Panasonic®

Model No.

TH-42LF6U TH-42LF60U TH-47LF6U TH-55LF6U TH-55LF6U

Operating Instructions FULL HD LCD Display	

English

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.





CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



WARNING: To reduce the risk of electric shock, do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.



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



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

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

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

- **WARNING**: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
 - 2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety fea ture.

If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 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 amplifliers) 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.

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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FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced technician for help.

This device complies with Part15 of the FCC Rules. 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.

FCC CAUTION:

To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by Panasonic Corp. of North America could void the user's authority to operate this device.

FCC Declaration of Conformity

Model No. TH-42LF6U, TH-47LF6U, TH-55LF6U, TH-42LF60U, TH-47LF60U, TH-55LF60U

Responsible Party: Panasonic Corporation of North America

Two Riverfront Plaza, Newark, New Jersey 07102

Contact Source: Panasonic System Communications Company of North America

1-800-973-4390

CANADIAN NOTICE:

This Class B 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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- Microsoft[®], Windows[®], Windows Vista[®], and Internet Explorer[®] are the registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Macintosh, Mac, Mac OS, OS X and Safari are the trademarks of Apple Inc. registered in the United States and other countries.
- SVGA, XGA, SXGA and UXGA are registered trademarks of the Video Electronics Standard Association.
- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- RoomView, Crestron RoomView and Fusion RV are registered trademarks of Crestron Electronics, Inc, and Crestron Connected is the trademark of Crestron Electronics, Inc.
 - Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

Safety Precautions

CAUTION

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

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

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.

■ When using the LCD Display

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

• Top of the Display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries can happen if any body parts are brought too close. Placing any object near the top of the Display could also result in heat damages to the object as well as to the Display if its ventilation holes are blocked.

Be sure to disconnect all cables before moving the Display.

• Moving the Display with its cables attached might damage the cables which, in turn, can cause fire or electric shock.

Disconnect the power plug from the wall outlet 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 from becoming dusty.

• Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

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.

WARNING

■ Setup

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 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 an Authorized Service Center.

Do not cover the ventilation holes.

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

Transport only in upright position!

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

For sufficient ventilation:

Leave a space of 3 15/16" (10 cm) or more at the top, left and right, and 1 31/32" (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.

death or serious injury.

An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.

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.

■ AC Power Supply Cord

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

Ensure that the mains plug is easily accessible. Do not use any power supply cord other than that provided with this unit.

· Doing so may cause fire or electric shocks.

Securely insert the power cord 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 plate is loose, they should not be used.

Do not handle the power cord plug with wet hands.

Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.

 Do not make any modifications, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damage to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

If the Display will not be used for a long period of time, unplug the power cord from the wall outlet.

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odor is detected from the Display, unplug the power cord immediately.

• Continuous use of the Display under these conditions

 Continuous use of the Display under these conditions might cause fire or permanent damage to the unit.
 Have the Display evaluated at an Authorized Service Center. Services to the Display by any unauthorized personnel are strongly discouraged due to its high voltage dangerous nature.

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

 A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.

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.

Accessories

Accessories Supplied

Check that you have the Accessories and items shown Operating instruction CD-ROM Remote control Batteries for the remote book (Operating instruction) transmitter control transmitter N2QAYB000691 (AA Size × 2) Warranty card AC cord Clamper × 3 (For Mexico only) Warranty

Remote Control Batteries

Requires two AA 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:

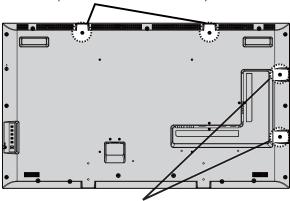
- 1. Batteries should always be replaced as a pair. Always use new batteries when replacing the old set.
- 2. Do not combine a used battery with a new one.
- 3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
- 4. Do not attempt to charge, short-circuit, disassemble, heat or burn used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

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

Ceiling Suspension

You can install the Display by attaching commercially available eyebolts (M10) to it and suspending it from the ceiling, etc. (TH-55LF6U, TH-55LF6UU)

Eyebolt mounting positions (for horizontal installation)



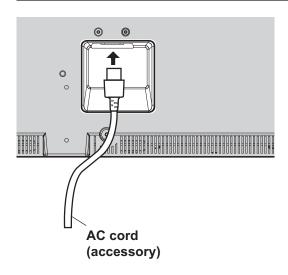
Eyebolt mounting positions (for vertical installation)

Note:

- Suspension and installation should be performed by an installation professional.
- Do not install it using only one eyebolt.
- When the Display is installed horizontally or vertically, make sure to place the power Indicator side down.
- Install the wire along the vertical side when suspending the Display.

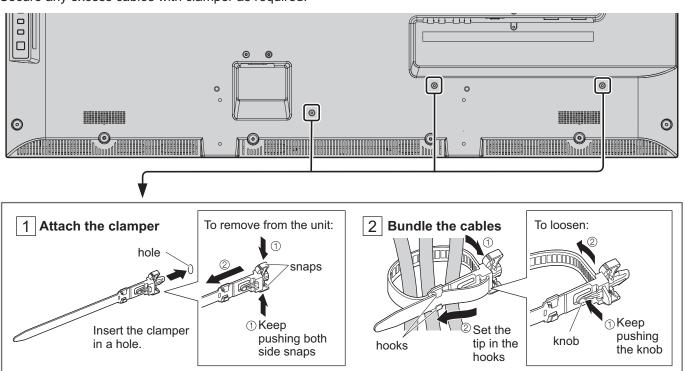
Connections

AC cord connection and cable fixing

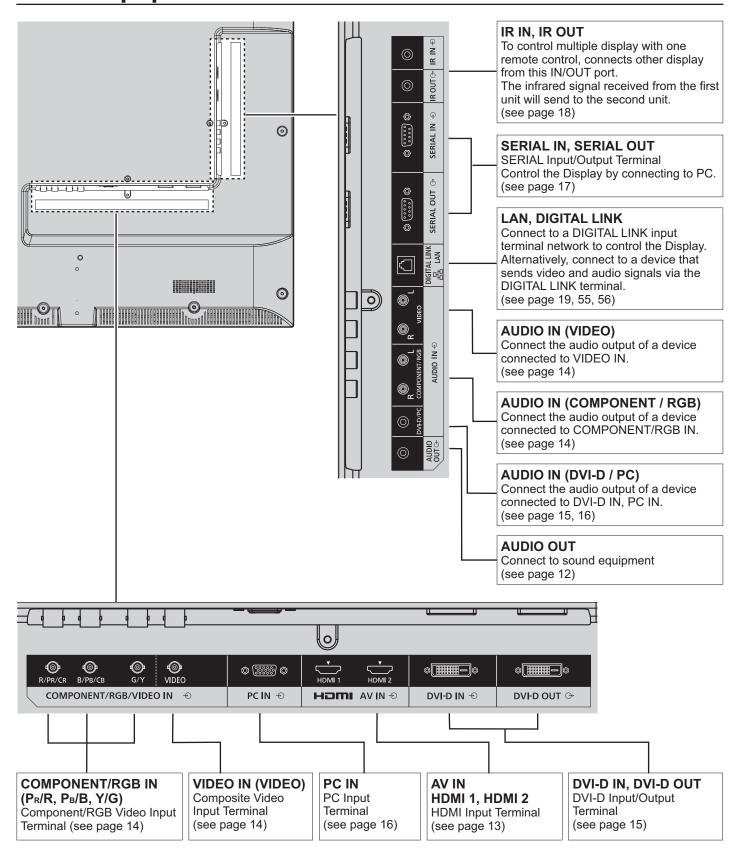


Using the clamper

Secure any excess cables with clamper as required.



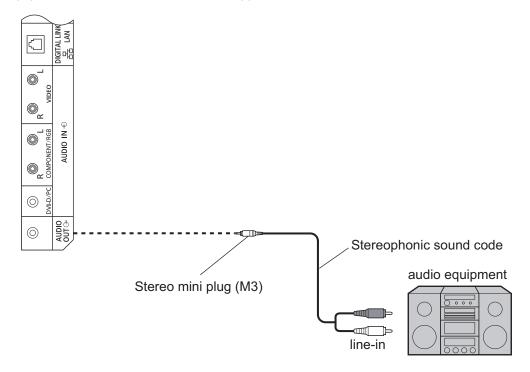
Video equipment connection



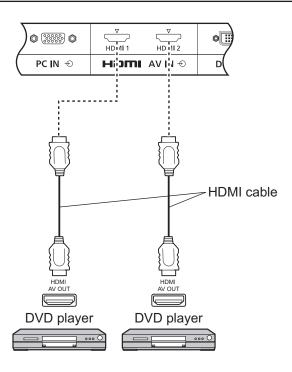
AUDIO OUT connection

Note:

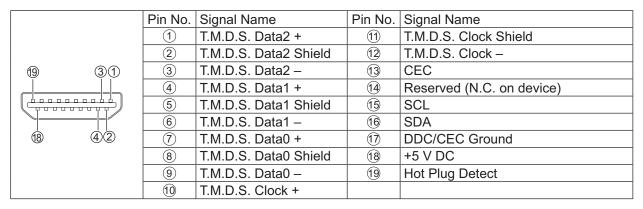
- AUDIO OUT is an exclusive terminal for external audio equipment.
- · Additional equipment and cables shown are not supplied with this set.



HDMI connection



[Pin assignments and signal names]



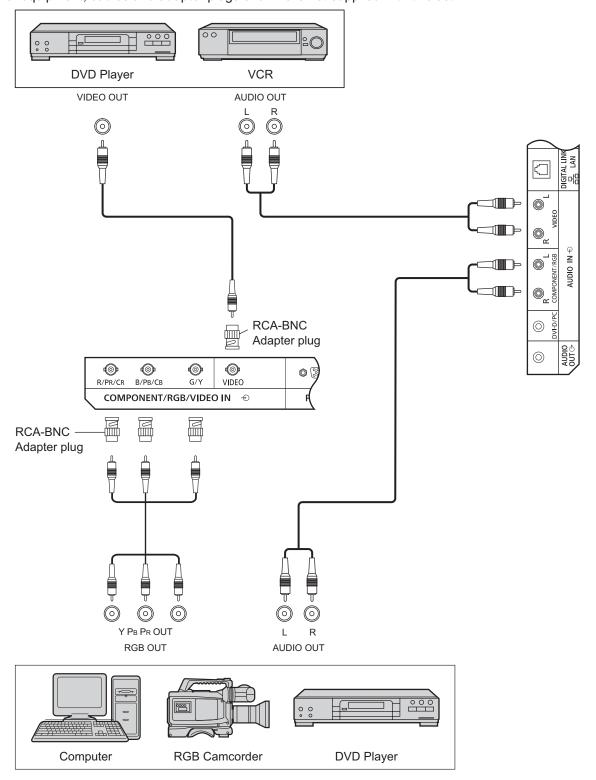
Note:

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

VIDEO, COMPONENT and RGB IN connection

Note:

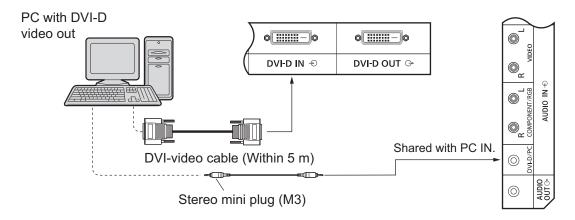
Additional equipment, cables and adapter plugs shown are not supplied with this set.



Notes:

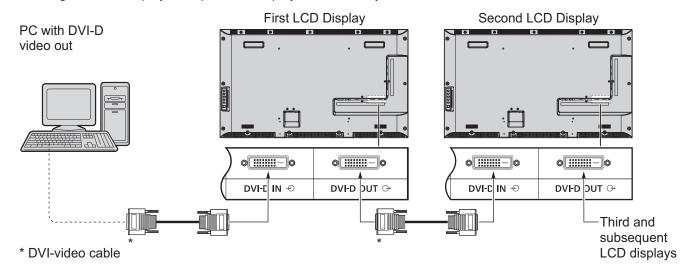
- Change the "COMPONENT/RGB-IN SELECT" setting in the "SETUP" menu to "COMPONENT" (when COMPONENT signal connection) or "RGB" (when RGB signal connection). (see page 43)
- Accepts only RGB signals from COMPONENT/RGB IN terminal with "SYNC ON G".

