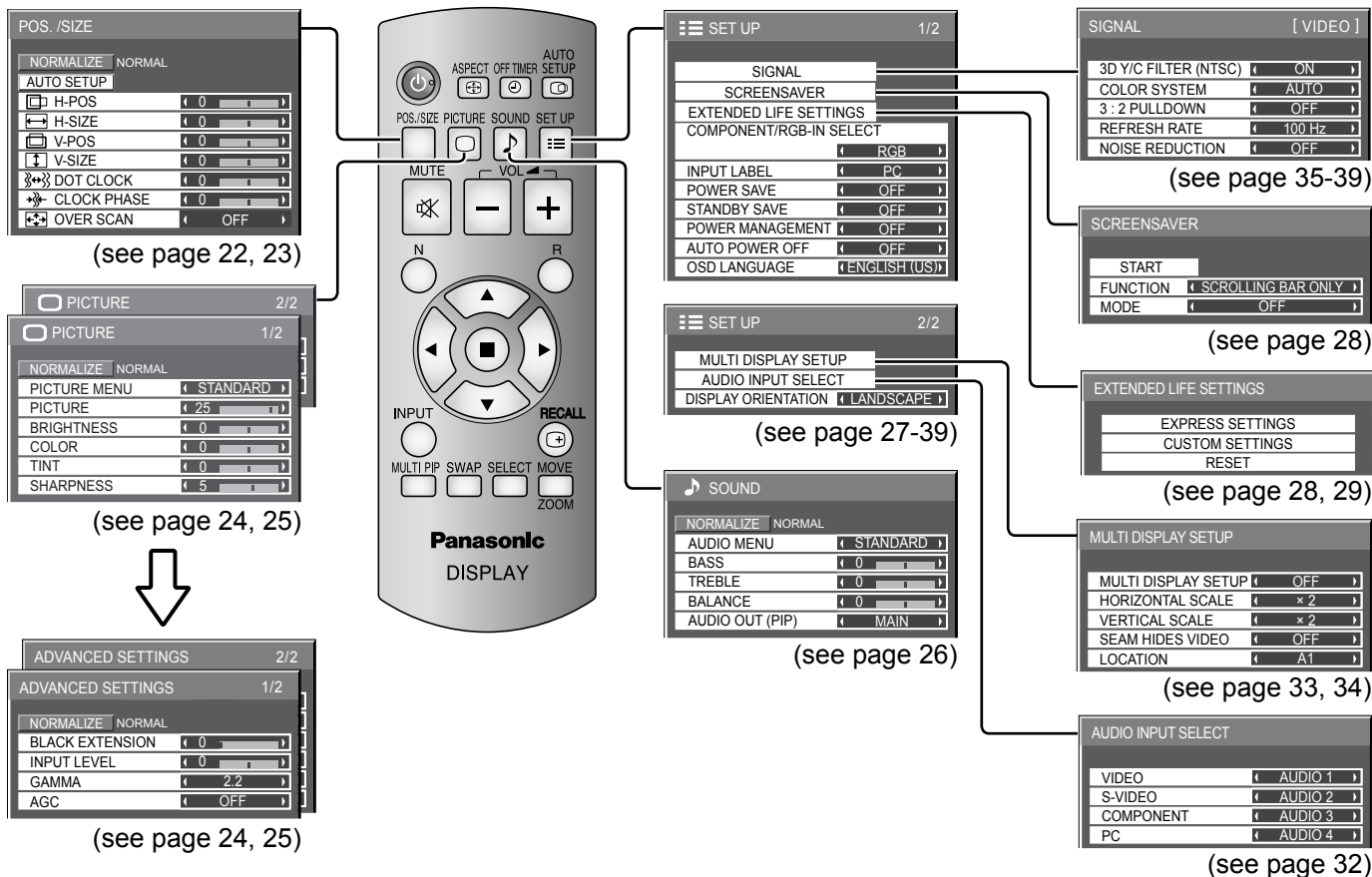
Press.

Press to return to the previous menu.


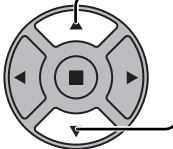
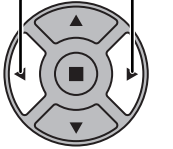

Press several times.

Overview

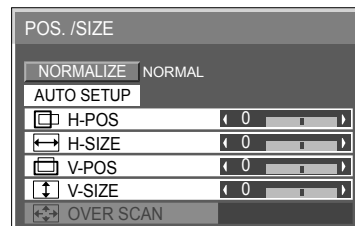
Note: Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.



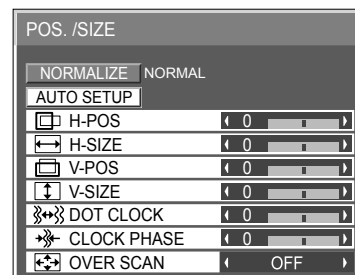
Adjusting POS. /SIZE

- 1  Press to display the POS. /SIZE menu.
- 2  Press to select the menu to adjust.
- 3  Press to adjust the menu.
- 4  Press to exit from adjust mode.

During “VIDEO (S VIDEO)” input signal.



During “COMPONENT”, “RGB” and “PC” input signal.



Notes:

- Unadjustable items are grayed out.
- Adjustable items differ depending on the input signal and the display mode.
- Adjustment details are memorized separately for different input signal formats. (Adjustments for component signals are memorized for 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 1125 (1080) / 60i · 50i · 60p · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i, 750 (720) / 60p · 50p each, and RGB/PC signals are memorized for each frequency.)
- 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 POS. /SIZE function.

AUTO SETUP

H-POS/V-POS, H-SIZE/V-SIZE, DOT CLOCK and CLOCK PHASE are automatically adjusted when the INPUT3 (COMPONENT/RGB) or INPUT4 (PC) signal is received.

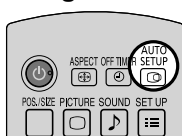
This setting is enabled under the following conditions:

- This setting only support single screen display. Two screen display or multiple display are not supported.
- When “COMPONENT/RGB-IN SELECT” in the “SET UP” menu (see page 35) is set to “RGB”, this setting is enabled.
- When the signal is not PC format, this setting is enabled only if “OVER SCAN” (see page 23) is “OFF”, and H-SIZE/V-SIZE is not automatically adjusted.

This setting will be invalid and will not work under the following conditions:

- Aspect is set to “JUST”
- “Display size” in the Options menu (see page 41) is set to “On”

Using Remote Control



When  on the remote control is pressed, “AUTO SETUP” will be executed.

When AUTO SETUP does not work, “INVALID” is displayed.

Auto mode

When the “Auto Setup” is set to “Auto” in the Options menu (see page 42), automatic position adjustment starts:

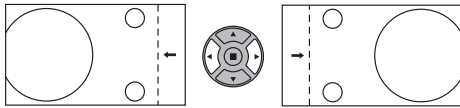
- When the display power is turned ON.
- When the input signal is switched.

Notes:

- If the dot clock frequency is 108 MHz or higher, DOT CLOCK and CLOCK PHASE cannot be made.
- AUTO SETUP may not work when a cropped or dark image is input. In such case, switch to a bright image with borders and other objects are clearly shown, and then try auto setup again.
- Depending on the signal, out of alignment may occur after AUTO SETUP. Carry out fine tuning for the position/size as required.
- If AUTO SETUP cannot set properly for vertical frequency 60Hz XGA signal (1024×768@60Hz, 1280×768@60Hz, and 1366×768@60Hz), pre-selecting the individual signal in “XGA MODE” (see page 37) may results in correct AUTO SETUP.
- AUTO SETUP does not work well when a signal such as additional information is superimposed out of valid image period or intervals between synchronizing and image signals are short, or for image signal with tri-level synchronizing signal added.
- If AUTO SETUP cannot adjust correctly, select “NORMALIZE” once and press ACTION (■) then adjust POS. /SIZE manually.

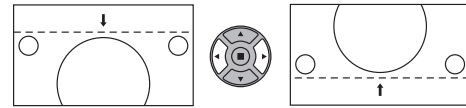
H-POS

Adjust the horizontal position.



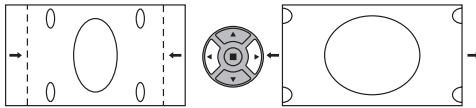
V-POS

Adjust the vertical position.



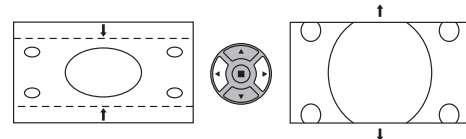
H-SIZE

Adjust the horizontal size.



V-SIZE

Adjust the vertical size.



DOT CLOCK

(During “COMPONENT”, “RGB” and “PC” input signal)

Periodic striped pattern interference (noise) may occur when a striped pattern is displayed. If this happens, adjust so that any such noise is minimized.

CLOCK PHASE

(During “COMPONENT”, “RGB” and “PC” input signal)

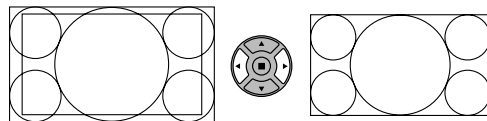
Eliminate the flickering and distortion.

OVER SCAN

Turn image over scan ON/OFF.

Configurable signals are as follows:

525i, 525p, 625i, 625p, 750/60p, 750/50p, 1125/60i, 1125/50i, 1125/24sF, 1125/25p, 1125/24p, 1125/60p, 1125/50p, 1125/30p, 1250/50i (Component Video, RGB)



ON

OFF


Notes:

- When “OFF” is set, “H-SIZE” and “V-SIZE” cannot be adjusted.
- When the “Display size” is set to “On” in the Options menu, this setting will be invalid. (see page 41)

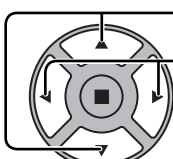
Helpful Hint (/ **NORMALIZE** Normalization)

While the 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.

