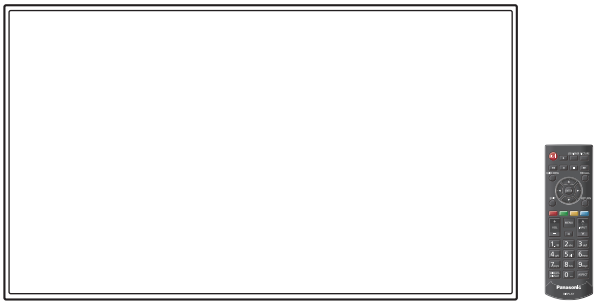
Panasonic®

Operating Instructions

Functional Manual

UHD Commercial LCD TV | For business use

Model No. TH-98CQE2U (98-inch model)
TH-86CQE2U (86-inch model)
TH-75CQE2U (75-inch model)
TH-65CQE2U (65-inch model)
TH-55CQE2U (55-inch model)
TH-50CQE2U (50-inch model)
TH-43CQE2U (43-inch model)



4K PROFESSIONAL
*Actual resolution:
3840 × 2160p

English

Please read these instructions before operating your set and retain them for future reference.

HDMI™

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

W0823MZ5026 -FJ

DPQP1483ZF/X1

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new LCD TV.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

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

Visit our Panasonic Web Site

https://docs.connect.panasonic.com/prodisplays

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Before use

- Illustrations and screens in this Operating Instructions are images for illustration purposes, and may be different from the actual ones.
- Descriptive illustrations in this Operating Instructions are created mainly based on the 55-inch model.

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

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

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

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

WARNING:

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

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

(including on shelves above, etc.)

WARNING:

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

Important Safety Instructions

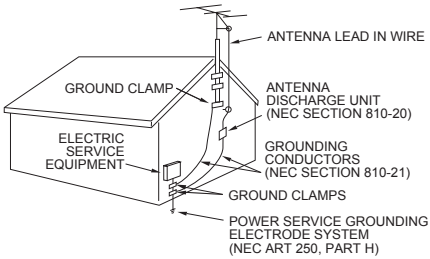
1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments / accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.
16) If an outside antenna is connected to the receiver, confirm that the antenna system is grounded to protect against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

    The cable distribution system should be grounded

(earthed) in accordance with ANS/NFPA 70. the National Electrical Code (NEC), in particular Section 820.93, Grounding of Outer Conductive Shield of a Coaxial Cable.

EXAMPLE OF ANTENNA GROUNDING AS PER (NEC) NATIONAL ELECTRICAL CODE



- Lightning — For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
- Power Lines — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

17) An outside antenna system should not be located in the vicinity of overhead, power lines, other electric light, power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

FCC STATEMENT

86-inch model | 75-inch model | 65-inch model
55-inch model | 50-inch model | 43-inch model

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 radio/TV technician for help.

98-inch model

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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.

FCC and Industry Canada (IC) RF Exposure Warning:

- This TV is provided with built-in transmitter:
  Wireless LAN Adapter with
  FCC ID: 2AVQS-17WFM26/ IC ID: 25888-17WFM26
- This transmitter complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment for mobile use with minimum 8 inches (20 cm) spacing requirement between transmitter and all person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.
- Other third-party wireless transmitters should not be used as they have not been RF exposure evaluated for use with this TV and may not comply with RF exposure requirements.

<Only for wireless LAN if capable of transmission in the 5.15 ~ 5.25 GHz frequency band>

This product is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range.

IC requires this product to be used indoors for the frequency range 5.15 to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems. High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this product.

Supplier's Declaration of Conformity

Model No.

TH-98CQE2U, TH-86CQE2U, TH-75CQE2U, TH-65CQE2U, TH-55CQE2U, TH-50CQE2U, TH-43CQE2U

Responsible Party:

Panasonic Corporation of North America

Two Riverfront Plaza, Newark, New Jersey

07102-5490

Contact Source:

Panasonic Projector & Display Americas LLC

1-855-772-8324

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.

86-inch model | 75-inch model | 65-inch model
55-inch model | 50-inch model | 43-inch model

CANADIAN NOTICE:

This Class B digital apparatus complies with Canadian ICES-003.

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.

For USA-California Only

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material - special handling may apply. See

www.dtsc.ca.gov/hazardouswaste/perchlorate

For Australia Only

WARNING:
THIS PRODUCT CONTAINS A COIN BATTERY

Keep coin battery out of the reach of infants and small children whether the battery is new or used. Severe or fatal injuries can occur within 2 hours of ingestion. Seek medical attention immediately.

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.

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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 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.

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.

98-inch model

WARNING:

This equipment is compliant with Class A of CISPR32.

In a residential environment this equipment may cause radio interference.

WARNING

Stability Hazard

A TV set may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- ALWAYS use cabinets or stands or mounting methods recommended by the manufacturer of the TV set.
- ALWAYS use furniture that can safely support the TV set.
- ALWAYS ensure the TV set is not overhanging the edge of the supporting furniture.
- ALWAYS educate children about the dangers of climbing on furniture to reach the TV set or its controls.
- ALWAYS route cords and cables connected to your TV so they cannot be tripped over, pulled or grabbed.
- NEVER place a TV set in an unstable location.
- NEVER place the TV set on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the TV to a suitable support.
- NEVER place the TV set on cloth or other materials that may be located between the TV set and supporting furniture.
- NEVER place items that might tempt children to climb, such as toys and remote controls, on the top of the TV or furniture on which the TV is placed.

If the existing TV set 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 TV 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.

- Early Warning Software
  (Basic license/3-year license):
  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 wall hanging bracket, 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 TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base.

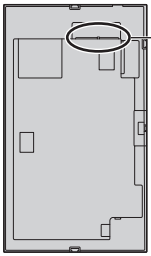
- The TV may fall off or tip over.

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.

Caution - For use only with UL Listed Wall Mount Bracket with minimum weight/load 99.8 kg (220.1 lbs).

When installing the TV vertically, be sure that the terminals come to the upper side.



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

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.

Do not position the unit with its liquid crystal panel facing upright.

- There are conditions of mounting method, environmental temperature, connections and settings. If installed in different conditions, heat is generated and it may cause fire or damage to the TV.

Cautions for Wall or Pedestal Installation

- The installation should be performed by an installation professional. Installing the TV incorrectly may lead to an accident that results in death or serious injury.
- When installing the pedestal, the pedestal that conforms to VESA standards must be used.
- When installing on a wall, the specified wall hanging bracket (optional accessory) or a wall hanging bracket that conforms to VESA standards must be used.

  98-inch model:
  VESA 800 × 400
  86-inch model 75-inch model 65-inch model:
  VESA 600 × 400
  55-inch model:
  VESA 400 × 400
  50-inch model 43-inch model:
  VESA 200 × 200
  (see page 11)

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

■ When using the LCD TV

The TV is designed to operate on 110 - 127 V ,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 TV 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 TV.

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

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

- High voltages which can cause fire or electric shocks are present inside the TV. 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.

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.
- 98-inch model:

  Press down the power cord holder until the end of the power cord holder snaps onto the power cord to secure the power cord. (see page 21)

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.

Keep the supplied M3 screw 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.

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

CAUTION

Do not place any objects on top of the TV.

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

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

For sufficient ventilation, see page 11.

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

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

The following number of people are required to carry or unpack this unit.

98-inch model | 86-inch model | 75-inch model **:**

4 or more

65-inch model | 55-inch model | 50-inch model | 43-inch model **:**

2 or more

98-inch model | 86-inch model | 75-inch model | 65-inch model **:**

Be sure to hold the handle, when carrying or moving the TV.

- If this is not observed, the unit may drop, resulting in injury.

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 and overturn prevention accessories before moving the TV.

- If the TV 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 TV.

- 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 15)

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 TV upside down.

Wireless LAN Transmitter Specifications

Frequency Ranges	Max Output Power
2400 - 2483.5 MHz (CH1-CH13)	< 100 mW
5150 - 5250 MHz (CH36 - CH48)	< 200 mW
5250 - 5350 MHz (CH52 - CH64)	< 200 mW
5470 - 5725 MHz (CH100 - CH140)	< 200 mW

Country Restrictions

The requirements for any country may change at any time. It's recommended that user checks with local authorities for the current status of their national regulations for 5 GHz wireless LAN's.

Precautions for use

Cautions when installing

Do not set up the TV outdoors.

- The TV 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.

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.

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)

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.

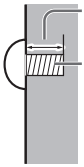
- If the unit is exposed to direct sunlight even indoors, the temperature rise of the liquid crystal panel may cause malfunction.

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

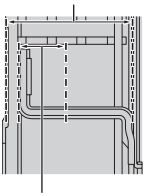


Depth of screw hole

Screw for fixing the TV onto the wall-hanging bracket (not supplied with the TV)

- Make sure that all screws are securely tightened.

Allowable screw length



Depth of screw hole

(View from the side)

(A): Screw pitch for installation

(B): Depth of screw hole

(C): Allowable screw length

(D): Screw (quantity)

Inch model	(A)	(B)	(C)	(D)
98	800 mm × 400 mm	12 mm	-	M8 (4)
86	600 mm × 400 mm	12 mm	-	M8 (4)
75	600 mm × 400 mm	10 mm	23 mm	M8 (4)
65	600 mm × 400 mm	10 mm	24 mm	M6 (4)
55	400 mm × 400 mm	10 mm	24 mm	M6 (4)
50	200 mm × 200 mm	10 mm	24 mm	M6 (4)
43	200 mm × 200 mm	10 mm	23 mm	M6 (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

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*
98	0.00011% or less
86	0.00007% or less
75	0.00004% or less
65	0.00004% or less
55	0.00004% or less
50	0.00004% or less
43	0.00004% 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 TV 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 TV may not operate normally.

- In this case, turn off the power of the TV 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.

Notes on Using Wired LAN

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

- When the TV 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 TV and the connected devices once and then re-turn on the power.

The TV 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 TV 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.

Bluetooth® wireless technology

CAUTION

The TV use the 2.4 GHz radio frequency ISM band (Bluetooth®). To avoid malfunctions or slow response caused by radio wave interference, keep the TV away from the devices such as other wireless LAN devices, other Bluetooth® devices, microwaves, mobile phones and the devices that use 2.4 GHz signal.

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

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 location and usage time.

Disposal

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

About Wireless LANs

Precautions on security when using wireless LAN products

- The advantage of a wireless LAN is that information can be exchanged between a PC or other such equipment and an access point using radio waves as long as you are within range for radio transmissions. On the other hand, because the radio waves can travel through obstacles (such as walls) and are available everywhere within a given range, problems of the type listed below may occur if security-related settings are not made.
  - A malicious third-party may intentionally intercept and display transmitted data including the content of e-mail and personal information such as your ID, password, and/or credit card numbers.
  - A malicious third-party may access your personal or corporate network without authorization and engage in the following types of behavior.

    Retrieve personal and/or secret information (information leak)

    Spread false information by impersonating a particular person (spoofing)

    Overwrite intercepted communications and issue false data (tampering)

    Spread harmful software such as a computer virus and crash your data and/or system (system crash)
- Since most wireless LAN adapters or access points are equipped with security features to take care of these problems, you can reduce the possibility of these problems occurring when using this product by making the appropriate security settings for the wireless LAN device.
- Some wireless LAN devices may not be set for security immediately after purchase. To decrease the possibility of occurrence of security problems, before using any wireless LAN devices, be absolutely sure to make all security-related settings according to the instructions given in the operation manuals supplied with them.
  Depending on the specifications of the wireless LAN, a malicious third-party may be able to break security settings by special means.
- Please contact Panasonic if you need help taking care of security settings or other such.
- If you cannot perform security settings you're your wireless LAN by yourself, please contact the Panasonic Support Centre.
- Panasonic asks customers to thoroughly understand the risk of using this product without making security settings, and recommends that the customer make security settings at their own discretion and responsibility.

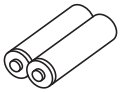
Accessories

Accessories Supply

Check that you have the accessories and items shown.

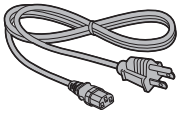
Remote Control Transmitter × 1
- DPVF3279ZA/X1

Batteries for the Remote Control Transmitter × 2
(AA/R6/LR6 type)

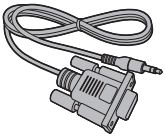


Clamper × 3
- DPVF3412ZA/X1

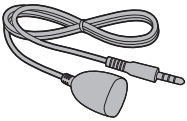
Power cord
(Approx. 2 m)
- DPVF3408ZA/X1



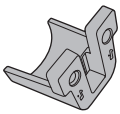
RS232C Cable (Approx. 1 m) × 1
- DPVF4637ZA/X1



IR Sensor × 1
- DPVF3415ZA/X1

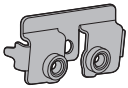


IR Sensor's Holder × 1
- DPVF3416ZA/X1



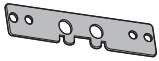
Screw (for IR Sensor's Holder) × 2
- DPVF3417ZA/X1

Plate (for IR Sensor's holder on 98 inch) × 1
- DPVF3672ZA/X1

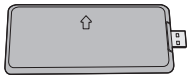


Screw (for IR Sensor's holder Plate on 98 inch) × 3
- DPVF4202ZA/X1

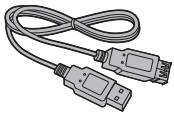
Plate (for IR Sensor's holder on 86 inch) × 1
- DPVF3524ZA/X1



Wi-Fi dongle (for 98/86 inch) × 1
- DPVF4638ZA/X1



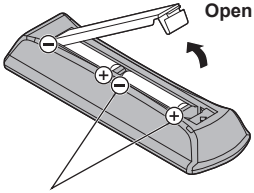
Extended Cable for Wi-Fi dongle (for 98/86 inch) × 1
- DPVF3414ZA/X1



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.

AA/R6/LR6 type

Insert batteries and close the battery cover.

(Insert starting from the ⊖ side.)

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.

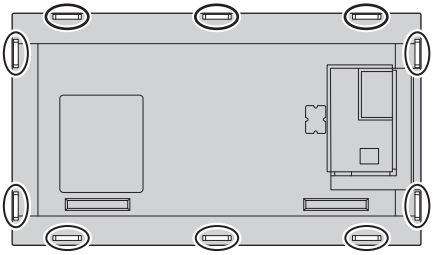
Cautions when moving

98-inch model | 86-inch model | 75-inch model | 65-inch model

The TV has handles for carrying. Hold them when moving.

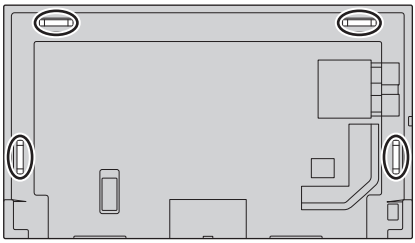
98-inch model | 86-inch model

: Handle

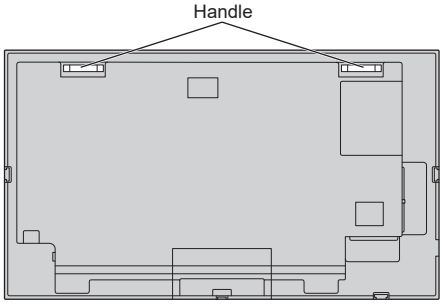


75-inch model

: Handle



65-inch model



Note

- 98-inch model 86-inch model 75-inch model 65-inch model:

  Do not hold parts other than the handles.
- The following number of people are required to carry this unit.

  98-inch model 86-inch model 75-inch model:
  4 or more

  65-inch model 55-inch model 50-inch model 43-inch model:
  2 or more

  If this is not observed, the unit may drop, resulting in injury.
- When carrying the unit, keep the liquid crystal panel upright.

  Carrying the unit with the surface of the liquid crystal panel facing up or down may cause deformation of the panel, or internal damage.
- Do not hold the upper, lower, right and left frames or the corners of the unit. Do not hold the front surface of the liquid crystal panel. Also, do not hit such parts.

  Doing so may damage the liquid crystal panel.

  Also, the panel may crack, resulting in injury.

Fixing the external IR Sensor

65-inch model 55-inch model 50-inch model 43-inch model

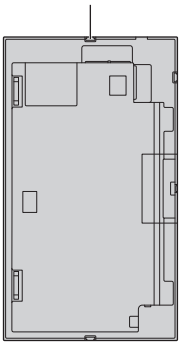
The IR sensor is built in the TV.

If the response of the built-in IR sensor is poor when operating the remote control transmitter, it is possible to improve the response of the remote control transmitter by attaching the included external IR sensor to the TV.

Landscape

The position for fixing the external IR Sensor

Portrait

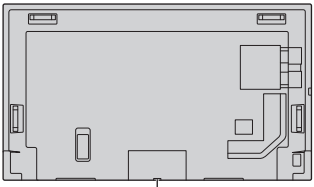


98-inch model | 86-inch model | 75-inch model

The IR sensor is not built in the TV.

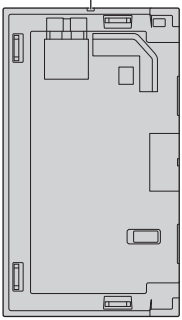
When operate the remote control transmitter, it is needed to fix the external IR sensor.

Landscape



The position for fixing the external IR Sensor

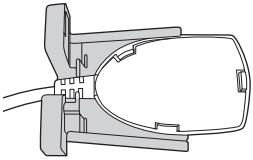
Portrait



How to fixing the external IR sensor

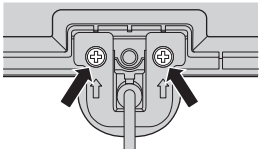
75-inch model | 65-inch model | 55-inch model | 50-inch model | 43-inch model

1 Fix the sensor to the holder.



2 Tighten two screws which are included in accessory bag.

Back view

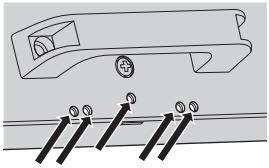


3 Connect the sensor cable to the terminal of IR-IN.

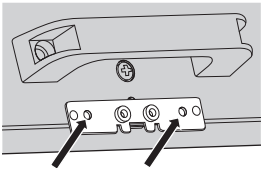
86-inch model

1 Remove the five screws on TV.

Back view

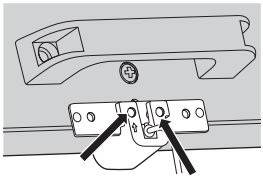


2 Tighten two screws (in the five screws) to plate.

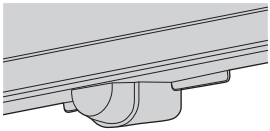


3 Fix the sensor to holder.

4 Tighten two screws (in the five screws) to holder.
(No needed to use one screw in five screws)



Front view

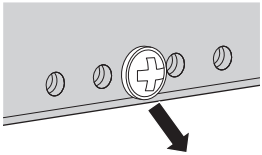


5 Connect the sensor cable to the terminal of IR-IN.

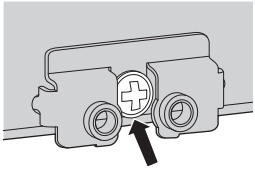
98-inch model

1 Remove the screw, and do not use.

Back view

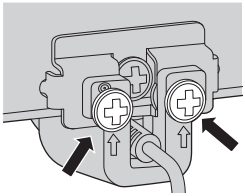


2 Tighten one screw which is included in accessory bag to plate.

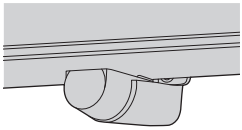


3 Fix the sensor to holder.

4 Tighten two screws which are included in accessory bag to holder.



Front view

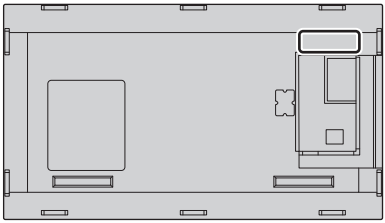


5 Connect the sensor cable to the terminal of IR-IN.

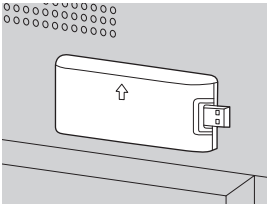
Fixing the Wi-Fi Dongle 98-inch model 86-inch model

When fixing the Wi-Fi Dongle, follow the steps below.

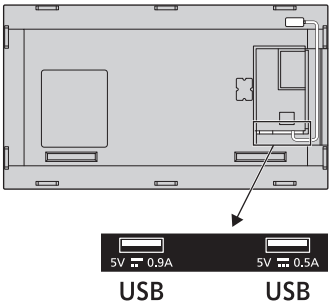
1 Peel off the release paper of velcro tape.



2 Fix the Wi-Fi Dongle on the rear cover.



3 Connect the extended cable to Wi-Fi Dongle and either USB terminal.

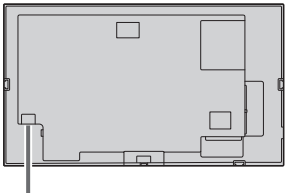


Connections

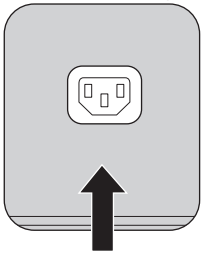
Cautions for power cord

86-inch model | 75-inch model | 65-inch model | 55-inch model | 50-inch model | 43-inch model

Back of the unit



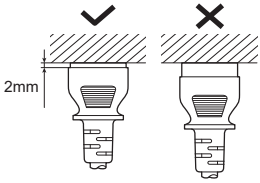
Power cord fixing



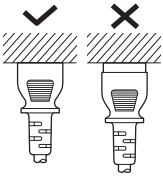
Power cord (supplied)

Plug the connector into the TV unit.

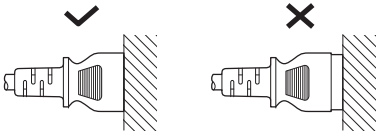
86-inch model



75-inch model



65-inch model | 55-inch model | 50-inch model | 43-inch model

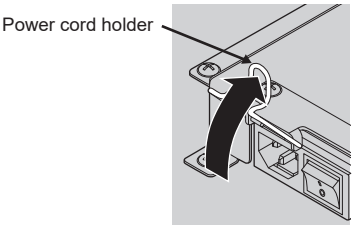


Note

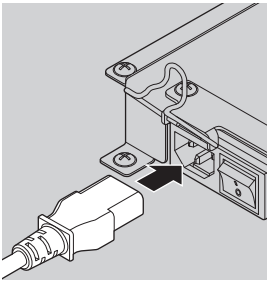
- When disconnecting the power cord, be absolutely sure to disconnect the power cord plug at the socket outlet first.
- The supplied power cord is for this unit exclusive use. Do not use this for other purposes.

98-inch model

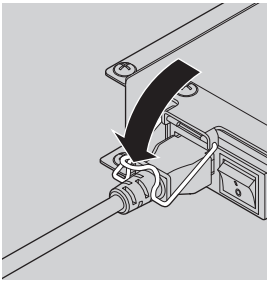
1 Confirm that the power cord holder is raised so that the power cord can be inserted.



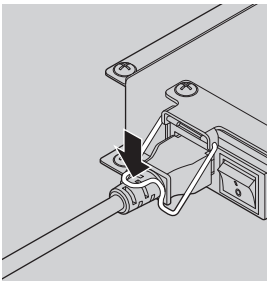
2 Then insert the connector completely in the correct direction.



3 Lower the power cord holder.

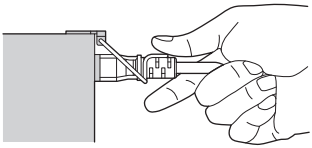


4 Press down the power cord holder until the end of the power cord holder snaps onto the power cord to secure the power cord.



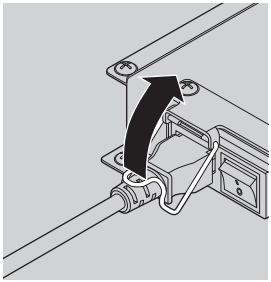
Note

- When pressing down and snapping the power cord holder onto the power cord, hold the power cord from the opposite side to avoid excessive force to be applied on the <AC IN> terminal.

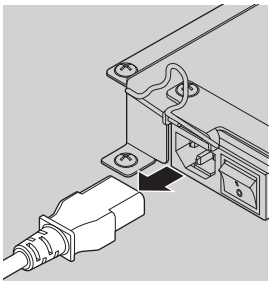


How to unplug the power cord

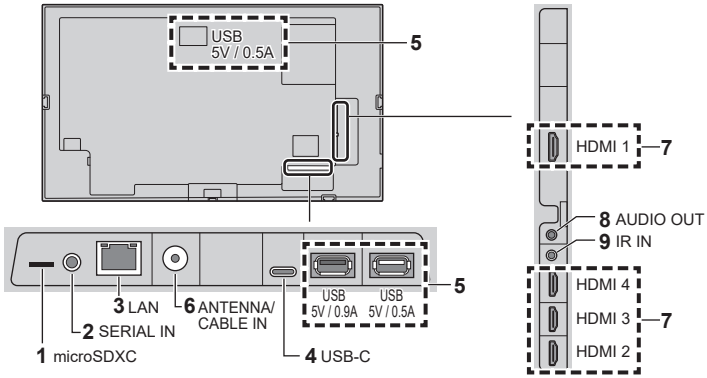
1 Raise the power cord holder fixing the power cord upward.

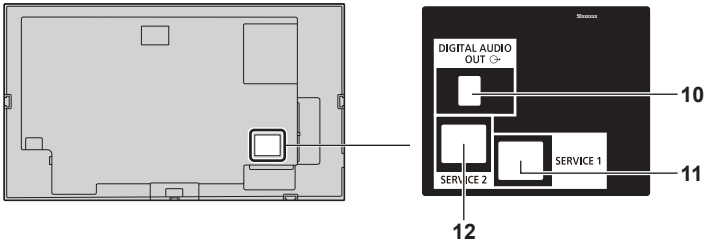


2 While holding the Power cord holder, pull out the power cord from the <AC IN> terminal of the TV.



Video equipment connection





1 **microSDXC:** microSD Card Terminal

Connect the microSD card.

2 **SERIAL IN:** SERIAL Input Terminal

Control the TV by connecting to PC using accessory RS-232C cable.

3 **LAN:** LAN Terminal

Control the TV by connecting to Network.

4 **USB-C:** USB-C Terminal

Connect a PC or video equipment that has a USB-C terminal. Also, this can be used to supply power of up to 15 W (5 V/max 3.0 A) to an external device when the picture is displayed.

