

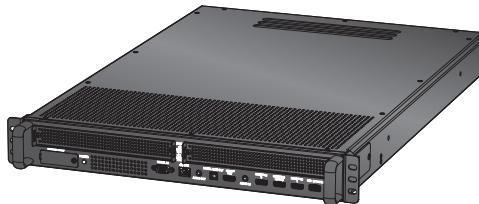
Operating Instructions Basic Guide

CONTROL BOX For business use

English

Model No.

TY-CTRFHD1W
TY-CTRFHD2W
TY-CTRFHD3W



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://docs.connect.panasonic.com/prodisplays/>).

- Please read these instructions before operating your set and retain them for future reference.
- This device is a dedicated system component for the TL-110AD12AW/TL-137AD15AW/TL-165AD19AW unit which is separately sold from the unit.
This device cannot be purchased or used separately from the above-named unit.
- Illustrations and screens in this Operating Instructions are images for illustration purposes, and may be different from the actual ones.



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HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

HDMI Advance™
Covered by patents at patentlist.accessadvance.com



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN



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

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 a container filled with water or other liquid on top of the unit.

WARNING:

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

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Clean only with dry cloth.
- 6) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 7) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 8) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 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) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 12) 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.
- 13) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

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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 a container filled with water or other liquid on top of the unit.
Do not place any objects on top of the device.
- 2) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
- 3) Do not remove the earthing pin on the power plug. This apparatus is equipped with a three pin earthing-type power plug. This plug will only fit an earthing-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.
Do not defeat the purpose of the earthing plug.
- 4) To prevent electric shock, ensure the earthing pin on the AC cord power plug is securely connected.

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.

Using this appliance near sources of strong electromagnetic fields or where electrical noise may overlap with the input signals could cause the sensor function not to work correctly.

To avoid the possibility of harm to this appliance, keep it away from sources of strong electromagnetic fields.

WARNING:

This equipment is compliant with Class A of CISPR32. In a residential environment this equipment may cause radio interference.

IMPORTANT INFORMATION: Stability Hazard

Never place the unit in an unstable location. The unit 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 unit.
- Only using furniture that can safely support the unit.
- Ensuring the unit is not overhanging the edge of the supporting furniture.
- Not placing the unit on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the unit to a suitable support.
- Educating children about the dangers of climbing on furniture to reach the unit or its controls.

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

IMPORTANT: THE MOULDED PLUG FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This unit is supplied with a moulded three pin mains plug for your safety and convenience. A 10 amp fuse is fitted in this plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 10 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local Panasonic dealer.

Do not cut off the mains plug.

Do not use any other type of mains lead except the one supplied with this unit.

The supplied mains lead and moulded plug are designed to be used with this unit to avoid interference and for your safety.

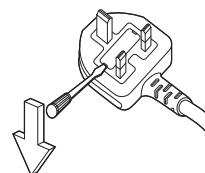
If the socket outlet in your home is not suitable, get it changed by a qualified electrician.

If the plug or mains lead becomes damaged, purchase a replacement from an authorized dealer.

WARNING : — THIS UNIT MUST BE EARTHTED

How to replace the fuse.

Open the fuse compartment with a screwdriver and replace the fuse.



Safety Precautions

WARNING

■ Setup

Please have the installation performed by qualified service personnel.

Improper installation may result in death or serious injury.

- Attach the TY-CTRFHD1W to a wall using the special wall mounts included in the FHD LED Display (TL-110AD12AW) package. The TY-CTRFHD2W and TY-CTRFHD3W cannot be attached to a wall.
- To prevent the wall-mounted unit from falling, check that the wall in the mounting area is sufficiently strong to support the weight of the unit and the Wall Mounts.
- The Power Box should be installed using the fittings included in the FHD LED Display (TL-110AD12AW/ TL-137AD15AW/TL-165AD19AW) package.
- The Control Box (TY-CTRFHD1W) should be installed using the fittings included in the FHD LED Display (TL-110AD12AW) package. Alternatively, installation on an ANSI/EIA-310-D-compliant rack is acceptable.
- Install the control box (TY-CTRFHD2W/TY-CTRFHD3W) on an ANSI/EIA-310-D-compliant rack.
- When installing the FHD LED Display (TL-110AD12AW) on a stand, use the specified mobile stand (TY-ST110AD1) (sold separately).
- When the product is no longer in use, promptly have it removed by qualified service personnel.

We are not responsible for any product damage, etc. caused by failures in the installation environment 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 unit on sloped or unstable surfaces, and ensure that the unit does not hang over the edge of the base.

- The unit 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.

When using this unit, be sure to take safety measures to prevent falling or dropping of the unit.

- If an earthquake occurs or a child climbs the unit, the unit may fall or drop, resulting in an injury.

Cautions for Wall Installation

- The installation should be performed by an installation professional. Installing the unit incorrectly may lead to an accident that results in death or serious injury.

- Before installation, be sure to check if the mounting location has enough strength to support the weight of the unit and the wall hanging bracket for anti drop.
- If you terminate the use of the product, ask a professional to remove it promptly.

To avoid getting accidentally squeezed between the unit and the wall or a mounting fixture, the installer should make sure that there is nobody in the surrounding area before starting the unit installation or removal work.

- Injury may be caused by having your fingers or hands accidentally squeezed between objects.

■ When using the unit

TY-CTRFHD1W is designed to operate on 220 – 240 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 unit 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 stick any foreign objects into the unit.

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

Do not attempt to disassemble or alter the unit in any way.

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

Ensure that the mains plug is easily accessible.

The mains plug shall be connected to a mains socket outlet with a protective earthing connection.

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.

Make sure that the mains plug is fully inserted into the socket outlet and the power supply connector is fully inserted into the unit.

- Incomplete insertion may cause electric shock or fire due to heating.
- Do not keep using a damaged mains plug or a loose socket outlet.
- Make sure that the power supply connector is locked.

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.

All parts and accessories included in the product package should be stored out of children's reach.