DVI-D IN, DVI-D OUT connection



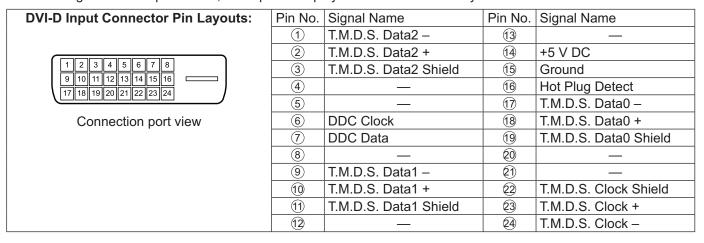
Daisy chain connection

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



Notes:

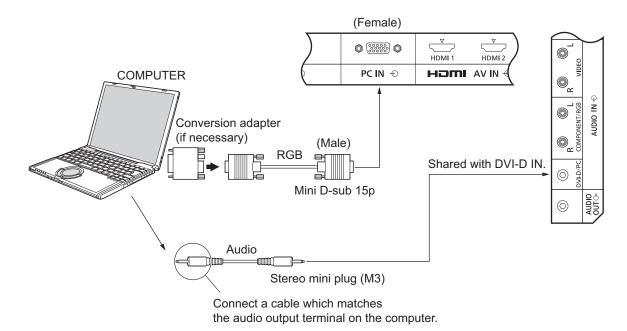
- Up to 10 displays can be connected with a daisy chain, but the number of the connected displays may be limited by a cable, signal or equipment to use.
- HDCP signals can be processed, with up to 8 displays connected via a daisy chain connection.



Note:

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

PC Input Terminals connection



Notes:

- Computer signals which can be input are those with a horizontal scanning frequency of 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 "FULL". If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- The PC input terminals are DDC2B-compatible. If the computer being connected is not DDC2B-compatible, you will need to make setting changes to the computer at the time of connection.
- · Some PC models cannot be connected to the set.
- There is no need to use an adapter for computers with DOS/V compatible Mini D-sub 15P terminal.
- The computer shown in the illustration is for example purposes only.
- · Additional equipment and cables shown are not supplied with this set.
- Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

Signal Names for Mini D-sub 15P Connector

5 4 3 2 1	Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
0 9 8 7 6	1	R	6	GND (Ground)	11)	NC (not connected)
(5) (4) (3) (2) (1)	2	G	7	GND (Ground)	12	SDA
	3	В	8	GND (Ground)	13	HD/SYNC
Pin Layout for PC Input	4	NC (not connected)	9	+5 V DC	14)	VD
Terminal	5	GND (Ground)	10	GND (Ground)	15	SCL

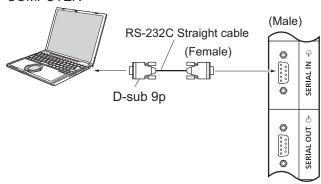
SERIAL Terminals connection

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

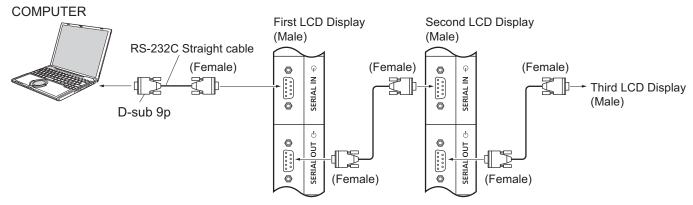
Note:

• To use serial control for this unit, make sure to set the "CONTROL INTERFACE" in the "NETWORK SETUP" menu to "RS-232C (Serial)". (see page 48)

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" in the Options menu. (see page 52)
- 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 No.	Signal Name
	2	RXD
(1) (2) (3) (4) (5)	3	TXD
	4	DTR
	5	GND
Pin layout for SERIAL	6	DSR
Terminal	7	(Chartad in this act)
Tomman	8	(Shorted in this set)
	19	NC

These signal names are those of computer specifications.

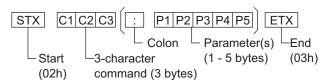
Communication parameters:

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

Connections

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:

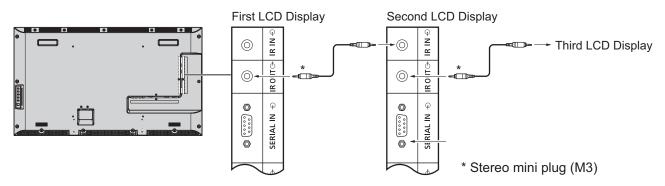
- If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.
- Consult an Authorized Service Center for 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 AV1 AV2 HM1 HM2 DV1 PC1 DL1	Input select (toggle) VIDEO IN input (VIDEO) COMPONENT/RGB IN input (Component) HDMI1 input (HDMI1) HDMI2 input (HDMI2) DVI-D IN input (DVI) PC IN input (PC) DIGITAL LINK input
DAM	None ZOOM FULL NORM ZOM2	Screen mode select (toggle) ZOOM1 FULL 4:3 ZOOM2

IR IN / IR OUT Terminals connection

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

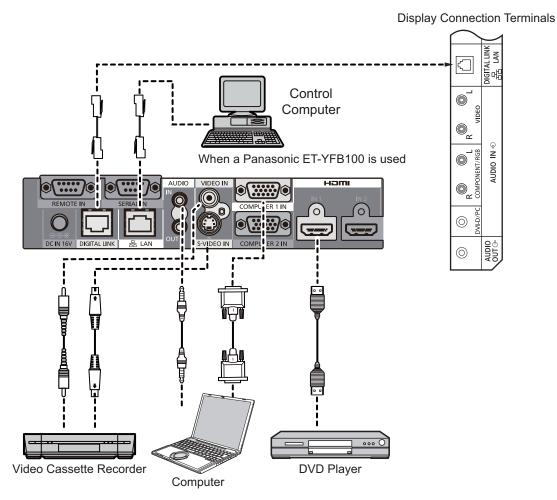


At this time, IR of the Second LCD Display will not work.

It is possible to daisy-chained by repeating the above connection.

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.

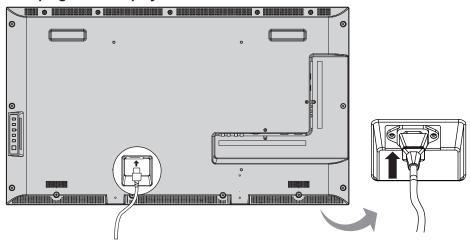


Notes:

- When connecting with DIGITAL LINK, be sure to configure each of the "Network Setup" settings. (see page 48-50)
- For details on precautions related to connecting to the DIGITAL LINK terminals, see "connecting with a twisted pair cable transmitter". (see page 56)

Power ON / OFF

Connecting the AC cord plug to the Display.

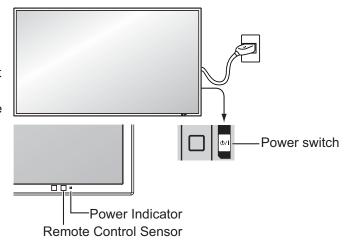


Connecting the plug to the Wall Outlet.

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





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 <a>(b/| 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.

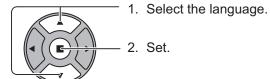


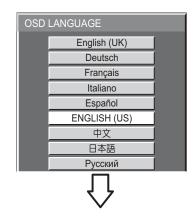
When first switching on the unit

Following screen will be displayed when the unit is turned on for the first time.

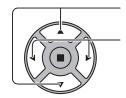
Select the items with the remote control. Unit buttons are invalid.

OSD LANGUAGE



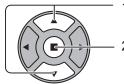


PRESENT TIME SETUP



- 1. Select "DAY" or "PRESENT TIME OF DAY".
 - 2. Setup "DAY" or "PRESENT TIME OF DAY".

PRESENT TIME SETUP	
PRESENT TIME OF DAY SET	MON 99:99
DAY	MON)
PRESENT TIME OF DAY	99 : 99



1. Select "SET".

2. Set.



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 (see page 40)
 PRESENT TIME SETUP (see page 33)

Power ON warning message

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

No activity power off Precautions

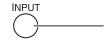
'NO ACTIVITY POWER OFF' IS ENABLED

If "NO ACTIVITY POWER OFF" in SET UP menu is set to "ENABLE", a warning message is displayed every time the power is turned ON. (see page 37)

This message display can be set with the following menu: Options menu

Power On Message (see page 53)

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:

 \longrightarrow HDMI1 \longrightarrow HDMI2 \longrightarrow VIDEO \longrightarrow Component* \longrightarrow PC \longrightarrow DVI \longrightarrow DIGITAL LINK \longrightarrow

HDMI1, HDMI2: HDMI1 or HDMI2 input terminal in AV IN (HDMI).

VIDEO: Video input terminal in VIDEO IN.

Component*: Component or RGB input terminal in COMPONENT/RGB IN.

PC: PC input terminal in PC IN. **DVI**: DVI input terminal in DVI-D IN.

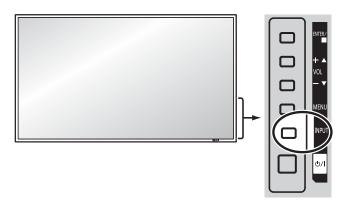
DIGITAL LINK: DIGITAL LINK input to DIGITAL LINK terminal.

* "Component" may be displayed as "RGB" depending on the setting of "COMPONENT / RGB IN SELECT". (see page 43)



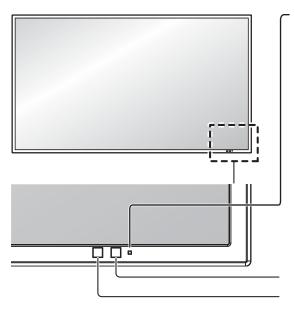
Notes:

- Selecting is also possible by pressing the INPUT button on the unit.
- Select to match the signals from the source connected to the component/RGB input terminals. (see page 43)



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 "CONTROL INTERFACE" is set to "LAN" or "RS-232C (DIGITAL LINK)". See page 48)

- Power-ON Green
- PC POWER MANAGEMENT (DPMS)

.....Orange (With PC input signal. See page 38)

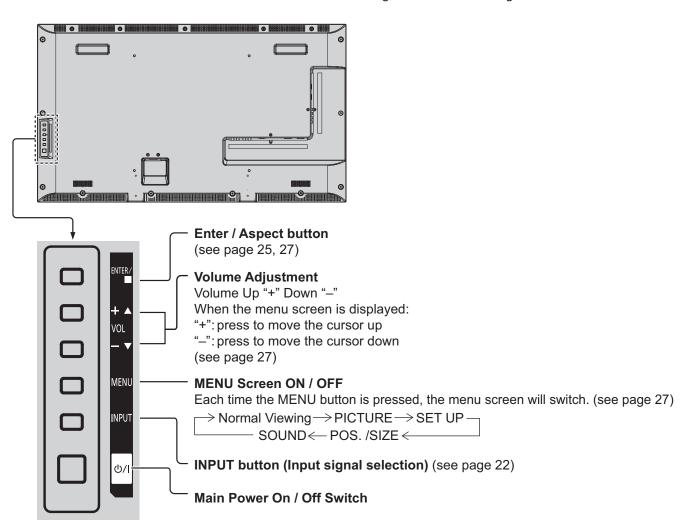
DVI-D POWER MANAGEMENT

......Orange (With DVI input signal. See page 38)

Remote control sensor

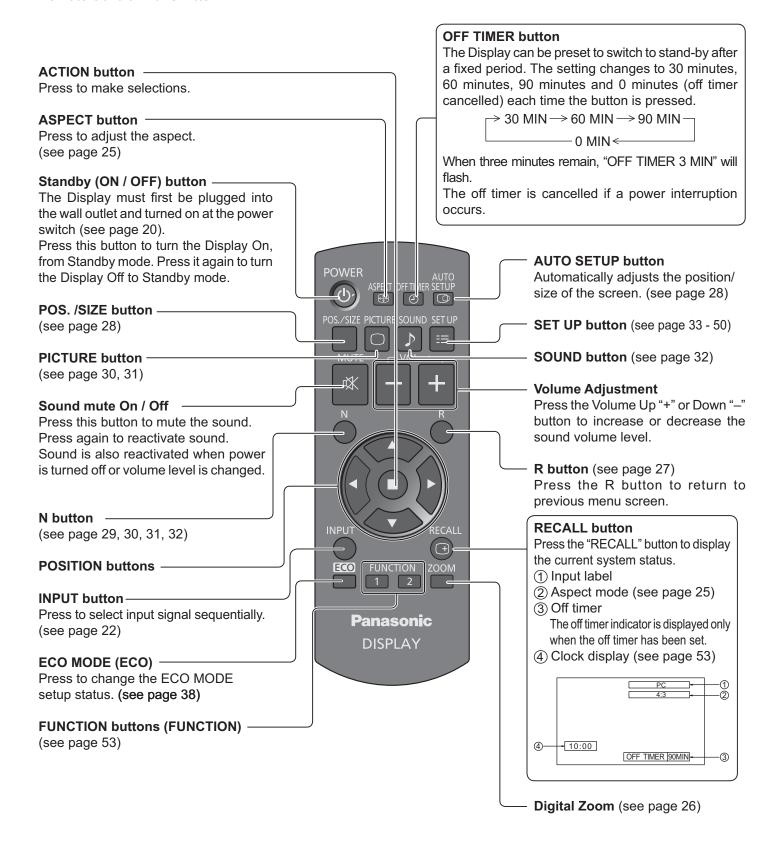
Brightness Sensor

Detects the brightness in the viewing environment.



