

# Panasonic<sup>®</sup>

## Operating Instructions High Definition Hospitality LCD Display

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Model No. **TH-32LRT12A**  
**TH-37LRT12A**



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

TQB4CM173  
123456789

# Important Safety Instructions

## WARNING

- 1) To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.  
**Do not place containers with water (flower vase, cups, or cosmetics, etc.) above the set. (including on shelves above, etc.)**  
**No naked flame sources, such as lighted candles, should be placed on / above the set.**
- 2) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

## CAUTION

This appliance is intended for use in environments which are relatively free of electromagnetic fields. Using this appliance near sources of strong electromagnetic fields or where electrical noise may overlap with the input signals could cause the picture and sound to wobble or cause interference such as noise to appear. To avoid the possibility of harm to this appliance, keep it away from sources of strong electromagnetic fields.

## IMPORTANT INFORMATION

If a display is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the display.
  - Only using furniture that can safely support the display.
  - Ensuring the display is not overhanging the edge of the supporting furniture.
  - Not placing the display on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the display to a suitable support.
  - Not standing the displays on cloth or other materials placed between the display and supporting furniture.
  - Educating children about the dangers of climbing on furniture to reach the display or its controls.
- Such information should also be provided as a label on the apparatus.

## Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
  - Macintosh is a registered trademark of Apple Computer, USA.
  - VGA, SVGA, and XGA 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.

## Note:

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

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

Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

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

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

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# Safety Precautions

## ▲ CAUTION

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

(All of the following accessories are manufactured by Panasonic Corporation.)

- Wall-hanging bracket (angled) .....TY-WK32TM1
- Wall-hanging bracket .....TY-WK32TM2

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.

**Do not place the LCD Display on sloped or unstable surfaces.**

- The LCD Display may fall off or tip over.

**Do not place any object on top of the LCD Display.**

- If water spills onto the LCD 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 LCD Display, please consult your local Panasonic dealer.

**Transport only in upright position!**

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

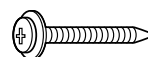
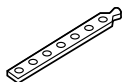
## ■ To Prevent the Display From Falling

Required accessories:

① Holding Strip (1)

② Assembly screw (1)  
size: 4 mm x 10

③ Wood screw (1)



1. Use the wood screw to attach the holding strip to the base table (C).

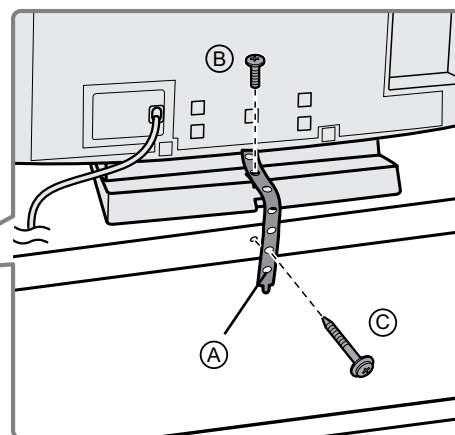
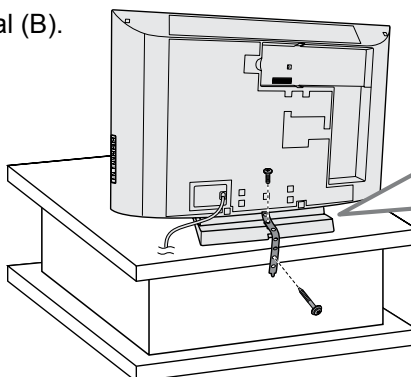
### Note:

If the base table has no hole, align with the hole on the holding strip and dig one on the base table.

2. Screw the holding strip to the pedestal (B).

### Note:

Make sure that the holes on the holding strip are properly aligned with the pedestal and the base table to ensure stability and prevent the Display from falling down.



## Safety Precautions

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Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.

**For sufficient ventilation:**

If using the pedestal (optional accessory), leave a space of 10 cm or more at the top, left and right, and 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 10 cm or more at the top, bottom, left and right, and 7 cm or more at the rear.)

### ■ When using the LCD Display

The LCD Display is designed to operate on 220 - 240 V AC, 50/60 Hz.

**Do not cover the ventilation holes.**

- Doing so may cause the LCD Display to overheat, which can cause fire or damage to the LCD Display.

**Do not stick any foreign objects into the LCD Display.**

- Do not insert any metal or flammable objects into the ventilation holes or drop them onto the LCD Display, as doing so can cause fire or electric shock.

**Do not remove the cover or modify it in any way.**

- High voltages which can cause severe electric shocks are present inside the LCD Display. For any inspection, adjustment and repair work, please contact your local Panasonic dealer.

**Ensure that the mains plug is easily accessible.**

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

- Doing so may cause fire or electric shocks.

**Securely insert the power supply 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 is loose, they shall not be used.

**Do not handle the power supply plug with wet hands.**

- Doing so may cause electric shocks.

**Do not do anything that may damage the power cable. When disconnecting the power cable, pull on the plug body, not the cable.**

- Do not damage the cable, make any modifications to it, place heavy objects on top of it, heat it, place it near any hot objects, twist it, bend it excessively or pull it. To do so may cause fire and electric shock. If the power cable is damaged, have it repaired at your local Panasonic dealer.

**If the LCD Display is not going to be used for any prolonged period of time, unplug the power supply plug 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 odour starts to come out from the LCD Display, immediately unplug the power supply plug from the wall outlet.**

- If you continue to use the LCD Display in this condition, fire or electric shock could result. After checking that the smoke has stopped, contact your local Panasonic dealer so that the necessary repairs can be made. Repairing the LCD Display yourself is extremely dangerous, and shall never be done.

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

- A short circuit may occur, which could cause fire. Contact your local Panasonic dealer for any repairs that need to be made.

## Safety Precautions

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### CAUTION

#### ■ When using the LCD Display

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

- Heated air that comes out from the ventilation holes at the top of the LCD Display will be hot. Do not bring your hands or face, or objects which cannot withstand heat, close to this port, otherwise burns or deformation could result.

**Be sure to disconnect all cables before moving the LCD Display.**

- If the LCD Display is moved while some of the cables are still connected, the cables may become damaged, and fire or electric shock could result.

**Disconnect the power supply plug from the wall socket 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 becoming dusty.**

- If dust built up on the power cord plug, the resultant humidity can damage the insulation, which could result in fire. Pull the power cord plug out from the wall outlet and wipe the mains lead with a dry cloth.

**Do not burn or breakup batteries.**

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

**This LCD 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 LCD Display.**

## Cleaning and maintenance

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

- If the surface is particularly dirty, 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.**

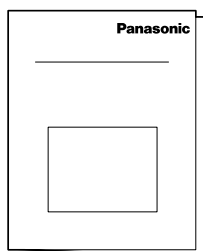
- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface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

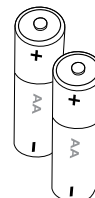
☐ Operating Instruction book



☐ Remote Control Transmitter  
TNQ4CM051



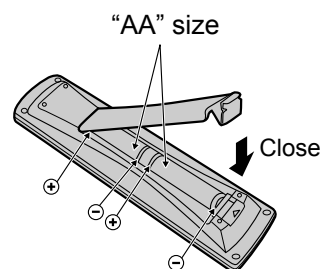
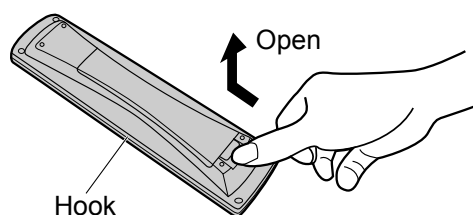
☐ Batteries for the Remote Control  
Transmitter (AA Size × 2)



## Remote Control Batteries

**Requires two AA batteries.**

1. Push the hook to release, then open the battery cover.
2. Insert batteries - note the correct polarity ( + and -).



### Helpful Hint:

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

### **Precaution on battery use**

Incorrect installation can cause battery leakage and corrosion that will damage the remote control transmitter. Disposal of batteries should be in an environment-friendly manner.