- These items are detrimental to human health if accidentally swallowed.
- Please contact a doctor immediately in case you doubt that the child may have swallowed it.

CAUTION

Do not close or plug any of the air vents in the unit.

Do not place the unit in a narrow, poorly ventilated place.

Do not place the unit upside down.

Do not place the unit in contact with fabric material, for example under a table cloth or on a carpet or bedclothes.

- Heat buildup inside the unit may lead to fire or mechanical failure.

Install the mounting screws and power cable in such a way that they will not make contact with the inside parts of the wall.

- Electric shocks may result from contact with any metal objects inside the wall.

Do not pull or snag the connection cable.

- This may cause the unit to fall or tip over, resulting in injury.
- Pay special attention to children.

Do not fit at any locations subject to humidity, dust, smoke, steam or heat.

- This may have an adverse effect on the unit and cause fire or electric shock.

Do not place the unit in a place where it can be exposed to the weather, salt damage, or corrosive gas.

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

The installer should avoid getting their hands or fingers pinched during installation.

- Such pinching could lead to injury.

We do not assume responsibility for any accident or damage that is caused as a result of attempting to install or handle the unit in any way not specified in our operating instructions/installation instructions or by using any part or material other than the ones specified.

When disconnecting the power supply cord, make sure to do so by holding the mains plug (when disconnecting from the socket outlet) or the power supply connector (when disconnecting from the unit).

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

If the unit needs to be moved, make sure to do so after disconnecting the power supply cord and all the device connection cables and also removing any anti-tip/anti-drop anchor installed.

- If the unit 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.

For safety reasons, disconnect the unit's mains plug from the socket outlet and also disconnect the power supply connector from the Power Box before installing, removing, cleaning or servicing the function board (sold separately).

- Electric shock may result.

Do not step on, or hang from the unit.

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

Do not mix old and new batteries. Use only specified batteries.

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.

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.

If the battery fluid leaks, do not touch it with bare hands, and take the following measures if necessary.

- Battery fluid on your skin or clothing could result in skin inflammation or injury.
Rinse with clean water and seek medical advice immediately.
- Battery fluid coming in contact with your eyes could result in loss of sight.
In this case, do not rub your eyes. Rinse with clean water and seek medical advice immediately.

Do not subject the unit to excessive force or impact.

- Doing so may result in damage to the unit and/or personal injury.

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

- This may have an adverse effect on the unit and cause fire or electric shock.

Precautions for use

■ Cautions when installing

Follow the instructions below when installing the unit.

Even before expiration of the warranty period, we do not assume responsibility for any damage arising from installing the unit in an inappropriate environment.

This unit must be installed in an indoor location. Even inside a building, avoid installing the unit in the following types of locations:

- Where the unit is exposed to the weather
- Where the unit may be subject to drastic changes in temperature or humidity, for example near an air conditioning device
- Where the unit may receive vibration or impact
- Near a fire sprinkler or sensor

Do not install the unit where it may receive vibration or impact.

- Vibration or impact on the unit may damage its internal parts and can lead to mechanical failure. Choose a place free from vibration or impact to install the unit.

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.

Watch out for mutual interference between devices.

- Place the unit away from risks of video distortion or audio noises due to electromagnetic interference.

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)

Make sure to allow sufficient air flow around and through the unit so as not to exceed these temperature ranges.

- Service life of the unit components may be shortened or mechanical failure may be caused.

Install the unit out of direct sunlight and also away from heat-generating devices.

- Even in an indoor location, direct sunlight can cause the LED module temperature to increase to result in mechanical failure.
- Cabinet deformation or failure can be caused.
- Excessive light or heat can cause mechanical failure or other problems arising from increase in the device temperature.
- Deterioration of video quality may be experienced.

Device connection should be made with the devices in de-energized condition.

- Connect the devices according to their respective manuals.

Securing a clearance distance around the installed unit

- If the unit is installed inside a protective casing or enclosure, make sure to offer adequate ventilation by providing a cooling fan or air vents so that the temperature around the unit (inside the casing or enclosure) including the front of the LED panel will be kept within the specified allowable operating temperature range.

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

■ 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

Parts of the unit may become hot during use.

- Parts of the unit housing may become hot, but this is normal and does not affect unit performance or quality.

Fan replacement may become necessary.

- The unit fan may need to be replaced with a new one after the number of cumulative operating hours of the fan exceeds 25 000 hours.
- Note that time to fan replacement may differ depending on the operating environment.
- Contact your dealer for fan replacement service. The cumulative operating hours of the fan can be found in the [Options] menu.

To maximize the service life of LEDs

- The LED elements can absorb moisture if the unit is used or stored in a highly humid place or has not been run for an extensive period of time. Selecting a high luminance setting with the LED elements in such moist condition can cause the LED elements to go through a rapid temperature change, which can result in LED element failure. To select a higher luminance setting, set the [Warm up aging] (an intermediate mode where the luminance setting is raised a little at a time before entering the regular operation mode) option to [On] or [Auto].
- For more information about the warm up aging, refer to the "Operating Instructions - Functional Manual" for the Control Box.

Keep an appropriate audio volume so as not to annoy your neighbors

- Close the window or take other action to protect the peace and quiet of your neighbors. Be especially careful at night where even small sounds carry more clearly than in daytime.

If the unit 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.

If the power is instantaneously interrupted or stopped, or if the power voltage is instantaneously lowered, the unit may not operate normally.

- In this case, turn off the power of the unit and the connected devices once, and then turn on the power again.

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.

Do not apply an adhesive tape or sticker to the unit.

- The unit surface will become soiled.

Do not keep the unit in contact with a rubber or soft plastic material for an extensive period of time.

- Unit deterioration may be caused.

■ Connection via RJ45 terminals

The RJ45 terminal on the front of the unit is for network connection only.

On the other hand, the RJ45 terminal on the rear of the unit is provided for video connection to the Cabinet Module or for control connection to the Power Box. Do not connect this terminal to a network device.

If the terminal is mistakenly connected to a network device, system failure may result.

