

## Operating Instructions

FULL HD LCD Display For business use

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Model No. **TH-55LFV70U**

**TH-55LFV70W**



# Dear Panasonic Customer

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

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

Retain your purchase receipt as well, and record the model number and serial number of your set in the space provided on the rear cover of these instructions.


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

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	<b>WARNING</b> <b>RISK OF ELECTRIC SHOCK</b> <b>DO NOT OPEN</b>	
<b>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.</b>		



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.

## 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.



# 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.

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

## IMPORTANT: THE MOULDED PLUG

### FOR YOUR SAFETY. PLEASE READ THE FOLLOWING TEXT CAREFULLY.

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

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

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from your local Panasonic dealer.

Do not cut off the mains plug.

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

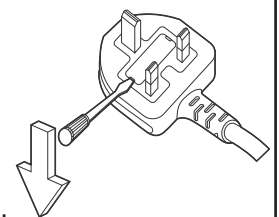
The supplied mains lead and moulded plug are designed to be used with this display to avoid interference and for your safety.

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

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

### WARNING : — THIS DISPLAY MUST BE EARTHED.

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



## IMPORTANT INSTALLATION INFORMATION

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

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

## Note:

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

# Safety Precautions

## WARNING

### ■ Setup

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

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

- Mounting Bracket ..... TY-VK55LV1
- Cover-frame Kit.....TY-CF55VW50

Always be sure to ask a qualified technician to carry out set-up.

Small parts can present choking hazard if accidentally swallowed. Keep small parts away from young children. Discard unneeded small parts and other objects, including packaging materials and plastic bags/sheets to prevent them from being played with by young children, creating the potential risk of suffocation.

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

- The Display may fall off or tip over.

**Do not place any objects on top of the Display.**

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

**Transport only in upright position!**

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

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

**For sufficient ventilation;**

**Leave a space of 10 cm or more at the top, left and right, and 5 cm or more at the rear, and also keep the space between the bottom of the display and the floor surface.**

**Cautions for Wall Installation**

- Wall installation should be performed by an installation professional. Installing the Display incorrectly may lead to an accident that results in death or serious injury. Use the specified optional accessories.
- When installing the Display vertically, be sure to install the power indicator onto the bottom of the Display.

**Caution for Ceiling Suspension**

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

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

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

**When mounting the Display on the wall, prevent the mounting screws and power cable from contacting metal objects inside the wall. An electric shock may occur if they contact metal objects inside the wall.**

**If you terminate the use of the Display on the Wall, Ceiling or Pedestal, ask a professional to remove the Display as soon as possible.**

## Safety Precautions

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### ■ When using the LCD Display

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

**Do not cover the ventilation holes.**

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

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

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

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

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

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

**An apparatus with CLASS I construction 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 fire or electric shocks.

**Securely insert the power supply plug as far as it will go.**

- If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket is loose, they shall not be used.

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

- Doing so may cause electric shocks.

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

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

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

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



### ■ If problems occur during use

**If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odour starts to come out from the Display, immediately unplug the power supply plug from the wall outlet.**

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

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

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

### CAUTION

#### ■ When using the LCD Display

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

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

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

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

**Disconnect the power supply plug from the wall socket as a safety precaution before carrying out any cleaning.**

- Electric shocks can result if this is not done.

**Clean the power cable regularly to prevent it becoming dusty.**

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

**Do not burn or breakup batteries.**

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

## Cleaning and maintenance

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

- If the surface is particularly dirty, wipe with a soft, lint-free cloth which has been soaked in pure water or water in which neutral detergent has been diluted 100 times, and then wipe it evenly with a dry cloth of the same type until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects, otherwise the surface may become damaged. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

**If the cabinet becomes dirty, wipe it with a soft, dry cloth.**

- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Display. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

**Usage of a chemical cloth**

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



# FCC STATEMENT

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.**

### Declaration of Verification

Model No. TH-55LFV70U

Responsible Party:	Panasonic Corporation of North America Two Riverfront Plaza, Newark, NJ 07102-5490
Contact Source:	Panasonic System Communications Company of North America 1-800-973-4390

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.

<sup>1</sup> The following type information may appears elsewhere in the O/I: Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/or performance from usage of such other maker's peripheral devices.

## CANADIAN NOTICE:

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

## NOTE:

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

## Trademark Credits

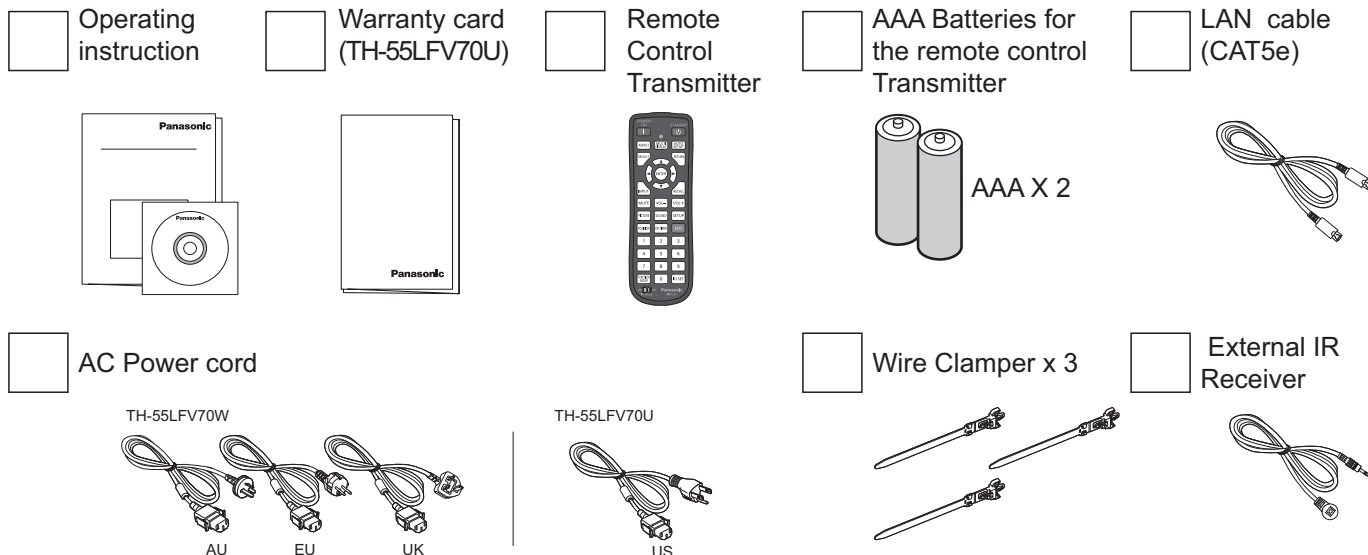
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# Accessories

## Accessories Supplied

Check that you have the Accessories and items shown 



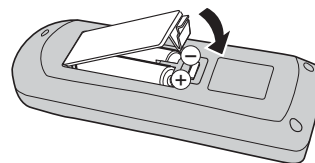
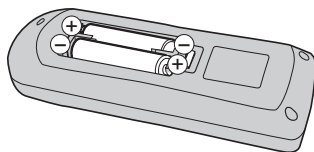
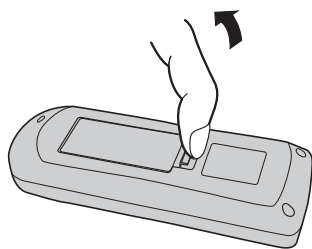
### Attention:

- Store small parts in an appropriate manner, and keep them away from young children.
- Dispose the Power supply cord cap and packaging materials appropriately after taking out the items.

## Remote Control Batteries

Requires two AAA batteries.

1. Pull and hold the hook, then open the battery cover.
2. Insert batteries - note correct polarity (+ and -).
3. Replace the cover.



### Helpful Hint:

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



### Precaution on battery use

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

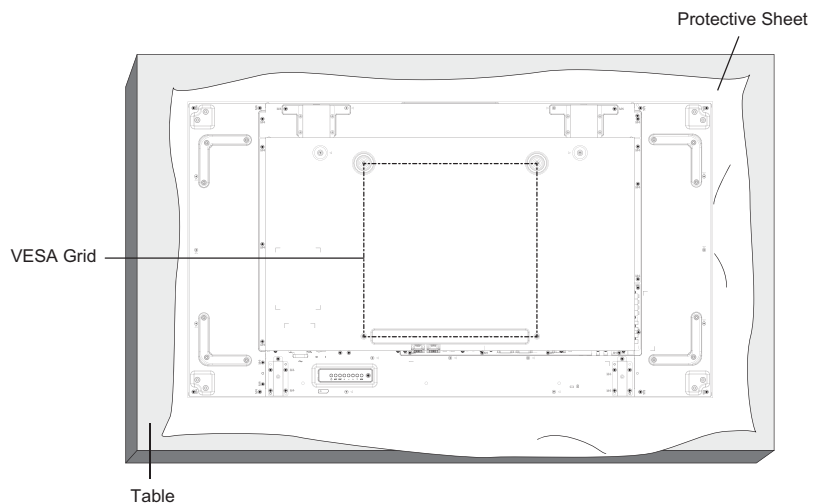
### Observe the following precautions:

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

# VESA Mounting

To mount this Display to a wall, you will have to obtain a standard wall-mounting kit.

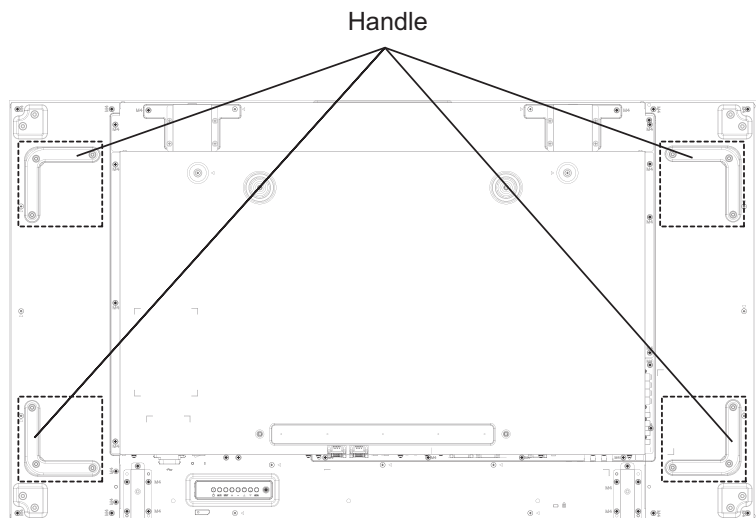
1. Lay a protective sheet on a table, which was wrapped around this Display when it was packaged, beneath the screen surface so as not to scratch the screen face.
2. Ensure you have all accessories for mounting this Display (wall mount, ceiling mount, etc).
3. Follow the instructions that came with the wall mounting kit. Failing to follow the correct mounting procedures could result in damage to the equipment, or injury to the user or install personnel. The product warranty does not cover the damage caused by improper installation.
4. For the wall-mounting kit, use M6 mounting screws (having a length 10 mm longer than the thickness of the mounting bracket) and tighten them securely.



## Cautions when installing or moving

To prevent this Display from falling:

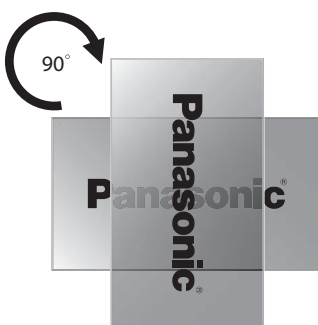
- Grab the handles when moving this Display.
- Do not touch any parts except the handles.
- Handle with care and with more than two persons when moving this Display. Keep in mind that this Display is easy to break from carelessness.
- For ceiling installation, we recommend installing this Display with metal brackets which are commercially available. For detailed installation instructions, refer to the guide received with the respective bracket.
- To lessen the probability of injury and damage resulting from fall of this Display in case of earthquake or other natural disaster, be sure to consult the bracket manufacturer for installation location.
- For portrait installation, please turn this Display right.



When you install a display by multi, please prepare for 0.5 mm between each display in the state of the power supply OFF.

### NOTE:

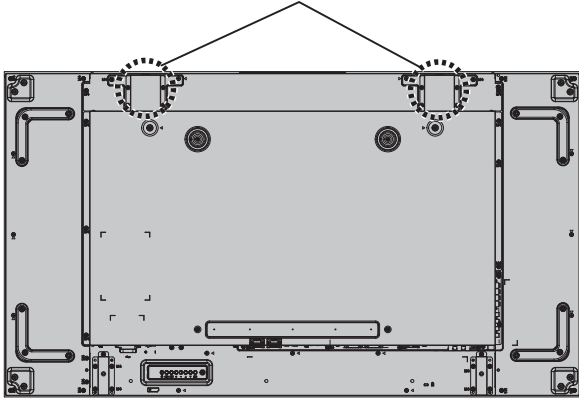
- Please do not rotate and use it for left-hand side.



# Ceiling Suspension

You can move the Display by attaching commercially available eyebolts (M10) to it and suspending it from the ceiling, etc.

Eyebolt mounting positions

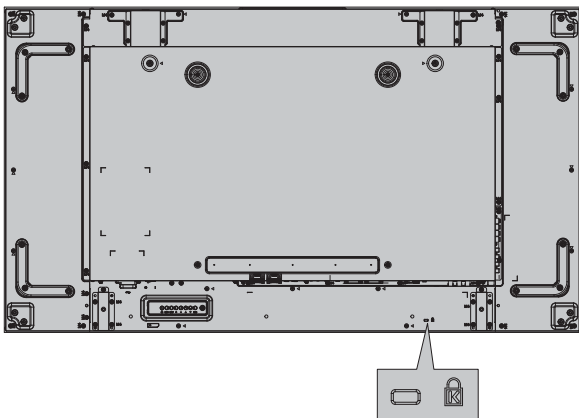


**Note:**

- Suspension and installation should be performed by an installation professional.
- Do not install it using only one eyebolt.
- Use it only for temporary hanging of movement etc.

# Kensington security

## Kensington security slot

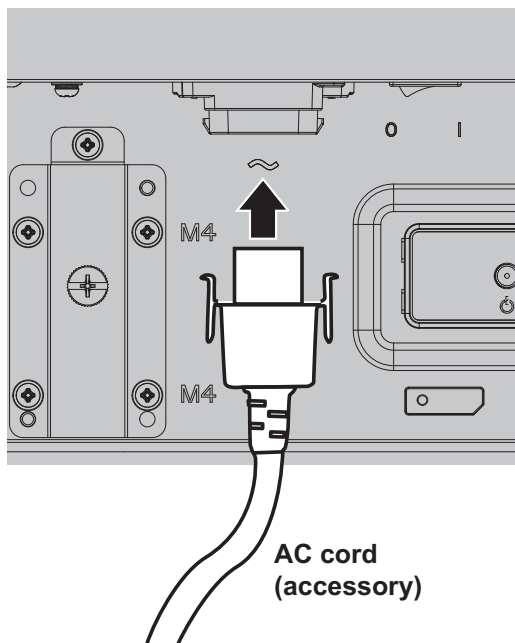


**Note:**

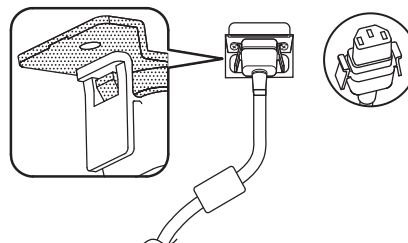
This security slot is compatible with the Kensington security cables.

# Connections

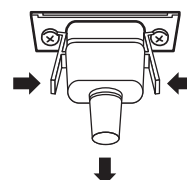
## AC cord connection and cable fixing



- Plug the AC cord into this Display.
- Plug the AC cord firmly until it clicks into position. Make sure the AC cord is locked on both the left and right sides.



- To unplug the AC cord, press the two knobs and pull.

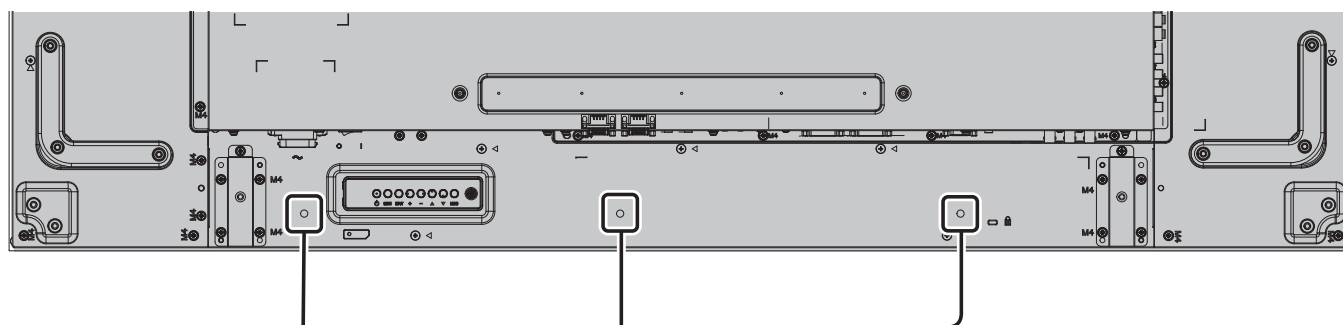


### NOTE:

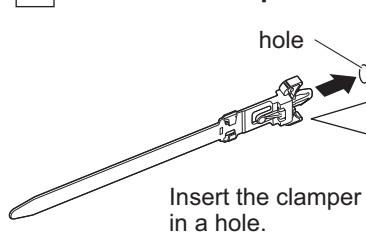
- When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.

### Using the clamper

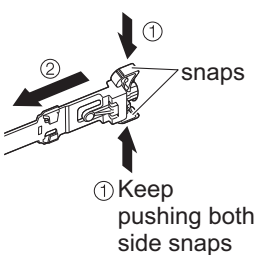
Secure any excess cables with clamper as required.



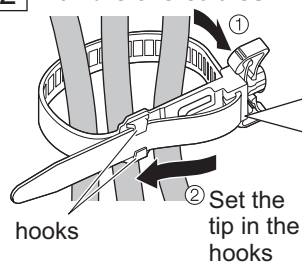
#### 1 Attach the clamper



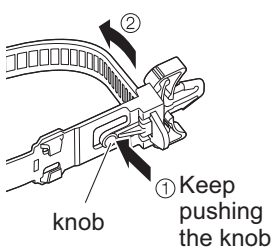
To remove from the unit:



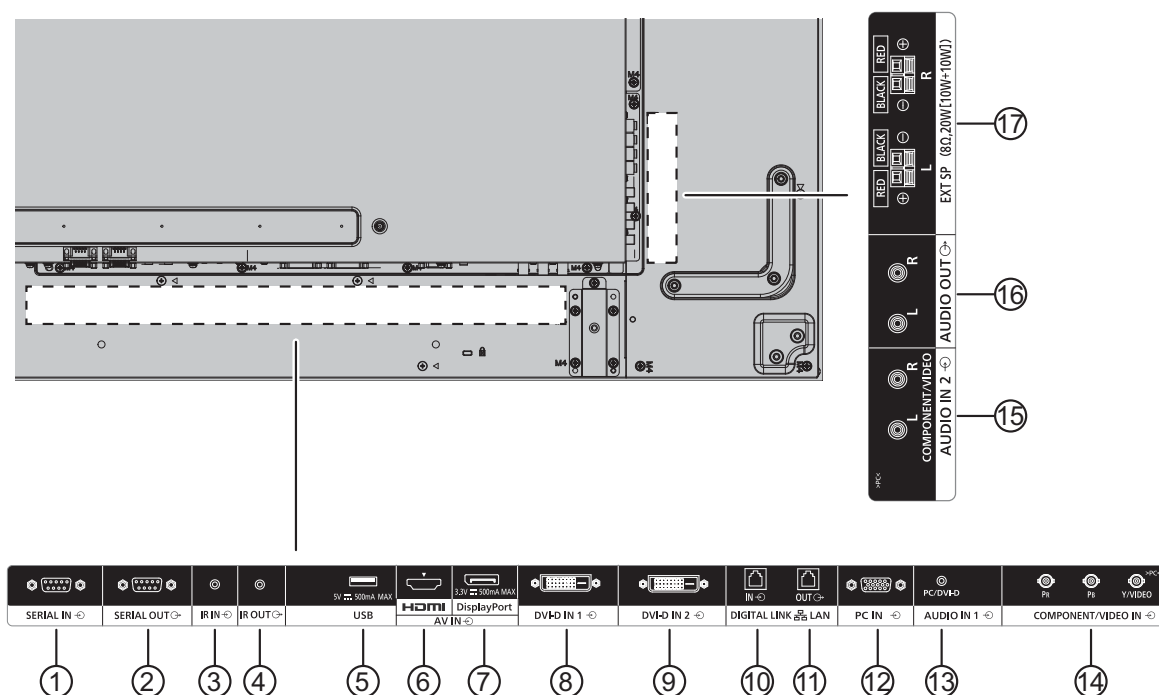
#### 2 Bundle the cables



To loosen:



# Video equipment connection



## ①/② SERIAL IN, SERIAL OUT

SERIAL Input/Output Terminal Control the Display by connecting to PC.

## ③/④ IR IN, IR OUT

To control multiple display with one remote control, connects other display from this IN/OUT port.

The infrared signal received from the first unit will send to the second unit.

## ⑤ USB

Connect your USB storage device.

## ⑥ HDMI IN

HDMI video/audio input.

## ⑦ DisplayPort IN

DisplayPort video input.

## ⑧/⑨ DVI-D IN-1, DVI-D IN-2

DVI-D video input.

## ⑩/⑪ DIGITAL LINK, LAN IN OUT

Connect to a DIGITAL LINK input terminal network to control the Display.

Alternatively, connect to a device that sends video and audio signals via the DIGITAL LINK terminal.

## ⑫ PC IN

PC Input Terminal

## ⑬ AUDIO IN 1 (DVI-D / PC)

Connect the audio output of a device connected to DVI-D IN, PC IN.

## ⑭ COMPONENT/VIDEO IN

Input the component YPbPr source from external AV device.

For CVBS input, connect with CVBS cable from the video output of your AV device to this Display's Y input (an after-market BNC-RCA adapter will be needed).

## ⑮ AUDIO IN 2

Input the audio source from external AV device.

## ⑯ AUDIO OUT

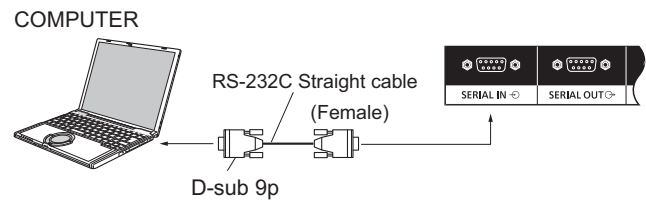
Output the audio source connected from the AUDIO IN jack to an external AV device.

## ⑰ EXT SP

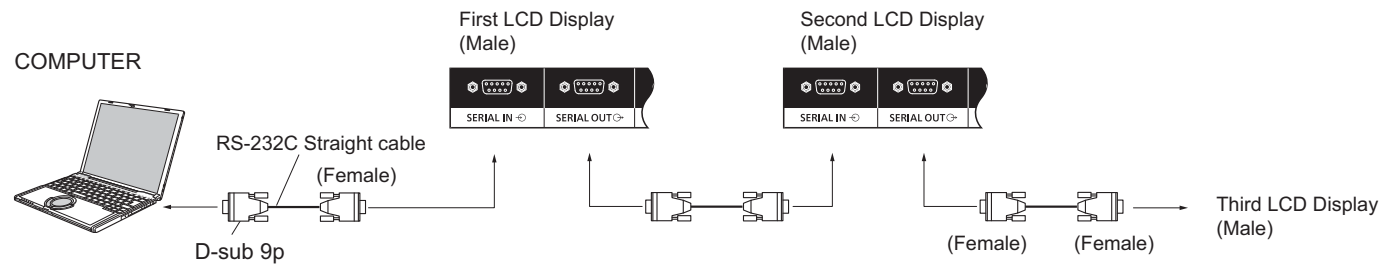
External speakers output.

# SERIAL Terminals connection

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



In addition, a particular LCD Display can be controlled with a PC while several LCD Displays are daisy chained.



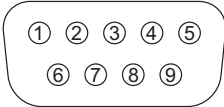
Notes:

- Use the RS-232C straight cable to connect the computer to the Display.
- The computer shown is for example purposes only.
- Additional equipment and cables shown are not supplied with this set.
- When using daisy chain, set “Serial Daisy Chain Position” in the “Control settings”. (see page 60).
- For daisy chain connection, use a straight cable connected to pins numbered ② through ⑧.

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

The computer will require software which allows the sending and receiving of control data which satisfies the conditions given below. Use a computer application such as programming language software. Refer to the documentation for the computer application for details.

Signal names for SERIAL IN terminal:

 Pin layout for SERIAL Terminal	Pin No.	Signal Name
	②	RXD
	③	TXD
	④	DTR
	⑤	GND
	⑥	DSR
	⑦	⌈ (Shorted in this set)
	⑧	
	①⑨	NC

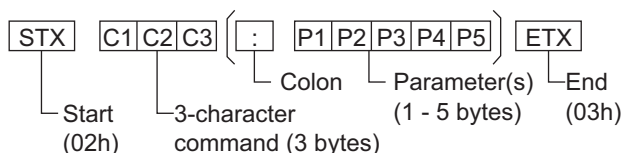
These signal names are those of computer specifications.

Communication parameters:

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

### Basic format for control data

The transmission of control data from the computer starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. If there are no parameters, then the parameter signal does not need to be sent.



### Notes:

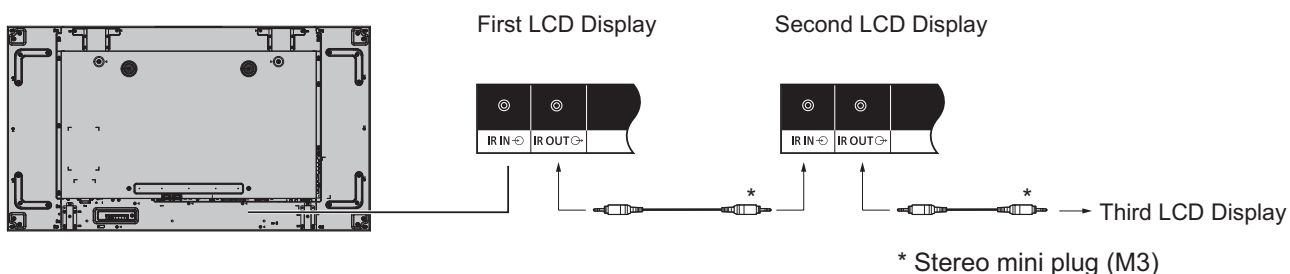
- If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.
- Consult an Authorized Service Center for detail instructions on command usage.
- With the power off, this display responds to PON command only.

