

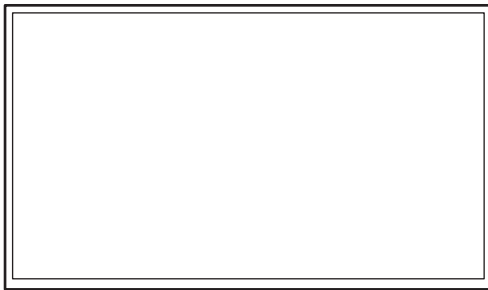
Operating Instructions

Basic Guide

FULL HD LCD Display

English

Model No. **TH-32EF2U** 32-inch model



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Read before use

For more information about this product, please read the "Operating Instructions – Functional Manual".

To download the "Operating Instructions – Functional Manual", please visit the Panasonic website (<https://panasonic.net/cns/prodisplays/>).

- Please read these instructions before operating your set and retain them for future reference.
- Illustrations and screens in this Operating Instructions are images for illustration purposes, and may be different from the actual ones.

HDMI™

Important Safety Instructions



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING: To reduce the risk of electric shock, do not remove cover or back.

No user-serviceable parts inside. Refer servicing to qualified service personnel.



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



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

WARNING:

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

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

WARNING:

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

- 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) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 10) Only use attachments / accessories specified by the manufacturer.
- 11) 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.
- 12) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 13) 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.



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.

FCC CAUTION:

To assure continued compliance, follow the attached installation instructions and use only the provided power supply cord. Any changes or modifications not expressly approved by Panasonic Corp. of North America could void the user's authority to operate this device.

Supplier's Declaration of Conformity

Model No.

TH-32EF2U

Responsible Party:

Panasonic Corporation of North America
Two Riverfront Plaza, Newark, New Jersey
07102-5490

Contact Source:

Panasonic Connect North America
1-877-655-2357

General Contact:

<http://shop.panasonic.com/support>

This device complies with Part 15 of the FCC Rules and all applicable IC RSS standards. 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.

WARNING:

- Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/ Data Processing Equipment, ANSI/NFPA 75.
- For permanently connected equipment, a readily accessible disconnect device shall be incorporated in the building installation wiring.
- For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

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 when a general moving picture is displayed for a while.

Trademark Credits

- Microsoft, Windows, Internet Explorer and Microsoft Edge are the registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Mac, Mac OS, OS X and Safari are the trademarks of Apple Inc. registered in the United States and other countries.
- PJLink is a registered or pending trademark in Japan, the United States, and other countries and regions.
- HDMI, High-Definition Multimedia Interface and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
- JavaScript is a registered trademark or a trademark of Oracle Corporation and its subsidiary and associated companies in the United States and/or other countries.

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

To maintain compliance with EMC regulations, use shielded cables to connect to the following terminals:

HDMI input terminal, D-sub input terminal and RS-232C input terminal.

Important Safety Notice

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, 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: Stability Hazard

Never place a display in an unstable location. A display may fall, causing serious personal injury or death. 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 placing the display on cloth or other materials that may be located between the display and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the display or its controls.

If the existing display is going to be retained and relocated, the same considerations as above should be applied.

The cable distribution system should be grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, Grounding of Outer Conductive Shield of a Coaxial Cable.

This equipment is not suitable for use in locations where children are likely to be present.

Safety Precautions

WARNING

■ Setup

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.

Securely install the pedestal of the optional accessories. Ask an authorized dealer for installation.

- Pedestal
TY-ST32PE2
- Early Warning Software
ET-SWA100 series*

*: Suffix of the part number may differ depending on the license type.

Note

- The part number of the optional accessories are subject to change without notice.

When installing the pedestal, read the operating instructions supplied with it carefully and install properly. Also, always use the overturn prevention accessories.

We are not responsible for any product damage, etc. caused by failures in the installation environment for the pedestal or wall-hanging bracket even during the warranty period.

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 Display on sloped or unstable surfaces, and ensure that the Display does not hang over the edge of the base.

- The Display may fall off or tip over.

Install this unit at a location with minimal vibration and which can support the weight of the unit.

- Dropping or falling of the unit may cause injury or malfunction.

Do not place any objects on top of the Display.

- If foreign objects or water get inside the Display, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Display, please consult your local Panasonic dealer.

Transport only in upright position!

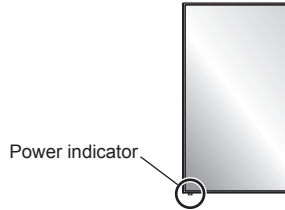
- Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

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

For sufficient ventilation, see page 7.

Caution - For use only with UL Listed Wall Mount Bracket with minimum weight/load 5.3 kg (11.7 lbs).

When installing the display vertically, be sure that the power indicator comes to the lower side.



- If installed in different directions, heat is generated and it may cause fire or damage to the Display.

