Panasonic

Operating Instructions

High Definition Hospitality LCD Display

Model No. **TH-32LR11UK**
TH-32LR11UH

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

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 : To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

This video monitor is designed to display television content from a separate TV tuner. Full-power analog TV broadcasting in the United States will end (as required by law) on February 17, 2009, after which full-power TV broadcasts will be digital only. If this device is used after that date to record or display programming from a product with a TV tuner that relies on a TV antenna, that product would need to contain a digital tuner, or a TV Converter would be necessary to tune the digital signal received with a TV antenna. Analog TVs should continue to work as before for other purposes (e.g., for watching low-power TV stations still broadcasting in analog, watching pre-recorded movies, or playing video games). When a Converter is used with an older television receiver or directly with this product, a signal splitter might be necessary to continue to receive low-power analog broadcasts via an antenna. For more information, please see www.DTV.gov or 1-888-CALL-FCC. For information on the TV Converter program, and on government coupons that may be used toward the purchase of one, see www.dtv2009.gov, or call the NTIA at 1-888-DTV-2009. Please check with your cable or satellite service provider if you have questions about your cable or satellite set-top box.

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 LCD 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.

Table of Contents

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 Part15 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-32LR11UK, TH-32LR11UH

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:
Image retention may occur. If you display a still picture for an extended period, the image might remain on the screen. However, it will disappear after a while.

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

<u>This LCD Display is for use only with the following optional accessories.</u> 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.)

- Wall-hanging bracket (angled) TY-WK32GRW
- BNC Component Video Terminal Board.....TY-42TM6A
- BNC Composite Video Terminal Board TY-42TM6B
- BNC Dual Video Terminal Board.....TY-FB9BD
- Ir Through Terminal Board TY-FB9RT
- RCA Component Video Terminal Board.....TY-42TM6Z
- RCA Composite Video Terminal Board TY-42TM6V
- PC Input Terminal Board TY-42TM6P
- RGB (Digital) Terminal Board.....TY-42TM6D
- HDMI Terminal Board.....TY-FB8HM
- Dual HDMI Terminal Board TY-FB10HMD
- AV Terminal Box.....TY-TB10AV
- DVI-D Terminal Board TY-FB11DD
- U/V Tuner Board with MATE I/F TY-FB9TU
  (Except for Canada and United States of America, only Mexico)

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 LCD Display

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

- Top of the 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 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 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 Display.

Note:
Image retention may occur. If you display a still picture for an extended period, the image might remain on the screen. However, it will disappear after a while.

WARNING

■ Setup

Do not place the Display on sloped or unstable surfaces.
- The Display may fall off or tip over.

Do not place any objects on top of the Display.
- If water spills onto the 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 Display, please consult an Authorized Service Center.

Do not cover the ventilation holes.
- Doing so may cause the Display to overheat, which can cause fire or damage to the Display.

Transport only in upright position!
- Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

When using the pedestal, 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.)

■ AC Power Supply Cord

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

Securely insert the power cord plug as far as it will go.
- If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

Do not handle the power cord plug with wet hands.
- Doing so may cause electric shocks.

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

If the 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 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 Display, if the 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.

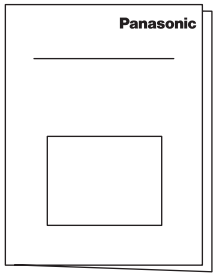
If the cabinet becomes dirty, wipe it with a soft, dry cloth.
- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow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

The remote control is not included with this set. Available for purchase separately.

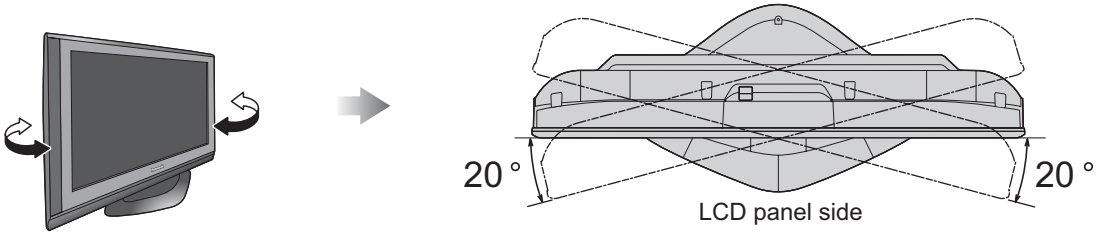
Object model : N2QAYB000178

Location

Place the display at a comfortable distance for viewing. Avoid placing it where sunlight or other bright light (including reflections) will fall on the screen.
Use of some types of fluorescent lighting can reduce remote control transmitter range.
Adequate ventilation is essential to prevent an internal component failure. Keep away from areas of excessive heat or moisture.

■How to use the pedestal

Adjust the stand to your desired angle.
The stand angle can be rotated 20 ° to the right / left.



Preparation for Wall-hanging

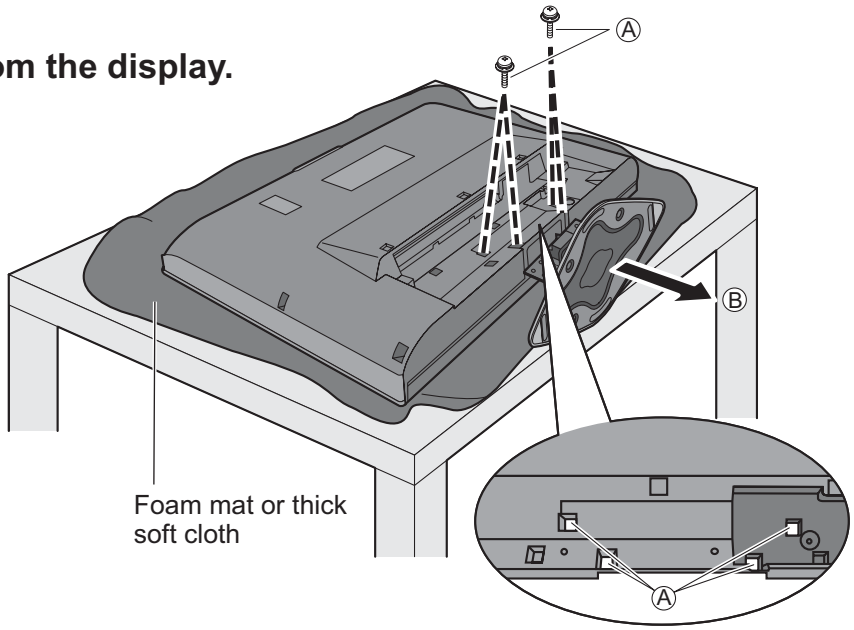
Before mounting the display on the wall, you must remove the pedestal from the display.
Follow the steps below:

1 Disconnect all the cables from the display.

2 Remove the pedestal.

Ⓐ Remove four screws

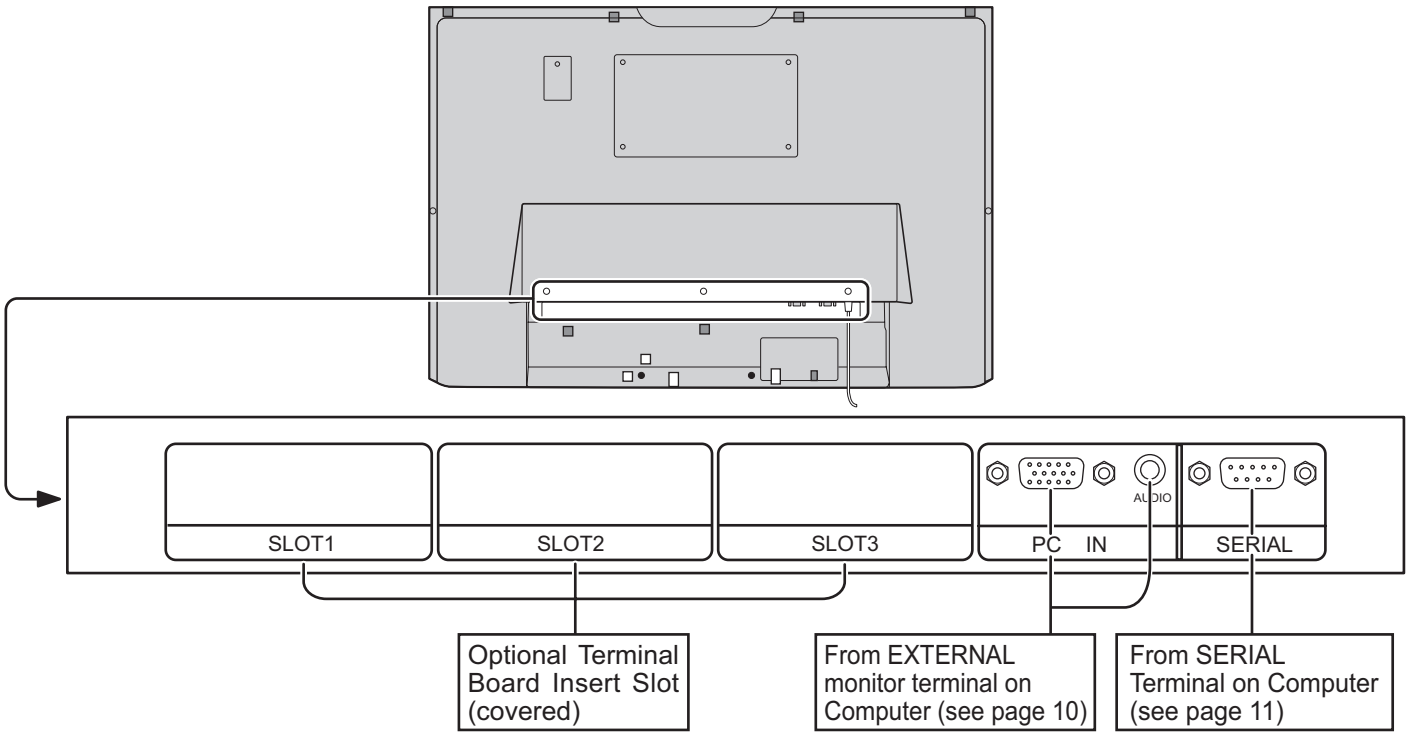
Ⓑ Pull out the pedestal



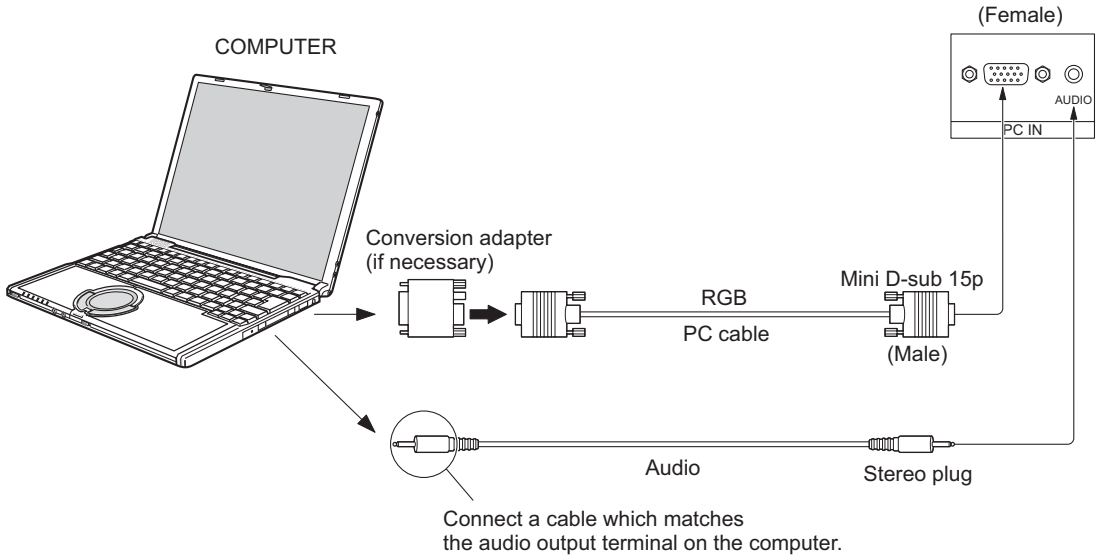
WARNING

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Any damage resulting from not having a professional installer mount will void your unit's warranty.
- Always be sure to ask a qualified technician to carry out set-up. Incorrect fitting may cause equipment to fall, resulting in injury and product damage.
- Do not mount this LCD display directly below ceiling lights (such as spotlights, floodlights, or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.

Connections



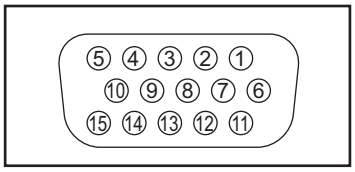
PC Input Terminals connection



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 1,024 × 768 dots when the aspect mode is set to “4:3”, and 1,366 × 768 dots when the aspect mode is set to “FULL”. If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- 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 29)

Signal Names for Mini D-sub 15P Connector

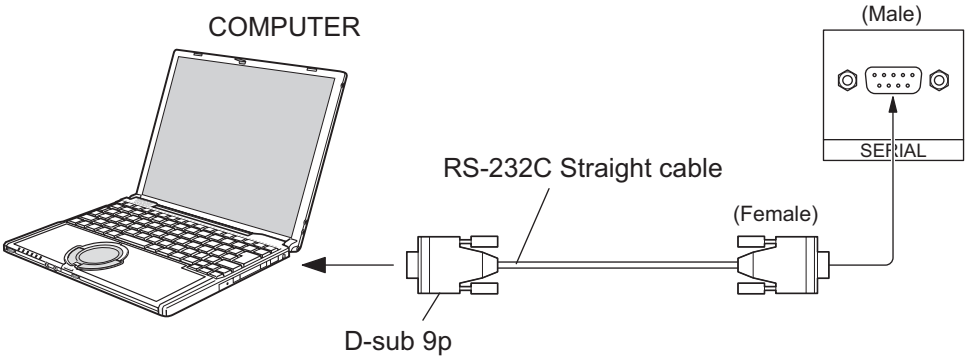


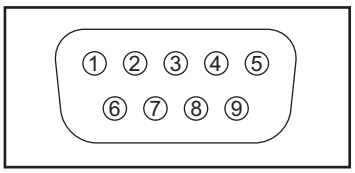
Pin Layout for PC Input Terminal

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 Display is controlled by a computer.





Pin layout for SERIAL Terminal

Notes:
- Use the RS-232C straight cable to connect the computer to the Display.
- The computer shown is for example purposes only.
- Additional equipment and cables shown are not supplied with this set.

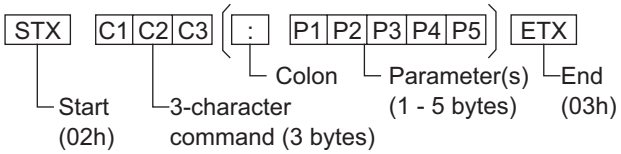
The SERIAL terminal conforms to the RS-232C interface specification, so that the Display can be controlled by a computer which is connected to this terminal.
The computer will require software which allows the sending and receiving of control data which satisfies the conditions given below. Use a computer application such as programming language software. Refer to the documentation for the computer application for details.

Communication parameters

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.
- SL1A, SL1B, SL2A and SL2B of Command IMS are available only when a dual input terminal board is attached.

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.

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	Slot1 input
	SL2	Slot2 input
	SL3	Slot3 input
	PC1	PC input
	SL1A	Slot1 input (INPUT1A)
	SL1B	Slot1 input (INPUT1B)
	SL2A	Slot2 input (INPUT2A)
	SL2B	Slot2 input (INPUT2B)
DAM	None	Screen mode select (toggle)
	ZOOM	ZOOM
	FULL	FULL
	JUST	JUST
	NORM	4:3
	SELF	Panasonic Auto
	SJST	JUST
	SNOM	4:3
	SFUL	H-FILL

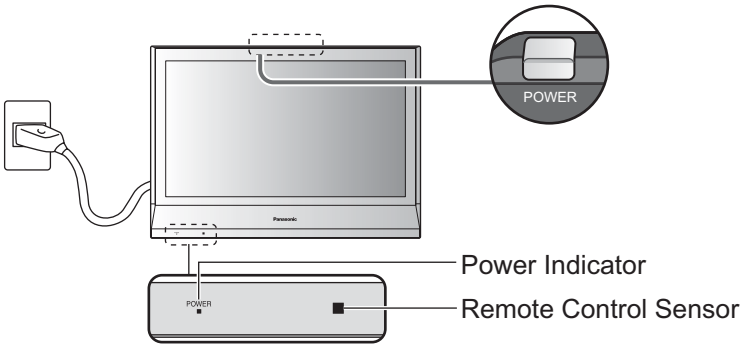
With the power off, this display responds to PON command only.

Power ON / OFF

Connecting the plug to the Wall Outlet.

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

Power Indicator: Green



POWER

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

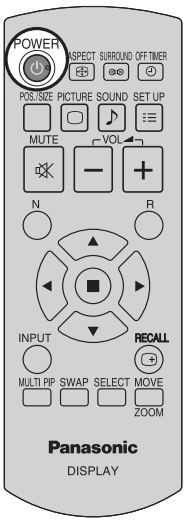
Power Indicator: Red (standby)

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

Power Indicator: Green

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

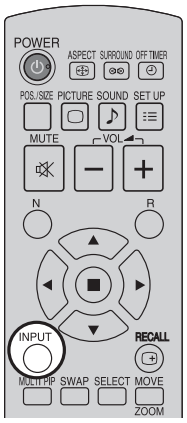
Note:
During operation of the power management function, the power indicator turns orange in the power off state.



Initial selections

Selecting the input signal

Select the input signals to be connected by installing the optional Terminal Boards.

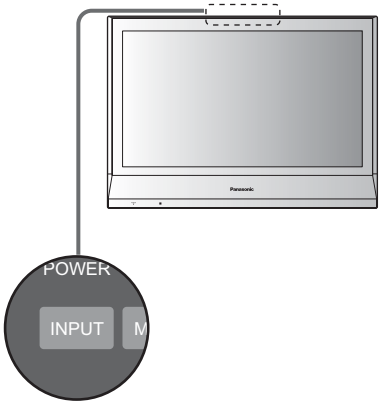


INPUT

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

Input signals will change as follows:

→ INPUT1 → INPUT2 → INPUT3 → PC ┐



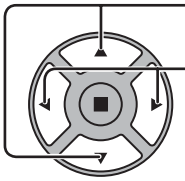
Notes:

- Selecting is also possible by pressing the INPUT button on the unit.
- Input terminal will not be selected if the terminal board is not installed into the SLOT.
- Select to match the signals from the source connected to the component/RGB input terminals. (see page 29)
- In 2 screen display, the same input mode cannot be selected for the main picture and sub picture.

Selecting the On-Screen Menu Language

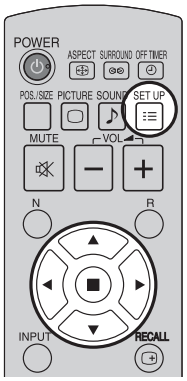
SET UP

Press to display the SET UP menu.



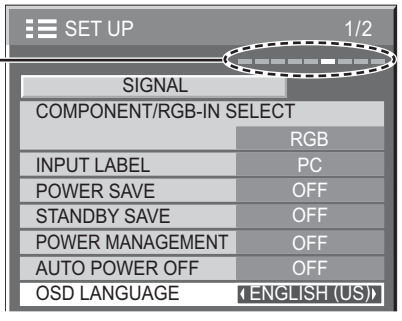
Press to select OSD LANGUAGE.

Press to select your preferred language.

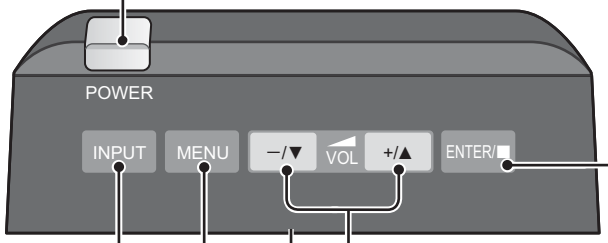


■ Selectable languages

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



Basic Controls



Main Power On / Off Switch

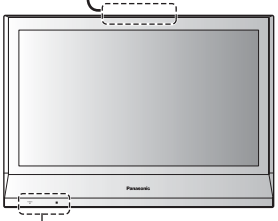
Enter / Aspect button
This button is locked by initial setting. (see page 16, 20)

INPUT button
(INPUT1, INPUT2, INPUT3 and PC selection)
(see page 13)

Volume Adjustment
Volume Up "+" Down "–"
When the menu screen is displayed:
"+" : press to move the cursor up
"–" : press to move the cursor down
(see page 20)

MENU Screen ON / OFF
This button is locked by initial setting.
Each time the MENU button is pressed, the menu screen will switch. (see page 20)

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



Remote control sensor

How to release button lock
MENU and ENTER/■ buttons are locked before shipping.
You can unlock them with unit buttons.

1. Press +/▲ 4 times.
2. Press INPUT 4 times.
3. Press –/▼ 4 times.
4. Press ENTER/■.

Note:
After unlocking the buttons, Button lock in OPTIONS menu is set to "Off".
(see page 35)

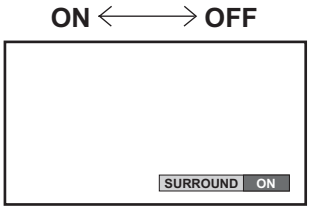
Power Indicator
The Power Indicator will light.
- Power-OFF .... Indicator not illuminated (The unit will still consume some power as long as the power cord is still inserted into the wall outlet.)
- Standby ..... Red
- Power-ON ..... Green
- DPMS..... Orange (With PC input signal and during operation of PC's screensaver.)