### 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)
	VD1	VIDEO IN input (VIDEO)
	YP1	COMPONENT/RGB IN input (Component)
	HM1	HDMI input (HDMI)
	DV1	DVI-D1 IN input (DVI-D1)
	DV2	DVI-D2 IN input (DVI-D2)
	PC1	PC IN input (PC)
	DL1	DIGITAL LINK input
	DP1	DisplayPort input
	UD1	USB input
DAM	None	Screen mode select (toggle)
	ZOOM	Zoom1
	FULL	16:9
	NORM	4:3
	ZOM2	Zoom2

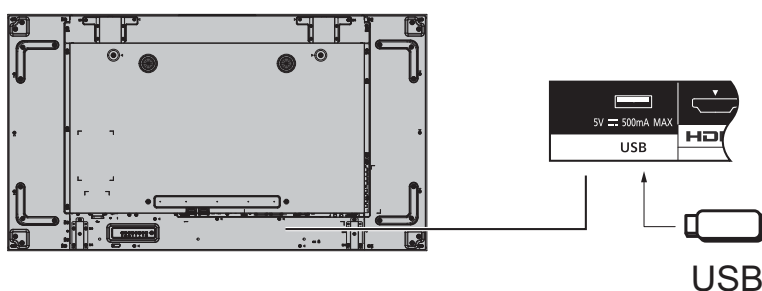
## IR IN / IR OUT Terminals connection

Use a 3.5 mm stereo mini plug to connect from the IR OUT of the First LCD Display to the IR IN of the Second LCD Display. The IR signal from the First LCD Display will be sent to the Second LCD Display.



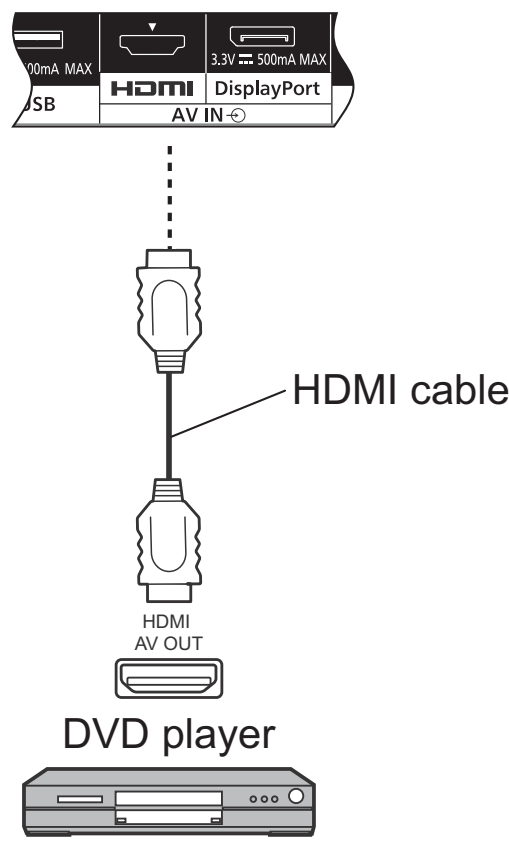
At this time, IR receiver of the Second LCD Display will not work.  
It is possible to daisy-chained by repeating the above connection.

## Example connection using the USB Terminal

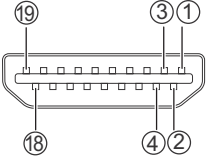




# HDMI connection



[Pin assignments and signal names]

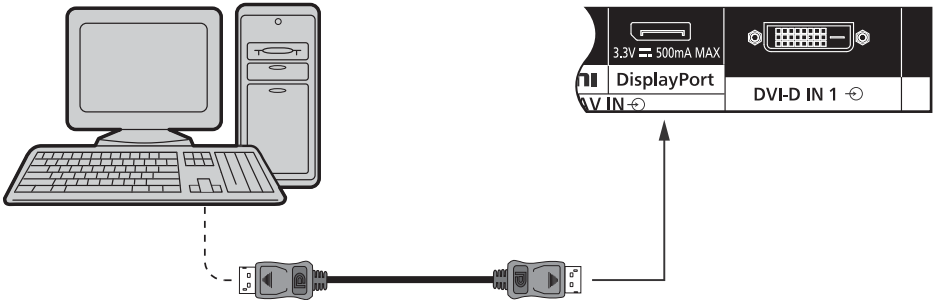
	Pin No.	Signal Name	Pin No.	Signal Name
	①	T.M.D.S. Data2 +	⑪	T.M.D.S. Clock Shield
	②	T.M.D.S. Data2 Shield	⑫	T.M.D.S. Clock –
	③	T.M.D.S. Data2 –	⑬	CEC
	④	T.M.D.S. Data1 +	⑭	Reserved (N.C. on device)
	⑤	T.M.D.S. Data1 Shield	⑮	SCL
	⑥	T.M.D.S. Data1 –	⑯	SDA
	⑦	T.M.D.S. Data0 +	⑰	DDC/CEC Ground
	⑧	T.M.D.S. Data0 Shield	⑱	+5 V DC
	⑨	T.M.D.S. Data0 –		Hot Plug Detect
	⑩	T.M.D.S. Clock +		

**Note:**

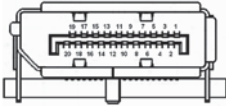
- Additional equipment and HDMI cable shown are not supplied with this set.

# DisplayPort connection

PC with DisplayPort out

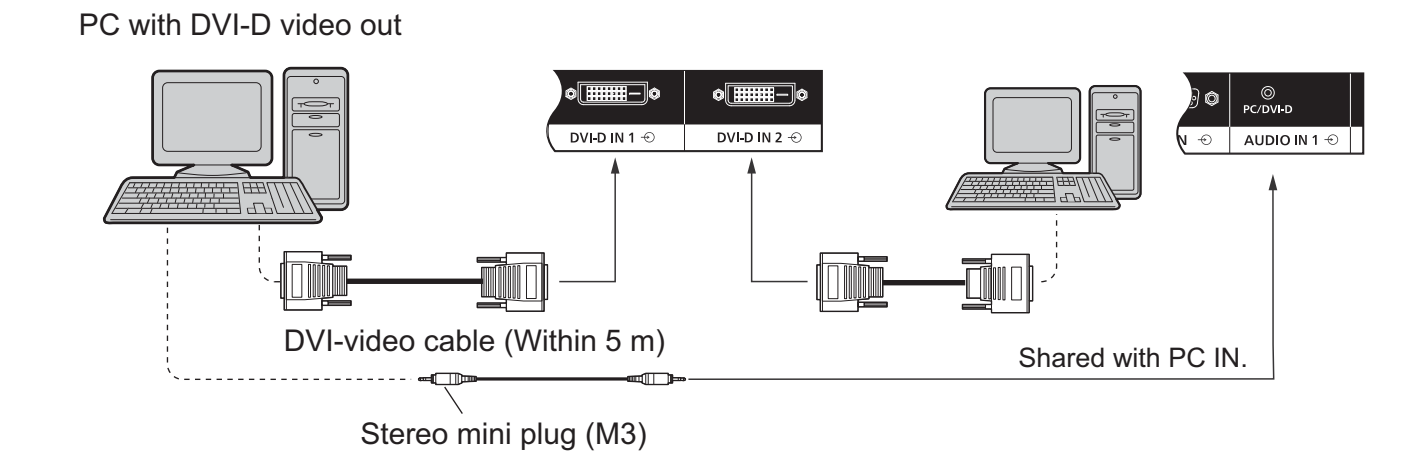


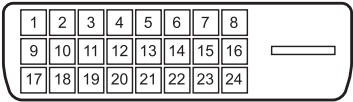
DisplayPort cable

<div>DisplayPort Input Connector Pin Layouts:</div> <div></div> <div>Connection port view</div>	Pin No.	Signal Name	Pin No.	Signal Name
	①	Lane0(p)	⑪	GND
	②	GND	⑫	Lane3(n)
	③	Lane0(n)	⑬	Config1
	④	Lane1(p)	⑭	Config2
	⑤	GND	⑮	AUX_CH (n)
	⑥	Lane1(n)	⑯	GND
	⑦	Lane2(p)	⑰	AUX_CH (p)
	⑧	GND	⑱	Hot Plug Detect
	⑨	Lane2(n)	⑲	DP Power_Return
	⑩	Lane3(p)	⑲	DP Power

- Note:**
- DisplayPort Input supports DP++ only.
  - Additional equipment and cables shown are not supplied with this set.

DVI-D IN 1, DVI-D IN 2 connection



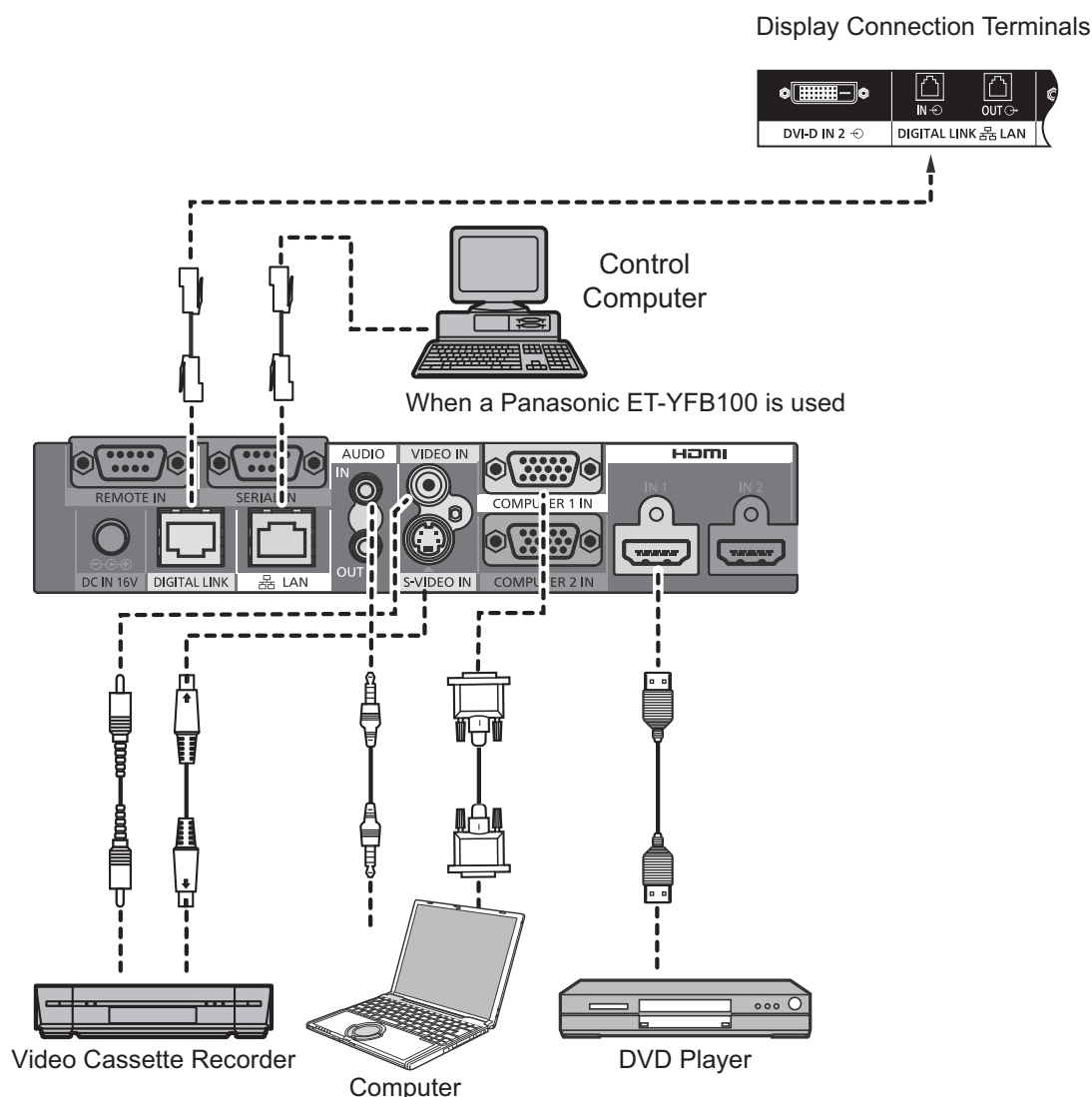
DVI-D Input Connector Pin Layouts:		Pin No.	Signal Name	Pin No.	Signal Name
 <p>Connection port view</p>		①	T.M.D.S. Data2 –	⑬	—
		②	T.M.D.S. Data2 +	⑭	+5 V DC
		③	T.M.D.S. Data2 Shield	⑮	Ground
		④	—	⑯	Hot Plug Detect
		⑤	—	⑰	T.M.D.S. Data0 –
		⑥	DDC Clock	⑱	T.M.D.S. Data0 +
		⑦	DDC Data	⑲	T.M.D.S. Data0 Shield
		⑧	—	⑳	—
		⑨	T.M.D.S. Data1 –	㉑	—
		⑩	T.M.D.S. Data1 +	㉒	T.M.D.S. Clock Shield
		⑪	T.M.D.S. Data1 Shield	㉓	T.M.D.S. Clock +
		⑫	—	㉔	T.M.D.S. Clock –

**Note:**

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

## Example connection using the DIGITAL LINK Terminal

A twisted pair cable transmitter such as the Panasonic Digital Interface Box (ET-YFB100) uses twisted pair cables to transmit inputted video and audio signals, and these digital signals can be input to the Display via the DIGITAL LINK terminal.



### Notes:

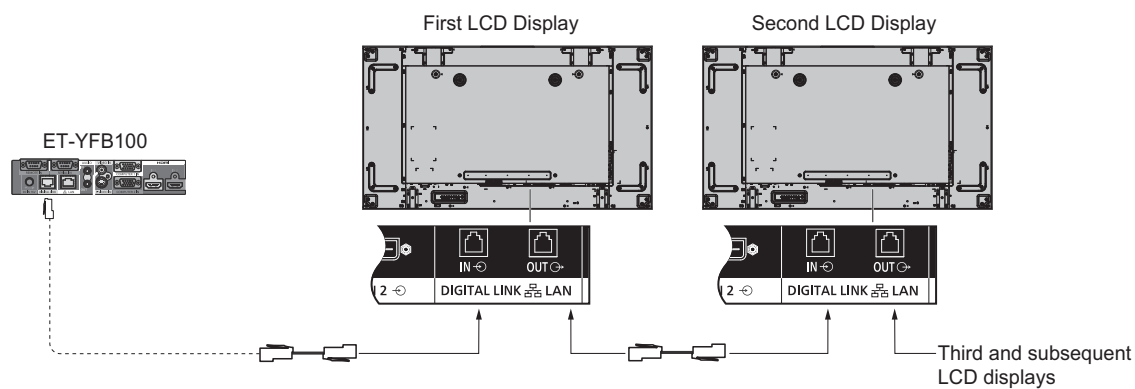
- When connecting with DIGITAL LINK, be sure to configure each of the “Network Settings” settings.
- For details on precautions related to connecting to the DIGITAL LINK terminals, see “connecting with a twisted pair cable transmitter”.

## Connections

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### Daisy chain connection:

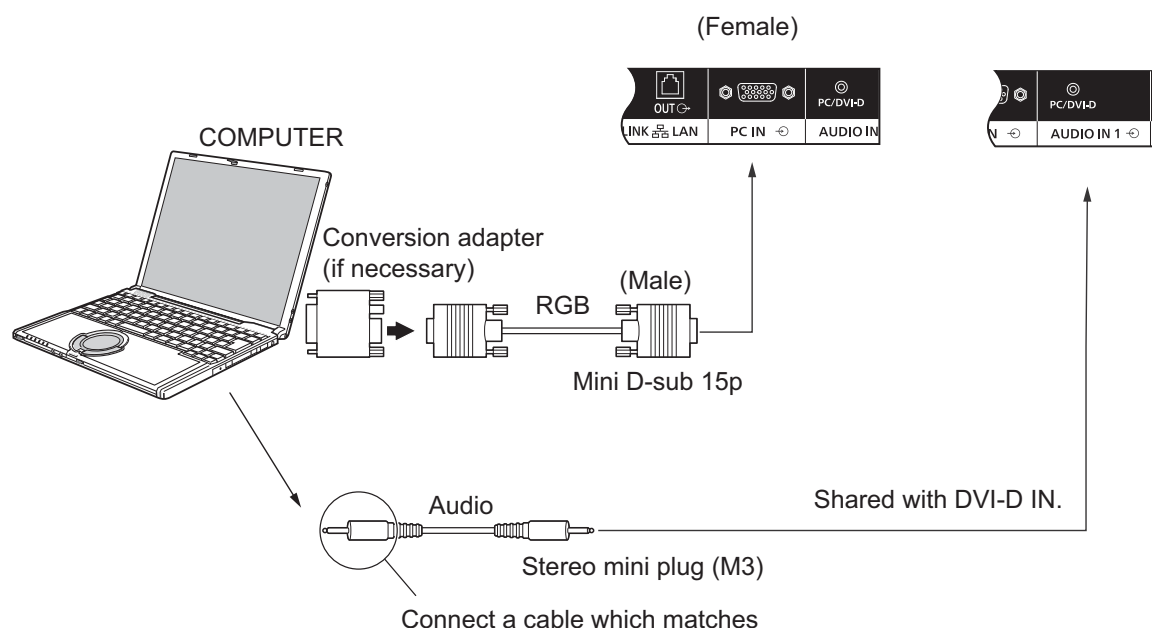
When using the multi display, multiple LCD Displays can be daisy chained.



### Notes:

- Up to 10 displays can be connected with a daisy chain, but the number of the connected displays may be limited by a cable, signal or equipment to use.
- HDCP signals can be processed, with up to 8 displays connected via a daisy chain connection.

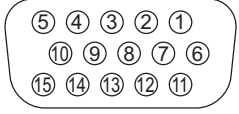
## PC Input Terminals connection



### Notes:

- Computer signals which can be input are those with a horizontal scanning frequency of 30 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- The display resolution is a maximum of 1,440 × 1,080 dots when the aspect mode is set to “4:3”, and 1,920 × 1,080 dots when the aspect mode is set to “16:9”. If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- The PC input terminals are DDC2B-compatible. If the computer being connected is not DDC2B-compatible, you will need to make setting changes to the computer at the time of connection.
- Some PC models cannot be connected to the set.
- There is no need to use an adapter for computers with DOS/V compatible Mini D-sub 15P terminal.
- The computer shown in the illustration is for example purposes only.
- Additional equipment and cables shown are not supplied with this set.
- Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

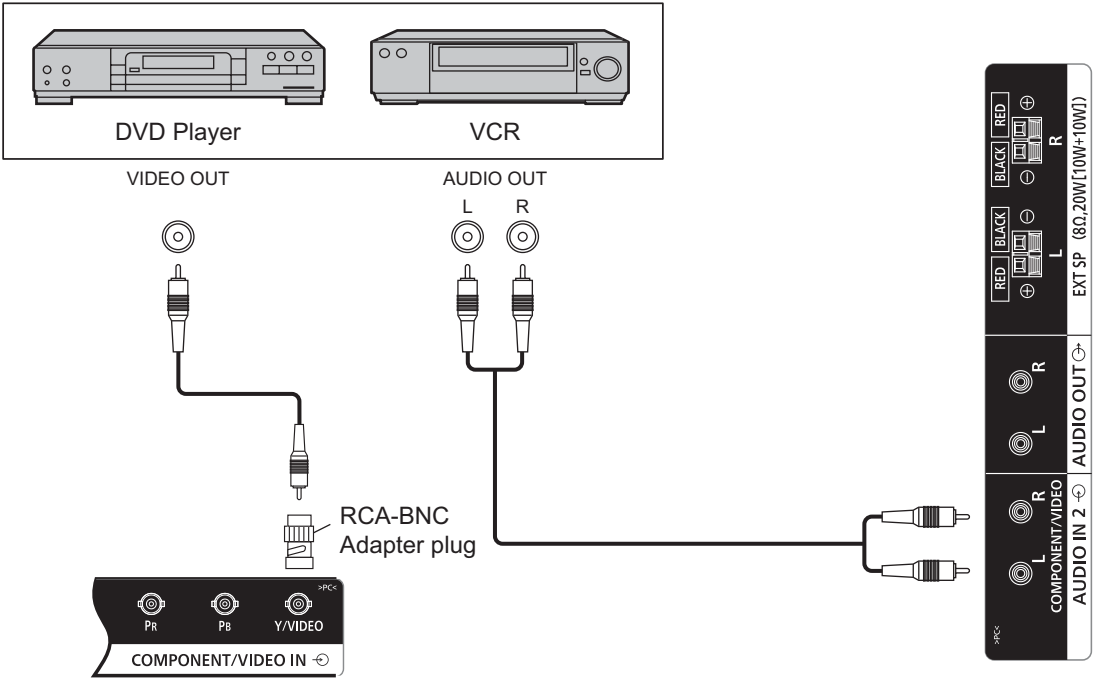
### Signal Names for Mini D-sub 15P Connector

 Pin Layout for PC Input Terminal	Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
	①	R	⑥	GND (Ground)	⑪	NC (not connected)
	②	G	⑦	GND (Ground)	⑫	SDA
	③	B	⑧	GND (Ground)	⑬	HD/SYNC
	④	NC (not connected)	⑨	+5 V DC	⑭	VD
	⑤	GND (Ground)	⑩	GND (Ground)	⑮	SCL

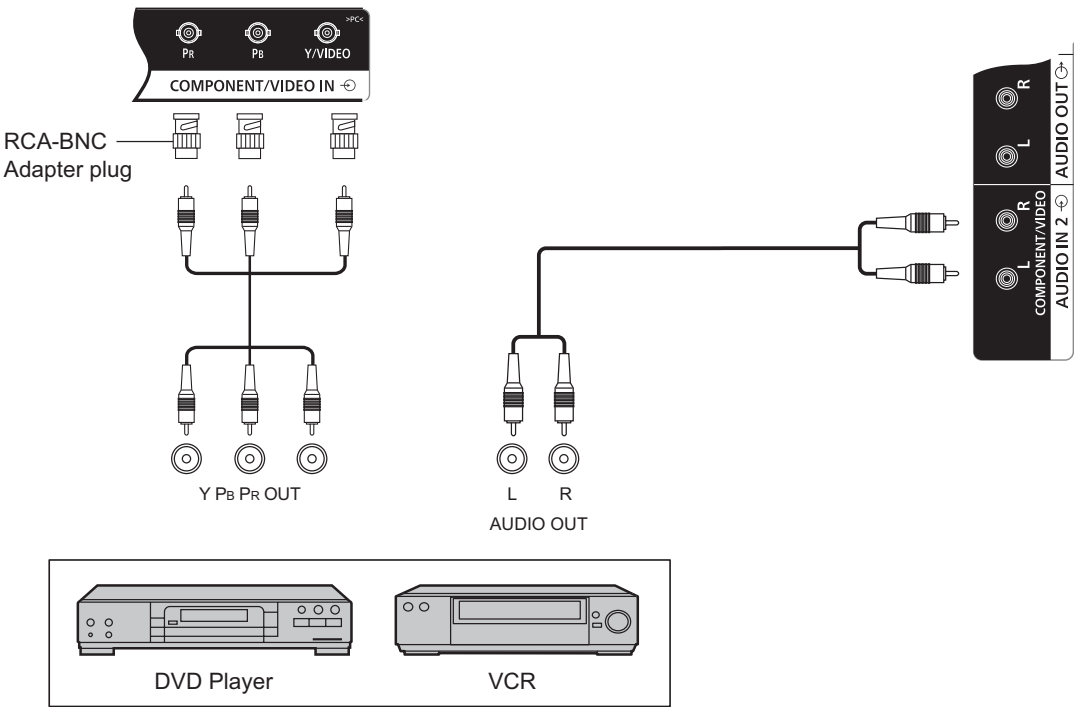
# VIDEO IN connection

**Note:**

- Additional equipment, cables and adapter plugs shown are not supplied with this set.



# COMPONENT connection

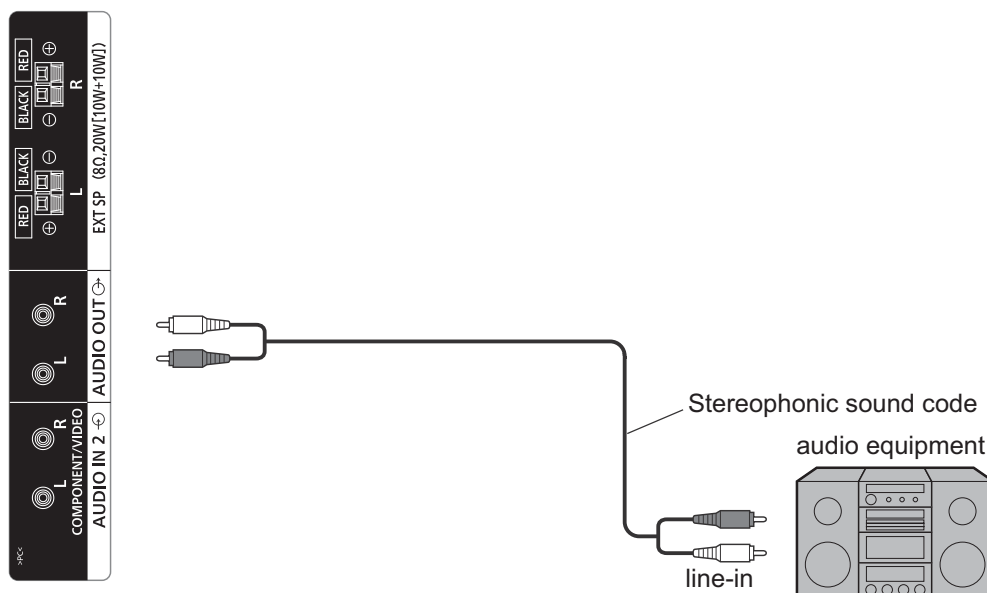




## AUDIO OUT connection

### Note:

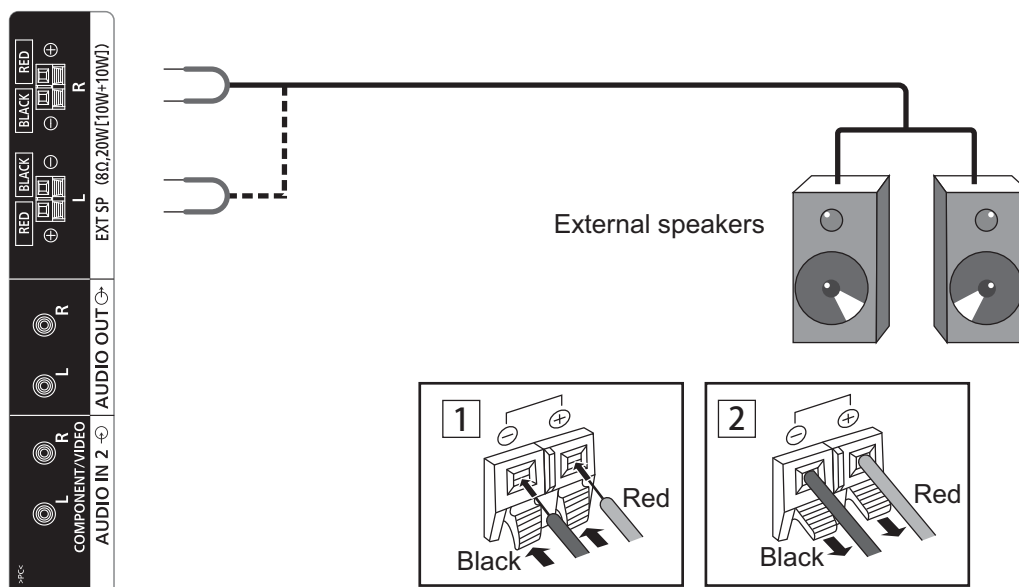
- AUDIO OUT is an exclusive terminal for external audio equipment.
- Additional equipment and cables shown are not supplied with this set.