Cautions for Wall or Pedestal Installation

- The installation should be performed by an installation professional. Installing the Display incorrectly may lead to an accident that results in death or serious injury. Use the optional Pedestal. (see page 5)
- When installing on a wall, a wall hanging bracket that conforms to VESA standards must be used.
32-inch model : VESA 100×100
(see page 8)

- Before installation, be sure to check if the mounting location has enough strength to support the weight of the LCD display and the wall hanging bracket for anti drop.
- If you terminate the use of the Display on the Wall or Pedestal, ask a professional to remove the Display as soon as possible.
- When mounting the Display on the wall, prevent the mounting screws and power cable from contacting metal objects inside the wall. An electric shock may occur if they contact metal objects inside the wall.

Do not install the product to a place where the product is exposed to direct sunlight.

- If the screen is exposed to direct sunlight, the liquid crystal panel may have adverse effect.

■ When using the LCD Display

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

If problems or malfunction occur, stop using immediately.

If problems occur, unplug the power supply plug.

- Smoke or an abnormal odour come out from the unit.
- No picture appears or no sound is heard, occasionally.
- Liquid such as water or foreign objects got inside the unit.
- The unit has deformed or broken parts.

If you continue to use the unit in this condition, it could result in fire or electric shock.

- Unplug the power supply plug from the wall outlet, and then contact the dealer for repairs.
- To cut off the power supply to this Display completely, you need to unplug the power supply plug from the wall outlet.
- Repairing the unit yourself is dangerous, and shall never be done.
- To enable to unplug the power supply plug immediately, use the wall outlet which you can reach easily.

Do not touch the unit directly by hand when it is damaged.

- Electric shock could occur.

Do not cover the ventilation holes.

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

Do not stick any foreign objects into the Display.

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

Do not remove the cover (cabinet) or modify it.

- High voltages which can cause severe electric shocks are present inside the 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 short-circuit, generates heat, etc., which could cause electric shock or fire.

Do not use the supplied power supply cord with any other devices.

- Doing so may cause short-circuit, generates heat, etc., which could cause electric shock or fire.

Clean the power supply plug regularly to prevent it becoming dusty.

- If there is a build up of dust on the plug, the resultant humidity may cause short-circuit, which could cause electric shock or fire. Unplug the power supply plug from the wall outlet and wipe it with a dry cloth.

Do not handle the power supply plug with wet hands.

- Doing so may cause electric shocks.

Securely insert the power supply plug (socket outlet side) and the power supply connector (main unit side) 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 do anything that may damage the power supply cord or the power supply plug.

- 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.

Do not touch the power supply cord or the plug directly by hand when they are damaged.

- Doing so may cause electric shock or fire due to short-circuit.

Do not remove covers and NEVER modify the Display yourself

- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the Display checked, adjusted, or repaired at your local Panasonic dealer.

Keep the AAA/R03/LR03 batteries (supplied) out of reach of children. If accidentally swallowed, it will be harmful to the body.

- Please contact a doctor immediately in case you doubt that the child may have swallowed it.

If the Display is not going to be used for any prolonged length of time, unplug the power supply plug from the wall outlet.

Picture noise may occur if you connect / disconnect the cables connected to the input terminals you are currently not watching, or if you turn the power of the video equipment on / off, but it is not a malfunction.

To prevent the spread of fire, keep candles or other open flames away from this product at all times.



CAUTION

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

- Heated air comes out from the ventilation holes at the top of 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.

Do not place the display where it may be affected by salt or corrosive gas.

- Doing so may cause the display to fall due to corrosion, and it may result in injury. Also, the unit may malfunction.

When disconnecting the power supply cord, always pull on the plug (socket outlet side) / the connector (main unit side).

- Pulling the cord may damage the cord, and it may cause electric shock or fire due to short-circuit.

Be sure to disconnect all cables before moving the Display.

- If the 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.

Do not step on, or hang from the display or the Pedestal.

- They might tip over, or might be broken and it may result in injury. Pay special attention to the children.

Do not reverse the polarity (+ and -) of the battery when inserting.

- Mishandling the battery may cause its explosion or leakage, resulting in fire, injury or damage to surrounding properties.
- Insert the battery correctly as instructed. (see page 10)

Do not use batteries with the outer cover peeling away or removed.

- Mishandling the batteries may cause the batteries to short circuit, resulting in fire, injury or damage to surrounding properties.

Remove the batteries from the remote control transmitter when not using for a long period of time.

- The battery may leak, heat, ignite or burst, resulting in fire or damage to surrounding properties.

Remove exhausted batteries from the remote control immediately.

- Leaving the batteries unattended in it may cause battery leakage, heat or burst.

Do not burn or breakup batteries.

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

Do not turn the Display upside down.

Do not position the unit with its display panel facing upright.

Precautions for use

Cautions when installing

Do not set up the Display outdoors.

- The Display is designed for indoor use.

Install this unit at a location which can support the weight of the unit.

- Dropping or falling of the unit may cause injury.

Do not install the unit near a high-voltage line or a power source.

- Installing the unit near a high-voltage line or a power source may receive interference.

Install the unit away from heat appliances.

- Failure to do so may cause deformation of the cabinet or malfunction.