Remote Control Transmitter

The remote control is not included with this set. Available for purchase separately.

Object model : N2QAYB000178

SURROUND button
The surround setting switches on and off each time the SURROUND button is pressed.
The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.
Note:
The surround settings are memorized separately for each AUDIO MENU (STANDARD, DYNAMIC, CLEAR).



ACTION button
Press to make selections.

ASPECT button
Press to adjust the aspect.
(see page 16)

POWER button
The Display must first be plugged into the wall outlet and turned on at the power switch (see page 12).
Press this button to turn the Display On, from Standby mode. Press it again to turn the Display Off to Standby mode.

POS. /SIZE button
(see page 21)

PICTURE button
(see page 22)

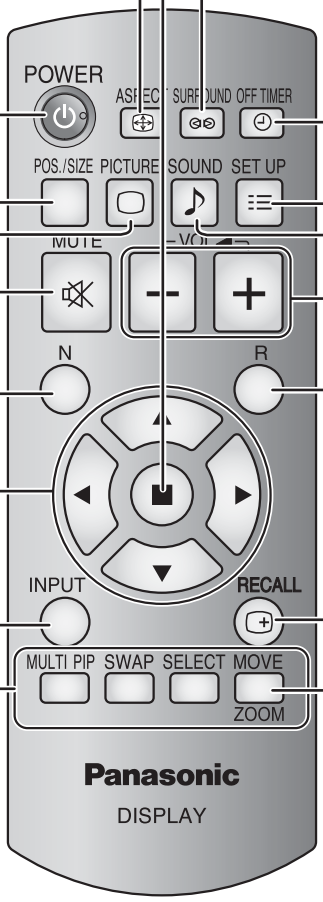
Sound mute On / Off
Press this button to mute the sound.
Press again to reactivate sound.
Sound is also reactivated when power is turned off or volume level is changed.

N button
(see page 21, 22, 23, 24)

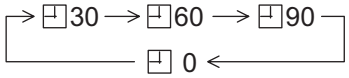
POSITION buttons

INPUT button
Press to select INPUT1, INPUT2, INPUT3 and PC input SLOTS sequentially. (see page 13)
When a dual input terminal board is attached, A or B is displayed depending on the selected input signal. (Ex. INPUT1A, INPUT1B)

MULTI Window buttons
(see page 17)



OFF TIMER button
The 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.

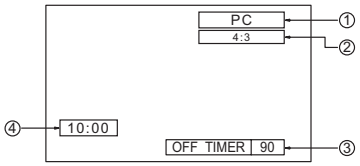
SET UP button (see page 20)

SOUND button (see page 24)

Volume Adjustment
Press the Volume Up “+” or Down “–” button to increase or decrease the sound volume level.

R button (see page 20)
Press the R button to return to previous menu screen.

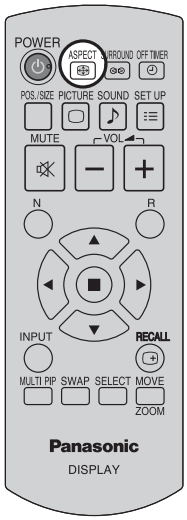
RECALL button
Press the “RECALL” button to display the current system status.
① Input label
② Aspect mode (see page 16)
③ Off timer
The off timer indicator is displayed only when the off timer has been set.
④ Clock display (see page 36)



Digital Zoom (see page 19)

ASPECT Controls

The 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 40).

For VIDEO (S VIDEO) signal input:

→ 4:3 → ZOOM → Panasonic AUTO →
JUST ← FULL ←

[from the unit]

Note:
When selecting an input slot that attaches BNC Dual Video Terminal Board (TY-FB9BD), Panasonic AUTO cannot be selected.

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]

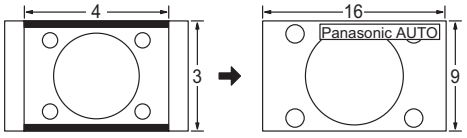
- Picture and Picture, Picture in Picture : → 4:3 → FULL →
- Others : Aspect switching is not possible.

Notes:

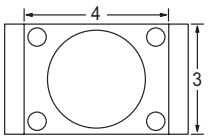
- Panasonic AUTO can be selected only during Video signal input.
- The aspect mode is memorized separately for each input terminal.

Panasonic AUTO

The display will automatically become enlarged (depending on the picture source), allowing you to view the picture at its maximum size.



For letter box image Image is expanded



For a 4:3 image

Changes in accordance with the Panasonic AUTO mode setting (see page 31).

Notes:

- Panasonic AUTO mode is designed to automatically adjust the aspect ratio to handle a mix of 16:9 and 4:3 program material. Certain 4:3 program material, such as stock market data screens, may occasionally cause the image size to change unexpectedly. When viewing such programs, it is recommended that the ASPECT be set to 4:3.
- If adjusting the PICTURE V-POS/V-SIZE in Panasonic AUTO with FULL mode, the adjustment is not memorized. When exiting the mode, the screen will return to a former adjustment.

All Aspect mode

Set “All Aspect” to “On” in Options menu to enable the extended aspect mode (page 36). 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 40).

For VIDEO (S VIDEO) signal input:

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

Notes:

- When selecting an input slot that attaches BNC Dual Video Terminal Board (TY-FB9BD), Panasonic Auto cannot be selected.
- In All Aspect mode, “Panasonic AUTO” is displayed as “Panasonic Auto”.

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 ┐

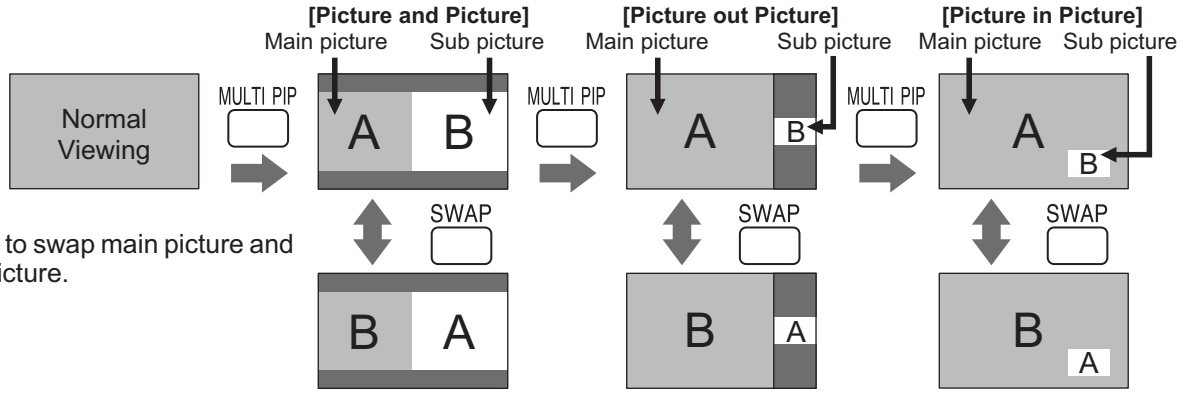
For HD signal input [1125 (1080) / 60i • 50i • 60p • 50p • 24p • 25p • 30p • 24sF, 1250 (1080) / 50i, 750 (720) / 60p • 50p]:

→ 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.

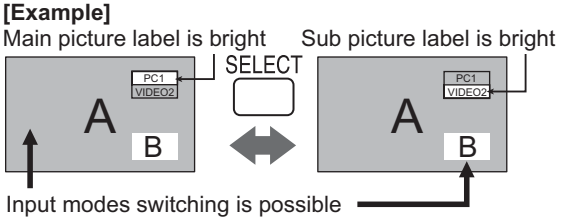
SELECT

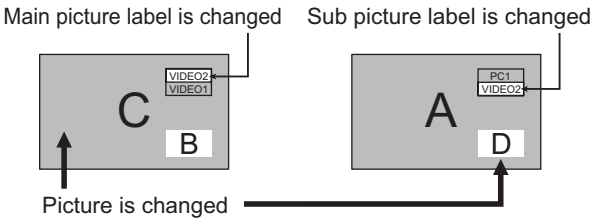
Press to select the input mode.
Under main Picture and sub picture display, select the picture which you would like to change input modes.

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).

[Example]



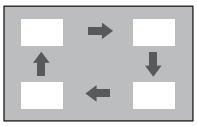


INPUT

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:

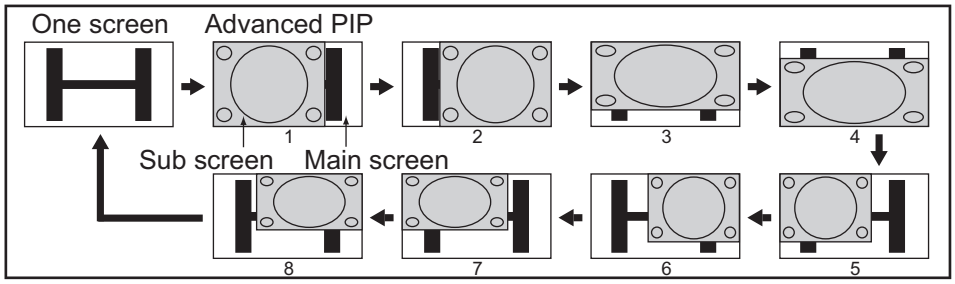
- This button is effective only in the picture in picture.
- The sub picture may be hidden by the on screen display, depending on its position.

Advanced PIP

1 Set “Advanced PIP” to “On” in Options menu. (see page 35)

2 MULTI PIP

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

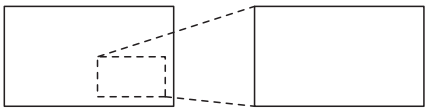


Notes:
- To use SWAP, SELECT, INPUT, buttons for the screen operations, follow the procedures in the previous page.
- ASPECT, and MOVE ZOOM buttons are invalid during Advanced PIP operation.

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 24).
- 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 analog signals cannot be displayed simultaneously;
  Component - Component, Component - PC (RGB), PC (RGB) - Component, PC (RGB) - PC (RGB)

Digital Zoom

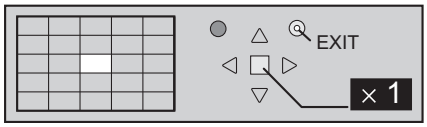
This displays an enlargement of the designated part of the displayed image.