#### **Observe the following precautions:**

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

### 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.

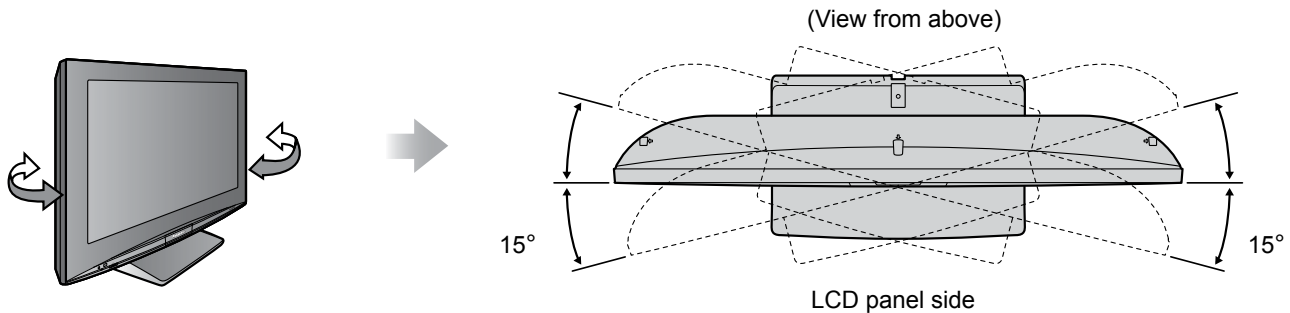
Use of some types of fluorescent lighting can reduce remote control transmitter range.

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 15° to the right / left.



### Preparation for Wall-hanging

Before mounting the display on the wall, you must remove the pedestal from the display.

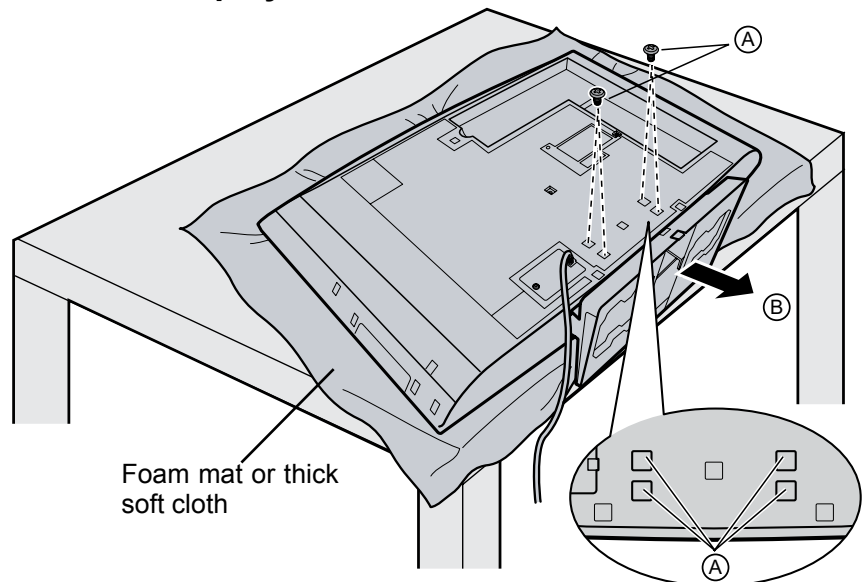
Follow the steps below:

**1** Disconnect all the cables from the display.

**2** Remove the pedestal.

Ⓐ Remove the four screws.

Ⓑ Pull out the pedestal.



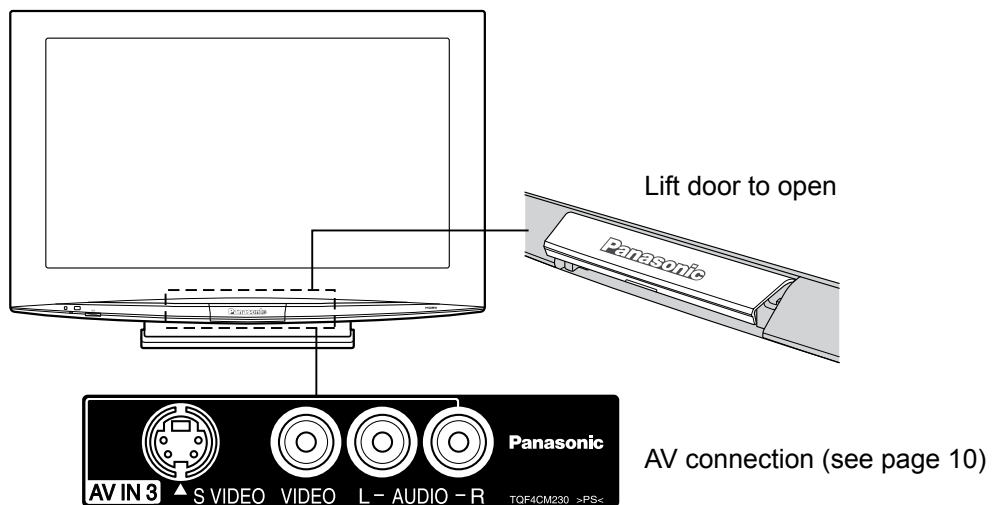
#### WARNING

- 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.
- To prevent foreign objects from entering the Display, place the enclosed sticker label on the lower area of the Display to cover the holes.