Environmental temperature to use this unit

- When using the unit where it is below 1 400 m (4 593 ft) above sea level: 0 °C to 40 °C (32 °F to 104 °F)
- When using the unit at high altitudes (1 400 m (4 593 ft) and higher and below 2 800 m (9 186 ft) above sea level): 0 °C to 35 °C (32 °F to 95 °F)

Do not install the unit where it is 2 800 m (9 186 ft) and higher above sea level.

- Failure to do so may shorten the life of the internal parts and result in malfunctions.

We are not responsible for any product damage, etc. caused by failures in the installation environment even during the warranty period.

Transport only in upright position!

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

Do not grab the liquid crystal panel.

- Do not forcibly press the liquid crystal panel, or push it with a pointed object. Applying a strong force to the liquid crystal panel will cause unevenness of the screen display, resulting in malfunction.

Do not install the product to a place where the product is exposed to direct sunlight.

- If the unit is exposed to direct sunlight even indoors, the temperature rise of the liquid crystal panel may cause malfunction.

In the case of storage, store the unit in a dry room.

Required space for ventilation

- When installing the unit in a case or chassis, provide a cooling fan or ventilation hole to ensure appropriate ventilation so that the temperatures surrounding the unit including the front surface of the liquid crystal panel (temperature of inside the case or chassis) can be maintained within the range of the operating temperature of the unit.

About the screws used when using a wall hanging bracket that conforms to VESA standards

Inch model	Screw pitch for installation	Depth of screw hole	Screw (quantity)
32	100 mm × 100 mm	10 mm	M4 (4)

Note for connection

Removing and inserting the power cord and connection cables

- When the unit has been installed on the wall, if the power cord and connection cables are difficult to remove and insert, make connections first before installation. Be careful not to allow the cables to be entangled. After installation is completed, insert the power plug to the outlet.

When using

Be careful of the movable structure of the power indicator and remote control sensor.

- As factory default, the power indicator and remote control sensor are stored in the main unit. For normal use, pull out the remote control sensor from the edge side of the main unit by operating the lever on the rear panel. Depending on the setup condition such as when using the multi display, store the remote control sensor in the main unit. (see page 15)

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 when a general moving picture is displayed for a while.

When polarization sunglasses are worn, the screen display may be invisible.

- This phenomenon occurs due to deflection characteristics of the liquid crystal panel. This is not a malfunction.

Red, blue or green dots on the screen are a liquid crystal panel-specific phenomenon. This is not a malfunction.

- Although the liquid crystal display is manufactured with high-precision technology, always-lighting dots or non-lighting dots may appear on the screen. This is not a malfunction.

Inch model	Dot omission ratio*
32	0.00009 % or less

*: Calculated in sub-pixel units according to the ISO9241-307 standard.

Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction.

- This unevenness will disappear while applying current continuously. If not, consult the distributor.

If the Display is not going to be used for any prolonged length of time, unplug the power supply plug from the wall outlet.

- When storing the product for long periods with no power supplied, do not store it in a location exposed to direct sunlight.

Picture noise may occur if you connect / disconnect the cables connected to the input terminals you are currently not watching, or if you turn the power of the video equipment on / off, but it is not a malfunction.

Notes on Using Wired LAN

When setting up the Display at a place, where electric static occurs often, take a sufficient antistatic measure before start using.

- When the Display is used at a location, where static electricity occurs often, such as on a carpet, a wired LAN communication is disconnected more often. In that case, remove static electricity and the noise source that may cause problems with an antistatic mat, and re-connect the wired LAN.
- In rare cases, the LAN connection is disabled due to static electricity or noise. In that case, turn off the power of the Display and the connected devices once and then re-turn on the power.

The Display may not work properly due to strong radio wave from the broadcast station or the radio.

- If there is any facility or equipment, which outputs strong radio wave, near the installation location, set up the Display at a location sufficiently far from the source of the radio wave. Or, wrap the LAN cable connected to the LAN terminal by using a piece of metal foil or a metal pipe, of which is grounded at both ends.

Request Regarding Security

When using this product, take safety measures against the following incidents.

- Personal information being leaked via this product
- Unauthorized operation of this product by a malicious third party
- Interfering or stopping of this product by a malicious third party

Take sufficient security measures.

- Set a password for the LAN control and restrict the users who can log in.
- Make your password difficult to guess as much as possible.
- Change your password periodically.
- Panasonic Connect Co., Ltd. or its affiliate companies will never ask for your password directly. Do not divulge your password in case you receive such inquiries.
- The connecting network must be secured by a firewall, etc.
- When disposing the product, initialize the data before disposing.

Cleaning and maintenance

First, remove the mains plug from the mains socket.

Gently wipe the surface of the liquid crystal panel or cabinet by using a soft cloth to remove dirt.

- To remove stubborn dirt or fingerprints on the surface of the liquid crystal panel, dampen a cloth with diluted neutral detergent (1 part detergent to 100 parts water), wring out the cloth firmly, and then wipe away the dirt. Finally, wipe away all the moisture with a dry cloth.
- If water droplets get inside the unit, operating problems may result.

Note

- The surface of the liquid crystal panel is specially treated. Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.