5 **USB:** USB Terminal

Connect the USB memory to use “USB media player” or “USB Auto Playback”. Also, this can be used to supply power of up to 5 V/max 0.9 A or 0.5 A to an external device when the picture is displayed.

6 **ANTENNA/CABLE IN:** Antenna Terminal

Connect to antenna cable

7 **HDMI IN 1, HDMI IN 2, HDMI IN 3, HDMI IN 4:** HDMI Input Terminal (4 systems)

Connect to video equipment with HDMI output.

Also, the HDMI IN 1 terminal outputs audio by connecting it to an ARC compatible device.

8 **AUDIO OUT:** Analogue Audio Output Terminal

Connect to audio equipment with analogue audio input terminal.

9 **IR IN:** Infrared Signal Input Terminal

Control the TV by remote controller using accessory IR Sensor.

10 **DIGITAL AUDIO OUT:** Digital Audio Output Terminal

Connect to audio equipment with digital audio input terminal.

11 **SERVICE 1:** Terminal for Service

Don’t use except service personnel.

12 **SERVICE 2:** Terminal for Service

Don’t use except service personnel.

Before connecting

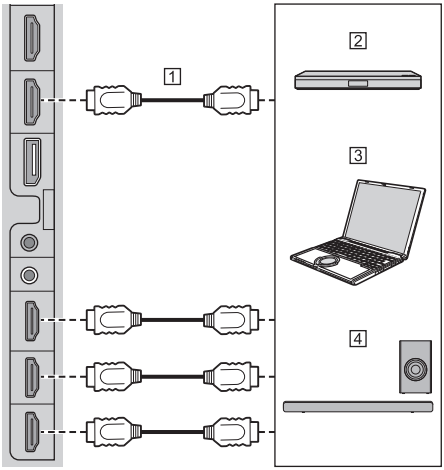
- Before connecting cables, carefully read the operating instructions for the external device to be connected.
- Turn off the power of all devices before connecting cables.
- Take note of the following points before connecting the cables. Failure to do so may result in malfunctions.
  - When connecting 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, 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 “Preset Signals” (see page 91) for the types of video signals that can be displayed with the unit.

HDMI IN 1, HDMI IN 2, HDMI IN 3 and HDMI IN 4 terminals connection

Note

- Video equipment and HDMI cable shown are not supplied with this unit.
- Connect the equipment complying with the HDMI standard.
- Some HDMI equipment may not be able to display picture.
- This TV does not support VIERA LINK.
- Use an HDMI High Speed cable complying with the HDMI standards.
  Note when inputting 4K video signals exceeding the transmission speed supported by an HDMI High Speed cable, use an HDMI cable supporting 18 Gbps high-speed transmission such as the one certified as a Premium HDMI cable.

  When inputting video signals exceeding the transmission speed supported by the HDMI cable you are using, malfunction may occur such as interrupted pictures and no display on the screen.



1 HDMI cable (commercially available)

2 Blu-ray disc player

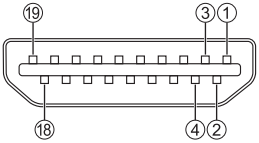
3 PC

4 ARC audio device

Note

- Be sure to connect the ARC audio device to the HDMI IN 1 terminal.

Pin assignments and signal names for HDMI Terminal



Pin No.	Signal name
①	T.M.D.S Data2 +
②	T.M.D.S Data2 Shield
③	T.M.D.S Data2 -
④	T.M.D.S Data1 +
⑤	T.M.D.S Data1 Shield
⑥	T.M.D.S Data1 -
⑦	T.M.D.S Data0 +
⑧	T.M.D.S Data0 Shield
⑨	T.M.D.S Data0 -
⑩	T.M.D.S Clock +
⑪	T.M.D.S Clock Shield
⑫	T.M.D.S Clock -
⑬	CEC
⑭	NC (not connected)*
⑮	SCL
⑯	SDA
⑰	DDC/CEC Ground
⑱	+5V DC
⑲	Hot Plug Detect

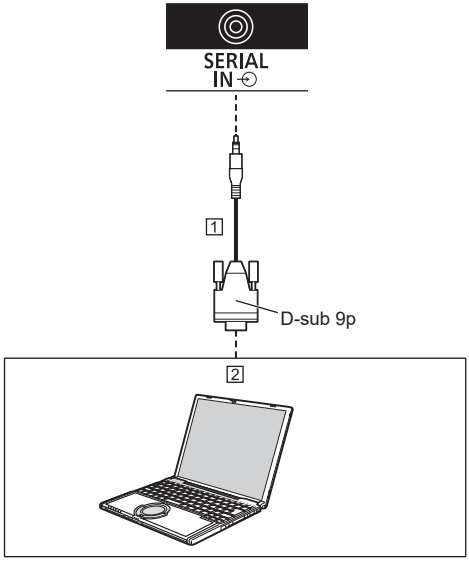
* Only the HDMI IN 1 terminal supports ARC (Audio Return Channel).

SERIAL IN terminal connection

The SERIAL terminal conforms to the RS-232C interface specification, so that the TV can be controlled by a computer which is connected to this terminal.

Note

- A PC is not supplied with this unit.



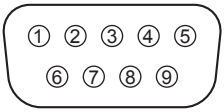
1 RS-232C cable (standard accessory)

2 PC

Note

- Use the supplied RS-232C communication cable for connecting the SERIAL port to a PC.

Pin assignments and signal names for SERIAL Terminal



Pin No.	Signal Name
①	NC (not connected)
②	RXD
③	TXD
④	NC (not connected)
⑤	GND (Ground)
⑥	NC (not connected)
⑦	NC (not connected)
⑧	NC (not connected)
⑨	NC (not connected)

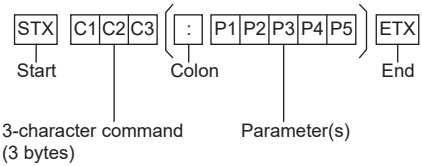
These signal names are those of computer specifications.

Communication parameters

Signal level: RS-232C compliant
Synchronization method: Asynchronous
Baud rate: 9 600 bps
Parity: None
Character length: 8 bits
Stop bit: 1 bit
Flow control: None

Basic format for control data

The transmission of control data from the computer starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. Add parameters as required according to control details.



Command

Command	Parameter	Control details
PON	None	Power ON
POF	None	Power OFF
AVL	∗∗∗	Volume 000 – 100
AMT	0	Audio MUTE OFF
	1	Audio MUTE ON
IMS	None	Input select (toggle)
	HM1	HDMI IN 1 input (HDMI1)
	HM2	HDMI IN 2 input (HDMI2)
	HM3	HDMI IN 3 input (HDMI3)
	HM4	HDMI IN 4 input (HDMI4)
	UC1	USB-C input (USB-C)
	WD1	Wireless Display input (Wireless Display)
	TV1	TV input
STV	CUP	TV Channel Up
	CDN	TV Channel Down
DAM	AUTO	Auto
	FULL	Full
	1609	16:9
	0403	4:3
	CINM	Cinema (Movie)
	NATV	No Scale Up

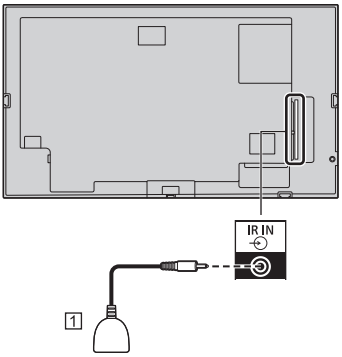
Note

- If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- If an incorrect command is sent by mistake, this unit will send an “ER401” command back to the computer.
- When sending a command which does not require parameter, a colon (:) is not needed.
- Consult your local Panasonic dealer for detail instructions on command usage.

  For more details, visit the following web site.
  https://docs.connect.panasonic.com/prodisplays

IR IN terminal connection

Connect the IR sensor (standard accessory).

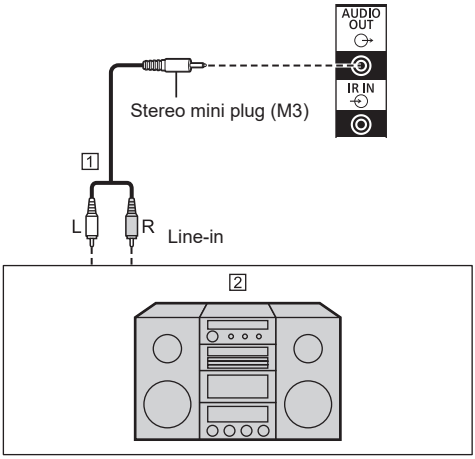


1 IR sensor (standard accessory)

AUDIO OUT terminal connection

Note

- Audio equipment and the cable shown are not supplied with this set.

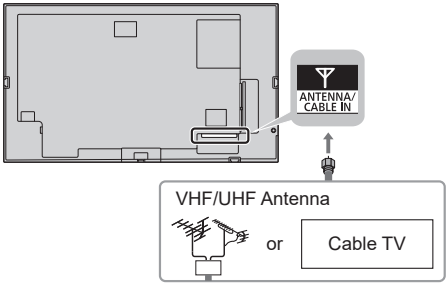


1 Stereo audio cable (commercially available)

2 Audio equipment

Antenna connection

Back of the TV



VHF/UHF Antenna

- ATSC (Advanced Television System Committee): Digital TV Standards include digital high-definition television (HDTV), standard-definition television (SDTV), data broadcasting, multi-channel surround sound audio and interactive television.

Cable

- You need to subscribe to a cable TV service to enjoy viewing their programming.
- You can enjoy high-definition programming by subscribing to a high-definition cable service.

Note

- This unit does not support radio services.

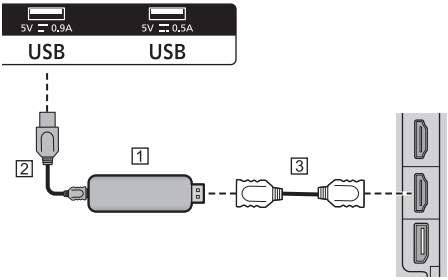
USB terminal connection

Connect the USB memory (commercially available) to use “USB media player” or “USB Auto Playback”. (see page 70, 88)

Also, power is supplied when a separately sold stick PC, etc. are connected.

Note

- A stick PC and connection cables are not supplied with this unit.
- If the power is turned off or the USB memory device is removed while accessing data in the USB memory device, the stored data may be destroyed. The access indicator of the USB memory device blinks during data access.
- The USB memory device can be connected or disconnected whether or not the TV is on.



1 Stick PC (commercially available)

2 USB cable (commercially available)

3 HDMI extension cable (commercially available)

When the picture is displayed, depending on the USB terminal, power of up to 5V/0.9A or 5V/0.5A can be supplied to an external device.

Note

- If the direct connection to this unit is not possible due to the size of a stick PC, etc. use a commercially sold extension cable.
- Depending on the type of a USB memory device, it may come in contact with the periphery such as a back cover, and cannot be attached. Use a USB memory device connectable to this unit.
- When connecting the USB memory device, confirm the orientation of the plug to prevent damage to the terminal.
- When removing the USB memory device, note the following.
  - When the access indicator of the connected USB memory device is blinking, it shows the TV is loading the data. Do not remove the USB memory device while blinking.
  - Depending on the USB memory device, the access indicator may remain blinking even when it is not being accessed, or the device is not equipped with an access indicator function, etc. In such cases, use [Safely Remove] to remove the USB memory device. (see page 48)
  - Do not frequently repeat connecting/disconnecting the USB memory device. Wait at least 5 seconds after connection, and then remove the USB memory device. Before reconnection, wait at least 5 seconds. A certain length of time is required so that the TV can recognise that the USB memory device is switched for connection or disconnection.
  - If the power of this unit is turned off or the USB memory device is removed accidentally while accessing data, the data may not be accessed next time the USB memory device is used.

    In such a case, turn the power of the main unit off and on.

USB-C terminal connection

Multiple protocols and power delivery up to 5V/3A are supported via USB-C receptacle on your TV.

USB Type-C features are compatible with the devices that meet the USB-Type-C-Specification.

4K video stream (if the source supports DisplayPort Alternate Mode), USB 3.0 data transmission and 5V/3A power delivery are supported through the USB-C connection that handle the plug orientation.

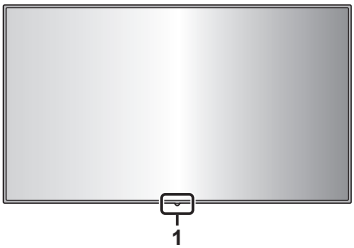
Note

- It is recommended to use Electronically Marked USB-C to USB-C cable for video stream over Type-C connection. Also e-marked USB-C to USB-A cable can be used for data transmission.

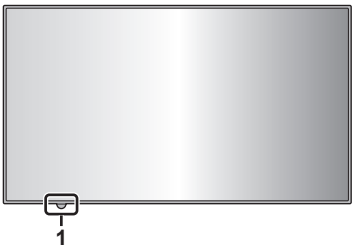
Identifying Controls

TV

98-inch model | 86-inch model | 75-inch model



65-inch model | 55-inch model | 50-inch model | 43-inch model



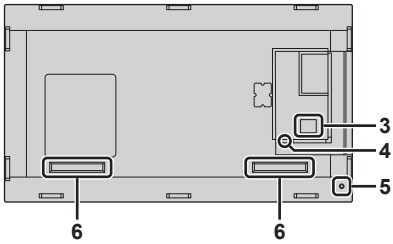
1 External IR sensor (see page 16)

When the power of the unit is ON (Main power switch : ON)

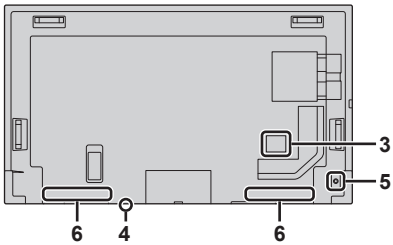
LED Status	Status of the TV
Power LED lit Green	Power on
Power LED lit Red	Power off (Standby mode)
Power LED lit Red & Green	Starting Up

When the power of the unit is OFF (Main power switch: OFF): No light

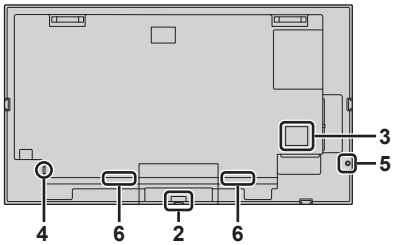
98-inch model | 86-inch model



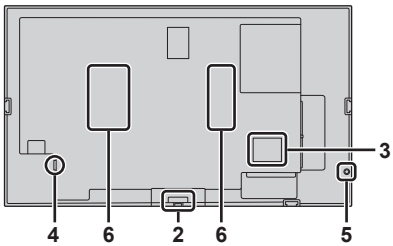
75-inch model



65-inch model | 55-inch model



50-inch model | 43-inch model



2 Internal IR sensor (65/55/50/43 inch model)

When the power of the unit is ON (Main power switch: ON)

LED Status	Status of the TV
Power LED lit Green	Power on
Power LED lit Red	Power off (Standby mode)
Power LED lit Red & Green	Starting Up

When the power of the unit is OFF (Main power switch: OFF): No light

3 External input / output terminal

Connects to video equipment, PC, etc. (see page 22)

4 Main power switch

Turns OFF or ON (❙) the main power.

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

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

5 Joystick

When the HOME menu is displayed (*1) , or any picture is displayed

To turn on or off the TV: Press center of the Joystick in and hold it down for a few seconds, the TV will turn on or off.

With cursor display (*1 *2)

Move the cursor of menu: Press right / left / up / down key of the Joystick.

Select the menu item: Single press center of the Joystick.

Without cursor display

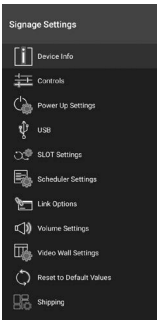
Show display settings: Single press center of the Joystick.

Adjust volume (during audio output only): Press right / left key of the Joystick.

Show signage settings: Press up / down key of the Joystick.

*1 HOME menu

*2 Example of menu



Note

- The Joystick may not work in some situations and with some used applications. Use the remote control transmitter in these cases.

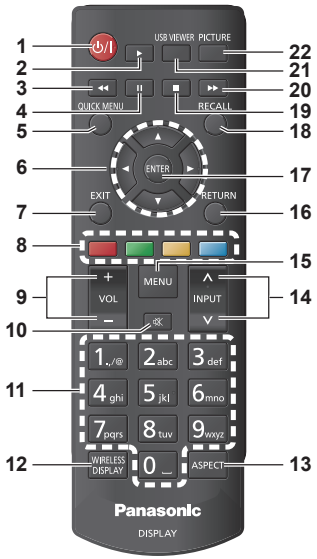
6 Built-in speakers

Sound is output backward.

Note

- When AUDIO OUT jack is connected, the sound does not output from the built-in speakers.

Remote Control Transmitter



1 Standby (ON/OFF)
- Switches On / Off the TV.

2 Play
- Starts to play selected media.

3 Rapid reverse
- Moves frames backwards in media such as movies.

4 Pause
- Pauses the media being played.

5 QUICK MENU (HOME)
- Displays HOME menu.

6 Directional buttons
- Used to operate the menu screens, content etc.
- Use the up and down keys to tune channels during TV input.

7 EXIT
- Closes and exits from displayed menus.

8 Coloured buttons
- Not used on this unit.

9 VOL + / -
- Increases or decreases the volume.

10 MUTE
- Completely turns off the volume of the TV.

11 Numeric buttons
- Used to enter IP address, etc.

Note
- Entry of other than numerals is not available on this unit.

12 WIRELESS DISPLAY
- Opens the wireless display connection screen.

13 ASPECT
- Changes the aspect ratio of the screen.

14 INPUT
- Switches input to display on the screen.

15 MENU
- Displays the main menu.

16 RETURN
- Returns to previous screen.

17 ENTER
- Confirms user selections.

18 RECALL
- Displays information about on-screen content.

19 Stop
- Stops the media being played.

20 Rapid advance
- Moves frames forward in media such as movies.

21 USB VIEWER
- Not used on this unit.

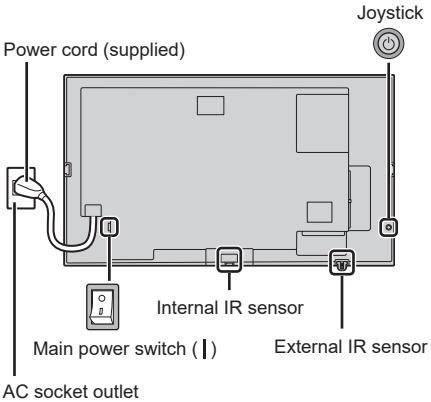
22 PICTURE
- Cycles between picture modes.

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

  (Example: <INPUT>.)
- No.2, 3, 4, 19, 20 keys: These keys are used to operate the USB viewer or HDMI CEC.

Basic Controls

Example of 55-inch model (see page 28)



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

Note

- 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 power cord plug to the TV.

(see page 20)

2 Connect the plug to the socket outlet.

Note

- Main plug types vary between countries. The power plug shown at left may, therefore, not be the type fitted to your set.
- When disconnecting the power cord, be absolutely sure to disconnect the power 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 waiting enough time. Alternatively, set [Display Settings] → [Signage Settings] → [Power Up Settings] → [Power Mode] to [Eco], then turn off the power with the remote control, RS-232C control, or LAN control, and finally, disconnect the power plug.

3 Turn ON (|) the Main power switch on the unit.

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

To turn the power on

- When the Main power switch is ON (|) (Power Indicator - red), 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 (|) (Power Indicator - red), press Standby (ON/OFF) button, then the power will be turned off.
- Power Indicator: Red (standby)

Note

- After the power plug is disconnected, the power indicator may remain lit for a while. This is not a malfunction.
- The TV turns off if the Main power switch is turned OFF on the unit while the unit is ON (picture is displayed) or OFF (standby state).

Initial Setup

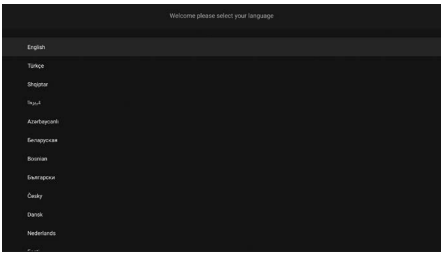
When turned on for the first time, initial setup should be performed. Follow the on-screen instructions to set up your TV.

The installation wizard will guide you through the setup process. Use the directional buttons and the ENTER button on the remote to select, set, confirm and proceed. Use <RETURN> to return to the previous step and change the selected content.

When you don't need to set it, or if you want to set it later, you need to highlight [Skip], [Next], etc. on the screen and press <ENTER> to continue.

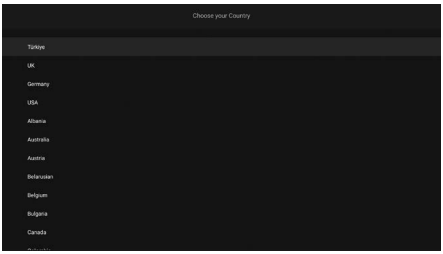
1 Language

The language selection options will be listed on the screen. Select the desired language from the list and press <ENTER> to continue.



2 Country

In the next step select your country from the list and press <ENTER> to continue.

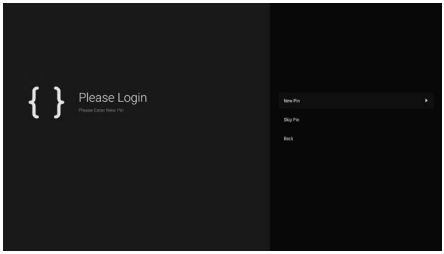


3 Login

You will be asked to define a PIN at this point. Enter a PIN twice for confirmation using the virtual keyboard and then highlight [LOGIN] and press <ENTER>. You have to enter this PIN if you are asked to enter a PIN for any menu operation later. To skip this step highlight [Skip Pin] and press <ENTER>.

Note

- The default PIN is [0000].



4 Name and Password

The [Set Username and Password] setting menu will be displayed next. Please press the password policy to check the contents and make each setting.
After the settings are completed, press [Apply] to save.

[Password Policy]

The points to note about password setting for this item are displayed in a separate window.

[Enter Username]

The keyboard for entering the username is displayed. Enter the username.

[Enter New Password]

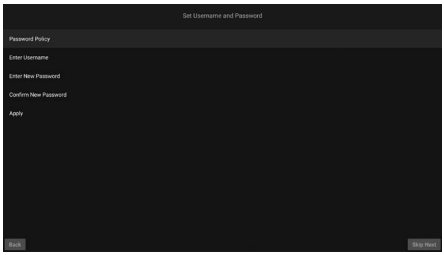
The keyboard for entering the password is displayed. Enter the password.

[Confirm New Password]

The keyboard for entering the password is displayed. Enter the same password again.

[Apply]

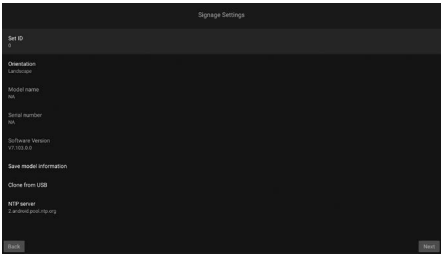
The username and password set above are saved in the display itself.



5 Signage Settings

The [Signage Settings] menu will be displayed next. The [Set ID], [Orientation], and [NTP server] options can be configured using this menu. The [Model name], [Serial number], and [Software Version] options are for information only. You can save the model information data of the TV to a connected USB storage device using the [Save model information] option.
You can also copy database files from a connected USB storage device to the TV using the [Clone from USB] option. Refer to the “Signage Settings” section for more information on the options of this menu.

After the settings are completed, highlight [Next] and press <ENTER> to continue.

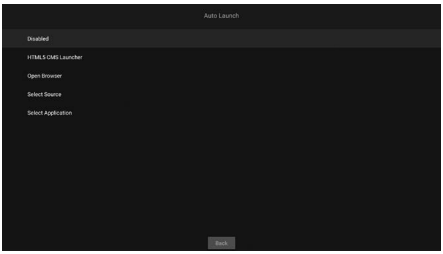


6 Auto Launch

In this step you can set your Auto Launch preference for the TV. [Disabled], [HTML5 CMS Launcher], [Open Browser], [Select Source], and [Select Application] options will be available. Set to [Disabled] if you don’t want to use this functionality.

Note

- For the [Select Source] and [Select Application] options you will have to set the available source or application of your choice. You can change your preference any time later using the [Auto Launch] option in the [Display Settings] → [Signage Settings] → [Power Up Settings] menu. (see page 46)

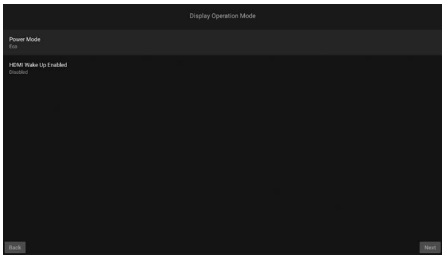


7 Display Operation Mode

The [Display Operation Mode] selection screen will be displayed next.
For normal operation set the [Power Mode] to [Reactive]. Set to [Eco] for an energy-efficient operation. In this mode your TV’s settings will be configured to reduce the energy consumption. Note that, the SERIAL (RS-232C)/LAN Commands will not work if the TV is in Eco mode.
When you turn the power ON/OFF by detecting HDMI input 5 V signal, you need to enable the [HDMI Wake Up Enabled] setting.
Highlight [Next] and press <ENTER> to continue.

Note

- Power consumption in standby mode increases when this is set to [Reactive].

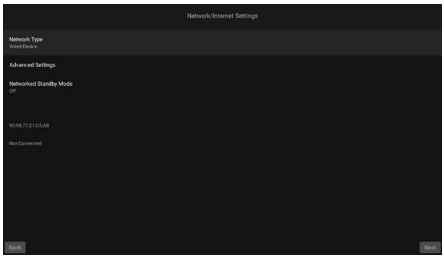


8 Network/Internet Settings

The menu for a variety of network settings is displayed. Make settings to suit the installation environment.

If you want your TV to consume less power in standby mode, you can disable the [Networked Standby Mode] option by setting it to [Off].