## Speaker connection

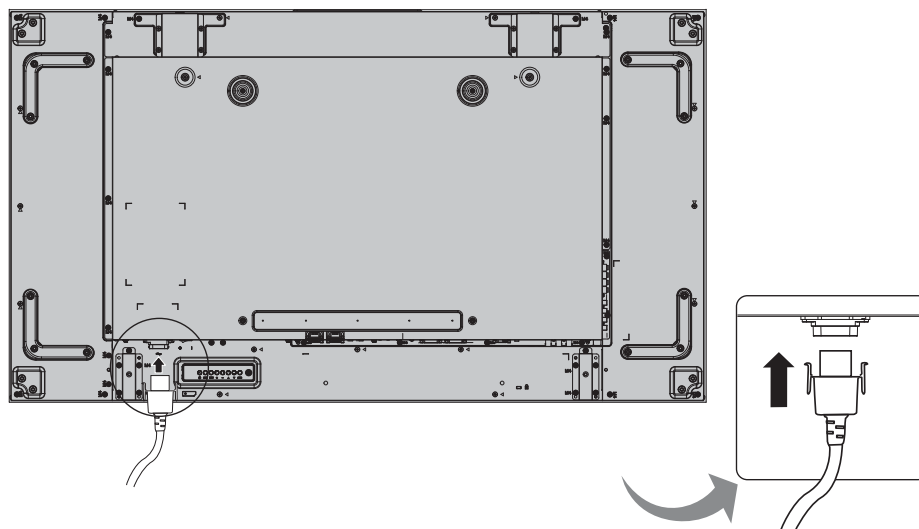
### Note:

- While pressing the lever, insert the core wire.
- Return the lever.



# Power On / Off

Connecting the AC cord plug to the Display.

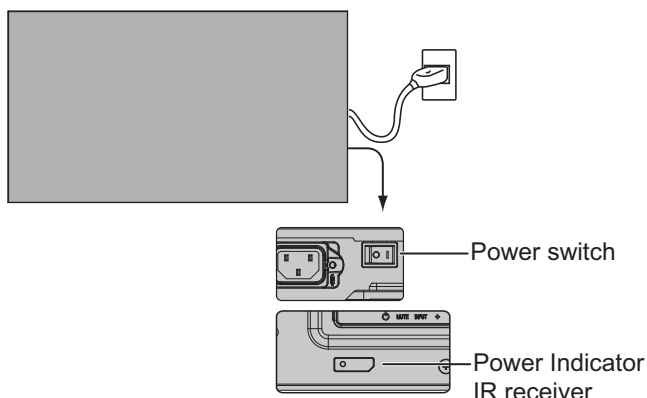


Connecting the plug to the Wall Outlet.

## Notes:

- When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.
- Press the Power switch on the Display to turn the set on: Power-On

**Power Indicator: Green**



POWER ON




STANDBY



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

**Power Indicator: Red (standby)**

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

**Power Indicator: Green**

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

## Note:

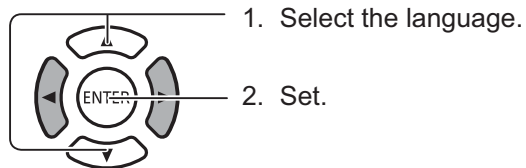
- During operation of the power management function, the power indicator turns orange in the power off state.



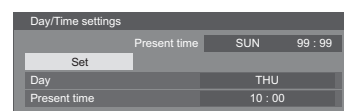
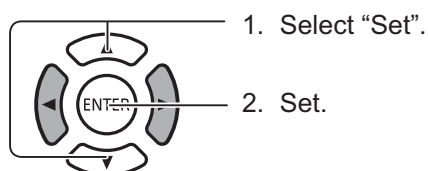
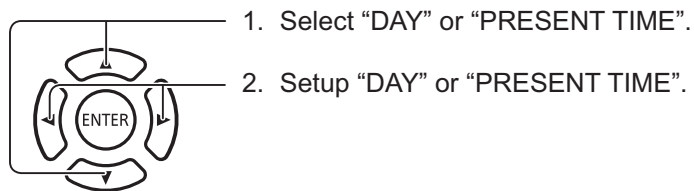
## When first switching on the unit

Following screen will be displayed when the unit is turned on for the first time.  
Select the items with the remote control. Unit buttons are invalid.

### OSD Language



### Day/Time settings



### Notes:

- Once the items are set, the screens won't be displayed when switching on the unit next time.
- After the setting, the items can be changed in the following menus.  
OSD Language  
Day/Time settings

# Selecting the input signal



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

Input signals will change as follows:

→HDMI→ Display Port→ DIGITAL LINK→ DVI-D1→ DVI-D2→ PC→ Component →VIDEO →USB(toggle) →

**HDMI:** HDMI input terminal in AV IN (HDMI).

**DisplayPort:** DisplayPort input terminal in AV IN (DisplayPort).

**DVI-D1, DVI-D2:** DVI-D1 or DVI-D2 input terminal in DVI-D IN.

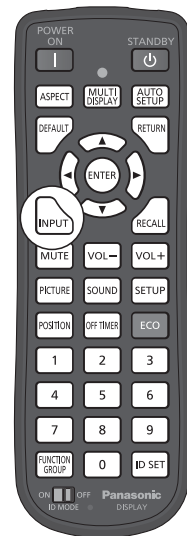
**Component:** Component input terminal in COMPONENT/VIDEO IN.

**VIDEO:** VIDEO input terminal in COMPONENT/VIDEO IN.

**PC:** PC input terminal in PC IN.

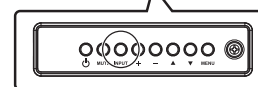
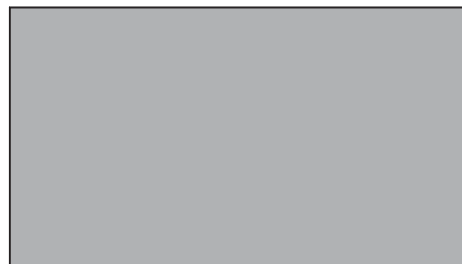
**USB:** USB input terminal.

**DIGITAL LINK:** DIGITAL LINK input to DIGITAL LINK terminal.



## Notes:

- Selecting is also possible by pressing the INPUT button on the unit.
- Select to match the signals from the source connected to COMPONENT/VIDEO IN terminals. (See page 41)



(See page 27)

# Basic Controls

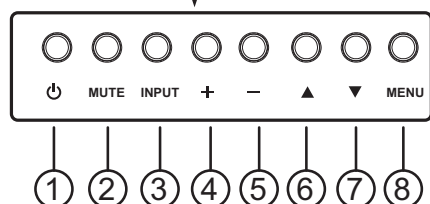
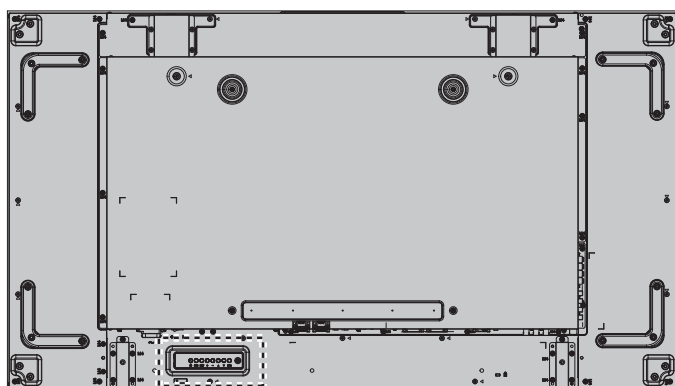
## Main Unit

### Power Indicator

The Power Indicator will light.

- Power-OFF -----Indicator not illuminated (The unit will still consume some power as long as the power cord is still inserted into the wall outlet.)
- Standby ----- Red  
Orange (When “Network Control” is set to “On“.)
- Power-ON -----Green

PC Power management (DPMS), and other input's Power management (DVI, HDMI) Orange (With each input signal. )



#### ① POWER button

Use this button to turn the display on or put the display to standby.

#### ② MUTE button

Switch the audio mute ON/OFF.

#### ③ INPUT button

- Use this button to select the input source.
- Use this button to make selections while OSD menu is displayed.

#### ④ [+ ] button

Increase the adjustment while OSD menu is on, or increase the audio output level while OSD menu is off.

#### ⑤ [ - ] button

Decrease the adjustment while OSD menu is on, or decrease the audio output level while OSD menu is off.

#### ⑥ [▲] button

Move the highlight bar up to adjust the selected item while OSD menu is on.

#### ⑦ [▼] button

Move the highlight bar down to adjust the selected item while OSD menu is on.

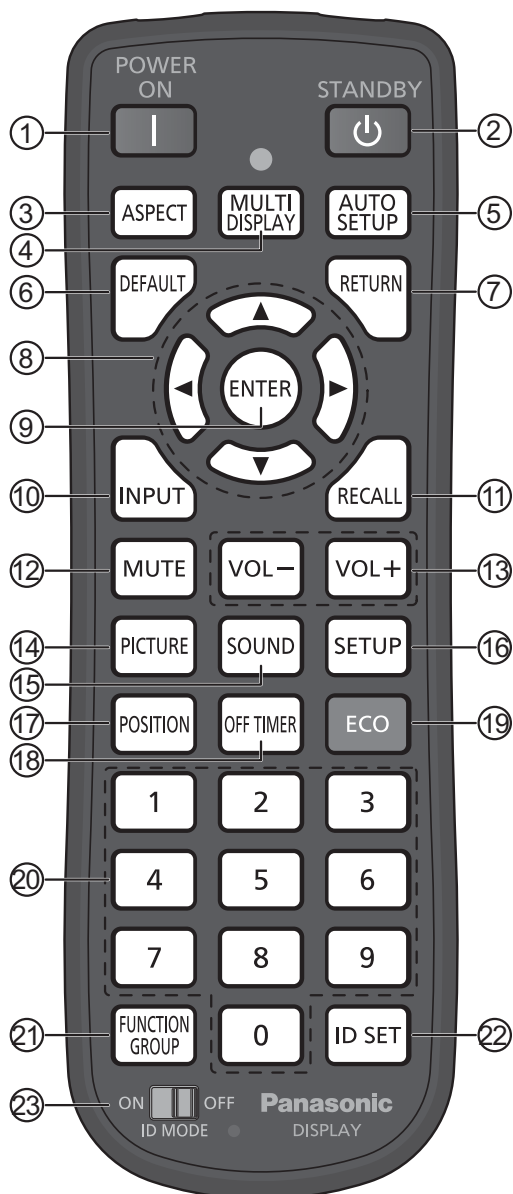
#### ⑧ MENU button

While OSD menu is off, activate the OSD menu.

While OSD menu is on, switch to next menu, exit from OSD menu, or return to previous menu.

## Basic Controls

### Remote Control Transmitter



#### ① [POWER ON] button

Press to turn the Display on from standby mode.

#### ② [STANDBY] button

Press to turn the Display off to Standby mode from Power On mode.

#### ③ [ASPECT] button

Press to adjust the aspect.

#### ④ [MULTI DISPLAY] button

Press to change to enable or disable the Multi display function.

#### ⑤ [AUTO SETUP] button

Automatically adjusts the position/size of the screen.  
Enable for PC or RGB signals.

#### ⑥ [DEFAULT] button

Press to return the OSD menu item to factory default value.

#### ⑦ [RETURN] button

Press to return to previous menu screen.

#### ⑧ POSITION buttons

#### ⑨ [ENTER] button

Press to make selections.

#### ⑩ [INPUT] button

Press to select input signal sequentially.

#### ⑪ [RECALL] button

Press to display the current system status.

- Input label
- Aspect mode
- Off timer (The off timer indicator is displayed only when the off timer has been set)
- Clock display (see page 69 )

#### ⑫ [MUTE] button

Press to mute the sound.

Press again to reactivate sound.

Sound is also reactivated when power is turned off or volume is changed.

#### ⑬ Volume adjustment

Press "VOL+" or "VOL-" to increase or decrease the sound volume level.

#### ⑭ [PICTURE] button

Press to enter to PICTURE menu.

#### ⑮ [SOUND] button

Press to enter to SOUND menu.

#### ⑯ [SETUP] button

Press to enter to SETUP menu.

#### ⑰ [POSITION] button

Press to enter to POSITION menu.

#### ⑱ [OFF TIMER] button

The display can be preset to switch to stand-by after a fixed period. The setting changes to 30, 60, 90 minutes and 0 minute (cancelled) each time the button is pressed.

→ 30 MIN → 60 MIN → 90 MIN → 0 MIN

When three minutes remain, "OFF TIMER 3 MIN" will flash.

The off timer is cancelled if a power interruption occurs.

#### ⑲ ECO MODE (ECO)

Press to change the ECO MODE setup status.

#### ⑳ Numeric buttons

If ID SET button is pressed before pressed Numeric buttons, it will use to set the ID number.

If Numeric buttons are pressed separately, FUNCTION GROUP guide will be displayed.

## ②① [FUNCTION GROUP ] button

Press to display FUNCTION GROUP guide menu.

## ②② [ID SET ] button

Press to configure ID number to the remote control transmitter with the procedure below.

- Press ID SET button.
- Press ID number. Adjustable ID number range is 0-100..

When keep to press longer than 3 seconds this button, ID number will be set to "00" . "ID number =00" means, the Display will be worked regardless of the Display's ID number.

## ②③ ID MODE switch

Set to ON when using ID mode.

Set OFF when using NORMAL mode.

# ASPECT Controls

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

### Note:

- Be aware that if you put the display in a public place for commercial purposes or a public showing and then use the aspect mode select function to shrink or expand the picture, you may be violating the copyright under copyright law. It is prohibited to show or alter the copyrighted materials of other people for commercial purposes without the prior permission of the copyright holder.

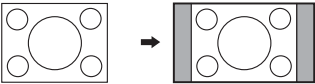
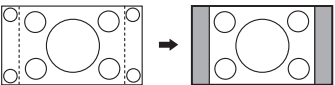
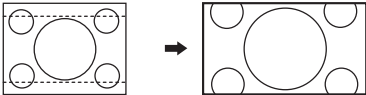
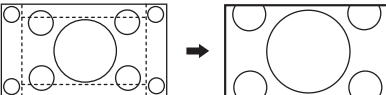
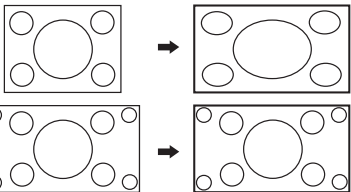
**ASPECT** — Press repeatedly to move through the aspect options:

→ 4:3 → Zoom1 → Zoom2 → 16:9 →

### Note:

- The aspect mode is memorized separately for each input terminal.



Aspect mode	Picture → Enlarged screen	Description
4:3		Pictures with a 4:3 aspect ratio are displayed with their original aspect ratio. Side panels are displayed at the left and right edges of the screen.
		Pictures with a 16:9 aspect ratio are displayed with their original aspect ratio. The left and right edges of the pictures are masked by side panels.
Zoom1		Letterbox pictures with a 16:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen. The top and bottom edges of the pictures are cut off.
Zoom2		Letterbox pictures with a 16:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen. The top and bottom edges as well as the left and right edges of the pictures are cut off.
16:9		The display of the pictures fills the screen. In the case of SD signals, pictures with a 4:3 aspect ratio are enlarged horizontally, and displayed. This mode is suited to displaying anamorphic pictures with a 16:9 aspect ratio.



# MULTI DISPLAY

This displays multi displayed image.

- 1. Switch the Multi display function.



Press to change to enable or disable the Multi display function.



# AUTO SETUP

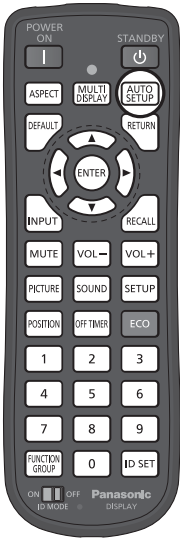
H-position/V-position, H-Size/V-Size, Dot Clock and Clock Phase are automatically adjusted when the RGB or PC signal is received.

This setting only operates when a PC signal or RGB signal is input and the aspect is “16:9”.



Press to access AUTO SETUP. “AUTO Setup” will be executed...

When Auto Setup does not work, “Invalid” is displayed.



# On-Screen Menu Displays

## Remote Control

## Unit

### 1 Display the menu screen.



Press to select.  
(Example: Picture menu)

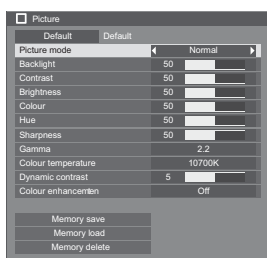


Press several times.

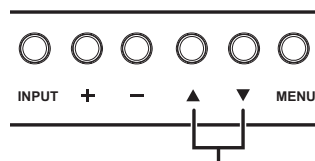
Each time the MENU button is pressed, the menu screen will switch.



### 2 Select the item.



Select.



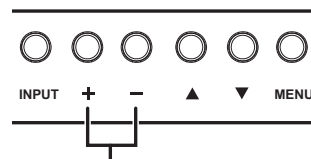
1. Select.

(Example: Picture menu)

### 3 Set.



Adjust.




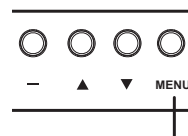
1. Adjust.

### 4 Exit the menu.



Press.

Press  to return to the previous menu.



Press several times.

# On-Screen Menu Displays

## Menu display list

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

### Picture menu

Picture

Default

Default

Picture mode

◀ Normal ▶

Backlight

50

Contrast

50

Brightness

50

Colour

50

Hue

50

Sharpness

50

Gamma

2.2

Colour temperature

10700K

Dynamic contrast

5

Colour enhancement

Off

Memory save

Memory load

Memory delete

### Position menu

Position

Default

Default

Auto setup

H-position

0

H-size

0

V-position

0

V-size

0

1:1 pixel mode

◀ Off ▶

### Sound menu

Sound

Default

Default

Output select

◀ SPEAKERS ▶

Sound mode

Normal

Bass

0

Treble

0

Balance

0

Surround

Off

### Setup menu

Setup

1/2

Signal

Display ID settings

Multi display settings

Backup input settings

Screensaver

Input label

ECO mode settings

Wobbling

DIGITAL LINK out

Power ON screen delay

OSD language

Off

Monitor out(Digital)

Auto

English(UK)

Setup

2/2

Set up timer

Day/Time settings

Control Settings

Network settings

USB media player settings

Function button settings

Display orientation

OSD position

Menu display duration

Menu transparency


Landscape

Upper/Right

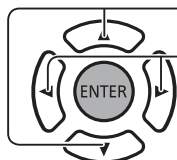
60 S

20

# PICTURE Adjustments

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

**2** Select to adjust each item.

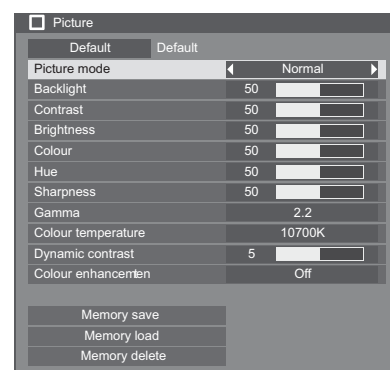


Press to select the menu to adjust.

Select the desired level by looking at the picture behind the menu.

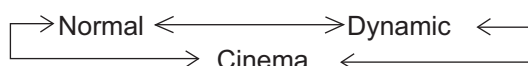
**Note:**

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



## PICTURE MODE :

Press the left ◀ or right ▶ button to switch between modes.



**Normal** :For viewing in standard (evening lighting) environments.

**Dynamic** :For viewing in brighter environments.

**Cinema** :For use in viewing tone-focused pictures with brightnessreduced.

**Backlight** : Adjusts luminance of the back light.

**Contrast** : Adjusts the proper picture contrast.

**Brightness** : Adjusts for easier viewing of dark pictures such as night scenes and black hair.

**Colour** :Adjusts color saturation.

**Hue** : Adjusts for natural flesh tones.

**Sharpness** : Adjusts picture sharpness.

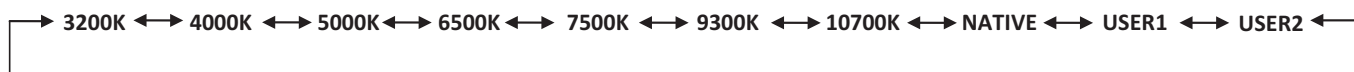
**Gamma** : Selectable gamma characteristics

Press the left ◀ or right ▶ button to switch between modes.



**Colour Temperature** : Selectable colour temperature.

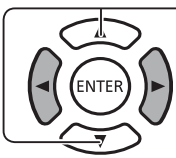
Press the left ◀ or right ▶ button to switch between modes.




# PICTURE Adjustments

## How to adjust colour temperature

- 1



Press to select "Colour Temperature".
- 2

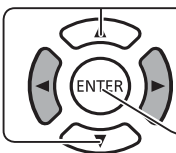


Press to select the mode for adjustment.  
Press to enter to "Adjust colour temperature" menu.

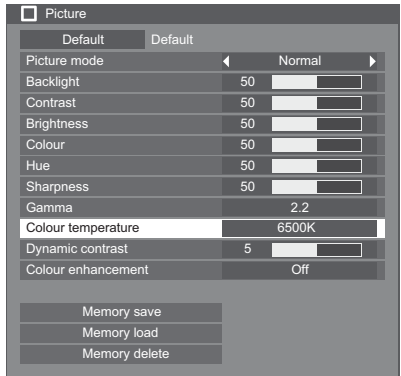
By selection the modes; from 3200K to 10700K, adjustment based on their data is available. Adjusted data is saved to "USER1" or "USER2". (It is available to select.) For the case "USER1" or "USER2" is selected, go to step 5.

- 3

(For the case that the mode between 3200K to 10700K is selected)




Press to select the mode "User1" or "User2".  
Press to enter to next procedure.

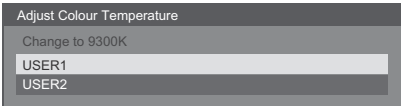


- 4

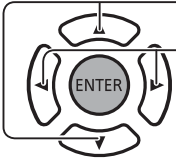
(For the case the modes between 3200K to 10700K is selected)



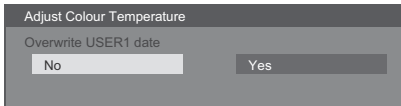
Press to select "Yes" or "No".  
Press to enter to next procedure.




- 5



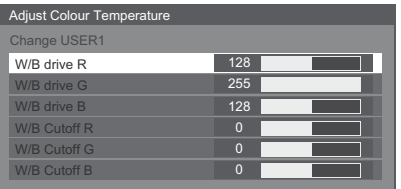
Press to select the item for adjustment .  
Press to adjust the each item.



- 6



Press to exit from "Adjust colour temperature" menu.



### Dynamic contrast :

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

### Color Enhancement :

Sets whether to ON / OFF the Color Enhancement function.

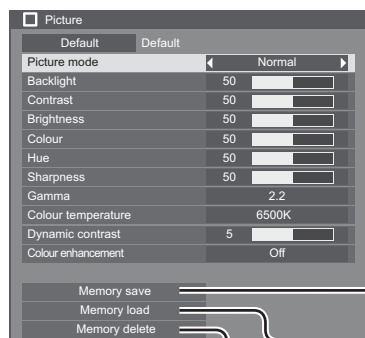
While sets to ON, displays images by emphasising colours.

Press the left ◀ or right ▶ button to switch between modes.



## PICTURE Profiles :

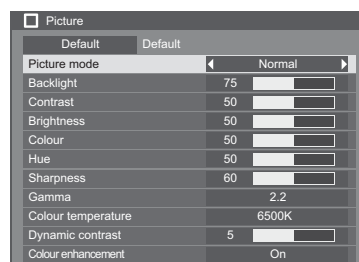
Up to 8 combinations of picture adjustment values ( in the Picture menu) can be stored in the display memory as profiles and applied as needed ,for a convenient way to enjoy your preferred picture settings.



Save profiles

Load profiles

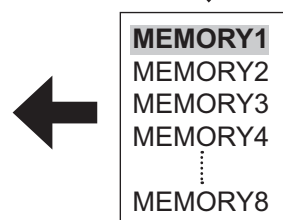
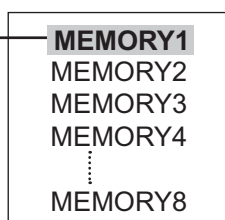
Delete profiles



Save profiles

Save the picture adjustment values in the MEMORY1 profile

Delete the profile



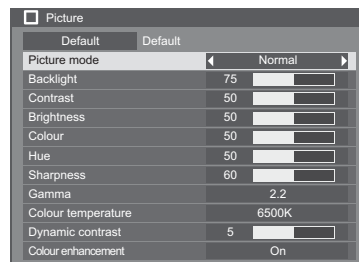
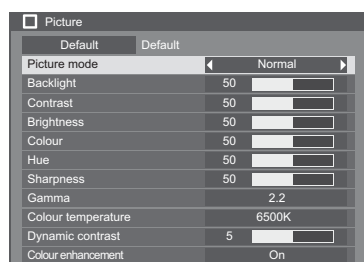
Load the profile

Apply the MEMORY1 profile

Original picture



Custom picture



**Memory save :** Save the picture adjustment values in the MEMORY profile.

**Memory load :** Load profiles and apply the picture adjustment values in the MEMORY profile.

**Memory delete:** Delete the profile.

# PICTURE Adjustments

## Memory save

Save the picture adjustment values in the MOMORY profile.

1 Specify the picture quality in the Picture menu.

2 In the Picture menu, select “Memory save”.



3 Select a profile name for saving the picture adjustment values.



“\*” appears for a profile in which the picture adjustments have already been saved.

4 Select “Ok”.



## Memory load

Load profiles and apply the picture adjustment values in the MOMORY profile.

1 In the Picture menu, select “Memory load”.



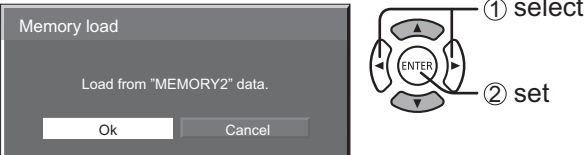
2 Select the profile to load.