Usage of a chemical cloth

- Do not use a chemical cloth for the liquid crystal panel surface.
- Follow the instructions for the chemical cloth to use it for the cabinet.

Avoid contact with volatile substances such as insect sprays, solvents and thinner.

- This may cause damage to the cabinet or cause peeling of the paint. Furthermore, do not leave it in contact with a rubber or PVC substance for a long time.

Remove dust and dirt from the ventilation holes

- Dust may adhere to the vicinity of the ventilation holes depending on the usage environment. As a result, if the internal cooling of this unit or circulation of exhaust heat deteriorates, it may result in a decrease in brightness or a malfunction. Clean and remove dust from the ventilation holes.
- The amount of dust and dirt that adheres depends on the installation locati

Disposal

When disposing the product, ask your local authority or dealer about the correct methods of disposal.

Accessories

Accessories Supply

Check that you have the accessories and items shown

Remote Control Transmitter

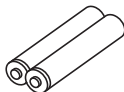
× 1

- DPVF1615ZA



Batteries for the Remote Control Transmitter × 2

(AAA/R03/LR03 type)



Clamper × 2

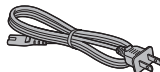
- DPVF1654ZA



Power supply cord

(Approx. 1.8 m)

- TZSH03042

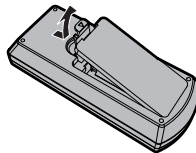


Attention

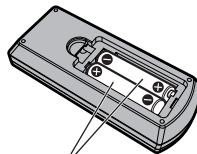
- Store small parts in an appropriate manner, and keep them away from young children.
- The part numbers of accessories are subject to change without notice. (The actual part number may differ from the ones shown above.)
- In case you lost accessories, please purchase them from your dealer. (Available from the customer service)
- Dispose the packaging materials appropriately after taking out the items.

Remote Control Batteries

1. Pull and hold the hook, then open the battery cover.



2. Insert batteries - note correct polarity (+ and -).



AAA/R03/LR03 type

3. Replace the cover.

Helpful Hint

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



Precaution on battery use

Incorrect installation of the batteries can cause battery leakage and corrosion that will damage the remote control transmitter.

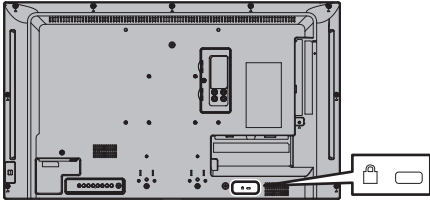
Disposal of batteries should be in an environment-friendly manner.

Observe the following precaution:

1. Batteries shall 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 remote control acts sporadically or stops operating the Display set.
6. Do not burn or breakup batteries.
7. Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Kensington security

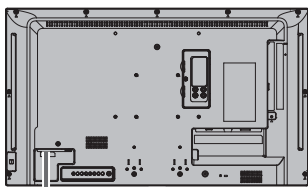
The security slot of this unit is compatible with the Kensington security slot.



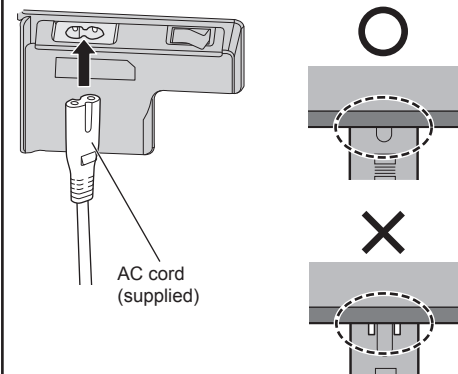
Connections

AC cord connection and fixing / Cable fixing

Back of the unit



Insert the AC cord securely all the way seated on the back side of the unit.



Insert the plug until the line is hidden.

Class II equipment

Note

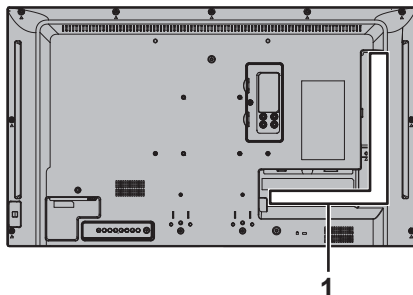
- When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.
- The supplied AC cord is for this unit exclusive use. Do not use this for other purposes.

Cable fixing

Note

- 2 clampers are supplied with this unit. Fix the cables at location as shown below.

If you need more clampers, purchase them from your dealer. (Available from the customer service)



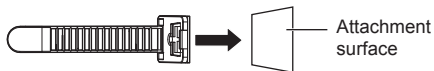
1 For signal cable: clamper

1. Attach the clamper

Note

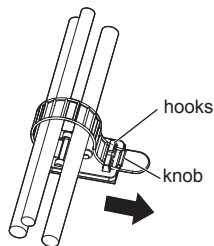
- Wipe off dirt, such as dust, water and oil on the attachment surface, and affix the clamper on the attachment surface by pushing it firmly.
- Once the clamper is affixed, it cannot be reused. Be sure to confirm the attaching position before affixing it.

Remove the tape at the back, and affix the clamper on the flat surface.