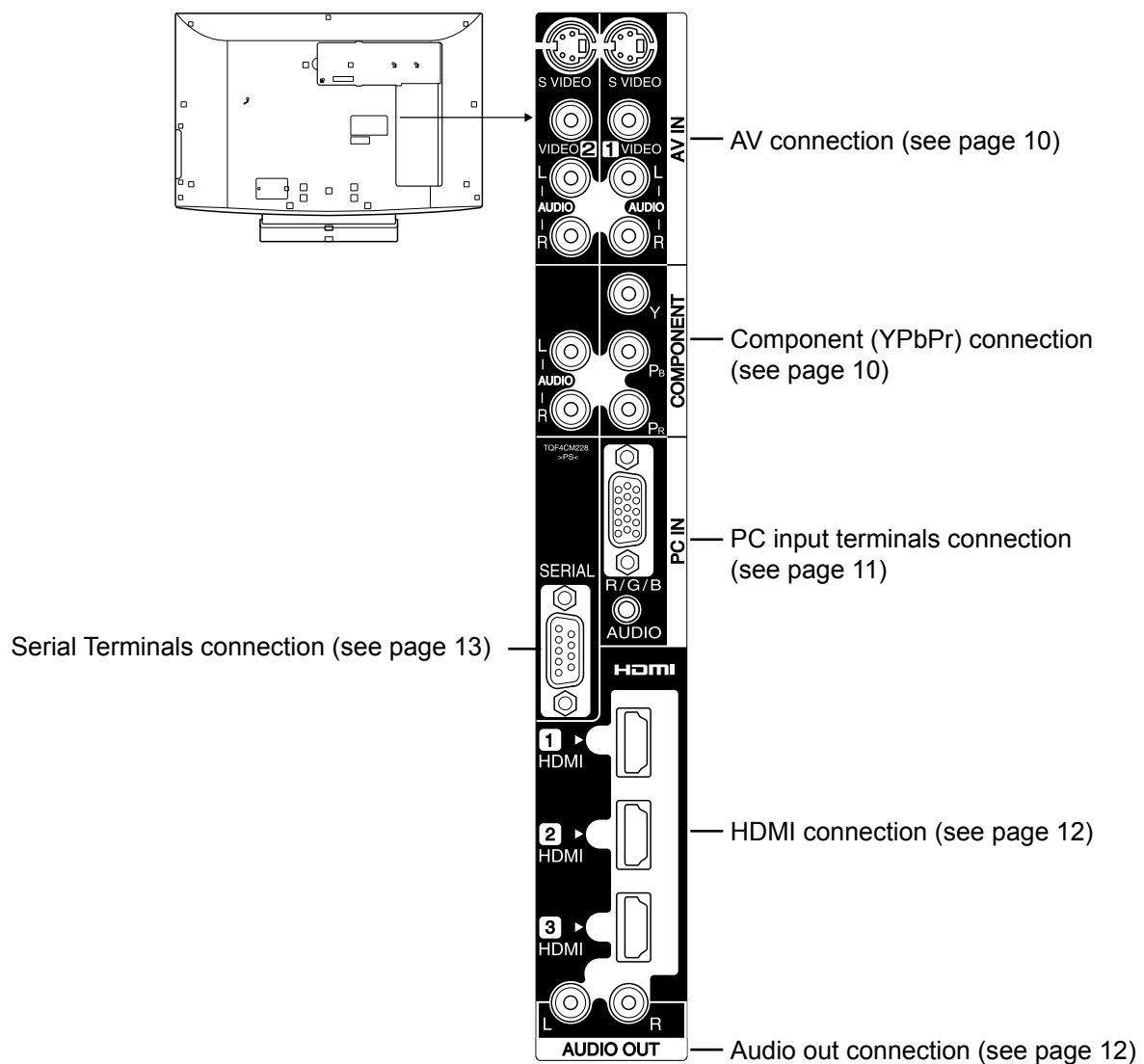


# Connections

## Front side



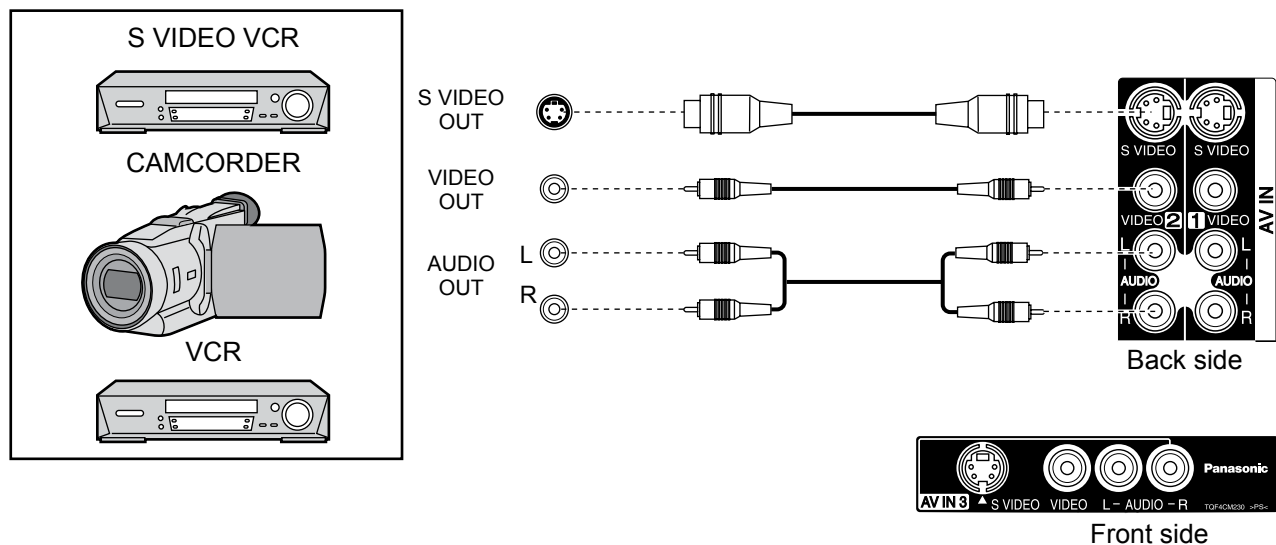
## Back side



## Connections

### AV connection

Example of input signal source

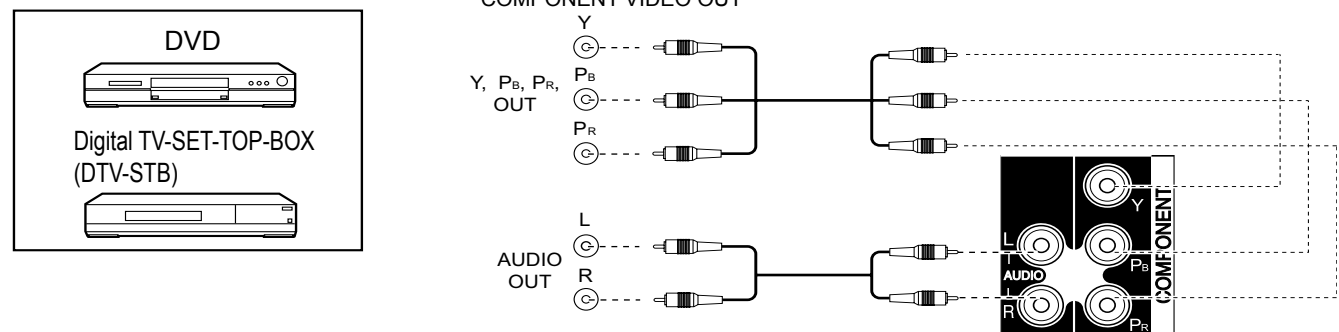


#### Notes:

- Additional equipment and cables shown are not supplied with this set.
- If S Video and Video devices are both connected, the S Video input signal is the priority source.

### Component (YPbPr) connection

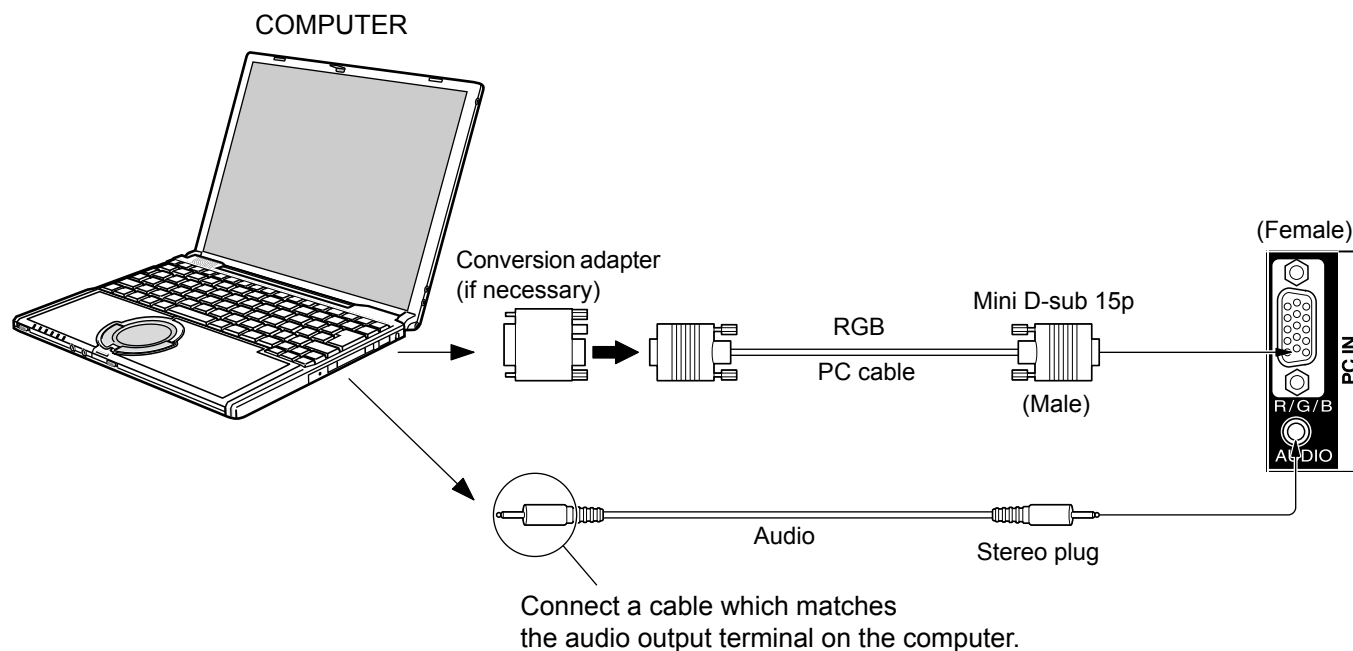
Example of input signal source



#### Note:

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

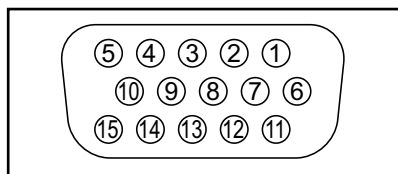
## PC Input Terminals connection



### Notes:

- Computer signals which can be input are those with a horizontal scanning frequency of 15 to 79.97 kHz and vertical scanning frequency of 48 to 75 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.
- Applicable input signals for Mini D-sub 15P (see page 28).