Basic Controls

Remote Control Transmitter

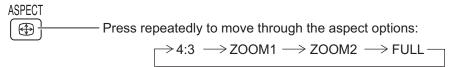


ASPECT Controls

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

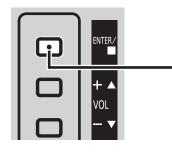
Note:

 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.



[from the unit]

Right side surface



The aspect mode changes each time the ENTER button is pressed.

Note:

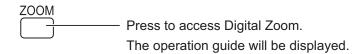
· The aspect mode is memorized separately for each input terminal.

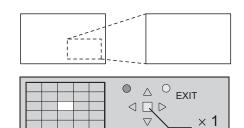
Aspect mode	Picture → Enlarged screen	Description
FULL	• • • • • • • • • • • • • • • • • • • •	The display of the pictures fills the screen. In the case of SD signals, pictures with a 4:3 aspect ratio are enlarged horizontally, and displayed. This mode is suited to displaying anamorphic pictures with a 16:9 aspect ratio.
	•	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.
4:3	•	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.

Digital Zoom

This displays an enlargement of the designated part of the displayed image.

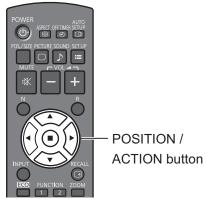
Display the operation guide.







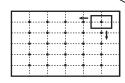
[Remote control]

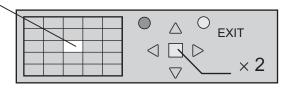


Select the area of the image to be enlarged.

Press on the enlargement location to select.

The cursor will move.



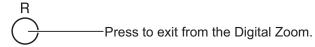


3 Select the magnification required for the enlarged display.

Each time this is pressed, the magnification factor changes. This is shown in the image being displayed.



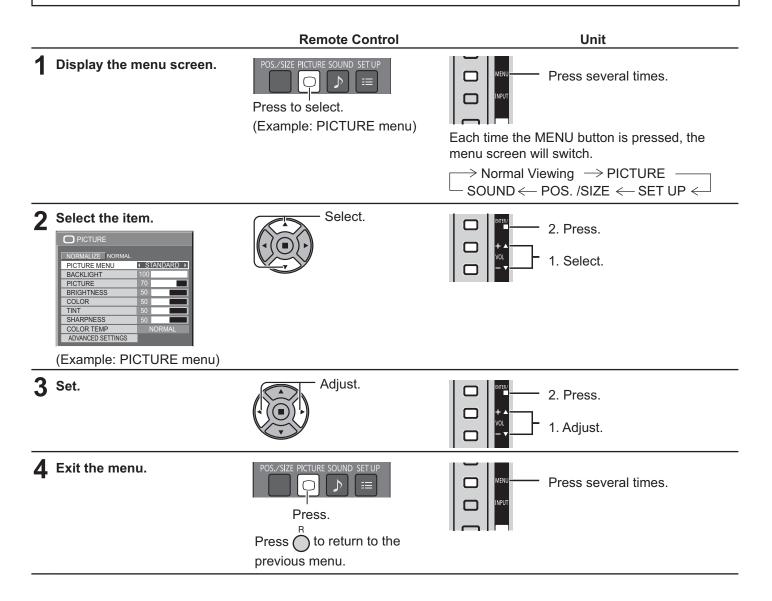
4 Return to normal display (quit Digital Zoom).



Notes:

- When power goes OFF (including "Off Timer" operation), Digital Zoom terminates.
- The Digital Zoom function cannot be selected while in the following operation state: When MULTI DISPLAY SETUP is ON (see page 41). When SCREENSAVER is running. (see page 35)
- While Digital Zoom is in operation, "Adjusting POS. /SIZE" cannot be used.

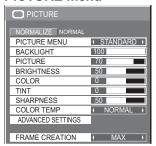
On-Screen Menu Displays



Menu display list

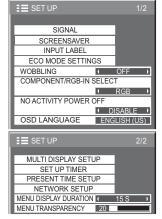
Note: Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.

PICTURE menu



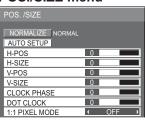
see page 30, 31

SET UP menu



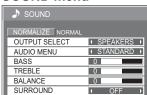
see page 33-50

POS./SIZE menu



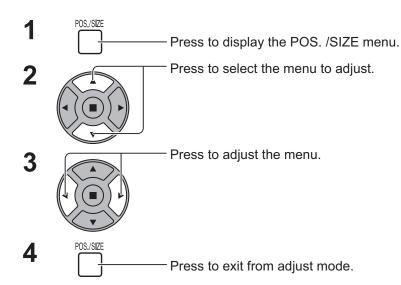
see page 28, 29

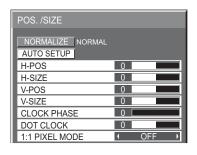
SOUND menu



see page 32

Adjusting POS. /SIZE





Note:

Unadjustable items are grayed out.

Adjustable items differ depending on the input signal and the display 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 POS. /SIZE function.

AUTO SETUP H-POS/V-POS, 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 "FULL".

Using Remote Control



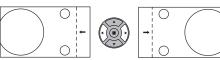
When on the remote control is pressed, "AUTO SETUP" will be executed.

When AUTO SETUP does not work, "INVALID" is displayed.

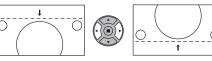
Notes:

- 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 and 1366×768@60Hz), pre-selecting the individual signal in "XGA MODE" (see page 45) 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 "NORMALIZE" once and press ACTION (■) then adjust POS. /SIZE manually.
- If the picture goes off screen in the horizontal direction as a result of performing AUTO SETUP, perform DOT CLOCK adjustment.

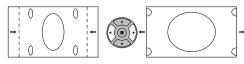
H-POS Adjust the horizontal position.



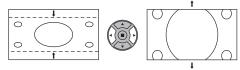
V-POS Adjust the vertical position.



H-SIZE Adjust the horizontal size.



V-SIZE Adjust the vertical size.



CLOCK (During RGB and PC input signal)
PHASE Eliminate the flickering and distortion.

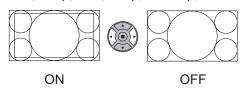
DOT CLOCK (During RGB and PC input signal)

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 (Component Video, DVI, HDMI)



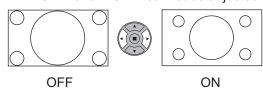
Notes:

- "OFF" is effective during only "FULL" 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 "FULL" aspect mode.
- Select ON when you would like to replay 1920 × 1080 input signal.
- Applicable input signal:
 1125 (1080) / 50i · 60i · 24sF · 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.



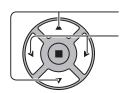
Helpful Hint: (NORMALIZE Normalization)

While the POS. /SIZE display is active, if either the N button on the remote control is pressed at any time or the ACTION (■) button is pressed during "NORMALIZE", then all adjustment values (except "CLOCK PHASE" and "DOT CLOCK") are returned to the factory settings.

PICTURE Adjustments

1 PICTURE Press to display the PICTURE menu.

9 Select to adjust each item.

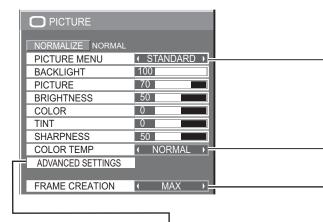


Press to select the menu to adjust.

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.

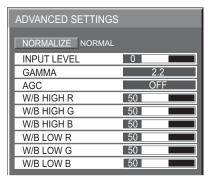




Press to enter Advanced Settings.

ADVANCED SETTINGS

Enables fine picture adjustment at a professional level (see next page).



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



STANDARD

For viewing in standard (evening lighting) environments.

DYNAMIC

For viewing in brighter environments.

CINEMA

For use in viewing tone-focused pictures with brightness reduced.

Note:

 If you would like to change the picture and color of the selected PICTURE menu to something else, adjust using the items in the PICTURE menu. (see next page)

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



FRAME CREATION

It is a function to look prettier fast moving scenes by doubling the number of thumbnails displayed in the picture.

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



- Select "OFF" if the image is unnatural.
- · The settings will stored in each input.
- It does not return to the standard settings when you choose the "NORMALIZE" menu option.
- Menu and image will disappear for a moment if you change to another setting from the "OFF" option as if it was changed to off.

Helpful Hint: (NORMALIZE Normalization) (except "FRAME CREATION")

While the "PICTURE" menu is displayed, if either the N button on the remote control is pressed at any time or the ACTION (**a**) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

Item	Eff	fect	Adjustments	Notes:
BACKLIGHT	Darker	Brighter	Adjusts luminance of the back light.	You can change the level of each function (BACKLIGHT, PICTURE, BRIGHTNESS, COLOR, TINT,
PICTURE	Less	More	Adjusts the proper picture contrast.	SHARPNESS) for each PICTURE MENU.
BRIGHTNESS	Darker	Brighter	Adjusts for easier viewing of dark pictures such as night scenes and black hair.	The setting details for STANDARD, DYNAMIC and CINEMA respectively are memorized separately for each input terminal.
COLOR	Less	More	Adjusts color saturation.	The "TINT" setting can be adjusted for NTSC signal only during Video
TINT	Reddish	Greenish	Adjusts for natural flesh tones.	 input signal. "BACKLIGHT" can be adjusted when "ECO MODE" is set to "CUSTOM"
SHARPNESS	Less	More	Adjusts picture sharpness.	and "POWER SAVE" to "OFF". (see page 38)

ADVANCED SETTINGS

Item	Eff	ect	Details
INPUT LEVEL	Less	More	Adjustment of parts which are extremely bright and hard to see.
GAMMA	Down	Up	$S CURVE \longleftrightarrow 2.0 \longleftrightarrow 2.2 \longleftrightarrow 2.6$
AGC	OFF	ON	Increases the brightness of dark signal automatically.
W/B HIGH R	Less	More	Adjusts the white balance for light red areas.
W/B HIGH G	Less	More	Adjusts the white balance for light green areas.
W/B HIGH B	Less	More	Adjusts the white balance for light blue areas.
W/B LOW R	Less	More	Adjusts the white balance for dark red areas.
W/B LOW G	Less	More	Adjusts the white balance for dark green areas.
W/B LOW B	Less	More	Adjusts the white balance for dark blue areas.

Notes:

- · Carry out "W/B" adjustment as follows.
 - 1. Adjust the white balance of the bright sections using the "W/B HIGH R", "W/B HIGH G" and "W/B HIGH B" settings.
 - 2. Adjust the white balance of the dark sections using the "W/B LOW R", "W/B LOW G" and "W/B LOW B" settings.
 - 3. Repeat steps 1 and 2 to adjust.

 Steps 1 and 2 affect each other's settings, so repeat each step in turn to make the adjustment.
- The adjustment values are memorized separately for each input terminal.
- The adjustment range values should be used as an adjustment reference.