1 Display the operation guide.

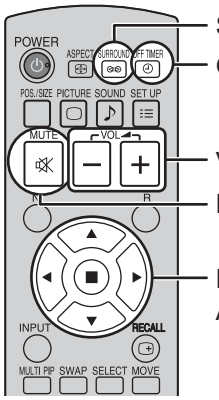
MOVE
ZOOM

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



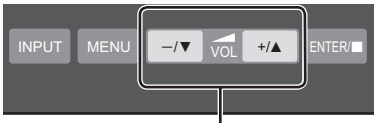
During Digital Zoom, only the following buttons can be operated.

[Remote control]



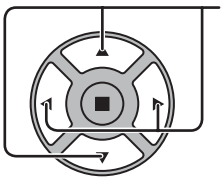
SURROUND button
OFF TIMER button
VOL button
MUTE button
POSITION / ACTION button

[Unit]



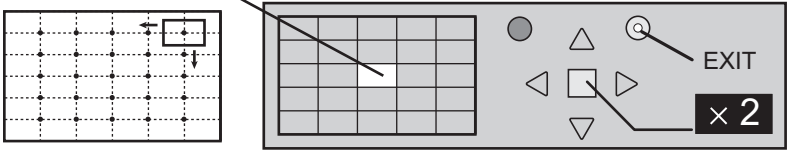
VOL button

2 Select the area of the image to be enlarged.

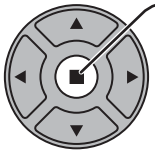


Press on the enlargement location to select.

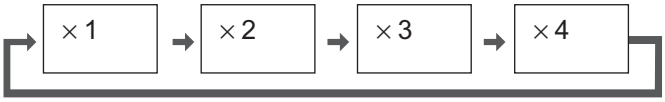
The cursor will move.



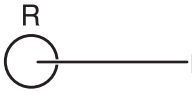
3 Select the magnification required for the enlarged display.



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.

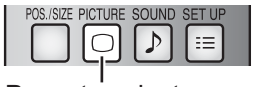
Notes:

- 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 17)
- While Digital Zoom is in operation, “Adjusting POS. /SIZE” cannot be used.

On-Screen Menu Display

Remote Control **Unit**

1 Display the menu screen.



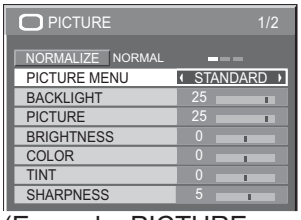
Press to select.
(Example: PICTURE menu)

MENU — Press several times.

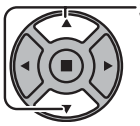
Each time the MENU button is pressed, the menu screen will switch.

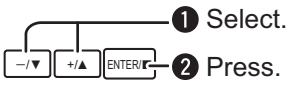
→ Normal Viewing → PICTURE →
SOUND ← POS. /SIZE ← SET UP ←

2 Select the item.

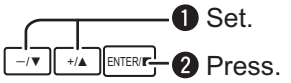


(Example: PICTURE menu)

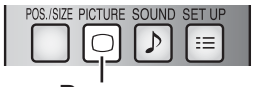




3 Set.



4 Exit the menu.



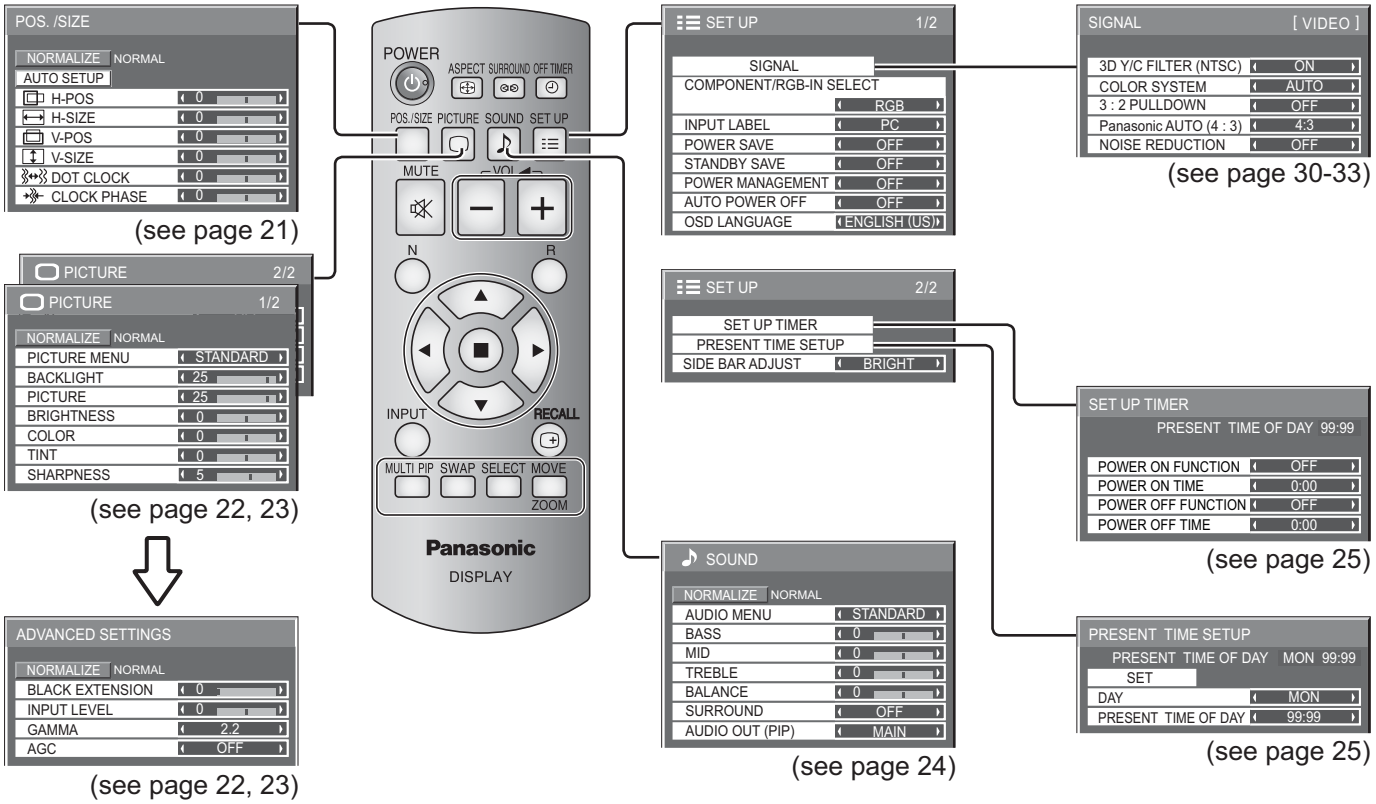
Press.

MENU — Press several times.

Press R to return to the previous menu.

Overview

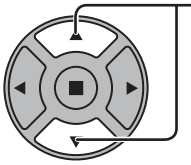
Note: Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.



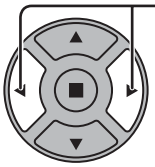
Adjusting POS. /SIZE

1 POS./SIZE — Press to display the POS. /SIZE menu.

2 Press to select the menu to adjust.

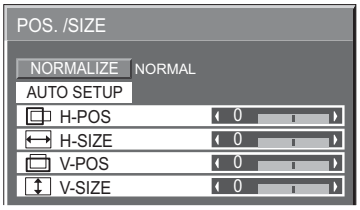


3 Press to adjust the menu.

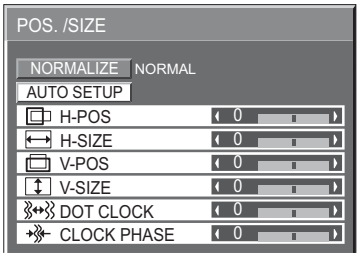


4 POS./SIZE — Press to exit from adjust mode.

During "VIDEO (S VIDEO)", "Digital", "SDI" and "HDMI" input signal.



During "COMPONENT", "RGB" and "PC" input signal.



Notes:

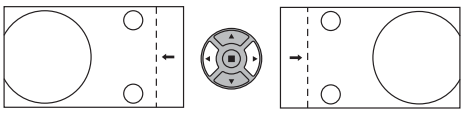
- Unadjustable items are grayed out.
  Adjustable items differ depending on the input signal and the display mode.
- Adjustment details are memorized separately for different input signal formats. (Adjustments for component signals are memorized for 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 1125 (1080) / 60i · 50i · 60p · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i, 750 (720) / 60p · 50p each, and RGB/PC/Digital 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.
- If adjusting the PICTURE V-POS / V-SIZE in Panasonic AUTO with FULL mode, the adjustment is not memorized. When exiting the mode, the screen will return to a former adjustment.

AUTO SETUP Automatically adjust H-POS / V-POS / CLOCK PHASE / DOT CLOCK and set H-SIZE / V-SIZE the standard value when RGB signal is input.

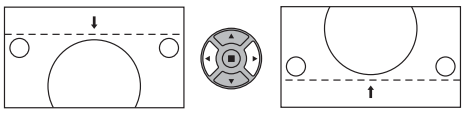
Notes:

- If the dot clock frequency is 108 MHz or higher, DOT CLOCK cannot be made.
- If the image is that the edge is hardly figured out or shadowy, that cannot be adjusted automatically. In such case, press AUTO SETUP again after changing the image to the clearer one.
- When DVI-D is input, CLOCK PHASE cannot be adjusted automatically.
- Select NORMALIZE in POS. /SIZE and press the ACTION (■) button when appropriate adjustment cannot be made.

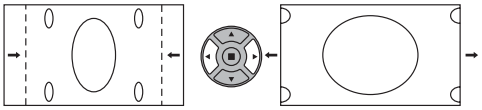
H-POS Adjust the horizontal position.



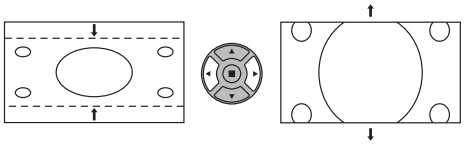
V-POS Adjust the vertical position.



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.

Helpful Hint (N / NORMALIZE Normalization)

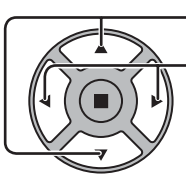
While the POS. /SIZE display is active, if either the N button on the remote control is pressed at any time or the ACTION (■) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

PICTURE Adjustments

1 PICTURE

Press to display the PICTURE menu.

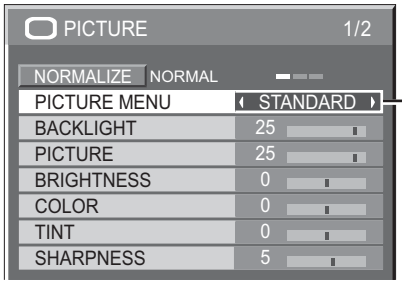
2 Select to adjust each item.