2. Bundle the cables

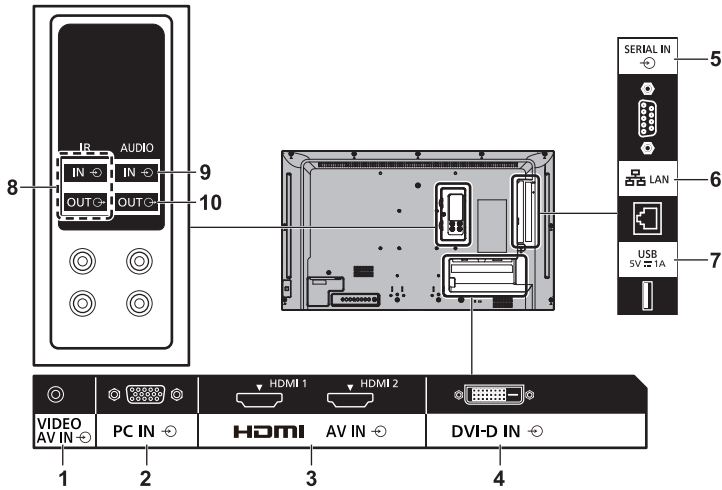
Pass the tip of the band to the hooks. Then pull and hook it on the knob.



To loosen:

Remove the band from the knob, and pull out the band tip.

Video equipment connection



1 AV IN (VIDEO): Composite Video / Audio Input Terminal

Connect to video equipment with Composite signal output.

2 PC IN: PC Input Terminal

Connect to video terminal of PC, video equipment with "YPbPr / YCbCr" or "RGB" output.

3 AV IN (HDMI 1, HDMI 2): HDMI Input Terminal

Connect to video equipment such as VCR or DVD player, etc.

4 DVI-D IN: DVI-D Input Terminal

Connect to video equipment with DVI-D output.

5 SERIAL IN: SERIAL Input Terminal

Control the Display by connecting to PC.

6 LAN: LAN Terminal

Control the Display by connecting to Network.

7 USB: USB Terminal

Connect the USB memory to use [USB media player]. Also, this can be used to supply power of up to 5V/1A to an external device when the picture is displayed.

8 IR IN, IR OUT: Infrared Signal Input / Output Terminal

Use this when operating more than one display with one remote control.

9 AUDIO IN: Audio input terminal shared with DVI-D IN and PC IN

10 AUDIO OUT: Analogue Audio Output Terminal

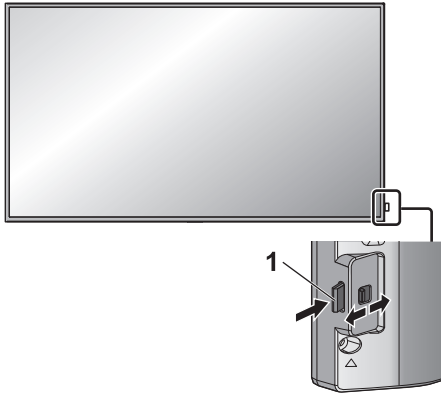
Connect to audio equipment with analogue audio input terminal.

Before connecting

- Before connecting cables, carefully read the operating instructions for the external device to be connected.
- Turn off the power of all devices before connecting cables.
- Take note of the following points before connecting the cables. Failure to do so may result in malfunctions.
 - When connecting a cable to the unit or a device connected to the unit itself, touch any nearby metallic objects to eliminate static electricity from your body before performing work.
 - Do not use unnecessarily long cables to connect a device to the unit or to the unit body. The longer the cable, the more susceptible to noise it becomes. Since using a cable while it is wound makes it act like an antenna, it is more susceptible to noise.
 - When connecting cables, connect GND first, then insert the connecting terminal of the connecting device in a straight manner.
- Acquire any cable necessary to connect the external device to the system that is neither supplied with the device nor available as an option.
- If the outer shape of the plug of a connection cable is large, it may come in contact with the periphery such as a back cover or the plug of an adjacent connection cable. Use a connection cable with the suitable plug size for the terminal alignment.
- When connecting the LAN cable with plug cover, be aware that the cover may come in contact with the back cover and it may be difficult to disconnect.
- If video signals from video equipment contain too much jitter, the images on the screen may wobble. In this case, a time base corrector (TBC) must be connected.
- When the sync signals output from PC or video equipment are disturbed, for example, when changing settings of video output, the colour of the video may be disturbed temporarily.
- The unit accepts Composite video signals, YCbCr/YPbPr signals, analogue RGB signals and digital signals.
- Some PC models are not compatible with the unit.
- Use cable compensator when you connect devices to the unit using long cables. Otherwise the image may not display properly.

Identifying Controls

Main unit



- To take out/store the power indicator and remote control sensor, operate the lever on the rear panel. It is also possible to press the remote control sensor directly to store.

Note

- For normal use, pull out the power indicator and remote control sensor from the edge side of the main unit by operating the lever on the rear panel. Depending on the setup condition such as when using the multi display, store them in the main unit.

1 Power Indicator / Remote control sensor

The Power Indicator will light.