When you want to set the wired LAN manually, you need to highlight [Advanced Settings], etc. on the screen and press <ENTER> and make each setting. After the settings are completed highlight [Next] and press <ENTER> to continue.



Note

- When the initial setup is completed Home Screen will be displayed if the [Auto Launch] is set to [Disabled].
- You can go to the [Display Settings] → [Signage Settings] → [Power Up Settings] menu to change the Auto Launch setting.
- You can repeat the initial setup process and reset the TV's settings to the factory defaults anytime using the [Shipping] menu.
- You can access the [Display Settings] menu by pressing the MENU button on the remote.

■ To redo the settings or return to the factory setting

Select [Shipping] in the [Signage Settings] menu and press <ENTER>. You will be asked to enter the PIN you set initially. When you enter the correct PIN, a message is displayed asking if you want to cancel all of the settings and reset the unit. Select [Yes] and press <ENTER>.

Note

- Do not turn off the power during initialization.
- Consult your dealer for help if you have forgotten the PIN.
- The initial setting for the PIN is [0000].

Home Screen

The home screen is displayed after powering up.

Note

- After the initial settings, if auto power up is enabled, the set screen is shown on the TV.
- You can go to the [Display Settings] → [Signage Settings] → [Power Up Settings] menu to change the auto power up settings.

You can operate the application with ◀▶. Press <QUICK MENU> to return to the home screen. Press <RETURN> to return to the previous menu screen or step.
Press <MENU> on the remote control transmitter to display the display options menu.

The following applications are available in the home screen.

[Source]	Displays a list of inputs.
[Display Settings]	Displays the display settings menu. (see page 39)
[Applications]	Displays all the applications that have been installed on the TV.
[Media Player]	Starts the Media Player app.
[HTML5 CMS Launcher]	Displays the URL settings and the set URL.

Operations for Basic Function

Selecting the input signal

Select the signals input to the unit.

Press <INPUT> on the remote control transmitter.

Switches input every time the buttons are pressed.

[HDMI 1] ↔ [HDMI 2] ↔ [HDMI 3] ↔ [HDMI 4] ↔ [USB-C] ↔ [Wireless Display] ↔ [TV]

[HDMI 1]	HDMI IN 1 terminal, HDMI input
[HDMI 2]	HDMI IN 2 terminal, HDMI input
[HDMI 3]	HDMI IN 3 terminal, HDMI input
[HDMI 4]	HDMI IN 4 terminal, HDMI input
[USB-C]	USB-C terminal, USB-C input
[Wireless Display]	Wireless Display input
[TV]	Antenna terminal

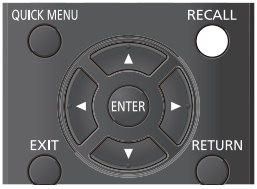
Note

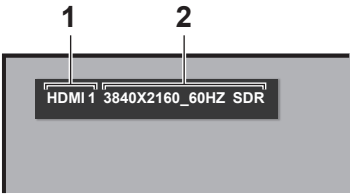
- A list is displayed when [Source] is selected in the home screen.
  Select with the directional buttons and press <ENTER> to change the input.

To check the input signal, picture mode, etc.

It is possible to check the setting status of input label, picture mode, etc.

Press <RECALL>.



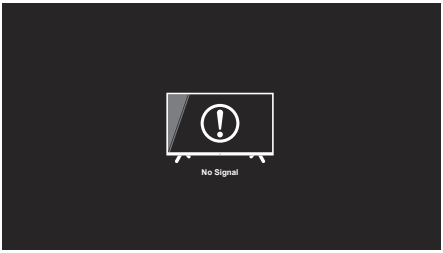


Current setting status will be displayed.

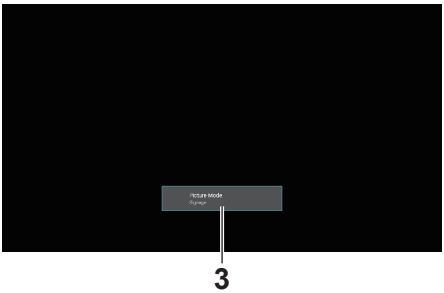
1 Input label

2 Signal data

The display is as follows when there is no signal:



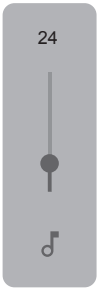
Press <PICTURE>.



3 Picture mode

Volume Adjustment

Press <VOL +> <VOL ->> to adjust the volume.



Sound mute On / Off

It is useful when you want to mute the sound temporarily, for example, when answering the phone or door.

Press <MUTE>.

Enlarging the Screen to Suit the Images (Screen Mode)

The mode switches each time you press <ASPECT>.

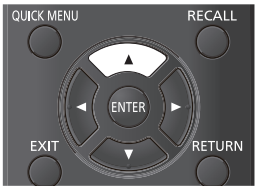
[16:9] → [Movie] → [4:3] → [Auto] → [No Scale Up] → [Full]

(see page 40)

Channel Up/Down Tuning

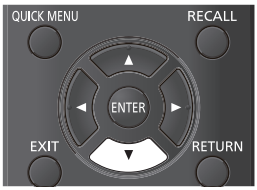
Channel up tuning is in the order registered in the channel list.

Press the up key.



Channel down tuning is in the order registered in the channel list.

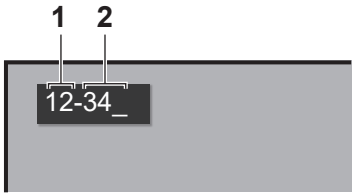
Press the down key.



Direct Channel Tuning

Select a channel by directly entering the channel number (major number/minor number) registered in the channel list.

Example of how a channel number being entered is displayed:



1 Major number

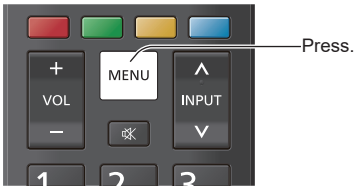
2 Minor number

Numeric buttons	Enter the channel number (major/minor number) directly.
Left key	When directly entering a channel number, switch the setting of major and minor channel numbers. **Note** • If the focus is already on the major number, this key operation is ignored. • If the focus is on the minor number, focus moves to the major number.
Right key	When directly entering a channel number, switch the setting of major and minor channel numbers. **Note** • If the focus is already on the minor number, this key operation is ignored. • If the focus is on the major number, focus moves to the minor number.
<ENTER>	Selects a channel according to the entered channel number (major/minor number).
<RETURN>	Selects a channel according to the entered channel number (major/minor number).
<EXIT>	Clears the channel number being entered and cancels direct channel selection. **Note** • The entered channel number (major/minor number) is discarded and a channel is not selected.

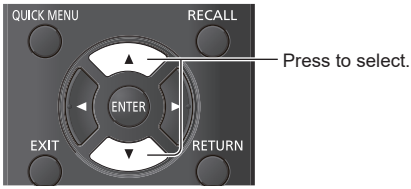
On-Screen Menu Displays

1 Display the menu screen.

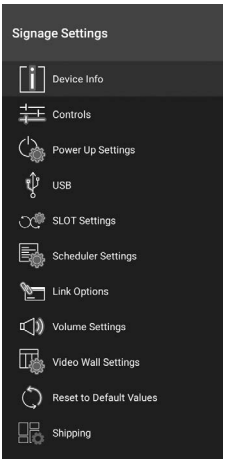
Do the operations on the remote control transmitter.



2 Select the item.

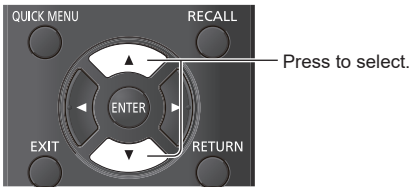


(Example: [Signage Settings] menu)



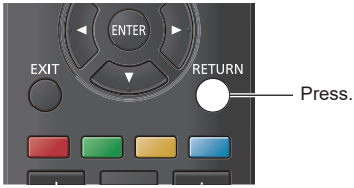
To display the submenu, press <ENTER>.

3 Set.

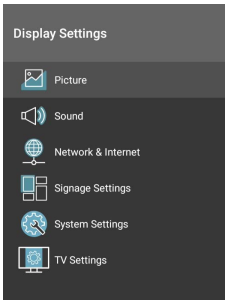


4 Exit from the menu.

Press <RETURN> to return to the previous screen.
Alternatively, press <EXIT> to exit the settings.



Menu list



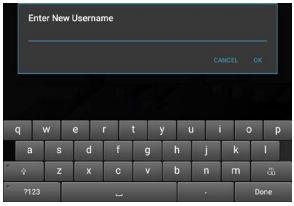
Note

- Depending on the menu displayed, video and audio being output may stop.
- Menu that cannot be adjusted is greyed out or hidden.
- Adjustable menu changes depending on signal, input and menu setting.

Entering characters

Depending on the setting, character entry is necessary.

Select characters on the keyboard displayed on the screen, then press <ENTER> to enter.



⇧	Switches between lower case and upper case alphabet characters.
ALT	Switches between the numeral page and symbol page.
?123	Switches between alphabet and numerals.

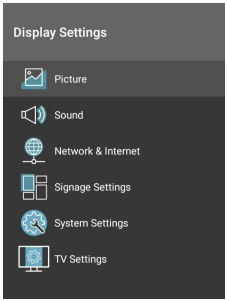
To confirm the entry, select [Done] at the bottom right of the screen and press <ENTER>.

Note

- Depending on the screen, the button at the bottom right may appear as [Next] or [↵]. If entry cannot be confirmed, it can be confirmed by pressing <RETURN>.

Display Settings

1 Press <MENU> to display the [Display Settings] menu.



2 Select the item to adjust with ▲▼.

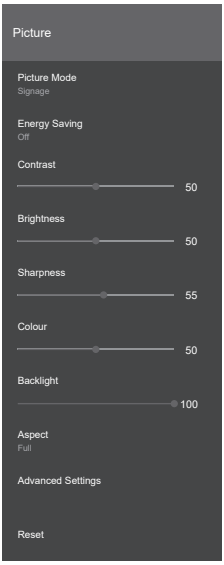
3 Set with ◀▶.

4 Press <EXIT> to exit the settings.

■ To return to the previous screen

Press <RETURN>.

[Picture]



■ [Picture Mode]

You can change the picture mode to suit your preference or requirements. Picture mode can be set to one of these options:

[Signage]:

Images suited to use as signage.

[Natural]:

Images with an emphasis on reproducing colors to realize natural coloring.

[Text]:

Images suited to displaying text.

[Game]:

Images suited to gaming environments.

[Sports]:

Images suited to viewing sport.

Note

- The mode is fixed when HDR signals are being input and cannot be changed.

■ [Energy Saving]

This unit has been designed to be environmentally friendly. You can adjust the power consumption by setting to [Eco] in this menu.

[Off]:	The functionality to adjust power consumption does not work.
[Eco]:	The functionality to adjust power consumption works.

Note

- When set to [Eco], depending on the type of picture mode, the items that are available for selection may differ.

■ [Contrast]

Adjusts the light and dark values on the screen.

0 to 100

■ [Brightness]

Adjusts the black level of the screen.

0 to 100

■ [Sharpness]

Sets the sharpness value for the objects displayed on the screen.

0 to 100

■ [Colour]

Sets the colour value, adjusting the colours.

0 to 100

■ [Backlight]

Adjusts the backlight value.

0 to 100

Note

- Available when [Energy Saving] is set to [Off].

■ [Aspect]

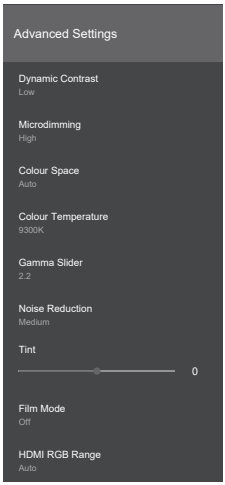
Set to suit the images.

[Full]:	Displays the image across the whole screen.
[16:9]:	Displays with the 16:9 aspect ratio.
[Movie]:	Displays with the aspect ratio used in movie theaters.
[4:3]:	Displays with the 4:3 aspect ratio.
[Auto]:	Displays to suit the input signal.
[No Scale Up]:	Displays according to the resolution of the input signal.

Note

- When [Orientation] is set to [Portrait1] or [Portrait2], operation is as follows:
  - Each aspect ratio is displayed based on the center of the screen.
  - The screen size may be reduced with [No Scale Up].
  - It may not be possible to change the screen mode when playing back files on USB storage devices, etc.

■ [Advanced Settings]



[Dynamic Contrast]:

Automatically adjusts the contrast by determining the changes in the use of colors for images that constantly change, such as motion pictures.

[Off], [Low], [Medium], [High]

[Microdimming]:

Switches microdimming setting. Emphasizes contrast in some areas.

[Off], [Low], [Medium], [High]

[Colour Space]:

Switches color space setting.

[Auto]:	Displays according to the color space information of the input signal.
[Rgb]:	Displays as the “RGB” color space.
[Yuv]:	Displays as the “YUV” color space.

[Colour Temperature]:

Adjusts the tone of the color on the screen.

[10700K], [9300K], [6500K]

[Gamma Slider]:

Adjusts the balance of brightness and darkness.

1.7 to 2.7

[Noise Reduction]:

Reduces noise (roughness) in images.

[Off], [Low], [Medium], [High]

[Tint]:

Adjusts the shade of the color.

-25 to 25

[Film Mode]:

When set to [Auto], you get more natural images when viewing images shot for cinema, etc.

[Off], [Auto]

Note

- If the images seem unnatural when set to [Auto], try viewing when set to [Off].

[HDMI RGB Range]

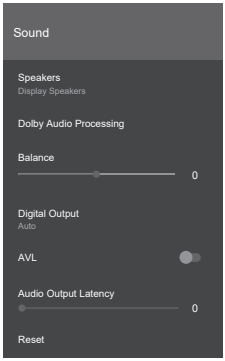
Adjusts the range of the RGB images input via HDMI.

[Auto]:	Sets the range automatically.
[Full]:	When the input signal is full range (0-255)
[Limit]:	When the input signal is video range (16-235)

■ [Reset]

Returns the video settings to the default factory settings.

[Sound]



■ [Speakers]

Selects the output for audio.

[Display Speakers]:

Output is from the TV’s speakers

[External Audio System]:

ARC (Audio Return Channel)

Note

- When using the AUDIO OUT terminal, audio is always output from the connected external equipment.
- When using the DIGITAL AUDIO OUT terminal, audio is also output from the connected equipment even though the setting of speakers.

■ [Dolby Audio Processing]

Sets the Dolby Audio function for speaker output.

[Sound Mode]:

Sets the audio mode.

[Smart], [Music], [Movie], [News]

■ [Balance]

Adjusts whether the sound comes from the left or right speaker.

-50 to 50

■ [Digital Output]

Sets the type of digital audio output.

[PCM], [Bypass], [Auto]

Note

- When [Auto] is selected, depending on the connected device, sound may not be output. If this occurs, switch to [PCM] or [Bypass].

■ [AVL]

If the audio signal fluctuates drastically, AVL levels the output from the speakers.

■ [Audio Output Latency]

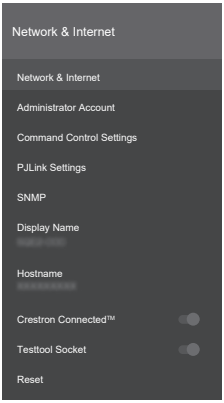
Adjusts the audio output delay amount.

0 to 100

■ [Reset]

Initializes the settings.

[Network & Internet]



■ [Network & Internet]

[Wi-Fi]:

Sets “Enabled”/“Disabled” for Wi-Fi.

Note

- It may not be possible to connect the Wireless Display if you change the setting in [Wi-Fi]. If this occurs, turn the Main power switch off, then turn it on again.

[Available networks]:

Select the network to connect to from the Wi-Fi access points found.

[Add new network]:

You can manually make the settings to connect to a Wi-Fi access point.

[Proxy settings]:

Sets the proxy server used for network connections.

[Networked Standby Mode (WLAN)]:

Sets “Enabled”/“Disabled” for Wireless Networked Standby Mode.

[Internet Speed Test]:

Starts a test of the transmission speed of the connected network. When it finishes, the results are displayed on the screen.

[Ethernet]:

Sets “Enabled”/“Disabled” for Ethernet.

[IP settings]:

Sets the IP address used to connect to the Ethernet.

■ [Administrator Account]

Sets the administrator account.

[Password Policy]:

The points to note about password setting for this item are displayed.

[Current Username]:

Enter the current username.

[Enter Current Password]:

Enter the current password.

[Enter New Username]:

Enter the new username.

[Enter New Password]:

Enter the new password.

[Confirm New Password]:

Enter the same password entered for the new password.

[Apply]:

Applies the username and password set above.

Note

- With software versions V7.183.3.0 or later, it is necessary to set up an administrator account before using applications and functions that use the network. This is relevant for the following applications and functions, for example:
  - HTML5 CMS Launcher
  - System update
  - Vewd Browser
  - Content Management Software
  - Automatic date & time
  - Wireless Display

■ [Command Control Settings]

[Command Control]:

Enables/disables the functionality for controlling this unit with the same commands as serial controls, over a network.

[On]:	Enables command control via the network.
[Off]:	Disables command control via the network.

[Command Port]:

Sets the port number for command control over a network.
The available range is between 1024 and 65535.

[Command Protect]:

Sets the connection authentication used for command control.
When changing the setting to “Off”, enter the username and password set for the administrator account.

On software versions before V7.225.0.0

“On”:

Connects to the unit in protected mode. Encrypted communications using MD5 hash algorithms are used for connection verification, using the username and password of the administrator account.

“Off”:

Connects to the unit in unprotected mode. No connection authentication is performed.

On software versions V7.225.0.0 or later

“On (SHA-256)”:

Connects to the unit in protected mode. Encrypted communications using SHA-256 hash algorithms are used for connection verification, using the username and password of the administrator account.

“On (MD5)”:

Connects to the unit in protected mode. Encrypted communications using MD5 hash algorithms are used for connection verification, using the username and password of the administrator account.

“Off”:

Connects to the unit in unprotected mode. No connection authentication is performed.

■ [PJLink Settings]

[PJLink Control]:

Specifies the PJLink communication settings.

[On]: Enables PJLink control.
[Off]: Disables PJLink control.

[PJLink Password]:

Set PJLink password.

[PJLink Notification]:

Set this item when using the PJLink notification.

[On]: Enables the notification.
[Off]: Disables the notification.

[Notified IP Address 1 / 2]:

Set the IP address of the PC where the status of this unit is notified.

■ [SNMP]

Sets the various items for SNMP. SNMP (Simple Network Management Protocol) is a protocol to manage devices connected to the network.
If the SNMP manager is used for connection, the information of the target device can be obtained.

[SNMP]:

Sets whether to enable or disable SNMP.

[On], [Off]

[SNMP Username]:

Enter the user name of SNMPv3.

[Security Level]:

Select the security level for SNMPv3.

[Authentication Protocol]:

Select the authentication method for SNMPv3 from “SHA1” and “MD5”.

[Authentication Password]:

Set the authentication password of SNMPv3.

[Privacy Protocol]:

Select the encryption method for SNMPv3 from AES and DES.

[Privacy Password]:

Set the encryption password of SNMPv3.

■ [Display Name]

The name of the TV that is shown on the network can be changed.

■ [Hostname]

Change the host name of the unit.

■ [Crestron Connected™]

When this function is set to [On], the unit can be monitored or controlled via the network using equipment and application software of Crestron Electronics, Inc.

This unit supports the following application software from Crestron Electronics, Inc.

- Crestron Fusion

Crestron Connected is a function to connect to a system developed by Crestron Electronics, Inc. which manages and controls multiple system devices connected to the network.

- For details of Crestron Connected, refer to the Crestron Electronics, Inc. website. (Provided only in English)
  URL https://www.crestron.com/

■ [Testtool Socket]

Set to enable when controlling this unit from applications installed on this unit.

Note

- Set to enable when controlling this unit with Content Management Software.
- You will be asked to enter a PIN when changing the setting of this function. If the wrong PIN is entered 5 times in succession, PIN entry is prohibited for 10 minutes.

■ [Reset]

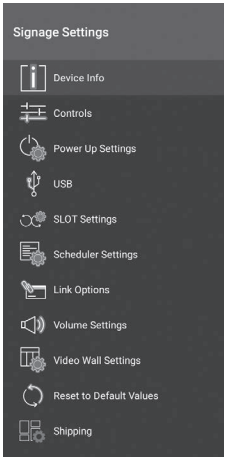
Returns the [Network & Internet] settings to the factory settings.

Note

- [Network & Internet] → [Network & Internet] is not reset.
- Refer also to Network Connections for details about the items in this menu.
- The power may need to be turned off and on again to enable the settings. When turning the power off and then on again, either make sure you leave enough time before disconnecting and connecting the power plug, or perform the operations on the remote control after setting [Display Settings] → [Signage Settings] → [Power Up Settings] → [Power Mode] to [Eco].

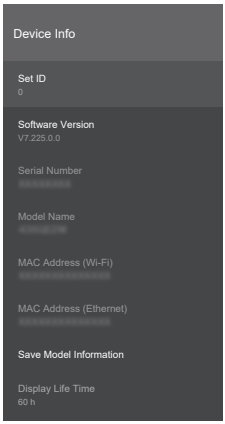
[Signage Settings]

Make a variety of signage settings.



■ [Device info]

Sets various information for the device.



[Set ID]:

Sets the device ID. You can select a value between “0” - “99” using the numeric buttons on the remote in order to identify your TV.

[Software Version]:

“Updating the Software” (see page 93)

[Serial Number]:

Displays serial number of the unit.

[Model Name]:

Displays model name of the unit.

[MAC address (Wi-Fi)]:

Displays the MAC address for the Wi-Fi of the unit.

[MAC address (Ethernet)]:

Displays the MAC address for the Ethernet of the unit.

[Save Model Information]:

Copies the model information data of the unit to a connected USB device.

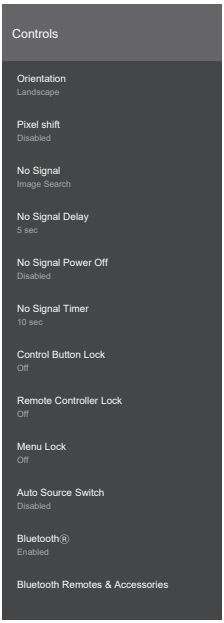
Note

- The file name appears as “serialnumber.txt”.
- The model information data consists of the model name and the software version number.
- Before saving to a USB device, it may be necessary to turn the unit off and then on again with the USB device connected.

[Display Life Time]:

Displays the unit’s operating time.

■ [Controls]



[Orientation]:

Sets the display orientation of images and OSDs.

[Landscape]:

Lock the display rotation to Landscape.

[Portrait1]:

Rotate 90º clockwise.

[Portrait2]:

Rotate 90º counter-clockwise.

Note

- When you select Wireless Display input, [Orientation] is set to [Landscape].
- Install the TV facing the correct way when using the portrait orientation. (see page 8)

[Pixel shift]:

Displayed images are shifted automatically so that images do not remain on the LCD panel. When set to [Enabled], the images are displayed and after certain intervals the images are shifted.

[No Signal]:

Sets the behavior of the unit when a signal is not detected in the currently selected input.

[Image Search]:

The TV checks the root folder of the connected USB storage device and looks for video files or still image files that can be played back, and plays these back in order (file name order) if they are found.

If there are no files that can be played back, or if a USB storage device is not connected, the image indicating no signal is displayed.

If the image indicating no signal cannot be displayed, an OSD indicating no signal is displayed on the screen.

How to register a “No Signal OSD” image file

Register using the following procedure:

(1) Put any 1920 x 1080 PNG file into the root folder of the USB storage device as “NoSignalImage.png”.

(2) Connect the USB storage device to the unit.

(3) Select [Display Settings] → [Signage Settings] → [USB] → [USB Operations] and press <ENTER>.

Note

- Playback of the image is performed irrespective of the setting of [USB Auto Play] in [Display Settings] → [System Settings] → [More...].
- If there is a playlist that is used by the USB auto playback function, playback/display follows the playlist. (see page 88)
- To delete a registered “NoSignalImage.png” image, run [Shipping].

[Input Search]:

The unit continuously searches through all available inputs for a signal.
If there are no signals detected through any of the other available inputs, the No Signal OSD is displayed.

Note

- When [No Signal] is set to [Input Search], the unit will shut down if none of the available signal inputs are selected.

[Disabled]:

Disables the function.

[No Signal Delay]:

Sets the period between “0 seconds” and “60 seconds” after which the unit determines the No Signal state when no signals are received. The No Signal state is determined after the set time elapses. This item is not available when [No Signal] is set to [Input Search].

[No Signal Power Off]:

When set to [Enabled], if there is no signal from the selected input and the period set in [No Signal Timer] elapses, the unit automatically turns off.

Note

- This function operates in the following case:
  - There is no USB device connected to the unit or the USB device that is connected contains no files that can be played back.
- This setting is not available when [No Signal] is set to [Input Search].

[No Signal Timer]:

Sets the period until the unit is turned off automatically with [No Signal Power Off] between “0 seconds” and “3600 seconds”.

Note

- This setting is not available when [No Signal] is set to [Input Search].

[Control Button Lock]:

Sets operation of the main unit buttons (joystick).

[Off]:	Enables operation.
[On]:	Disables operation.

[Remote Controller Lock]:

Sets operation of the remote control transmitter.

[Off]:	Enables operation.
[On]:	Operations with the remote control transmitter, such as displaying menus and switching inputs, are disabled.

Note

- The Standby (ON/OFF) button, <ENTER>, directional buttons, and <RETURN> are available even when [On].
- To make the remote control transmitter operable again from the [Off] state, do the following procedure:
  (1) Press <MENU> → <1> → <9> → <7> → <3> successively on the remote control transmitter.
  (2) When the menu is displayed, set [Signage Settings] → [Controls] → [Remote Controller Lock] to [Off].

[Menu Lock]:

Sets restrictions on menu operations

[All menus]:	No <MENU> operations permitted with the remote control transmitter.
[Off]:	No restrictions on operations.

Note

- When set to [All menus], you will be asked to enter the PIN defined during the initial settings when you press <MENU>. Set to [Off] to disable this function.

[Auto Source Switch]:

When there is input from an HDMI IN terminal (HDMI 1, HDMI 2, HDMI 3, HDMI 4), this function automatically switches to that input.