Using the unit in a place where static charges easily build up should be avoided.

- You may experience frequent communication interruptions when the unit is being used in an area where static charges tend to build up, for example on a carpet. If this happens, eliminate the suspected cause of the static charge and other potential noise-generating factors, and then turn off the unit and all the devices connected to it and turn them on again.

Strong radio interference from a broadcast station or a radio communication device can prevent the unit from functioning correctly.

- If there is a system or device nearby that generates strong radio signals, position the unit as far away from such device as possible and/or cover the unit's LAN cable with a length of metal foil or metal conduit which is grounded at both ends.

■ Request Regarding Security

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

- Personal information being leaked via this unit
- Unauthorized operation of this unit by a malicious third party
- Interfering or stopping of this unit 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 Projector & Display Corporation 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

Before cleaning the unit, make sure that the mains plug is disconnected from the socket outlet and double-check that the unit is not energized.

To remove dirtiness on the unit (except for the LED Module surface), wipe gently with soft antistatic cloth (cotton fabric or flannel).

Note

- Static charges may cause electrical circuit failure.
- Wiping the unit surface with stiff cloth or rubbing the surface hard may cause mechanical failure.

Use of chemically impregnated wipes

- Follow the instructions provided with the wipe when using the wipe on the unit.

Do not spray or apply volatile liquid on the unit such as insecticide, benzene or paint thinner.

- Exposure to volatile liquid may cause failure or mechanical damage of the unit and may also damage its surface coating.

Remove dust or dirt from unit airways such as the air vents.

- 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 location and usage time.

■ Disposal

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

Do not disassemble the product for disposal.

Accessories

Product



Accessories Supply

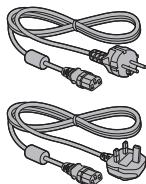
Check that you have the accessories and items shown. The number shown in < > is the quantity of the item included in the package.

■ TY-CTRFHD1W

Power supply cord

For connection to the socket outlet (approx. 2 m) <2>

- 2JP143EQ2W × 1



- 3JP143EQ2W × 1

Power supply cord <1>

For connecting TY-PWRBX1W (approx. 2 m)

- DPVF5003ZA/X1



RJ-45 cable <4>

- DPVF4977ZA/X1
(approx. 1.7 m) × 2

- DPVF4979ZA/X1
(approx. 2.2 m) × 2



Remote Control Transmitter <1>

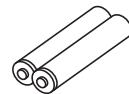
- DPVF1615ZA



Battery for the Remote Control Transmitter

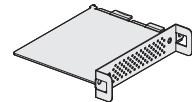
<2>

(AAA/R03/LR03 type)



SLOT adapter <2>

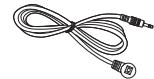
- DPVF2722XA/X1



External IR receiver <1>

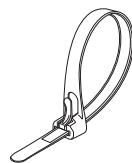
(Approx. 1.8 m)

- DPVF1180ZA



Cable tie wrap <20>

- DPVF4980ZA/X1



Velcro strip <10>

- DPVF4981ZA/X1



Connection fitting, vertical <8>*

- DPVF4985ZA/X1



horizontal <2>*

- DPVF4982ZA/X1



M8-14 bolt <16>*

For vertical connection fittings

- DPVF4986ZA/X1



M10-20 bolt <2>*

A for horizontal connection fittings

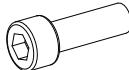
- DPVF4983ZA/X1



M10-18 bolt <2>*

B for horizontal connection fittings

- DPVF4984ZA/X1



M6-8 bolt <4>

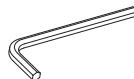
For retaining the box

- DPVF5008ZA/X1



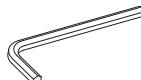
Hex wrench (for M4) <1>

- DPVF4988ZA/X1



Hex wrench (for M5) <1>

- DPVF4989ZA/X1



LED Module height adjustment jig <1>

- DPVF4987ZA/X1



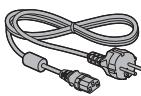
* These accessories are not intended for use with the TL-110AD12AW package.

■ TY-CTRFHD2W

Power supply cord

For connection to the socket outlet (approx. 2 m) <2>

- 2JP143EQ2W × 1



- 3JP143EQ2W × 1



Power supply cord <1>

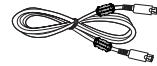
For connecting TY-PWRBX2W (approx. 2 m)

- DPVF5003ZA/X1



RJ-45 cable <5>

- DPVF5132ZA/X1
(approx. 10 m)



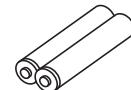
Remote Control Transmitter <1>

- DPVF1615ZA



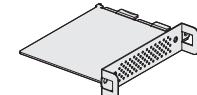
Battery for the Remote Control Transmitter <2>

(AAA/R03/LR03 type)



SLOT adapter <2>

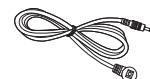
- DPVF2722XA/X1



External IR receiver <1>

(Approx. 1.8 m)

- DPVF1180ZA



Cable tie wrap <20>

- DPVF4980ZA/X1



Velcro strip <10>

- DPVF4981ZA/X1



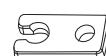
Connection fitting, vertical <10>*

- DPVF4985ZA/X1



horizontal <2>*

- DPVF4982ZA/X1



M8-14 bolt <20>*

For vertical connection fittings

- DPVF4986ZA/X1



M10-20 bolt <2>*

A for horizontal connection fittings

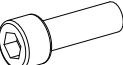
- DPVF4983ZA/X1



M10-18 bolt <2>*

B for horizontal connection fittings

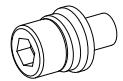
- DPVF4984ZA/X1



M6-8 bolt <4>

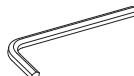
For retaining the box

- DPVF5008ZA/X1



Hex wrench (for M4) <1>

- DPVF5134ZA/X1



Hex wrench (for M5) <1>

- DPVF5135ZA/X1



LED Module height adjustment jig <1>

- DPVF4987ZA/X1



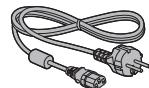
* These accessories are not intended for use with the TL-137AD15AW package.