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 the left ◄ or right ► button to switch between modes.

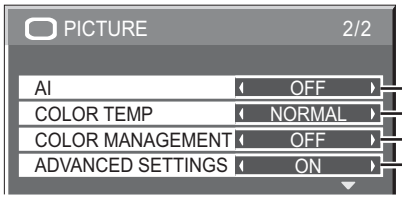
STANDARD ⟷ DYNAMIC ⟷ CINEMA

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

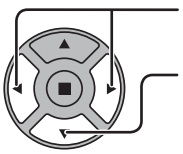
DYNAMIC
For viewing in brighter environments.
This menu selects higher than normal levels of BRIGHTNESS and PICTURE.

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)



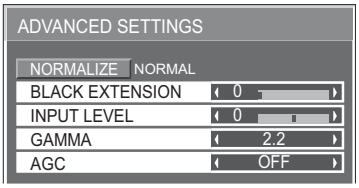
Controls dark areas without affecting the black level or brightness in the overall picture.



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.

NORMAL ⟷ COOL ⟷ WARM

COLOR MANAGEMENT ON
Enables vivid color adjustment automatically.

Helpful Hint (N / NORMALIZE Normalization)

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

Item	Effect		Adjustments
BACKLIGHT	◀ Darker	▶ Brighter	Adjusts luminance of the back light.
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" and "Digital" input signal.
- You can change the level of each function (BACKLIGHT, 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. (This cannot be adjusted when the input signal is Digital.)
GAMMA	◀ Down	▶ Up	S CURVE ⟷ 2.0 ⟷ 2.2 ⟷ 2.5
AGC	◀ OFF	▶ ON	Increases the brightness of dark signal automatically.

Notes:
- The adjustment values are memorized separately for each input terminal.
- The adjustment range values should be used as an adjustment reference.

Helpful Hint (N ◯ / NORMALIZE Normalization)

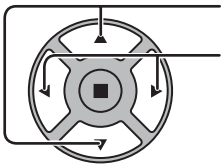
On the remote control unit, while the "ADVANCED SETTINGS" menu is displayed, if either the N button is pressed at any time or the ACTION (■) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

SOUND Adjustment

1 SOUND

Press to display the SOUND menu.

2 Select to adjust each item.

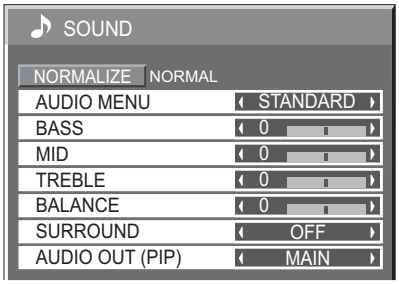


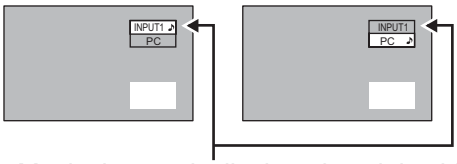
Press to select the menu to adjust.

Select the desired level by listening to the sound.

3 SOUND

Press to exit from adjust mode.



Item	Details
AUDIO MENU	**STANDARD:** Emits the original sound. **DYNAMIC:** Accentuates sharp sound. **CLEAR:** Attenuates human voice.
BASS	Adjusts low pitch sounds.
MID	Adjusts normal sounds.
TREBLE	Adjusts pitch sound.
BALANCE	Adjusts left and right volumes.
SURROUND	Select ON or OFF.
AUDIO OUT (PIP)	**MAIN:** Selects main picture sound. **SUB:** Selects PIP frame sound.  Musical note ♪ is displayed on right side of the audio output screen label.

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

Helpful Hint (N / NORMALIZE Normalization)

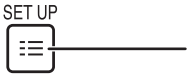
While the “SOUND” menu is displayed, if either the N button on the remote control is pressed at any time or the ACTION (■) button is pressed during “NORMALIZE”, then all adjustment values are returned to the factory settings.

PRESENT TIME SETUP / SET UP TIMER

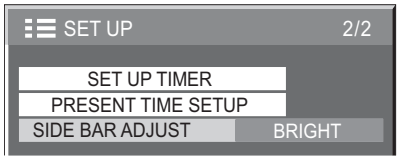
The timer can switch the Display ON or OFF.

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

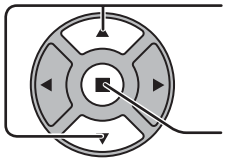
1



Press to display the SET UP menu.



2

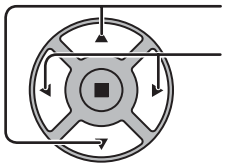


Press to select SET UP TIMER or PRESENT TIME SETUP.

Press to display the SET UP TIMER screen or PRESENT TIME SETUP screen.

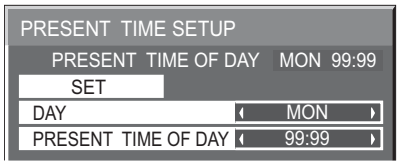
PRESENT TIME SETUP

1



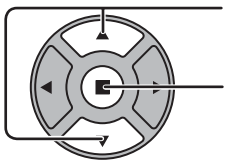
Press to select DAY or PRESENT TIME OF DAY.

Press to set up DAY or PRESENT TIME OF DAY.
► button: Forward
◄ button: Back



Notes:
- Pressing "◄" or "►" button once changes PRESENT TIME OF DAY 1 minute.
- Pressing "◄" or "►" button continuously changes PRESENT TIME OF DAY by 15 minutes.

2



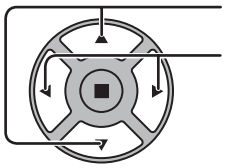
Press to select SET.

Press to store PRESENT TIME SETUP.

Notes:
- SET cannot be selected unless PRESENT TIME OF DAY is set.
- Unless setting the present time other than "99:99", DAY setting is invalid.
- The settings of "DAY" and "PRESENT TIME OF DAY" are reset when leaving the display turned off for about 7 days for the following reasons:
  Pressing POWER switch of the unit to turn off the display.
  Disconnecting the AC cord.
  Interruption of power supply.

SET UP TIMER

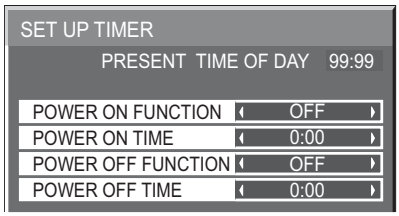
1



Press to select POWER ON TIME / POWER OFF TIME.

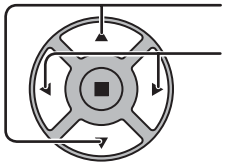
Press to set up POWER ON TIME / POWER OFF TIME.

► button: Forward
◄ button: Back



Notes:
- Pressing "◄" or "►" button once changes POWER ON TIME / POWER OFF TIME 1 minute.
- Pressing "◄" or "►" button continuously changes POWER ON TIME / POWER OFF TIME by 15 minutes.

2



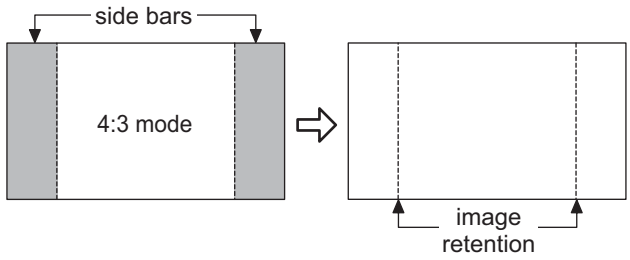
Press to select POWER ON FUNCTION / POWER OFF FUNCTION.

Press to select ON.

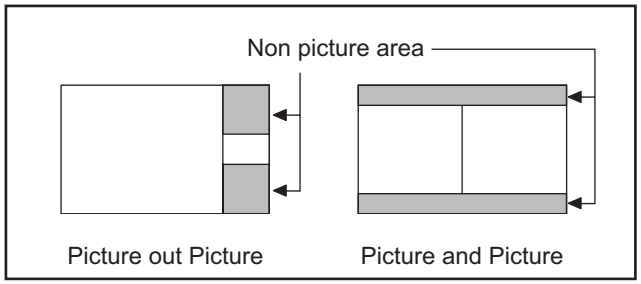
Note:
Timer function will not work unless "PRESENT TIME OF DAY" is set.

SIDE BAR ADJUST

Do not display a picture in 4:3 mode for an extended period, as this can cause an 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.

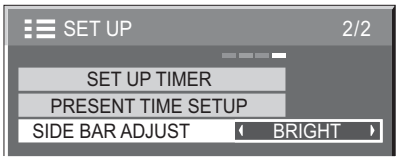


1 SET UP — Press to display the SET UP menu.

2 Press to select the SIDE BAR ADJUST.

Press to select OFF, DARK, MID, BRIGHT.

→ OFF ⟷ DARK ⟷ MID ⟷ BRIGHT ←



3 SET UP — Press to exit from adjust mode.

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.

Reduces power consumption

• POWER SAVE: When this function is turned ON, luminous level of the LCD 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 12, 14, 15), 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 IN 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.

Notes:

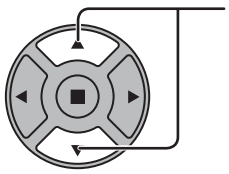
- This function operates only during PC IN signal input.
- This function is invalid during input from PC Input Terminal Board (TY-42TM6P).
- This function is effective when “SYNC” is set to “AUTO”, “COMPONENT / RGB-IN SELECT” is set to “RGB” and during normal viewing (one picture screen).

• AUTO POWER OFF: Equipment power supply is turned OFF when there is no signal.

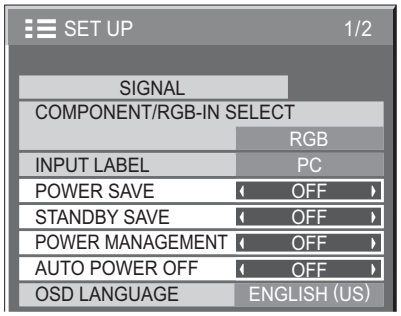
When this is set to On, the power supply of the unit goes Off 10 minutes after the input signals stop.

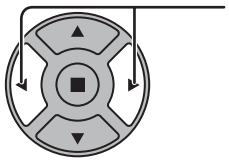
Notes:

- This function operates only during PC IN 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).

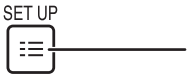
1 

Press to select
“POWER SAVE”
“STANDBY SAVE”
“POWER MANAGEMENT”
“AUTO POWER OFF”.



2 

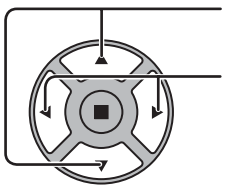
Press to select “ON” or “OFF”.
On ⟷ Off

3 

Press to exit from SET UP.