## Note:

- Loaded profiles are stored in memory according to the selected input terminal.

3 Select “Ok”.



## Memory delete

Delete the profile.

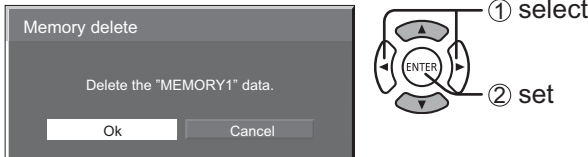
1 In the Picture menu, select “Memory delete”.



2 Select the profile to delete.  
To delete all profiles, select “All delete”.




3 Select “Ok”.

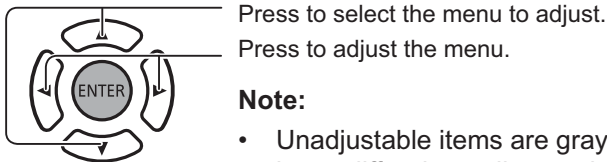




# Adjusting POSITION

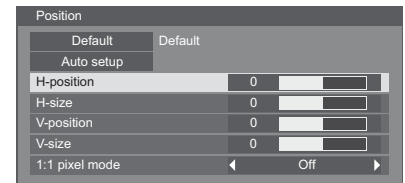
**1**  Press to display the Position menu.


**2** Select to adjust each item.



**Note:**

- Unadjustable items are grayed out. Adjustable items differ depending on the input signal and the display mode.



**3**  Press to exit from adjust mode.

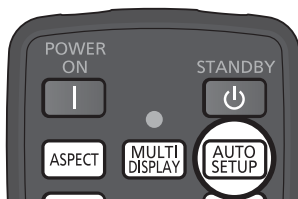
**Note:**


- If a "Cue" or "Rew" signal from a VCR or DVD player is received, the picture position will shift up or down. This picture position movement cannot be controlled by the Position function.

**Auto Setup** H-position/V-position, H-Size/V-Size, Dot Clock and Clock Phase are automatically adjusted when the RGB or PC signal is received.

This setting only operates when a PC signal or RGB signal is input, and the aspect is "16:9".

**Using Remote Control**



When  on the remote control is pressed, "Auto Setup" will be executed.

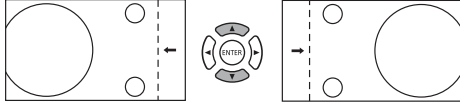
When Auto Setup does not work, "Invalid" is displayed.

**Notes:**

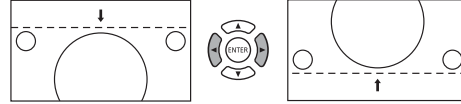
- Auto Setup may not work when a cropped or dark image is input. In such case, switch to a bright image with borders and other objects are clearly shown, and then try auto setup again.
- Depending on the signal, out of alignment may occur after Auto Setup. Carry out fine tuning for the position/size as required.
- If Auto Setup cannot set properly for vertical frequency 60Hz XGA signal (1024×768@60Hz, 1280×768@60Hz and 1366×768@60Hz), pre-selecting the individual signal in "XGA Mode" (see page 42) may results in correct Auto Setup.
- Auto Setup does not work well when a signal such as additional information is superimposed out of valid image period or intervals between synchronizing and image signals are short.
- If Auto Setup cannot adjust correctly, select "Default" once and press ENTER then adjust Position manually.
- If the picture goes off screen in the horizontal direction as a result of performing Auto Setup, perform Dot Clock adjustment.

# Adjusting POSITION

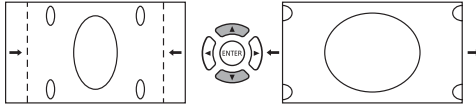
**H-position** Adjust the horizontal position.



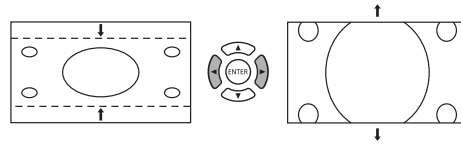
**V-position** Adjust the vertical position.



**H-Size** Adjust the horizontal size.



**V-Size** Adjust the vertical size.



**Clock Phase** (During RGB and PC input signal)  
Eliminate the flickering and distortion.

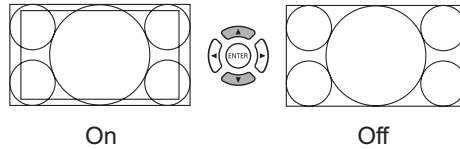
**Dot Clock** (During RGB and PC input signal)

Periodic striped pattern interference (noise) may occur when a striped pattern is displayed. If this happens, adjust so that any such noise is minimized.

**Over Scan** Turn image over scan On/Off.

Configurable signals are as follows:

525i, 525p, 625i, 625p, 750/60p, 750/50p (HDMI, DisplayPort, DVI-D IN 1, DVI-D IN 2, DIGITAL LINK, COMPONENT VIDEO)



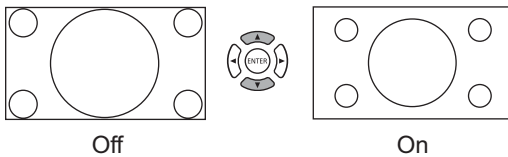
Notes:

- “Off” is effective during only “16:9” aspect mode.
- When “Off” is set, “H-Size” and “V-Size” cannot be adjusted.

**1:1 Pixel Mode** Adjusts the display size when 1125i or 1125p signal is input.

**Notes:**


- “On” is effective during only “16:9” aspect mode.
- Select On when you would like to replay 1920 × 1080 input signal.
- Applicable input signal:  
1125 (1080) / 50i · 60i · 24PsF · 24p · 25p · 30p · 50p · 60p
- Select Off when flickering is shown around the image.
- H-Size and V-Size cannot be adjusted when On is selected.



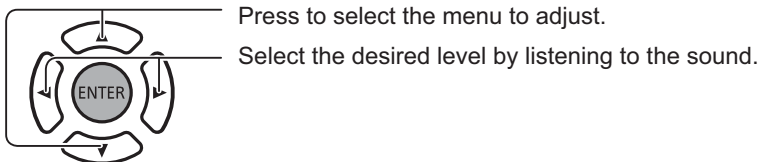
Helpful Hint: (  / DEFAULT )


While the POSITION display is active, if either the DEFAULT button on the remote control is pressed at any time or the ENTER button is pressed during “DEFAULT”, then all adjustment values (except “Clock Phase” and “Dot Clock”) are returned to the factory settings.

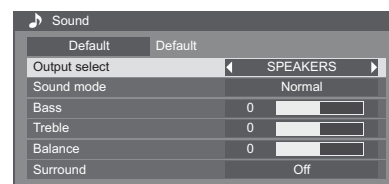
# SOUND Adjustment

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

**2** Select to adjust each item.



**3**  Press to exit from adjust mode.



## OUTPUT SELECT :

**SPEAKERS** :Emits sound from the built-in speakers.

**AUDIO OUT** :Emits sound through the AUDIO OUT terminal.

## SOUND MODE:

**NORMAL**: Emits the original sound.

**DYNAMIC**: Accentuates sharp sound.

**CLEAR**: Attenuates human voice.

**BASS** : Adjusts low pitch sound.

**TREBLE** : Adjusts high pitch sound.

**BALANCE** : Adjusts left and right volumes.

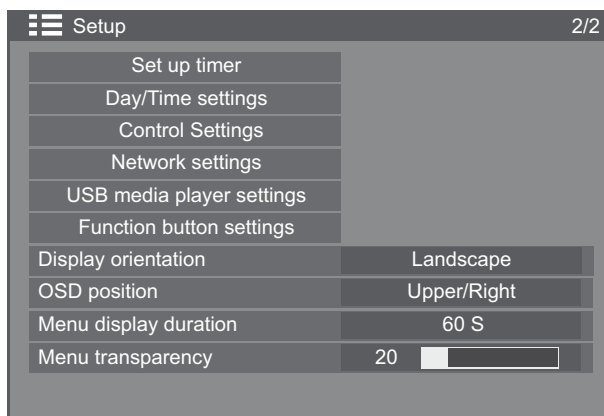
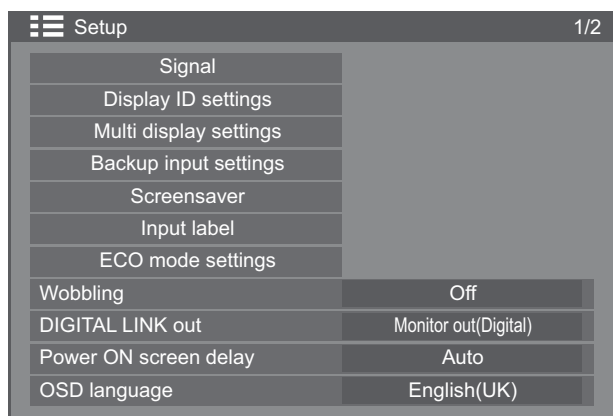
## SURROUND :

**ON** :Stereo sound reproduction is active.

**OFF**: Stereo sound reproduction is not active.

# SETUP

Press SETUP on remote control to display the Setup menu.




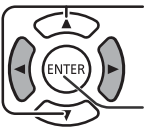
Signal


Note:


- “Signal” setup menu displays a different setting condition for each input signal.

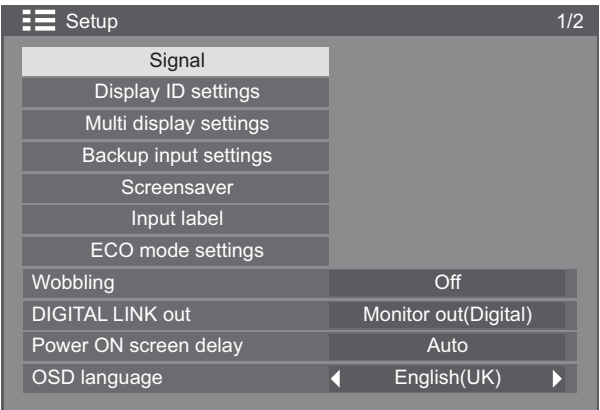
- 1


 Press to display the Setup menu.
- 2


 Press to select the “Signal”.  
 Press to display the Signal menu.
- 3

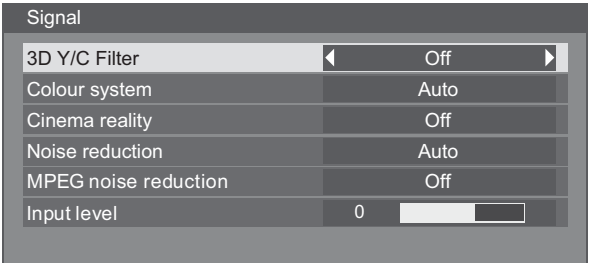

 Press to select the menu to adjust.  
 Press to adjust the menu.
- 4


 Press to exit from adjust mode.

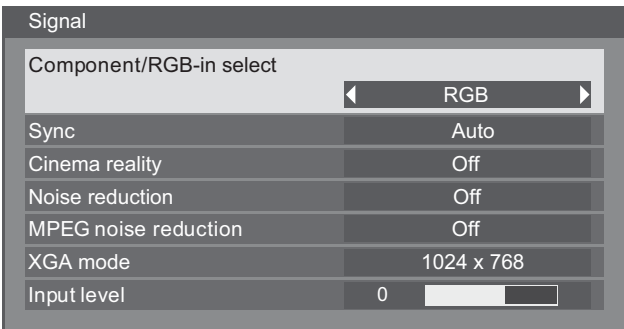


Press ENTER button

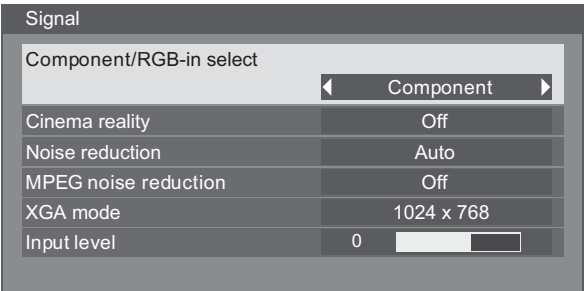
For VIDEO



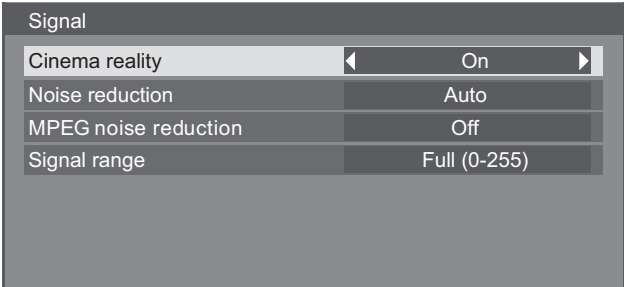
For PC



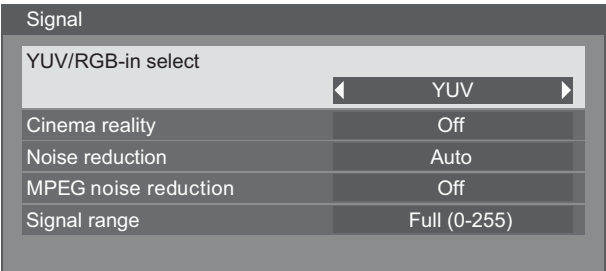
For Component



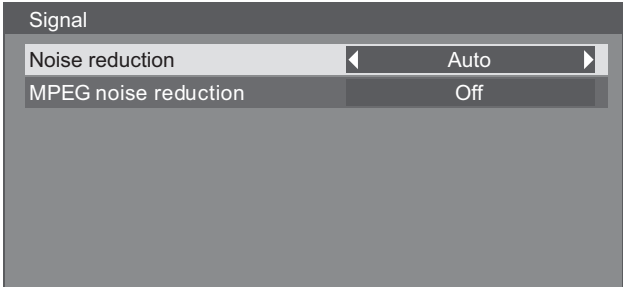
For HDMI and DIGITAL LINK



For DVI and DisplayPort



For USB




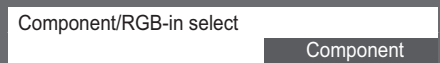
## Component / RGB-in select


Select to match the signals from the source connected to the COMPONENT/VIDEO IN and PC IN terminal.


Y, P<sub>B</sub>, P<sub>R</sub> signals ⇨ "Component"

RGB signals ⇨ "RGB"

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



**2**  Press to select the "Signal".  
Press to "ENTER".

**3**  Press to select the "Component / RGB-in select".  
Component ⇄ RGB

### Note:


- Make setting of the selected input terminal (COMPONENT/VIDEO IN).

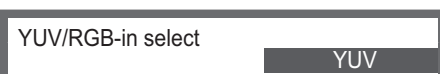
## YUV / RGB-in select


Select to match the signals from the source connected to DVI-D IN1 / DVI-D IN2 terminal.


YUV signals ⇨ "YUV"

RGB signals ⇨ "RGB"

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




**2**  Press to select the "Signal".  
Press to "ENTER".


**3**  Press to select the "YUV / RGB-in select".  
YUV ⇄ RGB


## 3D Y/C Filter

Select "Signal" from the "Setup" menu during Video input signal mode.

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



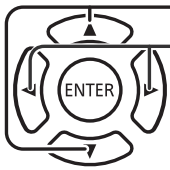
**2**  Press to select the "Signal".  
Press to "ENTER".

**3**  Press to select the "3D Y/C Filter".  
Press to set On / Off.

# SETUP

## Colour system

Select Signal from the “Setup” menu during Video input signal mode.



Press to select the “Colour system” .

Press to select each function.

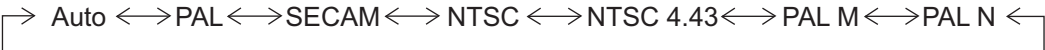
### If the image becomes unstable:

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



**Colour system:** Set the colour system to match the input signal. When “Auto” is set, Colour system will be automatically selected from NTSC/PAL/SECAM/NTSC 4.43/PAL M/PAL N.

To display PAL60 signal, select “Auto”.



## Cinema reality

**Cinema reality:** When On, the display attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second.

If the picture is not stable, turn the setting to Off.

### Note:

- When On, this setting only affects the following signal input:
  - NTSC / PAL signal input during Video input signal.
  - 525i(480i), 625i(575i), 1125(1080)/60i signal input during Component input signal.



Press to select “Cinema reality”.

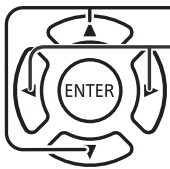
Press to set On/Off.



## XGA Mode

This menu is displayed when the input signal is analog (Component/PC).

This menu sets two types of XGA signals with 60Hz vertical frequency having different aspect ratios and sampling rates (1,024 × 768 @ 60Hz, 1,280 × 768 @ 60Hz and 1,366 × 768 @ 60Hz).



Press to select “XGA Mode”.

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



### Note:

- After making this setting, be sure to make each adjustment (such as “Auto Setup”) on the “Position” menu as necessary.

## Noise reduction

Reduces picture noise.



Press to select “Noise reduction”.

Press to select “Off”, “Auto”, “Min”, “Mid”, “Max”.

**Auto:** Noise reduction will be automatically selected from “Min”, “Mid” or “Max”.

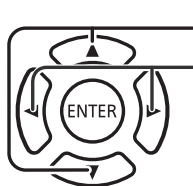


## Note:

- Noise reduction can be adjusted while a Video or Component signal is being applied.

## MPEG Noise reduction

Reduces block noise and mosquito noise on MPEG videos.



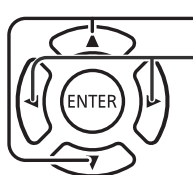
Press to select "MPEG Noise reduction".

Press to select "Off", "Min", "Mid", "Max".



## Signal Range

Switches the dynamic range according to the input signal from HDMI, DIGITAL LINK, DVI-D or DisplayPort terminal.



Press to select "Signal range".

Press to select "Video(16-235)", "Full(0-255)", "Auto".



**Video(16-235):** If the input signal is the video range, Example: HDMI terminal output for DVD player

**Full(0-255):** If the input signal is full range, Example: HDMI terminal output for personal computer

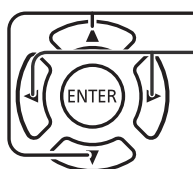
**Auto:** Switches the dynamic range automatically between "Video(16-235)" and "Full(0-255)" according to the input signal.

## Note:

- This function can be set to the HDMI, DisplayPort, and DIGITAL LINK signal.

## Sync

This function operates only during input from PC IN terminal.



Press to select the "Sync".

Press to select "Auto", "on G" or "on Y".

Note:

- "on G" is appeared while "RGB" is set to "Component / RGB-in select".
- "on Y" is appeared while "Component" is set.



Confirm that the input is set to RGB input (this setting is valid only for RGB input signal).

**Auto:** The H and V sync or synchronized signal is automatically selected. If both input, it is selected the H and V sync. However, the synchronized signal that is input first is selected.



**on G:** Uses a synchronized signal on the Video G signal, which is input from the G connector.



**on Y:** Uses a synchronized signal on the Video Y signal, which is input from the G connector.

## Note:

- About RGB signals from "COMPONENT/VIDEO IN" terminal, accepts only the signals with "Sync on G".

# SETUP

## Input level

The image of a white portion or a very bright portion is especially adjusted on an input signal level.

-16

~

+16

Low level

High Level

Input level

0

**Note:**

- This function can be adjusted while a VIDEO, Component or PC signal is being applied.

## Input signal display

Displays the frequency and the type of the current i nput signal.

The display is valid except USB input.

Display range (PC input signal):

Horizontal

30 - 110 kHz

Vertical

48 - 120 Hz

V-Freq.

60.02

Hz

Signal Format

1280×1024/60

H-Freq.

63.98

kHz

V-Freq.

60.02

Hz

Dot Clock Freq.

108.0

MHz

Signal Format

1280×1024/60

The dot clock frequency is displayed during digital signal input.

**Note:**

- The automatically detected signal format may be displayed differently than the actual input signal.

# Display ID Settings

1

SETUP

Press to display the Setup menu.

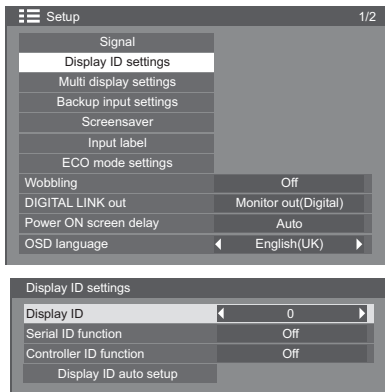
2

ENTER

Press to select “Display ID settings”.

Press the ENTER key to enter Display ID settings

Use the ID number of each display to set up the function that individually controls several display units.



## Display ID

Sets a display ID number. Set any number.

Range: 0 to 100

## Serial ID function

Sets whether to disable / enable the ID control function for serial communication.

Options: OFF: Disable

ON: Enable

## Controller ID function

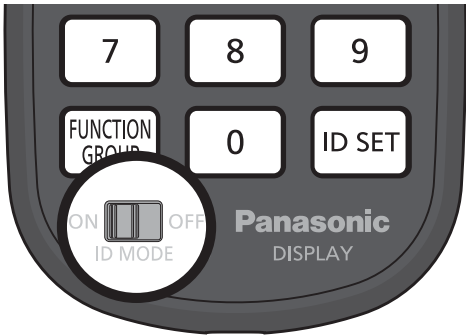
Sets whether to disable / enable the ID control function for remote control operation.

Options: OFF: Disable

ON: Enable

**Note:**

To use the Controller ID function, it is necessary to set each ID number of remote controller and display unit. Also, it is necessary to switch “ID MODE switch” of remote controller to “ON”. About the setting method, please refer “Controller ID function” (See page 47) and “Display ID” (above-mentioned).





## Diaplay ID auto setup

Automatically sets an ID number. An ID number is automatically assigned to a display connected via DIGITAL LINK.

### Status

Displays the implementation status of Display ID auto setup.

Operating: the auto setup is in progress.

No connection: DIGITAL LINK is not connected. (No connection can be detected)

Error: a wrong DIGITAL LINK connection has been made.

Wait: the auto setup has yet to be implemented.

Finished: the auto setup has been completed.

Display ID Auto Setup	
Status	Wait
DIGITAL LINK daisy chain	1 / 2
Display ID	1
Network control / IP address	On 192.168.0.8
Serial ID / Terminal	Off DIGITAL LINK
Serial out terminal	DIGITAL LINK
Controller ID / Terminal	Off Built-in
Controller out terminal	IR OUT
Start	
Display ID	Auto
Changing network control	Yes
Changing serial/IR terminal	Yes

DIGITAL LINK Daisy Chain (  A  /  B )

A: Displays the i-th unit of the displays connected via DIGITAL LINK.

B: Displays the total number of displays connected via DIGITAL LINK.

Display ID:

Displays an ID number obtained by the auto setup.

Network control / IP address: (  A  /  B )

A: Displays the disable / enable state of the Network control function.

B: Displays the IP address of this display.

Serial ID / Terminal: (  A  /  B )

A: Displays the disable / enable state of the ID control function for serial communication.

B: Displays which terminal to use for input for serial communication.

Serial out:

Displays which terminal to use for output for serial communication.

Controller ID / Terminal: (  A  /  B )

A: Displays the disable / enable state of the ID control function for remote control operation.

B: Displays which sensor / terminal to use for remote control signal input.

Controller out terminal:

Displays which terminal to use for remote control signal output.

Start:

Starts the auto setup of a display ID.

Display ID:

Auto: The display ID will be set automatically, based on the order of connected by DIGITAL LINK.

1 ~100 : Sets the origination of the display ID.

Changing network control:

Sets whether to change the network settings or to retain the current settings as the auto setup of display ID is implemented.

Options: No: retains the settings.

Yes: Set to "On" to "Network control".

Changing serial/IR terminal:

Sets whether to change the control terminal settings for RS232C/IR or to retain the current settings as the auto setup of display ID is implemented.

Options: No: retains the settings.

Yes: For the display connected by DIGITAL LINK, set to "DIGITAL LINK" for the settings of each input-output terminals of RS232C and controller.

Note: For the display connected only input side or output side, the setting of connected side is changed. For the display connected by DIGITAL LINK, set to "DIGITAL LINK" for the settings of each input-output terminal of RS232C and controller.

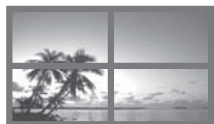
## Multi Display setting

For this mode of operation, each display has to be set up with a Display number to determine its location.

group of 4 ( $2 \times 2$ )

group of 9 ( $3 \times 3$ )

group of 100 ( $10 \times 10$ )

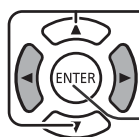


## 1



Press to display the Setup menu.

2



Press to select the Multi display settings.

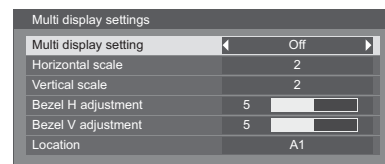
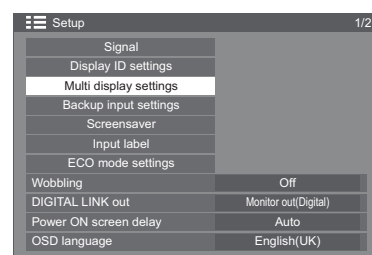
Press to display the “Multi display settings” menu.

3





Press to select the Multi display setting.

Press to select “On” or “Off”.



- “Multi display settings” is disabled while USB is selected for input signal.