Helpful Hint: (NORMALIZE Normalization)

On the remote control unit, while the "ADVANCED SETTINGS" menu is displayed, if either the N button is pressed at any time or the ACTION (**III**) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

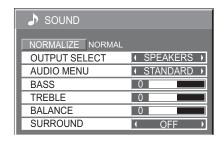
SOUND Adjustment

1 Press to display the SOUND menu.

2 Select to adjust each item.

Press to select the menu to adjust.

Select the desired level by listening to the sound.



3 SOUND

Press to exit from adjust mode.

Item	Details
OUTPUT SELECT	SPEAKERS : Emits sound from the built-in speakers. AUDIO OUT : Emits sound through the AUDIO OUT terminal.
AUDIO MENU	STANDARD: Emits the original sound. DYNAMIC: Accentuates sharp sound. CLEAR: Attenuates human voice.
BASS	Adjusts low pitch sounds.
TREBLE	Adjusts high pitch sound.
BALANCE	Adjusts left and right volumes.
SURROUND	Select ON or OFF.

Note:

- When "AUDIO OUT" is selected, the items other than "BALANCE" cannot be adjusted.
- BASS, TREBLE and SURROUND settings are memorized separately for each AUDIO MENU.

Helpful Hint: (NORMALIZE Normalization)

While the "SOUND" menu is displayed, if either the N button on the remote control is pressed at any time or the ACTION (■) button is pressed during "NORMALIZE", then all adjustment values are returned to the factory settings.

PRESENT TIME SETUP / SET UP TIMER

The timer can switch the Display ON or OFF.

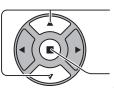
Before attempting Timer Set, confirm the PRESENT TIME OF DAY and adjust if necessary. Then set POWER ON TIME / POWER OFF TIME.

1



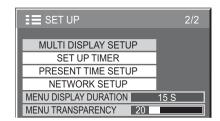
Press to display the SET UP menu.

2



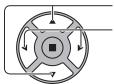
Press to select SET UP TIMER or PRESENT TIME SETUP.

Press to display the SET UP TIMER screen or PRESENT TIME SETUP screen.



PRESENT TIME SETUP

1



Press to select DAY or PRESENT TIME OF DAY.

Press to set up DAY or PRESENT TIME OF DAY.

- ▶ button: Forward ◀ button: Back
- Notes:
- Pressing "◄" or "▶" button once changes PRESENT TIME OF DAY 1 minute.
- Pressing "◄" or "▶" button continuously changes PRESENT TIME OF DAY by 15 minutes.

PRESENT TIME SETUP

PRESENT TIME OF DAY MON 99:99

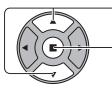
SET

DAY MON

PRESENT TIME OF DAY 99:99

PRESENT TIME OF DAY 99:99

2



Press to select SET.

Press to store PRESENT TIME SETUP.

Notes

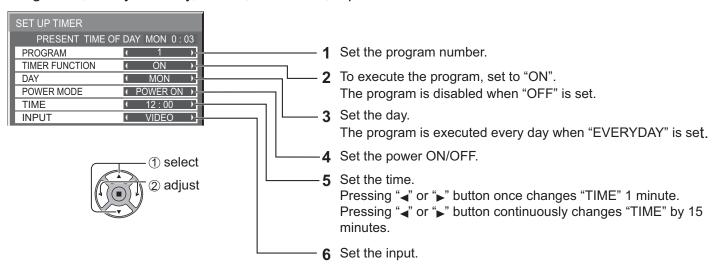
- SET cannot be selected unless PRESENT TIME OF DAY is set.
- Unless setting the present time other than "99:99", "DAY" and "PRESENT TIME OF DAY" cannot be set.
- The settings of "DAY" and "PRESENT TIME OF DAY" are reset when leaving the display turned off for about 7 days for the following reasons:
 - Pressing POWER switch of the unit to turn off the display.
 - · Disconnecting the AC cord.
 - · Interruption of power supply.

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



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.

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.

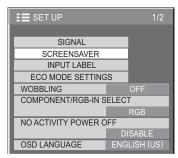
When the screen saver is operating, the following 5 patterns are displayed full screen for 5 seconds each.

Black→Dark Gray→Gray→Light Gray→White



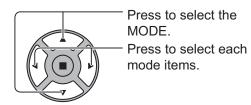
Press to select the SCREENSAVER.

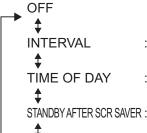
Press to select the SCREENSAVER screen.











Operates when SHOW DURATION and SAVER DURATION are set up and those times arrive.
 Operates when START TIME and FINISH TIME

are set up and those times arrive.

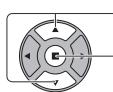
STANDBY AFTER SCR SAVER: Operates while SCREENSAVER DURATION, and

display enters standby mode.

: Operates when START is selected and the

ACTION (■) button is pressed.

START setting



When the MODE is set to ON, press to select START.

ON

Press to start SCREENSAVER.

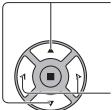
The menu screen will disappear and the SCREENSAVER will be activated. To stop the SCREENSAVER under ON, press the R button or any buttons on the main unit.

Note:

• When the display is turned off, the SCREENSAVER will be deactivated.

Setup of SCREENSAVER Time

After selecting TIME OF DAY, 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 OF DAY is selected).

Press to select SHOW DURATION / SAVER DURATION (When INTERVAL is selected).

Press to select SCREENSAVER DURATION (When STANDBY AFTER SCR SAVER is selected).

Press to setup.

▶ button: Forward

◄ button: Back

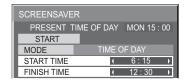
Notes:

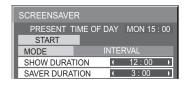
- Pressing "

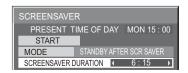
 or "

 "

 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 OF DAY" is set.

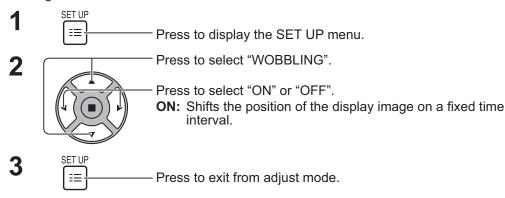


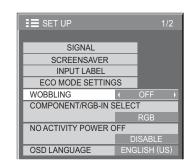




WOBBLING

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



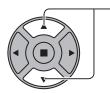


Notes:

- If "MULTI DISPLAY SETUP" is set to "ON", this function does not operate.
- When this function is operating, part of the screen may appear to be missing.

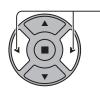
NO ACTIVITY POWER OFF

1

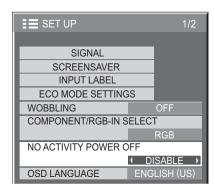


Press to select the menu to adjust.

2



Press to select "ENABLE" or "DISABLE".



3



Press to exit from SET UP.

When this function is set to "ENABLE", the power is turned off (standby) automatically when there is no operation of the Display for 4 hours.

Starting from 3 minutes before the turn off, the remaining time will be displayed.

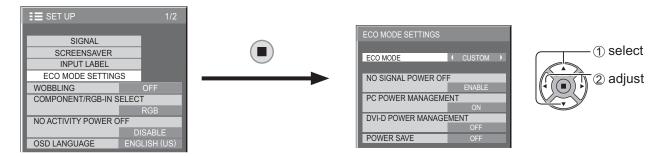


When the power is turned off due to this function, a message "LAST TURN OFF DUE TO 'NO ACTIVITY POWER OFF'." is displayed next time the power is turned on.

Note:

• During the screensaver is running, this function is disabled.

ECO MODE SETTINGS



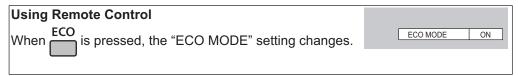
ECO MODE

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 PC POWER MANAGEMENT: ON DVI-D POWER MANAGEMENT: ON

POWER SAVE: SENSOR



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 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 signal input:
 - \rightarrow 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 DVI signal input.

POWER SAVE

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

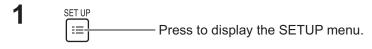
- OFF: This function does not operate.
- ON: Backlight brightness is reduced.
- **SENSOR:** The backlight brightness is automatically adjusted according to the viewing environment.

Note

· When this function is set to "ON" or "SENSOR", the "BACKLIGHT" setting in the PICTURE menu is disabled.

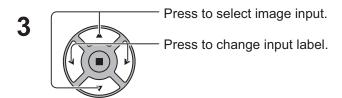
Customizing the Input labels

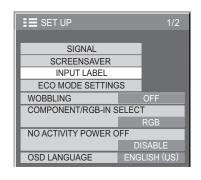
This function can change the label of the Input signal to be displayed. (see page 22)



Press to select INPUT LABEL.

Press to display the INPUT LABEL screen.





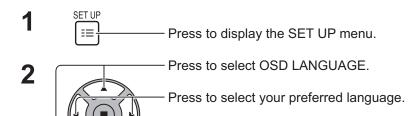
INPUT LABEL	
VIDEO	√ VIDEO →
Component	← Component →
PC	(PC)
DVI	◆ DVI →
DIGITAL LINK	(DIGITALLINK)
HDMI1	← HDMI1 →
HDMI2	← HDMI2 →

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)
[DVI]	DVI / 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)
[HDMI1]	HDMI1 / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (SKIP)
[HDMI2]	HDMI2 / DVD1 / DVD2 / DVD3 / Blu-ray1 / Blu-ray2 / Blu-ray3 / CATV / VCR / STB / (SKIP)

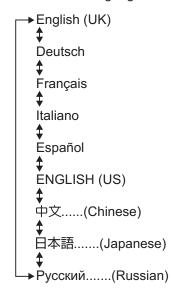
(SKIP): The INPUT button press will skip its input.

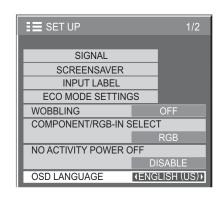
^{* &}quot;Component" may be displayed as "RGB" depending on the setting of "COMPONENT/RGB-IN SELECT". (see page 43)

Selecting the On-Screen Menu Language



■ Selectable languages





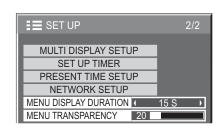
Customizing the On-Screen Menu Display

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

1 SET UP Press to display the SET UP menu.

Press to select "MENU DISPLAY DURATION".

Press to adjust the display duration.



Press to select "MENU TRANSPARENCY".

Press to adjust the transparency.

Press to exit from adjust mode.

SET UP for MULTI DISPLAY

By lining up the Displays in groups, for example, as illustrated below, an enlarged picture may be displayed across all screens.

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

(Examples)

group of 4 (2 \times 2) group of 9 (3 \times 3)



group of 16 (4 × 4)



group of 25 (5 × 5)

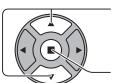


How to setup MULTI DISPLAY



Press to display the SET UP menu.

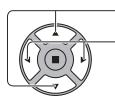
2



Press to select the MULTI DISPLAY SETUP.

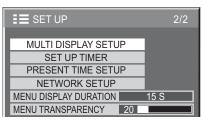
Press to display the "MULTI DISPLAY SETUP" menu.

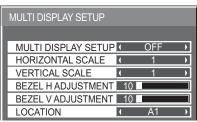
3



Press to select the MULTI DISPLAY SETUP.

Press to select "ON" or "OFF".