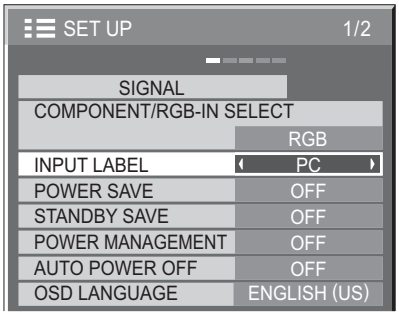
Customizing the Input labels

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 13, 15)



Press to select INPUT LABEL.

Press to change the INPUT LABEL.



Note:
While selecting a Input signal through Optional Terminal Board connected to Slot 1, Slot 2 and Slot 3, the Input label will depend on each Optional Terminal Board.

INPUT LABELS for Slot 1, Slot 2, Slot 3 and Mini D-sub:

[Slot1 Input]	INPUT1/VIDEO1/COMPONENT1/RGB1/DIGITAL1/PC1/DVD1/CATV1/VCR1/STB1
[Slot2 Input]	INPUT2/VIDEO2/COMPONENT2/RGB2/DIGITAL2/PC2/DVD2/CATV2/VCR2/STB2
[Slot3 Input]	INPUT3/VIDEO3/COMPONENT3/RGB3/PC3/DVD3/CATV3/VCR3/STB3
[PC (Mini D-sub) input]	PC/COMPONENT/RGB/DVD/STB

When BNC Dual Video Terminal Board (TY-FB9BD) is used, an “A” or “B” is added at the end of each input label, depending on the input selected (see below).

Addition sign	“A”	“B”
Selected Input	Composite	S VIDEO

SET UP for Input Signals

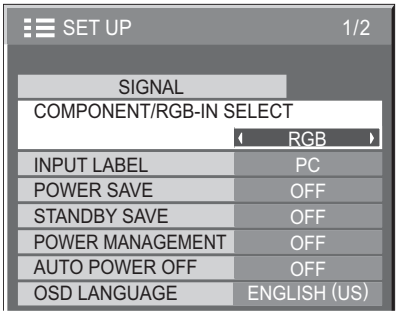
COMPONENT / RGB IN SELECT

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”

1 SET UP — Press to display the SET UP menu.

2 Press to select the “COMPONENT / RGB-IN SELECT”.
Press to select the desired mode.
COMPONENT ⟷ RGB

3 SET UP — Press to exit from adjust mode.



Notes:
- Selection may not be possible, depending on which optional board is installed.
- Make setting of the selected input terminal (SLOT1, SLOT2, SLOT3 or PC IN).

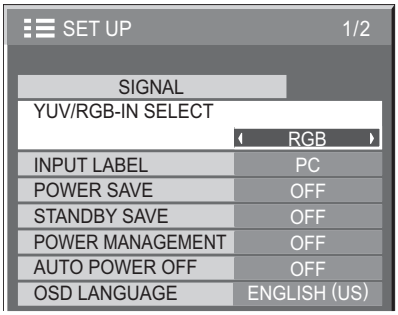
YUV / RGB IN SELECT

Select to match the signals from the source connected to the DVI input terminals.
YUV signals ⇨ “YUV”
RGB signals ⇨ “RGB”

1 SET UP — Press to display the SET UP menu.

2 Press to select the “YUV / RGB-IN SELECT”.
Press to select the desired mode.
YUV ⟷ RGB

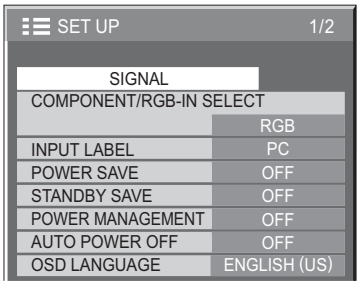
3 SET UP — Press to exit from adjust mode.



Notes:
- Selection may not be possible, depending on which optional board is installed.
- Make setting of the selected input terminal (SLOT1 or SLOT2).

SIGNAL menu

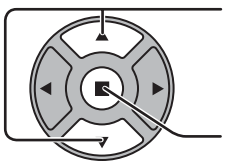
Note:
"SIGNAL" setup menu displays a different setting condition for each input signal.



1 SET UP

Press to display the SET UP menu.

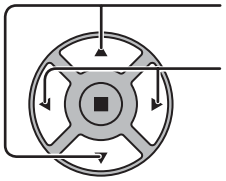
2



Press to select the "SIGNAL".

Press to display the SIGNAL menu.

3



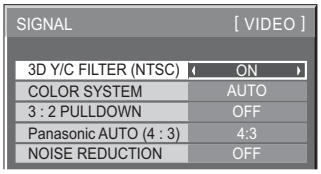
Press to select the menu to adjust.

Press to adjust the menu.

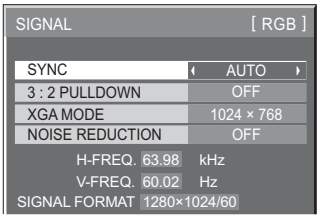
4 SET UP

Press to exit from adjust mode.

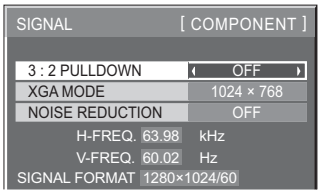
For VIDEO (S VIDEO)



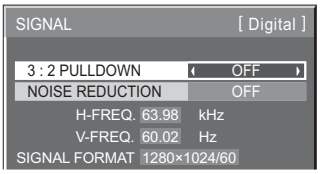
For RGB



For COMPONENT

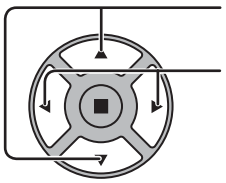


For Digital



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.)



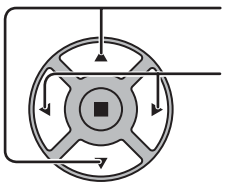
Press to select the "3D Y/C FILTER (NTSC)".

Press to set ON / OFF.

Note:
When ON, this setting only affects NTSC input signals.

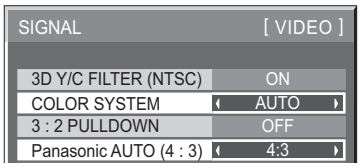
COLOR SYSTEM / Panasonic AUTO

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



Press to select the “COLOR SYSTEM” or “Panasonic AUTO”.

Press to select each function.



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

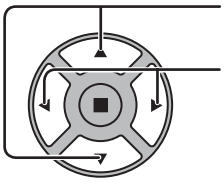
Mode	Function
COLOR SYSTEM	Set the color system to match the input signal. When selecting “AUTO”, the color system is automatically selected from NTSC/PAL/SECAM, however, M.NTSC signal is not displayed properly depending on the attached terminal board. To display M.NTSC signal, select “M.NTSC” in COLOR SYSTEM. AUTO ⟷ PAL ⟷ SECAM ⟷ M.NTSC ⟷ NTSC
Panasonic AUTO (4 : 3)	Set to “4:3” to view 4:3 images in an unchanged format when Panasonic AUTO is selected. If you would like to view 4:3 images in Just format, set to “JUST”.

Note:
Panasonic AUTO does not function when BNC Dual Video Terminal Board (TY-FB9BD) is used.

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.

Notes:
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.

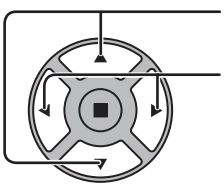


Press to select “3:2 PULLDOWN”.

Press to set ON/OFF.

XGA MODE

This menu is displayed when the input signal is analog (Component/PC). 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). Be sure to make settings in accordance with the input signal in order to achieve a more appropriate and attractive display.
In addition, after making this setting, be sure to make each adjustment (such as “AUTO SETUP”) on the “POS. /SIZE” menu as necessary. (see page 21)

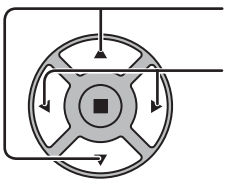


Press to select “XGA MODE”.

Press to select “1024×768”, “1280×768” , “1366×768”.

NOISE REDUCTION

Sets the following three NR (Noise Reduction) functions together.
VIDEO NR, MOSQUITO NR, BLOCK NR



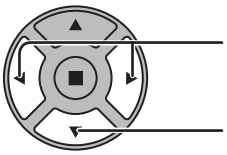
Press to select “NOISE REDUCTION”.

Press to select “OFF”, “MIN”, “MID”, “MAX”, “ADVANCED”.

Advanced NR

Sets the three NR functions separately.

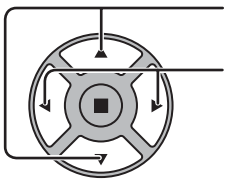
1



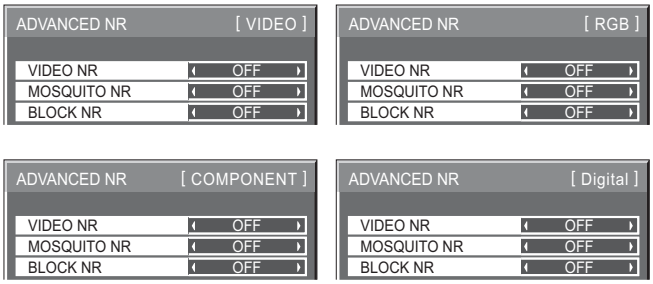
Press to select “ADVANCED”.

Press to enter ADVANCED NR.

2



Press to select VIDEO NR, MOSQUITO NR or BLOCK NR.
Press to select “OFF”, “MIN”, “MID”, “MAX”.

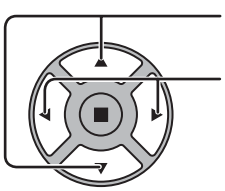


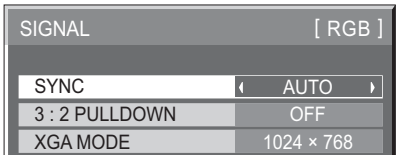
VIDEO NR: Automatically reduces unwanted picture noise.
MOSQUITO NR: Reduces mosquito noise around subtitles on MPEG videos.
BLOCK NR: Reduces block noise when playing MPEG videos.

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.

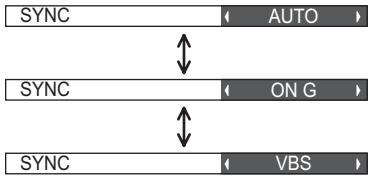




Setting RGB sync signal

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.

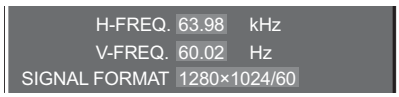


Input signal display

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

This display is valid only for COMPONENT/RGB/PC and Digital input signal.
Display range:

Horizontal	15 - 110 kHz
Vertical	48 - 120 Hz

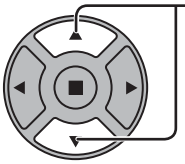


Options Adjustments

1 SET UP

Press to display the SET UP menu.