■ TY-CTRFHD3W

Power supply cord

For connection to the socket outlet (approx. 2 m) <2>

- 2JP143EQ2W × 1



- 3JP143EQ2W × 1



Power supply cord <1>

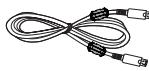
For connecting TY-PWRBX3W (approx. 2 m)

- DPVF5003ZA/X1



RJ-45 cable <6>

- DPVF5132ZA/X1 (approx. 10 m)



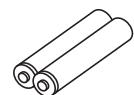
Remote Control Transmitter <1>

- DPVF1615ZA



Battery for the Remote Control Transmitter <2>

(AAA/R03/LR03 type)



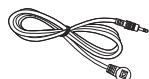
SLOT adapter <2>

- DPVF2722XA/X1



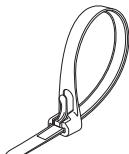
External IR receiver <1> (Approx. 1.8 m)

- DPVF1180ZA



Cable tie wrap <20>

- DPVF4980ZA/X1



Velcro strip <10>

- DPVF4981ZA/X1



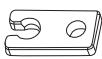
Connection fitting, vertical <12>*

- DPVF4985ZA/X1



horizontal <2>*

- DPVF4982ZA/X1



M8-14 bolt <24>*

For vertical connection fittings

- DPVF4986ZA/X1



M10-20 bolt <2>*

A for horizontal connection fittings

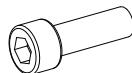
- DPVF4983ZA/X1



M10-18 bolt <2>*

B for horizontal connection fittings

- DPVF4984ZA/X1



M6-8 bolt <4>

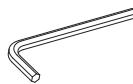
For retaining the box

- DPVF5008ZA/X1



Hex wrench (for M4) <1>

- DPVF5134ZA/X1



Hex wrench (for M5) <1>

- DPVF5135ZA/X1



LED Module height adjustment jig <1>

- DPVF4987ZA/X1



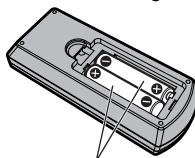
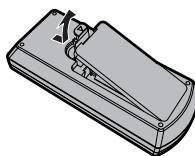
* These accessories are not intended for use with the TL-165AD19AW package.

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

Open the battery cover.



Insert batteries and close the battery cover.
(Insert starting from the \ominus side.)

AAA/R03/LR03 type

Note

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

Take the following precautions.

1. Batteries shall always be replaced as a pair.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example; manganese dioxide battery and alkaline battery etc.).
4. Do not attempt to charge, disassemble or burn used batteries.
5. Do not burn or breakup batteries.
Moreover, batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Attaching the Function Board

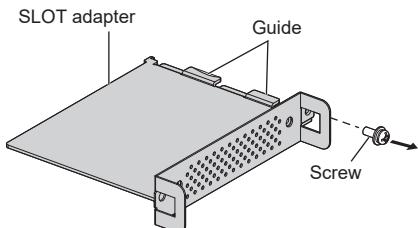
When using a narrow-width function board, attach the supplied SLOT adapter, and insert it to the expansion slot.

Note

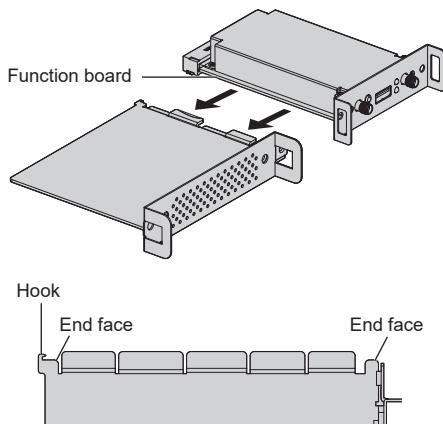
- Turn off the Control Box and all the connected devices, disconnect the mains plug from the socket outlet and also disconnect all the connection cables from the Control Box.
- When attaching/removing the function board, do not allow the metal to damage the back cover or display label.

When attaching a full-size function board, proceed to step 4.

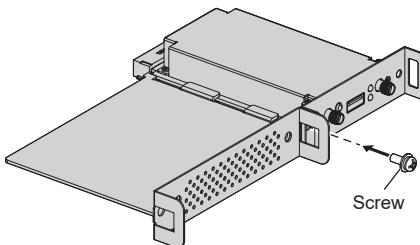
1 Remove one screw from the side with the guide on the SLOT adapter.



2 Fit the circuit board of the function board in the guides of the SLOT adapter, and bring the circuit board into contact with the hook (one location) and the end faces (two locations) securely.



3 Using the screw removed in step 1, fix the function board to the SLOT adapter.

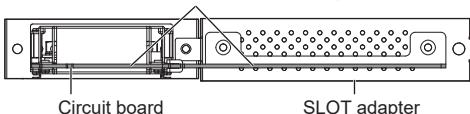


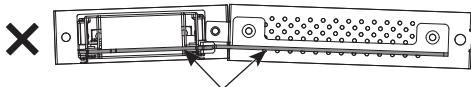
- Tightening torque guideline: 0.5 N·m or less

Note

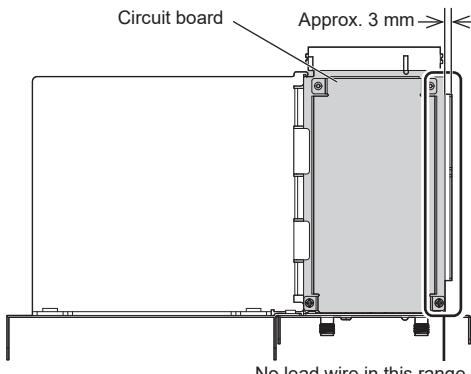
- Firmly tighten the screw, and check that the hook of the SLOT adapter fixes the circuit board.
- Check that the surface of the SLOT adapter and the surface of the circuit board match with each other when the function board with the SLOT adapter attached is viewed from the opposite side of the cover.