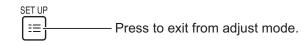




Item	De	tails
MULTI DISPLAY SETUP	Select "ON" or "OFF".	
HORIZONTAL SCALE	Select "1", "2", "3", "4", "5".	
VERTICAL SCALE	Select "1", "2", "3", "4", "5".	
	Areas of the image that are hidden by the joi vertically (0~100).	nt sections are adjusted both horizontally and
	To show joints between displays.	To hide joints between displays.
BEZEL H ADJUSTMENT BEZEL V ADJUSTMENT	Exar nple Suitable for still image display. Setting value: 0	Suitable for moving image display. Setting value: 100

ltem								De	tails							
	Select the	requi	ired a	arrang	geme	ent n	umbe	r. (A1	I-E5	: Re	fer to	the f	ollow	ing)		
	Display Number locations for each arrangement.															
	(Example	s)														
LOCATION	(2 × 1)	(2×	3)		(4:	× 2)			(4	× 4)			(:	5 × 5	()	
LOCATION	A1 A2	A1	A2	A1	A2	А3	A4	A1	A2	АЗ	A4	A1	A2	А3	A4	A5
		B1	B2	B1	B2	В3	B4	B1	B2	В3	B4	B1	B2	В3	B4	B5
		C1	C2					C1	C2	СЗ	C4	C1	C2	C3	C4	C5
								D1	D2	D3	D4	D1	D2	D3	D4	D5
												E1	E2	E3	E4	E5

4



ID Remote Control 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 purchase ID remote controller sold separately.
 Object model: EUR7636070R
- Switch NORMAL UND to NORMAL UND on the right side.
- **2** Press the C button on the remote control.
- 3 Press one of 1 9, 0 for the tens digit setting.
- 4 Press one of 1 9, 0 for the units digit setting.

Notes:

- · The numbers in 2, 3 and 4 should be set up quickly.
- · Adjustable ID number range is 0 99.
- If a number button is pressed more than two times, the first two numbers become the ID number for the remote control.



ID remote control button operation

The operation is the same as normal remote control except for the $\begin{bmatrix} \wedge \\ v \end{bmatrix}$ button.

ID Cancellation

Press $\frac{D \text{ ALL}}{c}$ button on remote control. (This has the same effect as pressing the $\frac{D \text{ SET}}{C}$, 0, 0 buttons 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. (see page 52)
- 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 (see page 52).

SET UP for Input Signals

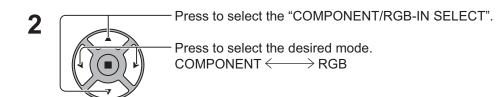
COMPONENT / RGB IN SELECT

Select to match the signals from the source connected to the COMPONENT/RGB IN terminal.

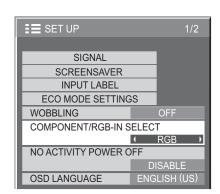
Y, PB, PR signals ⇒ "COMPONENT"

RGB signals ⇒ "RGB"









Note:

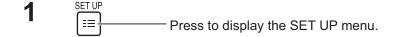
Make setting of the selected input terminal (COMPONENT/RGB IN).

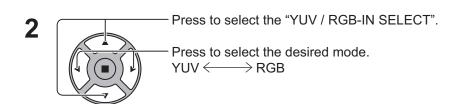
YUV / RGB IN SELECT

Select to match the signals from the source connected to DVI-D IN terminal.

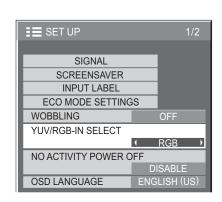
YUV signals ⇒ "YUV"

RGB signals ⇒ "RGB"





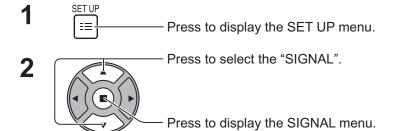


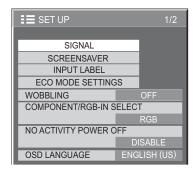


SIGNAL menu

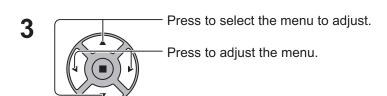
Note:

• "SIGNAL" setup menu displays a different setting condition for each input signal.

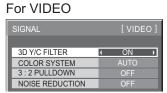


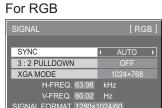


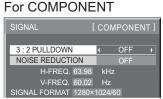
Press ACTION (■) button







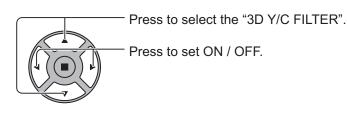






3D Y/C FILTER

Select "SIGNAL" from the "SET UP" menu during Video input signal mode. ("SIGNAL [VIDEO]" menu is displayed.)

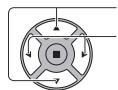




COLOR SYSTEM

Select SIGNAL from the "SET UP" menu during Video input signal mode.

("SIGNAL [VIDEO]" menu is displayed.)



Press to select the "COLOR 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.

SIGNAL	[VIDEO]
3D Y/C FILTER	ON
COLOR SYSTEM	(AUTO)
3:2 PULLDOWN	OFF

COLOR SYSTEM: Set the color system to match the input signal. When "AUTO" is set, COLOR SYSTEM will be automatically selected from NTSC/PAL/SECAM/NTSC 4.43/PAL M/PAL N.

To display PAL60 signal, select "AUTO".

$$\rightarrow$$
AUTO \longleftrightarrow PAL \longleftrightarrow SECAM \longleftrightarrow NTSC \longleftrightarrow NTSC 4.43 \longleftrightarrow PAL M \longleftrightarrow PAL N \leftarrow

3:2 PULLDOWN

3:2 PULLDOWN: 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 "3:2 PULLDOWN".

3:2 PULLDOWN OFF

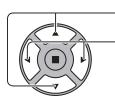
Press to set ON/OFF.

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 $(1,024 \times 768 \ @ 60\text{Hz})$ and $1,366 \times 768 \ @ 60\text{Hz})$.

When a 1,280 x 768 @ 60Hz input signal is automatically detected, the image is processed as a 1,280 x 768 @ 60Hz XGA input signal irrespective of this setting.



Press to select "XGA MODE".

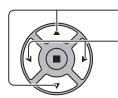
XGA MODE (1024×768)

Press to select "1024×768", "1366×768".

Note:

• After making this setting, be sure to make each adjustment (such as "AUTO SETUP") on the "POS. /SIZE" menu as necessary. (see page 28, 29)

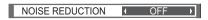
NOISE REDUCTION



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".

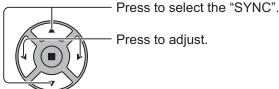


Note:

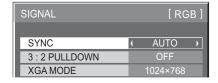
NOISE REDUCTION can be adjusted while a Video or Component signal is being applied.

SYNC

This function operates only during input from PC IN terminal.



Press to adjust.



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.



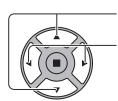
ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.

Note:

Accepts only RGB signals from COMPONENT/RGB IN terminal with "SYNC ON G".

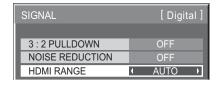
HDMI RANGE

Switches the dynamic range according to the input signal from HDMI terminal.



Press to select "HDMI 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 signal and DIGITAL LINK.

Input signal display

Displays the frequency and the type of the current input signal.

This display is valid only for COMPONENT/RGB/PC and Digital input signal. Display range (PC input signal):

Horizontal 30 - 110 kHz Vertical 48 - 120 Hz



H-FREQ. 63.98 kHz V-FREQ. 60.02 Hz DOT CLOCK FREQ. 108.0 MHz SIGNAL FORMAT 1280×1024/60

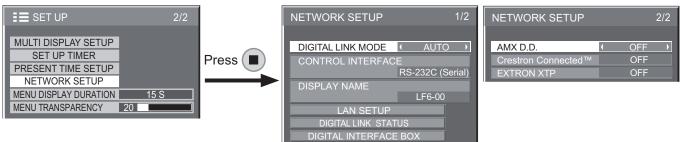
The dot clock frequency is displayed during digital signal input.

Note:

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

Network Setup

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 "CONTROL INTERFACE" to "LAN".

■ CONTROL INTERFACE

- RS-232C (Serial): Control using the Display's RS232C.
- LAN: Control using the Display or the LAN terminal of a twisted pair cable transmitter.
- RS-232C (DIGITAL LINK): Control using the twisted pair cable transmitter's RS232C.

Notes:

- When "LAN" or "RS-232C (DIGITAL LINK)" is set, the power lamp lights orange when the remote control power is switched "OFF" (standby).
- When controlling using the RS232C command from page 18 to the RS232C terminal of the Display, select "RS-232C (DIGITAL LINK)" to control from the RS232C terminal of the "RS-232C (Serial)" or DIGITAL LINK device.
- When using any of the control techniques listed on pages 57 to 62, select "LAN".

■ DISPLAY NAME

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

■ LAN SETUP

See page 49

■ DIGITAL LINK STATUS

See page 50

■ DIGITAL INTERFACE BOX

See page 50

■ 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).

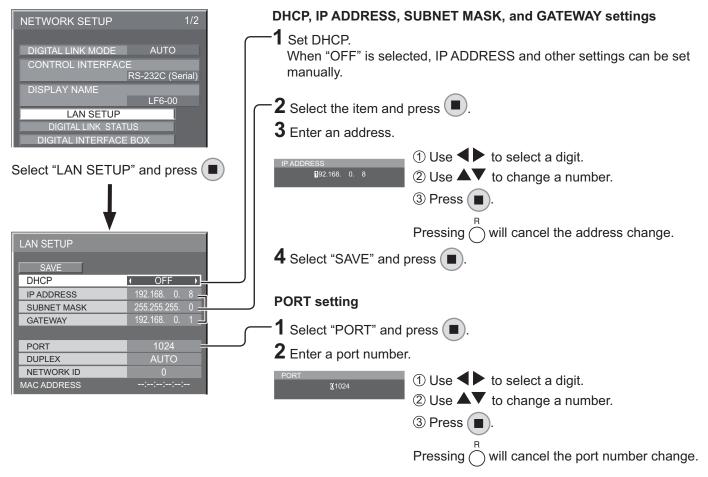
http://www.crestron.com/getroomview

■ Extron XTP

To carry out connection settings with XTP Transmitter made by Extron. Visit the following website for details. http://www.extron.com

■ LAN SETUP

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



■ 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.

■ 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.

DUPLEX

Set the duplex mode of the LAN environment. Select the value from AUTO, 100 Half or 100 Full.

■ NETWORK ID

Set the ID to identify this unit.

The available setting range is 0 - 99.

■ MAC ADDRESS

Display the MAC address of this unit. However, the MAC address is not displayed when the "CONTROL INTERFACE" is set to "RS-232C (Serial)" or "RS-232C (DIGITAL LINK)".

Notes:

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

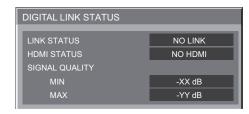
Network Setup

■ 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.

TIDEF ON A Signal with all TIDEF is nowing with a DIGITAL LINK connection

SIGNAL QUALITY It is the quantified minimum and maximum numbers of errors that have occurred. The display

colors 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 Colors	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

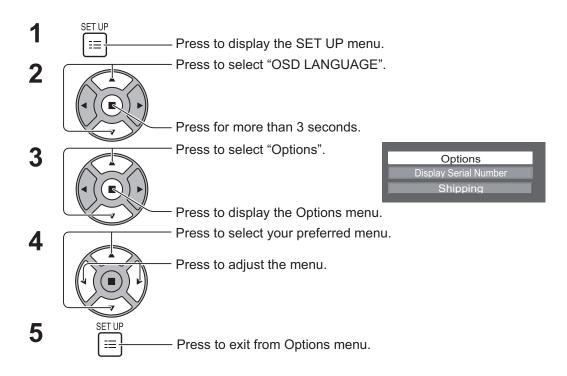
■ DIGITAL INTERFACE BOX

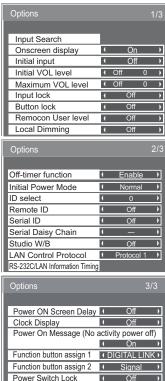
A switch will be made to the Set up Digital Interface Box menu when "DIGITAL INTERFACE BOX" is selected and pressed.

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





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

Item	Adjustments
Input Search	Set auto input switching for when there is no signal. (see page 53)
On screen display	On: Displays all the following on screen. • Power on display • Input signal switch display • No signal display • Mute and the remaining time of off-timer after was pressed. Off: Hides all the items above from view.
Initial input	Adjusts the input signal when the unit is turned on. Off \Leftrightarrow VIDEO \Leftrightarrow Component/RGB \Leftrightarrow PC \Leftrightarrow DVI \Leftrightarrow DIGITAL LINK \Leftrightarrow HDMI1 \Leftrightarrow HDMI2 \Leftrightarrow Off Notes: Only the adjusted signal is displayed. (see page 22) This menu is available only when "Input lock" is "Off".
Initial VOL level	Press — + button to adjust the volume when the unit is turned on. Off On Off: Sets normal volume. On: Sets your preferred volume. Notes: • When "Maximum VOL level" is "On", the volume can only be adjusted between 0 and your maximum range. • 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.
Maximum VOL level	Press → + button to adjust the maximum volume. Off → On Off: Sets auto maximum volume. On: Sets your preferred maximum volume. Notes: • 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". • The volume display can go up to 100 regardless of the settings. • 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.