[Disabled]:	Disables operation.
[Enabled]:	Enables operation.

Note

- When HDMI input stops, the unit switches to another active HDMI input.
- There is a limit of about 3 seconds between continuous switching of HDMI inputs. Connect the second HDMI device within about 3 seconds of connecting the first HDMI device.
- This feature works only with HDMI IN terminals (HDMI 1, HDMI 2, HDMI 3, HDMI 4).

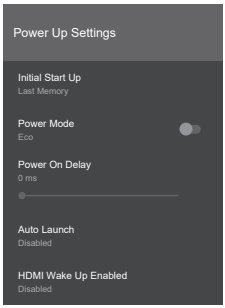
[Bluetooth®]:

Sets Bluetooth® function operation. Set to [Enabled] to enable this function.

[Bluetooth Remotes & Accessories]

Registers, deletes, and changes the name of Bluetooth® devices.

■ [Power Up Settings]



[Initial Start Up]:

Sets the power status when power is restored after it is interrupted.

[On]:	Power is on again after being restored.
[Standby]:	Power remains in standby after being restored.
[Last Memory]:	Power reverts to the state it was in before power was turned off.

[Power Mode]:

This feature makes the power come on quickly when the power is turned on.

[Eco]:	The power comes on normally when you turn the power on.
[Reactive]:	The power comes on quickly when you turn the power on.

Note

- Power consumption in standby mode increases when set to [Reactive].
- You can turn this unit on again from the off state using RS-232C or LAN commands when set to [Reactive].

[Power On Delay]:

You can set a delay for the unit to turn on.

Set at steps of 100 milliseconds in the range between “0 milliseconds” and “2000 milliseconds”.

[Auto Launch]:

Sets the features to start up when the power is turned on.

[Disabled]:

Do not enable the auto start up feature.

[HTML5 CMS Launcher]:

Starts the CMS feature.

[Open Browser]:

Launches the Vewd Browser.

[Select Source]:

Displays the screen for the selected input.

[Select Application]:

Starts the selected application.

Note

- When this function is used, the USB auto playback function does not work.
- When the power is turned on with the schedule setting, this function does not work, except for the [HTML5 CMS Launcher].

[HDMI Wake Up Enabled]:

[Disabled]:

This function is disabled.

[5V]:

The power of this unit comes on when HDMI 5V signal is detected in the HDMI1-4 inputs. The unit shuts down when HDMI 5V signals are no longer detected.

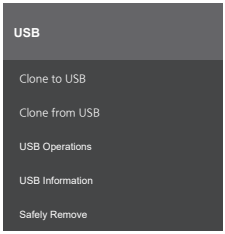
[Enabled]:

The power of this unit comes on when video is detected in the HDMI1-4 inputs.
The unit shuts down when video signals are no longer detected.

Note

- When this item is set to [Enabled], [Power Mode] in [Power Up Settings] is automatically set to [Reactive].
- Disable the schedule setting when changing this function.
- When using this functions, set [Auto Source Switch] to [Disabled].
- When all of the following conditions occur, this unit will not start even if a cable is inserted in the HDMI input when the unit is in standby mode:
  - [Power Mode] is set to [Eco]
  - A cable is already connected to one of the unit’s HDMI inputs

■ [USB]



[Clone to USB]:

Clone data of the unit’s settings is made and copied to a USB device.

- Clone data is not made for the following items:

  [Picture] → [Aspect]

  [Picture] → [Advanced Settings] → [Gamma Slider]

  [Signage Settings] → [Power Up Settings] → [Power On Delay]

  [System Settings] → [Date/Time] → [Set time zone]

  If there are multiple regions in the same time zone, clone data for [Set time zone] may not be saved correctly.

  [System Settings] → [More...] → [Accessibility]

  [TV Settings]

[Clone from USB]:

Copies the clone data copied to a USB device to this unit.

- The clone data files are displayed.
  Select the files to copy to the unit and press <ENTER> to start the transfer.

Note

- Make sure the software version is the same on the TV that creates the clone data and the TV that loads the clone data.
- When [Clone from USB] is used, turn off the power of the unit, then turn it on again.

[USB Operations]:

USB operation starts when you select [USB Operations] and press <ENTER>.
Use this function in the following case:
[Display Settings] → [Signage Settings] → [Controls] → [No Signal]

[USB Information]:

Press <ENTER> to display the [USB Information] screen.

[Total Space]:

Displays the total capacity of the connected USB device.

[Free Space]:

Displays the available capacity of the connected USB device.

[Format Disk]:

Enables formatting of the connected USB device. (FAT32 format only)

[Safely Remove]:

Safely remove the USB device connected to the unit. Select [Safely Remove] and press <ENTER>.
Select [OK], press <ENTER>, then after a short wait, remove the USB device.
If you do not use [Safely Remove] and disconnect the USB device from the unit, there may be problems when you connect the USB device to other equipment, and the USB device may need to be formatted.

Note

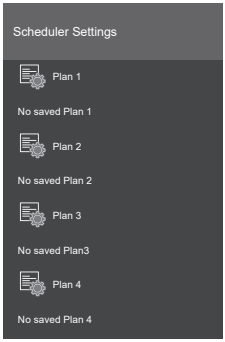
- On software versions V7.225.0.0 or later, you will be asked to enter the PIN defined during the initial settings when you perform [Clone to USB], [Clone from USB], or [USB Operations]. If the wrong PIN is entered 5 times in succession, PIN entry is prohibited for 10 minutes.

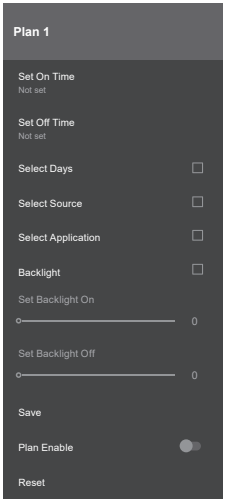
■ [Scheduler Settings]

Specify times and input signals to set schedules for turning the unit on and off. A maximum of 4 plans can be set.

Note

- This function works even when [Display Settings] → [Signage Settings] → [Power Up Settings] → [Power Mode] is [Eco] or [Reactive].
- In environments where the power supply is turned off and on while the device is in standby, set the [Power Mode] to [Reactive]. If it is set to [Eco], then when the power supply is turned off while the unit is in standby, the device will not start even when the scheduled time arrives.





[Set On Time]:

Sets the time for the power to turn on.

[Set Off Time]:

Sets the time for the power to turn off.

[Select Days]:

Sets the days of the week.
Put a check mark next to the desired days.

[Select Source]:

Sets the input signal.

Note

- When set to [Last Source], the input signal does not change when the power comes on.
- When set to [USB], the media files in the connected USB device are automatically played.
- Even if you select [TV], this model will not respond.

[Select Application]:

Sets an application.

[Backlight]:

When this feature is enabled, “Backlight Setting Change” works, and at the set time, the [Backlight] setting is changed.

[Set Backlight On]:

Change the backlight to the specified value at the on time.

[Set Backlight Off]:

Change the backlight to the specified value at the off time.

Note

- Power on and power off operations are not performed by enabling this function.
- If [Select Source] is set to [Last Source], the backlight setting is not applied.
  If the setting is anything else, then that setting applies to the selected input signal.

[Save]:

Saves the plan.

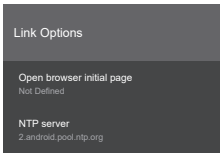
[Plan Enable]:

Sets whether to enable or disable the plan.

[Reset]:

Resets the content of the plan.

■ [Link Options]



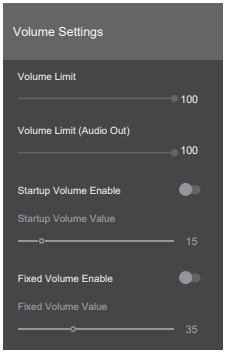
[Open browser initial page]:

Sets the page to display when the browser is started.

[NTP server]:

Sets the NTP server.

■ [Volume Settings]



[Volume Limit]:

Sets the maximum volume for the built-in speakers. Volume will not go above the set volume.

1 to 100

[Volume Limit (Audio Out)]:

Sets the maximum volume when using the AUDIO OUT terminal.
Volume will not go above the set volume.

1 to 100

[Startup Volume Enable]:

Switches the volume setting when the power is turned on.

“Off”:	Volume is the same as when the power was turned off.
“On”:	Volume is the value set in [Startup Volume Value].

[Startup Volume Value]:

Sets the volume for the built-in speakers when the start volume setting function is enabled.

1 to 100

[Fixed Volume Enable]:

Enables/disables the fixed volume setting function.

“Off”:	Volume can be changed.
“On”:	Volume is fixed to the value set in [Fixed Volume Value].

[Fixed Volume Value]:

Sets the volume for when the fixed volume setting function is enabled.

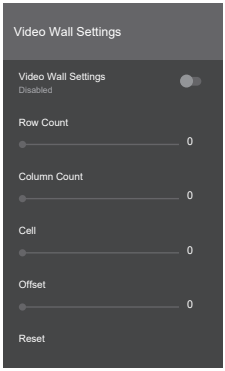
1 to 100

Note

- The setting values of [Volume Limit], [Volume Limit (Audio Out)] and [Fixed Volume Value] are not automatically applied to the currently set volume level.

  When these settings are different from the current volume:
  - [Volume Limit], [Volume Limit (Audio Out)]:
    Press <VOL +> or <VOL ->.
  - [Fixed Volume Value]:
    Change the value by right / left key.

■ [Video Wall Settings]



[Video Wall Settings]:

Sets [Disabled]/[Enabled].

[Row Count]:

Sets zoom rate in vertical direction. Set between [0] and [10].

[Column Count]:

Sets zoom rate in horizontal direction. Set between [0] and [10].

[Cell]:

Sets the position to display the zoomed screen. When set to [0], the video wall function acts as if it were disabled.

[Offset]:

Adjusts the amount of the image hidden by the joints according to the thickness of the bezels between sets. Set between [0] and [50].

[Reset]:

Resets the video wall settings.

Example:

If the video wall is installed 2x3, set [Row Count] to [2] and [Column Count] to [3]. [Cell] of [Video Wall Settings] is determined as indicated below. Set [Cell] to [1] if you want to set the zoomed display position to the position of the TV numbered 1 in the following grid:

1	2	3
4	5	6

Note

- There may be some cases where zoom display is not possible, such as with menus and apps.

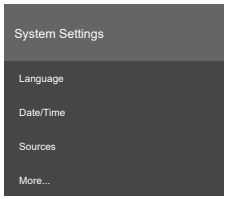
■ [Reset to Default Values]

Returns the settings in the [Signage Settings] menu to the factory settings.

■ [Shipping]

Returns the data in the unit to the factory settings.

[System Settings]

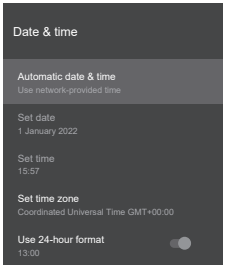


■ [Language]

Sets the OSD language.

■ [Date/Time]

Sets the date and time options on the TV.



[Automatic date & time]:

You can set the TV to automatically update the time and date data over the network.
Set this option to off to manually set the date and time.

Note

- If this function is turned off, there may be some shift from the set time, so to operate according to the correct time, please use with this function on.

[Set date]:

Manually set the date.

[Set time]:

Manually set the time.

[Set time zone]:

Sets the time zone.

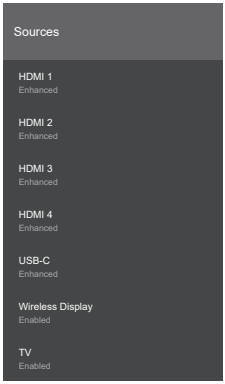
[Use 24-hour format]:

Set this to on to use the local default time format. Set to off to set the time format manually.

Note

- The battery inside the TV may be depleted if the set date shows 2010 or earlier. Consult the dealer if this is the case.

■ [Sources]



[Enabled], [Enhanced] or [Disabled] can be selected for [HDMI 1], [HDMI 2], [HDMI 3], [HDMI 4], and [USB-C].

Only [Disabled] can be selected individually for [HDMI 1], [HDMI 2], [HDMI 3], [HDMI 4], and [USB-C].

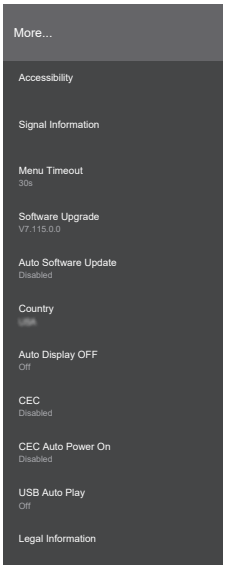
[HDMI 2], [HDMI 3], [HDMI 4], and [USB-C] share the same [Enabled]/[Enhanced] setting.

[Enabled] or [Disabled] can be selected for [Wireless Display] and [TV].

Note

- If the connected device is compatible with HDMI2.0, set to [Enhanced] to enable viewing of 4K images. Set to [Enabled] if the connected device is compatible with HDMI1.4.

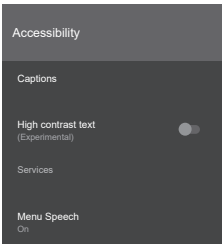
■ [More...]



[Accessibility]:

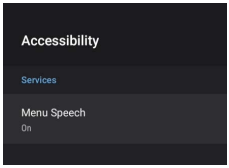
Software versions before V7.139.3.0

Sets whether to display captions and enable menu voice readout.



Software versions V7.139.3.0 or later

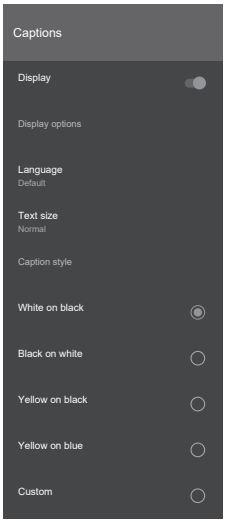
Sets whether to enable menu voice readout.



[Captions]:

This item is available in versions before V7.139.3.0, but not available in V7.139.3.0 or later.

Set whether to display captions or not. Also set the language, text size, etc, for captions.



[Display]:

Set whether to display captions or not.

[Language]:

This unit does not support this function.

[Text size]:

Set the text size of captions from the following items:

- [Very small]
- [Small]
- [Normal]
- [Large]
- [Very Large]

[Caption style]:

Set the text style of captions from the following items:

-[White on black]
-[Black on white]
-[Yellow on black]
-[Yellow on blue]
-[Custom]

Note

- Select [Custom] to make advanced character style settings.
- To display closed captions, it is necessary to set [TV Settings] → [Closed Captions] (Subtitle) → [Closed captions].
- To change the text style of subtitles, it is necessary to enable [Captions Styles] in [TV Settings] → [Closed Captions] (Subtitle) → [Closed captions].

[High contrast text]:

This item is available in versions before V7.139.3.0, but not available in V7.139.3.0 or later.

Set whether to display the text in [High contrast].

[Menu Speech]:

Set whether to read menus aloud.

Note

- This function does not work when [Language] is other than [English].
- There are some menus that may not be read aloud.

[Signal Information]:

Displays the frequency and type of the signal currently being input.

Displayed content:

[H-freq.]
[V-freq.]
[Dot clock freq.]
[Signal Format]
[HDCP STATUS]

Note

- If this menu is displayed when there is no input signal, the value displayed may be irregular.
- Depending on the quality of the signal, the signal format display may be different to the actual input signal.

[Menu Timeout]:

Sets the timeout period for the menu screen.

[Off], [15s], [30s], [45s], [60s]

[Software Upgrade]:

“Updating the Software” (see page 93)

[Auto Software Update]:

Does not work on this unit.

Note

- Manually update the software through [Software Upgrade].

[Country]:

Displays the set country name.

[Auto Display OFF]:

Sets the time until the unit switches to standby mode automatically after a period of no operation.

[Off], 1 hour to 8 hours

[CEC]:

When [Enabled], when a connected HDMI input is selected, the main features of the CEC compatible device can be performed on this unit’s remote control transmitter.
To control the TV with the remote control transmitter, press and hold the “0” button on the remote control transmitter for 3 seconds. Press and hold the “0” button again to return to control of the CEC compatible device.

[Disabled], [Enabled]

[CEC Auto Power On]:

When the connected CEC compatible device is turned on, this unit automatically turns on and the input switches.

[Disabled], [Enabled]

Note

- Depending on the status of the TV or CEC compatible device, such as when it is starting up, the devices may not link.
- Not all CEC compatible devices can be used with this TV.

[USB Auto Play]:

Sets whether to automatically start playback of media content in the root folder of a USB device.

[Off], [On]

Note

- The file size that this feature can play back will be up to 3840 x 2160.

[Legal Information]:

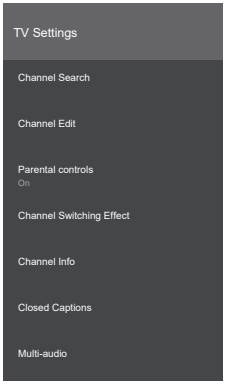
Displays the open source license and the system's WebView license.

[Physical Keyboard Layout]:

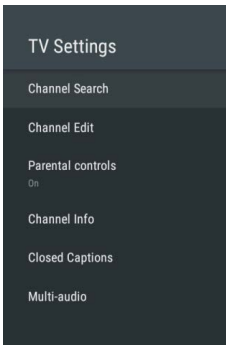
Sets the layout of the USB keyboard connected to this unit.

[TV Settings]

Software versions before V7.139.3.0



Software versions V7.139.3.0 or later



■ [Channel Search]

Scan TV and Cable channels.

■ [Channel Edit]

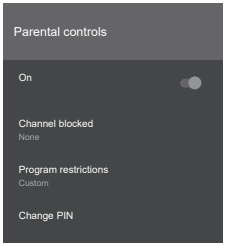
Edit channel list (edit channel name, set channel skip and delete channel).

Note

- To cancel the skip setting, set channel skip again.
- This item is available in all software versions except for V7.139.3.0.

■ [Parental controls]

Sets parental controls.
When this menu is selected, the PIN input screen is displayed. After entering the correct PIN, the parental controls settings menu will display.



[On]:

Enables/disables parental controls.

Note

- The following items can be set only when this item is enabled:
  - [Channel blocked]
  - [Program restrictions]
  - [Change PIN]

[Channel blocked]:

Set the channels to be the subject of parental control.

[Program restrictions]:

Select a Ratings system and set a Rating.
See page 55 for details.

[Change PIN]:

Change the PIN.

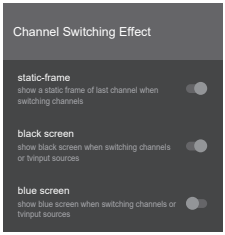
Note

- Follow these steps to change the PIN:
  (1) Enter the current PIN
  (2) Enter the new PIN
  (3) Enter the new PIN again to confirm

■ [Channel Switching Effect]

This item is available in versions before V7.139.3.0, but not available in V7.139.3.0 or later.

Sets the effect when switching channels (tuning).



[static frame]:

Sets whether to display the static frame of the last channel when switching channels (tuning).

[black screen]:

Sets whether to display a black screen when switching channels or switching the TV input.

Note

- When this item is enabled, the [blue screen] item is automatically disabled.
- When this item is disabled, the [blue screen] item is automatically enabled.

[blue screen]:

Sets whether to display a blue screen when switching channels or switching the TV input.

Note

- When this item is enabled, the [black screen] item is automatically disabled.
- When this item is disabled, the [black screen] item is automatically enabled.

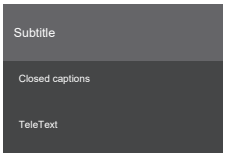
■ [Channel Info]

Displays the following information for the current channel:

- [channel]
- [frequency]
- [strength(%)]
- [type]
- [Service ID]
- [Pcr ID]

■ [Closed Captions] (Subtitle)

Software versions before V7.139.3.0



[Closed captions]:

Sets the display method for digital broadcast closed captions.

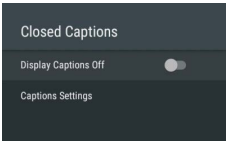
Note

- To display closed captions, it is necessary to enable [Display] in [System Settings] → [More...] → [Accessibility] → [Captions].

[TeleText]:

This model does not support this function.

Software versions V7.139.3.0 or later



[Display Captions Off]/[Display Captions On]:

Sets whether to display captions.

[Captions Settings]:

Sets the display method for digital broadcast closed captions.

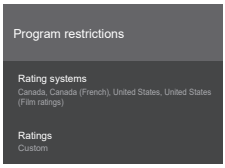
■ [Multi-audio]

Select the audio option for the currently selected channel.

Note

- Closed captions appear when you select the Spanish audio option.

Details of [Program restrictions]



■ [Rating Systems]

Set the rating system.

Select from the following Rating Systems:

- [United States]
- [United States (Film ratings)]
- [Canada]
- [Canada (French)]

Note

[United States]:

This item is the TV Parental Guideline.
The TV Parental Guidelines work in conjunction with the V-CHIP to help parents screen out inappropriate television shows from their children.

1. Suggested age

Item	Overview
[TV-Y]	All children.
[TV-Y7]	Directed to older children.
[TV-G]	General audience.
[TV-PG]	Parental Guidance suggested.
[TV-14]	Parents strongly cautioned.
[TV-MA]	Mature audience only.

2. Content

Item	Overview
[FV]	Fantasy violence.
[D]	Suggestive dialog.
[L]	Coarse language.
[S]	Sexual content.
[V]	Violence.

3. Setting combination

(1) Suggested age

(2) Content

		(2)				
		[FV]	[D]	[L]	[S]	[V]
(1)	[TV-Y]	N	N	N	N	N
	[TV-Y7]	Y	N	N	N	N
	[TV-G]	N	N	N	N	N
	[TV-PG]	N	Y	Y	Y	Y
	[TV-14]	N	Y	Y	Y	Y
	[TV-MA]	N	N	Y	Y	Y

(Y: Configurable, N: Not configurable)

[United States (Film ratings)]:

This item is the MPAA (Motion Picture Association of America).
Movie ratings are used for original movies rated by MPAA as watched on cable TV and not edited for television.
The V-CHIP can also be set to block MPAA-rated movies.

Select this item to set parental control to movie ratings.

Item	Overview
[G]	General audiences. Nothing that would offend parents for viewing by children.
[PG]	Parental guidance suggested. May contain some material parents might not like for their young children.
[PG-13]	Parents strongly cautioned. Some material may be inappropriate for pre-teenagers.
[R]	Restricted, contains some adult material. Parents are urged to learn more about the film before allowing their children to view it.
[NC-17]	Not recommended for anyone 17 and under. Content is clearly for adults only.

[Canada] and [Canada (French)]:

While violence is the most important content element to be rated, the structure developed takes into consideration other program content like language, nudity, sexuality and mature themes.
When setting the V-CHIP on the Canadian system you can choose either the Canadian English ratings or the Canadian French ratings.

Select this item to set parental control to Canadian English ratings.

Item	Overview
[C]	This programming is intended for younger children under the age of 8 years.
[C8]	This programming is intended for youngsters 8 years and over. It is suggested that a parent/guardian co view programming.
[G]	This programming is intended for all age groups and appropriate viewing for the entire family.
[PG]	This programming is intended for a general audience, may not be suitable for younger children (under the age of 8).
[14+]	Programming with this classification contains themes or content elements which might not be suitable for viewers under the age of 14.
[18+]	This programming is intended for viewers 18 years and older.

Select this item to set parental control to Canadian French ratings.

Item	Overview
[E]	Programs exempt from classification.
[G]	The program is appropriate for viewing by persons of all ages. A program with a G rating might offend the sensibilities of children.
[8ans+]	The program is suitable for the general public but could contain mild or occasional violence that may disturb young children. Recommended for viewing with parent.
[13ans+]	The program is appropriate for viewing by persons 13 years of age or older. Children under 13 may be admitted only if viewing with parent.
[16ans+]	The program is appropriate for viewing by persons 16 years of age or older. Programs with this rating present troubling themes, frequent violent scenes and intense violence.

[18ans+]	The program is appropriate for viewing by persons 18 years of age or older. Programs reserved for adults most often deal primarily with frequent violent scenes and extreme violence.

■ [Ratings]

Set the rating for each Rating System selected in [Rating systems].

Select from the following items:

- [None]
- [High restrictions]
- [Medium restrictions]
- [Low restrictions]
- [Custom]

Note

Item	Overview
[None]	Set no rating for any of the Rating Systems. (The Rating settings for all of the Rating Systems are cleared.)
[High restrictions]	Content suitable for children. Set a rating suitable for children for all of the Rating Systems.
[Medium restrictions]	Content suitable for older children. Set a rating suitable for older children for all of the Rating Systems.
[Low restrictions]	Content suitable for teenagers. Set a rating suitable for teenagers for all of the Rating Systems.
[Custom]	Set a rating individually for each of the Rating Systems.

- The following tables show the settings for the Rating Systems when each is set to [High restrictions], [Medium restrictions], and [Low restrictions]:

[United States]:

	Suggested age					
	[TV-Y]	[TV-Y7]	[TV-G]	[TV-PG]	[TV-14]	[TV-MA]
[None]	N	N	N	N	N	N
[High]	N	Y	N	Y	Y	Y
[Medium]	N	N	N	Y	Y	Y
[Low]	N	N	N	N	N	Y
[Custom]	—	—	—	—	—	—

(Y: set, N: unset, —: any)

[United States (Film ratings)]:

	Suggested age				
	[G]	[PG]	[PG-13]	[R]	[NC-17]
[None]	N	N	N	N	N
[High]	N	N	Y	Y	Y
[Medium]	N	N	Y	Y	Y
[Low]	N	N	N	Y	Y
[Custom]	—	—	—	—	—

(Y: set, N: unset, —: any)

[Canada]:

	Suggested age					
	[C]	[C8]	[G]	[PG]	[14+]	[18+]
[None]	N	N	N	N	N	N
[High]	N	Y	N	Y	Y	Y
[Medium]	N	N	N	Y	Y	Y
[Low]	N	N	N	N	N	Y
[Custom]	—	—	—	—	—	—

(Y: set, N: unset, —: any)

[Canada (French)]:

	Suggested age					
	[E]	[G]	[8ans+]	[13ans+]	[16ans+]	[18ans+]
[None]	N	N	N	N	N	N
[High]	N	N	Y	Y	Y	Y
[Medium]	N	N	N	Y	Y	Y
[Low]	N	N	N	N	N	Y
[Custom]	—	—	—	—	—	—

(Y: set, N: unset, —: any)

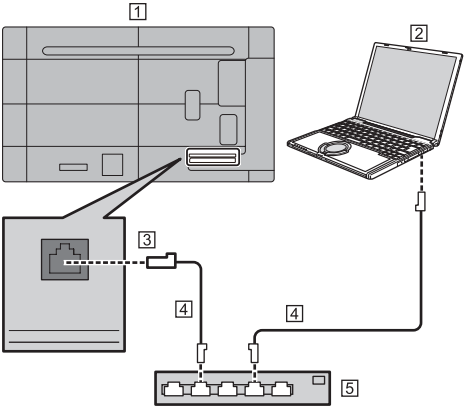
Network Connections

This unit has a network function and you can control the TV connected to the network using your computer.