Make sure that this side is aligned.





- If there is a lead wire within approx. 3 mm from the end face of the circuit board, the function board cannot be attached due to interference with the guide rail. Ensure that there is no lead wire in this range.

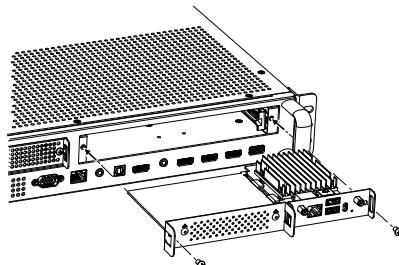


Note

- This unit has a cover fitted over the expansion slot.
- You will need this cover when the unit receives repair or other service. Store the cover safely.

5 Insert the function board to the expansion slot, and tighten the 2 screws.

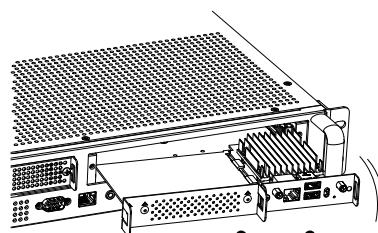
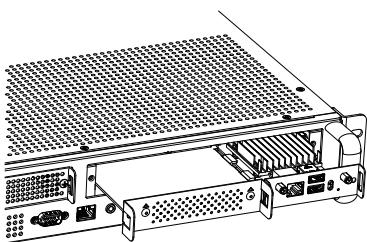
Fix the function board with the 2 screws removed in step 4.



- Tightening torque guideline: 0.5 N·m or less

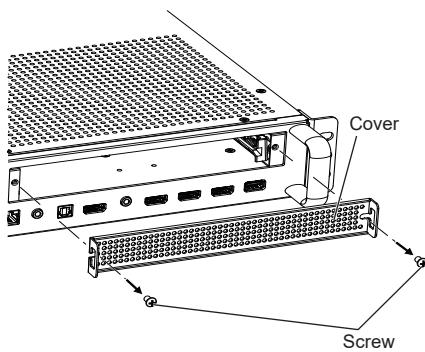
Note

- When inserting the function board, be careful not to allow it to come into contact with the edge of the opening of the expansion slot. The unit and the function board may be damaged.



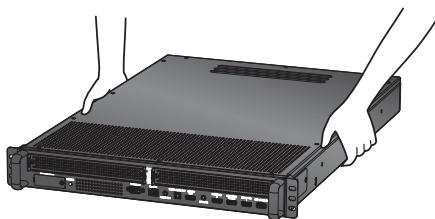
4 Remove the 2 screws, and then remove the expansion slot cover or function board from the unit.

To remove the function board, hold the handle of the function board and pull it out slowly in the arrow direction.



Cautions when moving

Securely hold both ends of the unit to move it.



Note

- Attaching to/detaching from a wall or stand should be performed by 2 or more people.
- Be careful to keep the vertical and horizontal sides of the unit frame and also the unit corners away from other objects. Collision with other objects may lead to mechanical failure.

Separately sold optional items

Request for a professional service to install these items.

12G-SDI terminal board:

- TY-SB01QS

DIGITAL LINK terminal board:

- TY-SB01DL

DIGITAL LINK switcher:

- ET-YFB200

Wireless presentation system Receiver Board

- TY-SB01WP

Note

- For best performance and safety, contact the seller or other professional service provider to have these items installed.
- At the end of its use, the unit should be swiftly removed by a professional service qualified for the work.
- The part numbers of the optional items are subject to change without prior notice.

Connections

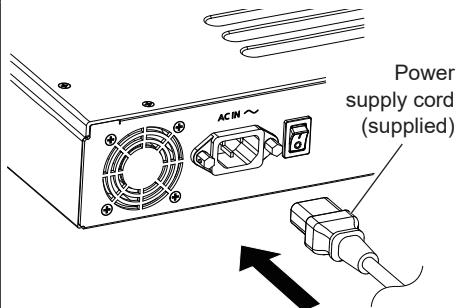
Power supply cord connection and fixing / Cable fixing

Back of the unit



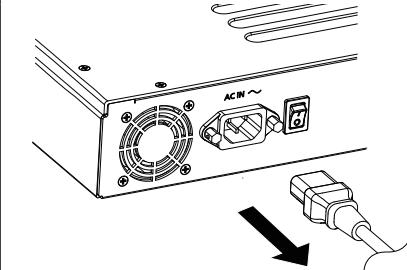
Connecting the power supply cord

Insert the connector straight into the port until it stops



Disconnecting the power supply cord

Hold the connector and pull it straight out of the port



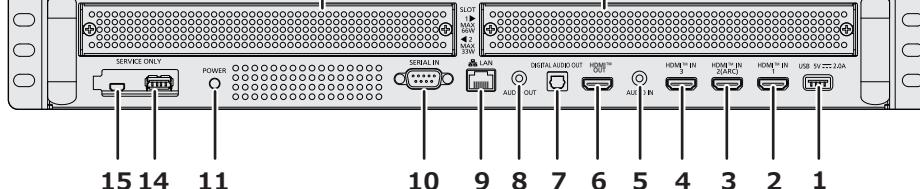
Note

- Do not use a damaged power supply cord. Continued use of a damaged cord may lead to electrical contact error between the power supply cord connector and the <AC IN> terminal. Contact your dealer if the power supply cord needs to be repaired.
- When disconnecting the power supply cord, be absolutely sure to disconnect the power supply cord plug at the socket outlet first.
- The supplied power supply cord is for this unit exclusive use. Do not use this for other purposes.

Connecting to a video device

Front

The structure is identical for all models.



1 USB:

USB terminal

Use of media player or memory viewer application will be available by connecting a USB memory to this terminal. Power of 5 V and up to 2 A can also be supplied to an external device when the unit is receiving video.

2 HDMI IN 1:

HDMI input terminals (a total of three ports)

3 HDMI IN 2:

Video devices with HDMI output can be connected. The HDMI IN 2 terminal can also be connected to an ARC-enabled device to provide audio output.