Options Adjustments

Item	Adjustments
Input lock	Locks the input switch operation. Off \Leftrightarrow VIDEO \Leftrightarrow Component/RGB \Leftrightarrow PC \Leftrightarrow DVI \Leftrightarrow DIGITAL LINK \Leftrightarrow HDMI1 \Leftrightarrow HDMI2 \Leftrightarrow Off Notes: • Only the adjusted signal is displayed (see page 22). • Input switch can be used when this is set to "Off".
Button lock	Off: All the buttons on main unit can be used. MENU&ENTER: Locks ☐ MENU and ☐ ENTEN buttons on main unit. On: Locks all the button on main unit except the Power switch. Sets Button lock with the unit buttons in the following procedure. Off: Press ☐ + / ♣ four times → Press ☐ INPUT four times → Press ☐ - / ▼ four times → Press ☐ ENTEN MENU&ENTER: Press ☐ ENTEN four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ - / ▼ four times → Press ☐ ENTEN On: Press ☐ EN
Remocon User level	Off ←→ User1 ←→ User2 ←→ User3 Off: You can use all of the buttons on the remote control. User1: You can only use , , , , , , , , , , , , , , , , , , ,
Local Dimming (for 42 and 47 inch models only)	Improve the contrast by controlling the amount of LED backlight. The contrast ratio of different area in a same picture can be dramatically improved. Off: Disables Local Dimming function. On: Enables Local Dimming function.
Off-timer function	Enable: Enables the "Off-timer function". Disable: Disables the "Off-timer function". Note: When "Disable" is set, the Off-timer is cancelled.
Initial Power Mode	Normal ←→ On ←→ Standby Sets the power mode of the unit for when the power recovers from failure or after plugging off and in again. Normal: Power returns in as the same state as before the power interruption. Standby: Power returns in standby mode. (Power Indicator : red/orange) On: Power returns in power On. (Power Indicator : green) Note: When using multiple displays, "Standby" is preferred to be set in order to reduce a power load.
ID select	Sets panel ID number when panel is used in "Remote ID" or "Serial ID". Set value range: 0 - 100 (Standard value: 0)
Remote ID	The setting of this menu is valid only when using ID remote control. Off: Disables ID remote control functions. You can use normal remote control operations. On: Enable ID remote control functions. Note: To use the ID remote control function, it is necessary to set each ID number of remote control and display unit. About the setting method, please refer to "ID Remote Control Function" (see page 42) and "ID select" (above-mentioned).
Serial ID	Sets the panel ID Control. Off: Disables external control by the ID. On: Enables the external control by the ID.
Serial Daisy Chain	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.
Studio W/B	Off: Nullify all the settings adjusted. On: Sets the color temperature for TV studio. Note: Valid only when the "WARM" is set as "COLOR TEMP" in PICTURE menu.
LAN Control Protocol	Select the LAN control protocol. Protocol 1: Control with the Panasonic Display sequence. Protocol 2: Control with the sequence that compatible with Panasonic Projector.
RS-232C/LAN Information Timing	Set up the informing manner if error warning occured. (see page 54)
Power ON Screen Delay	Off ←> 1 ←> 2 ←> 3 ←> 30 You can set the power-on delay time of the displays to reduce the power load, when you press ♥/ I to turn on the multiple displays that are set together, for example, on MULTI DISPLAY system. Set each display's setting individually. Off: The display will be turned on at the same time as ♥/ I is pressed. 1 to 30 (sec.): Set the power-on delay time (second). After pressing ♥/ I, 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.

Item	Adjustments
Clock Display	Off: Not display the clock. On: Display the clock. The clock is displayed at the lower left of the screen when button is pressed. Note: When "PRESENT TIME SETUP" is not set, the clock is not displayed even if "Clock Display" is "On" (see page 33)
Power On Message (No activity power off)	Whether to show/hide No activity power off Precautions at the time of power ON is set. On: The warning precautions are shown at the time of power ON. Off: The warning precautions are not shown at the time of power ON. Note: This setting is enabled only if "NO ACTIVITY POWER OFF" is "ENABLE" (see page 37).
Function button assign 1 Function button assign 2	Set the functions that operates when TONCTION is pressed. Signal: The "SIGNAL" menu is displayed. Screensaver: The "SCREENSAVER" menu is displayed. ECO menu: The "ECO MODE SETTINGS" menu is displayed. Set up TIMER: The "SET UP TIMER" menu is displayed. DIGITAL LINK: Switch to DIGITAL LINK inputs. If it is ET-YFB100, the input switch menu on the YFB100 side is displayed. Note: Factory settings are as follows. FUNCTION1 button: DIGITAL LINK FUNCTION2 button: SIGNAL
	The menu screen is displayed. (Example: SIGNAL) SIGNAL [VIDEO] 3D Y/C FILTER ON OFF COLOR SYSTEM AUTO 3:2 PULLDOWN OFF NOISE REDUCTION DUITON to exit from the menu.
Power Switch Lock	Sets the lock setting for the display Power switch. On: Power switch operation is disabled. Off: Power switch operation is enabled.

Normalization

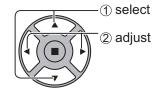
When both main unit buttons and remote control are disabled due to the "Button lock", "Remocon User level" or "Remote ID" adjustments, set all the values "Off" so that all the buttons are enabled again.

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.

Input Search

When a signal is not detected, another input with a signal is automatically selected.





Input Search

Off: When there is no signal, the input is not switched automatically.

All Inputs: Searches all inputs and switches to an input with a signal.

Priority: Searches "Primary Input" and "Secondary Input" in order and switches to an input with a signal.

Options Adjustments

SEARCHING...

"SEARCHING..." is displayed during the input search.

Primary Input, Secondary Input

Set the input to search when "Priority" is selected.

 $(NONE) \Leftrightarrow VIDEO \Leftrightarrow Component/RGB \Leftrightarrow PC \Leftrightarrow DVI \Leftrightarrow DIGITAL LINK \Leftrightarrow HDMI1 \Leftrightarrow HDMI2$

Note:

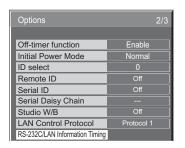
• This menu is available only when "Input lock" is "Off". (see page 52)

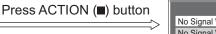
RS-232C/LAN Information Timing

Set up the informing manner for no signal or temperature rising.

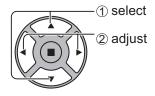
While RS232C controls: Warning or error message sent on the display atuomatically.

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.

■ Temperature Warning Value

Set up the detecting temperature for temperature warning.

■ Temperature Warning Release Value

Set up the temperature to release the temperature warning.

Using Network Function

Network Connection

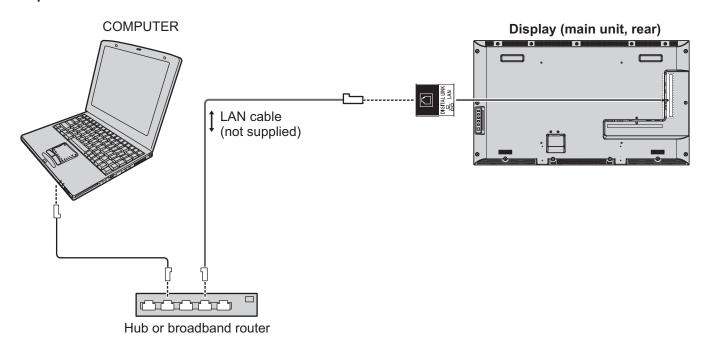
This unit has a network function to control the network connected display with your computer.

Note:

To use the network function, set each "NETWORK SETUP" setting and make sure to set the "CONTROL INTERFACE" to "LAN". (see page 48)

When "LAN" is set, power indicator lights orange under the condition of power off with remote control (stand-by state).

Example of network connection

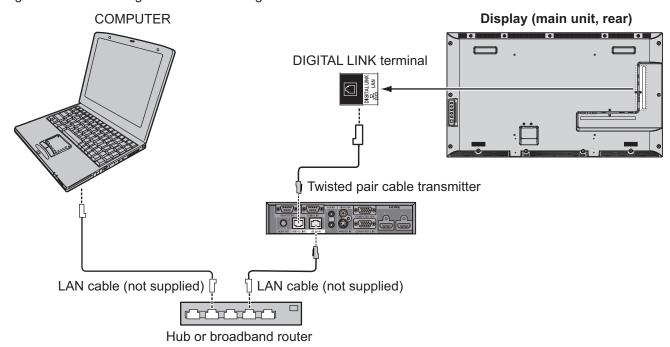


Notes:

- Make sure the broadband router or hub supports 100BASE-TX.
- Use a LAN cable that is compliant with "CAT5" or higher standards.
- Touching the DIGITAL LINK terminal with a statically charged hand (body) may cause damage due to its discharge. Do not touch the DIGITAL LINK terminal or a metal part of the LAN cable.
- For instructions on how to connect, consult your network administrator.

DIGITAL LINK Connections (connecting with a twisted pair cable transmitter)

This device is equipped with functions that allow Ethernet signals from a twisted pair cable transmitter to be received through a LAN cable along with video/audio signals.



Note:

Configure the settings in "Network Setup" when using a DIGITAL LINK connection. (see pages 48 to 50)

Precautions for use while connecting with a twisted pair cable transmitter

Installing / Connecting

- Ask the dealer or a qualified technician to carry out the cable wiring work for DIGITAL LINK connections.
 Insufficient wiring work may cause the inability to apply the cable transmission characteristics and cropped or fuzzy images and sounds.
- The transmission distance between the twisted pair cable transmitter and the device is up to 100 meters. Exceeding this distance can cause cropped images or sounds, as well as LAN communication errors.
- Do not use a hub between the twisted pair cable transmitter and the Display.
- When connecting to the Display using the twisted pair cable transmitter (receiver) of other maker, do not use another twisted pair cable transmitter between the twisted pair cable transmitter of other maker and this device. The images and sounds may be interrupted or become unstable.
- If possible, lay the cable so that it is extended and not coiled in order to minimize both external and internal noise.
- Lay out cables of the twist pair cable transmitter and this product away from other cables, especially from the power supply cable.
- When laying multiple cables, keep them as close together as possible running parallelly and not bundled.
- After laying the cable(s), make sure that the signal quality in "DIGITAL LINK status" is -12 dB or below.

Twisted pair cables

- Use a LAN cable between the twisted pair cable transmitter and the device that conforms to the following conditions.
 - It meets or exceeds CAT5e standards
 - It is a shielded cable (with a connector)
- · It is a straight cable
- It is a solid cable
- When laying the cable(s), use an instrument such as a cable tester or cable analyzer and check whether the
 cable characteristics are CAT5e or above. When using a relay connector along the path, also include this in the
 measurements.
- · Do not pull cables hard. Also avoid forcefully bending or folding them.

Other

• This device is compatible with our Digital Interface Box (ET-YFB100). For the twisted pair cable transmitter of the other maker, refer to the following URL. (http://panasonic.net/prodisplays/products/47lfx6/index.html)

Command Control

Network function of the unit can control the unit in the same way as serial control from a network.

Supported commands

Commands used in the serial control are supported. (see page 18)

Note:

· Consult your local Panasonic dealer for detail instructions on command usage.

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
1 0 7 7 1 1	1 GWC1 CONTROL	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
INST?	Input switch list query	Parameter
		11: PC IN input (PC) 32: HDMI2 input (HDMI2)
		21: VIDEO IN input (VIDEO) 33: DVI -D IN input (DVI)
		22: COMPONENT/RGB IN input 34: DIGITAL LINK input (DIGITAL
		(COMPONENT) LINK)
		31: HDMI1 input (HDMI1)
NAME ?	Projector name query	Return the Display name contents selected in "Network Setup".
INF1?	Manufacturer name query	Returns "Panasonic"
INF2 ?	Model name query	Returns "47LF6U" (For 47-inch LF6 model)
INFO ?	Other information query	Returns version number
CLSS ?	Class information query	Returns "1"

PJLink™ security authentication

Set "panasonic" for the PJLink™ password.