2

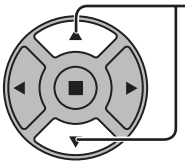


Press to select “OSD LANGUAGE”.

3 SURROUND

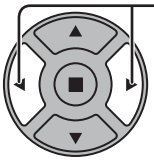
Press and hold until the Options menu is displayed.

4



Press to select your preferred menu.

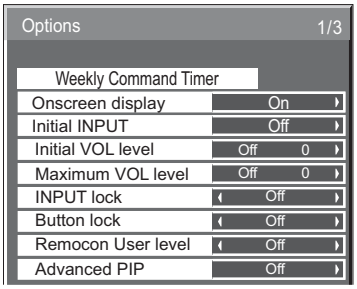
5

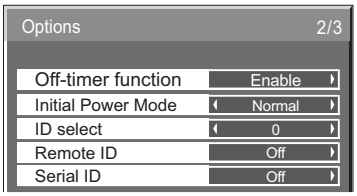


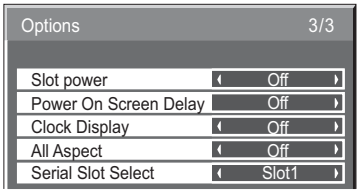
Press to adjust the menu.

6 SET UP

Press to exit from Options menu.

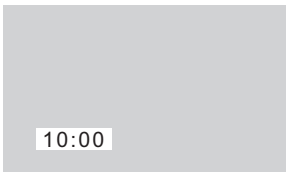






Item	Adjustments
Weekly Command Timer	Sets Weekly Command Timer. (see page 37)
Onscreen display	**On:** Displays all the following on screen. • Power on display • Input signal switch display • No signal display • Mute and the remaining time of off-timer after RECALL was pressed. **Off:** Hides all the items above from view.
Initial INPUT	**Off** ↔ **PC** ↔ **INPUT1** ↔ **INPUT2** ↔ **INPUT3** Adjusts the input signal when the unit is turned on. **Notes:** • Only the adjusted signal is displayed. (see page 13) • Signal can be displayed when the Terminal board is installed. • This menu is available only when “INPUT lock” is “Off”. • When a dual input terminal board is attached, A or B is displayed depending on the selected input signal. (Ex. INPUT1A, INPUT1B)
Initial VOL level	Press VOL − + button to adjust the volume when the unit is turned on. **Off** ⟷ **On** **Off:** Sets normal volume. **On:** Sets your preferred volume. **Notes:** • 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 VOL − + button to adjust the maximum volume. **Off** ⟷ **On** **Off:** Sets auto maximum volume. **On:** Sets your preferred maximum volume. **Notes:** • 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.

Item	Adjustments
INPUT lock	**Off** ↔ **PC** ↔ **INPUT1** ↔ **INPUT2** ↔ **INPUT3** Locks the input switch operation. **Notes:** • Only the adjusted signal is displayed (see page 13). • Signal can be displayed when the Terminal board is installed. • Input switch can be used when this is set to “Off”. • In two screen display mode, if anything other than “Off” is set, the value will be fixed as the value input in the single screen display mode. • When a dual input terminal board is attached, A or B is displayed depending on the selected input signal. (Ex. INPUT1A, INPUT1B)
Button lock	**Off** ⟷ **MENU&ENTER** ⟷ **On** **Off:** All the buttons on main unit can be used. **MENU&ENTER:** Locks [MENU] and [ENTER] buttons on main unit. **On:** Locks all the button on main unit. Sets Button lock with the unit buttons in the following procedure. **Off:** Press [+/▲] four times→Press [INPUT] four times→Press [−/▼] four times→Press [ENTER] **MENU&ENTER:** Press [ENTER] four times→Press [+/▲] four times→Press [INPUT] four times→Press [ENTER] **On:** Press [−/▼] four times→Press [ENTER] four times→Press [+/▲] four times→Press [ENTER]
Remocon User level	**Off** ⟷ **User1** ⟷ **User2** ⟷ **User3** **Off:** You can use all of the buttons on the remote control. **User1:** You can only use POWER, INPUT, RECALL, SURROUND, MUTE, VOL − + buttons on the remote control. **User2:** You can only use POWER button on the remote control. **User3:** Locks all the buttons on remote control.
Advanced PIP	**Off:** Sets normal two screen display mode (see page 17). **On:** Sets Advanced PIP mode (see page 18). **Notes:** • When “INPUT lock” is “On”, you cannot use all the two screen display functions. • ASPECT, MOVE/ZOOM buttons are unavailable during Advanced PIP mode operation.
Off-timer function	**Enable:** Enables the “Off-timer function”. **Disable:** Disables the “Off-timer function”. **Note:** When “Disable” is set, the Off-timer is cancelled.
Initial Power Mode	**Normal** ⟷ **Standby** ⟷ **On** Sets the power mode of the unit for when the power recovers from failure or after plugging off and in again. **Normal:** Power returns in as the same state as before the power interruption. **Standby:** Power returns in standby mode. (Power Indicator : red/orange) **On:** Power returns in power On. (Power Indicator : green) **Note:** When using multiple displays, “Standby” is preferred to be set in order to reduce a power load.
ID select	Sets panel ID number when panel is used in “Remote ID” or “Serial ID”. Set value range: 0 - 100 (Standard value: 0)
Remote ID	The setting of this menu is valid only when using ID remote control. **Off:** Disables ID remote control functions. You can use normal remote control operations. **On:** Enable ID remote control functions.
Serial ID	Sets the panel ID Control. **Off:** Disables external control by the ID. **On:** Enables the external control by the ID.
Slot Power	**Off** ⟷ **Auto** ⟷ **On** **Off:** Power is not transmitted to the slot power. **Auto:** Power is transmitted to the slot power only when main power is on. **On:** Power is transmitted to the slot power when main power is on or in the standby state. **Note:** In some cases, power is transmitted to the slot power when main power is on or in the standby state regardless of the slot power setting.

Item	Adjustments
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 POWER switch to turn on the multiple displays that are set together. Set each display's setting individually. **Off:** The display will be turned on at the same time as POWER switch is pressed. **1 to 30 (sec.):** Set the power-on delay time (second). After pressing POWER switch, the display will be powered on with time delay depending on this setting. **Notes:** • 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. After you unplug and plug the power cord in while the unit is in standby mode and also the power is being supplied to a terminal board, the unit will start supplying the power to the board with time delay according to the setting. The power indicator lights up red first and it turns orange when the power starts being supplied to the board.
Clock Display	**Off:** Not display the clock. **On:** Display the clock. The clock is displayed at the lower left of the screen when RECALL button is pressed.  **Note:** When "PRESENT TIME SETUP" is not set, the clock is not displayed even if "Clock Display" is "On" (see page 25)
All Aspect	Sets All Aspect mode (advanced aspect setting) or default aspect mode. With each press of ASPECT 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
Serial Slot Select	**Slot1**⟷ **Slot2** ⟷ **Slot3** Selects the slot which communicates serial. **Note:** The setting of an external command can be set only from the fixed serial terminal. (see page 11)

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.

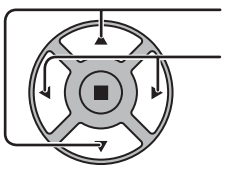
Press the [−/▾] button on main unit together with R button on the remote control and hold for more than 5 seconds. The "SHIPPING" menu is displayed and the lock is released when it disappears.

Weekly Command Timer

You can set 7-day timer programming by setting time and command.

Note:
Before setting Weekly Command Timer, set PRESENT TIME SETUP. (see page 25)

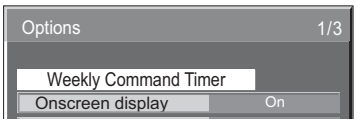
1



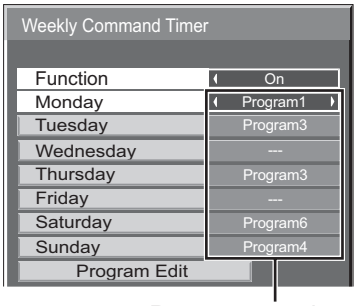
Press to select Function.

Press to select “On”.

Note:
- When Function is set to On, SET UP TIMER (see page 25) is unavailable.

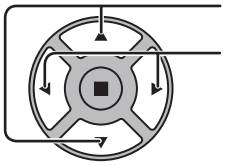


⇩ Press ACTION (■) button



Program number

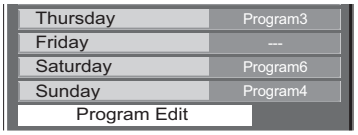
2



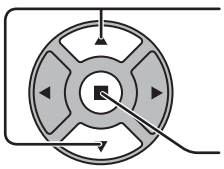
Press to select a day.

Press to select a program number.

Note:
- You can set the program from 1 to 7. --- indicates unset.



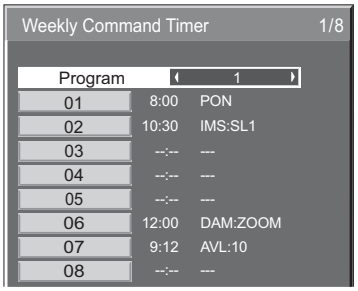
3



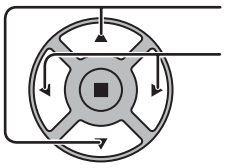
Press to select Program Edit.

Press to show the Program Edit screen.

Program Edit screen



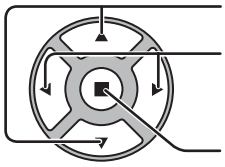
4



Press to select Program.

Press to change the program numbers (1-7).

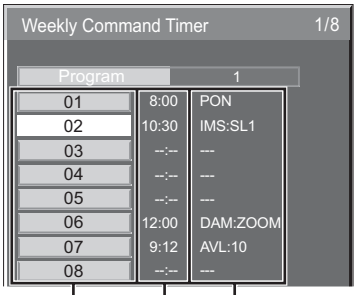
5

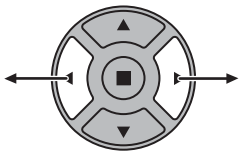


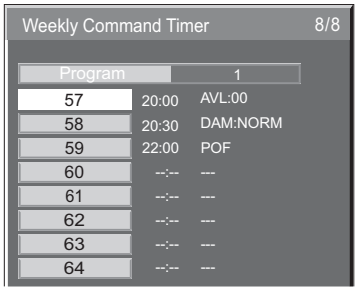
Press to select a command number.

Press to show the previous / next command pages (1-8) of the selected program.

Press to show the command setting screen.