5 AUDIO IN:

Analog audio input terminal

6 HDMI OUT:

HDMI output terminal

Video and audio signals that are received via HDMI IN 3 can be output from this terminal. A video device with HDMI input can be connected.

7 DIGITAL

AUDIO OUT:

Digital audio output terminal

An audio device with a digital audio input terminal can be connected.

8 AUDIO OUT:

Analog audio output terminal

An audio device with an analog audio input terminal can be connected.

9 LAN:

LAN terminal

The unit can be externally controlled by being connected to a network through this terminal.

10 SERIAL IN:

Serial input terminal

The unit can be externally controlled by being connected to a PC.

11 POWER:

Power indicator

Indicates the unit's power status.

12 SLOT 1:

Expansion slot 1

An extension board of up to 66 W power consumption can be used.

13 SLOT 2:

Expansion slot 2

An extension board of up to 33 W power consumption can be used.

Note

- Contact your dealer for information about compatible function boards.

(SERVICE ONLY)

14 USB:

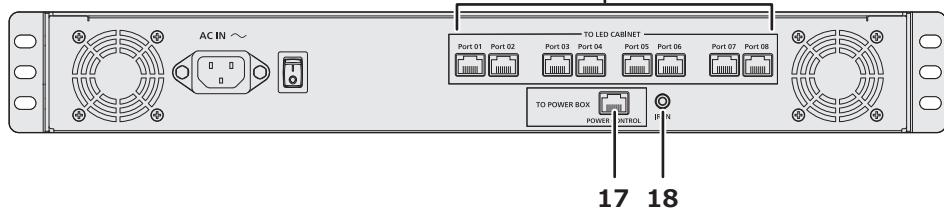
USB terminal for service use (USB TYPE A)

15 USB:

USB terminal for service use (USB mini B)

Rear

The structure is identical for all models.



16 Port01 to 08: LED panel drive output terminal

Note

- TL-110AD12AW uses Port01 to Port04.
- TL-137AD15AW uses Port01 to Port05.
- TL-165AD19AW uses Port01 to Port06.

17 POWER CONTROL: Power/sensor control terminal

This terminal provides connection to the Power Box for power supply and sensor module control.

18 IR IN: Infrared signal input

Use this terminal for connection when you want to control the unit using the remote control transmitter.

Before connecting

- Read the "Operating Instructions - Functional Manual" for the unit and also the Installation Instructions for TL-110AD12AW/TL-137AD15AW/TL-165AD19AW. You can download the documents from the Panasonic website (<https://docs.connect.panasonic.com/prodisplays/>).

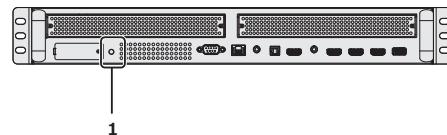


- Turn off the power of all devices before connecting cables.
- Take note of the following points before connecting the cables. Failure to do so may result in malfunctions.
 - When connecting a cable to the unit or a device connected to the unit itself, touch any nearby metallic objects to eliminate static electricity from your body before performing work.
 - When TY-CTRFHD1W is to be installed behind TY-FD12AS4, use the LAN cable supplied with this unit.
 - When installing this unit (TY-CTRFHD1W) or the power box (TY-PWRBX1W) in another location, it is recommended to use a cable that is 30 m or less and compliant with CAT5e or better.
 - When using a LAN cable other than the LAN cable supplied with this unit (TY-CTRFHD2W/TY-CTRFHD3W), we recommend using a LAN cable that is 30 m or less and compliant with CAT5e or better.
 - 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, insert them straight into the connecting terminal of the connecting device so that the ground is connected first.
- 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.
- 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 be displayed properly.
- Refer to the "Preset Signals" section about the types of video signals that can be played by this unit.

Identifying Controls

This unit



1 Power indicator

When the main power switch of the unit is ON

- Picture is displayed: green
- When the unit enters the standby mode using the following functions: orange
 - Standby state with the "Quick start" function in the [Power on settings] set to [On]
 - 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 either with the "SLOT1 standby" or "SLOT2 standby" function
 - Standby state during schedule play mode
- Standby state in conditions other than the above: red

When the main power switch of the unit is OFF: Indicator dark

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.

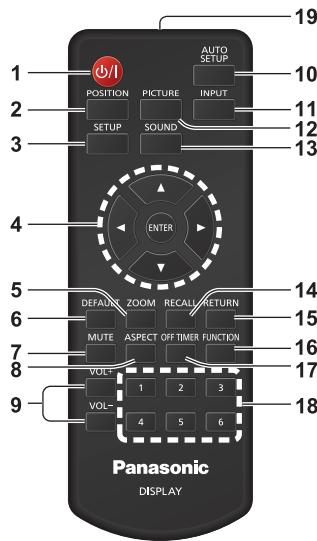


2 Main power switch (O/I)

This switch can be used to turn the unit's main power off (O) or on (I).

Turning the main power on or off has the same effect as when the mains plug is connected to or disconnected from the socket outlet. You can use the main power switch to turn the unit's main power on (I) and then use the remote control transmitter to turn the operating power on or off.

Remote Control Transmitter



1 Standby (ON/OFF) button (O/I)

● Turns the power on or off when the unit is turned on at the main power on / off button.

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

● This button is not used for basic operations of the unit.

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

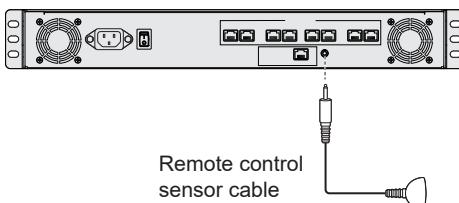
Note

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

(Example: <INPUT>.)

As a general rule, unit operation steps are explained on an assumption that remote control transmitter buttons will be used for the operation.

Basic Controls



When using the remote control transmitter, aim the transmitter in the direction of the signal receiver section of the remote control sensor cable.