Make the wired or wireless setting in [Display Settings] → [Network & Internet] → [Network & Internet].

Example of wired network connection

There is a LAN port at the bottom of the rear side of your Display. Use a LAN cable to connect the LAN terminal of this unit to a hub or broadband router.



1 Display (Back of the unit)

2 PC

3 LAN terminal

4 LAN cable (commercially available)

5 Hub or broadband router

Set [Ethernet] to “Enabled”. Select [IP settings] and make the settings for the IP address, etc., used for the wired network.

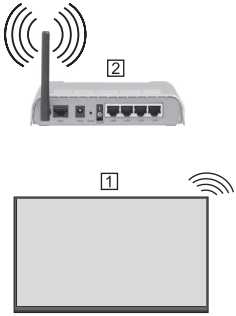
Note

- For LAN cable, use shielded cable, otherwise picture noise may be caused.
- Make sure the broadband router or hub supports 10BASE-T/100BASE-TX.
- Touching the LAN Terminal with a statically charged hand (body) may cause damage to the device due to its discharge.
  Do not touch the LAN Terminal or the metal part of the LAN cable.

Example of wireless network connection

Connect by selecting the desired network from the available networks.

If the network you selected is protected by a password, use the software keyboard to enter the password.



1 Display

2 Wireless router

Note

- Networks with a hidden SSID (network name) cannot be discovered by other devices.
  When connecting to a network where the network name is hidden, select the “Add new network” option at the bottom of “Other options”.
  To connect to the network, enter the network name, select the security type, and enter the password if it is password protected.
  You can make the network name visible by changing the settings with the software of the modem.
- A Wireless-N router (IEEE 802.11a/b/g/n/ac) with simultaneous 2.4 GHz and 5 GHz bands is designed to increase bandwidth. These are optimized for smoother and faster HD video streaming, file transfers and wireless gaming.
- The frequency and channel differ depending on the area.
- The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic and the products that you use. The transmission may also be cut off or may get disconnected depending on the radio wave conditions, DECT phones or any other WLAN 11b appliances. The standard values of the transmission speed are the theoretical maximum values for the wireless standards. They are not the actual speeds of data transmission.
- The location where the transmission is most effective differs depending on the usage environment.
- The Wireless feature of the TV supports IEEE 802.11a/b/g/n/ac type modems. It is highly recommended that you should use the IEEE 802.11n communication protocol in order to avoid any possible problems while watching videos.

- You must change your modem's SSID when there are any other modems around with the same SSID. You can encounter connection problems otherwise. Use a wired connection if you experience problems with a wireless connection.
- A stable connection speed is required to playback streaming content. If the wireless LAN speed is unstable, try an Ethernet connection (wired LAN).
- If the TV is connected via both wireless and Ethernet, the Ethernet connection is prioritized. In this case, the wireless LAN connection cannot be established.
  To permit the wireless connection, disconnect the Ethernet cable.

Settings to connect to a LAN

[Important]

The network environment when controlling via LAN is required to be physically isolated from the outside network or not illegally connected / controlled by unknown equipment with the Firewall.

The settings depend on the configuration of your LAN.

For instructions on connection, consult your network administrator.

Access from the web browser

Use a web browser to access the web page of this unit.

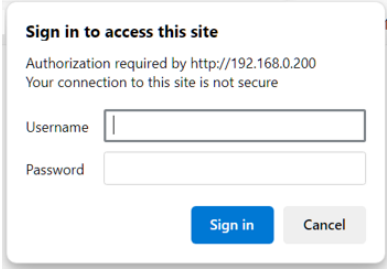
You can make operation settings for Crestron Connected™ with the web page of this unit.

1 Connect this unit and PC to the network.

2 Start up the web browser on the PC.

3 Enter the IP address that has been set for [Network & Internet] of this unit into the address bar on the web browser.

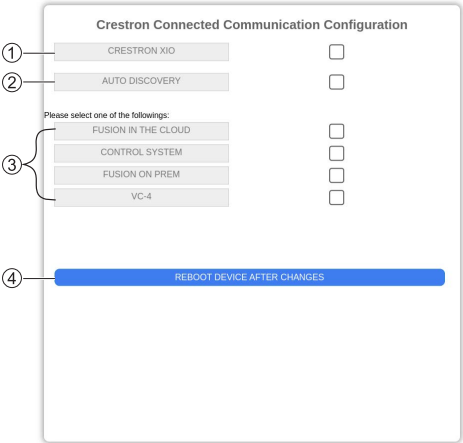
4 When the authentication screen is displayed, enter the username and password for the administrator account.



Note

- Depending on the web browser to be used, displayed operations may change.
- If a wrong username or password is entered 5 times in succession, the authentication screen will be locked for several minutes.

The Crestron Connected Communication Configuration page is displayed.



Click to switch between disable and enable.

☐ Disable / ■ Enable

① [CRESTRON XIO]

This needs to be enabled when using the Crestron XiO Cloud. Restart the device after you enable this.

Crestron XiO Cloud can be run at the same time as other Crestron services.

When CRESTRON XIO is enabled, MAC ADDRESS and SERIAL NUMBER are displayed.

MAC ADDRESS:

Displays the MAC address of the device. This cannot be changed by the user.

SERIAL NUMBER:

Displays the serial number of the device. This cannot be changed by the user.

② [AUTO DISCOVERY]

Enable this when using a standby process for the search protocols of the control system and the application software or when using the auto discovery of the device. Restart the device after you enable this.

③ [FUSION IN THE CLOUD] [CONTROL SYSTEM] [FUSION ON PREM] [VC-4]

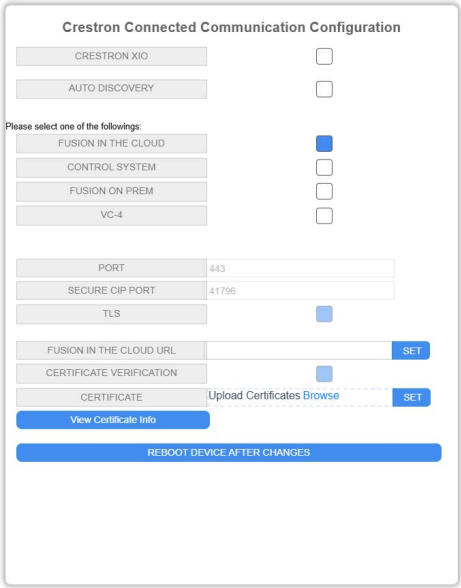
These four functions are mutually exclusive and therefore only one can be selected at a time.

When you select any of these functions, the setting items for that function are displayed below.

[FUSION IN THE CLOUD]

This needs to be enabled when using the Crestron Fusion Cloud. Restart the device after you enable this.

When the user enables FUSION IN THE CLOUD, the following properties are displayed on the screen:



PORT:

Port number for secure communications with the Fusion Cloud page. It is automatically set to 443. This cannot be changed by the user.

SECURE CIP PORT:

Port number used for secure communications. This is set to 41796 automatically with Fusion Cloud.

TLS:

Enables secure communications with Fusion Cloud. This cannot be changed by the user.

FUSION IN THE CLOUD URL:

URL of the Fusion Cloud page. Set a URL that starts with “https://”. Enter the URL and click “SET”.

CERTIFICATE VERIFICATION:

Enables certificate verification. This cannot be changed by the user.

CERTIFICATE:

The user can upload their own certificate from a PC to the device. The device needs to be restarted after uploading for the certificate to work properly.

Click “Browse” and select the certificate, then click “SET” to upload it.

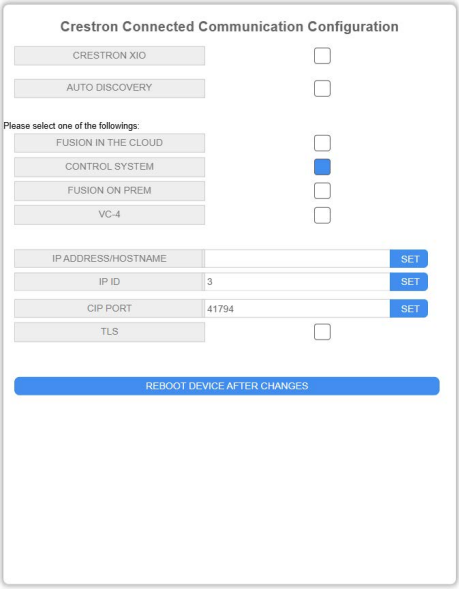
Note

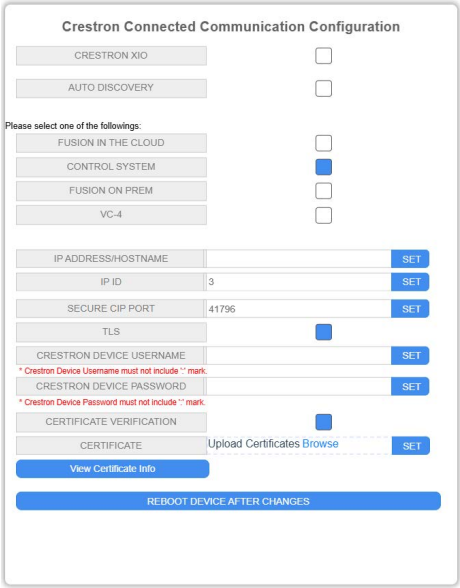
- A Fusion In the Cloud CA certificate has been installed on this device as a factory default setting.

[CONTROL SYSTEM]

This needs to be enabled when using the control system from Crestron. Restart the device after you enable this.

When the user enables CONTROL SYSTEM, the following properties are displayed on the screen:





IP ADDRESS/HOSTNAME:

Set the IP address or the host name of the connection destination.

IP ID:

Set the IP ID used to recognize the device on a network. (A number up to four digits)

CIP PORT:

Sets the port number to be used with unsecured communications (TLS is disabled). This is set to 41794 for unsecured communications.

SECURE CIP PORT:

Sets the port number to be used with the secure communication (TLS is enabled). This is set to 41796 for secure communications.

TLS:

Make settings for secure communications with Crestron devices. If TLS is set to disable, communications are unsecured. The CIP PORT item is also displayed and the value is automatically set to 41794. If TLS is set to enable, communications are secure, using TLS (Transport Layer Security). The SECURE CIP PORT item is also displayed and the value is automatically set to 41796.

The CRESTRON DEVICE USERNAME, CRESTRON DEVICE PASSWORD, CERTIFICATE VERIFICATION, and CERTIFICATE items are displayed when TLS is enabled. They are hidden when TLS is disabled.

CRESTRON DEVICE USERNAME:

Set the username used for the connection authentication. (Up to 20 one-byte characters)

CRESTRON DEVICE PASSWORD:

Set the password used for the connection authentication. (Up to 20 one-byte characters)

CERTIFICATE VERIFICATION:

Set whether to enable certificate verification for secure communication.

CERTIFICATE:

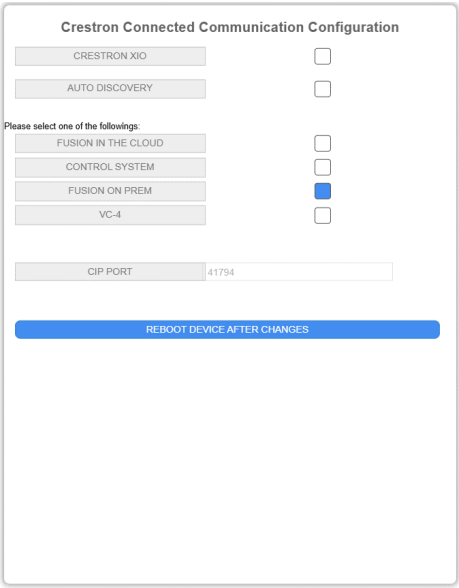
The user can upload their own certificate from a PC to the device. The device needs to be restarted after uploading for the certificate to work properly.

Click “Browse” and select the certificate, then click “SET” to upload it.

[FUSION ON PREM]

This needs to be enabled when using the Crestron Fusion On-Premises. Restart the device after you enable this.

When the user enables FUSION ON PREM, the following properties are displayed on the screen:



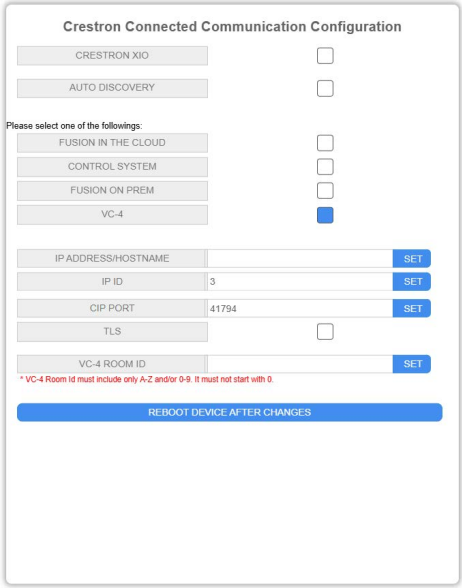
CIP PORT:

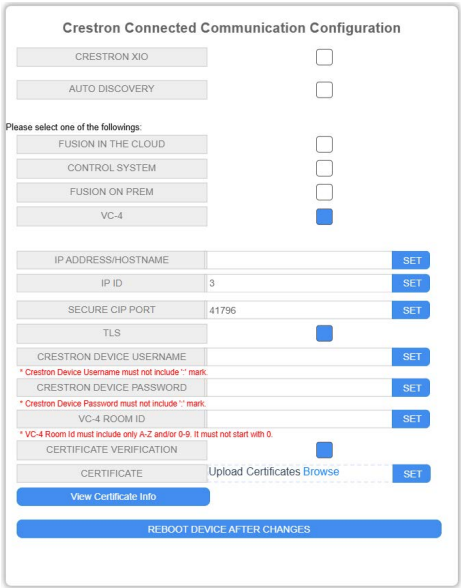
Port number used for unsecured communication. This is set to 41794 automatically with Fusion On-Premises.

[VC-4]

This needs to be enabled when using the VC-4 software control platform. Restart the device after you enable this.

When the user enables VC-4, the following properties are displayed on the screen:





IP ADDRESS/HOSTNAME:

Set the IP address or the host name of the connection destination.

IP ID:

Set the IP ID used to recognize the device on a network. (A number up to four digits)

CIP PORT:

Sets the port number to be used with unsecured communications (TLS is disabled). This is set to 41794 for unsecured communications.

SECURE CIP PORT:

Sets the port number to be used with the secure communication (TLS is enabled). This is set to 41796 for secure communications.

TLS:

Make settings for secure communications with Crestron devices. If TLS is set to disable, communications are unsecured. The CIP PORT item is also displayed and the value is automatically set to 41794. If TLS is set to enable, communications are secure, using TLS (Transport Layer Security). The SECURE CIP PORT item is also displayed and the value is automatically set to 41796.

The CRESTRON DEVICE USERNAME, CRESTRON DEVICE PASSWORD, CERTIFICATE VERIFICATION, and CERTIFICATE items are displayed when TLS is enabled. They are hidden when TLS is disabled.

CRESTRON DEVICE USERNAME:

Set the username used for the connection authentication. (Up to 20 one-byte characters)

CRESTRON DEVICE PASSWORD:

Set the password used for the connection authentication. (Up to 20 one-byte characters)

VC-4 ROOM ID:

Set the ROOM ID used to recognize the device on a network. (Up to 32 one-byte characters)

CERTIFICATE VERIFICATION:

Set whether to enable certificate verification for secure communication.

CERTIFICATE:

The user can upload their own certificate from a PC to the device. The device needs to be restarted after uploading for the certificate to work properly.

Click “Browse” and select the certificate, then click “SET” to upload it.

④ [REBOOT DEVICE AFTER CHANGES]

A confirmation screen for restarting the device is displayed when you click this button. The device restarts after confirming.

Command Controls

The networking feature of this unit enables the same control of this unit over a network as serial control.

Supported commands

This unit supports commands used with serial controls. (see page 25)

Control Commands via LAN

■ When connected with protected mode

How to connect

The method for connecting when [Display Settings] → [Network & Internet] → [Command Control Settings] → [Command Protect] is set to “On” (software versions before V7.225.0.0), or “On (MD5)”, or “On (SHA-256)” (software versions V7.225.0.0 or later):

1 Get the IP address and port number (initial setting is 1024) of the TV and request a connection to the TV.

Get the IP address and port number from the following menus:

- IP address:
  The access point connected to in [Display Settings] → [Network & Internet] → [Network & Internet] → [Available networks], or the connection status shown at the bottom of [Ethernet].
- Port number:
  [Display Settings] → [Network & Internet] → [Command Control Settings] → [Command Port]

2 Check the response from the TV.

Response data

Data part	Space	Mode	Space	Random Number Part	Last Terminal Symbol
[NTCONTROL] (ASCII Character string)	[ ] 0x20	[1] 0x31	[ ] 0x20	[zzzzzzzz] (ASCII Code hex number)	(CR) 0x0d
9 Bytes	1 Byte	1 Byte	1 Byte	8 Bytes	1 Byte

- Mode: 1 = Protection mode in which [Command Protect] is set to “On” (software versions before V7.225.0.0) or “On (MD5)” (software versions V7.225.0.0 or later).
- Mode: 2 = Protection mode in which [Command Protect] is set to [SHA-256]

3 Hash the following data using the MD5 or SHA-256 algorithm, and generate a 32-byte (for MD5) or 64-byte (for SHA-256) hash value.

[xxxxxx:yyyyy:zzzzzzzz]

xxxxxx: Username set with [Administrator Account]

yyyyy: Password set with the above [Administrator Account]

zzzzzzzz: 8-byte random number acquired in step 2

Transmitting commands

Use the following command formats to transmit:

Transmitted data

Header			Data Part	Last Terminal Symbol
Hash value (see "Connection method")	'0' 0x30	'0' 0x30	Control command (ASCII character string)	(CR) 0x0d
32 Bytes or 64 Bytes	1 Byte	1 Byte	Undefined	1 Byte

Received data

Header		Data Part	Last Terminal Symbol
'0' 0x30	'0' 0x30	Control command (ASCII character string)	(CR) 0x0d
1 Byte	1 Byte	Undefined	1 Byte

Error response

Error message		Last Terminal Symbol
"ERR1"	Undefined control command	(CR) 0x0d
"ERR2"	Out of parameter range	
"ERR3"	Busy status or reception invalid period	
"ERR4"	Timeout or reception invalid period	
"ERR5"	Wrong data length	
"ERRA"	Mismatching of password	
"ERRA ***"	Period of access prohibition due to successive password mismatches	
4 Bytes to 8 Bytes		1 Byte

Note

- On software versions V7.225.0.0 or later, if the wrong password is entered 5 times in succession, access to the TV is prohibited for 10 minutes. The number shown at the end of the error message "ERRA ***" indicates the amount of time remaining in the prohibited period in seconds.

■ When connected with unprotected mode

How to connect

The method for connecting when [Display Settings] → [Network & Internet] → [Command Control Settings] → [Command Protect] is set to "Off".

1 Get the IP address and port number (initial setting is 1024) of the TV and request a connection to the TV.

Get the IP address and port number from the following menus:

- IP address:
  The access point connected to in [Display Settings] → [Network & Internet] → [Network & Internet] → [Available networks], or the connection status shown at the bottom of [Ethernet].
- Port number:
  [Display Settings] → [Network & Internet] → [Command Control Settings] → [Command Port]

2 There is a response from the TV.

Response data

Data part	Space	Mode	Last Terminal Symbol
[NTCONTROL] (ASCII Character string)	[ ] 0x20	[0] 0x30	(CR) 0x0d
9 Bytes	1 Byte	1 Byte	1 Byte

Transmitting commands

Use the following command formats to transmit:

Transmitted data

Header		Data Part	Last Terminal Symbol
'0' 0x30	'0' 0x30	Control command (ASCII character string)	(CR) 0x0d
1 Byte	1 Byte	Undefined	1 Byte

Received data

Header		Data Part	Last Terminal Symbol
'0' 0x30	'0' 0x30	Control command (ASCII character string)	(CR) 0x0d
1 Byte	1 Byte	Undefined	1 Byte

Error response

Error message		Last Terminal Symbol
“ERR1”	Undefined control command	(CR) 0x0d
“ERR2”	Out of parameter range	
“ERR3”	Busy status or reception invalid period	
“ERR4”	Timeout or reception invalid period	
“ERR5”	Wrong data length	
4 Bytes		1 Byte

Note

- There are some commands where some parts of the character strings in the sent data are not included in the received data.
- Consult your local Panasonic dealer for detail instructions on command usage.

  For more details, visit the following web site.
  https://docs.connect.panasonic.com/prodisplays

PJLink protocol

The networking feature of this unit supports PJLink Class 1 and Class 2, and it enables the following types of operations to be performed from a PC using the PJLink protocol:

- Display settings
- Display status query

Note

- This unit is compliant with PJLink specifications Version 2.10. Using encrypted communication that uses SHA-256 hash algorithm is recommended in order to enhance the security level for the communication.

Supported commands

The following table shows the commands for controlling the unit with the PJLink protocol.

Class	Command	Control description
1	POWR	Power control 0: Standby 1: Power “On”
1	POWR?	Power status query 0: Standby 1: Power “On”
1, 2	INPT	Input switching *Refer to the parameters for the INST? command.
1, 2	INPT?	Input switching query *Refer to the parameters for the INST? command.
1	AVMT	Shutter control 10: Images on (Image mute canceled) 11: Images off (Image mute) 20: Audio on (Audio mute canceled) 21: Audio off (Audio mute) 30: Shutter mode off (Image mute, Audio mute canceled) 31: Shutter mode on (Image mute, Audio mute)
1	AVMT?	Shutter control query 11: Images off (Image mute) 21: Audio off (Audio mute) 30: Shutter mode off (Image mute, Audio mute canceled) 31: Shutter mode on (Image mute, Audio mute)
1	ERST?	Error status query First byte: 0 Second byte: 0 Third byte: 0 Fourth byte: 0 Fifth byte: 0 Sixth byte: Means some other error, either 0 or 2 • 0 or 2 means the following: 0 = No error detected, 2 = Error
1, 2	INST?	Input switching list query 31: HDMI 1 input (HDMI1) 32: HDMI 2 input (HDMI2) 33: HDMI 3 input (HDMI3) 34: HDMI 4 input (HDMI4) 35: USB-C input (USB-C) 51: Wireless Display (Wireless Display) 52: TV input (Antenna terminal)
1	NAME?	TV name query Responds with details of the TV name of the network.
1	INFO?	Miscellaneous information query Responds with version number.
1	INF1?	Manufacturer name query Responds with “Panasonic”.

Class	Command	Control description
1	INF2?	Model name query Responds with “55CQE2U”. (For a 55-inch CQE2)
1	CLSS?	Class information query Responds with “2”.
2	SNUM?	Serial number query Responds with serial number.
2	SVER?	Software version query Responds with version number.
2	INNM?	Input terminal name query Responds with input terminal name. 31: HDMI1 32: HDMI2 33: HDMI3 34: HDMI4 35: USB-C 51: Wireless Display 52: TV input (Antenna terminal)
2	IRES?	Input signal resolution query Responds with input signal resolution.
2	RRES?	Recommended resolution query Responds with “3840 x 2160”.
2	FREZ	Freeze (video pause) control 0: Freeze (video pause) released 1: Frozen (video pause)
2	FREZ?	Freeze (video pause) control query 0: Freeze (video pause) released 1: Frozen (video pause)
2	SVOL	Speaker volume 0: Reduces volume. 1: Increases volume.
2	SRCH	Device search A device with PJLink communication capabilities connected within the same network returns its MAC address.

PJLink security authentication

Set the password used for PJLink in [Display Settings] → [Network & Internet] → [PJLink Settings] → [PJLink Password].

To use without authentication, set nothing for the PJLink password.

- Concerning the specification of PJLink, see the web site of Japan Business Machine and Information System Industries Association (JBMIA) below:
  https://pjlink.jbmia.or.jp/english/index.html

Multi Monitoring & Control Software

This unit supports “Multi Monitoring & Control Software” which monitors and controls devices (projectors or TVs) connected to an intranet.

- For more details, visit the following web site.
  https://docs.connect.panasonic.com/prodisplays

Content Management Software

This unit supports “Content Management Software” to create schedule data on a PC required to play back still pictures and motion pictures. (Supports Ver.4.0.2 or later.)

- For more details, visit the following web site.
  https://docs.connect.panasonic.com/prodisplays

Networked Standby Mode

Wake-on-Wireless LAN (WoWLAN) is technologies that use network messages (magic packets) to perform operations such as turning on and starting devices. The messages are sent to the device by the execution of programs on remote devices, such as smartphones, that are connected within the same local area network.

This unit supports WoWLAN. To enable this function, set [Networked Standby Mode (WLAN)] in [Display Settings] → [Network & Internet] → [Network & Internet] to “Enabled” and set [Power Mode] in [Signage Settings] → [Power Up Settings] to [Eco]. The device that sends the network message to this unit and this unit must be connected to the same network. All of the devices must have system level support for magic packets, including the devices sending the magic packets from the access point and the devices that start when magic packets are received. Wake-on-Wireless LAN software that can be used by the operating system of the device can be used to send the magic packets.

To control the function

- Set [Networked Standby Mode (WLAN)] in [Display Settings] → [Network & Internet] → [Network & Internet] to “Enabled”.
- Connect this unit and the remote device that will send the magic packets to this unit to the same network.
- Acquire the MAC address of this unit that is required for the sending of magic packets.
- Set this unit to standby mode.
- Send the magic packet to the MAC address of this unit with a mobile phone or PC running Linux or Windows.