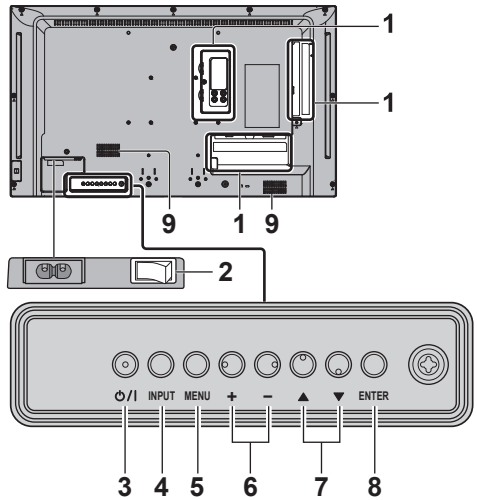
When the power of the unit is ON (Main Power On / Off button: ON)

- Picture is displayed: Green
- When the unit enters the standby mode using the following functions: Orange (Red/Green)
 - Standby state with the "Power management" function
 - Standby state with [HDMI-CEC control] set to [Enable] and at least one [Link function] set to other than [Disable]
 - Standby state with [Network control] set to [On]
- Standby state in conditions other than the above: Red

When the power of the unit is OFF (Main Power On / Off button: OFF): No light

Note

- Even if the unit is turned off with the power indicator off, some of the circuits are in power-on status.
- When the power indicator is orange, power consumption during standby is generally larger than that of when the power indicator is red.



1 External Input Terminal

Connects to video equipment, PC, etc. (see page 13)

2 Main power switch (O / I) (Unit)

Turns OFF (O) or ON (I) the main power.

Turning ON and OFF the <Main power switch> is the same as plugging and unplugging the power plug.

Turn ON (I) the main power first, and then turn OFF or ON the power using the Power button of the remote control or the unit.

3 <Main Power On / Off button>

Turns the power Off / On.

4 <INPUT (Unit)>

Selects the connected device.

5 <MENU (Unit)>

Displays the menu screen.

6 <+ (Unit)> / <- (Unit)>

Adjusts the volume.

On the main screen, switches settings or adjusts settings level.

7 <▲ (Unit)> / <▼ (Unit)>

Selects the setting item on menu screen.

8 <ENTER (Unit)>

Configures the item on menu screen.

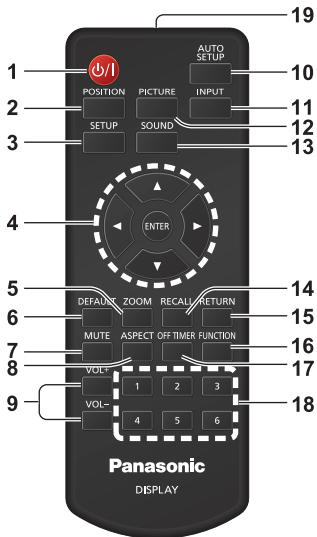
Switches aspect mode.

9 Built-in speakers

Note

- To output sound from the built-in speakers of the unit, be sure to set [Output select] in the [Sound] menu to [SPEAKERS].

Remote Control Transmitter



1 Standby (ON/OFF) button (⏻/⏻)

- Turns the power off or on when the unit is turned on at the <Main Power On / Off button>. (see page 17)

2 POSITION

3 SETUP

4 ENTER / Cursor buttons (▲▼◀▶)

- Used to operate the menu screens.

5 ZOOM

Enters the digital zoom mode.

6 DEFAULT

- Resets the settings of picture, sound, etc., to defaults.

7 MUTE

- Sound mute on / off.

8 ASPECT

- Adjusts the aspect.

9 VOL + / VOL -

- Adjusts sound volume level.

10 AUTO SETUP

- Automatically adjusts the position/size of the screen.

11 INPUT

- Switches input to display on the screen.

12 PICTURE

13 SOUND

14 RECALL

- Displays the current setting status of Input mode, Aspect mode, etc.

15 RETURN

- Used to return to the previous menu.

16 FUNCTION

- Displays [Function button guide].

17 OFF TIMER

- Switches to stand-by after a fixed period.

18 Numeric buttons (1 - 6)

- Used as shortcut buttons by assigning frequently used operations.

19 Signal emission

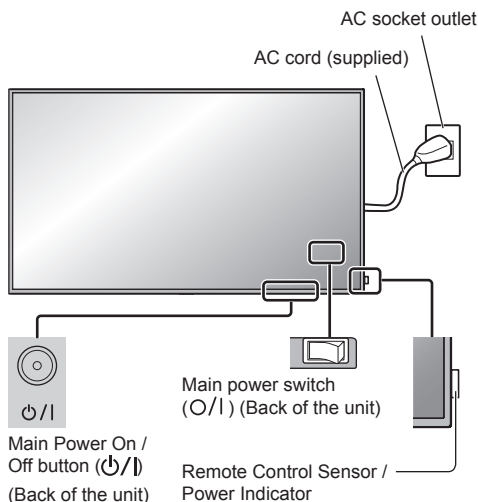
Note

- In this manual, buttons of the remote control and the unit are indicated as < >.