PJLink[™] is a pending trademark in Japan, the United States, and other countries or areas.
 For specifications regarding PJLink[™], refer to the Japan Business Machine and Information System Industries Association website.
 http://pjlink.jbmia.or.jp/

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 "CONTROL INTERFACE" to "LAN". (see page 48)

Computer Setup

Disable the proxy server settings and enable JavaScript.

(Windows)

Disable proxy server settings

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

Enable JavaScript

- 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

- 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

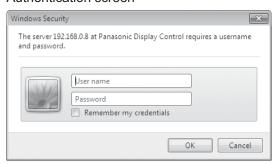
Access to the TOP screen of the Web browser control using a Web browser.

- 1. Start your Web browser.
- 2. Enter the IP address set with the "LAN SETUP" of the unit. (see page 49)



3. Enter the user name and password when the Authentication screen is displayed.

Authentication screen



 Click [OK].
 After logged in, the TOP screen of the Web browser control is displayed. (see page 59)

Notes:

- The password used here is the same password used for command control and the PJLink[™] security authentication.
- Default user name and password are as follows: User name: user1 Password: panasonic
- The password can be changed on the Password Setup screen after logging in (see page 60). The user name cannot be changed.
- Under no circumstances, Panasonic Corporation or it's associated companies will ask customers their password directly. Even if you are asked directly, please do not reveal your password.

TOP screen structure of the Web browser control

After logging in, the TOP screen of the Web browser control is displayed.



1) Menu

Menu items are displayed. When a button is clicked, setup screen of each item is displayed.

<u> </u>	
Item	Details
BASIC CONTROL	BASIC CONTROL screen is displayed. (see below)
OPTION CONTROL	OPTION CONTROL screen is displayed. (see below)
NETWORK SETTING	Network Setup screen is displayed. (see page 60)
CHANGE PASSWORD	Password setup screen is displayed. (see page 60)
Crestron Connected™	The Crestron Connected™ operations screen will appear. (see pages 61, 62) • This button does not appear when "Crestron Connected™" in "NETWORK SETUP" is "OFF". (see page 48)

- ② According to the selected item from the menu, setup status or set items are displayed.
- ③ Network ID information ID to identify the unit is displayed.

Display Control (BASIC CONTROL/OPTION CONTROL Screen)

Click BASIC CONTROL or OPTION CONTROL from the menu. Various controls of the unit can be set.

BASIC CONTROL screen

Click BASIC CONTROL from the menu. Unit status and buttons to change settings are displayed.

	STATUS	CONTROL					
POWER	ON	ON	OFF				
		HCH3	HOME	V6060			
INPUT SELECT	VI0€0	COMPONENT	OVE:	10.			
		DESITAL LINE					
AUDIO MUTE	OFF	.04	OFF				
ASPECT	FULL	FULL	MORNIAL.	ROTATION			

Item	Details
POWER	Switch ON/OFF of the unit power.
INPUT SELECT	Switch the input signals. Displayed buttons vary according to the connection status of the video device.
AUDIO MUTE	Switch ON/OFF of the sound mute.
ASPECT	Switch the screen modes

OPTION CONTROL screen

Click OPTION CONTROL from the menu. Command input field for command control of the unit is displayed.



Item	Details
COMMAND	Enter a command. Use the same command used for the serial control. (see page 18)
RESPONSE	Response from the unit is displayed.
SEND	Command is sent and run.

Note:

 After the settings are changed, it may take a while till the display's response is displayed.

NETWORK SETTING (Network Setup Screen)

Click NETWORK SETTING from the menu. Various settings of a network can be set. For the details of the setting items, please check NETWORK SETUP under the SET UP of the unit. (see page 49)



Notes:

- To use a DHCP server, make sure the DHCP server is started
- During a DHCP server is used, IP ADDRESS, SUBNET MASK, and GATEWAY values cannot be entered
- When the set values are changed properly, "NETWORK SETTING CHANGED." message and the changed set items are displayed.

Item	Details
DHCP	Set to ON when a DHCP server is used, or OFF when it is not used.
IP ADDRESS	Enter an IP address.
SUBNET MASK	Enter a subnet mask.
GATEWAY	Enter a gateway address.
PORT	Enter the port number used for command control. The available setting range is 1024 - 65535.
LAN SPEED	Set the connection speed of the LAN environment.
NETWORK ID	Set the ID to identify this unit. The available setting range is 0 - 99.
SAVE	Save the each set value.

Password Setting (Password Setup Screen)

Click CHANGE PASSWORD from the menu. Password to access the Web browser control can be set. When the password is changed in this screen, the password used for command control and the PJLink™ security authentication is also changed.



Notes:

- · The default password is "panasonic".
- Up to 32 alphanumeric characters can be used for a password.
- When the password is changed properly, "Password has changed." message is displayed.

Item	Details
OLD PASSWORD	Enter the old password.
NEW PASSWORD	Enter the new password.
NEW PASSWORD (RETYPE)	Enter the password entered in "NEW PASSWORD" for confirmation.
SAVE	Save the new password. The confirmation screen is displayed. Click OK to change the password.

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

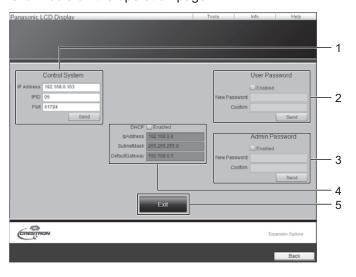
Operate items related to image quality.

7. Back

Returns to the previous page.

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 TM .

3. Admin Password

Sets the password for the administrator rights in the operation page of Crestron Connected TM .

4. Network status

Displays the setting of LAN.

DHCP: Displays the value in the current setting. **IpAddres**: Displays the value in the current setting. **SubnetMask**: Displays the value in the current setting. **DefaultGateway**: Displays the value in the current setting. setting.

5. Exit

Return to the operation page.

Note:

• When you monitor or control the Display using Crestron Connected™, set "Crestron Connected™" to "ON" in the "NETWORK SETUP" menu. (see page 48)

Using Web Browser Control

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.

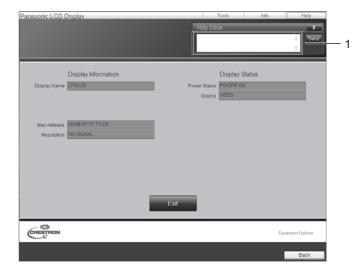
6. Exit

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 TM .

Troubleshooting

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

Symp	otoms	Obsalis	
Picture	Sound	Checks	
Interference	Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent light	
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the remote control.)	
? No Picture	No Sound	Not plugged into AC outlet Not switched on PICTURE and BRIGHTNESS/Volume setting (Check by pressing the power switch or stand-by button on the remote control.)	
? No Picture	Normal Sound	If a signal with a non-applicable color system format, or frequency is input, only the input terminal indication is displayed.	
No Color	Normal Sound	Color controls set at minimum level. (see page 30, 30) COLOR SYSTEM (see page 45)	
No remote control operati	ions 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 some	etimes 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 poff when I use the zoom for	oicture on the screen is cut unction.	Adjust the position of the picture on the screen.	
	ttom of the screen where ear when I use the zoom	When using a video software program (such as a cinema size program) with a screen wider than one in the 16:9 mode, blank areas separate from the images are formed at the top and bottom of the screen.	
I can hear sounds coming	g 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 "NO ACTIVITY POWER OFF". Any of them may be set to "ON (ENABLE)". (see page 37, 37)	
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 uncontrol	lable	Check whether the connection has been made properly. (see page 17) When controlling the RS232C command on page 18 from the RS232C terminal in the display, make sure that "CONTROL INTERFACE" is "RS-232C (Serial)", and that it is "RS-232C (DIGITAL LINK)" when controlling from the RS232C terminal of the DIGITAL LINK device. (see page 48) Check whether "LAN SETUP" has been configured properly. (see page 48) (When controlling from the RS232C terminal of the DIGITAL LINK device)	
The LAN is uncontrollable		Check whether the connection has been made properly. (see page 55) Check whether "CONTROL INTERFACE" is "LAN" when controlling with the WEB browser control or the command control on page 58. (see page 48) Check whether "LAN SETUP" has been configured properly. (see page 48) 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 page 48) 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. (see page 50)	
There is no picture displate the DIGITAL LINK terminate	yed or sound output from al.	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. (see page 19) Check whether "DIGITAL LINK MODE" is set to "AUTO" or "DIGITAL LINK" instead of "ETHERNET". (see page 48)	
This LCD Display uses s signal. However, this is no		lence a slight time lag may occur between image and audio, depending on the type of input	

Troubleshooting

Symptoms	Check
The screen darkens slightly when bright pictures with minimal movements are shown.	The screen will darken slightly when photos, still images of a computer or other pictures with minimal movements are shown for an extended period. This is done to reduce image retention on the screen and the shortening of the screen's service life: It is normal and not indicative of malfunctioning.
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.
Example	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.
Image retention appears	

Applicable input signals

PC signals

*Mark: Applicable input signal

	ngilais				mark.	Applicable lilpa	t Signa
	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	RGB IN (Dot clock(MHz))	PC IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI1 HDMI2
1	640x400@70Hz	31.46	70.07	* (25.17)	* (25.17)		
2	640x480@60Hz	31.47	59.94	* (25.18)	* (25.18)	* (25.18)	*
3	640x480@72Hz	37.86	72.81	* (31.5)	* (31.5)		
4	640x480@75Hz	37.50	75.00	* (31.5)	* (31.5)		
5	640x480@85Hz	43.27	85.01	* (36.0)	* (36.0)		
6	800x600@56Hz	35.16	56.25	* (36.0)	* (36.0)		
7	800x600@60Hz	37.88	60.32	* (40.0)	* (40.0)	* (40.0)	*
8	800x600@72Hz	48.08	72.19	* (50.0)	* (50.0)		
9	800x600@75Hz	46.88	75.00	* (49.5)	* (49.5)		
10	800x600@85Hz	53.67	85.06	* (56.25)	* (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	* (65.0)	* (65.0)	* (65.0)	*
14	1024x768@70Hz	56.48	70.07	* (75.0)	* (75.0)		
15	1024x768@75Hz	60.02	75.03	* (78.75)	* (78.75)		
16	1024x768@85Hz	68.68	85.00	* (94.5)	* (94.5)		
17	1066x600@60Hz	37.64	59.94			* (53.0)	*
18	1152x864@60Hz	53.70	60.00			* (81.62)	*
19	1152x864@75Hz	67.50	75.00	* (108.0)	* (108.0)		
20	1280x768@60Hz	47.70	60.00	* (80.14)	* (80.14)		
21	1280x960@60Hz	60.00	60.00	* (108.0)	* (108.0)		
22	1280x960@85Hz	85.94	85.00	* (148.5)	* (148.5)		
23	1280x1024@60Hz	63.98	60.02	* (108.0)	* (108.0)	* (108.0)	*
24	1280x1024@75Hz	79.98	75.02	* (135.0)	* (135.0)		
25	1280x1024@85Hz	91.15	85.02		* (157.5) *1		
26	1366x768@50Hz	39.55	50.00			* (69.92)	*
27	1366x768@60Hz	48.36	60.00	* (86.71)	* (86.71)	* (87.44)	*
28	1400x1050@60Hz	65.22	60.00			* (122.61)	*
29	1600x1200@60Hz	75.00	60.00	* (162.0)	* (162.0)	* (162.0)	*
30	1920x1080@60Hz	67.50	60.00	* (148.5)	* (148.5)	* (148.5)	*
31	1920x1200@60Hz	74.04	59.95			* (154.0)	*
32	Macintosh13"(640x480)	35.00	66.67	* (30.24)	* (30.24)		
33	Macintosh16"(832x624)	49.72	74.55	* (57.28)	* (57.28)		
34	Macintosh21"(1152x870)	68.68	75.06	* (100.0)	* (100.0)		

^{*1} Not compatible with SYNC ON G.