This unit starts when it receives the magic packet.

Applications

In the home screen, you can access the applications installed on the unit. Select and press <ENTER> to start.

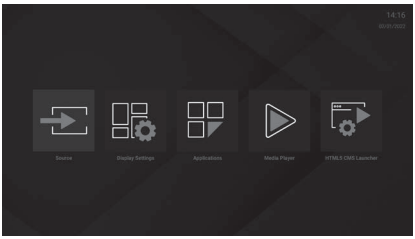
The following applications can be accessed from Applications:

File Manager, System Update, AppInstaller, Vewd Browser

You can also view application information and delete applications by selecting applications and pressing and holding <ENTER>.

Note

- Preinstalled applications cannot be deleted.



[HTML5 CMS Launcher]

HTML5 CMS Launcher is a HTML5-based CMS application. It can launch the URL specified in [Launcher], and you can set and cancel the URL in [Settings].

■ [Launcher]

You can launch the URL set in [Settings].
Use the following procedure:

1 Select [HTML5 CMS Launcher] in the home screen and press <ENTER>.

2 Select [Launcher] and press <ENTER>.

The website for the URL set in [Settings] is displayed.
For setting procedures, see [Settings].

■ [Settings]

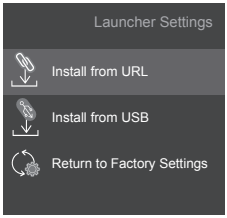
You can set/cancel the website for the URL displayed when [Launcher] is launched.
Use the following procedure:

1 Select [HTML5 CMS Launcher] in the home screen and press <ENTER>.

2 Select [Settings] and press <ENTER>.

You can set URLs from the following 2 items:

- [Install from URL]
- [Install from USB]



[Install from URL]

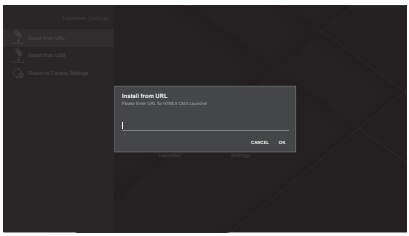
Operate this unit to set the URL.
Use the following procedure:

1 Select [HTML5 CMS Launcher] in the home screen and press <ENTER>.

2 Select [Settings] and press <ENTER>.

3 Select [Install from URL] and press <ENTER>.

The URL setting screen is displayed.



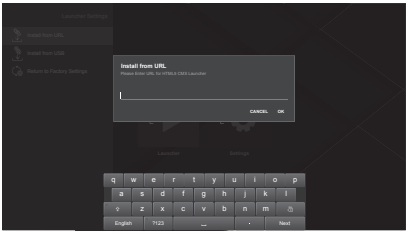
4 Enter the URL with the software keyboard.

The following two methods of entry are available:

- A general URL such as http://<domain-name>
- URL ZIP content such as http://<domain-name>/cms.zip that includes HTML5 CMS content must include a default page “index.html” file.

5 After entering the URL, press <ENTER> to set the URL.

- If a general URL was set in step 4, the HTML5 CMS Launcher displays the website for this URL.
- If a ZIP URL was set in step 4, the zip file is saved in the TV's internal storage and the CMS content is extracted.
  The HTML5 CMS Launcher displays the CMS content that was extracted to the TV's internal storage.



[Install from USB]

You can set the URL from a USB storage device connected to the TV.
Use the following procedure:

1 Put one of the following files into the root directory of the USB storage device.

If both files are found in the USB storage device, the first file in the following list will be used.

(1-1) First priority

Put a file named "starturl.txt" on the device.
This file needs to include start URL (CMS URL) which has the 2 formats indicated below:

- A general URL such as http://<domain-name>
- URL ZIP content such as http://<domain-name>/cms.zip that includes HTML5 CMS content must include a default page "index.html" file.

(1-2) Second priority

Put a file named "cms.zip" containing the HTML5 CMS content on the device.
The "index.html" default page file must be included as part of the content.

2 Connect the USB storage device to the TV.

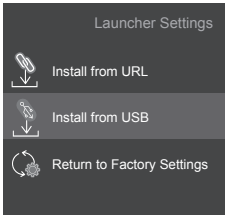
3 Select [HTML5 CMS Launcher] in the home screen and press <ENTER>.

4 Select [Settings] and press <ENTER>.

5 Select [Install from USB] and press <ENTER>.

The URL is set.

- If a general URL was set in step 4, the HTML5 CMS Launcher displays the website for this URL.
- If a ZIP URL was set in step 4, the zip file is saved in the TV's internal storage and the CMS content is extracted. The HTML5 CMS Launcher displays the CMS content that was extracted to the TV's internal storage.



[Return to Factory Settings]

The URL settings are canceled when [Return to Factory Settings] is executed.

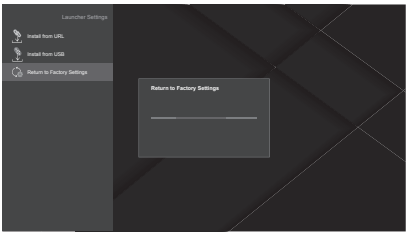
Use the following procedure:

1 Select [HTML5 CMS Launcher] in the home screen and press <ENTER>.

2 Select [Settings] and press <ENTER>.

3 Select [Return to Factory Settings] and press <ENTER>.

The URL setting is canceled.



Note

- Support for every site on the Internet is not provided.
- Depending on the site, there is a possibility that problems can occur with content.
- Depending on the conditions, some video content may not be able to be played.

[Media Player]

The Media Player can play back still images, music, and videos.

Select [Image], [Music], or [Video] in the main screen and press <ENTER> to show the initial screen for each of the items.

Note

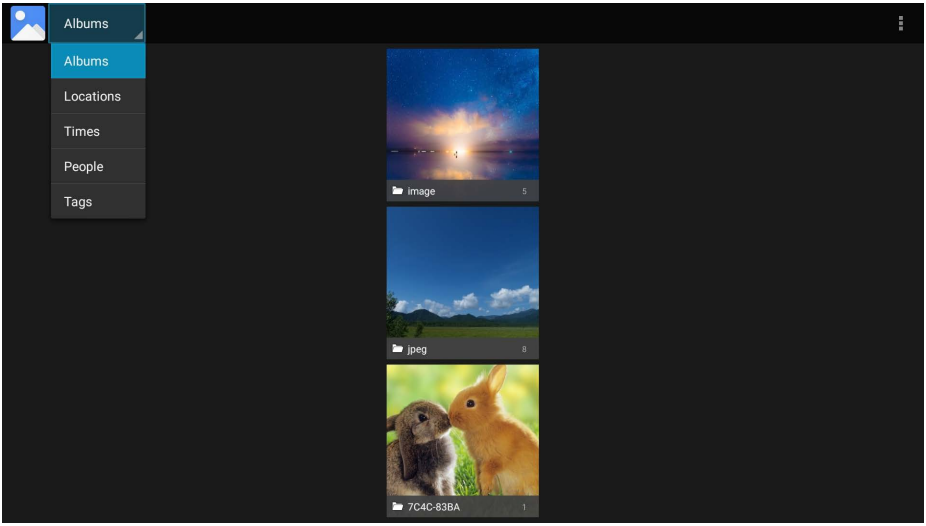
- If you try to modify or delete files that were saved to the USB device with another app, the changes may not be reflected. If this happens, remove the USB device from this unit, then reconnect it.

■ [Image]

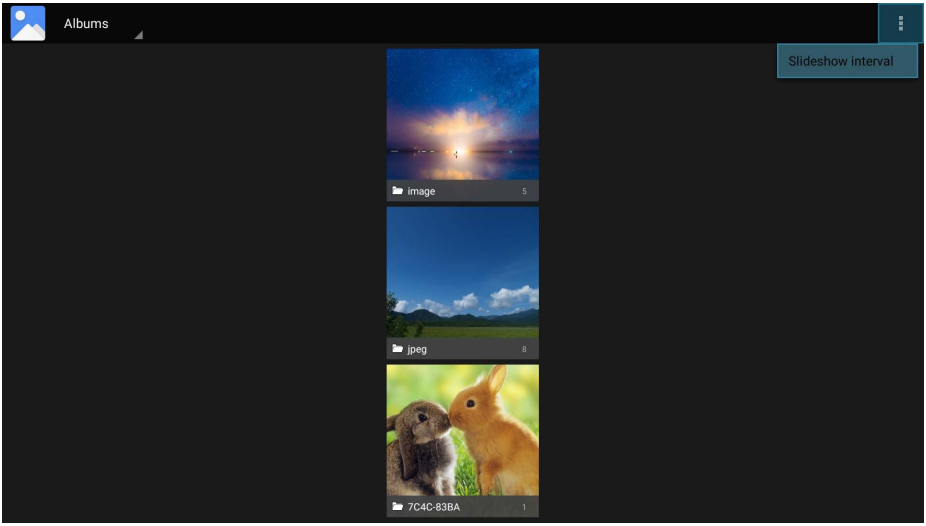
Select the file you want to play back from the file lists and press <ENTER> to play back the still image file.

The setting items at the top left and top right of the screen enable you to change the file order and grouping, change the display style, and set the slideshow playback interval.

Album selection screen

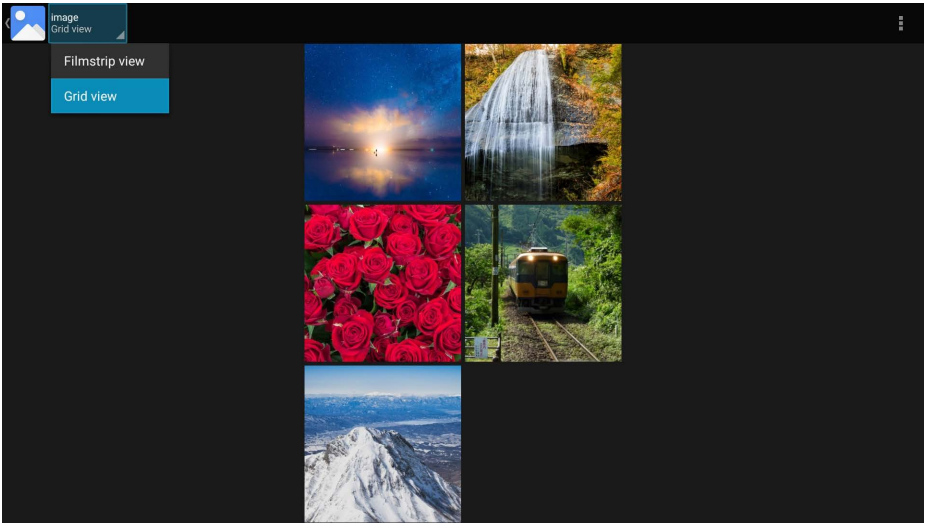


[Albums]	The file list is shown by album.
[Locations]	The file list is shown by location information.
[Times]	The file list is shown by time information.
[People]	The file list is shown by information regarding people.
[Tags]	The file list is shown by tag information.

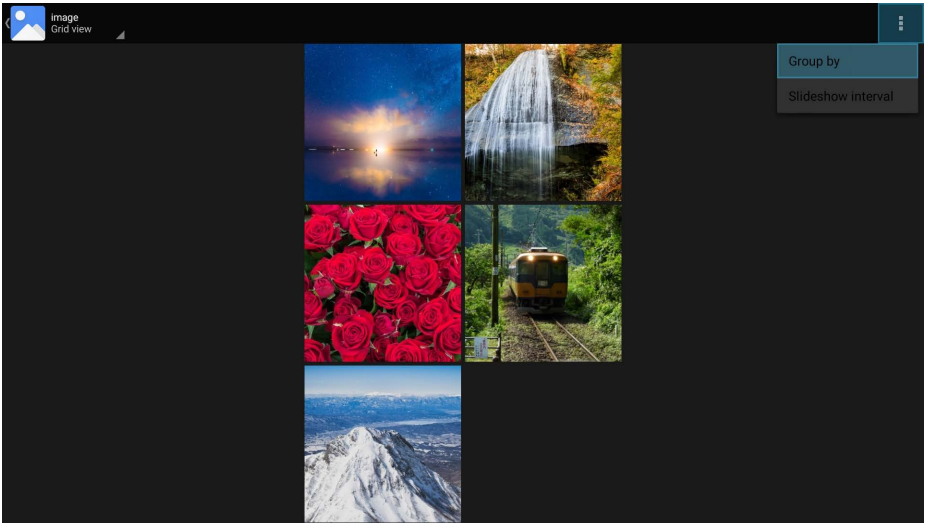


[Slideshow interval]	Sets the interval when playing back a still image slideshow. **[5 seconds], [10 seconds], [15 seconds], [20 seconds], [25 seconds], [30 seconds]**

File list screen



[Filmstrip View]	Switches to filmstrip view. Change the images with ◀▶.
[Grid View]	Switches to grid view.



[Group by]	Groups by [Locations]/[Times]/[People]/[Tags].

Note

- When a group other than [Albums] is selected, the group selected in [Group by] is not displayed.
- The [Slideshow interval] is the same as the setting in the album selection screen.

Starting the slideshow

1 Select a still image in the file list screen, then press <ENTER>.

2 Press <Play>.

Stopping the slideshow

1 Press <Stop>.

Note

- When a slideshow is started, all the still image files in the current folder are displayed in order. If the set time elapses when the last file is played, the first file is played. To return to the file list screen, press <RETURN>.

■ [Music]

You can reorder the files using the specified method by selecting the tabs at the top of the screen.

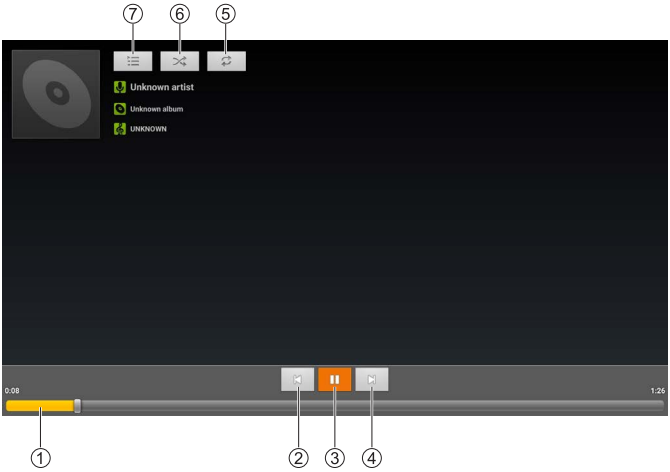
[Artists], [Albums], [Songs]

Select the file you want to play back from the file lists and press <ENTER> to play back the music file.

The playback screen (“Now Playing” screen) is displayed when the file is played back.

Playback control is possible by selecting and confirming media control icons on the playback screen.

Now Playing screen



① **Playback progress bar**

After selection, press and hold ◀▶ to fast-forward or rewind. Normal playback resumes when you stop pressing.

② **Previous file**

Press <ENTER> after selecting to switch to the previous file in the list.

③ **Pause/Play**

Press <ENTER> after selecting to pause/restart playback.

Pause Playback

④ **Next file**

Press <ENTER> after selecting to switch to the next file in the list.

⑤ **Repeat**

Changes the repeat setting.

Repeat playback off

Turns on repeat playback of all files in the current list

Turns on repeat playback of the file currently playing

⑥ **Shuffle**

Switches the shuffle setting “On” or “Off”.

All of the music files in the current list are played back randomly.

Off On

⑦ **Playlist**

Displays the playlist currently being played back.

Select a music file in the playlist and press <ENTER> to switch to play back of the selected music file.

■ [Video]

For storage, select either the TV’s internal storage or a connected USB storage device.

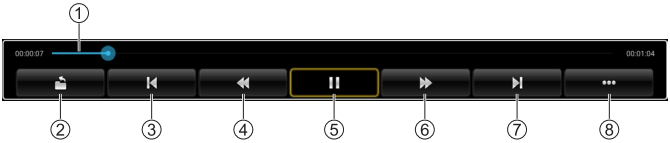
Select the file you want to play back from the file lists and press <ENTER> to play back the video file.

Press <ENTER> after playing back video to display the information bar.

Playback can be controlled by selecting the information bar icon and pressing <ENTER>.

The information bar disappears after a certain time, but it will appear again when you press <ENTER>.

Information bar



① **Playback progress bar**

You can see the progress of playback.

After selection, press and hold ◀▶ to change the playback start position. Playback starts from the position where you stop pressing.

② **Back**

Press <ENTER> after selecting to return to the file list.

③ **Previous file**

Press <ENTER> after selecting to switch to the previous file in the list.

④ **Rewind**

Press <ENTER> after selecting to rewind.

⑤ **Pause/Play**

Press <ENTER> after selecting to pause/restart playback.

Pause Playback

⑥ **Fast forward**

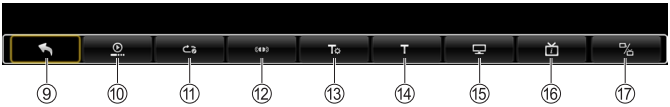
Press <ENTER> after selecting to fast forward.

⑦ **Next file**

Press <ENTER> after selecting to switch to the next file in the list.

⑧ **Next page**

Press <ENTER> after selecting to switch to the next page in the information bar.



⑨ **Previous page**

Press <ENTER> after selecting to switch to the previous page in the information bar.

⑩ **[Resume mode]**

You can change how playback behaves after you stop play back.

[On]:	When playback is started from the stopped state, playback resumes from the position where playback was last stopped.
[Off]:	When playback is started from the stopped state, playback starts from the beginning.

⑪ **[Play Mode]**

You can switch the type of repeat playback.

[Repeat All]:	Turns on repeat playback of all files in the current list
[Repeat One]:	Turns on repeat playback of the file currently playing

⑫ **[Audio option]**

You can make audio settings.

[Audio Track]:	Displays the audio format type being played while the menu is selected. **[AAC_LATM], [MP2], [MP3], [WMA], [etc.]**
[Sound Track]:	You can switch the output settings.
[Stereo]:	Left and right audio sources are output from each speaker.
[Left Mono]:	Left audio source only is output from the speakers.
[Right Mono]:	Right audio source only is output from the speakers.
[Sound Mixing]:	A mix of the left and right audio sources is output from the speakers.
[Video Track]:	Displays the video format type being played while the menu is selected. **[VFORMAT_MPEG12]**

Note

- Some functionality is not supported.

⑬ **[SubTitle]**

Press <ENTER> after selecting to display the subtitles.

⑭ **[setting_audioTuning]**

You can change the setting values.

[cur_value]:	-200ms to 200ms ([delay range])

⑮ **[Display mode]**

You can switch the aspect ratio.

[Normal], [Full Screen], [4:3], [16:9], [Original]

⑯ **[File information]**

Displays information about the video file.

[Name], [Format], [Size], [Resolution], [Duration]

⑰ **[More Setting]**

You can make settings for each mode.

[Switch Codec]:	You can switch the codec. **[Amlogic Player], [OMX]**

[Display Settings]

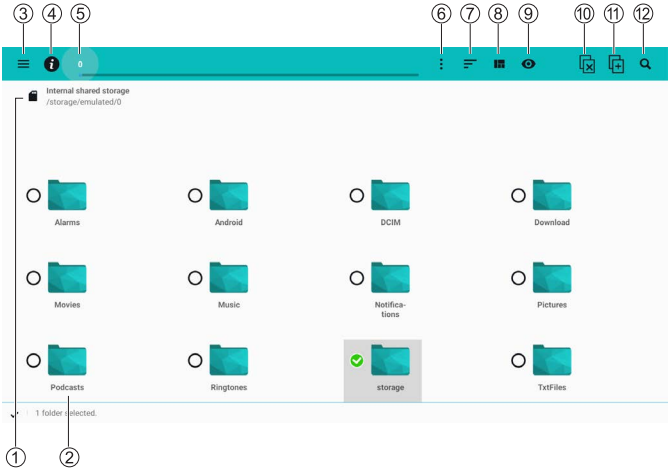
Displays [Display Settings]. (see page 39)

[File Manager]

The File Manager app screen is displayed.

It is possible to display and manipulate a variety of data, such as still images, videos, music, and text, saved on the internal shared storage or external storage device (microSD card, USB memory device).

■ File list screen



① **Storage selection**

Selects the storage to be displayed.

Folders that have been bookmarked are displayed here.

② **File operations**

When a file is selected, it is displayed/played back.

You move to a folder above when you select the "/.." folder.

When you press and hold <ENTER> on a file/folder, the file operations menu is displayed.

③ **Menu**

The setting menu is displayed.

④ **File system information**

Information about the current storage capacity is displayed.

⑤ **Display/move folders**

The current folder is displayed and moved to the selected folder.

⑥ **Folder operations**

The folder operations menu is displayed.

⑦ **Sort by**

Sort the order to display files/folders.

⑧ **Display format**

Changes the display format for files/folders.

⑨ **Show folders first**

Folders are shown first when this is enabled.

⑩ **Deselect file/folder**

Cancels the selected status of a file/folder. Displayed only when a file/folder is selected.

⑪ **Copy and paste file or folder**

Copies the selected file/folder. Displayed only when a file/folder is selected.
The icon changes when paste is possible, and the file/folder is pasted to the destination when pressed again.

⑫ **Search**

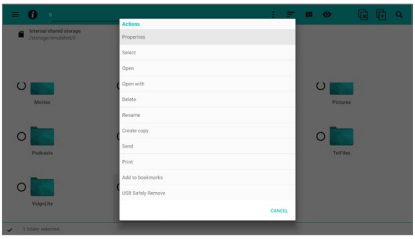
Search files/folders in the current folder.
The search results can be displayed by specifying the format from the pulldown menu at the bottom right of the screen.

Note

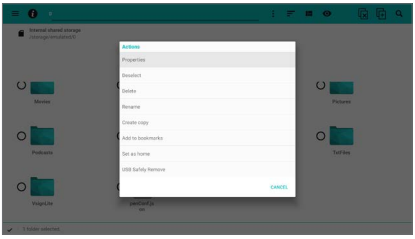
- When started for the first time, the files in the internal shared storage are displayed.

■ File operations menu

When a file is selected



When a folder is selected



[Properties]:

Displays the information and rights information about the selected file/folder.

[Select]:

Selects or deselects the currently selected file/folder.

[Open]:

Opens the selected file. Displayed only when a file is selected.

[Open with]:

Opens the selected file with a different app. Displayed only when a file is selected.

[Delete]:

Deletes the selected file/folder.

[Rename]:

Changes the name of the selected file/folder.

[Create copy]:

Creates a copy of the selected file/folder in the current folder.

[Send]:

Sends the selected file by Bluetooth®, etc. Displayed only when a file is selected.

[Print]:

Prints the selected file. Displayed only when a file is selected.

[Add to bookmarks]:

Bookmarks the path for the selected file/folder.

[Sets as home]:

Displays the selected folder when the File Manager is started. Displayed only when a folder is selected.

[USB Safely Remove]:

Safely remove a USB device.

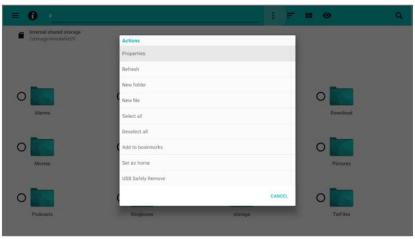
(Procedure)

Select [USB Safely Remove], press <ENTER>, then after a short wait, remove the USB device.

Note

- The [Send] function and [Print] function do not work on this unit.

■ Folder operations menu



[Properties]:

Displays the information and rights for the current folder.

[Refresh]:

Refreshes the current folder to the most recent status.

[New folder]:

Creates a new folder in the current folder.

[New file]:

Creates a new file in the current folder.

[Select all]:

Selects all of the files/folders in the current folder.

[Deselect all]:

Deselects all of the files/folders in the current folder.

[Copy selection here]:

Copies all of the selected files/folders and pastes into the current folder. Displayed only when a file/folder is selected.

[Move selection here]:

Moves all of the selected files/folders into the current folder. Displayed only when a file/folder is selected.

[Delete selection]:

Deletes the selected files/folders. Displayed only when a file/folder is selected.

[Add to bookmarks]:

Bookmarks the path of the current folder.

[Sets as home]:

Displays the current folder when the File Manager is started.

[USB Safely Remove]:

Safely remove a USB device.

(Procedure)

Select [USB Safely Remove], press <ENTER>, then after a short wait, remove the USB device.

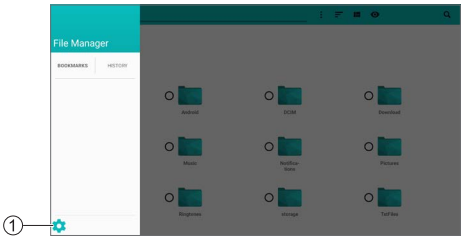
Note

- Depending on the file/folder, you may not be able to perform operations such as changing the name or deleting.

■ Settings menu

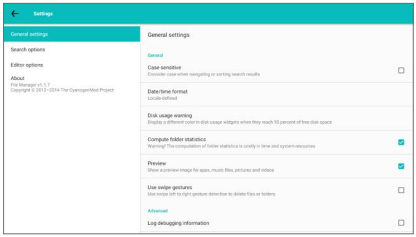
You can display and delete bookmarks and history.

When you select the settings button at the bottom left of the screen, the settings menu for the File Manager is displayed.



① **Settings button**

[General settings]



[Case-sensitive]:

Reordering and moving of search results are distinguished by upper and lower case.

[Date/time format]:

Sets the format for the date and time.

[Disk usage warning]:

Sets the disk usage rate when a warning is displayed in the file system information.

[Compute folder statistics]:

The folder's statistics are calculated when this is enabled.

[Preview]:

Preview images are shown for icons of each file in the file list screen when this is enabled. (When preview displays are possible)

[Use swipe gestures]:

When this is enabled, files/folders are deleted when swiped on the file/folder from left to right.

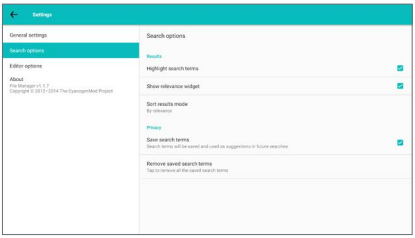
[Log debugging information]:

Debugging information logs are recorded when this is enabled.

Note

- The [Use swipe gestures] function works only with mouse operations on this unit.

[Search options]



[Highlight search terms]:

The search term is highlighted in the search results when this is enabled.