Item	Details
<b>Multi display setting</b>	Select “On” or “Off”.
<b>Horizontal Scale</b>	Select from 1 ~ 10.
<b>Vertical Scale</b>	<p>Select from 1 ~ 10.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>It is disable to set “1” to both “Horizontal scale” and “Vertical scale”. While sets “1” on the one hand, it is enable to set between “2” and “10” on the other hand.”</li> </ul>

Item	Details																																																									
Bezel H Adjustment Bezel V Adjustment	<p>Areas of the image that are hidden by the joint sections are adjusted both horizontally and vertically (0~100).</p> <div><p>To show joints between displays.</p><p>Suitable for still image display. Setting value: 0</p></div> <div><p>To hide joints between displays.</p><p>Suitable for moving image display. Setting value: 100</p></div>																																																									
Location	<p>Select the required arrangement number. (A1-J10: Refer to the following)</p> <p><b>Display Number locations for each arrangement.</b></p> <p><b>(Examples)</b></p> <div><p>( 2 × 1 )    ( 2 × 3 )    ( 4 × 2 )    ( 4 × 4 )    ( 10 × 10 )</p><table border="1"><tr><td>A1</td><td>A2</td></tr></table><table border="1"><tr><td>A1</td><td>A2</td></tr><tr><td>B1</td><td>B2</td></tr><tr><td>C1</td><td>C2</td></tr></table><table border="1"><tr><td>A1</td><td>A2</td><td>A3</td><td>A4</td></tr><tr><td>B1</td><td>B2</td><td>B3</td><td>B4</td></tr></table><table border="1"><tr><td>A1</td><td>A2</td><td>A3</td><td>A4</td></tr><tr><td>B1</td><td>B2</td><td>B3</td><td>B4</td></tr><tr><td>C1</td><td>C2</td><td>C3</td><td>C4</td></tr><tr><td>D1</td><td>D2</td><td>D3</td><td>D4</td></tr></table><table border="1"><tr><td>A1</td><td>A2</td><td>.....</td><td>A9</td><td>A10</td></tr><tr><td>B1</td><td>B2</td><td>.....</td><td>B9</td><td>B10</td></tr><tr><td>.....</td><td>.....</td><td>.....</td><td>.....</td><td>.....</td></tr><tr><td>I1</td><td>I2</td><td>.....</td><td>I9</td><td>I10</td></tr><tr><td>J1</td><td>J2</td><td>.....</td><td>J9</td><td>J10</td></tr></table></div>	A1	A2	A1	A2	B1	B2	C1	C2	A1	A2	A3	A4	B1	B2	B3	B4	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4	A1	A2	.....	A9	A10	B1	B2	.....	B9	B10	.....	.....	.....	.....	.....	I1	I2	.....	I9	I10	J1	J2	.....	J9	J10
	A1	A2																																																								
A1	A2																																																									
B1	B2																																																									
C1	C2																																																									
A1	A2	A3	A4																																																							
B1	B2	B3	B4																																																							
A1	A2	A3	A4																																																							
B1	B2	B3	B4																																																							
C1	C2	C3	C4																																																							
D1	D2	D3	D4																																																							
A1	A2	.....	A9	A10																																																						
B1	B2	.....	B9	B10																																																						
.....	.....	.....	.....	.....																																																						
I1	I2	.....	I9	I10																																																						
J1	J2	.....	J9	J10																																																						

4



Press to exit from adjust mode.

# SETUP










---

## Controller ID Function

You can set the remote control ID when you want to use this remote control on one of several different displays.

### Note:

- To operate this function, please use the attached remote control.  
A setup of Control ID Function required in advance.


- 1 Switch  to  on the left side.
- 2 Press the  button on the remote control.
- 3 Press one of  - ,  for the tens digit setting.
- 4 Press one of  - ,  for the units digit setting.

### Notes:

- The numbers in 2, 3 and 4 should be set up quickly.
- Adjustable ID number range is 0 - 100. If you set the ID to 100, press “1”, “0”, “0”, after pressing “ID SET” button.
- If a number button is pressed more than two times, the first two numbers become the ID number for the remote control.
- To use the Controller ID Function, it is necessary to set “ON” about “Controller ID” in “Display ID settings”. About the setting method, please refer “Controller ID Function” (See page 44).
- While “Controller ID Function” is set “ON”, it is necessary to switch “ID MODE switch” of remote controller to “ON”.



## ID Cancellation


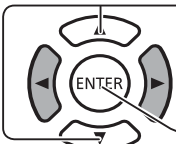
Pressing , ,  button at the same time.

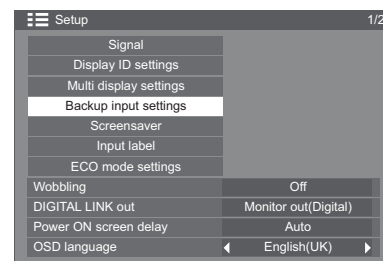
### Notes:

- Set the Remote ID “On” to operate the ID remote control.  
If Remote ID is set to “On”, you can use the remote control without identical ID number during option menu display.
- The ID remote control cannot be used when ID select is set to anything other than 0, and the remote control ID is not the same as the ID select number.

# Backup Input Setting

Automatically switches to the backup input video if an interruption of video occurs.

- 1  Press to display the Setup menu.
- 2  Press to select "Backup input settings".  
Press the ENTER key to enter Backup input settings.



## Input Change Mode

Off: disables the Backup Input function.

Quick: promptly switches to the backup input if an interruption of video occurs.

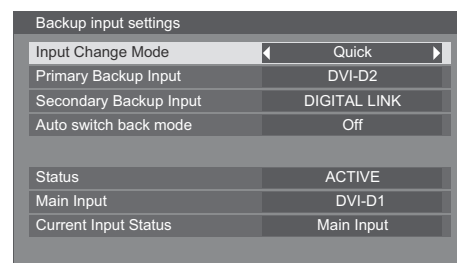
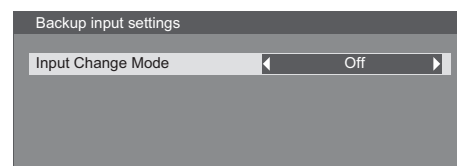
The backup video signal needs to be in the same format as the (main) input in use for viewing.

Upon switching to the backup input, the video and audio adjustment values for the (main) input used for viewing will be inherited.

Normal: switches to the backup input if an interruption of video occurs.

The backup video signal does not need to be in the same format as the (main) input in use for viewing.

Upon switching to the backup input, the video and audio adjustment values for the backup input will be used.

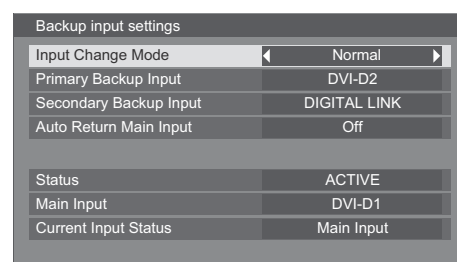


## Backup Input (Quick)

Promptly switches to the backup input if an interruption of video occurs, and enables switching between digital (HDMI, DisplayPort, DIGITAL LINK, DVI-D1, DVI-D2) inputs.

### Notes:

- Switchover time becomes the shortest when the format of the video signal of a main input and a backup input is the same.
- Upon switching to the backup input, the video and audio adjustment values for the (main) input used for viewing will be inherited.
- This function will start operating once a video signal is detected by both the input in use for viewing and the backup input and the "Status" item is displayed as "ACTIVE."



## Primary Backup Input

Sets the first priority backup input.

HDMI, DisplayPort, DIGITAL LINK, DVI-D1 or DVI-D2 can be settable as the input.

The input that is of the same type as the one in use for viewing will be greyed out.

## Secondary Backup Input

Sets the second priority backup input.

HDMI, DisplayPort, DIGITAL LINK, DVI-D1 or DVI-D2 can be settable as the input.

The input that is of the same type as the one in use for viewing will be greyed out.

## Auto switch back mode

Sets whether or not to automatically return to the former (main) input when the former input video initially viewed is restored while viewing the video of the backup input enabled by the operation of the Backup Input function.

OFF: unreturned

ON: returned

# SETUP

## Status

Displays whether or not operating conditions for the Backup Input function are met.

INACTIVE: indicates that the conditions are not met, and disables the Backup Input function.

ACTIVE: indicates that the conditions are met, and enables the Backup Input function.

## Main Input

Displays the (main) input initially used for viewing.

## Current Input Status

Displays whether the input currently in use for viewing is the (main) input initially used for viewing or the backup one.

## Setting conditions

The following table describes restrictions (available combinations) on each setting item.

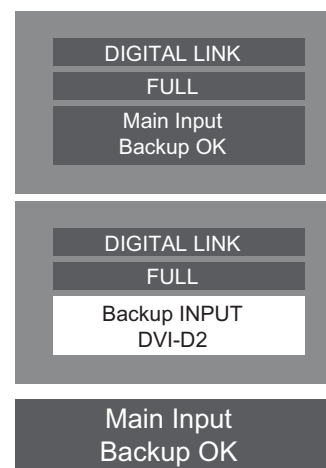
		Main			
		HDMI DisplayPort DIGITAL LINK DVI-D1 DVI-D2	USB	PC	Component or VIDEO
Backup	HDMI DisplayPort DIGITAL LINK DVI-D1 DVI-D2	o	x	x	x
	USB	x	-	x	x
	PC	x	x	-	x
	Component or VIDEO	x	x	x	-

## Recall display

<Pressing the [RECALL] key displays any of the followings>

- When the main input is being used for viewing and the operating conditions for the Backup Input function are met.
- When the backup input, enabled by the operation of the Backup Input function, is being used for viewing.

<When the conditions for the Backup Input function are met>



## Backup Input (Normal)

Switches to the backup input if an interruption of video occurs.

### Notes:

- Inoperable when the USB input is in use for viewing
- When an analogue (PC, Component or VIDEO) input is being used for viewing, you cannot set an analogue (PC, Component or VIDEO) input as a backup input.
- Any analogue (PC, Component or VIDEO) input cannot be set as Primary Backup Input or Secondary Backup Input.

- This function will start operating once a video signal is detected by both the input in use for viewing and the backup input and the “Status” item is displayed as “ACTIVE”.

## Primary Backup Input

Sets the first priority backup input.

HDMI, DisplayPort, DIGITAL LINK, DVI-D1, DVI-D2, PC, Component or VIDEO can be settable as the input.

The input that is of the same type as the one in use for viewing will be greyed out.

When an analogue (PC, Component or VIDEO) input is being used for viewing, you cannot set an analogue (PC, Component or VIDEO) input as a backup input.

Any analogue (PC, Component or VIDEO) input cannot be set as Primary Backup Input or Secondary Backup Input.

## Secondary Backup Input

Sets the second priority backup input.

HDMI, DisplayPort, DIGITAL LINK, DVI-D1, DVI-D2, PC, Component or VIDEO can be settable as the input.

The input that is of the same type as the one in use for viewing will be greyed out.

When an analogue (PC, Component or VIDEO) input is being used for viewing, you cannot set the analogue (PC, Component or VIDEO) input as a backup input.

Any analogue (PC, Component or VIDEO) input cannot be set as Primary Backup Input or Secondary Backup Input.

## Auto switch back mode

Sets whether or not to automatically return to the former (main) input when the former input video initially viewed is restored while viewing the video of the backup input enabled by the operation of the Backup Input function.

OFF: unreturned

ON: returned

## Status

Displays whether or not operating conditions for the Backup Input function are met.

INACTIVE: indicates that the conditions are not met, and disables the Backup Input function.

ACTIVE: indicates that the conditions are met, and enables the Backup Input function.

## Main Input

Displays the (main) input initially used for viewing.

## Current Input Status

Displays whether the input currently in use for viewing is the (main) input initially used for viewing or the backup one.

## Setting conditions

The following table describes restrictions (available combinations) on each setting item.

		Main			
		HDMI DisplayPort DIGITAL LINK DVI-D1 DVI-D2	USB	PC	Component or VIDEO
Backup	HDMI DisplayPort DIGITAL LINK DVI-D1 DVI-D2	o	x	o	o
	USB	o	-	o	o
	PC	o	x	-	x
	Component or VIDEO	o	x	x	-

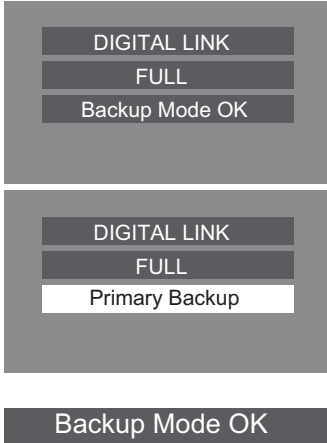
# SETUP

---

## Recall display

<Pressing the [RECALL] key displays any of the followings>

- When the main input is being used for viewing and the operating conditions for the Backup Input function are met.
- When the backup input, enabled by the operation of the Backup Input function, is being used for viewing.



<When the conditions for the Backup Input function are met>




# Screensaver (For preventing image retention)


Do not display a still picture, especially in 4:3 mode, for any length of time.

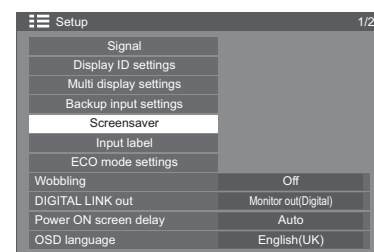
If the display must remain on, a Screensaver should be used.

When the screen saver is operating, the following 5 patterns are displayed full screen for 5 seconds each.

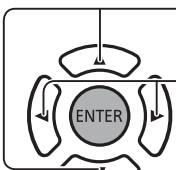
Black→Dark Gray→Gray→Light Gray→White

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

**2**  Press to select the Screensaver.  
Press to select the Screensaver screen.

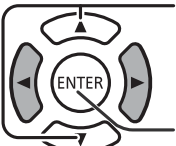


## 3 Mode selection

 Press to select the Mode.  
Press to select each mode items.

Off  
 ↔  
 Interval : Operates when Periodic Time and Operating Time are set up and those times arrive.  
 ↔  
 Time Designation : Operates when Start Time and Finish Time are set up and those times arrive.  
 ↔  
 Standby after SCR Saver : Operates while Screensaver duration, and display enters standby mode.  
 ↔  
 On : Operates when Start is selected and the ENTER button is pressed.

## 4 Start setting

 When the Mode is set to On, press to select Start.  
Press to start Screensaver.

The menu screen will disappear and the Screensaver will be activated. **To stop the Screensaver under On, press the RETURN  button or any buttons on the main unit.**

### Note:

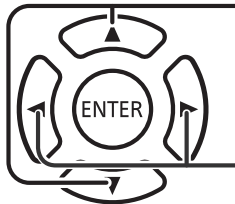
- When the display is turned off, the Screensaver will be deactivated.



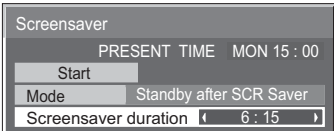
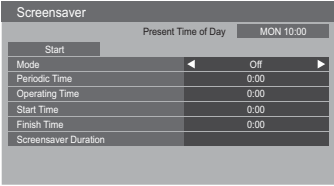
**SETUP**

**Setup of Screensaver Time**

After selecting Time Designation, Interval or Standby after SCR Saver, the relevant Time Setup will become available for selection and the Operating Time may be set. (Time cannot be set when “Mode” is “On” or “Off”.)




Press to select Start Time / Finish Time (When Time Designation is selected).  
 Press to select Periodic Time / Operating Time (When Interval is selected).  
 Press to select Screensaver duration (When Standby after SCR Saver is selected).  
 Press to setup.  
 ▶ button: Forward  
 ◀ button: Back







- Notes:**
- Pressing “◀” or “▶” button once changes the Time 1 minute.  
[However, switching occurs every 15 minutes when Periodic Time is selected.]
  - Pressing “◀” or “▶” button continuously changes the Time by 15 minutes.
  - “Screensaver duration” of the “Standby after SCR Saver” can be set from 0:00 to 23:59. When this is set to “0:00”, “Standby after SCR Saver” will not be activated.
  - Timer function will not work unless “PRESENT TIME” is set.

**Customizing the Input labels**

This function can change the label of the Input signal to be displayed.

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

**2**  Press to select Input label.  
 Press to display the Input label screen.

**3**  Press to select image input.  
 Press to change input label.

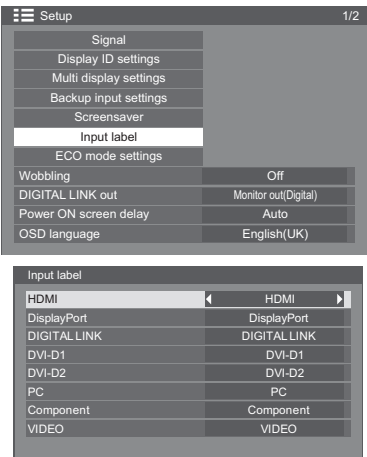
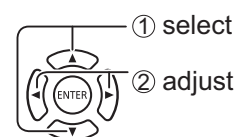
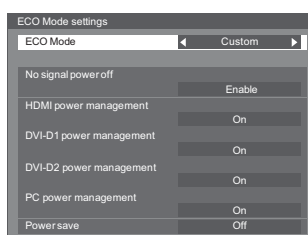
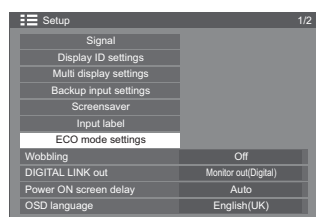


Image input	Input label
[VIDEO]	VIDEO / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[Component]	Component / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[PC]	PC / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[HDMI]	HDMI / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[DisplayPort]	DisplayPort / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[DIGITAL LINK]	DIGITAL LINK / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[DVI-D1]	DVI-D1 / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)
[DVI-D2]	DVI-D2 / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (Skip)

(Skip) : The INPUT button press will skip its input.

# ECO Mode Settings



## ECO Mode

**Custom:** The menu of power consumption reduction is individually set.

**On:** The following fixed values are set to the menu of power consumption reduction. Individual setting is not available.

- No Signal power off: Enable
- HDMI Power management: On
- DVI-D1 Power management: On
- DVI-D2 Power management: On
- PC Power management: On
- Power save: On

### Using Remote Control

When **ECO** is pressed, the “ECO Mode” setting changes.

ECO Mode On

## Custom settings

The menu of the power consumption reduction is individually set. This setting is enabled when “ECO Mode” is set to “Custom”.

### No signal power off

Equipment power supply is turned Off when there is no signal.

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

#### Note:

- This function is effective during normal viewing (one picture screen).

### PC Power management

- When this function is set to On, it operates under the following conditions to turn the power on or off automatically.
- When no pictures are detected for 30 or so seconds during PC signal input:
  - Power is turned off (standby); the power indicator lights up orange.
- When pictures are subsequently detected:
  - Power is turned on; the power indicator lights up green.

#### Notes:

- This function operates only during input from PC IN terminal.
- This function is effective when “Sync” is set to “Auto” and during normal viewing (one picture screen).

### DVI-D / HDMI Power management

- When this function is set to On, it operates under the following conditions to turn the power on or off automatically.
- When no pictures (sync signal) are detected for 30 or so seconds during DVI-D1 or DVI-D2 / HDMI signal input:
  - Power is turned off (standby); the power indicator lights up orange.
- When pictures (sync signal) are subsequently detected:
  - Power is turned on; the power indicator lights up green.

#### Note:

- This function operates only during each input.

### Power save


This function adjusts the brightness of the backlight to reduce power consumption.

- **Off:** This function does not operate.
- **On:** Backlight brightness is reduced.


Wobbling

Automatically shifts the display image (therefore unnoticeable to the eye) to prevent image retention of sharper contour of image.


- 1



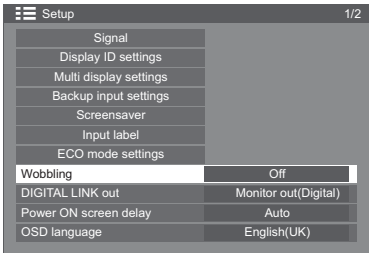
Press to display the Setup menu.
- 2



Press to select “Wobbling”.  
 Press to select “On” or “Off”.  
**On:** Shifts the position of the display image on a fixed time interval.
- 3



Press to exit from adjust mode.




Notes:

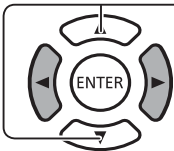
- If “Multi display settings” is set to “On”, this function does not operate.
- When this function is operating, part of the screen may appear to be missing.

DIGITAL LINK out setting

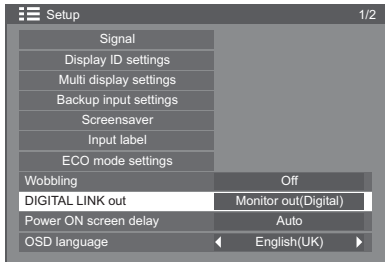
- 1



Press to display the Setup menu.
- 2



Press to select “ DIGITAL LINK out”.


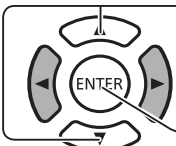


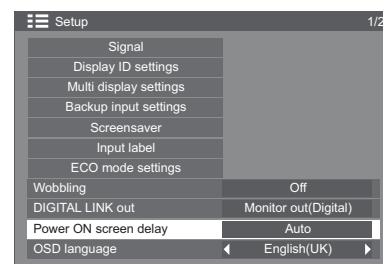
Set a signal output from the DIGITAL LINK OUT terminal.

Options: Monitor out(Digital): signal input from the currently selected terminal (With a digital input selected)

- HDMI: signal input from the HDMI terminal
- DisplayPort: signal input from the DisplayPort terminal
- DIGITAL LINK: signal input from the DIGITAL LINK terminal
- DVI-D1: signal input from the DVI-D1 terminal
- DVI-D2: signal input from the DVI-D2 terminal
- OFF: not output


# Power On Screen Delay

- 1  Press to display the Setup menu.
- 2  Press to select "Power ON screen delay".  
Press the ENTER key to enter Power ON screen delay settings



## Power ON Screen Delay


**Auto** <=> **Off** <=> **1** <=> **2** <=> **3....** <=> **30**

You can set the power-on delay time of the displays to reduce the power load, when you press  to turn on the multiple displays that are set together, for example, on MULTI DISPLAY system. Set each display's setting individually.

**Auto:** Automatically determines a delay time. It will be determined by multiplying an ID number set as a display ID by 0.3 seconds.

Examples: If a display ID is 3: 0.9 seconds

If a display ID is 10: 3 seconds

**Off:** The display will be turned on at the same time as  is pressed.



**1 to 30 (sec.):** Set the power-on delay time (second).

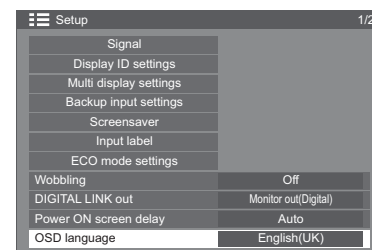
After pressing , the display will be powered on with time delay depending on this setting.

### Notes:

- During this function is working, the power indicator is blinking green.
- This function also works when the power recovers from failure or after plugging off and in again the power cord.

# Selecting the On-Screen Menu Language

- 1  Press to display the Setup menu.
- 2  Press to select OSD Language.  
Press to select your preferred language.




### ■ Selectable languages

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


Day/Time settings / Set up timer

The timer can switch the Display On or Off.  
 Before attempting Timer Set, confirm the PRESENT TIME and adjust if necessary. Then set POWER ON Time / POWER OFF Time.

- 1

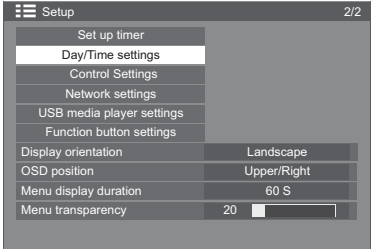


Press to display the Setup menu.
- 2




Press to select Set up TIMER or Day/Time settings

Press to display the Set up TIMER screen or Day/Time settings screen.



Day/Time settings

- 1



Press to select DAY or PRESENT TIME.

Press to set up DAY or PRESENT TIME.

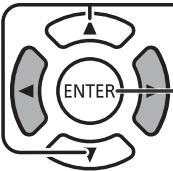
▶ button: Forward

◀ button: Back

Notes:

Pressing “◀” or “▶” button once changes PRESENT TIME 1 minute.

Pressing “◀” or “▶” button continuously changes PRESENT TIME by 15 minutes.
- 2



Press to select SET.

Press to store PRESENT TIME Setup.

Notes:

SET cannot be selected unless PRESENT TIME is set.

Unless setting the present time other than “99:99”, “DAY” and “PRESENT TIME” cannot be set.

The settings of “DAY” and “PRESENT TIME” are reset when leaving the display turned off for about 7 days for the following reasons:

Pressing POWER switch of the unit to turn off the display.

Disconnecting the AC cord.

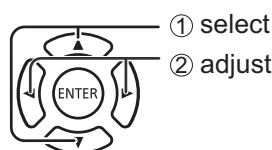
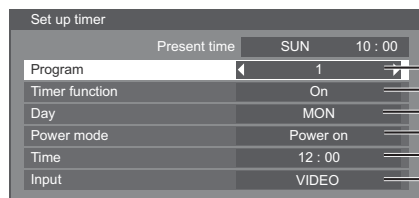
Interruption of power supply.
- 
- 58

## Set up TIMER

Set the program for turning the power On/Off and select the input signal at the specified time. Up to 20 programs can be set.

### [Setting Example]

Program 1, Every Monday, 12:00, Power On, Input: VIDEO



- 1 Set the program number.
- 2 To execute the program, set to "On".  
The program is disabled when "Off" is set.
- 3 Set the day.  
The program is executed every day when "Everyday" is set.
- 4 Set the power On/Off.
- 5 Set the time.  
Pressing "◀" or "▶" button once changes "Time" 1 minute.  
Pressing "◀" or "▶" button continuously changes "Time" by 15 minutes.
- 6 Set the input.

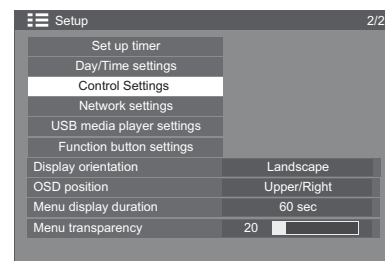
### Notes:

- This function cannot be set unless "PRESENT TIME Setup" is set.
- If more than one programs are set for the same time, only the program with the smallest program number is enabled.

## Control Settings

Configure the settings for serial communication and remote control operation.

- 1 Press to display the Setup menu.
- 2 Press to select "Control Settings".  
Press the ENTER key to enter Control Settings.



### Serial control:

Sets which terminal to use for input for serial communication.

Options: SERIAL IN: SERIAL IN terminal

DIGITAL LINK: DIGITAL LINK terminal

### Serial out:

Sets which terminal to use for output for serial communication.

Options: SERIAL OUT: SERIAL OUT terminal

DIGITAL LINK: DIGITAL LINK terminal

### Note:

When "DIGITAL LINK" is set to "Serial control" or "Serial out", the power lamp lights orange when the remote control power is switched "Off" (standby).

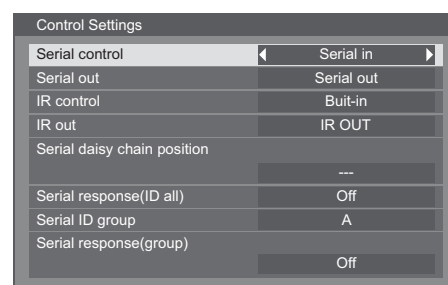
### IR control:

Sets which terminal to use for remote control signal output.

Options: Built-in: built-in sensor

IR-IN: IR IN terminal

DIGITAL LINK: DIGITAL LINK terminal



## SETUP

---

### IR out:

Sets which terminal to use for remote control signal output.

Options: IR-OUT: IR OUT terminal

DIGITAL LINK: DIGITAL LINK terminal

### Serial daisy chain position:

Sets the top and end of a daisy chain when the SERIAL terminal of Display is daisy chained.

---: When the Display is under SERIAL control on a standalone basis, or if not at the top or end of daisy chain.

**Top:** To connect to the top of daisy chain.

**End:** To connect to the end of daisy chain.

### Serial response(ID all):

Sets whether or not to return a response command when the serial command whose ID number is "0" has been received.

Options: OFF: a response will not be returned.

ON: a response will be returned.

### Serial ID group:

Groups display units and sets up groups, which you want to control via serial communication, when you do not control each unit individually or all units simultaneously.