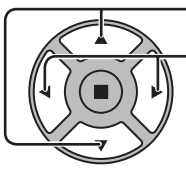


Command (--- indicates unset)

Set time of timer (--:-- indicates unset)

Command numbers

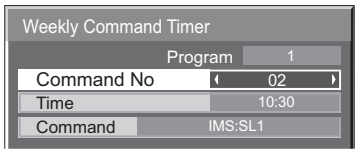
6



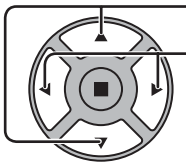
Press to select Command No.

Press to select a command number.

Command setting screen



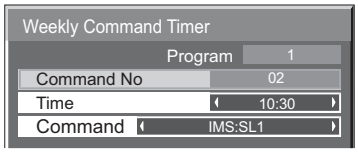
7



Press to select Time / Command.

Press to set each item.

Time: Set the time to execute a command program.
Pressing "◀" or "▶" button once changes "Time" 1 minute.
Pressing "◀" or "▶" button continuously changes "Time" by 15 minutes.



Command:Select a command to execute at the set time. This unit has 58 commands to set. (see page 41)

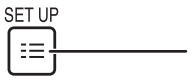
Notes:
- Command is performed in order of execution time, regardless of the command number.
- If a command execution time overlaps with that of other commands, these commands are performed in number order.
- Pressing N, Time becomes --:-- and Command becomes ---.

Note:
Press R to return to the previous screen.

Shipping condition

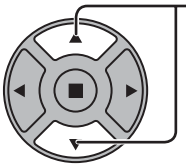
This function allows you to reset the unit to the factory setting.

1

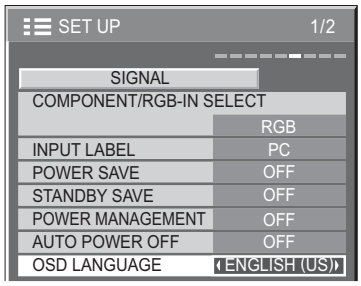


Press to display the SET UP menu.

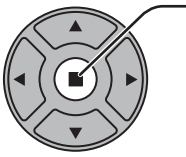
2



Press to select "OSD LANGUAGE".

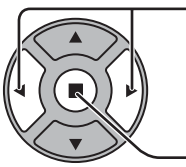


3



Press and hold till the SHIPPING menu is displayed.

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.

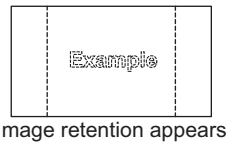
Note:
Press the R button to return to SET UP menu when SHIPPING menu is displayed.

Troubleshooting

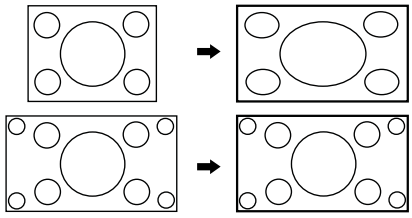
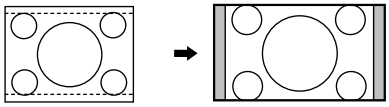
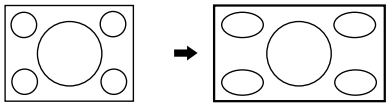
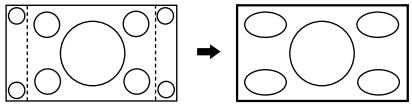
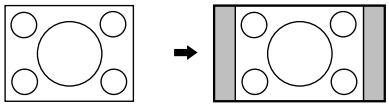
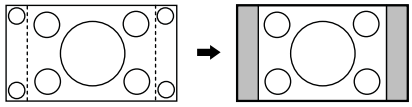
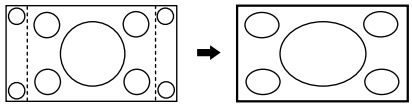
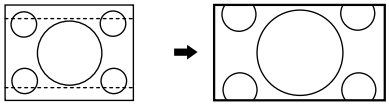
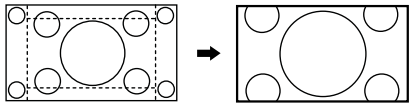
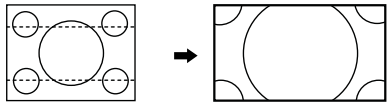
Before you call for service, determine the symptoms and make a few simple checks as shown below.

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 22, 23) COLOR SYSTEM (see page 31)
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.
This LCD 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.		

LCD Display panel

Symptoms	Check
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.
There may be red spots, blue spots, green spots and black spots on the screen.	This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as fixed points of red, blue, green, or black. Please note this does not affect the performance of your LCD.
 Image retention appears	Image retention may occur. If you display a still picture for an extended period, the image might remain on the screen. However, it will disappear after a while. This is not considered as 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.

PC input signals

Applicable input signals for Mini D-sub 15P (Component) / Mini D-sub 15P (RGB) (* Mark)

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Dot clock frequency (MHz)	Mini D-sub 15P (Component)	Mini D-sub 15P (RGB)
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.

Command list of Weekly Command Timer

No.	Command	Control details
1	AAC:MENCLR	Audio Menu (Clear)
2	AAC:MENDYN	Audio Menu (Dynamic)
3	AAC:MENSTD	Audio Menu (Standard)
4	AAC:SURMON	Surround (ON)
5	AAC:SUROFF	Surround (OFF)
6	AMT:0	Audio Mute (OFF)
7	AMT:1	Audio Mute (ON)
8	ASO:M	Audio out when PIP mode (Main Picture)
9	ASO:S	Audio out when PIP mode (Sub Picture)
10	AVL:00	Audio Volume (00)
11	AVL:10	Audio Volume (10)
12	AVL:20	Audio Volume (20)
13	AVL:30	Audio Volume (30)
14	AVL:40	Audio Volume (40)
15	AVL:50	Audio Volume (50)
16	AVL:60	Audio Volume (60)
17	DAM:FULL	Aspect (FULL)
18	DAM:JUST	Aspect (JUST)
19	DAM:NORM	Aspect (4:3)
20	DAM:SELF	Aspect (Panasonic Auto)
21	DAM:ZOOM	Aspect (ZOOM)
22	DWA:OFF	Dual Picture mode (OFF)
23	DWA:OVL1	Advanced PIP mode (1) (see page 18)
24	DWA:OVL2	Advanced PIP mode (2) (see page 18)
25	DWA:OVL3	Advanced PIP mode (3) (see page 18)
26	DWA:OVL4	Advanced PIP mode (4) (see page 18)
27	DWA:OVL5	Advanced PIP mode (5) (see page 18)
28	DWA:OVL6	Advanced PIP mode (6) (see page 18)
29	DWA:OVLOF	Advanced PIP mode (OFF) (normal two screen display mode)
30	DWA:OVLON	Advanced PIP mode (ON)
31	DWA:PIN0	The location of the sub picture (lower right)
32	DWA:PIN1	The location of the sub picture (lower left)
33	DWA:PIN2	The location of the sub picture (upper left)
34	DWA:PIN3	The location of the sub picture (upper right)
35	DWA:PIP	Dual Picture mode (Picture in Picture)
36	DWA:POP	Dual Picture mode (Picture out Picture)
37	DWA:SWP	Swap main picture and sub picture when PIP mode
38	DWA:TWN	Dual Picture mode (Picture and Picture)
39	IMS:PC1	Input select (PC1) (Main Picture when PIP mode)
40	IMS:SL1	Input select (SLOT1) (Main Picture when PIP mode)
41	IMS:SL1A	Input select (SLOT1A) (Main Picture when PIP mode)
42	IMS:SL1B	Input select (SLOT1B) (Main Picture when PIP mode)
43	IMS:SL2	Input select (SLOT2) (Main Picture when PIP mode)
44	IMS:SL2A	Input select (SLOT2A) (Main Picture when PIP mode)
45	IMS:SL2B	Input select (SLOT2B) (Main Picture when PIP mode)
46	IMS:SL3	Input select (SLOT3) (Main Picture when PIP mode)
47	ISS:PC1	Sub Picture Input Select (PC1)
48	ISS:SL1	Sub Picture Input Select (SLOT1)
49	ISS:SL1A	Sub Picture Input Select (SLOT1A)
50	ISS:SL1B	Sub Picture Input Select (SLOT1B)
51	ISS:SL2	Sub Picture Input Select (SLOT2)
52	ISS:SL2A	Sub Picture Input Select (SLOT2A)
53	ISS:SL2B	Sub Picture Input Select (SLOT2B)
54	ISS:SL3	Sub Picture Input Select (SLOT3)
55	——*1	Reserved
56	——*1	Reserved
57	POF	Power OFF
58	PON	Power ON
59	——*1	Reserved
60	——*1	Reserved
61	——*1	Reserved
62	——*1	Reserved
63	VMT:0*2	Picture Mute (OFF)
64	VMT:1*2	Picture Mute (ON)

∗1 These commands cannot be selected on this model.

∗2 Picture Mute cannot be unlocked by powering off/on with the remote control. Turn off and on again with the button on the unit or enter the command VMT:0 to unlock Picture Mute.

Specifications

		TH-32LR11UK, TH-32LR11UH
Power Source		110 - 127 V AC, 50/60 Hz
Power Consumption		
	Power on	160 W
	Stand-by condition	Save OFF 1.1 W, Save ON 0.4 W
	Power off condition	0.1 W
Aspect Ratio		16:9
Screen size		27.5” (698 mm) (W) × 15.4” (392 mm) (H) × 31.5” (800 mm) (diagonal)
	(No.of pixels)	1,049,088 (1,366 (W) × 768 (H)) [4,098 × 768 dots]
Operating condition		
	Temperature	32 °F - 104 °F (0 °C - 40 °C)
	Humidity	20 % - 80 %
Applicable signals		
	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		
	PC IN	(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) AUDIO IN (M3 JACK) 0.5 Vrms
	SERIAL	EXTERNAL CONTROL TERMINAL (D-SUB 9PIN) RS-232C COMPATIBLE
Dimensions (W × H × D)		
	Including pedestal	31.2" (791 mm) × 24.3" (615 mm) × 11.9" (300 mm)
	Display Set only	31.2" (791 mm) × 22.2" (563 mm) × 4.3" (108 mm) (5.3" (132.7 mm) when including protruding portion of slots)
Mass (weight)		
	Including pedestal	approx. 48.5 lbs
	Display Set only	approx. 40.8 lbs
Sound		
	Speaker	4.8 ” (120 mm) × 2.4 ” (60 mm) × 2 pcs, 6 Ω
	Audio Output	16 W [8 W + 8 W] (10 % THD)

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

This product has a fluorescent lamp that contains mercury.
Disposal may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities, or the Electronic Industries Alliance:
http://www.eiae.org.

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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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
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