[Show relevance widget]:

An icon is displayed indicating the relevance to the search term when search results are displayed when this is enabled.

(Blue: High, Green: Medium, Yellow: Low)

[Sort results mode]:

Sets the order to display search results.

[Save search terms]:

Search terms are saved when this is enabled.

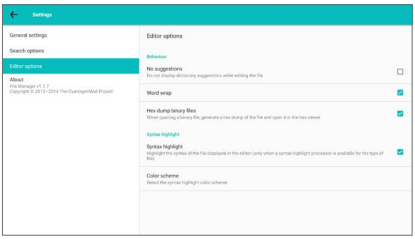
[Remove saved search terms]:

Deletes all of the saved search terms.

Note

- [Remove saved search terms] can be selected only if [Save search terms] has been enabled.

[Editor options]



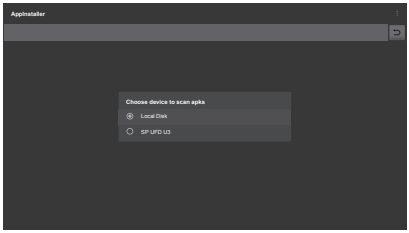
The [Editor options] function does not work on this model.

[System Update]

You can update the software over the network. (see page 93)

[AppInstaller]

Used when installing a new app.



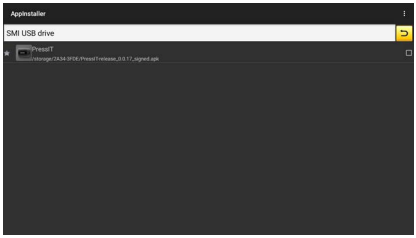
Note

- Only [Local Disk] is displayed if external storage has not been connected.

■ Installing an app from external storage (USB memory)

1 Select the external storage and press <ENTER>.

Finds the app installation files on the selected external storage to display in a list.



2 Select the installation file from the list and press <ENTER>.

3 Select [INSTALL] and press <ENTER>.

Installation of the app starts.

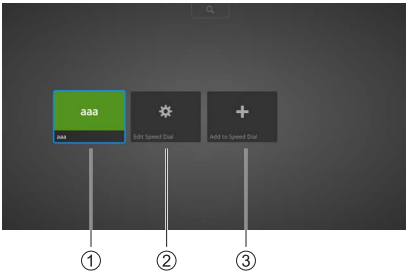
[Vewd Browser]

Used when browsing web pages.
You can register favorite web pages and organize them.

■ Speed dial screen

From the menu bar screen, use the following procedure to switch to the speed dial screen:

- Press ▼, <RETURN>.
- Select [Tabs] → [Speed Dial] and press <ENTER>



① **Speed dial**
Displays the thumbnail image of the added speed dial.

② **[Edit Speed Dial]**
You can move, edit, or delete the added speed dial.

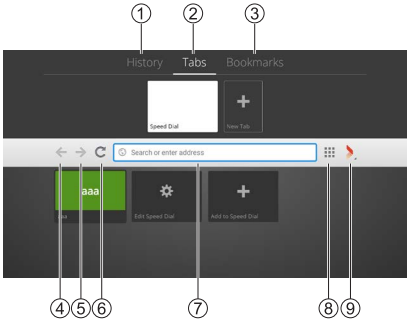
③ **[Add to Speed Dial]**
Add favorite web pages to the speed dial.

Note

- Multiple pages can be added to the speed dial.

■ Menu bar screen

Press ▲ to switch to the menu bar screen from the speed dial screen.



① **[History]**
You can manage the browsing history.

② **[Tabs]**
You can manage the tabs.

③ **[Bookmarks]**
You can manage bookmarks.

④ **Back**
Return to the previous page.

⑤ **Forward**
Go to the next page.

⑥ **Refresh**
Refreshes the page.

⑦ **Address bar**
You can enter search terms and URLs.

⑧ **Speed dial button**
Displays the speed dial screen.

⑨ **Vewd button**
The dialog for making various settings is displayed.

Using the web browser (Address bar)

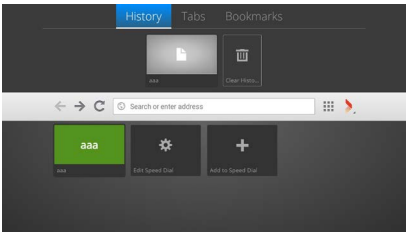
Enter search terms or URLs in the address bar.

Using the web browser (History)

(When web pages have been viewed)

1 Select [History] in the menu bar screen.

The history thumbnail list is displayed.



2 Select the thumbnail of the web page you want to view.

3 Press <ENTER>.

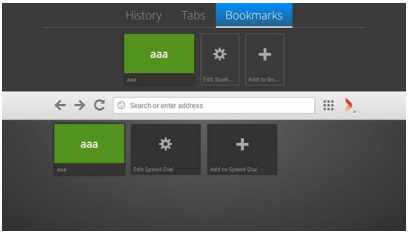
The web page is displayed on the whole screen.

Using the web browser (bookmark)

(When web pages have been bookmarked)

1 Select [Bookmarks] in the menu bar screen.

The bookmark thumbnail screen is displayed.



2 Select the thumbnail of the web page you want to view.

3 Press <ENTER>.

The web page is displayed on the whole screen.

Using the web browser (speed dial)

(When there is at least 1 item in the speed dial)

1 In the speed dial screen, select the thumbnail of the web page you want to view.

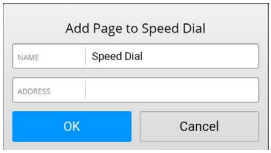
2 Press <ENTER>.

The web page is displayed on the whole screen.

Adding a web page to the speed dial (direct input)

1 Select [Add to Speed Dial] in the speed dial screen and press <ENTER>.

The [Add Page to Speed Dial] dialog is displayed.



2 Enter the [NAME] and [ADDRESS].

3 Select [OK] and press <ENTER>.

A thumbnail is added to the speed dial screen.

Adding a web page to the speed dial (current web page)

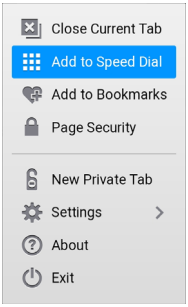
1 Display the web page you want to add to the speed dial.

2 Move the cursor to the top of the screen with ▲.

The menu bar screen is displayed.

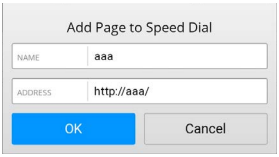
3 Select the Vewd button and press <ENTER>.

The following dialog is displayed.



4 Select [Add to Speed Dial] and press <ENTER>.

The [Add Page to Speed Dial] dialog is displayed with the information for the current web page entered.



5 Select [OK] and press <ENTER>.

A thumbnail is added to the speed dial screen.

Note

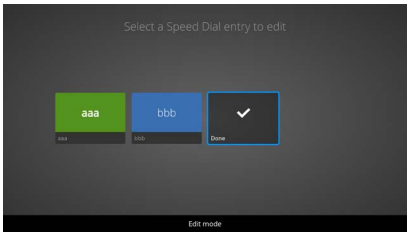
- [Close Current Tab] is displayed when there are multiple tabs.

Moving a speed dial item

(When there is at least 1 item in the speed dial)

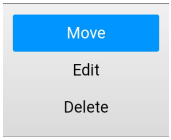
1 Select [Edit Speed Dial] in the speed dial screen and press <ENTER>.

You enter the editing mode.

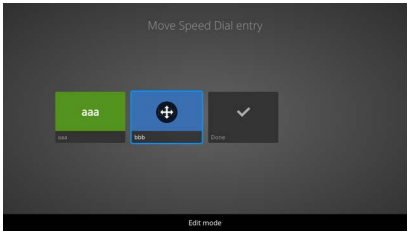


2 Select the thumbnail you want to move and press <ENTER>.

The following dialog is displayed.

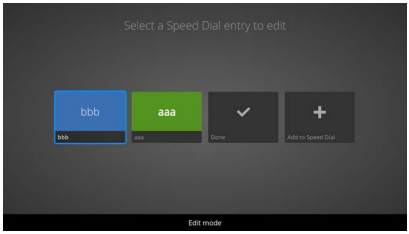


3 Select [Move] and press <ENTER>.



4 Change the position with ◀▶.

5 Press <ENTER> when you are finished moving.



6 Select [Done] and press <ENTER>.

You exit the editing mode.

Editing a speed dial item

(When there is at least 1 item in the speed dial)

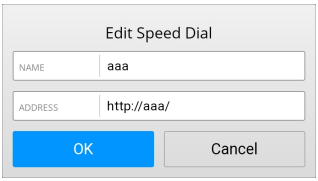
1 Select [Edit Speed Dial] in the speed dial screen and press <ENTER>.

You enter the editing mode.

2 Select the thumbnail you want to edit and press <ENTER>.

3 Select [Edit] and press <ENTER>.

The [Edit Speed Dial] dialog is displayed.



4 Edit the [NAME] and [ADDRESS].

5 When editing is finished, select [OK] and press <ENTER>.

6 Select [Done] and press <ENTER>.

You exit the editing mode.

Deleting a speed dial item

(When there is at least 1 item in the speed dial)

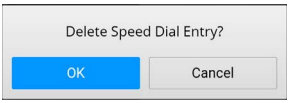
1 Select [Edit Speed Dial] in the speed dial screen and press <ENTER>.

You enter the editing mode.

2 Select the thumbnail you want to edit and press <ENTER>.

3 Select [Delete] and press <ENTER>.

The following dialog is displayed.



4 Select [OK] and press <ENTER>.

5 Select [Done] and press <ENTER>.

You exit the editing mode.

Deleting the browsing history

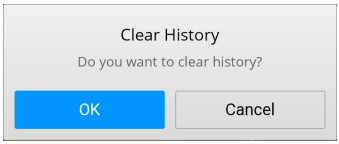
(When web pages have been viewed)

1 Select [History] in the menu bar screen.

The history thumbnail screen is displayed.

2 Select [Clear History] and press <ENTER>.

The following dialog is displayed.



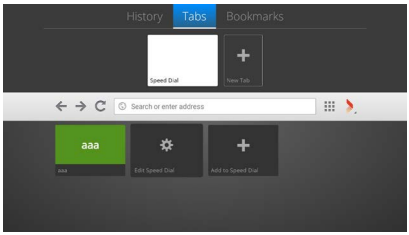
3 Select [OK] and press <ENTER>.

Note

- The entire browsing history is deleted.

Creating a new tab

1 Select [Tabs] in the menu bar screen.



2 Select [New Tab] and press <ENTER>.

A thumbnail is added to the tab.

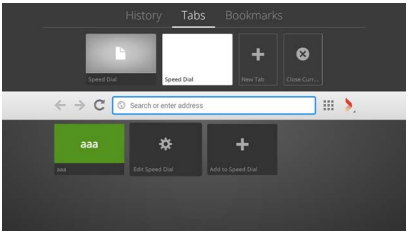
Note

- Entry in the address bar is enabled.

Closing the current tab

(When a new tab has been created)

1 Select [Tabs] in the menu bar screen.



2 Select [Close Current Tab] and press <ENTER>.

The tab thumbnail is deleted.

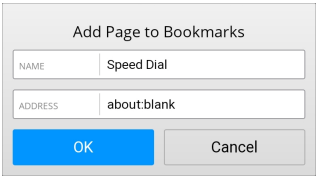
Adding a bookmark

1 Select [Bookmarks] in the menu bar screen.

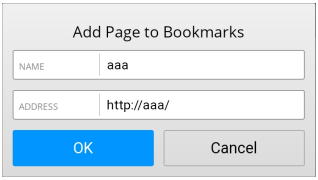
2 Select [Add to Bookmarks] and press <ENTER>.

The [Add Page to Bookmarks] dialog is displayed.

- Entries are as follows if you are not browsing a web page.



- Web page information is entered if you are browsing a web page.



3 If necessary, edit the [NAME] and [ADDRESS].

4 Select [OK] and press <ENTER>.

A thumbnail is added to the bookmark.

Removing a bookmark

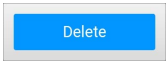
(When web pages have been bookmarked)

1 Select [Bookmarks] in the menu bar screen.

2 Select [Edit Bookmarks] and press <ENTER>.

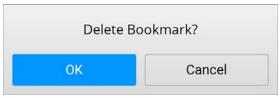
3 Select the bookmark you want to remove and press <ENTER>.

The following dialog is displayed.



4 Select [OK] and press <ENTER>.

The following dialog is displayed.

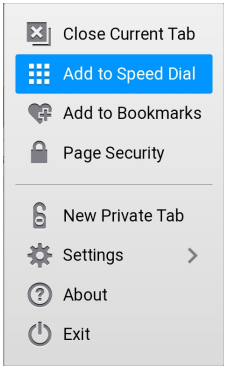


5 Select [OK] and press <ENTER>.

The selected bookmark is removed.

■ Vewd button dialog

Displayed when you select the Vewd button in the menu bar and press <ENTER>.



[Close Current Tab]:

Closes the tab currently displayed.

[Add to Speed Dial]:

The [Add Page to Speed Dial] dialog is displayed.

[Add to Bookmarks]:

The [Add Page to Bookmarks] dialog is displayed.

[Page Security]:

Security information is displayed.

[New Private Tab]:

You can browse web pages without leaving behind data such as history, cache, and cookies.

[Settings]:

The dialog for making various settings is displayed.

[About]:

A description of the Vewd Browser is displayed.

[Exit]:

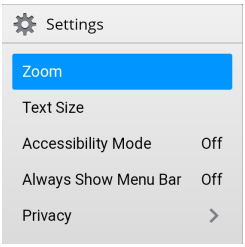
Exits the Vewd Browser.

Note

- [Close Current Tab] is displayed when there are multiple tabs.

■ Settings dialog

Displayed when you select [Settings] in the Vewd button dialog and press <ENTER>.



[Zoom]:

Adjusts the display magnification.

[50%], [75%], [100%], [150%], [200%], [300%]

[Text Size]:

Adjusts the text size.

[Normal], [Large]

[Accessibility Mode]:

When this is set [On], the shade of the colors of the screen, etc., are changed to make menu text, etc., easier to read.

(Works only in the Vewd Browser)

[Off], [On]

[Always Show Menu Bar]:

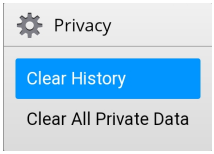
The menu bar is displayed constantly when you select [On].

[Privacy]:

The dialog for deleting privacy related data is displayed.

■ Privacy dialog

Displayed when you select [Privacy] in the Settings dialog and press <ENTER>.



[Clear History]:

Deletes the history.

[Clear All Private Data]:

Deletes the following data:

Cookies, cache, bookmarks, speed dial items, settings, history

Other Applications

Other applications may be pre-installed on certain models.

For more information about how to use those applications, please refer to the respective operating instructions.

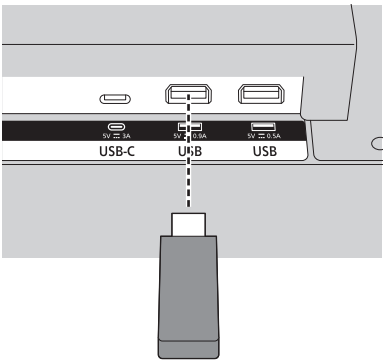
For more details, visit the following web site.
https://docs.connect.panasonic.com/prodisplays

Installing Applications

Use the procedures described below to install applications provided by Panasonic.

1 Copy the files with the apk extension to a USB memory device.

2 Connect the USB memory device to one of the USB inputs on the TV.



3 Start the AppInstaller app from the Applications menu in the home screen.

4 Select the USB memory device in the device selection dialog.

The apk files are displayed.

5 Select the apk file to be installed and press <ENTER>.

The screen for the installation of applications is displayed.

Make the setting to allow installation.

6 Select [INSTALL] and then press <ENTER> again.

Installation of the application starts.

Note

- This unit does not support third-party applications. So, applications may not start properly or some of their functionality may not work.

Deleting Applications

Use the procedures described below to delete the installed applications provided by Panasonic.

1 Select the application to delete from the applications menu in the home screen, then press and hold <ENTER>.

The operations selection screen is displayed.

2 Select [Remove App] and press <ENTER>.

The screen for confirming application deletion is displayed.

3 Select [YES] and press <ENTER> again.

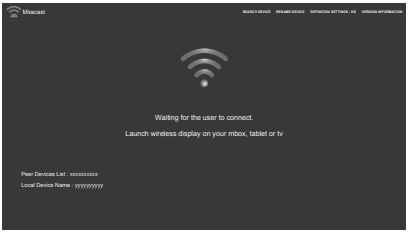
Deletion of the application starts.

Wireless Display

Wireless display is a specification for streaming video and audio content. This functionality allows you to use the unit as a wireless display device.

The unit has a built-in wireless LAN dongle. Press <WIRELESS DISPLAY> on the remote control transmitter to switch to wireless display input.

The following screen is displayed when the preparations for connecting the unit are finished:



Start the shared app on your mobile device and start the device search.

When you select this unit from the list to connect, the screen of the mobile device is displayed on this unit.

Note

- Wireless display is available only when the mobile device supports this functionality.
- The maximum supported resolution is 1920 x 1080.
- Picture quality can be influenced by factors such as neighboring wireless networks and the Internet connection speed.
- The shared app on the mobile device depends on the brand. Refer to the operating instructions for the mobile device for details.
- If a problem occurred with connection, check whether the version of the operating system being used supports this functionality. There may be compatibility issues with versions of operating systems released after this unit was manufactured.
- When the Wireless Display function and the wireless LAN function of this unit are used at the same time, the connection for the Wireless Display and the wireless LAN may become unstable.
  Before connecting with Wireless Display, it is recommended to disconnect this unit from the access point connected via the wireless LAN function.
  Symptoms that may occur include Wireless Display not starting, getting cut off, or a dramatic drop in image display quality.
- It may not be possible to connect the Wireless Display if you change the setting in [Network & Internet] → [Network & Internet] → [Wi-Fi]. If this occurs, turn the Main power switch off, then turn it on again.

[SEARCH DEVICE]:

Scans for mobile devices.

[RENAME DEVICE]:

Change the unit's name.

[DEFINITION SETTINGS]:

Sets the resolution. (HD, SD)

[VERSION INFORMATION]:

Displays version information.

Press <RETURN> while outputting the video/audio of a mobile device to display the operation screen.

[Tear Down]:

Disconnects the connection of the mobile device from the TV.

[Play]:

Restarts output of paused video/audio.

[Pause]:

Pauses video/audio output on the unit. (Video is stilled.)

Playing Back Media with a USB Storage Device

Using the USB input on this unit, you can connect a 2.5-inch or 3.5-inch external hard disk drive (HDD supplied with power from an external source) or USB memory stick to the TV.

When you connect the USB storage device to this unit, the USB viewer menu is shown on the screen.

Note

- Backup the files on the storage device before connecting it to this unit. Panasonic takes no responsibility for damage to files or loss of data. Some USB devices (MP3 players, etc.), USB hard disk drives, and USB memory sticks may not be compatible with this unit. This unit supports the FAT16/FAT32/exFAT/NTFS file systems.

As Media Player may be accessing files, leave some time between plugging in and unplugging the device. Neglecting to do so may result in physical damage to the USB device.
Do not remove the drive while playing back a file.
USB hubs can be used. We recommend using USB hubs with an external power source when doing so.
When connecting a USB hard disk, we recommend connecting it directly to the USB input on this unit.

USB Auto Playback Function

The USB auto playback function plays back the picture and video content found in the root folder of the USB storage device, in order (file name order).
This function works only under the following conditions:

- A USB device is connected.
- [USB Auto Play] in [Display Settings] → [System Settings] → [More...] is set to [On].

USB Auto Playback Function Using Playlists

When a playlist file (a file named “playlist.txt”) is installed on the connected USB storage device, the media content listed in the file is played back/displayed in the order entered in the file.

- To enable this feature, the above mentioned playlist file must be installed on the USB storage device.
- Notes on the content of the playlist file
  - The first line should start with “//**do usb auto play**//”.
  - The files to be displayed/played back need to be entered on separate lines in playlist.txt.
  - The “/* */” indication shows that that line is removed.

Sample file content:

```
//**do usb auto play**//
picture.jpg
video.mp4
picture2.jpg
/*picture3.jpg*/
video2.mp4
```

Note

- During playback of content, the end operation is performed with <RETURN>.
- The USB auto playback function does not work if [Display Settings] → [Signage Settings] → [Power Up Settings] → [Auto Launch] is other than [Disabled].
- The display interval for still images during automatic playback is the same as [Media Player] → [Image] → [Slideshow interval]. (see page 71)

Supported Media Formats from USB

Video

Codec	Verified Max. Performance	Audio Codec	Container
MPEG-1	1920x1080p @ 60fps	AC3	DAT, MPEG, MPG, TS
MPEG-2	1920x1080p @ 60fps	MP3, PCM	MPEG, MPG, M2V, TS, TP, VOB
MPEG-4 ASP	1920x1080p @ 60fps	MP3, AC-3, AAC, PCM, ADPCM	AVI, MP4, MOV, 3GP
MJPEG	1920x1080p @ 30fps	MP3, U-LAW	AVI
XviD	1920x1080p @ 30fps	AC3, MP3	AVI, OGM
H.263	720x576p @ 30fps	MP3, AC-3, AAC, AMR-NB	3GP, 3G2, MOV, MP4
H.264	3840x2160 @ 30fps 100Mbps	AAC, AAC-LC, MP3, AC3, PCM, Vorbis, AMR-NB	AVI, MOV, MP4, MKV, TS, M2TS, MTS, M4V, FLV, F4V, PMP
H.265 Main 10	7680x4320 @ 24fps 80Mbps, 3840x2160 @ 60fps 80Mbps	AAC, AC3	TS, MP4, MKV
VC-1	1920x1080p @ 25fps	AC3, PCM, DTS	M2TS, MPEG
WMV3	1280x720p @ 30fps	AC3	ASF, MKV
AVS-P16	1920x1080p @ 30fps	-	-
AVS-P2 Jizhun	720x576p @ 30fps	-	TS
AVS2	3840x2160p @ 60fps	-	TS
VP9 Profile-2	7680x4320 @ 24fps VP9 67Mbps, 4096x2304p @ 60fps VP9 Profile-2 60Mbps	Vorbis	.webm/.vp9/.ivf
VP8	1920x1080p @ 30fps	Vorbis	.webm/.mkv
AV1	3840x2160p @ 60fps 14.6Mbps	AAC, PCM, AC3	MP4, TS

Image

Image	Photo	Resolution (width x height)	Remark
JPEG	Base-line	15360x8640	The limit for max resolution depends on DRAM size.
	Progressive	1024x768	
PNG	Non-interlace	9600x6400	
	Interlace	1200x800	
BMP		9600x6400	
GIF		6400x4800	

Audio

Codec	Channel	Bit Rate	Sample rate	Container
MPEG 1/2/2.5, Audio Layer 3	2	8 to 320 kbps, CBR and VBR	8 to 48 kHz	MP2/MP3
PCM, IMA-ADPCM, MS-ADPCM, U-Law	5,1	Up to 1.5Mbps	8 to 48 kHz	WAV
Vorbis	5,1	-	8 to 96 kHz	OGG
Flac	5,1	VBR	8 to 96 kHz	FLAC
APE	2	VBR	8 to 48 kHz	Ape
AAC-LC, AAC-HE(AAC+)	5,1	VBR	8 to 96 kHz	AAC/M4A
PCM/A-LAW	5,1	-	8 to 48 kHz	AIF/AIFF/ALAW
ALAC	2	VBR	8 to 48 kHz	alac
WMA Version 7, 8, 9	5,1	8 to 320 kbps, CBR and VBR	8 to 96 kHz	WMA

Movie Subtitle

Format	Container
SAMI	SMI
Advanced Substation Alpha	ASS / SSA
SubRip	SRT
DVD	SUB
Blue Ray	PGS
Timed text	SBTL
Aqtitle	AQT
Lyric	LRC
MircoDVD	SUB
Mplayer1/2	MPL
Mpsub	SUB
Phoenix Japanimation Society	PJS
subviewer1.0/2.0	SUB
Text	TXT
Vplayer	TXT
Extensible Markup Language	XML
DVB-SUB	DVB
Jacosub	JS

Note

- Some files may not be played back even if their formats are supported as described here.
- When playing back multiple files in succession, it is recommended to make them the same format and the same resolution.

Preset Signals

This unit can display the video signals shown in the table below.