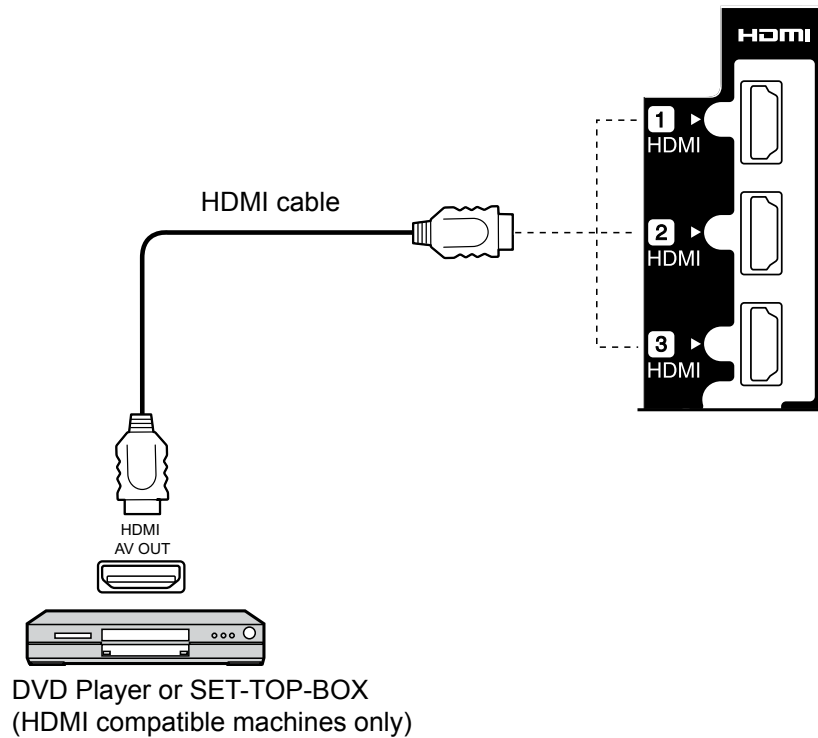
### Signal Names for Mini D-sub 15P Connector



Pin Layout for PC Input Terminal

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	SDA
③	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

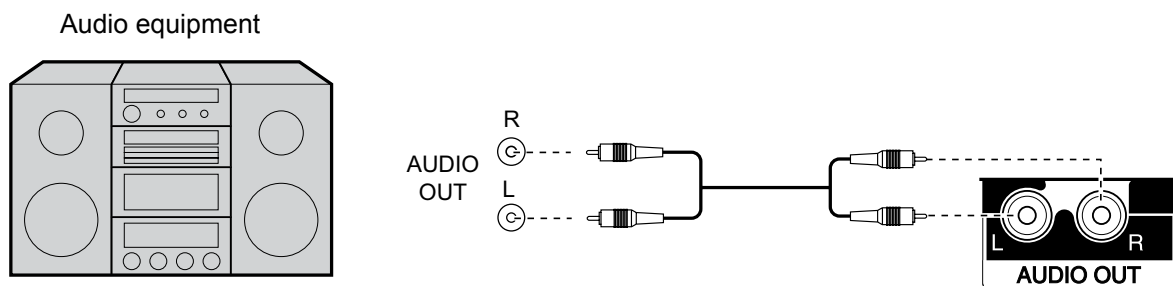
### HDMI connection



**Note:**

1. Additional equipment and HDMI cables shown are not supplied with this set.
2. HDMI Version 1.2.

### Audio Out connection

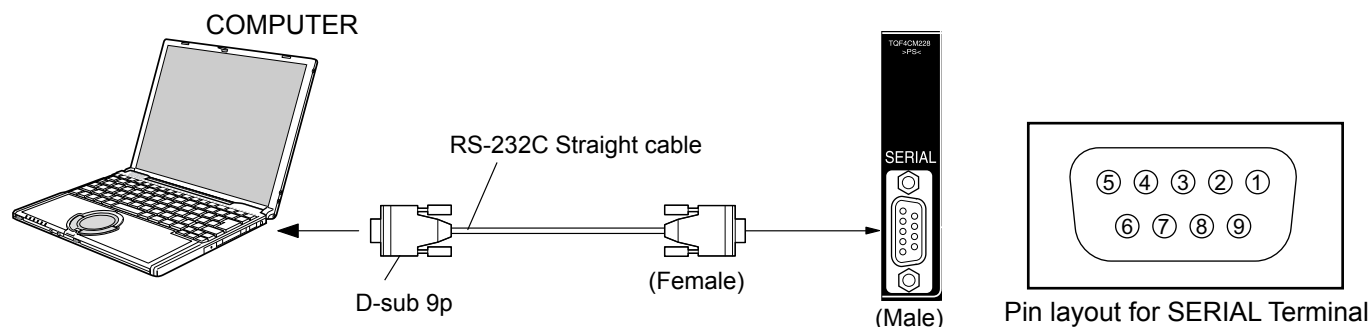


**Note:**

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

## Serial Terminals connection

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



### 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.

### Signal names for D-sub 9P connector

Pin No.	Details
②	RXD
③	TXD
⑤	GND
④ • ⑥	Non use
⑦ • ⑧	Non use
① • ⑨	NC

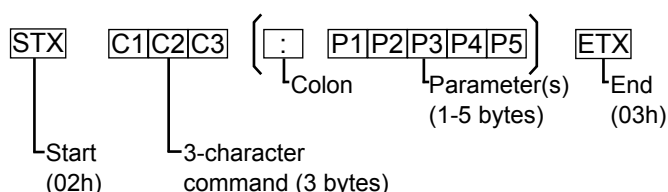
These signal names are those of computer specifications.

### Communication parameters

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

### Basic format for control data

The transmission of control data from the computer starts with an 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.

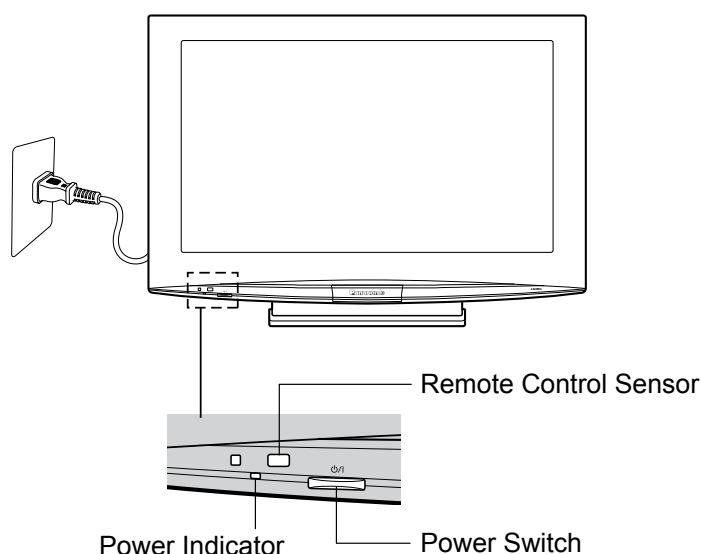
### Communication parameters

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 RF1 AV1 AV2 AV3 YPbPr HDMI1 HDMI2 HDMI3 PC	Input select (toggle) RF INPUT AV1 INPUT AV2 INPUT AV3 INPUT YPbPr INPUT HDMI1 INPUT HDMI2 INPUT HDMI3 INPUT PC INPUT
DAM	None FULL JUST NORM	Screen mode select (toggle) 16:9 JUST 4:3

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

# Power ON / OFF

## Using the Power Switch



**1** Connect the plug to the Wall Outlet.

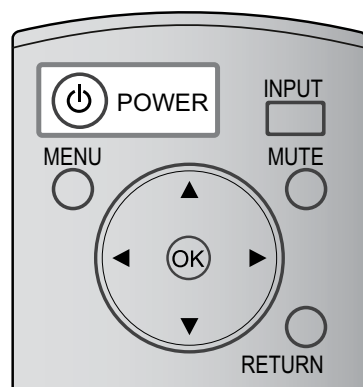
**2** Press the Power switch on the Display to turn the set on: Power-On

Power Indicator: Green

**When the Display is on, press the Power switch on the Display to turn the set off.**

Power Indicator: Red (Standby)

## Using the Power Button



 POWER — Press the  POWER button on the remote control to turn the Display on.  
Power Indicator: Green

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

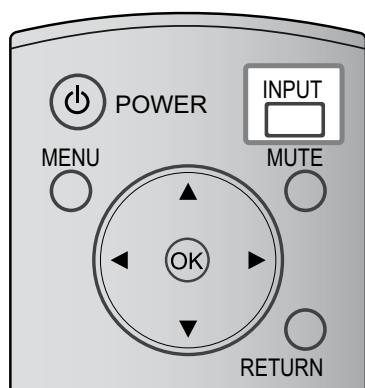
Power Indicator: Red

### Note:

The Display will still consume power as long as the AC cord is connected to the wall outlet. Unplug the AC cord to cut-off power.