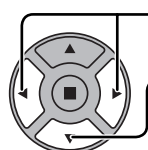
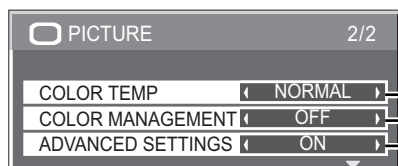
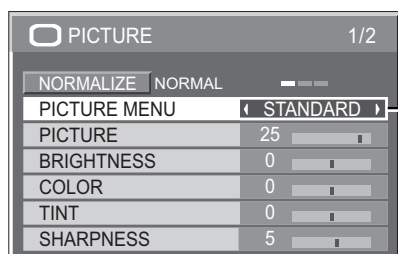
PICTURE Adjustments

1  Press to display the PICTURE menu.

2 Select to adjust each item.

 Press to select the menu to adjust.
Select the desired level by looking at the picture behind the menu.

Note:
Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.

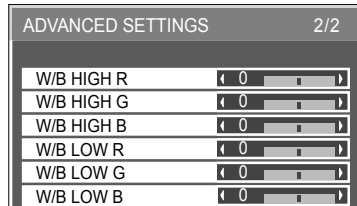
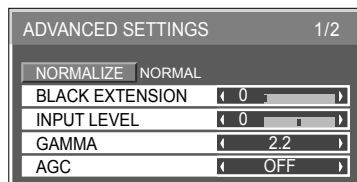


Press to select "ON".

Press to enter Advanced Settings.

ADVANCED SETTINGS ON

Enables fine picture adjustment at a professional level (see next page).



ADVANCED SETTINGS OFF

Displays images with settings of the PICTURE menu.

Press the left ◀ or right ▶ button to switch between modes.

▶ STANDARD ◀ ◀ DYNAMIC ▶
▶ CINEMA ◀

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.

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 next page)

Press the left ◀ or right ▶ button to switch between modes.

▶ NORMAL ◀ ◀ COOL ▶ ◀ WARM ◀

COLOR MANAGEMENT ON

Enables vivid color adjustment automatically.

Helpful Hint (/ 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 | Effect | 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 | Reddish Greenish | Adjusts for natural flesh tones. |
| SHARPNESS | Less More | Adjusts picture sharpness. |

Notes:

- “COLOR” and “TINT” settings cannot be adjusted for “RGB/PC” input signal.
- You can change the level of each function (PICTURE, BRIGHTNESS, COLOR, TINT, SHARPNESS) for each PICTURE MENU.
- The setting details for STANDARD, DYNAMIC and CINEMA respectively are memorized separately for each input terminal.
- The “TINT” setting can be adjusted for NTSC signal only during “VIDEO (S VIDEO)” input signal.
- In PICTURE, there is not a noticeable change even when contrast is increased with a bright picture or reduced with a dark picture.

ADVANCED SETTINGS

| Item | Effect | Details |
|-----------------|----------------------|---|
| BLACK EXTENSION | Less More | Adjusts the dark shades of the image in gradation. |
| INPUT LEVEL | Less More | Adjustment of parts which are extremely bright and hard to see. |
| GAMMA | Down Up | S CURVE \longleftrightarrow 2.0 \longleftrightarrow 2.2 \longleftrightarrow 2.5 |
| AGC | OFF ON | Increases the brightness of dark signal automatically. |
| W/B HIGH R | Less More | Adjusts the white balance for light red areas. |
| W/B HIGH G | Less More | Adjusts the white balance for light green 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 G | Less More | Adjusts the white balance for dark green areas. |
| W/B LOW B | Less More | Adjusts the white balance for dark blue areas. |


Notes:

- Carry out “W/B” adjustment as follows.
 1. Adjust the white balance of the bright sections using the “W/B HIGH R”, “W/B HIGH G” and “W/B HIGH B” settings.
 2. Adjust the white balance of the dark sections using the “W/B LOW R”, “W/B LOW G” and “W/B LOW B” settings.
 3. Repeat steps 1 and 2 to adjust.
 Steps 1 and 2 affect each other's settings, so repeat each step in turn to make the adjustment.
- The adjustment values are memorized separately for each input terminal.
- The adjustment range values should be used as an adjustment reference.

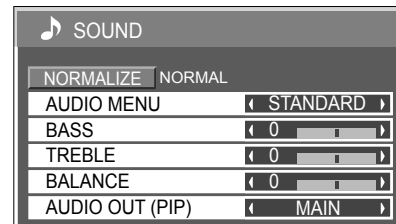
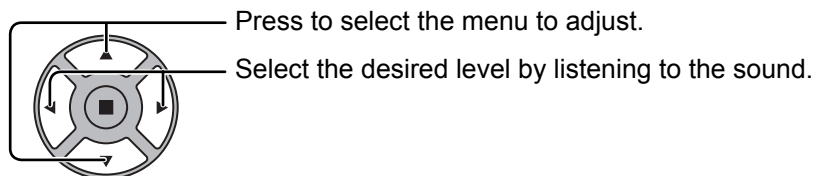
Helpful Hint (/ **NORMALIZE** Normalization)

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.

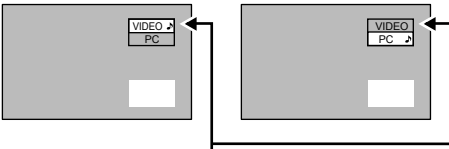
SOUND Adjustment

1  Press to display the SOUND menu.

2 Select to adjust each item.



3  Press to exit from adjust mode.

| Item | Details |
|------------------------|---|
| AUDIO MENU | STANDARD: Emits the original sound. DYNAMIC: Accentuates sharp sound. |
| BASS | Adjusts low pitch sounds. |
| TREBLE | Adjusts high pitch sound. |
| BALANCE | Adjusts left and right volumes. |
| AUDIO OUT (PIP) | MAIN: Selects main picture sound. SUB: Selects PIP frame sound. <div data-bbox="812 829 1258 976" data-label="Image">  </div> <p>Musical note ♪ is displayed on right side of the audio output screen label.</p> |


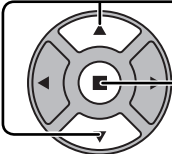
Note: BASS and TREBLE settings are memorized separately for each AUDIO MENU.

Helpful Hint (/ **NORMALIZE** Normalization)

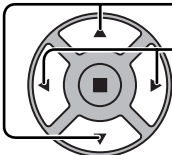
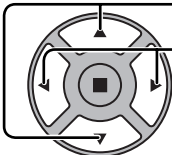
While the "SOUND" menu is displayed, if either the N button on the remote control is pressed at any time or the ACTION (■) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

SCREENSAVER (For preventing image retention)

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  Press to display the SET UP menu.
- 2  Press to select the SCREENSAVER.
Press to select the SCREENSAVER screen.

3 FUNCTION selection

-  Press to select the FUNCTION.
-  Press to select the desired function.

NEGATIVE IMAGE : A negative image will be displayed on the screen.

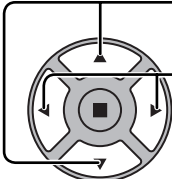
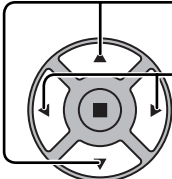
SCROLLING BAR ONLY : A white bar will scroll from left to right. The image won't be displayed.

OVERLAY SCROLLING BAR : The brightness of the image will be decreased and a white bar will scroll on it.

WHITE SCREEN : The whole screen will be white.

Note: OVERLAY SCROLLING BAR is not effective during two screen display.

4 MODE selection

-  Press to select the MODE.
-  Press to select each mode items.

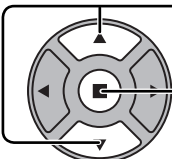
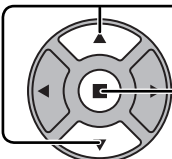
Off
↕
INTERVAL
↕
STANDBY AFTER SCR SAVER
↕
ON

: Operates when SHOW DURATION and SAVER DURATION are set up and those times arrive.

: Operates while SCREENSAVER DURATION, and display enters standby mode.

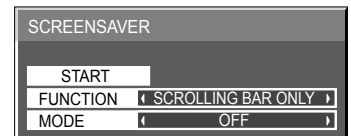
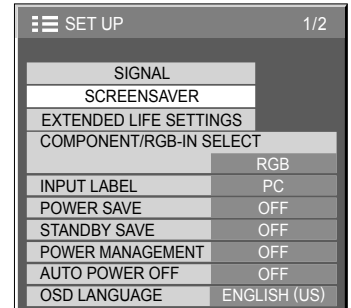
: Operates when START is selected and the ACTION (■) button is pressed.

5 START setting

-  When the MODE is set to ON, press to select START.
-  Press to start SCREENSAVER.

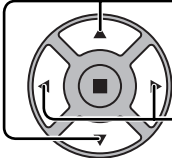
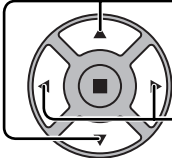
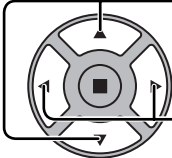
The menu screen will disappear and the SCREENSAVER will be activated. **To stop the SCREENSAVER under ON, press the R button or any buttons on the main unit.**

Note: When the display is turned off, the SCREENSAVER will be deactivated.