Example: If 9 display units are arranged in 3 lengthwise rows and 3 crosswise rows and you want to operate them on a per-row basis.

Range: A to G (7 groups)

### Serial response(ID group):

Sets whether or not to return a response command when the serial command specifying a group has been received.

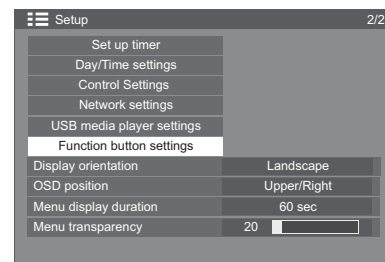
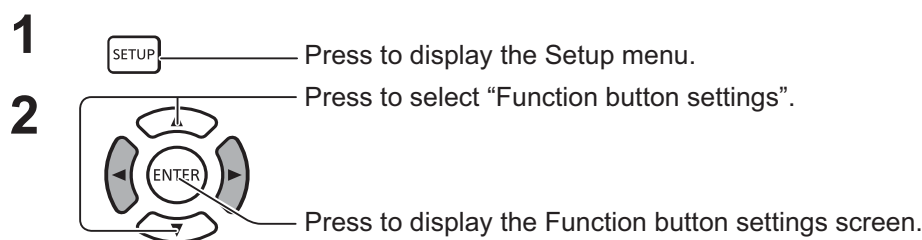
Options: OFF: a response will not be returned.

ON: a response will be returned.



# Function Button Setting

Assigns specific functions to the numeric buttons (<0> to <9>). The buttons can be used as shortcut keys by assigning frequently used operations.



## Function Group

Functions assignable to the numeric buttons.

### [INPUT] (Direct input select)

Input can be selected with single-touch operation.

HDMI / DisplayPort / DIGITAL LINK / DVI-D1 / DVI-D2 / PC / Component/  
RGB / VIDEO / USB

### [MEMORY] ([Memory load])

Memory can be loaded with single-touch operation.

#### [MEMORY1] - [MEMORY8]

- [MEMORY1] to [MEMORY8] load functions are already assigned to <1> to <8> respectively. These settings cannot be changed.

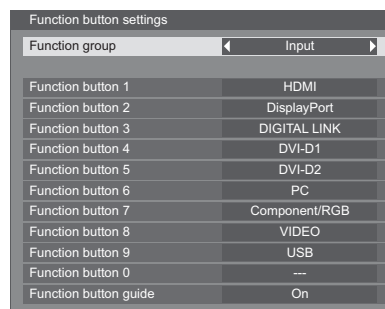
### [SHORTCUT]

[Signal], [Screensaver], [Set up timer], [ECO mode settings], [Multi display settings], [AV mute]

- Pressing the numeric button displays the menu screen. Pressing the button again exits the menu screen.

#### [AV Mute]

- Pressing the numeric button mutes the audio and pictures.  
To cancel, press any button on the remote control.



## Shipping condition

The following functions are assigned to the numeric buttons as factory default.

	INPUT	MEMORY	SHORTCUT
1	HDMI	MEMORY1	Signal
2	DisplayPort	MEMORY2	Screen Saver
3	DIGITAL LINK	MEMORY3	Set up timer
4	DVI-D1	MEMORY4	ECO mode settings
5	DVI-D2	MEMORY5	Multi display settings
6	PC	MEMORY6	AV mute
7	Component/RGB	MEMORY7	---
8	VIDEO	MEMORY8	---
9	USB	---	---
0	---	---	---

## Function Button Guide

Sets the function display when numeric buttons are pressed. Set this for each function group.

**[On]:** Displays the function list for the numeric buttons.

**[Off]:** Does not display the function list. Operation starts when numeric buttons are pressed.

### Note:

- When <FUNCTION GROUP> is pressed, [Function Button Guide] will be displayed regardless of the [On] / [Off] settings.

# SETUP

## To use shortcut (numeric buttons)

- 1

Press <FUNCTION GROUP> or <0> - <9>.

[Function Button Guide] will be displayed.

[Function Button Guide]: When [Off] is set, pressing the numeric button starts operation.

INPUT

1.HDMI

2.Display Port

3.DIGITAL LINK

4.DVI-D1

5.DVI-D2

6.PC

7.Component/RGB

8.VIDEO

9. USB

0. ---

- 2

Press <FUNCTION GROUP> to switch function group.

Example: Memory load

MEMORY LOAD

1.MEMORY1

2.MEMORY2

3.MEMORY3

4.MEMORY4

5.MEMORY5

6.MEMORY6

7.MEMORY7

8.MEMORY8

9. ---

0. ---

- 3

Press <0> - <9>.

The function for the pressed button starts to operate.

Example: When <2> is pressed.

Memory load


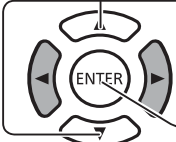
Load from "MEMORY2"

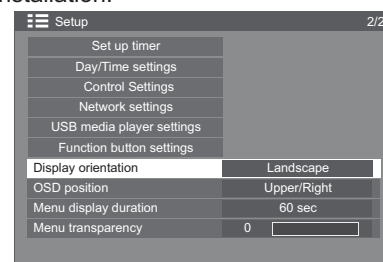
Ok

Cancel

# Display Orientation

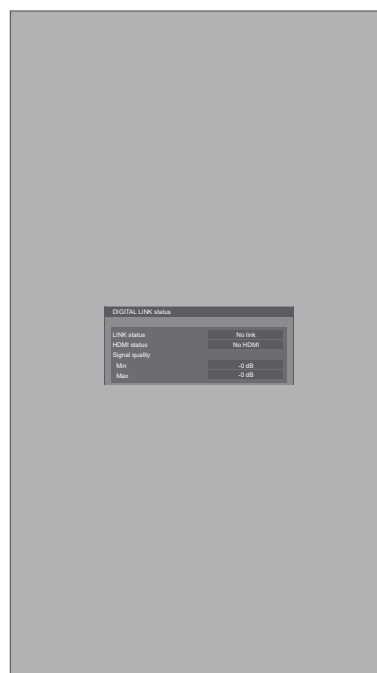
Sets the fan control, panel drive control, and the display style of on-screen menu for vertical installation.

- 1  Press to display the Setup menu.
- 2  Press to select "Display orientation".  
Press to display the Display orientation screen.



## Landscape

Fan control and panel drive control for horizontal installation.

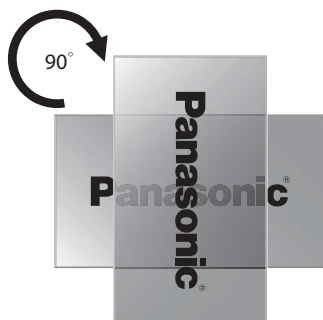


## Portrait

Fan control and panel drive control for vertical installation. On-screen menu will be rotated 90 degrees counterclockwise to be suitable for the setting.

### Notes:


- When you set Display to portrait, please do not use the rotation for left-hand side.
- When you change this setting, fan control and panel drive control will be switched as the power is turned on next time.



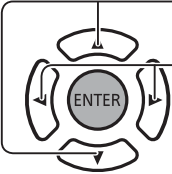
Customizing the On-Screen Menu Display

Set the display time and background transparency of the on-screen menu display.

- 1

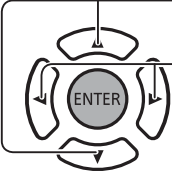


Press to display the Setup menu.
- 2




Press to select "Menu Display Duration".

Press to adjust the display duration.
- 3

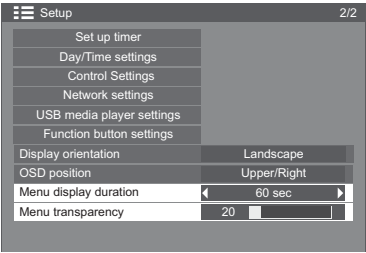


Press to select "Menu Transparency".

Press to adjust the transparency.
- 4

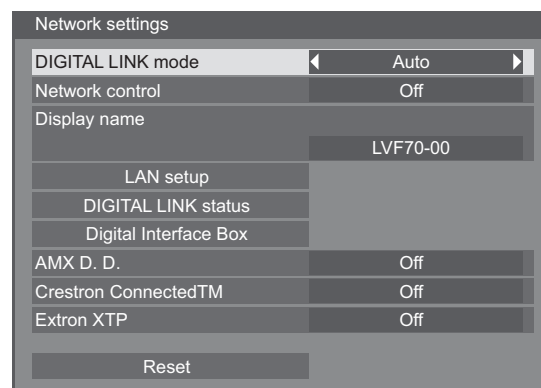
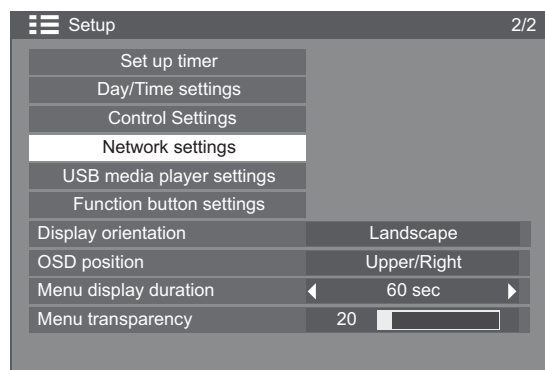


Press to exit from adjust mode.



# Network settings

Configure the various settings required to use the network function.



## ■ DIGITAL LINK mode

You can switch the communication method of DIGITAL LINK.

- **Auto:** The communication method is automatically selected. HDMI/LAN/RS232C communication can be used. Ethernet connection can be made.
- **DIGITAL LINK:** HDMI/LAN/RS232C communication can be used via a twisted pair cable transmitter.
- **Ethernet:** LAN communication can be used via the LAN terminal of the Display.

### Note:

- When “Ethernet” is selected, set the “Network control” to “Off”.

## ■ Network Control

This is the function to set the LAN communication to OFF/ON.

### Note:

- When “ON” is set, the power lamp lights orange when the remote control power is switched “Off” (standby).

## ■ Display Name

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

## ■ LAN Setup

See page 66

## ■ DIGITAL LINK status

See page 67

## ■ Digital Interface Box

See page 67

## ■ AMX D.D.

This function allows the Display to be detected by AMX Device Discovery. For more details, visit the following website.

<http://www.amx.com/>

## ■ Crestron Connected™

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

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

- RoomView® Express
- Fusion RV®
- RoomView® Server Edition

[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).

<http://www.crestron.com/>

For the download of “RoomView® Express”, refer to the Crestron Electronics, Inc. website (Provided only in English).

<http://www.crestron.com/getroomview>

## ■ Extron XTP

To carry out connection settings with XTP Transmitter made by Extron. Visit the following website for details.

<http://www.extron.com>

## ■ Reset

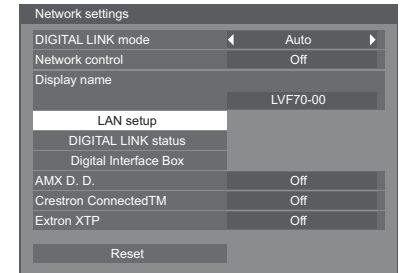
This is the function to initialize all items of the menu of “Network Settings” and “LAN Setup”.

# SETUP

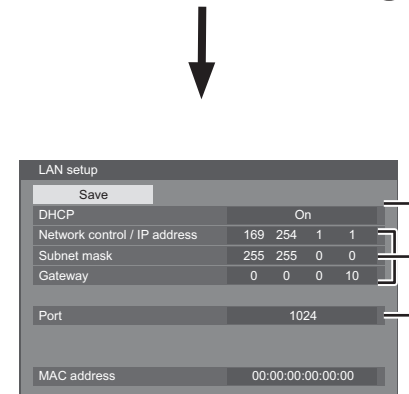
## Network Setup

### ■ LAN Setup

Detailed network settings for the LAN established via the LAN terminal of the Display or twisted pair cable transmitter can be configured.



Select "LAN Setup" and press [ENTER]



### DHCP, IP address, Subnet mask, and Gateway settings

#### 1 Set DHCP.

When "Off" is selected, IP address and other settings can be set manually.

#### 2 Select the item and press [ENTER].

#### 3 Enter an address.



① Use [Left] [Right] to select a digit.

② Use [Up] [Down] to change a number.

③ Press [ENTER].

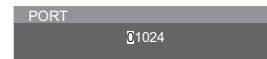
Pressing [RETURN] will cancel the address change.

#### 4 Select "Save" and press [ENTER].

### PORT setting

#### 1 Select "Port" and press [ENTER].

#### 2 Enter a port number.



① Use [Left] [Right] to select a digit.

② Use [Up] [Down] to change a number.

③ Press [ENTER].

Pressing [RETURN] will cancel the port number change.

### ■ Save

Save the current network Setup. Each value set for DHCP, IP address, Subnet mask, and Gateway will be saved. If "NG" is displayed, check the same IP address is not used within the same network.

### ■ DHCP (DHCP client function)

To obtain an IP address automatically using a DHCP server, set this to "On". If DHCP server is not used, set this to "Off".

### ■ IP address (IP address display and setting)

Enter an IP address if DHCP server is not used.

### ■ Subnet mask (Subnet mask display and setting)

Enter a subnet mask if DHCP server is not used.

### ■ Gateway (Gateway address display and setting)

Enter a gateway address if DHCP server is not used.

### Notes:

- To use a DHCP server, make sure the DHCP server is started.
- Contact your network administrator for details on settings.

### ■ Port

Set the port number used for command control.

The available setting range is 1024 – 65535.

When the PJLink™ protocol is used, the port setting is not necessary.

### ■ MAC Address

Display the MAC address of this unit.

### Note:

Shipping condition is below.

[DHCP]: Off


[IP address]: 192.168.0.8

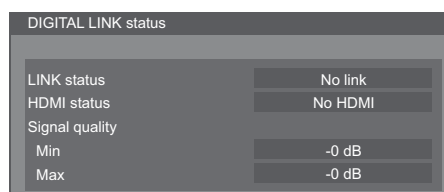
[Subnet mask]: 255.255.255.0

[Gateway]: 192.168.0.1

## ■ DIGITAL LINK status

Display the DIGITAL LINK connection environment.

Select "DIGITAL LINK status" and press  →



### LINK status

Either "No link", "DIGITAL LINK", or "Ethernet" will be displayed.

No link : No LAN connection, etc.

DIGITAL LINK : Connected to the DIGITAL LINK device by LAN

Ethernet : The PC is connected to the DIGITAL LINK terminal of this product and is LAN connected

### HDMI status

Either "No HDMI", "HDMI ON", or "HDCP ON" will be displayed.

No HDMI : DIGITAL LINK not connected

HDMI ON : DIGITAL LINK connected

HDCP ON : A signal with an HDCP is flowing with a DIGITAL LINK connection.


### Signal quality

It is the quantified minimum and maximum numbers of errors that have occurred. The display colours are red, yellow, or green, depending on the number.

The number is represented by yellow or red if the LAN cable is disconnected or the cable is not shielded. This signal quality shows figures between the twisted pair cable transmitter that is connected and the display.

Signal Quality	Display Colours	Reception Status
-12dB or below	Green	The reception is normal
-11 to -8dB	Yellow	Part of the received data is corrupted
-7dB or above	Red	There are reception difficulties


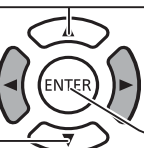
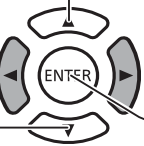
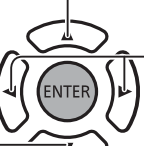

## ■ Digital Interface Box

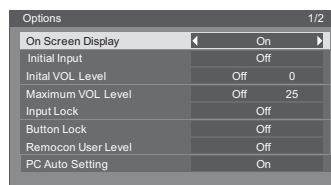
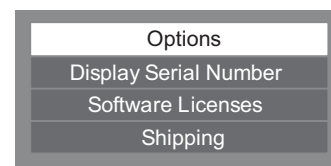
A switch will be made to the Set up Digital Interface Box menu when "Digital Interface Box" is selected and  is pressed.

### Note:

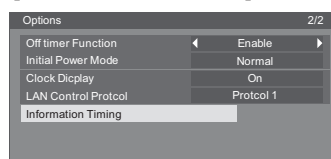
- This function can only be selected when the Digital Interface Box (ET-YFB100) made by our company is connected to a LAN terminal and its power is on.

# Options Adjustments

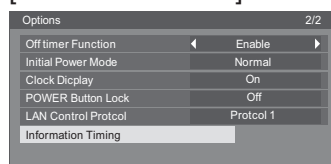
- 1  Press to display the Setup menu.
- 2  Press to select "OSD Language".  
Press for more than 3 seconds.
- 3  Press to select "Options".  
Press to display the Options menu.
- 4  Press to select your preferred menu.  
Press to adjust the menu.
- 5  Press to exit from Options menu.








[For TH-55LFV70W]














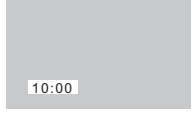
[For TH-55LFV70U]



- The serial number of this device is displayed when "Display Serial Number" is selected in step 3.



Item	Adjustments
On screen display	<p><b>On:</b> Displays all the following on screen.</p> <ul style="list-style-type: none"> <li>Power on display</li> <li>Input signal switch display</li> <li>No signal display</li> <li>Mute and the remaining time of off-timer after  was pressed.</li> </ul> <p><b>Off:</b> Hides all the items above from view.</p>
Initial input	<p>Adjusts the input signal when the unit is turned on.</p> <p><b>Off</b> ↔ <b>HDMI</b> ↔ <b>DisplayPort</b> ↔ <b>DIGITAL LINK</b> ↔ <b>DVI-D1</b> ↔ <b>DVI-D2</b> ↔ <b>PC</b> ↔ <b>COMPONENT</b> ↔ <b>VIDEO</b> ↔ <b>USB</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Only the adjusted signal is displayed.</li> <li>This menu is available only when "Input lock" is "Off".</li> </ul>
Initial VOL level	<p>Press   button to adjust the volume when the unit is turned on.</p> <p><b>Off</b> ↔ <b>On</b></p> <p><b>Off:</b> Sets normal volume.</p> <p><b>On:</b> Sets your preferred volume.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>When "Maximum VOL level" is "On", the volume can only be adjusted between 0 and your maximum range.</li> <li>You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Initial VOL level" is "On" and cursor is on the menu.</li> </ul>
Maximum VOL level	<p>Press   button to adjust the maximum volume.</p> <p><b>Off</b> ↔ <b>On</b></p> <p><b>Off:</b> Sets auto maximum volume.</p> <p><b>On:</b> Sets your preferred maximum volume.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>If the "Maximum VOL level" is set lower than the "Initial VOL level", the "Initial VOL level" automatically becomes the same as the "Maximum VOL level".</li> <li>The volume display can go up to 100 regardless of the settings.</li> <li>You can hear the changed volume regardless of your volume setting before opening the options menu if you adjust the volume when "Maximum VOL level" is "On" and cursor is on the menu.</li> </ul>



Item	Adjustments
<b>Input lock</b>	<p>Locks the input switch operation.</p> <p><b>Off</b> ↔ <b>HDMI</b> ↔ <b>DisplayPort</b> ↔ <b>DIGITAL LINK</b> ↔ <b>DVI-D1</b> ↔ <b>DVI-D2</b> ↔ <b>PC</b> ↔ <b>COMPONENT/RGB</b> ↔ <b>VIDEO</b> ↔ <b>USB</b> ↔ <b>Off</b></p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>Only the adjusted signal is displayed.</li> <li>Input switch can be used when this is set to "Off".</li> </ul>
<b>Button lock</b>	<p><b>Off</b> ↔ <b>On</b> ↔ <b>MENU</b></p> <p><b>Off:</b> All the buttons on main unit can be used.</p> <p><b>MENU:</b> Locks  button on main unit.</p> <p><b>On:</b> Locks all the button on main unit except the POWER button.</p> <p>Sets Button lock with the unit buttons in the following procedure.</p> <p><b>Off:</b> Press + four times → Press INPUT four times → Press - four times → Press MUTE</p> <p><b>MENU:</b> Press MUTE four times → Press + four times → Press INPUT four times → Press MUTE</p> <p><b>On:</b> Press - four times → Press MUTE four times → Press + four times → Press MUTE</p>
<b>Remocon User level</b>	<p><b>Off</b> ↔ <b>User1</b> ↔ <b>User2</b> ↔ <b>User3</b></p> <p><b>Off:</b> You can use all of the buttons on the remote control.</p> <p><b>User1:</b> You can only use , , , , , ,  buttons on the remote control.</p> <p><b>User2:</b> You can only use  and  button on the remote control.</p> <p><b>User3:</b> Locks all the buttons on remote control.</p>
<b>PC Auto Setting</b>	<p><b>Off</b> ↔ <b>On</b></p> <p><b>Off:</b> When the AUTO SETUP key of the remote control is operated, or when the "Auto setup" of the POSITION menu is performed, the Auto function operates.</p> <p><b>On:</b> In addition to operation of a remote control and the OSD menu, an Auto Setup function is dynamically performed to the first signal to receive.</p>
<b>Off-timer function</b>	<p><b>Enable:</b> Enables the "Off-timer function".</p> <p><b>Disable:</b> Disables the "Off-timer function".</p> <p><b>Note:</b> When "Disable" is set, the Off-timer is cancelled.</p>
<b>Initial Power Mode</b>	<p><b>Normal</b> ↔ <b>On</b> ↔ <b>Standby</b></p> <p>Sets the power mode of the unit for when the power recovers from failure or after plugging off and in again.</p> <p><b>Normal:</b> Power returns in as the same state as before the power interruption.</p> <p><b>Standby:</b> Power returns in standby mode. (Power Indicator : red/orange)</p> <p><b>On:</b> Power returns in power On. (Power Indicator : green)</p> <p><b>Note:</b> When using multiple displays, "Standby" is preferred to be set in order to reduce a power load.</p>
<b>Clock Display</b>	<p><b>Off:</b> Not display the clock.</p> <p><b>On:</b> Display the clock.</p> <p>The clock is displayed at the lower left of the screen when  button is pressed.</p> <p></p> <p><b>Note:</b> When "Day/Time settings" is not set, the clock is not displayed even if "Clock Display" is "On".</p>
<b>LAN Control Protocol</b>	<p>Select the LAN control protocol.</p> <p><b>Protocol 1:</b> Control with the Panasonic Display sequence.</p> <p><b>Protocol 2:</b> Control with the sequence that compatible with Panasonic Projector.</p>
<b>Information Timing</b>	Set up the informing manner if error warning occurred.
<b>POWER Button Lock (TH-55LFV70U only)</b>	<p>Set the lock setting for POWER button in unit buttons on back of the display.</p> <p><b>Off:</b> POWER button operation is enabled.</p> <p><b>On:</b> POWER button operation is disabled.</p> <p><b>Note:</b></p> <p>This function is enabled for only TH-55LFV70U. For TH-55LFV70W, it will not appear on the menu.</p>

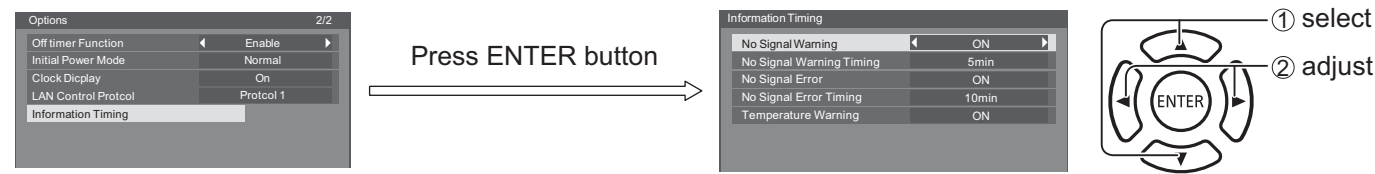
### Normalisation

When both main unit buttons and remote control are disabled due to the "Button lock", "Controller user level" or "Controller ID function" adjustments, set all the values "Off" so that all the buttons are enabled again.

Press the  button on main unit together with  button on the remote control and hold for more than 5 seconds. The "Shipping" menu is displayed and the lock is released when it disappears.

# Information Timing

Set up the informing manner for no signal or temperature rising.  
While Serial controls: Warning or error message sent on the display atuomatically.  
While LAN controls: Acquire the warning or error message from the display.



■ No Signal Warning

If set to “On”, the display sends out the no signal warning.

■ No Signal Warning Timing

Set up the detecting time for no signal warning.

■ No Signal Error

If set to “On”, the display sends out the no signal error.

■ No Signal Error Timing

Set up the detecting time for no signal error.

**Note:**

The “No Signal Error Timing” cannot be set shorter than “No Signal Warning Timing”.

■ Temperature Warning

If set to “On”, the display sends out the warning temperature.

# Using Web Browser Control

You can use a Web browser to control the unit and set up a network and password.

## Before Using Web Browser Control

To use the Web browser control, the unit and computer setups are required.

### Unit Setup

Set each “Network Setup” setting and make sure to set the “Network control” to “ON”.

### Computer Setup

Disable the proxy server settings and enable JavaScript.

#### (Windows)

##### Disable proxy server settings

1. Display [Internet Properties] window.  
Click [Start] – [Control Panel] – [Network and Internet] – [Internet Options].
2. Click the [Connections] tab and then [LAN Settings].
3. Deselect the [Use automatic configuration script] and [Use a proxy server for your LAN] boxes.
4. Click [OK].

##### Enable JavaScript

1. Display [Internet Properties] window.  
Click [Start] – [Control Panel] – [Network and Internet] – [Internet Options].
2. Set the security level on the [Security] tab to [Default Level]. Alternatively enable [Active scripting] from the [Custom Level] button.

#### (Macintosh)

##### Disable proxy server settings

1. From the [Safari] menu, click [Preferences].  
General screen is displayed.
2. From the [Advanced] tab, click the [Change Settings...] button next to [Proxies]. Click [Proxies] and set up a proxy server.
3. Deselect the [Web Proxy] and [Automatic Proxy Configuration] boxes.
4. Click [Apply Now].

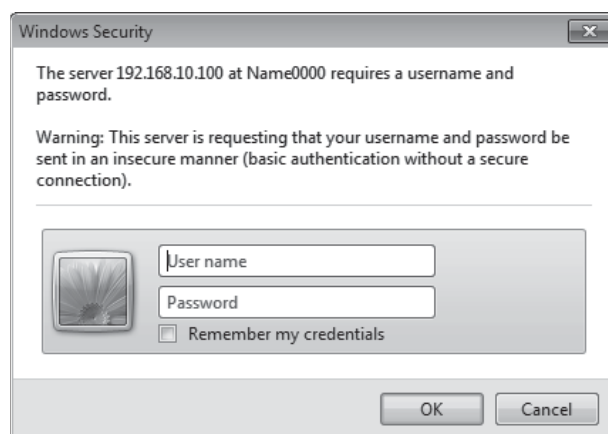
##### Enable JavaScript

1. Display [Security] of Safari.
2. Select [Enable JavaScript] under [Web content].

## Access from Web Browser

- 1** Activate the Web browser in the personal computer.
- 2** Enter the IP address set by the Display into the URL input field of the Web browser.  
About the IP address set by the Display, see “Network settings” (page 65).
- 3** Enter your “User name” and “Password”.