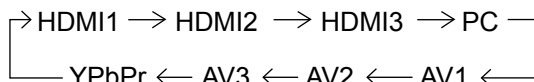
# Initial selections

## Selecting the input signal



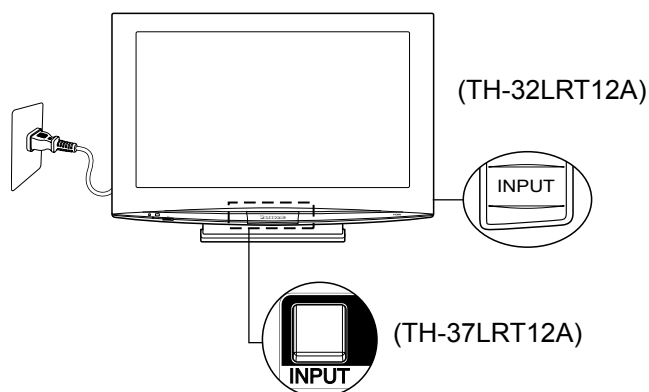
Press repeatedly until the desired input source signal is displayed on the screen.

Input signals will change as follows:



### Note:

Selecting is also possible by pressing the INPUT button on the unit.



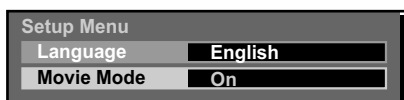
## Selecting the On-Screen Menu Language

**1** Display the menu screen.

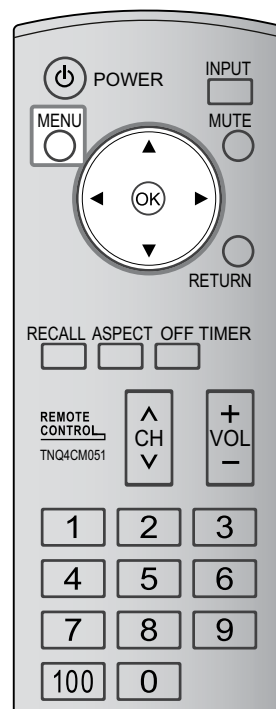
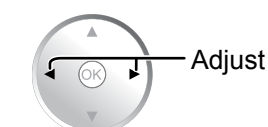
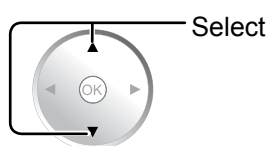
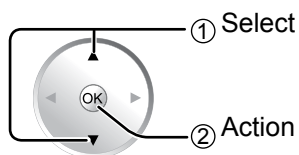
**2** Select "Setup Menu".



**3** Select "Language".



**4** Select your preferred language.



# Basic Controls

## Main Unit

### Power Indicator

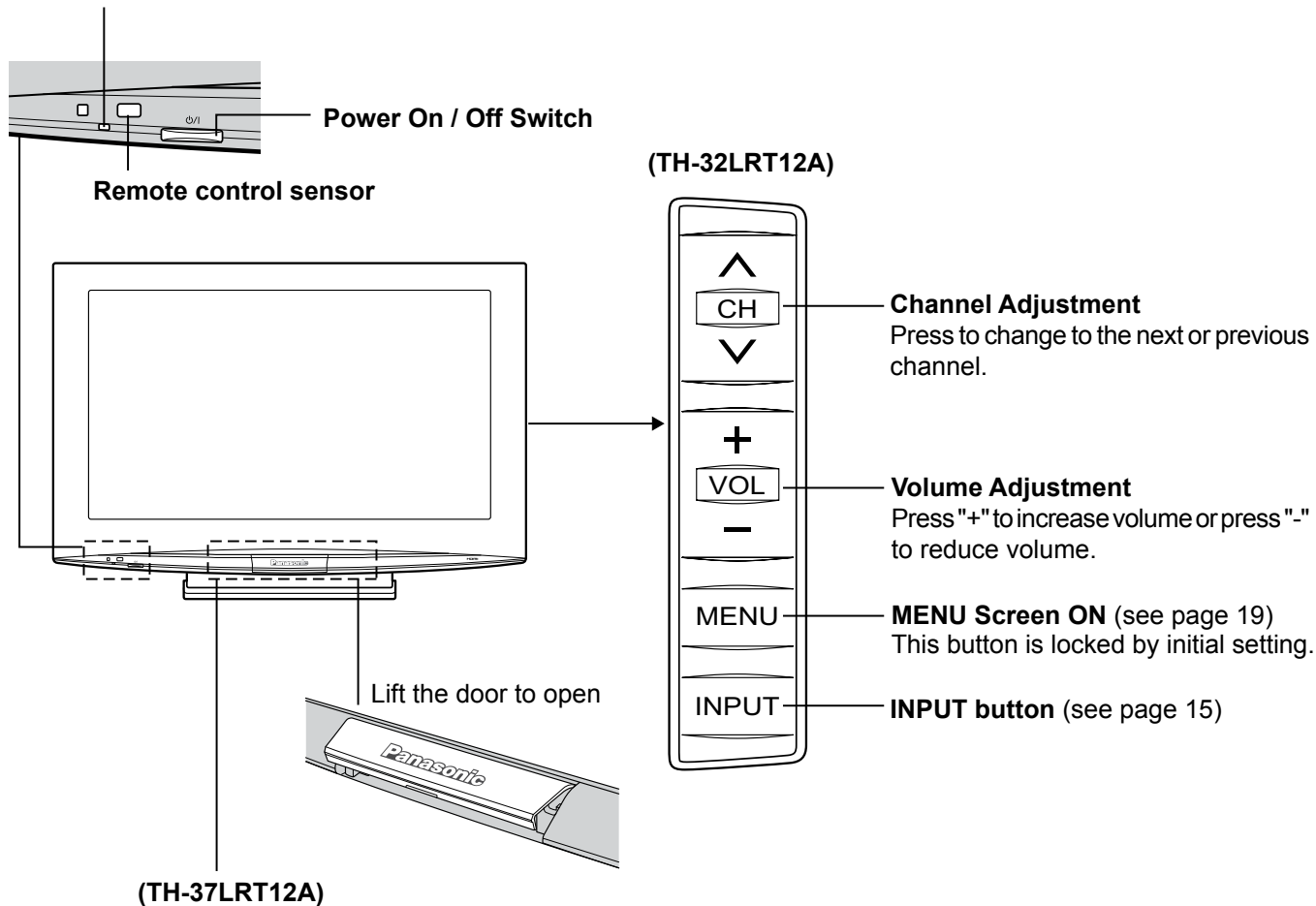
The Power Indicator will light.

- Power-OFF ... Indicator not illuminated

- Standby ..... Red

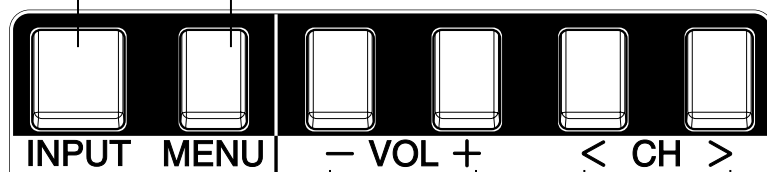
(The Monitor will still consume power as long as the AC cord is still connected to the wall outlet.)

- Power-ON..... Green



**INPUT button**  
(see page 15)

**MENU Screen ON** (see page 19)  
This button is locked by initial setting.



**Volume Adjustment**  
Press "+" to increase volume or  
press "-" to reduce volume.

**Channel Adjustment**  
Press to change to the next or  
previous channel.



## Remote Control Transmitter

### POWER button

The Monitor must first be plugged into the wall outlet.  
Press this button to turn the Monitor on, from standby mode. Press it again to turn the Monitor Off to standby mode.

### MENU button

Displays the menu screen.  
(see page 19)

### OK button

Press to make selections.

### POSITION buttons

### RECALL button

Press to display the current input signal mode.

### ASPECT button

Press to adjust the aspect.  
This button can be used only in AV input signal. (see page 18)

### Channel buttons

Press the buttons to adjust the channel. These buttons are also used for adjusting digital channel when a tuner pack is installed. For more information, please refer to the tuner pack's manual.

### INPUT button (see page 15)

### 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.

### RETURN button

Press the RETURN button to return to previous menu screen.