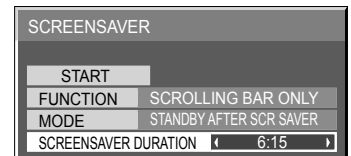
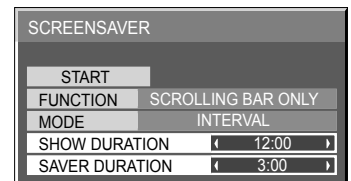
Setup of SCREENSAVER Time

After selecting INTERVAL or STANDBY AFTER SCR SAVER, the relevant Time Setup will become available for selection and the Operating Time may be set. (Time cannot be set when "MODE" is "ON" or "OFF".)

-  Press to select SHOW DURATION / SAVER DURATION (When INTERVAL is selected).
-  Press to select SCREENSAVER DURATION (When STANDBY AFTER SCR SAVER is selected).
-  Press to setup. ▶ button: Forward
◀ button: Back

Notes:

- Pressing "◀" or "▶" button once changes the Time 1 minute.
[However, switching occurs every 15 minutes when Periodic Time is selected.]
- Pressing "◀" or "▶" button continuously changes the Time by 15 minutes.
- "SCREENSAVER DURATION" of the "STANDBY AFTER SCR SAVER" can be set from 0:00 to 23:59. When this is set to "0:00", "STANDBY AFTER SCR SAVER" will not be activated.



Reduces screen image retention

EXTENDED LIFE SETTINGS

The following settings are setup to reduce image retention:

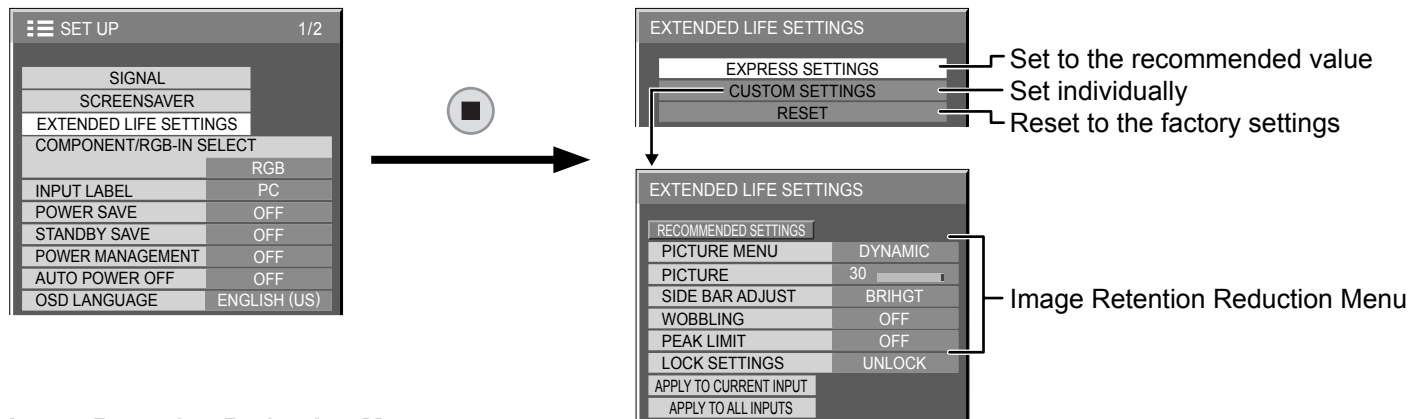


Image Retention Reduction Menu

“EXTENDED LIFE SETTINGS” enables you to set the following 5 menus (Image Retention Reduction Menu) as recommended values or set them individually.

PICTURE MENU

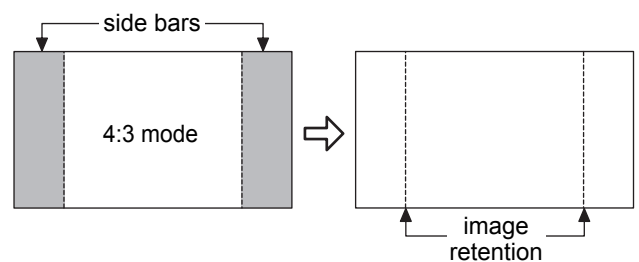
PICTURE

“PICTURE MENU” and “PICTURE” are same as “PICTURE” menu items (see page 24). The settings of this menu will be reflected to the “PICTURE” menu.

SIDE BAR ADJUST

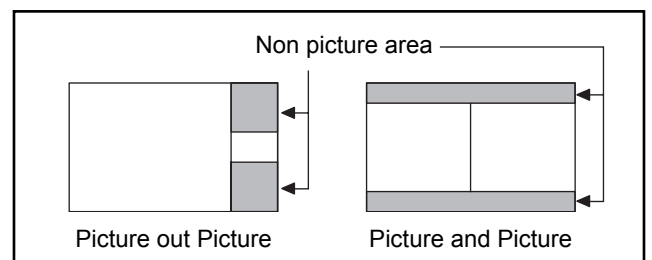
Do not display a picture in 4:3 mode for an extended period, as this can cause an image retention to remain on the side bars on either side of the display field.

To reduce the risk of such an image retention, illuminate the side bars.



This function may be applicable to the non-picture area.

- OFF:** Darken both ends.
DARK: Make it dark gray.
MID: Make it gray.
BRIGHT: Make it light gray.



Notes:

- To reduce the occurrence of image retention, set the SIDE BAR ADJUST to BRIGHT.
- The side bar may flash (alternate black/white) depending on the picture being shown on the screen. Using Cinema mode will reduce such flashing.

WOBLING

Automatically shifts the display image (therefore unnoticeable to the eye) to prevent image retention of sharper contour of image.

ON1: Shifts the image every 30 seconds.

ON2: Shifts the image at a dot level pitch depending on screen-detection.

PEAK LIMIT

ON: Suppresses image contrast (peak brightness).

Note: When a still picture is viewed for an extended time, the screen may become slightly darker. (see page 44)

Reduces screen image retention

EXPRESS SETTINGS

Set the “Image Retention Reduction” menu to the recommended settings.

All menus will be locked.

PICTURE MENU: STANDARD

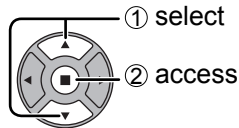
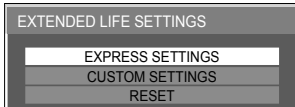
PICTURE: 10

SIDE BAR ADJUST: BRIGHT

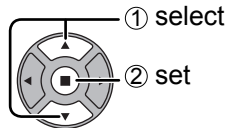
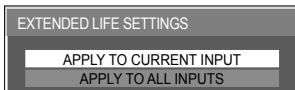
WOBLING: ON1

PEAK LIMIT: ON

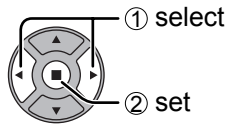
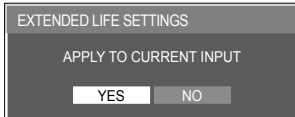
1 Select “EXPRESS SETTINGS”.



2 Select the input to apply the settings.



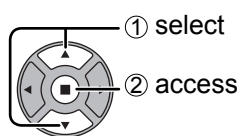
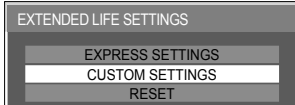
3 Select “YES”.



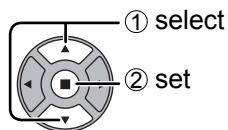
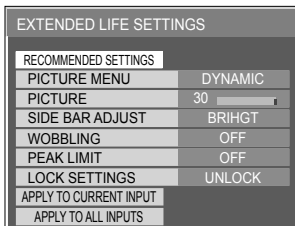
CUSTOM SETTINGS

Set the individual “Image Retention Reduction” menu.

1 Select “CUSTOM SETTINGS”.

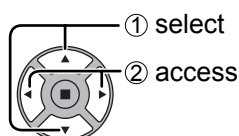
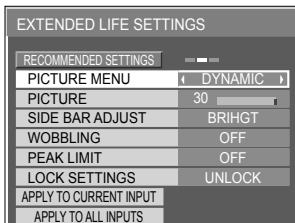


2 To set each menu to the recommended setting: Select “RECOMMENDED SETTINGS”.

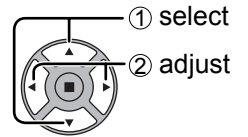
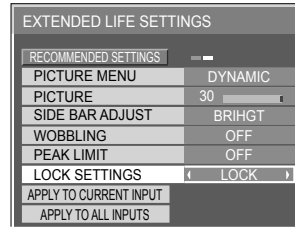


Each menu will be set as same as the “EXPRESS SETTINGS”.

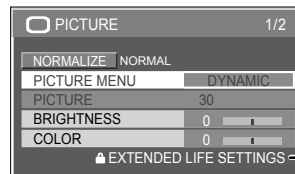
3 Set each menu.



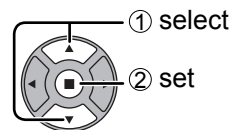
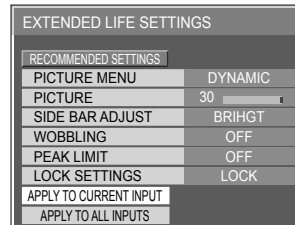
4 To lock each menu setting: Set the “LOCK SETTINGS” to “LOCK”.



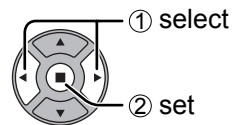
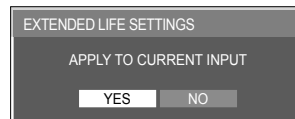
When a menu is locked, it is grayed out and cannot be set. “PICTURE MENU” and “PICTURE” will no longer be able to set in the “PICTURE” menu, and they are labeled with icon to indicate their locked status.