Common for HDMI (HDMI IN 1, 2, 3, 4)/USB-C

Corresponding Signal	Resolution (Dot)	Scanning frequency		Dot Clock frequency (MHz)	Plug and Play supported signal*2	
		Horizontal (kHz)	Vertical (Hz)		Enhanced	Enabled
480/60i	720 (1 440) x 480i*1	15.73	59.94	27.00	○	○
576/50i	720 (1 440) x 576i*1	15.63	50.00	27.00	○	○
480/60p	720 x 483	31.47	59.94	27.00	○	○
576/50p	720 x 576	31.25	50.00	27.00	○	○
720/60p	1 280 x 720	45.00	60.00	74.25	○	○
720/50p	1 280 x 720	37.50	50.00	74.25	○	○
1080/60i	1 920 x 1 080i	33.75	60.00	74.25	○	○
1080/50i	1 920 x 1 080i	28.13	50.00	74.25	○	○
1080/24p	1 920 x 1 080	27.00	24.00	74.25	○	○
1080/25p	1 920 x 1 080	28.13	25.00	74.25	○	○
1080/30p	1 920 x 1 080	33.75	30.00	74.25	○	○
1080/60p	1 920 x 1 080	67.50	60.00	148.50	○	○
1080/50p	1 920 x 1 080	56.25	50.00	148.50	○	○
3840 x 2160/24p	3 840 x 2 160	54.00	24.00	297.00	○	○
3840 x 2160/25p	3 840 x 2 160	56.25	25.00	297.00	○	○
3840 x 2160/30p	3 840 x 2 160	67.50	30.00	297.00	○	○
3840 x 2160/60p	3 840 x 2 160	135.00	60.00	594.00	○	—
3840 x 2160/50p	3 840 x 2 160	112.50	50.00	594.00	○	—
4096 x 2160/24p	4 096 x 2 160	54.00	24.00	297.00	○	○
4096 x 2160/25p	4 096 x 2 160	56.25	25.00	297.00	○	○
4096 x 2160/30p	4 096 x 2 160	67.50	30.00	297.00	○	○
4096 x 2160/60p	4 096 x 2 160	135.00	60.00	594.00	○	—
4096 x 2160/50p	4 096 x 2 160	112.50	50.00	594.00	○	—
640 x 480/60	640 x 480	31.47	59.94	25.18	○	○
640 x 480/73	640 x 480	37.86	72.81	31.50	—	—
640 x 480/75	640 x 480	37.50	75.00	31.50	—	—
640 x 480/85	640 x 480	43.27	85.01	36.00	—	—
800 x 600/56	800 x 600	35.16	56.25	36.00	—	—
800 x 600/60	800 x 600	37.88	60.32	40.00	○	○
800 x 600/72	800 x 600	48.08	72.19	50.00	—	—
800 x 600/75	800 x 600	46.88	75.00	49.50	—	—
800 x 600/85	800 x 600	53.67	85.06	56.25	—	—
1024 x 768/50	1 024 x 768	39.55	50.00	51.89	—	—
1024 x 768/60	1 024 x 768	48.36	60.00	65.00	○	○
1024 x 768/70	1 024 x 768	56.48	70.07	75.00	—	—
1024 x 768/75	1 024 x 768	60.02	75.03	78.75	—	—
1024 x 768/82	1 024 x 768	65.55	81.63	86.00	—	—
1024 x 768/85	1 024 x 768	68.68	85.00	94.50	—	—
1152 x 864/60	1 152 x 864	53.70	60.00	81.62	—	—
1152 x 864/70	1 152 x 864	63.99	70.02	94.20	—	—
1152 x 864/75	1 152 x 864	67.50	75.00	108.00	—	—
1152 x 864/85	1 152 x 864	77.09	85.00	119.65	—	—
1280 x 720/60	1 280 x 720	44.76	60.00	74.48	—	—
1280 x 768/50	1 280 x 768	39.55	49.94	65.18	—	—
1280 x 768/60	1 280 x 768	47.70	60.00	80.14	—	—
1280 x 768/60	1 280 x 768	47.78	59.87	79.50	—	—
1280 x 800/50	1 280 x 800	41.20	50.00	68.56	—	—
1280 x 800/60	1 280 x 800	49.31	59.91	71.00	—	—

Corresponding Signal	Resolution (Dot)	Scanning frequency		Dot Clock frequency (MHz)	Plug and Play supported signal*2	
		Horizontal (kHz)	Vertical (Hz)		Enhanced	Enabled
1280 x 800/60	1 280 x 800	49.70	59.81	83.50	—	—
1280 x 960/60	1 280 x 960	60.00	60.00	108.00	—	—
1280 x 960/85	1 280 x 960	85.94	85.00	148.50	—	—
1280 x 1024/60	1 280 x 1 024	63.98	60.02	108.00	○	○
1280 x 1024/75	1 280 x 1 024	79.98	75.02	135.00	—	—
1280 x 1024/85	1 280 x 1 024	91.15	85.02	157.50	—	—
1360 x 768/60	1 360 x 768	47.71	60.02	85.50	—	—
1366 x 768/50	1 366 x 768	39.55	50.00	69.92	—	—
1366 x 768/60	1 366 x 768	48.39	60.03	86.71	—	—
1366 x 768/60	1 366 x 768	48.00	60.00	72.00	—	—
1366 x 768/50	1 366 x 768	39.56	49.89	69.00	—	—
1366 x 768/60	1 366 x 768	47.71	59.79	85.50	—	—
1400 x 1050/60	1 400 x 1 050	65.22	60.00	122.61	—	—
1400 x 1050/75	1 400 x 1 050	82.20	75.00	155.85	—	—
1440 x 900/60	1 440 x 900	55.47	59.90	88.75	—	—
1440 x 900/60	1 440 x 900	55.92	60.00	106.47	—	—
1600 x 900/50	1 600 x 900	46.30	50.00	97.05	—	—
1600 x 900/60	1 600 x 900	60.00	60.00	108.00	—	—
1600 x 900/60	1 600 x 900	55.99	59.95	118.25	—	—
1600 x 900/60	1 600 x 900	55.92	60.00	119.00	—	—
1600 x 1200/60	1 600 x 1 200	75.00	60.00	162.00	—	—
1680 x 1050/60	1 680 x 1 050	65.29	59.95	146.25	—	—
1920 x 1080/60	1 920 x 1 080	66.59	59.93	138.50	—	—
1920 x 1080/60	1 920 x 1 080	67.50	60.00	148.50	○	○
1920 x 1200/60	1 920 x 1 200	74.04	59.95	154.00	○	○

*1: Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

*2: Signals with ○ in the Plug and Play-supported signal column are the ones written in EDID (Extended Display Identification Data) of this unit.
For signals without ○ in the Plug and Play-supported signal column, resolutions may not be selected on the PC side even if this unit supports those signals.

Note

- An auto detected signal format may be differently displayed from the actual input signal.
- [i] shown after the number of dots of resolution means the interlace signal.

Updating the Software

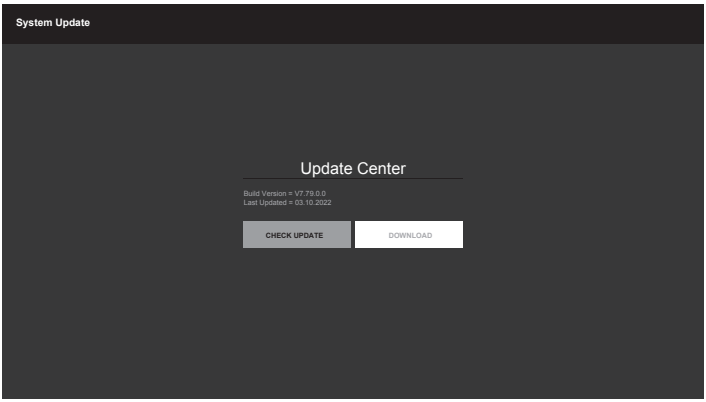
You can update the software for this unit over the network.

Note

- An Internet connection is required to update.

1 Open the System Update screen using one of the following procedures:

- <QUICK MENU> (HOME) → [Applications] → [System Update] selected, press <ENTER>.
- [Display Settings] → [Signage Settings] → [Device Info] → [Software Version] selected, press <ENTER>.
- [Display Settings] → [System Settings] → [More...] → [Software Upgrade] selected, press <ENTER>.



The current software version and the time of the last update are shown.

2 With [CHECK UPDATE] selected, press <ENTER>.

Manual searching for updates starts.

If there is a software update file, follow the on-screen instructions to download and install the software.

Note

- [Software Upgrade] updates the current software to the next version. It may be necessary to perform the [Software Upgrade] a few times to reach the latest version.

Troubleshooting

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

Symptoms		Check	Reference page
Picture	Sound		
Interference	Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent light	—
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the remote control.)	—
No Picture	No Sound	Not plugged into AC outlet Not switched on Picture and Brightness/Volume setting (Check by pressing the Main Power switch or the Standby (ON/OFF) button.)	—
No Picture	Normal Sound	If a signal with a non-applicable colour system format, or frequency is input, only the input terminal indication is displayed.	—
No Colour	Normal Sound	Colour controls set at minimum level	—
Some points on the screen are not lighting		Liquid crystal panels are made using high-precision technologies, but on the screen there will be some point defects where they may not light or may remain on. These do not indicate a malfunction.	—
No power		Not plugged into AC outlet, connector loose.	20
Automatic power off		[Signage Settings] → [Controls] → [No Signal Power Off], [Signage Settings] → [Power Up Settings] → [HDMI Wake Up Enabled] set to [5V] or [System Settings] → [More...] → [Auto Display OFF] set to other than [Off].	—
Power indicator blinks red and goes out		There may be a malfunction. Consult the dealer where you purchased the product.	—

Symptoms	Check	Reference page
No remote control transmitter operation	Batteries depleted. Incorrect battery installation.	—
	Strong external or fluorescent light hitting the external IR sensor.	—
	Obstacle between external IR sensor and remote control transmitter.	—
	Not using dedicated remote control transmitter for this unit. (Other remote control transmitters will not work)	—
	[Signage Settings] → [Controls] → [Remote Controller Lock] is [On].	—
	External IR sensor disconnected from IR IN terminal on this unit. (75/86/98-inch model)	17
	Main power switch is not on.	31
	[CEC] has been set to [Enabled] and the remote control transmitter has been set to control the CEC compatible device.	52
Takes time for images to appear	A variety of signals go through digital processing to produce brilliant images on this unit, so when the power is turned on and the input is switched, it may take some time for the images to appear on the screen.	—
Spots on the screen	Possible interference from automobiles, trains, high-voltage power lines, neon lights, etc.	—
Pale colors	Incorrect adjustments in [Picture] → [Colour]. (Check the image adjustment values.)	40
Colored patterns appear, colors disappear	Receiving interference from AV devices. This can be improved by changing the installation location of this unit.	—
	[Picture] → [Aspect] is either [Auto] or [Movie].	40
Parts of the screen at the top and bottom do not show images	Image software shot using an aspect ratio longer than 16:9 (cinema-size software, etc.) results in bands at the top and bottom of the screen.	—
There is flickering in the outlines in the images	In parts of images with movement, there may be some observable flickering in outlines. This is due to the characteristics of the system driving the liquid crystal panel and is not a malfunction.	—
No operation with main unit buttons	[Signage Settings] → [Controls] → [Control Button Lock] is [On].	—
Occasional no picture or no sound	If the HDMI signal is input to this unit via a selector or image distributor, depending on the device being used, images and sound may not be output correctly. The symptoms may be rectified by either turning this unit off and on again or replacing the selector or image distributor.	—
	When the setting for the relevant input in [System Settings] → [Sources] is [Enhanced], depending on the device being used, images and sound may not be output correctly. Try changing [Enhanced] to [Enabled].	51
Small noises sound large, large sounds are limited. Noise is noticeable. The balance between instruments and vocals is unusual when playing music.	[Sound] → [AVL] is “On”.	—

Symptoms	Check	Reference page
Unusual display, no images, for example, or remote control transmitter operations suddenly stop	Sophisticated software is used in this unit. If you feel like there is something unusual happening, such as no remote control transmitter operations or disrupted displays, unplug the power plug from the socket outlet, then after waiting at least about 5 seconds, plug it in again and turn on the power.	31
No RS-232C control	Connections	24
No LAN control	Connections	—
	Has setup of the [Administrator Account] been completed?	—
	Set [Network & Internet] → [Command Control Settings] → [Command Control] to [On] to use commands to control the unit.	—
	Incorrect [Network & Internet] settings.	42
Command control via LAN is not working	Set [Network & Internet] → [Command Control Settings] → [Command Control] to [On] to use commands to control the unit.	42
	On software versions before V7.225.0.0, if [Network & Internet] → [Command Control Settings] → [Command Protect] has been set to [On] and the software is updated to software versions V7.225.0.0 or later, you will be temporarily unable to use command controls. Make the setting for [Command Protect] again.	43
	On software versions V7.218.4.0 or later, for the safety of this unit, the connection for command control is automatically disconnected immediately after a response command is sent. When sending commands in succession, request a network connection before sending each command.	63
No wireless connection	Check network firewall for connection permissions.	—
	View network connection status in [Network & Internet].	—
	Try wired connection if wireless connection is not working properly.	—
Slow wireless connection	Refer to the operating instructions for your wireless modem for information about internal service areas, connection speeds, signal quality, and other settings. You will need a modem that can handle high speed connections.	—
Playback interruptions and poor response with wireless connection	Keep at least 3 m away from microwave ovens, mobile phones, Bluetooth® devices, and other WLAN compatible devices. Try changing the active channel on the WLAN router.	—
Cannot connect to the Internet wirelessly	If the MAC address (unique identifier) of the PC or modem is permanently registered, it is possible that this unit is not connected to the Internet. If this is the case, the MAC address is authenticated each time you connect to the Internet. This is a measure to prevent unauthorized access. This unit has its own unique MAC address, so the Internet service provider is unable to authenticate the MAC address of this unit. Contact the Internet service provider and inquire about methods of connecting to the Internet with this unit or other devices.	—
	There may be a firewall issue causing the connectivity problem. If you think this may be the cause, contact the Internet service provider. The firewall may be the cause of the connectivity problem.	—

Symptoms	Check	Reference page
Cannot connect the Wireless Display	Confirm that [Wi-Fi] is set to “Enabled”. It may not be possible to connect due to changes to the setting in [Wi-Fi]. If this occurs, turn the Main power switch off, then turn it on again.	42 —
Power turns on unexpectedly. No images after power on.	If [Signage Settings] → [Power Up Settings] → [HDMI Wake Up Enabled] is set to [5V], when one of the HDMI terminals detects a 5V signal, this unit starts up and switches to the input where the signal was detected. Depending on the connected device, a 5V signal may be output even when there is no video output. Check that video signals are being output. The connected device must be off beforehand to start up with the HDMI signal.	— —
No file playback from USB input	Check the specifications of the playback file.	89
The password cannot be hidden on the Wi-Fi password input screen	While software keyboard is open, it cannot move the cursor to other menu. Please close the software keyboard by pressing RETURN key to move the cursor.	—
How to remove USB memory safely	When removing the USB memory, wait a few seconds after the operation and remove the USB memory from the device.	48 77 78
Device registration to Multi Monitoring & Control Software takes time	Depending on the device status, it may take about 20 seconds to register the device to Multi Monitoring & Control Software.	66
It may not be possible to launch the browser from the HTML5 CMS Launcher of the HOME screen	The [Menu Speech] function is not supported by apps in the HOME screen. For this reason, if you enable [Menu Speech], it may not be possible to launch the browser with the [HTML5 CMS Launcher]. In order to launch the browser with the [HTML5 CMS Launcher] in the HOME screen, use the following procedure to disable [Menu Speech]: [Display Settings] → [System Settings] → [More…] → [Accessibility] → [Menu Speech]	51
[Menu Speech] is disabled	The [Menu Speech] function is not supported by apps in the HOME screen. For this reason, if the browser is launched with the [HTML5 CMS Launcher] in the HOME screen while you have enabled [Menu Speech], [Menu Speech] is disabled. Use the following procedure to enable [Menu Speech] again: [Display Settings] → [System Settings] → [More…] → [Accessibility] → [Menu Speech]	51
[Menu Speech] works (menus read aloud) when there is a change in the status of the Wi-Fi access point	When [Menu Speech] is [On] and [Wi-Fi] is “Enabled”, if the unit is not connected to a Wi-Fi access point and then the status of the access point changes, [Menu Speech] may start working (menus read aloud). This situation can be solved by setting [Menu Speech] to [Off] using the following operation: [Display Settings] → [System Settings] → [More…] → [Accessibility] → [Menu Speech]	51
Cannot operate the remote control when [CEC] is set to [Enabled]	Press and hold <0> on the remote control for 3 seconds to switch the device to be controlled to the TV or CEC compatible device, and then try operating the remote control again.	52

Symptoms	Check	Reference page
Cannot set up an administrator account	The password policy has been enhanced on software versions V7.225.0.0 or later. Make the settings after checking [Display Settings] → [Network & Internet] → [Administrator Account] → [Password Policy].	42
Cannot access the web page for this unit	Make sure the IP address, etc., is set correctly on the unit and the PC on which the web browser is used. After the power is turned off and on, or after [Signage Settings] → [Power Up Settings] → [Power Mode] is set to [Eco] and the power is turned off and on and sufficient time has passed, then try to access.	— —
Schedule is not working	In environments where the power supply is turned off and on while the device is in standby, it is necessary to set [Power Mode] to [Reactive]. If the date and time are changed after setting the schedule, either shut down the power, then turn it on again, or, when the [Power Mode] is [Eco], turn the power off and on.	47 —
Software downloading is slow for the system update	The download speed is dependent on the network environment. Connect to a different network environment and try the system update again.	93
There is no sound immediately after starting playback of content	When using content that has sound being played immediately after playback starts, there are cases when the sound may not be output immediately after playback starts, depending on the equipment being used. Either replace the playback device, or improve the issue by delaying the start of the audio on the content itself.	—
The logo is displayed when starting up, but there are no images displayed	When the [Power Mode] is [Reactive] and the [Initial Start Up] is set to either [Standby] or [Last Memory] and the power plug is disconnected and connected again in the standby mode, etc., the unit goes to standby again after the logo is displayed. This is the way the unit should operate and is not a malfunction.	46
The logo continues to be displayed when starting up	Check to see if this unit starts up when cables other than the power supply cord are disconnected from this unit. The logo continues to be displayed after starting up when there is an external IR sensor connected to the SERIAL IN terminal. Confirm that the connections are correct.	— —
After upgrading the software, some setting items that were previously changeable are no longer available	A software upgrade may remove certain setting items, making it impossible to change their settings. You can restore the original settings by performing initialization.	—
There are functions that are unavailable or functions described in the Operating Instructions are not displayed	There are some functions that become available when you update the software. Consider updating the software if necessary. The versions and the main available functions are as follows: **V7.183.3.0 or later** • [Network & Internet] → [Network & Internet] → [Proxy settings] • [Network & Internet] → [SNMP] **V7.218.4.0 or later** • [Network & Internet] → [Hostname] • [Network & Internet] → [Crestron Connected™] **V7.225.0.0 or later** • [Network & Internet] → [Testtool Socket]	 42 43 43 44

Specifications

Model No.

98-inch model: TH-98CQE2U
86-inch model: TH-86CQE2U
75-inch model: TH-75CQE2U
65-inch model: TH-65CQE2U
55-inch model: TH-55CQE2U
50-inch model: TH-50CQE2U
43-inch model: TH-43CQE2U

Power Supply

98-inch model

TH-98CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 6.7 A

86-inch model

TH-86CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 3.8 A

75-inch model

TH-75CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 2.7 A

65-inch model

TH-65CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 2.6 A

55-inch model

TH-55CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 1.9 A

50-inch model

TH-50CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 1.7 A

43-inch model

TH-43CQE2U: 110 V – 127 V ~ (110 V – 127 V alternating current), 60 Hz, 1.8 A

Power off with the Main power switch

0 W

Stand-by condition

0.5 W (Power Mode: Eco)

Power Consumption*1

98-inch model

TH-98CQE2U: Approx. 445 W

86-inch model

TH-86CQE2U: Approx. 235 W

75-inch model

TH-75CQE2U: Approx. 170 W

65-inch model

TH-65CQE2U: Approx. 160 W

55-inch model

TH-55CQE2U: Approx. 110 W

50-inch model

TH-50CQE2U: Approx. 100 W

43-inch model

TH-43CQE2U: Approx. 110 W

LCD TV panel

98-inch model

98-inch ADS panel (Direct LED backlight), 16:9 aspect ratio

86-inch model

86-inch IPS panel (Edge LED backlight), 16:9 aspect ratio

75-inch model

75-inch ADS panel (Direct LED backlight), 16:9 aspect ratio

65-inch model

65-inch ADS panel (Direct LED backlight), 16:9 aspect ratio

55-inch model

55-inch ADS panel (Direct LED backlight), 16:9 aspect ratio

50-inch model

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

43-inch model

43-inch ADS panel (Direct LED backlight), 16:9 aspect ratio

Screen size

98-inch model

2 158.8 mm (W) × 1 214.3 mm (H) × 2 476.9 mm (diagonal) / 84.99″ (W) × 47.80″ (H) × 97.51″ (diagonal)

86-inch model

1 895.0 mm (W) × 1 065.9 mm (H) × 2 174.2 mm (diagonal) / 74.60″ (W) × 41.96″ (H) × 85.60″ (diagonal)

75-inch model

1 649.6 mm (W) × 927.9 mm (H) × 1 892.7 mm (diagonal) / 64.94″ (W) × 36.53″ (H) × 74.51″ (diagonal)

65-inch model

1 428.4 mm (W) × 803.5 mm (H) × 1 638.9 mm (diagonal) / 56.23″ (W) × 31.63″ (H) × 64.52″ (diagonal)

55-inch model

1 209.6 mm (W) × 680.4 mm (H) × 1 387.8 mm (diagonal) / 47.62″ (W) × 26.78″ (H) × 54.63″ (diagonal)

50-inch model

1 095.8 mm (W) × 616.4 mm (H) × 1 257.3 mm (diagonal) / 43.14″ (W) × 24.26″ (H) × 49.50″ (diagonal)

43-inch model

941.1 mm (W) × 529.4 mm (H) × 1 079.8 mm (diagonal) / 37.05″ (W) × 20.84″ (H) × 42.51″ (diagonal)

No. of pixels

8 294 400

(3 840 (Horizontal) × 2 160 (Vertical))

Dimensions (W × H × D)

98-inch model

TH-98CQE2U: 2 216 mm × 1 271 mm × 91 mm
(including remote controller sensor: 1 288 mm)
87.25″ × 50.02″ × 3.55″
(including remote controller sensor: 50.67″)

86-inch model

TH-86CQE2U: 1 929 mm × 1 100 mm × 80 mm (top of VESA NUT: 55 mm)
(including remote controller sensor: 1 116 mm)
75.91″ × 43.28″ × 3.13″ (top of VESA NUT: 2.15″)
(including remote controller sensor: 43.94″)

75-inch model

TH-75CQE2U: 1 684 mm × 968 mm × 100 mm (top of VESA NUT: 73 mm)
(including remote controller sensor: 984 mm)
66.28″ × 38.09″ × 3.92″ (top of VESA NUT: 2.89″)
(including remote controller sensor: 38.74″)

65-inch model

TH-65CQE2U: 1 456 mm × 835 mm × 96 mm / 57.32″ × 32.84″ × 3.78″
(including remote controller sensor: 853 mm / 33.55″)

55-inch model

TH-55CQE2U: 1 236 mm × 710 mm × 68 mm / 48.64″ × 27.92″ × 2.67″
(including remote controller sensor: 728 mm / 28.63″)

50-inch model

TH-50CQE2U: 1 121 mm × 646 mm × 68 mm / 44.12″ × 25.43″ × 2.66″
(including remote controller sensor: 664 mm / 26.14″)

43-inch model

TH-43CQE2U: 964 mm × 555 mm × 68 mm / 37.92″ × 21.85″ × 2.66″
(including remote controller sensor: 573 mm / 22.56″)

Mass

98-inch model

TH-98CQE2U: Approx. 99.4 kg / 219.2 lbs net

86-inch model

TH-86CQE2U: Approx. 61.7 kg / 136.1 lbs net

75-inch model

TH-75CQE2U: Approx. 36.8 kg / 81.2 lbs net

65-inch model

TH-65CQE2U: Approx. 24.6 kg / 54.3 lbs net

55-inch model

TH-55CQE2U: Approx. 17.9 kg / 39.5 lbs net

50-inch model

TH-50CQE2U: Approx. 13.4 kg / 29.6 lbs net

43-inch model

TH-43CQE2U: Approx. 10.3 kg / 22.7 lbs net

Operating condition

Temperature

0 °C – 40 °C (32 °F – 104 °F)*2

Humidity

20 % – 80 % (no condensation)

Operating Time

24 hours/day (TH-98CQE2U)

16 hours/day (TH-86/75/65/55/50/43CQE2U)

Connection terminals

HDMI IN 1
HDMI IN 2
HDMI IN 3
HDMI IN 4

TYPE A Connector*3 × 4 (Supports 4K)

Compatible with HDCP 2.2

Audio signal:

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

AUDIO OUT

Stereo mini jack (M3) (φ 3.5 mm) × 1, 0.5 Vrms

Output: Variable (-∞ to 0 dB)
(1 kHz 0 dB input, 10 kΩ load)

IR IN

Stereo mini jack (M3) (φ 3.5 mm) × 1

USB

USB connector × 1, TYPE A
DC 5 V / max 0.9 A, Compatible with USB 3.0

USB connector × 1, TYPE A
DC 5 V / max 0.5 A, Compatible with USB 2.0

USB connector × 1 (Internal), TYPE A
DC 5 V / max 0.5 A, Compatible with USB 2.0

USB connector × 1, TYPE C
DC 5 V / max 3.0 A,
Compatible with USB 3.0, Compatible with DP Alt Mode

LAN

RJ45 × 1:

For network connection, compatible with PJLink

Communication method:

RJ45, 10BASE-T / 100BASE-TX

SERIAL IN

External Control Terminal

Stereo mini jack (M3) (φ 3.5 mm) × 1:

RS-232C compatible

microSD

microSD/SDHC/SDXC: MAX 1 TB

SPDIF Optical Out port

Sound

Speakers

98-inch model 86-inch model 75-inch model:

100 mm × 25 mm / φ 15 mm × 4 pieces

65-inch model 55-inch model 50-inch model 43-inch model:

100 mm × 25 mm / φ 15 mm × 2 pieces

Audio Output

98-inch model 86-inch model 75-inch model:

24 W [12 W + 12 W] (10 % THD)

65-inch model 55-inch model 50-inch model:

20 W [10 W + 10 W]

43-inch model:

16 W [8 W + 8 W]

Remote Control Transmitter

Power source

DC 3 V (AA Size batteries × 2)

Operating range

Approx. 7 m (22.9 ft)

(when operated directly in front of remote control sensor using IR Sensor of accessory parts)

Mass

Approx. 112 g / 3.96 oz (including batteries)

Dimensions (W × H × D)

51 mm × 161 mm × 27 mm / 2.00″ × 6.34″ × 1.07″

Wireless LAN

Standard compliance and Frequency range*4

IEEE802.11a/n/ac
5.15 GHz – 5.35 GHz, 5.47 GHz – 5.85 GHz

IEEE802.11b/g/n
2.400 GHz – 2.4835 GHz

Security

WPA2 / WPA3

Bluetooth wireless technology*5

Standard Compliance

Bluetooth 5.1

Frequency Range

2.402 GHz – 2.480 GHz

*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.

*4: The frequency and channel differ depending on the country.

*5: Not all the Bluetooth® compatible devices are available with this TV.

Note

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

Software License

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Contact Information:

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

Notice about AVC/VC-1/MPEG-4

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Disposal of Old Equipment and Batteries
Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.
For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.
By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.
For more information about collection and recycling, please contact your local authority.
Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

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.

Notice (U.S.A. only)

To dispose of your product, please recycle in accordance with local environmental regulations. For further recycling please visit
https://shop.panasonic.com/recycle

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 Projector & Display Americas LLC

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English

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