### OFF TIMER button

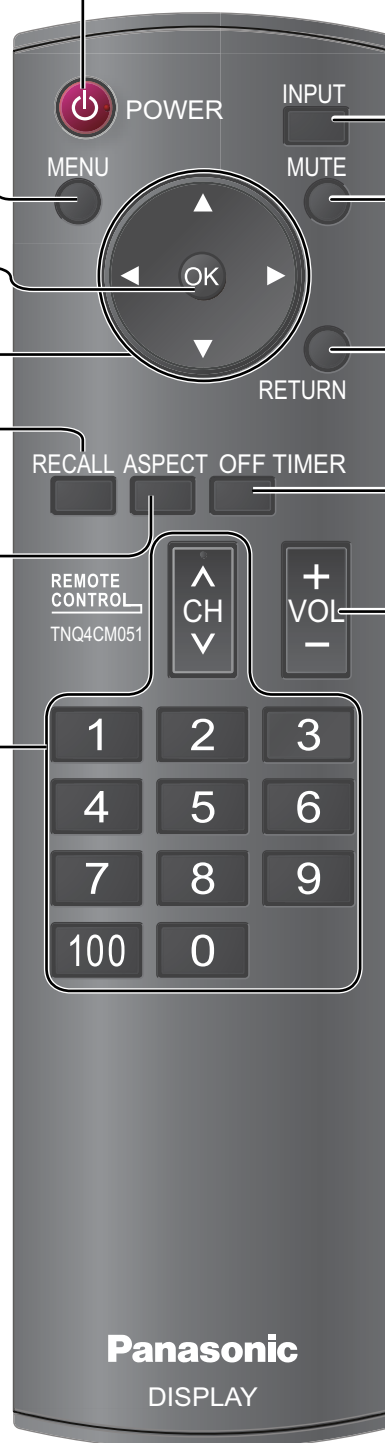
The Monitor can be preset to switch to standby mode after a fixed period. Each time the button is pressed, the timer is changed with an interval of 10 minutes.

→10 →20 →30 →40 →50  
OFF ←120 ←.....60←

When the timer is set, the Monitor will display a notification countdown 3 minutes before it switches to standby mode.

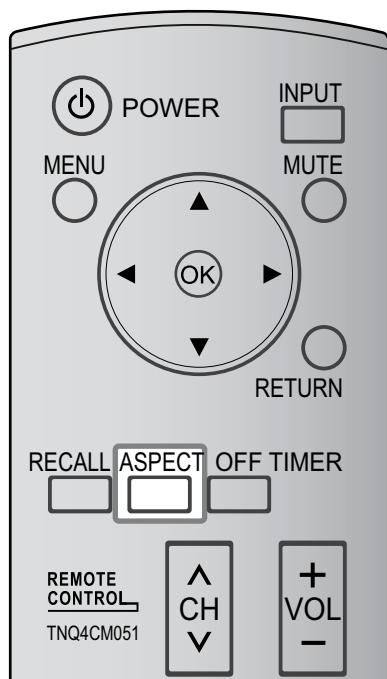
### Volume Adjustment

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



# ASPECT Controls

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



Press repeatedly to change the aspect.

For "AV" signal input:

➤ 16:9 ➡ JUST ➡ 4:3 ➡

For "YPbPr", "HDMI" and "PC" signal input:  
The aspect ratio is fixed at 16:9.


Aspect mode	Picture	Enlarged screen	Description
16:9			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.
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.
			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			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.
			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.

# On-Screen Menu Display

Various menus allow you to make settings for the picture, sound, and other functions so that you can enjoy watching Display best suited for you.

## 1 Display the menu screen.

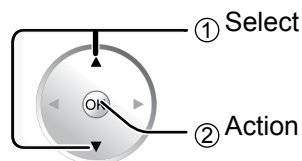
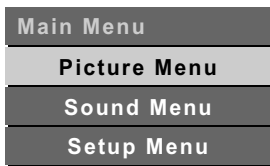
**Remote Control**

MENU  
 Press the menu button.

**Unit**

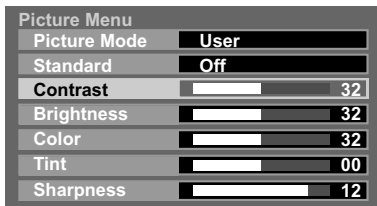
Press the MENU button.

## 2 Select the menu.

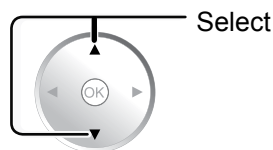


- ① Press the CH buttons to select the menu.
- ② Press the MENU button.

## 3 Select the item.

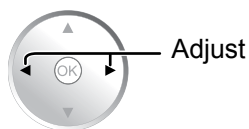


(Example: Picture Menu)




Press the CH < or > buttons to select the item.

## 4 Adjust or select.



Press the VOL + or – buttons.

## 5 Exit the menu.

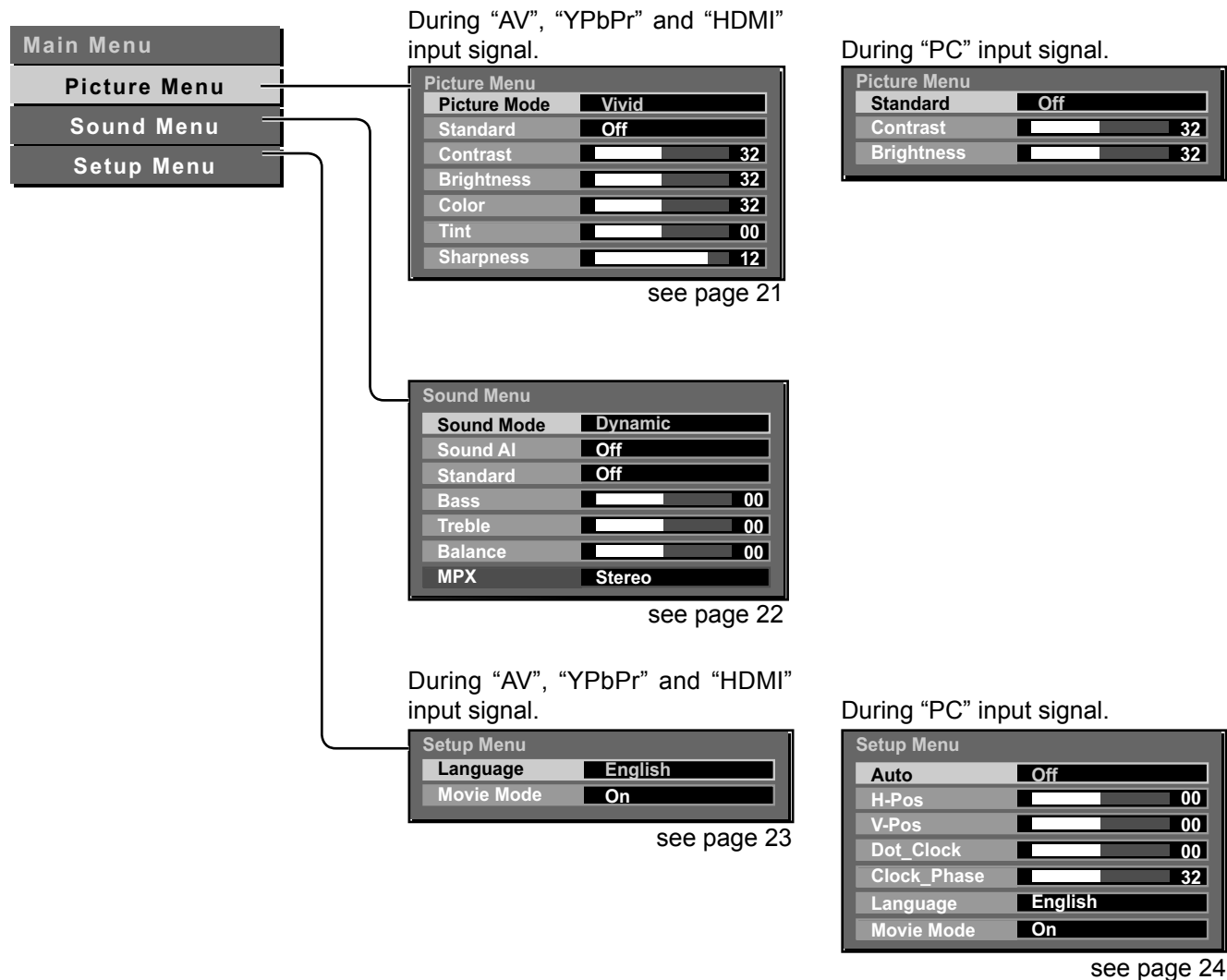
 Press to return to the previous menu.  
Press several times until you exit the menu.

Press the INPUT button several times until you exit the menu.


## Overview

### Note:

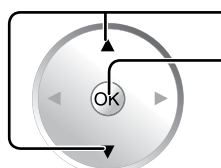
Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.