5 Select the input to apply the settings.



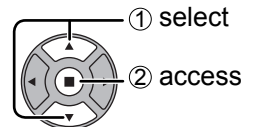
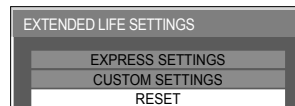
6 Select “YES”.



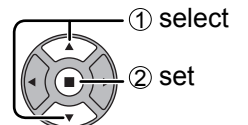
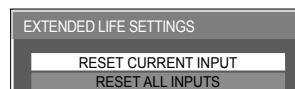
RESET

Reset the “Image Retention Reduction” menu to the factory settings. Each menu will be unlocked.

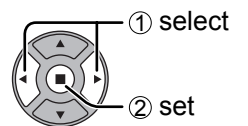
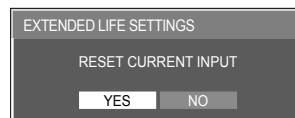
1 Select “RESET”.



2 Select the input to reset the settings.

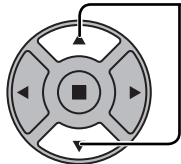
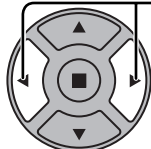



3 Select “YES”.



Reduces power consumption

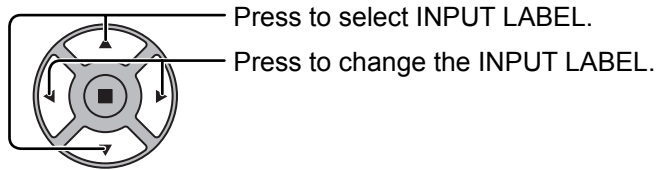
- **POWER SAVE:** When this function is turned ON, luminous level of the Plasma Display is suppressed, so power consumption is reduced.
 - **STANDBY SAVE:** When this function is turned ON, power consumption of the microcomputer is reduced during power supply standby (see page 13, 16, 17), so standby power of the set is reduced.
 - **POWER MANAGEMENT:** When this function is set to ON, it operates under the following conditions to turn the power on or off automatically.
 When no pictures (HD/VD sync signals) are detected for 30 or so seconds during PC signal input:
 → Power is turned off (standby); the power indicator lights up orange.
 When pictures (HD/VD sync signals) are subsequently detected:
 → Power is turned on; the power indicator lights up green.
 - **AUTO POWER OFF:** Equipment power supply is turned OFF when there is no signal.
 When this is set to On, the power supply of the unit goes Off 10 minutes after the input signals stop.
- Notes:**
- This function operates only during PC signal input.
 - This function is effective when "SYNC" is set to "AUTO", "COMPONENT / RGB-IN SELECT" is set to "RGB" and during normal viewing (one picture screen).
- Note:**
 This function is effective during normal viewing (one picture screen) for input signals except PC terminal.

- 1  Press to select "POWER SAVE", "STANDBY SAVE", "POWER MANAGEMENT", "AUTO POWER OFF".
- 2  Press to select "ON" or "OFF".
On ← → Off
- 3  Press to exit from SET UP.

| SET UP | | 1/2 |
|-------------------------|-----|--------------|
| SIGNAL | | |
| SCREENSAVER | | |
| EXTENDED LIFE SETTINGS | | |
| COMPONENT/RGB-IN SELECT | | |
| | | RGB |
| INPUT LABEL | | PC |
| POWER SAVE | OFF | |
| STANDBY SAVE | OFF | |
| POWER MANAGEMENT | OFF | |
| AUTO POWER OFF | OFF | |
| OSD LANGUAGE | | ENGLISH (US) |

Customizing the Input labels

This function can change the label of the Input signal to be displayed.
Select the input signal which you would like to change its label before customizing the Input labels. (see page 15, 17)



| SET UP 1/2 | |
|-------------------------|--------------|
| SIGNAL | |
| SCREENSAVER | |
| EXTENDED LIFE SETTINGS | |
| COMPONENT/RGB-IN SELECT | RGB |
| INPUT LABEL | PC |
| POWER SAVE | OFF |
| STANDBY SAVE | OFF |
| POWER MANAGEMENT | OFF |
| AUTO POWER OFF | OFF |
| OSD LANGUAGE | ENGLISH (US) |

INPUT LABELS for INPUT1, 2, 3 and 4:

- [INPUT1] VIDEO / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB
- [INPUT2] S-VIDEO / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB
- [INPUT3] COMPONENT / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB
- [INPUT4] PC / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB

Selecting the On-Screen Menu Language

- 1 Press to display the SET UP menu.
- 2 Press to select OSD LANGUAGE.
Press to select your preferred language.


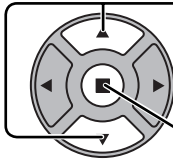
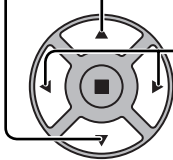
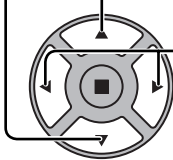
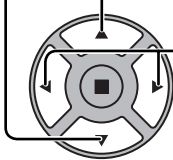

■ Selectable languages

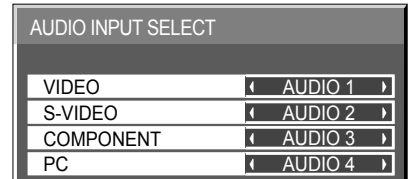
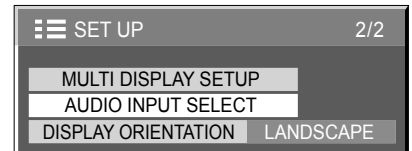
English(UK)
Deutsch
Français
Italiano
Español
ENGLISH(US)
中文.....(Chinese)
日本語.....(Japanese)
Русский(Russian)

| SET UP 1/2 | |
|-------------------------|-------------|
| SIGNAL | |
| SCREENSAVER | |
| EXTENDED LIFE SETTINGS | |
| COMPONENT/RGB-IN SELECT | RGB |
| INPUT LABEL | PC |
| POWER SAVE | OFF |
| STANDBY SAVE | OFF |
| POWER MANAGEMENT | OFF |
| AUTO POWER OFF | OFF |
| OSD LANGUAGE | ENGLISH(US) |

AUDIO INPUT SELECT

Set up the sound when an image input (INPUT 1 to 4) is selected.


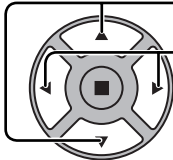
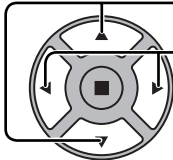

- 1  Press to display the SET UP menu.
- 2  Press to select the AUDIO INPUT SELECT.
 Press to display the "AUDIO INPUT SELECT" menu.
- 3  Press to select video input.
 Press to select audio input.
- 4  Press to exit from adjust mode.

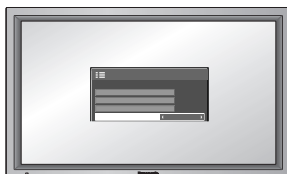
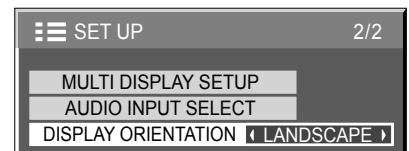


AUDIO 1
 ↓
 AUDIO 2
 ↓
 AUDIO 3
 ↓
 AUDIO 4
 ↓
 NO AUDIO: No audio input (Mute)

DISPLAY ORIENTATION

Sets the fan control and the display style of on-screen menu for vertical installation.

- 1  Press to display the SET UP menu.
- 2  Press to select DISPLAY ORIENTATION.
 Press to select "LANDSCAPE" or "PORTRAIT".
- 3  Press to exit from adjust mode



LANDSCAPE

Fan control for horizontal installation.



PORTRAIT

Fan control for vertical installation. On-screen menu will be rotated 90 degrees counterclockwise to be suitable for the setting.

Notes:

- Turn up the power switch for the upward direction when you set Display vertically.
- Fan control will be switched when turning on the unit next time.

SET UP for MULTI DISPLAY

By lining up Plasma Displays in groups, for example, as illustrated below, an enlarged picture may be displayed across all screens. For this mode of operation, each plasma display has to be set up with a Display number to determine its location.

(Example)

group of 4 (2×2)



group of 9 (3×3)



group of 16 (4×4)



group of 25 (5×5)

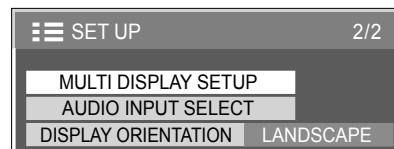


How to setup MULTI DISPLAY

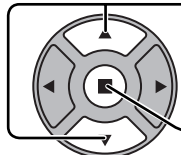
1



Press to display the SET UP menu.

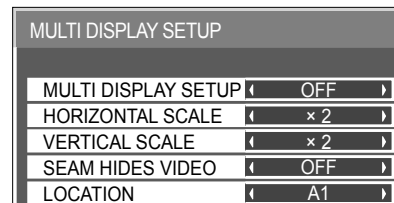


2

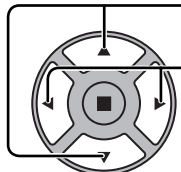


Press to select the MULTI DISPLAY SETUP.

Press to display the "MULTI DISPLAY SETUP" menu.



3





Press to select the MULTI DISPLAY SETUP.

Press to select "ON" or "OFF".