Note

- Make sure that there is no obstructing object between the signal receiver section of the remote control sensor cable and the remote control transmitter.
- To control the unit by transmitting the signal directly to the signal receiver section of the remote control sensor cable, make sure to operate the transmitter within approximately 7 m from the front of the signal receiver section. At some angles, the signal transmission range may be shorter.
- Keep the signal receiver section of the remote control sensor cable away from direct sunlight and strong fluorescent light.

1 Connect the power supply cord to the Control Box.

2 Connect the mains plug to the socket outlet.

Note

- When disconnecting the power supply cord, make sure to disconnect the mains plug from the socket outlet first.

- If the mains plug is disconnected or the main power switch on the unit is turned off immediately after a setting change is made on the on-screen menu, the setting change may not be saved. Either wait sufficiently long before disconnecting the main power, or use the remote control transmitter or an external control source connected via RS-232C or LAN to turn the operating power off before disconnecting the mains plug or turning the main power switch off.

3 Turn the main power switch (O/I) on the back of the unit on (I).

4 Use the remote control transmitter to turn the operating power on or off.

Turning the operating power on.

- The unit will start receiving video after the main power switch on the unit is turned on (I) (the power indicator will be lit in red or orange) and the power button on the remote control transmitter is pressed.

Power indicator: Lit in green (indicates that the unit is receiving video)

Turning the operating power off

- The unit's operating power will be turned off when the power button on the remote control transmitter is pressed with the main power switch on the unit on (I) (with the power indicator lit in green).

Power indicator: Lit in red or orange (indicates that the unit is in standby mode)

Note

- The power indicator may continue to be lit for a while after the mains plug is disconnected, but this is normal and does not indicate a mechanical failure.
- If the main power switch on the unit is turned off (O) when the unit is on (video reception status) or off (standby status), both the unit and the Cabinet Module will be turned off.
- If the RJ-45 cable between the unit and the Power Box is disconnected when the unit and the Cabinet Module are both on (video reception status), the Cabinet Module power will be off and the power indicator on the unit will start flashing.
- If the RJ-45 cable between the unit and the Power Box is not connected, the power indicator will start flashing when the main power switch on the unit is turned on (I).

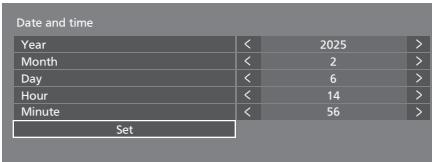
■ When the unit is powered on for the first time

The following screens will be displayed.

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



2 Set the clock time and date.

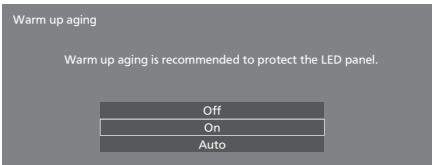


Year / month / day / hour / minute

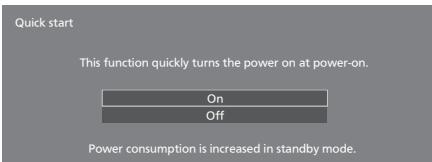
Use the **▲▼** buttons to move to the required time/date element and use the **◀▶** buttons to set it to the correct value.

3 Program the warm up aging.

To enable the warm up aging, use the **▲▼** buttons to set the [Warm up aging] option to [On] or [Auto] and press **<ENTER>**.



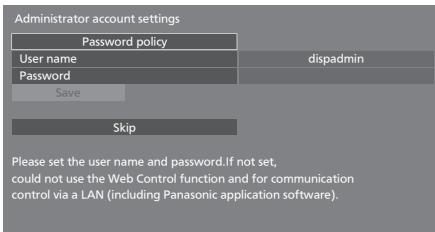
4 When setting [Quick start], select [On] with **▲▼** and press **<ENTER>**.



Note

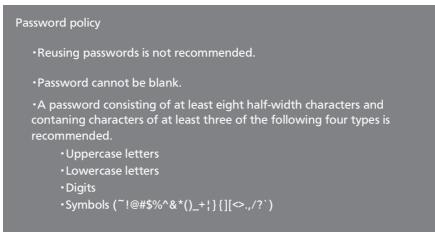
- Placing the cursor on [On] on the [Quick start] setting screen displays the following message.
[Power consumption is increased in standby mode.] Note that the power consumption of the display at this time will be about one third that of the maximum power consumption.
- Once the items are set, the screens won't be displayed when switching on the unit next time. Each item can be reset in the following menus.
[OSD language]
[Date and time]
[Warm up aging]
[Quick start]

5 Configure the network account setting as necessary.



Password policy

Cautions regarding the password setting in this item are displayed on another window.



User name

A keyboard for user name setting is displayed. Enter the user name.

Password

A keyboard for password setting is displayed. After the password is entered, select [Ok] to display a confirmation screen. Enter the password again and select [Ok] to determine the password.

Save

Select this to save the user name and the password entered in the above-described steps in the Control Box.

Skip

Exits this screen without configuring this setting.

Note

- Once these settings are configured or skipped, this screen will not appear when the unit is powered on next time. If any of the settings needs to be changed, go to the network account settings menu to change the setting as required.