# Picture Menu

1 Press  to display the menu screen.

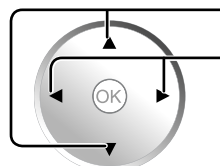
2 Select **Picture Menu**.



Press to select the menu to adjust.

Press to enter menu.

3 Select to adjust each item.




Press to select the menu to adjust.

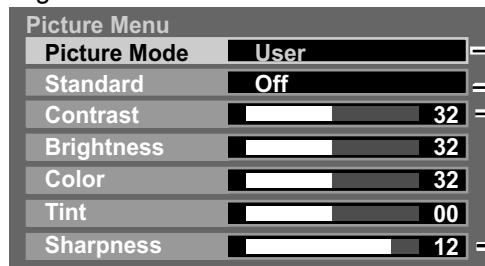
Press to select the desired setting.

## Notes:

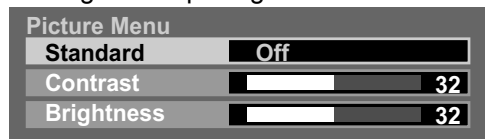
- As you scroll through the settings, the Monitor display changes synchronously.
- Menu items that cannot be adjusted are grayed out. Adjustable menu changes depending on signal, input and menu setting.

4 Press  repeatedly to exit the menu.

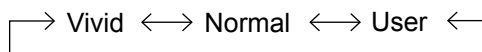
During "AV", "YPbPr", "HDMI" input signal.



During "PC" input signal.



Press the ◀ or ▶ buttons to switch between modes.



## Vivid

Provides enhanced picture contrast and sharpness for viewing in a well-lit room.

## Normal

Recommended for normal viewing conditions with subdued room lighting.

## User

Customizes each item according to the user's preference.

## Standard (Off / On)

Select **On** to reset all picture to the factory default settings.

## Contrast / Brightness / Color / Tint / Sharpness


Depending on the selected **Picture Mode**, these items have preset settings.

To adjust each setting according to the user's preference, set **Picture Mode** to **User**, then press the ◀ or ▶ buttons.

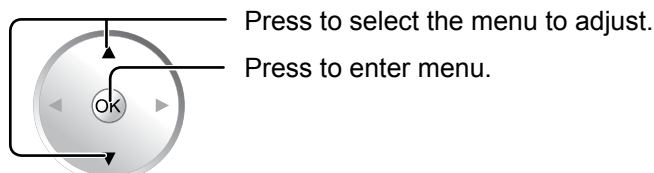


Item	Details
Contrast	Adjusts the white areas.
Brightness	Adjusts the dark areas.
Color	Adjusts the color intensity.
Tint	Adjusts the natural flesh tones.
Sharpness	Adjusts the clarity of outline detail.

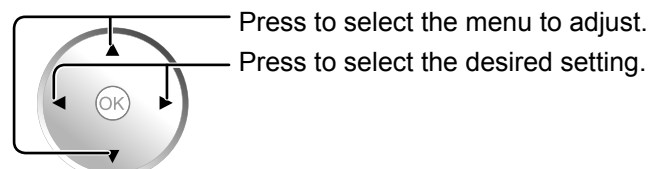
# Sound Menu


1 Press  to display the menu screen.




2 Select **Sound Menu**.



3 Select to adjust each item.



4 Press  repeatedly to exit the menu.

Sound Menu	
Sound Mode	Dynamic
Sound AI	Off
Standard	Off
Bass	 00
Treble	 00
Balance	 00
MPX	Stereo

Press the ◀ or ▶ buttons to switch between modes.

→ Mono ← Stereo ←  
→ M2 ← M1 ←

**Note:** Adjustable only in RF mode (when a tuner pack is installed)

Press the ◀ or ▶ buttons to switch between modes.

→ Dynamic ← Music ←  
→ Normal ←

## Dynamic

Accentuates sharp sounds.

## Music

Stresses the sense of sharp sounds.

## Normal

Emits the original sound.

## Sound AI (Off / On)

Select **On** to equalize overall volume levels across all external inputs.

## Standard (Off / On)

Select **On** to reset Bass, Treble, and Balance settings to factory defaults.

Press the ◀ or ▶ buttons to adjust settings.



## Bass

Adjusts low pitch sounds.


## Treble

Adjusts pitch sounds.

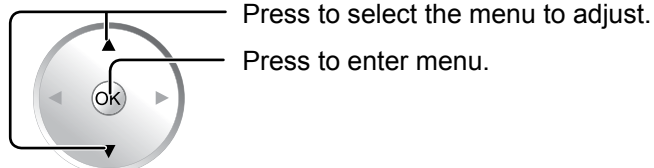
## Balance

Adjusts the left and right volumes.

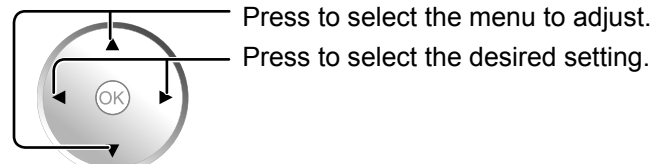
# Setup Menu


**1** Press  to display the menu screen.

**2** Select **Setup Menu**.

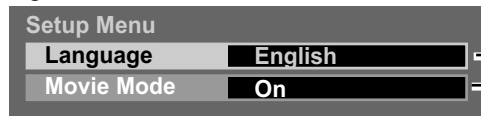


**3** Select to adjust each item.

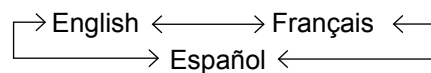


**4** Press  repeatedly to exit the menu.

During "AV", "YPbPr", and "HDMI" input signal.



Press the ◀ or ▶ buttons to switch between menu languages.




## Movie Mode (Off / On)

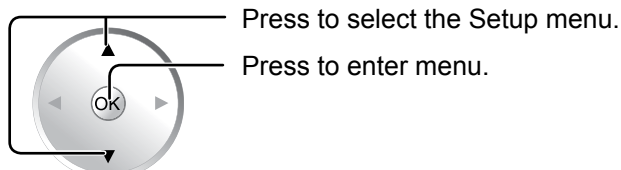
When **On**, the display attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second. If the picture is not stable, turn this setting to **Off**.

# Setup Menu

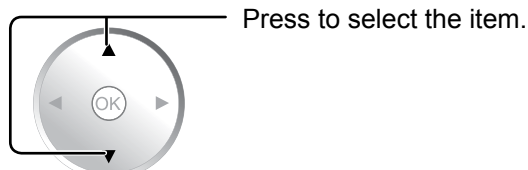
## PC Setup

1 Press  to display the menu screen.

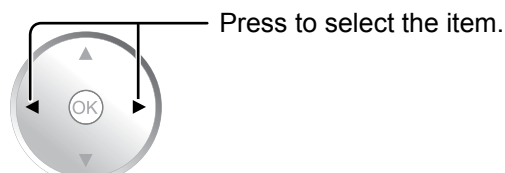
2 Select **Setup Menu**.




3 Select to adjust each item.



4 Adjust the setting.



5 Press  repeatedly to exit the menu.

During "PC" input signal.

Setup Menu	
Auto	Off
H-Pos	<div><div></div></div> 00
V-Pos	<div><div></div></div> 00
Dot_Clock	<div><div></div></div> 00
Clock_Phase	<div><div></div></div> 32
Language	English
Movie Mode	On

### On / Off

Select **On** to automatically adjust H-Pos, V-Pos, Dot\_Clock, and Clock\_Phase.

Press the ◀ or ▶ buttons to adjust settings.



### H-Pos

Adjust the horizontal position.

### V-Pos

Adjust the vertical position.

### Dot\_Clock

Periodic striped pattern interference (noise) may occur when a striped pattern is displayed. If this happens, adjust Dot\_Clock to minimize such noise.

### Clock\_Phase

Eliminate the flickering and distortion.


### Notes:

- If the PC is not connected, some items are unadjustable.
- Unadjustable items are grayed out.
- As you scroll through the settings, the TV display changes synchronously.



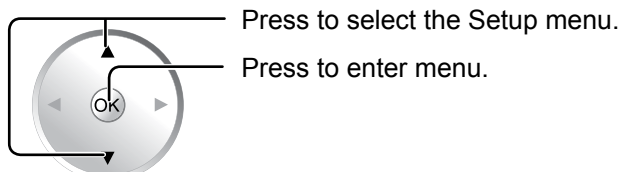
# HOTEL MODE Setup

The Hotel Mode is a special function which allows users to configure settings to suit certain locations or applications.