4



Press to exit from adjust mode.

| Item | Details | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| MULTI DISPLAY SETUP | Select “ON” or “OFF”. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HORIZONTAL SCALE | Select “× 1”, “× 2”, “× 3”, “× 4”, “× 5”. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VERTICAL SCALE | Select “× 1”, “× 2”, “× 3”, “× 4”, “× 5”. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEAM HIDES VIDEO | <div><div>Select “ON” or “OFF”.</div><div><div><div>To hide joints between displays.</div><div><div>Suitable for moving image display.</div><div>ON</div></div></div><div><div>To show joints between displays.</div><div><div>Suitable for still image display.</div><div>OFF</div></div></div></div></div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LOCATION | <div><div>Select the required arrangement number. (A1-E5 : Refer to the following)</div><div>Display Number locations for each arrangement.</div><div>(Examples)</div><div><div>(2 × 1)</div><div><table><tr><td>A1</td><td>A2</td></tr></table></div></div><div><div>(2 × 3)</div><div><table><tr><td>A1</td><td>A2</td></tr><tr><td>B1</td><td>B2</td></tr><tr><td>C1</td><td>C2</td></tr></table></div></div><div><div>(4 × 2)</div><div><table><tr><td>A1</td><td>A2</td><td>A3</td><td>A4</td></tr><tr><td>B1</td><td>B2</td><td>B3</td><td>B4</td></tr></table></div></div><div><div>(4 × 4)</div><div><table><tr><td>A1</td><td>A2</td><td>A3</td><td>A4</td></tr><tr><td>B1</td><td>B2</td><td>B3</td><td>B4</td></tr><tr><td>C1</td><td>C2</td><td>C3</td><td>C4</td></tr><tr><td>D1</td><td>D2</td><td>D3</td><td>D4</td></tr></table></div></div><div><div>(5 × 5)</div><div><table><tr><td>A1</td><td>A2</td><td>A3</td><td>A4</td><td>A5</td></tr><tr><td>B1</td><td>B2</td><td>B3</td><td>B4</td><td>B5</td></tr><tr><td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>C5</td></tr><tr><td>D1</td><td>D2</td><td>D3</td><td>D4</td><td>D5</td></tr><tr><td>E1</td><td>E2</td><td>E3</td><td>E4</td><td>E5</td></tr></table></div></div></div> | A1 | A2 | A1 | A2 | B1 | B2 | C1 | C2 | A1 | A2 | A3 | A4 | B1 | B2 | B3 | B4 | A1 | A2 | A3 | A4 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | D1 | D2 | D3 | D4 | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | C1 | C2 | C3 | C4 | C5 | D1 | D2 | D3 | D4 | D5 | E1 | E2 | E3 | E4 | E5 |
| A1 | A2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 | A2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 | B2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C1 | C2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 | A2 | A3 | A4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 | B2 | B3 | B4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 | A2 | A3 | A4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 | B2 | B3 | B4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C1 | C2 | C3 | C4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D1 | D2 | D3 | D4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 | A2 | A3 | A4 | A5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1 | B2 | B3 | B4 | B5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C1 | C2 | C3 | C4 | C5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D1 | D2 | D3 | D4 | D5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E1 | E2 | E3 | E4 | E5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |










ID Remote Control Function

You can set the remote control ID when you want to use this remote control on one of several different displays.

Note:

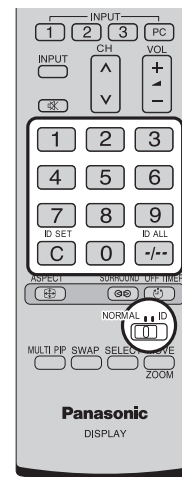
To operate this function, please purchase ID remote controller sold separately.

Object model : EUR7636070R


- 1 Switch  to  on the right side.
- 2 Press the  button on the remote control.
- 3 Press one of  - ,  for the tens digit setting.
- 4 Press one of  - ,  for the units digit setting.

Notes:

- The numbers in 2, 3 and 4 should be set up quickly.
- Adjustable ID number range is 0 - 99.
- If a number button is pressed more than two times, the first two numbers become the ID number for the remote control.



ID remote control button operation

The operation is the same as normal remote control except for the  button.

ID Cancellation

Press  button on remote control. (This has the same effect as pressing the , ,  buttons at the same time.)

Notes:

- Set the Remote ID “On” to operate the ID remote control.
If remote ID is set to “On”, you can use the remote control without identical ID number during option menu display. (see page 41)
- The ID remote control cannot be used when ID select is set to anything other than 0, and the remote control ID is not the same as the ID select number (see page 41).


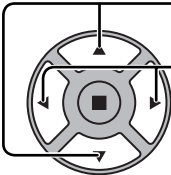

SET UP for Input Signals

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 ⇒ "COMPONENT"

RGB signals ⇒ "RGB"

-  Press to display the SET UP menu.
-  Press to select the "COMPONENT / RGB-IN SELECT".
Press to select the desired mode.
COMPONENT ← → RGB
-  Press to exit from adjust mode.

| SET UP 1/2 | |
|-------------------------|--------------|
| SIGNAL | |
| SCREENSAVER | |
| EXTENDED LIFE SETTINGS | |
| COMPONENT/RGB-IN SELECT | |
| | RGB |
| INPUT LABEL | PC |
| POWER SAVE | OFF |
| STANDBY SAVE | OFF |
| POWER MANAGEMENT | OFF |
| AUTO POWER OFF | OFF |
| OSD LANGUAGE | ENGLISH (US) |


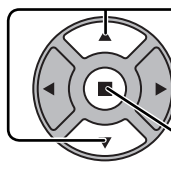
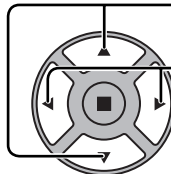

Note:

Make setting of the selected input terminal.

SIGNAL menu

Note:

"SIGNAL" setup menu displays a different setting condition for each input signal.

-  Press to display the SET UP menu.
-  Press to select the "SIGNAL".
Press to display the SIGNAL menu.
-  Press to select the menu to adjust.
Press to adjust the menu.
-  Press to exit from adjust mode.

| SET UP 1/2 | |
|-------------------------|--------------|
| SIGNAL | |
| SCREENSAVER | |
| EXTENDED LIFE SETTINGS | |
| COMPONENT/RGB-IN SELECT | |
| | RGB |
| INPUT LABEL | PC |
| POWER SAVE | OFF |
| STANDBY SAVE | OFF |
| POWER MANAGEMENT | OFF |
| AUTO POWER OFF | OFF |
| OSD LANGUAGE | ENGLISH (US) |

For VIDEO (S VIDEO)

| SIGNAL [VIDEO] | |
|----------------------|--------|
| 3D Y/C FILTER (NTSC) | ON |
| COLOR SYSTEM | AUTO |
| 3 : 2 PULLDOWN | OFF |
| REFRESH RATE | 100 Hz |
| NOISE REDUCTION | OFF |

For RGB

| SIGNAL [RGB] | |
|----------------------------|--------|
| SYNC | AUTO |
| 3 : 2 PULLDOWN | OFF |
| XGA MODE | AUTO |
| REFRESH RATE | 100 Hz |
| NOISE REDUCTION | OFF |
| H-FREQ. 63.98 | kHz |
| V-FREQ. 60.02 | Hz |
| SIGNAL FORMAT 1280×1024/60 | |

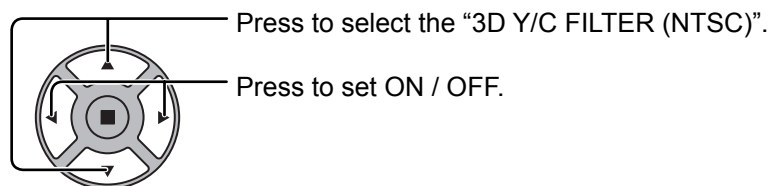
For COMPONENT

| SIGNAL [COMPONENT] | |
|----------------------------|--------|
| 3 : 2 PULLDOWN | OFF |
| XGA MODE | AUTO |
| REFRESH RATE | 100 Hz |
| NOISE REDUCTION | OFF |
| H-FREQ. 63.98 | kHz |
| V-FREQ. 60.02 | Hz |
| SIGNAL FORMAT 1280×1024/60 | |

SET UP for Input Signals

3D Y/C FILTER – For NTSC AV images

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

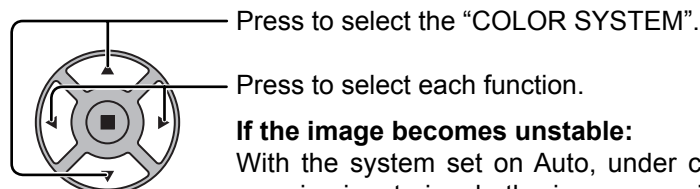


Note:

When ON, this setting only affects NTSC input signals.

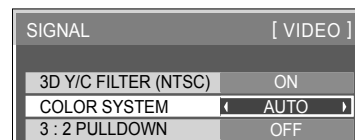
COLOR SYSTEM

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



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.



COLOR SYSTEM:

Set the color system to match the input signal. When “AUTO” is set, COLOR SYSTEM will be automatically selected from NTSC/PAL/SECAM. However, M.NTSC signal may not be displayed properly. To display M.NTSC signal, select “M.NTSC” in COLOR SYSTEM.



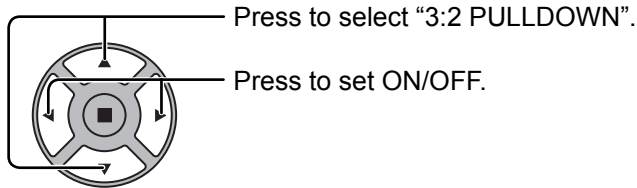
3:2 PULLDOWN

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.