(Example: <INPUT>.)

The operation is mainly explained indicating the remote control buttons but you can also operate with the buttons on the unit when there are the same buttons.

Basic Controls



Operate pointing the remote control directly at the unit's Remote Control Sensor.



Note

- For normal use, pull out the remote control sensor from the edge side of the main unit by operating the lever on the rear panel. (see page 15)
- Do not put an obstacle between the remote control sensor of the main unit and the remote control.
- Operate the remote control in front of the remote control sensor or from the area where the sensor can be seen.
- When directly aiming the remote control at the remote control sensor of the main unit, the distance from the front of remote control sensor should be approx. 7 m or less. Depending on the angle, the operation distance may be shorter.
- Do not subject the remote control sensor of the main unit to the direct sunlight or strong fluorescent light.

1 Connect the AC cord plug to the Display.

(see page 12)

2 Connect the plug to the socket outlet.

Note

- When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.
- The settings may not be saved if the power plug is disconnected immediately after changing settings with on-screen menu. Disconnect the power plug after a enough period of time. Or, disconnect the power plug after turning the power off with the remote control, RS-232C control or LAN control.

3 Turn ON (I) the <Main power switch (O/I)> on the unit.

4 Press the <Main Power On / Off button> (⏻/⏻) on the unit to turn the set on: Power-On.

- Power Indicator: Green (Picture is displayed.)
- When the power of the unit is on, the power indicator lights up and remote control operation is possible.
- When the power indicator is lit, it is not necessary to press the <Main Power On / Off button> (⏻/⏻) on the unit. Operate the remote control so that the power indicator turns green (picture is displayed).

■ To turn the power ON/OFF with the remote control

To turn the power on

- When the <Main power switch> is ON (I) (Power Indicator - red or orange), press <Standby (ON/OFF) button> then the picture will be displayed.
- Power Indicator: Green (Picture is displayed.)

To turn the power off

- When the <Main power switch> is ON (I) (Power Indicator - green), press <Standby (ON/OFF) button>, then the power will be turned off.
- Power Indicator: Red or orange (standby)

Note

- During operation of the "Power management" function, the power indicator turns orange in the power off state.
- After the power plug is disconnected, the power indicator may remain lit for a while. This is not a malfunction.
- The display turns off if the <Main power switch> is turned OFF (O) or press the <Main Power On / Off button> (⏻/⏻) on the unit while the unit is ON (picture is displayed) or OFF (standby state).

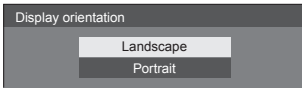
■ When the Unit is turned on for the first time

Following screen will be displayed.

1 Select the language with ▲ ▼ and press <ENTER>.



2 For vertical installation, select [Portrait] with ▲ ▼ and press <ENTER>.



Note

- Once the items are set, the screens won't be displayed when switching on the unit next time.

Each item can be reset in the following menus.

[OSD language]

[Display orientation]

■ Power ON message

The following message may be displayed when turning the unit power ON:

No activity power off Precautions

'No activity power off' is enabled.

When [No activity power off] in the [Setup] menu is set to [Enable], a warning message is displayed every time the power is turned ON.

"Power management" Information

Last turn off due to 'Power management'.

When "Power management" is functioned, an information message is displayed every time the power is turned ON.

These message displays can be set with the following menu:

- [Options] menu
 - Power on message(No activity power off)
 - Power on message(Power management)

Specifications

Model No.

32-inch model: TH-32EF2U

Power Consumption

56 W

Stand-by condition

0.5 W

LCD Display panel

32-inch VA panel (Direct LED backlight), 16:9 aspect ratio

Screen size

698.4 mm (W) × 392.8 mm (H) × 801.3 mm (diagonal)
/ 27.49" (W) × 15.46" (H) × 31.54" (diagonal)

Number of pixels

2 073 600 (1 920 (W) × 1 080 (H))

Dimensions (W × H × D)

727 mm × 426 mm × 66 mm / 28.62" × 16.77" × 2.56"

Mass

approx. 5.3 kg / 11.7 lbs net

Power source

110 – 127 V ~ (110 – 127 V alternating current),
50/60Hz

Operating condition

Temperature

0 °C – 40 °C (32 °F – 104 °F)*1

Humidity

20 % – 80 % (no condensation)

Operating Time

16 hours/day

Connection terminals

HDMI 1

HDMI 2

TYPE A Connector*2 × 2

Audio signal:

Linear PCM (sampling frequencies - 48 kHz,
44.1 kHz, 32 kHz)

DVI-D IN

DVI-D 24 Pin × 1:

Compliance with DVI Revision 1.0

Content Protection:

Compatible with HDCP 1.1

VIDEO

Audio/Video 4-pole mini jack (M3) × 1

Video: 1.0 Vp-p (75 Ω)

Audio: 0.5 Vrms

PC IN

High-Density Mini D-sub 15 Pin × 1:

Compatible with DDC2B

Y/G:

1.0 Vp-p (75 Ω) (with sync signal)

0.7 Vp-p (75 Ω) (without sync signal)

P_B/C_B/B:

0.7 Vp-p (75 Ω) (without sync signal)

P_R/C_R/R:

0.7 Vp-p (75 Ω) (without sync signal)

HD/VD:

1.0 – 5.0 Vp-p (high impedance)

AUDIO IN

Stereo mini jack (M3) × 1, 0.5 Vrms

Shared with DVI-D IN and PC IN

AUDIO OUT

Stereo mini jack (M3) × 1, 0.5 Vrms

Output: Variable (-∞ – 0 dB)

(1 kHz 0 dB input, 10 kΩ load)

SERIAL IN

External Control Terminal

D-sub 9 Pin × 1:

RS-232C compatible

LAN

RJ45 × 1:

For RJ45 network connections, compatible with PLink

Communication method:

RJ45 10BASE-T/100BASE-TX

IR IN

Stereo mini jack (M3) × 1

IR OUT

Stereo mini jack (M3) × 1

USB

TYPE A USB connector × 1

DC 5V / 1A (USB 3.0 is not supported.)

Sound

Speakers

80 mm × 30 mm × 2 pcs

Audio Output

20 W [10 W + 10 W] (10 % THD)

Remote Control Transmitter

Power source

DC 3 V (battery (AAA/R03/LR03 type) × 2)

Operating range

Approx. 7 m (22.9 ft)

(when operated directly in front of remote control sensor)

Mass

Approx. 63 g / 2.22 oz (including batteries)

Dimensions (W × H × D)

48 mm × 134 mm × 20 mm /

1.89" × 5.28" × 0.76"

*1: Environmental temperature to use this unit at high altitudes (1 400 m (4 593 ft) and higher and below 2 800 m (9 186 ft) above sea level): 0 °C to 35 °C (32 °F to 95 °F)

*2: VIERA LINK is not supported.

Note

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

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oss-cd-request@gg.jp.panasonic.com

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(for the U.S.A and Puerto Rico)

Panasonic Connect North America
Division of Panasonic Corporation of North America
Two Riverfront Plaza
Newark, NJ 07102

**PANASONIC PROFESSIONAL DISPLAY
Limited Warranty**

Models or Parts	Part Warranty	Labor Warranty
All Professional Display Model	3 Years	3 Years
Exceptions		
All Panasonic accessories: e.g. mounting kit, input signal module, cables, remote control, filter, batteries.	1 Year	1 Year

Panasonic Connect North America (referred to as "the Panasonic") will repair the Professional Video product (the "Product") and its accessories as defined in the attached table, with new or refurbished parts, free of charge in the continental USA, during the applicable warranty coverage period from the original date of purchase in the event of a defect in materials or workmanship as follows: On-Site, carry-in, or mail-in service within the **continental USA** may be obtained during the warranty period by contacting Panasonic's Technical Support Center at the following toll free number **855-772-8324** or via

e-mail: ProDisplaySupport@us.panasonic.com. In case of mail-in service the customer is responsible for the cost of delivering of the Product to Panasonic's facility, while Panasonic will pay for the return transportation of the repaired Product to the customer. For out of warranty Product units submitted for repairs or for in warranty units submitted by customers outside of the continental USA, shipping arrangements and cost (both ways) are the customer's responsibility.

Panasonic will also not be responsible for any costs associated with determining the source of system problems or for removing and installing the faulty Product.

This warranty is extended only to the original purchaser and is nontransferable. A purchase receipt or other proof of date of original purchase will be required before warranty service is rendered. Whenever the date of original purchase cannot be satisfactorily determined, the date of manufacture of the unit will be deemed to be the effective date of the warranty. Panasonic reserves the right to audit and reject any warranty claim that cannot be substantiated. This warranty only covers failures due to defects in materials or workmanship which occur during normal use of the Product.

The warranty **DOES NOT** cover damage to the display and its components which occur in shipping; failures which are caused by products not supplied by Panasonic; failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, setup adjustments, improper antenna, inadequate signal pickup, maladjustment of user controls, improper operation, power line surge, improper voltage supply, lightning damage, smoke or chemical vapors contamination, air conditioning, humidity control or other environmental conditions; failure to maintain the product in accordance with the applicable Operating Instructions; service by anyone other than an authorized repair facility; damage that is attributable to acts of violence, war, acts of God or force majeure.

The warranty does not cover damage which occurs to the display or its components caused by excessive continual usage which goes beyond the operational time described in the Operating Instructions. The warranty does not cover units of which the model and serial number label has been defaced, modified, tampered with or removed. The warranty does not cover consumable parts.

LIMITS AND EXCLUSIONS

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<https://holdings.panasonic/global/corporate/sustainability.html>
or call 1-888-769-0149.

Customer's Record

The model number and serial number of this product may be found on its 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

Panasonic Connect North America

Unit of Panasonic Corporation of North America

Executive Office :

Two Riverfront Plaza, Newark, New Jersey 07102

Panasonic Connect Co., Ltd.

4-1-62 Minoshima, Hakata-ku, Fukuoka 812-8531, Japan

Web Site: <https://panasonic.net/cns/prodisplays/>

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English

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