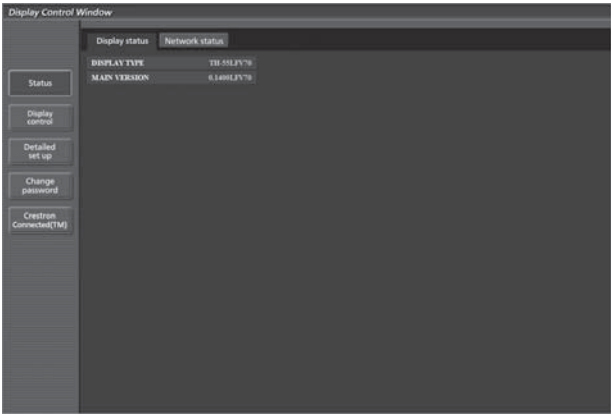
The factory default settings are user1 (user privileges) or admin1 (administrator privileges) for the user name and panasonic for the password.



# Using Web Browser Control

**4** Click [OK] to display the Display status page.

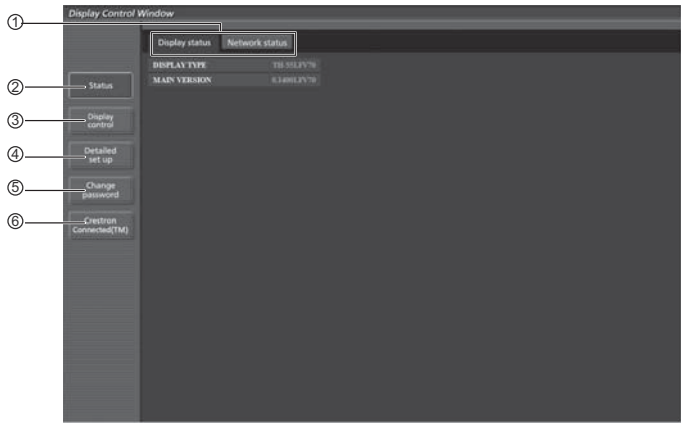
“Display status” page is displayed.



**Notes:**

- Avoid activating two or more Web browser simultaneously to work out setting or control actions.
- Change the password first of all.
- Administrator privileges enable the use of all functions. User privileges enable the use of only “Display status”, “Network status”, “Basic control”, “Advanced control”, and “Change password”.
- If you want to control the Display using a Web browser, set [WEB Control] in [Network Settings] menu to [On].

**Description of each item**



- ① Page tab

Click these to switch pages.
- ② Status

Click this item, and the status of the Display is displayed.
- ③ Display control

Click this item to display the Display control page.
- ④ Detailed set up

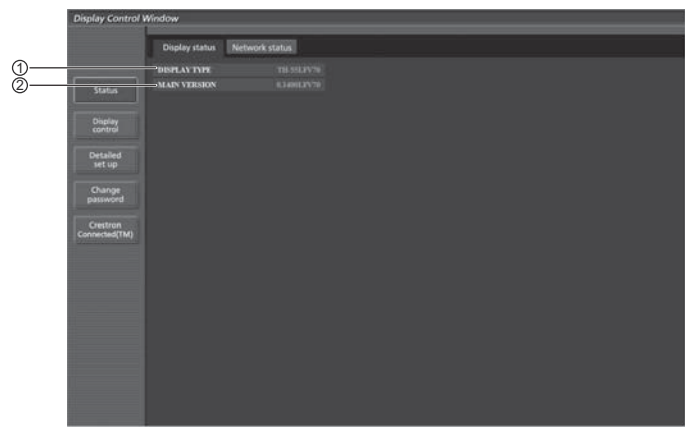
Click this item to display the advanced settings page.
- ⑤ Change password
- ⑥ Crestron Connected™

Click this item to display the Crestron Connected™ operation page.

**Display status page**

Click [Status], then [Display status] to display the Status information page.

This page displays the Display statuses established for the items shown below.

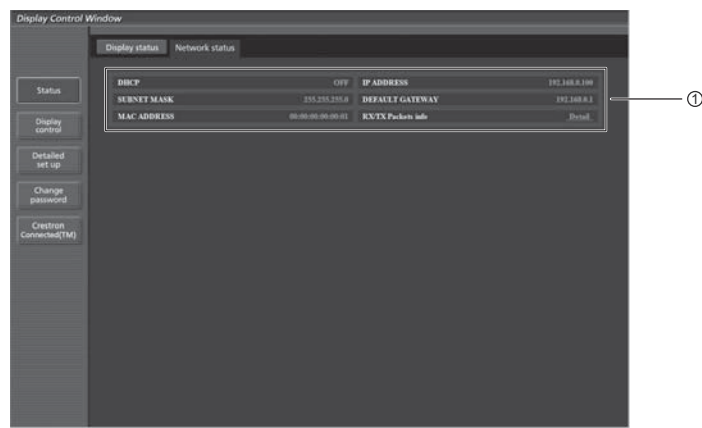


- ① Displays the type of Display.
- ② Displays the firmware version of the Display main unit.

Network status page

Click [Status], then [Network status] to display the Status information page.

Displays the current configuration information of the network.



- ① Displays the configuration details of wired LAN.

Basic control page

To move from another page, click [Display control], then [Basic control].

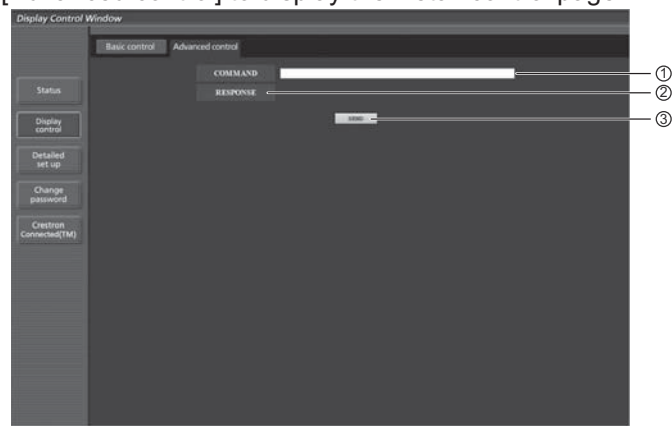


- ① Power On/Off control
- ② Use these to select the input signals
- ③ Operation of AUDIO MUTE
- ④ Switches aspect mode

# Using Web Browser Control

## Detail control page

Click [Display control], then [Advanced control] to display the Detail control page.



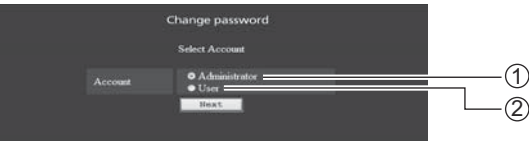
- ① Enter a command. Use the same command used for the serial control.
- ② Response from the unit is displayed.
- ③ Command is sent and run.

**Note:**

- After the settings are changed, it may take a while till the display status is displayed.

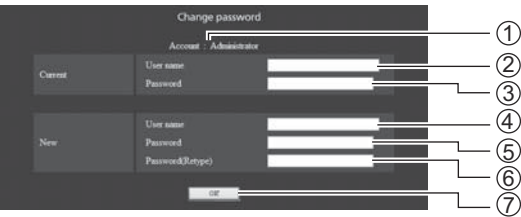
## Change Password page

Click [Change password].



- ① Administrator
- ② User

■ Administrator mode



- ① Account
- ② Current user name input field
- ③ Current password input field
- ④ New user name input field
- ⑤ New password input field
- ⑥ New password input field (re-enter for confirmation)
- ⑦ Button for executing password change

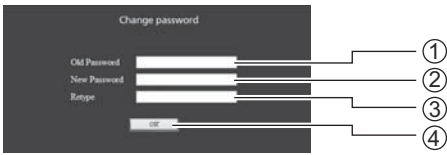
■ User account



- ① Account
- ② New user name input field
- ③ New password input field
- ④ New password input field (re-enter for confirmation)
- ⑤ Button for executing password change

## ■ User mode

A user can change password only.



- ① Current password input field
- ② New password input field
- ③ New password input field (re-enter for confirmation)
- ④ Button for executing password change

### Notes:

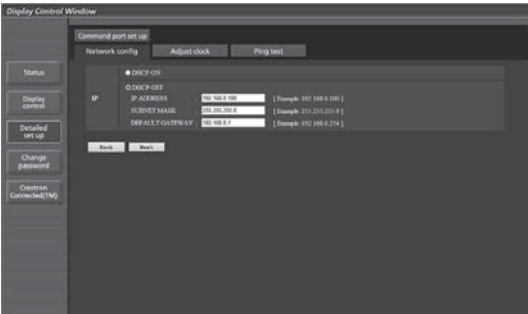
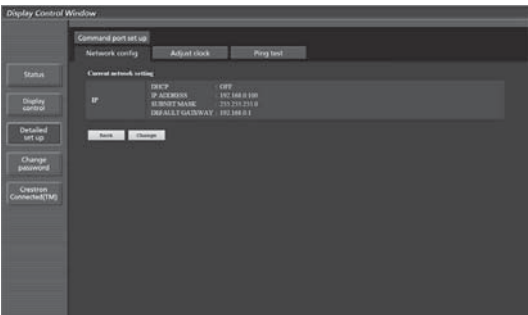
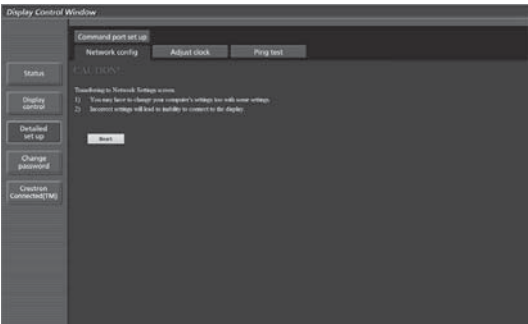
When changing the administrator account, both “Current user name” and “Current password” are required.

## Network config page

You can make detail network settings on Display, when connecting without the administrator authority.

## ■ LAN settings

- 1 Click [Detailed set up] in the menu.
- 2 Click [Next].  
The settings window appears, showing the current settings.
  - To change the LAN settings, click [Change].
  - To return to the previous window, click [Back].

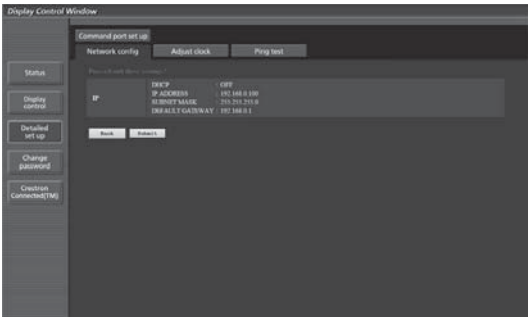


- 3 Complete the detailed settings and click [Next].  
When [Next] is clicked, the next page appears, enabling you to complete the detailed settings as desired.  
Settings performed here are the same as the settings performed with the [Network Settings] menu of the Display.
  - Wired LANAfter all required items have been entered, a confirmation window appears.

# Using Web Browser Control

## 4 Click [Submit].

The settings will be registered.

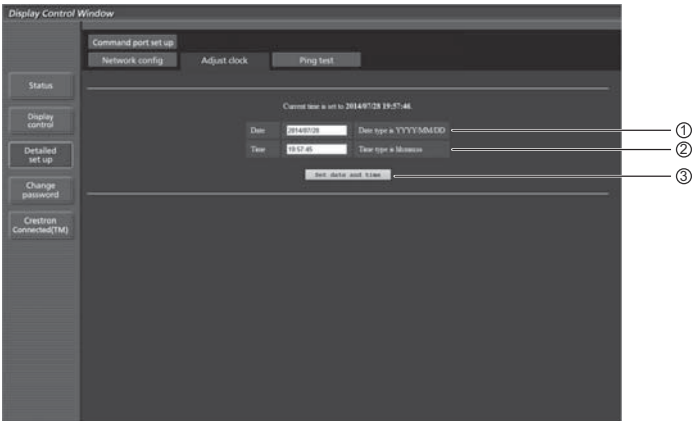


### Notes:

- Important video/audio data is protected because AES encryption processing takes place.
- Changing the setting of LAN while connected with LAN might disconnect the connection.

## Adjust clock page

Click [Detailed set up], then [Adjust clock] to display the Adjust clock page.



- ① New date field
- ② New time field
- ③ Button to update time and date settings

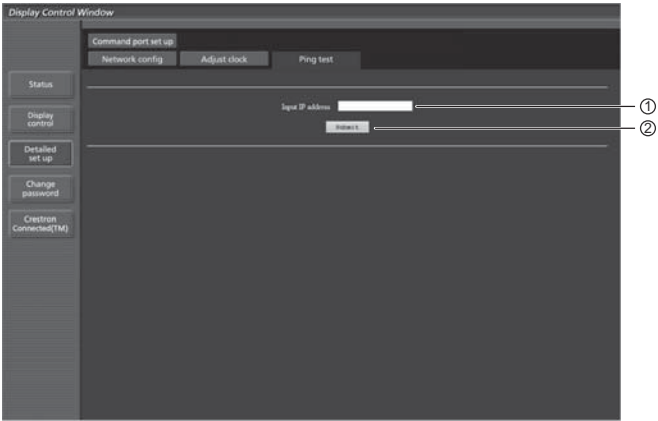
### Notes:

- If the time becomes incorrect immediately after setting the correct time, contact the dealer where you bought the Display.

## Ping test page

This page makes it possible to check whether the network is connected to the DHCP server, etc.

Click [Detailed set up], then [Ping test] to display the Ping test page.



Display which appears when the connection was successful.

```
PING 192.168.0.78 (192.168.0.78): 56 data bytes
64 bytes from 192.168.0.78: seq=0 ttl=64 time=12.708 ms
64 bytes from 192.168.0.78: seq=1 ttl=64 time=2.490 ms
64 bytes from 192.168.0.78: seq=2 ttl=64 time=2.406 ms
64 bytes from 192.168.0.78: seq=3 ttl=64 time=2.348 ms

--- 192.168.0.78 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 2.348/4.988/12.708 ms
```

Display which appears when the connection failed.

```
PING 192.168.0.60 (192.168.0.60): 56 data bytes

--- 192.168.0.60 ping statistics ---
4 packets transmitted, 0 packets received, 100% packet loss
```

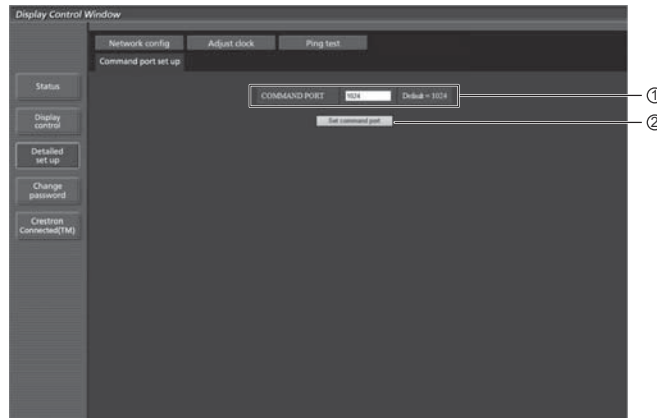


- ① Enter the IP address of the server to be tested.
- ② Button for conducting the test.

## Command port set up page

Set the port number to be used with command control.

Click [Detailed set up] → [Command port set up].



- ① Input the port number to be used with command control
- ② Setting update button

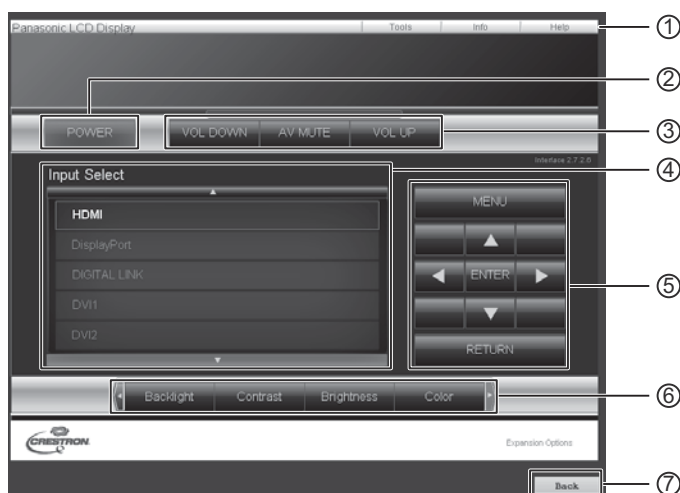
## Crestron Connected™ page

You can monitor or control the Display using Crestron Connected™.

When you click [Crestron Connected™], the Crestron Connected™ operation page is displayed.

If Adobe Flash Player is not installed in your computer, or if the browser does not support Flash, this page does not appear. In this case, return to the previous page by clicking [Back] in the operation page.

### Operation page



#### ① Tools, Info, Help

Switches the pages for tools, information, help using the tab.

#### ② POWER

Switches between on and off of the power.

#### ③ VOL DOWN, AV MUTE, VOL UP

Sets the volume, AV mute. When the power of the Display is turned off, VOL DOWN, AV MUTE and VOL UP are not available.

#### ④ Input Select

Sets the input selection. When the power of the Display is turned off, this operation is not available.

#### ⑤ Operation buttons on the menu screen

Operates on the menu screen.

#### ⑥ Image quality adjustments

Operate items related to image quality.

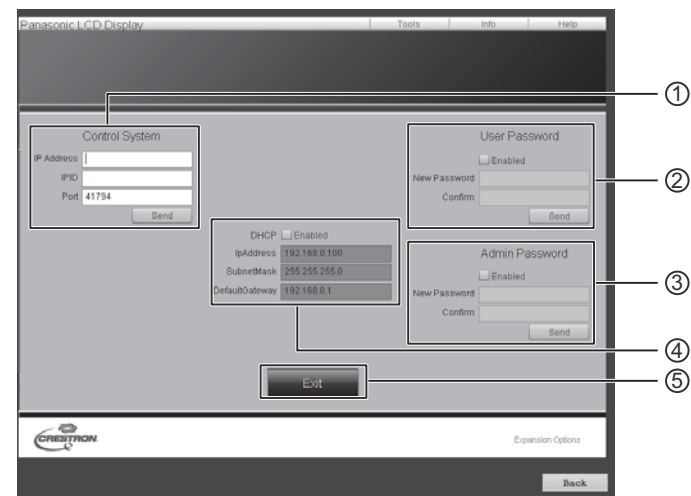
#### ⑦ Back

Returns to the previous page.

# Using Web Browser Control

## Tools page

Click Tools on the operation page.



- ① **Control system**  
Sets the information required for the communication with the controller that is connected to the Display.
- ② **User Password**  
Sets the password for the user rights in the operation page of Crestron Connected™.
- ③ **Admin Password**  
Sets the password for the administrator rights in the operation page of Crestron Connected™.
- ④ **Network status**  
Displays the setting of LAN.  
DHCP: Displays the value in the current setting.  
IpAddress: Displays the value in the current setting.  
SubnetMask: Displays the value in the current setting.  
DefaultGateway: Displays the value in the current setting.
- ⑤ **Exit**  
Return to the operation page.

Notes:

- When you monitor or control the Display using Crestron Connected™, set “Crestron Connected™” to “On” in the “Network Settings” menu.

## Info page

Click Info on the operation page.



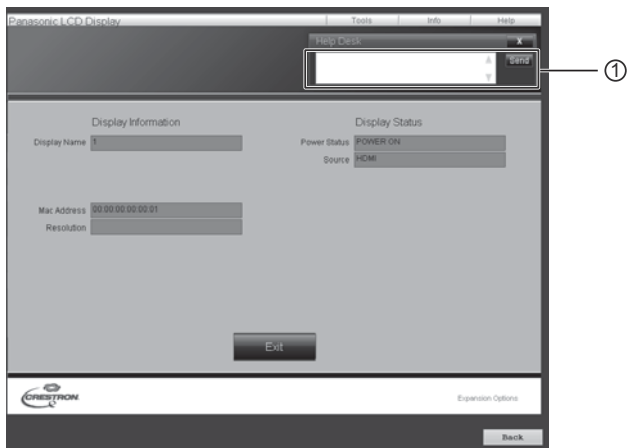
- ① **Display Name**  
Displays the name of the Display.
- ② **Mac Address**  
Displays the MAC address.
- ③ **Resolution**  
Displays the resolution of the Display.
- ④ **Power Status**  
Displays the status of the power.
- ⑤ **Source**  
Displays the selected video input.
- ⑥ **Exit**  
Return the operation page.

## Help page

Click Help on the operation page.  
The Help Desk screen is displayed.

### ① Help Desk

Sends or receive messages to the administrator who uses Crestron Connected™.



## PJLink™ Protocol

The network function of the unit conforms with PJLink™ class 1 and you can operate the following actions from your computer using PJLink™ protocol.

- Display setup
- Display status query

### Supported commands

Commands to control the unit with PJLink™ protocol are shown in the table below.

Command	Control	Remark
POWR	Power control	Parameter 0 = Standby, 1 = Power “On”
POWR ?	Power status query	Parameter 0 = Standby, 1 = Power “On”
INPT	Input switch	Parameter
INPT ?	Input switch query	See the parameter for command INST ?
AVMT	Shutter control	Parameter 10 = Picture On (picture mute deactivated), 11 = Picture Off (picture on mute) 20 = Audio On (audio mute deactivated), 21 = Audio Off (audio on mute) 30 = Shutter mode Off (picture and audio mute deactivated) 31 = Shutter mode On (picture and audio on mute)
AVMT ?	Shutter control query	Parameter 11 = Picture Off (picture on mute) 21 = Audio Off (audio on mute) 30 = Shutter mode Off (picture and audio mute deactivated) 31 = Shutter mode On (picture and audio on mute)
ERST ?	Error status query	Parameter First byte: 0 Second byte: 0 Third byte: 0 Fourth byte: 0 Fifth byte: 0 Sixth byte: Means other error. 0 or 2. Meaning of the 0 – 2 settings: 0 = Error is not detected, 2 = Error
LAMP ?	Lamp status query	Not supported

# Using Web Browser Control

---

INST ?	Input switch list query	Parameter 11: PC 21: COMPONENT 22: VIDEO 31: HDMI 32: DisplayPort 33: DIGITAL LINK 34: DVI-D 1 35: DVI-D 2 41: USB
NAME ?	Projector name query	Return the Display name contents selected in “Network Setup”.
INF1 ?	Manufacturer name query	Returns “Panasonic”
INF2 ?	Model name query	Returns “55LFV70W”
INFO ?	Other information query	Returns version number
CLSS ?	Class information query	Returns “1”

## PJLink™ security authentication

Set “panasonic” for the PJLink™ password.

## Web Browser Control

You can use a Web browser to control the unit and set up a network and password.

## Shipping

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

# USB Media Player

## 1. Function description

It is a function designed to play stored files by inserting USB memory that stores still and moving image files and then changing the input to USB.

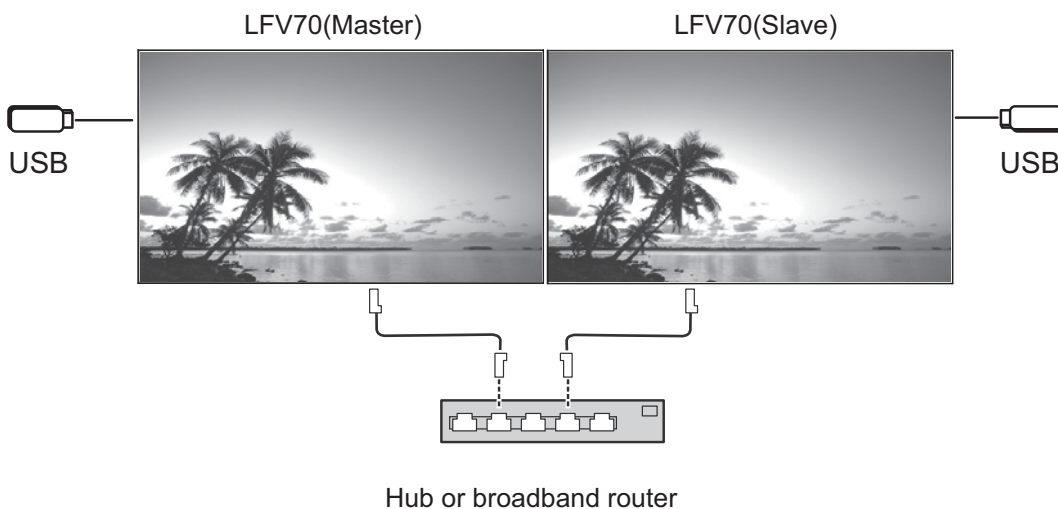
### Single Media Player

Files are played by a single unit of LFBV70.



### Multi Media Player

Several units of LFBV70 are connected together with LAN cables, allowing files to be played on the units synchronously. One of the units becomes Master, and the others Slaves.



## 2. USB memory

For Media Player, provide the following files in USB memory.

- Play file
- Scenario
- File list

# USB Media Player

---

## 2.1. Play file

It is a file to be played on Media Player.

LFV70 Media Player supports the formats below.

file name (Extention)

Still image	JPG, JPEG, JPE
Moving image	AVI, MKV, ASF, WMV, TS, MTS, MP4, 3GP, MOV, FLV, F4V

codec

Still image	JPEG (base line)
Moving image	MPEG4 VISUAL(MPEG4), MPEG4 AVC(H264/AVC), VC-1 Advanced(WMV9), VC-1 Simple & Main(WMV9)
Audio	Audio codec: MP3, WMA, AAC

The maximum resolution is still image: 4096 x 4096

## 2.2. Scenario

The play order and time can be specified for a play file.

Save under the name "scenario.dat" immediately below root in USB memory.

\*Save files as UTF-8N format.

## 2.3. File list

It is a list of play files.

Save under the name "filelist.dat" immediately below root in USB memory.

\*Save files as UTF-8N format.

## 2.4. Scenario- / File list-associated terms

### File name

It is the name of a play file.

A file name needs to include its extension.

Example)           intoroduction.jpg  
                      Contents\_video01.wmv

\*Enter the extension of a file name using one-byte alphanumeric characters.

### File definition

It is a file definition that is shared among scenarios and files.

Example) PHOTO\_001 : still image file definition  
          VIDEO\_001 : moving image file definition

\*The numerical portion can be set from 001 to 999.

\*Enter a file definition using one-byte alphanumeric characters.

### Play time

It is the play time of a file.

Play time can be specified from 3 seconds to 24 hours. (Unit: second)

Example)           3               : 3 seconds  
                      864000       : 24 hours  
                      10.5           : 10.5 seconds It can be set down to one-tenth (1/10) of a second using a decimal point (full stop).

Play time is omissible.

For still images: a file will be played for the period of time that you select with OSD (Slide Show Duration).