Note:

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

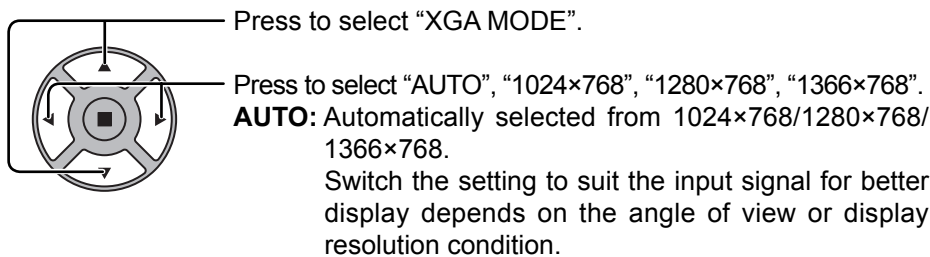
- NTSC / PAL signal input during "VIDEO (S VIDEO)" input signal.
- 525i(480i), 625i(575i), 1125(1080)/60i signal input during "COMPONENT" input signal.



XGA MODE

This menu displays when INPUT3 (COMPONENT/RGB) and INPUT4 (PC) signals are selected.

This unit supports three types of XGA signals with 60Hz vertical frequency having different aspect ratios and sampling rates (1,024 × 768 @ 60Hz, 1,280 × 768 @ 60Hz and 1,366 × 768 @ 60Hz).



Note:

After making this setting, be sure to make each adjustment (such as "AUTO SETUP") on the "POS. /SIZE" menu as necessary. (see page 22)

REFRESH RATE

This function sets the refresh rate of the display.

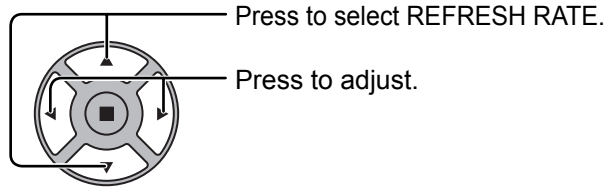
This menu is displayed when the input signal is 50 Hz system (50i, 50p, 25p, 24p, 24sF) of vertical scan rate.

100 Hz: Reduce screen flicker.

50 Hz: Enhance the resolution of moving images.

Note:

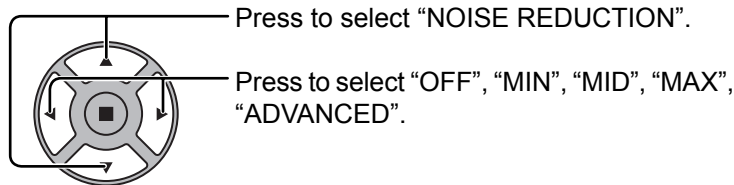
It is recommended to set to 100 Hz normally.



NOISE REDUCTION

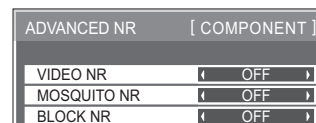
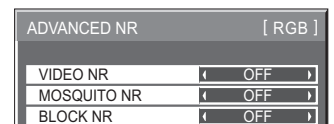
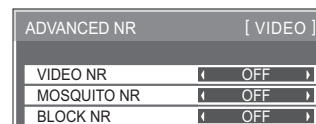
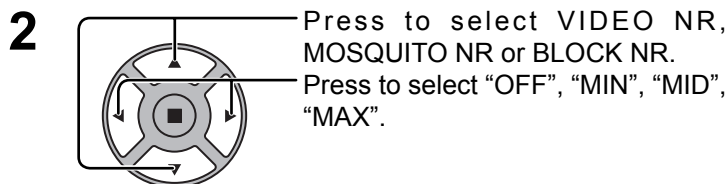
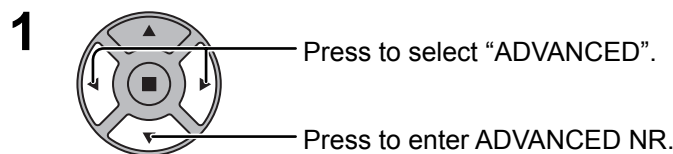
Sets the following three NR (Noise Reduction) functions together.

VIDEO NR, MOSQUITO NR, BLOCK NR



Advanced NR

Sets the three NR functions separately.



VIDEO NR: Automatically reduces unwanted picture noise.

MOSQUITO NR: Reduces mosquito noise around subtitles on MPEG videos.

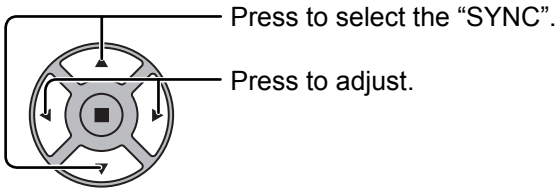
BLOCK NR: Reduces block noise when playing MPEG videos.

Notes:

- NOISE REDUCTION cannot be adjusted while a PC signal is being applied.
- BLOCK NR cannot be adjusted while a HD signal is being applied.

SYNC

Select SIGNAL from the “SET UP” menu during RGB input signal.



| SIGNAL [RGB] | |
|----------------|------|
| SYNC | AUTO |
| 3 : 2 PULLDOWN | OFF |
| XGA MODE | AUTO |

Setting RGB sync signal

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

- AUTO: The H and V sync or synchronized signal are automatically selected. If both input, it is selected the H and V sync.
- ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.
- VBS: Uses a synchronized signal of Composite Sync input, which is input from the HD connector.

| | |
|------|------|
| SYNC | AUTO |
| ↕ | |
| SYNC | ON G |
| ↕ | |
| SYNC | VBS |

Input signal display


Displays the frequency and the type of the current input signal.

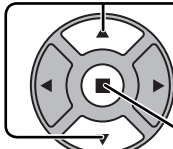
This display is valid only for COMPONENT/RGB/PC input signal.

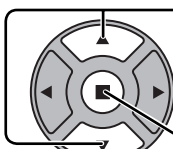
- Display range:
- Horizontal 15 - 110 kHz
 - Vertical 48 - 120 Hz

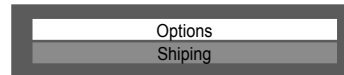
| | | |
|---------------|--------------|-----|
| H-FREQ. | 63.98 | kHz |
| V-FREQ. | 60.02 | Hz |
| SIGNAL FORMAT | 1280×1024/60 | |

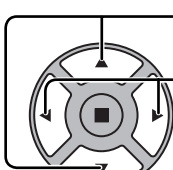
Options Adjustments


1  Press to display the SET UP menu.

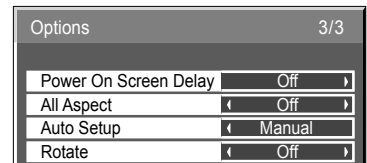
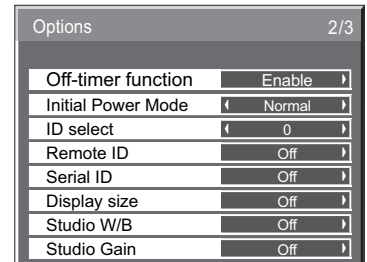
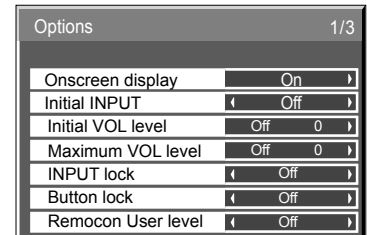
2  Press to select "OSD LANGUAGE".
Press for more than 3 seconds.




3  Press to select "Options".
Press to display the Options menu.



4  Press to select your preferred menu.
Press to adjust the menu.

5  Press to exit from Options menu.



| Item | Adjustments |
|--------------------------|--|
| Onscreen display | On: Displays all the following on screen. <ul style="list-style-type: none"> • Power on display • Input signal switch display • No signal display • Mute and the remaining time of off-timer after  was pressed. Off: Hides all the items above from view. |
| Initial INPUT | Off <=> PC <=> VIDEO <=> S-VIDEO <=> COMPONENT Adjusts the input signal when the unit is turned on. Notes: <ul style="list-style-type: none"> • Only the adjusted signal is displayed. (see page 15) • This menu is available only when "INPUT lock" is "Off". |
| Initial VOL level | Press  button to adjust the volume when the unit is turned on. Off <=> On Off: Sets normal volume. On: Sets your preferred volume. Notes: <ul style="list-style-type: none"> • When "Maximum VOL level" is "On", the volume can only be adjusted between 0 and your maximum range. • You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Initial VOL level" is "On" and cursor is on the menu. |
| Maximum VOL level | Press  button to adjust the maximum volume. Off <=> On Off: Sets auto maximum volume. On: Sets your preferred maximum volume. Notes: <ul style="list-style-type: none"> • If the "Maximum VOL level" is set lower than the "Initial VOL level", the "Initial VOL level" automatically becomes the same as the "Maximum VOL level". • The volume display can go up to 63 regardless of the settings. • You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Maximum VOL level" is "On" and cursor is on the menu. |