**1** Press  to display the menu screen.

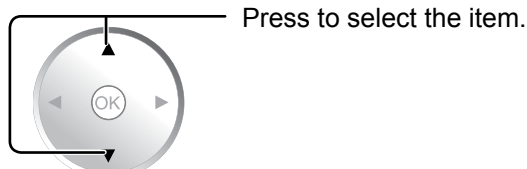
**2** Select **Setup Menu**.

Main Menu
Picture Menu
Sound Menu
Setup Menu



**3** Select **Movie Mode**.

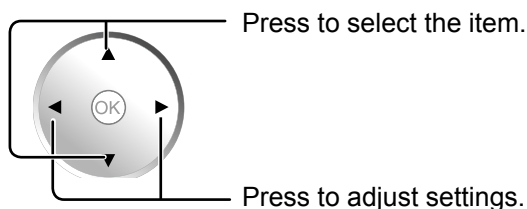
Setup Menu	
Language	English
Movie Mode	On




**4** Press and hold  for more than 3 seconds.

**5** Select the item and set desired settings.







Setup Menu	
Initial Input	Off
Onscreen Display	On
Initial VOL Level	Off
Maximum VOL Level	Off
Input Lock	Off
Button Lock	Menu
Remocon User Level	Off



**6** Press  repeatedly to exit the menu.











# HOTEL MODE Setup

## Hotel Mode Menu List

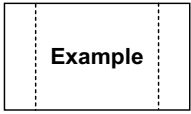
Item	Details
<b>Initial Input</b>	<p><b>Off</b> ↔ <b>RF</b> ↔ <b>AV1</b> ↔ <b>AV2</b> ↔ <b>AV3</b> ↔ <b>YPbPr</b> ↔ <b>HDMI1</b> ↔ <b>HDMI2</b> ↔ <b>HDMI3</b> ↔ <b>PC</b> Adjusts the input signal when the unit is turned on.</p> <p><b>Off:</b> The input signal when the power was last turned off is set.</p> <p><b>Note:</b> This menu is available only when "Input Lock" is "Off". RF mode is available only when Pal Tuner is connected.</p>
<b>Onscreen Display</b>	<p><b>Off:</b> Onscreen information is not displayed. <b>On:</b> Onscreen information is displayed, such as:</p> <ul style="list-style-type: none"> <li>• Power on display</li> <li>• Input signal switch display</li> <li>• No signal display</li> <li>• Mute and the remaining time of off-timer</li> </ul> <p><b>On 1:</b> Onscreen information is displayed, except some RS-232C communication information is not displayed.</p>
<b>Initial VOL Level</b>	<p>Used to set the volume level at power-on.</p> <p><b>Off:</b> The volume is set to the same level as when the power was last turned off. <b>0 to 63:</b> The volume is set to the selected level.</p> <p><b>Note:</b> It is not possible to select an Initial VOL Level setting which is higher than the Maximum VOL Level setting.</p>
<b>Maximum VOL Level</b>	<p>Used to set the volume level so that it will not exceed the maximum setting.</p> <p><b>Off:</b> No restrictions are placed on the volume level. <b>0 to 63:</b> The volume is restricted to the selected level.</p> <p><b>Note:</b> It is not possible to select a Maximum VOL Level setting which is lower than the Initial VOL Level setting.</p>
<b>Input Lock</b>	<p><b>Off</b> ↔ <b>RF</b> ↔ <b>AV1</b> ↔ <b>AV2</b> ↔ <b>AV3</b> ↔ <b>YPbPr</b> ↔ <b>HDMI1</b> ↔ <b>HDMI2</b> ↔ <b>HDMI3</b> ↔ <b>PC</b> Locks the input switch operation.</p> <p><b>Off:</b> Input switch can be used.</p> <p><b>Note:</b> RF mode is available only when Pal Tuner is connected.</p>
<b>Button Lock</b>	<p>Used to restrict the operation of the buttons on the main unit.</p> <p><b>Off:</b> All the buttons on main unit can be used. <b>Menu:</b> Locks the <b>Menu</b> button on the main unit. <b>On:</b> Locks all the buttons on the main unit except the <b>Power</b> button.</p>
<b>Remocon User Level</b>	<p><b>Off</b> ↔ <b>User1</b> ↔ <b>User2</b> ↔ <b>User3</b></p> <p><b>Off:</b> You can use all of the buttons on the remote control. <b>User1:</b> You can only use , , , ,  buttons on the remote control. <b>User2:</b> You can only use  button on the remote control. <b>User3:</b> Locks all the buttons on remote control.</p>

# 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 21)
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.
 <p>Image retention appears</p>	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.

# Applicable Input Signals

Applicable input signals for Mini D-sub 15P

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Dot clock frequency (MHz)
1	640 x 480 @ 60 Hz	31.47	59.94	25.18
2	640 x 480 @ 72 Hz	37.86	72.81	31.5
3	640 x 480 @ 75 Hz	37.50	75.00	31.5
4	800 x 600 @ 56 Hz	35.16	56.25	36.0
5	800 x 600 @ 60 Hz	37.88	60.32	40.0
6	800 x 600 @ 72 Hz	48.08	72.19	50.0
7	800 x 600 @ 75 Hz	46.88	75.00	49.5
8	1024 x 768 @ 60 Hz	48.36	60.00	65.0
9	1024 x 768 @ 70 Hz	56.48	70.07	75.0
10	1024 x 768 @ 75 Hz	60.02	75.03	78.75

**Note:** Signals without the above specifications may not be displayed properly.

# Specifications

	TH-32LRT12A	TH-37LRT12A
<b>Power Source</b>	220 - 240 V AC, 50/60 Hz	
<b>Power Consumption</b>		
Power on	155 W	190 W
Stand-by condition	1.5 W	1.5 W
<b>Aspect Ratio</b>	16:9	
<b>Screen size</b>	27.5" x 15.4" x 31.5"	32.2" x 18.1" x 37.0"
<b>(W x H x Diagonal)</b>	(698 mm x 392 mm x 800 mm)	(819 mm x 460 mm x 940 mm)
(No. of pixels)	1,049,088 (1,366 (W) x 768 (H))	
<b>Operating condition</b>		
Temperature	32 °F - 104 °F (0 °C - 40 °C)	
Humidity	20 % - 80 %	
<b>Applicable Input signals</b>		
PC signals	VGA, SVGA, XGA Horizontal scanning frequency 31.469 - 60.023 Vertical scanning frequency 56 - 85 Hz	
<b>Connection terminals</b>		
AV1 - AV3	VIDEO IN (RCA PIN JACK x 3) 1.0 Vp-p (75 Ω) S VIDEO IN (MINI DIN 4PIN x 3) Y:1.0 Vp-p (75 Ω), C: 0.286 Vp-p (75 Ω) AUDIO IN (RCA PIN JACK x 3) 0.5 Vrms	
YPbPr	Y (RCA PIN JACK x 1) 1.0 Vp-p (75 Ω) Pb/Pr (RCA PIN JACK x 1) 0.7 Vp-p (75 Ω) AUDIO IN (RCA PIN JACK x 1) 0.5 Vrms	
PC IN	(HIGH-DENSITY MINI D-SUB 15PIN) G: 0.7 Vp-p (75 Ω) B: 0.7 Vp-p (75 Ω) R: 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) AUDIO IN (M3 JACK) 0.5 Vrms	
HDMI1 - HDMI3	TYPE A Connector x 3	
AUDIO OUT	RCA PIN JACK x 2 0.5 Vrms	
RS-232C	EXTERNAL CONTROL TERMINAL (D-SUB 9PIN) RS-232C COMPATIBLE	
<b>Dimensions (W x H x D)</b>		
Including pedestal	32.4" x 23" x 9.3" (821 mm x 584 mm x 236 mm)	37.4" x 25.6" x 12.1" (949 mm x 650 mm x 307 mm)
Display Set only	32.4" x 21.3" x 4.2" (821 mm x 539 mm x 106 mm)	37.4" x 24.0" x 4.1" (949 mm x 608 mm x 104 mm)
<b>Mass (weight)</b>		
Including pedestal	36.4 lbs	47.4 lbs
Display Set only	30.9 lbs	39.7 lbs
<b>Sound</b>		
Audio Output	20W [10 W + 10 W] (10 % THD)	

## Note:

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

**Customer's Record**

The model number and serial number of this product can be found on rear panel. 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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**Panasonic Taiwan Co., Ltd.**

Made in Taiwan

Printed in Taiwan