For moving images: a file will be played for the duration of the play time of the file.

\*Enter play time using English one-byte characters.

## Group ID (for Multi Media Player)

It is an ID used for grouping on a network during Multi Media Player conditions.

Example) GroupID:G01 : Group 1

ID can be set from G01 to G10.

\*Enter a group ID using one-byte alphanumeric characters.

## 2.5. Example of setting in each mode

### 2.5.1. Single Media Player Type1

Files will be played in the order they were listed in a scenario.

#### Scenario and file list

Scenario Enter (File definition): (Play time).

File list Enter (File definition): (File name).

#### Setting example

USB media contents	filelist.dat	scenario.dat
<pre>└─ filelist.dat └─ scenario.dat └─ Intoroduction.jpg └─ Contents_Video1.wmv └─ Contents_Video2.wmv └─ Contents_Video3.wmv</pre>	<pre>PHOTO_001: Intoroduction.jpg VIDEO_001: Contents_Video1.wmv VIDEO_002: Contents_Video2.wmv VIDEO_003: Contents_Video3.wmv</pre>	<pre>PHOTO_001: 10 VIDEO_001: 10 VIDEO_002: 20 VIDEO_003:</pre>

#### Play contents

For the above setting example, the following contents will be played on repeat (loop).

1. Intoroduction.jpg (10 seconds)
2. Contents\_Video1.wmv (10 seconds)
3. Contents\_Video2.wmv (20 seconds)
4. Contents\_Video3.wmv (Played for the duration of the play time of the file)

### 2.5.2. Single Media Player Type2

Files will be played in the order they were listed in a scenario.

#### Scenario and file list

Scenario Enter (File name): (Play time).

File list \*Unnecessary

#### Setting example

USB media contents	scenario.dat
<pre>└─ scenario.dat └─ Intoroduction.jpg └─ Contents_Video1.wmv └─ Contents_Video2.wmv └─ Contents_Video3.wmv</pre>	<pre>Intoroduction.jpg: 10 Contents_Video1: 10 Contents_Video2: 20 Contents_Video3:</pre>

# USB Media Player

---

## Play contents

For the above setting example, the following contents will be played on repeat (loop).

- 1. Intoroduction.jpg (10 seconds)
- 2. Contents\_Video1.wmv (10 seconds)
- 3. Contents\_Video2.wmv (20 seconds)
- 4. Contents\_Video3.wmv (Played for the duration of the play time of the file)

## 2.5.3. Single Media Player Type3

Files will be played in the order in which their names appear in USB media.

### Scenario and file list

Scenario \*Unnecessary  
File list \*Unnecessary

### Setting example

USB media contents



## Play contents

For the above setting example, the following contents will be played on repeat (loop).

- 1. 001\_Intoroduction.jpg (10 seconds)
- 2. 002\_Contents\_Video1.wmv (10 seconds)
- 3. 003\_Contents\_Video2.wmv (20 seconds)
- 4. 004\_Contents\_Video3.wmv (Played for the duration of the play time of the file)

## 2.5.4. Multi Media Player

Files will be played in the order they were listed in the scenario for Master.

### Scenario and file list

[Master side]

Scenario Enter (File definition): (Play time).  
File list The first line Enter (Group ID).  
The second and subsequent lines Enter (File definition):(File name).

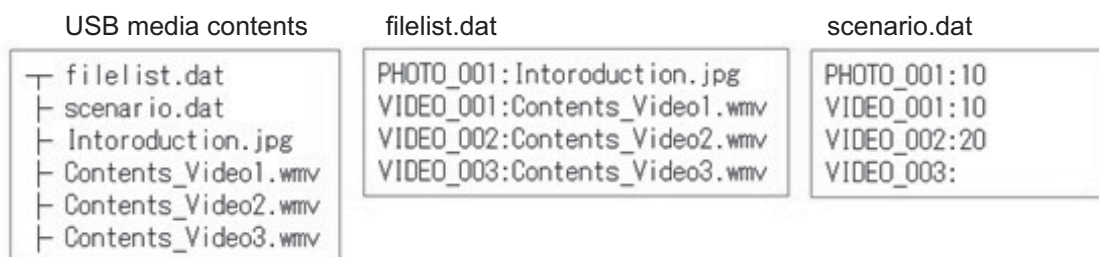
[Slave side]

Scenario \*Unnecessary  
File list The first line Enter (Group ID).  
The second and subsequent lines Enter (File definition):(File name).

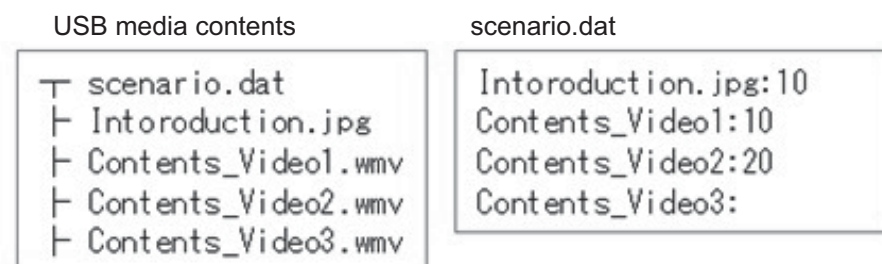
### Setting example

[Master side]





[Slave side]



## Play contents

For the above setting example, the following contents will be played on repeat (loop).

[Master side]	[Slave side]	
1. L_Intoroduction.jpg	R_Intoroduction.jpg	(10 seconds)
2. L_Contents_Video1.wmv	R_Contents_Video1.wmv	(10 seconds)
3. L_Contents_Video2.wmv	R_Contents_Video1.wmv	(20 seconds)
4. L_Contents_Video3.wmv	R_Contents_Video1.wmv	(*1)

(\*1) Played for the duration of the play time of L\_Contents\_Video3.wmv (Master side)

## 2.6. USB memory contents check

You can run a USB memory contents check with OSD (Scenario file check).

(Note) OSD shows leading error codes that are followed by the descriptions below.

\*The following errors are detectable. (The number of head of each sentences is error code.)

1. No USB media is inserted
2. scenario.dat / filelist.dat cannot be opened
3. There is an error in writing scenario.dat /filelist.dat
4. The play file format is not supported
5. No play file exists
6. It is Multi Player, but no group ID is specified yet
7. There are several identical file definitions
8. The play time is outside the range
9. The file listed in the scenario is not in the file list
10. The scenario contains 0 or over 1000 play files
11. There are 0 or over 1000 play files (Single Media Player Type3 only)
12. Only the group ID is listed on the file list (Multi Media Player only)

\*Supplementary note

The USB memory contents check does not determine whether or not a play file is playable.

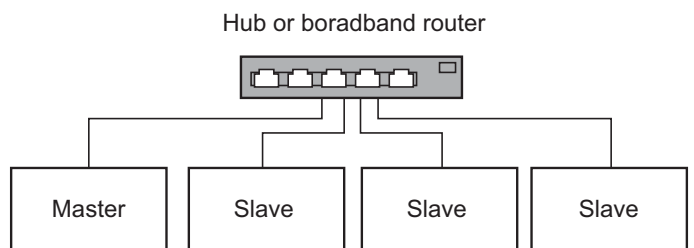
If a file cannot be played while Media Player is active, an error OSD will be displayed.

### 3. Network environment (Multi Media Player only)

---

#### 3.1. Example of setting up LAN connection and IP address / Subnet mask

As mentioned below, connect several units of LFM70 together with LAN cables and set up IP addresses / Subnet masks so that all panels exist on the same network.



IP address:	192.168.10.1	192.168.10.2	192.168.10.3	192.168.10.4
Subnet mask:	255.255.255.0	255.255.255.0	255.255.255.0	255.255.255.0

#### \*Precautions

In order to prevent network traffic congestion, try not to establish connection with any other equipment.

With a router put in between, you cannot set up connection. Use them within the same subnet.

Set the network configuration to ON.

### 4. Procedures for starting / ending Media Player

---

#### 4.1. For Single Media Player

##### Starting procedure

- (1) Insert USB memory for Media Player. \*See chapter 2
- (2) Run a USB memory contents check. \*See chapter 2.6  
If an error arises, repeat the check until the error is eliminated.
- (3) Change INPUT to USB.

##### Ending procedure

- (1) Change INPUT to other than USB.

#### 4.2. For Multi Media Player

##### Starting procedure

- (1) Connect several units of LFM70 with LAN cables. \*See chapter 3
- (2) Insert USB memory for Media Player into each LFM70. \*See chapter 2
- (3) Run a USB memory contents check on each LFM70. \*See chapter 2.6  
If an error arises, repeat the check until the error is eliminated.
- (4) Change INPUT for Master to USB.

##### Ending procedure

Change INPUT for Master to other than USB.

## 5. Resume Play function

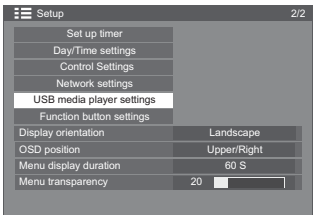
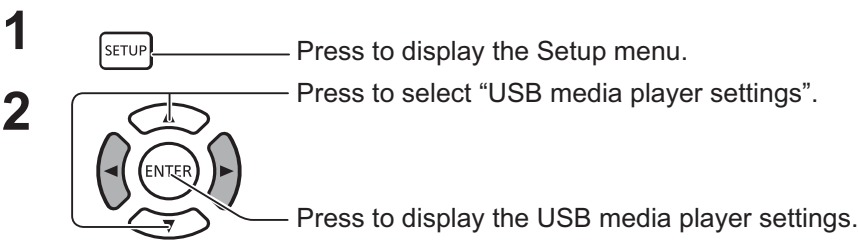
After Media Player ends, the file to be resumed when resuming playing varies depending on the OSD (Resume Play) setting.

When set to ON : the file played prior to the end of Media Player starts playing from the beginning.

When set to OFF : play starts from the beginning of the first file of the scenario.

- \*Resume will be cleared using any of the following operations
- Power OFF
  - Removal of USB memory

## 6. USB media player settings

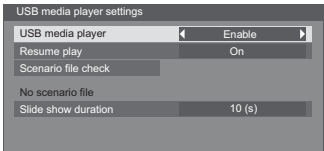


### USB media player

Set to enable or disable to USB media player function.

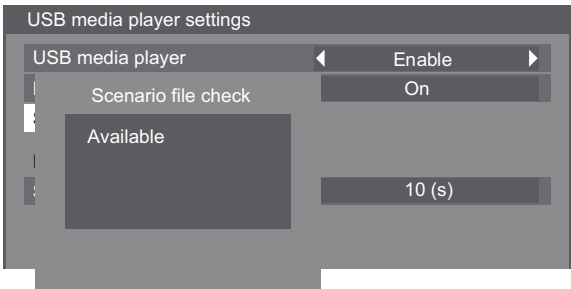
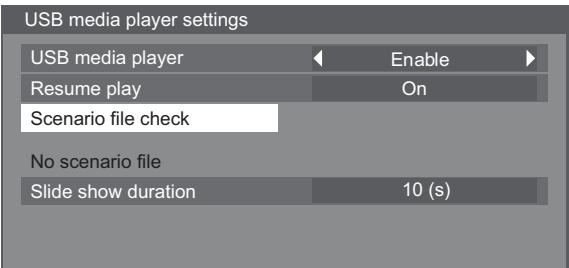
### Resume Play

Set to enable or disable to play to be resumed.(See section 5. "Resume Play function".)



### Scenario file check

Execute the USB memory contents check. If any error is detected, the error code and file name will be displayed. (See section 2.6. "USB memory contents check". The detail of error code can be seen.)













(The example of the Scenario file check screen.)

### Slide show duration


Select the displaying duration for still images. See "Play time" in section 2.4 "Scenario- / File list-associated terms".

# Troubleshooting

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

Symptoms		Checks
Picture	Sound	
 Interference	 Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent light
 Normal Picture	 No Sound	Volume (Check whether the mute function has been activated on the remote control.)
 No Picture	 No Sound	Not plugged into AC outlet Not switched on Picture and Brightness/Volume setting (Check by pressing the power switch or POWER ON or STANDBY button on the remote control.)
 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. Colour system
No remote control operations can be performed.		Check whether the batteries have discharged completely and, if they have not, whether they were inserted properly. Check whether the remote control sensor is exposed to an outdoor light or a strong fluorescent light. Check whether the remote control designed specifically for use with the unit is being used. (The unit cannot be operated by any other remote control.)
A cracking sound is sometimes heard from the unit.		If there is nothing wrong with the picture or sound, this is the sound of the cabinet undergoing very slight contractions in response to changes in the room temperature. There are no adverse effects on the performance or other aspects.
The top or bottom of the picture on the screen is cut off when I use the zoom function.		Adjust the position of the picture on the screen.
Areas at the top and bottom of the screen where the image is missing appear when I use the zoom function.		When using a video software program (such as a cinema size program) with a screen wider than one in the FULL(toggle) mode, blank areas separate from the images are formed at the top and bottom of the screen.
I can hear sounds coming from inside the unit.		When the power is turned on, a sound of the display panel being driven may be heard: This is normal and not indicative of malfunctioning.
Parts of the unit become hot.		Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems in terms of performance or quality.
Power automatically turns off unexpectedly.		Check the settings of "No signal power off", "PC Power management", "DVI-D Power management" and "HDMI power management". Any of them may be set to "On (Enable)".
There is no picture displayed or sound output sometimes.		When HDMI or DVI signals are input to the Display using a selector or distributor, sound or images may not be output in the normal fashion depending on the selector or distributor used. The symptoms may be improved by turning the power off and on again, or by replacing the selector or distributor.
The RS232C is uncontrollable		Check whether the connection has been made properly. When controlling the RS232C command on page 15 from the RS232C terminal in the display, make sure that "Serial control" is "Serial in", and that it is "DIGITAL LINK" when controlling from the RS232C terminal of the DIGITAL LINK device. Check whether "Control settings" has been configured properly. (When controlling from the RS232C terminal of the DIGITAL LINK device)
The LAN is uncontrollable		Check whether the connection has been made properly. Check whether "Network control" is "ON" when controlling with the WEB browser control or using PJLink™ Protocol on page 79. Check whether "LAN Setup" has been configured properly. When connecting to a device of AMX, Crestron Electronics, Inc., or Extron, set "AMX D.D.", "Crestron Connected™", or "Extron XTP" according to the device to use. See the "Signal quality" information of "DIGITAL LINK status" to check the LAN cable status such as whether the LAN cable is disconnected or the cable is not shielded.
There is no picture displayed or sound output from the DIGITAL LINK terminal.		Check whether the connection has been made properly between the video (output) equipment and twisted pair cable transmitter and between the twisted pair cable transmitter and this product. Check whether "DIGITAL LINK mode" is set to "Auto" or "DIGITAL LINK" instead of "Ethernet".
This LCD Display uses special image processing. Hence a slight time lag may occur between image and audio, depending on the type of input signal. However, this is not a malfunction.		

## Troubleshooting

Symptoms	Check
It takes a while for the picture to appear.	The unit digitally processes the various signals in order to reproduce esthetically pleasing images. As such, it sometimes takes a few moments for the picture to appear when the power has been turned on, when the input has been switched.
The edges of the images flicker.	Due to the characteristics of the system used to drive the panel, the edges may appear to flicker in the fast-moving parts of the images: This is normal and not indicative of malfunctioning.
There may be red spots, blue spots, green spots and black spots on the screen.	This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as fixed points of red, blue, green, or black. Please note this does not affect the performance of your LCD.
 <p>Image retention appears</p>	Image retention may occur. If you display a still picture for an extended period, the image might remain on the screen. However, it will disappear after a while. This is not considered as malfunction.

# Applicable input signals

## PC signals

\*Mark: Applicable input signal

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Dot clock (MHz)	RGB IN	PC IN	DisplayPort	DVI-D IN 1, 2	HDMI, DIGITAL LINK
1	640x400@70Hz	31.46	70.07	25.17	*	*			
2	640x480@60Hz	31.46	59.93	25.17	*	*	*	*	*
3	640x480@72Hz	37.86	72.81	31.50	*	*			
4	640x480@75Hz	37.50	75.00	31.50	*	*			
5	640x480@85Hz	43.27	85.01	36.00	*	*			
6	800x600@56Hz	35.16	56.25	36.00	*	*			
7	800x600@60Hz	37.88	60.32	40.00	*	*	*	*	*
8	800x600@72Hz	48.08	72.19	50.00	*	*			
9	800x600@75Hz	46.88	75.00	49.50	*	*			
10	800x600@85Hz	53.67	85.06	56.25	*	*			
11	852x480@60Hz	31.47	59.94	34.24			*	*	*
12	1024x768@50Hz	39.55	50.00	51.89			*	*	*
13	1024x768@60Hz	48.36	60.00	65.00	*	*	*	*	*
14	1024x768@70Hz	56.48	70.07	75.00	*	*			
15	1024x768@75Hz	60.02	75.03	78.75	*	*			
16	1024x768@85Hz	68.68	85.00	94.50	*	*			
17	1066x600@60Hz	37.64	59.94	53.00			*	*	*
18	1152x864@60Hz	53.70	60.00	81.62			*	*	*
19	1152x864@75Hz	67.50	75.00	108.00	*	*			
20	1280x720@60Hz	44.77	59.86	74.50	*	*	*	*	*
21	1280x768@60Hz	47.70	60.00	80.14	*	*			
22	1280x800@60Hz(1)	49.31	59.91	71.00	*	*	*	*	*
23	1280x800@60Hz(2)	49.70	59.81	83.50	*	*	*	*	*
24	1280x960@60Hz	60.00	60.00	108.00	*	*			
25	1280x960@85Hz	85.94	85.00	148.50	*	*			
26	1280x1024@60Hz	63.98	60.02	108.00	*	*	*	*	*
27	1280x1024@75Hz	79.98	75.02	135.00	*	*			
28	1280x1024@85Hz	91.15	85.02	157.50	*	*(1)			
29	1366x768@50Hz	39.55	50.00	69.92			*	*	*
30	1366x768@60Hz	48.39	60.04	86.71	*	*	*	*	*
31	1400x1050@60Hz	65.22	60.00	122.61			*	*	*
32	1440x900@60Hz(1)	55.47	59.90	88.75	*	*	*	*	*
33	1440x900@60Hz(2)	55.93	59.89	106.50	*	*	*	*	*
34	1600x900@60Hz	55.99	59.95	118.25			*	*	*
35	1600x1200@60Hz	75.00	60.00	162.00	*	*	*	*	*

## Applicable input signals

36	1920x1080@60Hz	67.50	60.00	148.50	*	*	*	*	*
37	1920x1200@60Hz	74.04	59.95	154.00			*	*	*
38	Macintosh13"(640x480)	35.00	66.67	30.24	*	*			
39	Macintosh16"(832x624)	49.72	74.55	57.28	*	*			
40	Macintosh21"(1152x870)	68.68	75.06	100.00	*	*			

\*1 Not compatible with Sync on G.

- The signal format automatically detected may differ from the actual input signal in display.

### Component signals

**\*Mark: Applicable input signal**


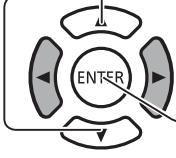
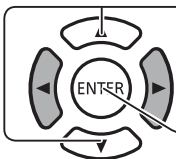
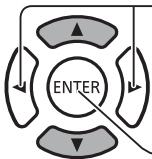
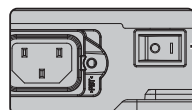

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	Dot clock (MHz)	COMPONENT IN	DisplayPort	DVI-D IN 1, 2	HDMI, DIGITAL LINK
1	525(480)/60i (Analog)	15.73	59.94	13.50	*			*
2	525(480)/60i (Digital)	15.73	59.94	27.00		*	*	
3	525(480)/60p	31.47	59.94	27.00	*	*	*	*
4	625(575)/50i	15.63	50.00	13.50	*			
5	625(576)/50i	15.63	50.00	27.00		*	*	*
6	625(575)/50p	31.25	50.00	27.00	*			
7	625(576)/50p	31.25	50.00	27.00		*	*	*
8	750(720)/60p	45.00	60.00	74.25	*	*	*	*
9	750(720)/50p	37.50	50.00	74.25	*	*	*	*
10	1,125(1,080)/60p	67.50	60.00	148.50	*	*	*	*
11	1,125(1,080)/60i	33.75	60.00	74.25	*	*	*	*
12	1,125(1,080)/50p	56.25	50.00	148.50	*	*	*	*
13	1,125(1,080)/50i	28.13	50.00	74.25	*	*	*	*
14	1,125(1,080)/24PsF	27.00	48.00	74.25	*			
15	1,125(1,080)/30p	33.75	30.00	74.25	*	*	*	*
16	1,125(1,080)/25p	28.13	25.00	74.25	*	*	*	*
17	1,125(1,080)/24p	27.00	24.00	74.25	*	*	*	*

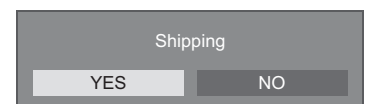
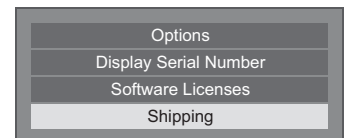
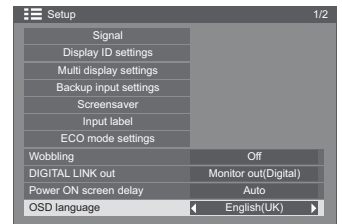
### Video signals (VIDEO)

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	DOT CLOCK	VIDEO
1	NTSC	15.73	59.94	13.50	*
2	PAL	15.63	50.00	13.50	*
3	PAL60	15.73	59.94	13.50	*
4	SECAM	15.63	50.00	13.50	*
5	NTSC 4.43	15.73	59.94	13.50	*
6	PAL N	15.63	50.00	13.50	*
7	PAL M	15.73	59.94	13.50	*


# Shipping condition

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

- 1  Press to display the Setup menu.
- 2  Press to select "OSD Language".  
Press for more than 3 seconds.
- 3  Press to select "Shipping".  
Press to display the Shipping menu.
- 4  Press to select "YES".  
Press to confirm.
- 5 Wait for 10 seconds.
- 6  Press the power switch (  ) on main unit to turn the power off.



## [from the unit]

1. Press the MENU button till the Setup menu is displayed.
2. Press the Volume Up "+" or Down "-" button to select "OSD Language".
3. Press and hold the INPUT button till the Shipping menu is displayed.
4. Press the Volume Up "+" or Down "-" button to select "YES".
5. Press the INPUT button and wait for 10 sec.
6. Press the power switch (  ) on main unit to turn the power off.



# Technical Specifications

	TH-55LFV70U	TH-55LFV70W
<b>Power Source</b>	110 - 127 V AC, 50/60 Hz	220 - 240 V AC, 50/60 Hz
<b>Power Consumption</b>		
Rated Power Consumption	330 W	
Stand-by condition	0.5 W	
Power off condition	0 W	
<b>LCD Display panel</b>	55-inch IPS panel (LED backlight), FULL(toggle) aspect ratio	
<b>Screen size</b>	1,209 mm (W) × 680mm (H) × 1,387 mm (diagonal)	
(No.of pixels)	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]	
<b>Operating condition</b>		
Temperature	0 °C - 40 °C	
Humidity	20 % - 80 %	
<b>Applicable signals</b>		
Colour System	NTSC, PAL, PAL60, SECAM, NTSC 4.43, PAL M, PAL N	
Scanning format	525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 750 (720) / 60p · 50p, 1125 (1080) / 60i · 60p · 50i · 50p · 24p · 25p · 30p · 24PsF	
PC signals	VGA, SVGA, XGA, SXGA UXGA .... (compressed) Horizontal scanning frequency 30 - 110 kHz Vertical scanning frequency 48 - 120 Hz	
<b>Connection terminals</b>		
DIGITAL LINK LAN	For RJ45 network and DIGITAL LINK connections, compatible with PJLink™ Communication method: RJ45 100Base-TX	
VIDEO IN VIDEO AUDIO L-R	1.0 Vp-p (75 Ω) 0.5 Vrms	
AV IN HDMI DisplayPort	TYPE A Connector	
COMPONENT		
Y PB/CB PR/CR AUDIO L-R	with sync 1.0 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) 0.5 Vrms	
DVI-D IN 1 DVI-D IN 2	Compliance with DVI Revision 1.0 Compatible with HDCP 1.1 0.5 Vrms, Shared with PC IN	
PC IN AUDIO	G with sync 1.0 Vp-p (75 Ω) G without sync 0.7 Vp-p (75 Ω) B: 0.7 Vp-p (75 Ω) R: 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) 0.5 Vrms, Shared with DVI-D IN	
SERIAL IN SERIAL OUT	RS-232C compatible	
AUDIO OUT	[INPUT 1 kHz / 0 dB, 10 kΩ Load]	
REMOTE IN REMOTE OUT	M3 mini jack x 2	
<b>Dimensions (W × H × D)</b>	1,213 mm (W) × 684 mm (H) × 95 mm (D)	
<b>Mass (weight)</b>	approx. 30 kg	

## Notes:

- Design and specifications are subject to change without notice. Mass and dimensions shown are approximate. This equipment complies with the EMC standards listed below.

EN55022, EN55024, EN61000-3-2, EN61000-3-3. You can use a Web browser to control the unit and set up a network and password.

## Information for Users on Collection and Disposal of Old Equipment and used Batteries



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should 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 and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.



For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

### For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.



### [Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

### Note for the battery symbol (bottom two symbol examples):

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.

Cd

#### USA Only:

Disposal may be regulated in your community due to environmental considerations. For disposal or recycling information, please visit Panasonic website: <http://www.panasonic.com/environmental> or call 1-888-769-0149.

## <Software Information for This Product>

This product incorporates the following software:

- (1) the software developed independently by or for Panasonic Corporation,
- (2) the software owned by third party and licensed to Panasonic Corporation,
- (3) the software licensed under the GNU General Public License, Version 2.0 (GPL V2.0),
- (4) the software licensed under the GNU LESSER General Public License, Version 2.1 (LGPL V2.1), and/or
- (5) open source software other than the software licensed under the GPL V2.0 and/or LGPL V2.1.

The software categorized as (3) - (5) are distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. Please refer to the detailed terms and conditions thereof shown in the attached CD-ROM

At least three (3) years from delivery of this product, Panasonic will give to any third party who contacts us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code covered under GPL V2.0, LGPL V2.1 or the other licenses with the obligation to do so, as well as the respective copyright notice thereof.

Contact Information: [oss-cd-request@gg.jp.panasonic.com](mailto:oss-cd-request@gg.jp.panasonic.com)

The source code and the copyright notice are also available for free in our website below.

<http://panasonic.net/avc/oss/index.html>

**Customer's Record**

The model number and serial number of this product can be found on its back cover. You should note this serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

**For TH-55LFV70U**

Panasonic System Communications Company of North America  
Unit of Panasonic Corporation of North America

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**For TH-55LFV70W**

Pursuant to the directive 2004/108/EC, article 9(2)  
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