Options Adjustments

| Item | Adjustments |
|-----------------------|--|
| Studio W/B | Off: Nullify all the settings adjusted. On: Sets the color temperature for TV studio. Note: Valid only when the low is set as color temperature on screen adjustment. |
| Studio Gain | Sharpens the contrast for a better view when a part of the image is too light to see. Off: Disables "Studio Gain". On: Enables "Studio Gain". Note: This setting is valid only when the input signals are as follows: Component Video, RGB |
| Power On Screen Delay | Off ↔ 1 ↔ 2 ↔ 3... ↔ 30 You can set the power-on delay time of the displays to reduce the power load, when you press to turn on the multiple displays that are set together, for example, on MULTI DISPLAY system. Set each display's setting individually. Off: The display will be turned on at the same time as is pressed. 1 to 30 (sec.): Set the power-on delay time (second). After pressing , the display will be powered on with time delay depending on this setting. Notes: <ul style="list-style-type: none"> During this function is working, the power indicator is blinking green. This function also works when the power recovers from failure or after plugging off and in again the power cord. |
| All Aspect | Sets All Aspect mode (advanced aspect setting) or default aspect mode. With each press of button, the aspect changes in the selected mode. Off: Default aspect mode On: All Aspect mode Aspect mode of each setting is as follows: (Example: HD signal) Off 4:3→H-FILL→ZOOM→FULL→JUST On 4:3 (1)→4:3 (2)→4:3 Full→Zoom1→Zoom2→Zoom3→16:9→14:9→Just1→Just2 |
| Auto Setup | Sets the operational mode of the automatic position adjustment in the POS./SIZE menu. Manual: Automatic position adjustment starts when is pressed on the remote control or automatic position adjustment is executed from the POS./SIZE menu. Auto: Other than remote control or menu operation, automatic position adjustment starts: When the display power is turned ON. When the input signal is switched. |
| Rotate | Off: Does not rotate the image. On: Rotates the image 180 degrees. |


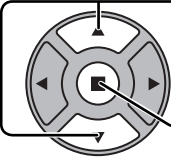
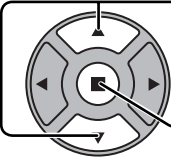
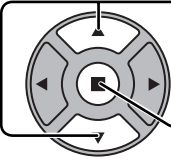
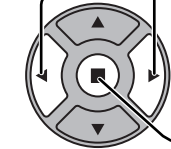
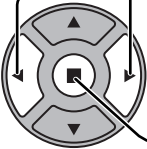
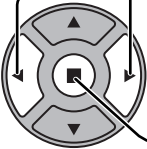
Normalization

When both main unit buttons and remote control are disabled due to the "Button lock", "Remocon User level" or "Remote ID" adjustments, set all the values "Off" so that all the buttons are enabled again.

Press the button on main unit together with button on the remote control and hold for more than 5 seconds. The "Shipping" menu is displayed and the lock is released when it disappears.

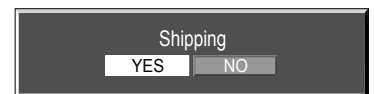
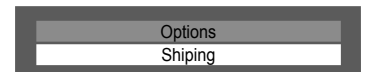
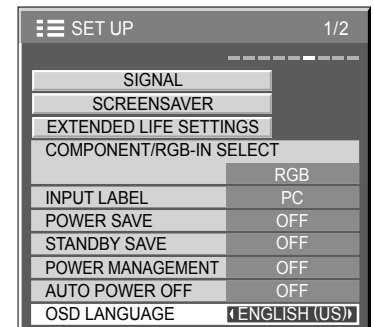
Shipping condition

This function allows you to reset the unit to the factory setting.

- 1**  Press to display the SET UP menu.
- 2**  Press to select "OSD LANGUAGE".
 Press for more than 3 seconds.
- 3**  Press to select "Shipping".
 Press to display the Shipping menu.
- 4**  Press to select "YES".
 Press to confirm.











[from the unit]

- 1** Press the MENU button till the SET UP menu is displayed.
- 2** Press the Volume Up "+" or Down "-" button to select "OSD LANGUAGE".
- 3** Press and hold the ENTER button till the Shipping menu is displayed.
- 4** Press the Volume Up "+" or Down "-" button to select "YES".
- 5** Press the ENTER button and wait for 10 sec.

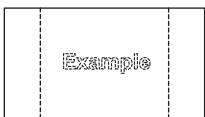


Troubleshooting

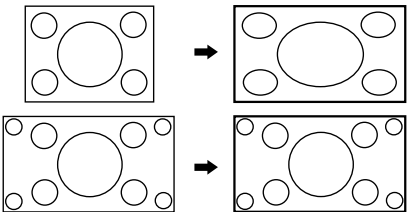
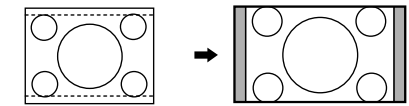
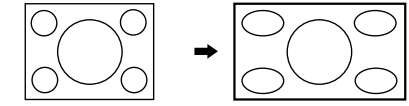
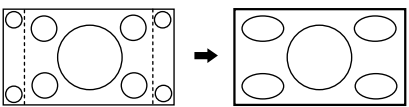
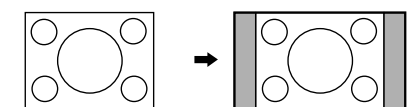
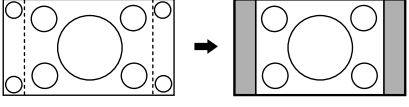
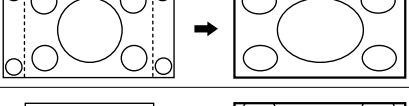
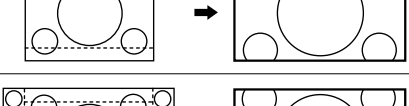
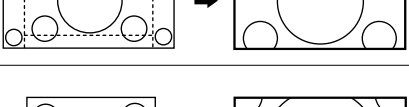

Before you call for service, determine the symptoms and make a few simple checks as shown below.

| Symptoms | | Checks |
|--|--|---|
| Picture | Sound | |
|  Interference |  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 24, 25) COLOR SYSTEM (see page 37) |
| No remote control operations can be performed. | | Check whether the batteries have discharged completely and, if they have not, whether they were inserted properly. Check whether the remote control sensor is exposed to an outdoor light or a strong fluorescent light. Check whether the remote control designed specifically for use with the unit is being used. (The unit cannot be operated by any other remote control.) |
| A cracking sound is sometimes heard from the unit. | | If there is nothing wrong with the picture or sound, this is the sound of the cabinet undergoing very slight contractions in response to changes in the room temperature. There are no adverse effects on the performance or other aspects. |
| The top or bottom of the picture on the screen is cut off when I use the zoom function. | | Adjust the position of the picture on the screen. |
| Areas at the top and bottom of the screen where the image is missing appear when I use the zoom function. | | When using a video software program (such as a cinema size program) with a screen wider than one in the 16:9 mode, blank areas separate from the images are formed at the top and bottom of the screen. |
| I can hear sounds coming from inside the unit. | | When the power is turned on, a sound of the display panel being driven may be heard: This is normal and not indicative of malfunctioning. |
| This Plasma Display uses special image processing. Hence a slight time lag may occur between image and audio, depending on the type of input signal. However, this is not a malfunction. | | |

Plasma Display panel

| Symptoms | Check |
|--|--|
| The screen darkens slightly when bright pictures with minimal movements are shown. | The screen will darken slightly when photos, still images of a computer or other pictures with minimal movements are shown for an extended period. This is done to reduce image retention on the screen and the shortening of the screen's service life: It is normal and not indicative of malfunctioning. |
| It takes a while for the picture to appear. | The unit digitally processes the various signals in order to reproduce esthetically pleasing images. As such, it sometimes takes a few moments for the picture to appear when the power has been turned on, when the input has been switched or when the images for the main picture and sub picture on the two screens are swapped. |
| The edges of the images flicker. | Due to the characteristics of the system used to drive the panel, the edges may appear to flicker in the fast-moving parts of the images: This is normal and not indicative of malfunctioning. |
| The brightness on both sides of images in 4:3 mode changes. | When viewing the side panels at the "BRIGHT" or "MID" setting, the brightness on both sides may change depending on the kind of program shown: This is normal and not indicative of malfunctioning. |
| 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. |
|  <p>Image retention appears</p> | Do not allow a still picture to be displayed for an extended period, as this can cause a permanent image retention to remain on the Plasma Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. Note: The permanent image retention 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. |
| Whirring sounds can be heard from the display unit. | The display unit is fitted with a cooling fan to dissipate heat generated during normal use. The whirring sound is caused by rotation of the fan and is not a malfunction. |

List of Aspect Modes

| Aspect mode | | Picture → Enlarged screen | Description |
|-------------------------|------------------------------------|---|---|
| All Aspect: On | Factory setting All Aspect: Off | | |
| 16:9 | FULL |  | The display of the pictures fills the screen. In the case of SD signals, pictures with a 4:3 aspect ratio are enlarged horizontally, and displayed. This mode is suited to displaying anamorphic pictures with a 16:9 aspect ratio. |
| 14:9 | – |  | Letterbox pictures with a 14:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen vertically and is slightly smaller than the screen horizontally. The top and bottom edges of the pictures are cut off. Side panels are displayed at the left and right edges of the screen. |
| Just ----- Just1 | JUST |  | Pictures with a 4:3 aspect ratio are enlarged horizontally so that the picture distortion is minimized. The display of the areas around the left and right edges of the screen is slightly elongated. |
| Just2 | JUST |  | Pictures with a 4:3 aspect ratio are enlarged horizontally so that the picture distortion is minimized. The left and right edges of the pictures are cut off. The display of the areas around the left and right edges of the screen is slightly elongated. |
| 4:3 ----- 4:3 (1) | 4:3 |  | Pictures with a 4:3 aspect ratio are displayed with their original aspect ratio. Side panels are displayed at the left and right edges of the screen. |
| 4:3 (2) | 4:3 |  | Pictures with a 4:3 aspect ratio are displayed with their original aspect ratio. The left and right edges of the pictures are masked by side panels. |
| 4:3 Full | H-FILL |  | Pictures with a 4:3 aspect ratio are enlarged horizontally so that their display fills the screen. The left and right edges of the pictures are cut off. |
| Zoom ----- Zoom1 | ZOOM |  | Letterbox pictures with a 16:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen. The top and bottom edges of the pictures are cut off. |
| Zoom2 | ZOOM |  | Letterbox pictures with a 16:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen. The top and bottom edges as well as the left and right edges of the pictures are cut off. |
| Zoom3 | – |  | Letterbox pictures with a 2.35:1 aspect ratio are enlarged vertically and horizontally so that their display fills the screen vertically and is slightly larger than the screen horizontally. The top and bottom edges as well as the left and right edges of the pictures are cut off. |