■ 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:

- [Power on settings] menu
[Information(No activity power off)]
[Information(Power management)]

Specifications

Product

Model No.	TY-CTRFHD1W
Device type	Control Box
Power supply	AC 220 V – 240 V, 50/60 Hz 1.0 A 57 W ^{*1}
Power consumption	0.5 W when the operating power is turned off by the remote control transmitter
Operating condition	Temperature: 0 °C – 40 °C (32 °F – 104 °F) ^{*2} Humidity: 10 % – 80 % (no condensation)
Operating time	24 hours/day
Supply power for SLOT 1	3.3 V / max 1.1 A, 12 V / max 5.5 A
Supply power for SLOT 2	3.3 V / max 1.1 A, 12 V / max 2.75 A
HDMI input terminals	TYPE A Connector ^{*3} × 3 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
HDMI output terminal HDMI OUT	TYPE A connector × 1 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
Audio input terminal AUDIO IN	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Audio output terminal AUDIO OUT	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Digital audio output terminal DIGITAL AUDIO OUT	SPDIF
Serial input terminal SERIAL IN	External Control Terminal D-sub 9 Pin × 1: RS-232C compatible
LAN terminal LAN	RJ45 × 1: For network connection, compatible with PJLink Communication method: RJ45, 10BASE-T / 100BASE-TX
Remote control input terminal IR IN	Stereo mini jack (M3) (φ 3.5 mm) × 1
USB terminal USB	USB connector × 1, TYPE A DC 5 V / max 2 A, Compatible with USB 3.0
LED drive output terminal LED DRIVE OUT	RJ45 × 8: For LED video signal output
Power Box control terminal CONTROL for PB	RJ45 × 1: For Power Box control
USB terminals (for service use) (SERVICE ONLY)	USB connector × 1, TYPE A USB connector × 1, TYPE mini B
Dimensions (W × H × D)	441 mm × 62 mm × 696 mm / 17.37" × 2.44" × 27.41"
Mass	Approx. 6.7 kg / 14.8 lbs

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} Shipping condition

^{*2} 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)

^{*3} VIERA LINK is not supported.

Note

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

Product

Model No.	TY-CTRFHD2W
Device type	Control Box
Power supply	AC 110 V – 127 V~50/60 Hz 2.2 A AC 200 V – 240 V~50/60 Hz 1.05 A
Power consumption	57 W *1 0.7 W when the operating power is turned off by the remote control transmitter
Operating condition	Temperature: 0 °C – 40 °C (32 °F – 104 °F) *2 Humidity: 10 % – 80 % (no condensation)
Operating time	24 hours/day
Supply power for SLOT 1	3.3 V / max 1.1 A, 12 V / max 5.5 A
Supply power for SLOT 2	3.3 V / max 1.1 A, 12 V / max 2.75 A
HDMI input terminals HDMI IN 1 HDMI IN 2 HDMI IN 3	TYPE A Connector*3 × 3 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
HDMI output terminal HDMI OUT	TYPE A connector × 1 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
Audio input terminal AUDIO IN	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Audio output terminal AUDIO OUT	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Digital audio output terminal DIGITAL AUDIO OUT	SPDIF
Serial input terminal SERIAL IN	External Control Terminal D-sub 9 Pin × 1: RS-232C compatible
LAN terminal LAN	RJ45 × 1: For network connection, compatible with PJLink Communication method: RJ45, 10BASE-T / 100BASE-TX
Remote control input terminal IR IN	Stereo mini jack (M3) (φ 3.5 mm) × 1
USB terminal USB	USB connector × 1, TYPE A DC 5 V / max 2 A, Compatible with USB 3.0
LED drive output terminal LED DRIVE OUT	RJ45 × 8: For LED video signal output
Power Box control terminal CONTROL for PB	RJ45 × 1: For Power Box control
USB terminals (for service use) (SERVICE ONLY)	USB connector × 1, TYPE A USB connector × 1, TYPE mini B
Dimensions (W × H × D)	441 mm × 62 mm × 696 mm / 17.37" × 2.44" × 27.41"
Mass	Approx. 6.7 kg / 14.8 lbs

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 Shipping condition

*2 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)

*3 VIERA LINK is not supported.

Note

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

Product

Model No.	TY-CTRFHD3W
Device type	Control Box
Power supply	AC 110 V – 127 V~50/60 Hz 2.2 A AC 200 V – 240 V~50/60 Hz 1.05 A
Power consumption	57 W *1 0.7 W when the operating power is turned off by the remote control transmitter
Operating condition	Temperature: 0 °C – 40 °C (32 °F – 104 °F) *2 Humidity: 10 % – 80 % (no condensation)
Operating time	24 hours/day
Supply power for SLOT 1	3.3 V / max 1.1 A, 12 V / max 5.5 A
Supply power for SLOT 2	3.3 V / max 1.1 A, 12 V / max 2.75 A
HDMI input terminals HDMI IN 1 HDMI IN 2 HDMI IN 3	TYPE A Connector*3 × 3 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
HDMI output terminal HDMI OUT	TYPE A connector × 1 (Supports 4K) Compatible with HDCP 2.2 Audio signal: Linear PCM (sampling frequencies: 48 kHz, 44.1 kHz, 32 kHz)
Audio input terminal AUDIO IN	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Audio output terminal AUDIO OUT	Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms
Digital audio output terminal DIGITAL AUDIO OUT	SPDIF
Serial input terminal SERIAL IN	External Control Terminal D-sub 9 Pin × 1: RS-232C compatible
LAN terminal LAN	RJ45 × 1: For network connection, compatible with PJLink Communication method: RJ45, 10BASE-T / 100BASE-TX
Remote control input terminal IR IN	Stereo mini jack (M3) (φ 3.5 mm) × 1
USB terminal USB	USB connector × 1, TYPE A DC 5 V / max 2 A, Compatible with USB 3.0
LED drive output terminal LED DRIVE OUT	RJ45 × 8: For LED video signal output
Power Box control terminal CONTROL for PB	RJ45 × 1: For Power Box control
USB terminals (for service use) (SERVICE ONLY)	USB connector × 1, TYPE A USB connector × 1, TYPE mini B
Dimensions (W × H × D)	441 mm × 62 mm × 696 mm / 17.37" × 2.44" × 27.41"
Mass	Approx. 6.7 kg / 14.8 lbs

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)
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*3 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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Note for the battery symbol (bottom symbol)

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

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

Manufactured by:

Panasonic Projector & Display Corporation
2-15 Matsuba-cho, Kadoma City, Osaka 571-8503, Japan

Importer:

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Authorized Representative in EU:
Panasonic Connect Europe GmbH
Panasonic Testing Centre
Winsbergring 15, 22525 Hamburg, Germany

Importer for UK:

Panasonic Connect UK,
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