Applicable input signals

VIDEO input (VIDEO, S VIDEO)

| | Signal name | Horizontal frequency(kHz) | Vertical frequency(Hz) |
|---|---------------|---------------------------|------------------------|
| 1 | NTSC | 15.73 | 59.94 |
| 2 | PAL | 15.63 | 50.00 |
| 3 | PAL60 | 15.73 | 59.94 |
| 4 | SECAM | 15.63 | 50.00 |
| 5 | Modified NTSC | 15.73 | 59.94 |

*Mark: Applicable input signal

| | Signal name | Horizontal frequency (kHz) | Vertical frequency (Hz) | COMPONENT/RGB, PC (Dot clock (MHz)) |
|----|----------------------------|----------------------------|-------------------------|--|
| 1 | 525 (480) / 60i | 15.73 | 59.94 | * (13.5) |
| 2 | 525 (480) / 60p | 31.47 | 59.94 | * (27.0) *4 |
| 3 | 625 (575) / 50i | 15.63 | 50.00 | * (13.5) |
| 4 | 625 (575) / 50p | 31.25 | 50.00 | * (27.0) |
| 5 | 750 (720) / 60p | 45.00 | 60.00 | * (74.25) |
| 6 | 750 (720) / 50p | 37.50 | 50.00 | * (74.25) |
| 7 | 1,125 (1,080) / 60p | 67.50 | 60.00 | * (148.5) *1 |
| 8 | 1,125 (1,080) / 60i | 33.75 | 60.00 | * (74.25) *1 |
| 9 | 1,125 (1,080) / 50p | 56.26 | 50.00 | * (148.5) *1 |
| 10 | 1,125 (1,080) / 50i | 28.13 | 50.00 | * (74.25) *1 |
| 11 | 1,125 (1,080) / 24sF | 27.00 | 47.92 | * (74.25) *2 |
| 12 | 1,125 (1,080) / 30p | 33.75 | 30.00 | * (74.25) *1 |
| 13 | 1,125 (1,080) / 25p | 28.13 | 25.00 | * (74.25) *1 |
| 14 | 1,125 (1,080) / 24p | 27.00 | 24.00 | * (74.25) *1 |
| 15 | 1,250 (1,080) / 50i | 31.25 | 50.00 | * (74.25) *3 |
| 16 | 640 × 400 @70 Hz | 31.46 | 70.07 | * (25.17) |
| 17 | 640 × 480 @60 Hz | 31.47 | 59.94 | * (25.18) *5 |
| 18 | 640 × 480 @72 Hz | 37.86 | 72.81 | * (31.5) |
| 19 | 640 × 480 @75 Hz | 37.50 | 75.00 | * (31.5) |
| 20 | 640 × 480 @85 Hz | 43.27 | 85.01 | * (36.0) |
| 21 | 852 × 480 @60 Hz | 31.47 | 59.94 | * (33.54) *5 |
| 22 | 800 × 600 @56 Hz | 35.16 | 56.25 | * (36.0) |
| 23 | 800 × 600 @60 Hz | 37.88 | 60.32 | * (40.0) |
| 24 | 800 × 600 @72 Hz | 48.08 | 72.19 | * (50.0) |
| 25 | 800 × 600 @75 Hz | 46.88 | 75.00 | * (49.5) |
| 26 | 800 × 600 @85 Hz | 53.67 | 85.06 | * (56.25) |
| 27 | 1,024 × 768 @60 Hz | 48.36 | 60.00 | * (65.0) |
| 28 | 1,024 × 768 @70 Hz | 56.48 | 70.07 | * (75.0) |
| 29 | 1,024 × 768 @75 Hz | 60.02 | 75.03 | * (78.75) |
| 30 | 1,024 × 768 @85 Hz | 68.68 | 85.00 | * (94.5) |
| 31 | 1,152 × 864 @75 Hz | 67.50 | 75.00 | * (108.0) |
| 32 | 1,280 × 768 @60 Hz | 47.70 | 60.00 | * (80.14) |
| 33 | 1,280 × 960 @60 Hz | 60.00 | 60.00 | * (108.0) |
| 34 | 1,280 × 960 @85 Hz | 85.94 | 85.00 | * (148.5) |
| 35 | 1,280 × 1,024 @60 Hz | 63.98 | 60.02 | * (108.0) |
| 36 | 1,280 × 1,024 @75 Hz | 79.98 | 75.03 | * (135.0) |
| 37 | 1,280 × 1,024 @85 Hz | 91.15 | 85.02 | * (157.5) |
| 38 | 1,600 × 1,200 @60 Hz | 75.00 | 60.00 | * (162.0) |
| 39 | 1,600 × 1,200 @65 Hz | 81.25 | 65.00 | * (175.5) |
| 40 | 1,066 × 600 @60 Hz | 37.64 | 59.94 | * (53.0) |
| 41 | 1,366 × 768 @60 Hz | 48.36 | 60.00 | * (86.71) |
| 42 | Macintosh13" (640 × 480) | 35.00 | 66.67 | * (30.24) |
| 43 | Macintosh16" (832 × 624) | 49.72 | 74.54 | * (57.28) |
| 44 | Macintosh21" (1,152 × 870) | 68.68 | 75.06 | * (100.0) |

*1: Based on SMPTE 274M standard.

*2: Based on SMPTE RP211 standard.

*3: Based on SMPTE 295M standard.

*4: When selected the RGB format and 525p signal input to the Mini D-sub 15P terminal, it is recognized as VGA 60Hz signal.

*5: When inputted VGA 60Hz format signal from the other than Mini D-sub 15P terminal, it is recognized as 525p signal.

Note: Signals without above specification may not be displayed properly.

Specifications

| | TH-42PD12U | TH-50PD12U |
|-------------------------------|---|---|
| Power Source | 110 - 127 V AC, 50/60 Hz | |
| Power Consumption | | |
| Power on | 255 W | 365 W |
| Stand-by condition | Save OFF 0.9 W, Save ON 0.4 W | Save OFF 0.9 W, Save ON 0.4 W |
| Power off condition | 0.2 W | 0.2 W |
| Plasma Display panel | Drive method : AC type 42-inch, 16:9 aspect ratio | Drive method : AC type 50-inch, 16:9 aspect ratio |
| Screen size | 36.2" (921 mm) (W) × 20.4" (518 mm) (H) × 41.6" (1,057 mm) (diagonal) | 43.5" (1,106 mm) (W) × 24.4" (622 mm) (H) × 49.9" (1,269 mm) (diagonal) |
| (No. of pixels) | 786,432 (1,024 (W) × 768 (H)) [3,072 × 768 dots] | 1,049,088 (1,366 (W) × 768 (H)) [4,098 × 768 dots] |
| Operating condition | | |
| Temperature | 32 °F - 104 °F (0 °C - 40 °C) | 32 °F - 104 °F (0 °C - 40 °C) |
| Humidity | 20 % - 80 % | 20 % - 80 % |
| Applicable signals | | |
| Color System | NTSC, PAL, PAL60, SECAM, Modified NTSC | |
| Scanning format | 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 750 (720) / 60p · 50p, 1125 (1080) / 60i · 60p · 50i · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i | |
| PC signals | VGA, SVGA, XGA SXGA, UXGA (compressed) Horizontal scanning frequency 15 - 110 kHz Vertical scanning frequency 48 - 120 Hz | |
| Connection terminals | | |
| VIDEO | BNC | 1.0 Vp-p (75 Ω) |
| S VIDEO | MINI DIN 4PIN | Y: 1.0 Vp-p (75 Ω), C: 0.286 Vp-p (75 Ω) |
| COMPONENT/RGB | Y/G (BNC) P _B /B (BNC), P _R /R (BNC) | with sync 1.0 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) |
| PC | (HIGH-DENSITY MINI D-SUB 15PIN) | Y or G with sync 1.0 Vp-p (75 Ω) Y or G without sync 0.7 Vp-p (75 Ω) B/P _B /C _B : 0.7 Vp-p (75 Ω) R/P _R /C _R : 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) |
| SERIAL | EXTERNAL CONTROL TERMINAL (D-SUB 9PIN) | RS-232C COMPATIBLE |
| AUDIO1-3 | RCA PIN JACK × 6 | 0.5 Vrms |
| AUDIO4 | M3 JACK | 0.5 Vrms |
| EXT SP | 6 Ω, 16 W [8 W + 8 W] (10 % THD) | |
| Accessories Supplied | | |
| Remote Control Transmitter | N2QAYB000432 | |
| Batteries | AA Size × 2 | |
| Fixing band | TMME203 × 1 | |
| Dimensions (W × H × D) | 40.2" (1,020 mm) × 24.1" (610 mm) × 3.5" (89 mm) | 47.7" (1,210 mm) × 28.5" (724 mm) × 3.8" (95 mm) |
| Mass (weight) | | |
| main unit only | approx. 50.7 lbs | approx. 70.6 lbs |
| with speakers | approx. 59.6 lbs | approx. 79.4 lbs |

Note:

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

Customer's 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 _____

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Unit of Panasonic Corporation of North America

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Southeast Region : 1225 Northbrook Parkway, Ste 1-160 Suwanee 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

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