[•] The signal format automatically detected may differ from the actual input signal in display.

Applicable input signals

Component signals

*Mark: Applicable input signal

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	COMPONENT IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI1 HDMI2
1	525(480)/60i	15.73	59.94	* (13.5)	* (27.0)	*
2	525(480)/60p	31.47	59.94	* (27.0)	* (27.0)	*
3	625(575)/50i	15.63	50.00	* (13.5)		
4	625(576)/50i	15.63	50.00		* (27.0)	*
5	625(575)/50p	31.25	50.00	* (27.0)		*
6	625(576)/50p	31.25	50.00		* (27.0)	*
7	750(720)/60p	45.00	60.00	* (74.25)	* (74.25)	*
8	750(720)/50p	37.50	50.00	* (74.25)	* (74.25)	*
9	1,125(1,080)/60p	67.50	60.00	* (148.5)*1	* (148.5)	*
10	1,125(1,080)/60i	33.75	60.00	* (74.25)*1	* (74.25)	*
11	1,125(1,080)/50p	56.25	50.00	* (148.5)*1	* (148.5)	*
12	1,125(1,080)/50i	28.13	50.00	* (74.25)*1	* (74.25)	*
13	1,125(1,080)/24sF	27.00	48.00	* (74.25)*2		
14	1,125(1,080)/30p	33.75	30.00	* (74.25)*1	* (74.25)	*
15	1,125(1,080)/25p	28.13	25.00	* (74.25)*1	* (74.25)	*
16	1,125(1,080)/24p	27.00	24.00	* (74.25)*1	* (74.25)	*

^{*1} Based on SMPTE 274M standard.

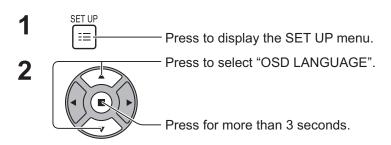
Video signals (VIDEO)

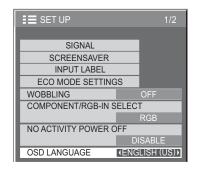
	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
1	NTSC	15.73	59.94
2	PAL	15.63	50.00
3	PAL60	15.73	59.94
4	SECAM	15.63	50.00
5	NTSC 4.43	15.73	59.94
6	PAL N	15.63	50.00
7	PAL M	15.73	59.94

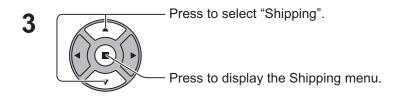
^{*2} Based on SMPTE RP211 standard.

Shipping condition

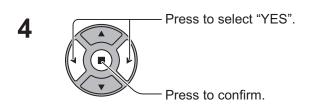
This function allows you to reset the unit to the factory setting.













- Wait for 10 seconds.
- Press the power switch (७/۱) on main unit to turn the power off.

 * If the power switch is locked, please disconnect the AC cord plug from the wall outlet.

[from the unit]

- 1. Press the MENU button till the SET UP menu is displayed.
- 2. Press the Volume Up "+" or Down "-" button to select "OSD LANGUAGE".
- 3. Press and hold the ENTER button till the Shipping menu is displayed.
- 4. Press the Volume Up "+" or Down "-" button to select "YES".
- 5. Press the ENTER button and wait for 10 sec.
- 6. Press the power switch (()/|) on main unit to turn the power off.
 - * If the power switch is locked, please disconnect the AC cord plug from the wall outlet.

Technical Specifications

Power Source 110 - 127 V AC, 50/60 Hz Power Consumption Rated Power Consumption Stand-by condition 0.5 W Power off condition 0.3 W LCD Display panel 42-inch IPS panel (LED backlight), 16:9 aspect ratio 47-inch IPS panel (LED backlight), 16:9 aspect ratio Screen size 36.6" (930 mm) (W) × 20.5" (523 mm) (H) × 40.9" (1,039 mm) (W) × 26.8" (680mm) (H) × 26.8" (680mm) (H) ×				TH-42LF6U	TH-47LF6U	TH-55LF6U		
Power Consumption Rated Power 125 W	D			TH-42LF60U	TH-47LF60U	TH-55LF60U		
Rated Power Consumption 125 W 140 W 150 W			tion	110 - 127 V AC, 50/60 Hz				
Consumption 12b W 140 W 150 W	POV							
Power of condition		Consu	mption	-				
A2-inch IPS panel (LED 55-inch IPS panel (LED 56-inch IPS panel								
Screen size				1				
20.5" (523 mm) (H) × 42.0" (1,067 mm) (diagonal) 46.9" (1,192 mm) (diagonal) 52.6" (1,387 mm) (diagonal) 46.9" (1,192 mm) (diagonal) 52.0" (1,387 mm) (diagonal) 52.0" (1,38	LCI	Display par	nel			55-inch IPS panel (LED backlight), 16:9 aspect ratio		
42.0" (1,067 mm) (diagonal) 46.9" (1,192 mm) (diagonal) 54.6" (1,387 mm) (diagonal) (No.of pixels) 2,073,600 (1,920 (W) × 1,080 (H)) (1,920 (W) × 1,080 (H)) (1,920 (W) × 1,080 (dots) (1,920 (W) × 1,920 (dots) (1,920 (W) × 1,920 (dots) (1,920 (W) × 1,920 (dots) (1,920 (d	Scr	een size			40.9" (1,039 mm) (W) ×	47.6" (1,209 mm) (W) ×		
Serial in the component of the compo				42.0" (1,067 mm) (diagonal)	46.9" (1,192 mm) (diagonal)	54.6" (1,387 mm) (diagonal)		
Temperature	(No.of pixels)		pixels)					
Temperature	Operating condition		tion		[0,1.00 1,000 4010]			
Applicable signals					32 °F - 104 °F (0 °C - 40 °C)			
Applicable signals								
Scanning format 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 750 (720) / 60p · 50p, 1125 (1080) / 60i · 60p · 50i · 5 · 24p · 25p · 30p · 24sF	App	olicable signa	als					
PC signals PC s			_					
UXGA ···· (compressed) Horizontal scanning frequency 30 - 110 kHz Vertical scanning frequency 30 - 110 kHz Vertical scanning frequency 48 - 120 Hz Connection terminals DIGITAL LINK LAN VIDEO IN VIDEO BNC AUDIO L-R RCA Pin jack × 2 COMPONENT/RGB IN G/Y B/PB/CB R/PR/CR AUDIO L-R RCA Pin jack × 2 Connection terminals TYPE A Connector × 2 COMPONENT/RGB IN G/Y B/PB/CB BNC BNC 0.7 Vp-p (75 Ω) 0.8 0.7 Vp-p (75 Ω) 0.9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Scannin	g format		50i · 50p, 750 (720) / 60p · 50p, 1	125 (1080) / 60i · 60p · 50i · 50p		
Horizontal scanning frequency 30 - 110 kHz Vertical scanning frequency 48 - 120 Hz Digital Link Lan		PC si	gnals		VGA, SVGA, XGA, SXGA			
Vertical scanning frequency 48 - 120 Hz					UXGA ···· (compressed)			
DIGITAL LINK								
DIGITAL LINK LAN VIDEO IN VIDEO AUDIO L-R AV IN HDMI 1 HDMI 2 COMPONENT/RGB IN BNC R/PR/CR BNC DVI-D IN DVI-D IN DVI-D OUT AUDIO FC IN High-Density Mini D-sub 15 Pin High-Density Mini D-sub 15 Pin SERIAL IN SERIAL IN SERIAL OUT AUDIO L-R AUDIO L-R RCA PIn JACK × 2 (L / R) Output level: Variable (-∞ — 0 dB) IN VP-P (75 Ω) 1.0 Vp-p (75 Ω) 0.5 Vrms Compliance with DVI Revision 1.0 Compatible with HDCP 1.1 0.5 Vrms, Shared with PC IN 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) B: 0.7 Vp-p (75 Ω) B: 0.5 Vrms, Shared with DVI-D IN SERIAL OUT AUDIO L-R OUT REMOTE IN AUDIO L-R Output level: Variable (-∞ — 0 dB) INPUT 1 kHz / 0 dB, 10 kΩ Load] M3 mini inclex × 2 M3 mini inclex × 2				Vertical scanning frequency 48 - 120 Hz				
LAN	Cor							
AUDIO L-R RCA Pin jack × 2			AN	· ·				
AV IN HDMI 1 HDMI 2 TYPE A Connector × 2 COMPONENT/RGB IN G/Y B/PB/CB R/PR/CR AUDIO L-R AUDIO DIV BOTO DIVITION Stereo mini jack (M3) × 1 SERIAL IN SERIAL OUT AUDIO L-R AUDIO L-R AUDIO L-R AUDIO L-R AUDIO L-R AUDIO Stereo mini jack (M3) × 1 SERIAL OUT BOTO DIVITION STEREO MINI D-sub 9 Pin × 2 COMPONENT D-sub 10 L-R OUT COMPONENT NO VP-P (75 Ω) With sync 1.0 VP-P (75 Ω) Gwith sync 1.0 VP-P (75 Ω) B: 0.7 VP-P (75 Ω) B: 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 OUT COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) B: 0.5 Vrms, Shared with DVI-D IN SERIAL OUT COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) B: 0.7 VP-P (75 Ω) COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) COMPONENT NO VP-P (75 Ω) B: 0.7 VP-P (75 Ω) COMPONENT NO VP-P (75 Ω) CO								
COMPONENT/RGB IN G/Y BNC With sync 1.0 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) 0.5 Vrms 0.7 Vp-p (75 Ω) 0.5 Vrms 0.7 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) 0.7 Vp-p (75 Ω) 0.5 Vrms 0.5 Vr	•							
$\begin{array}{ c c c c c }\hline G/Y & BNC & with sync 1.0 \ Vp-p \ (75 \ \Omega) \\ B/PB/CB & BNC & 0.7 \ Vp-p \ (75 \ \Omega) \\ R/PR/CR & BNC & 0.7 \ Vp-p \ (75 \ \Omega) \\ AUDIO \ L-R & RCA \ Pin \ jack \times 2 & 0.5 \ Vrms \\ \hline \hline DVI-D \ IN \\ DVI-D \ OUT & DVI-D \ 24 \ Pin \times 2 & Compliance \ with \ DVI \ Revision \ 1.0 \\ Compatible \ with \ HDCP \ 1.1 \\ Stereo \ mini \ jack \ (M3) \times 1 & 0.5 \ Vrms, \ Shared \ with \ PC \ IN \\ \hline PC \ IN & High-Density \ Mini \ D-sub \ 15 \ Pin \\ PC \ IN & High-Density \ Mini \ D-sub \ 15 \ Pin \\ REMOTE \ IN & External \ Control \ Terminal \\ SERIAL \ IN & External \ Control \ Terminal \\ SERIAL \ OUT & D-sub \ 9 \ Pin \times 2 & RS-232C \ compatible \\ RCA \ PIN \ JACK \times 2 \ (L/R) \\ Output \ level: \ Variable \ (-\infty \ -0 \ dB) & [INPUT \ 1 \ kHz \ / \ 0 \ dB, \ 10 \ k\Omega \ Load] \\ \hline \ M3 \ mini \ incl. \times 2 \\ \hline \ M3 \ mini \ incl. \times 2 \\ \hline \ M3 \ mini \ incl. \times 2 \\ \hline \ M3 \ mini \ incl. \times 2 \\ \hline \ M4 \ mini \ incl. \times 2 \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		COMPONE						
B/PB/CB R/PR/CR AUDIO L-R RCA Pin jack × 2 0.5 Vrms		COMI ONE		BNC	with sync 1.0 Vp-p (75.0)			
R/PR/CR AUDIO L-R RCA Pin jack × 2 DVI-D IN DVI-D OUT DVI-D OUT AUDIO BNC AUDIO L-R AUDIO Content Protection Stereo mini jack (M3) × 1 PC IN High-Density Mini D-sub 15 Pin Bit 0.7 Vp-p (75 Ω) Bit 0		<u> </u>						
AUDIO L-R RCA Pin jack × 2 0.5 Vrms DVI-D IN DVI-D OUT AUDIO Begin and provided the provided to the provi				1				
DVI-D OUT AUDIO Content Protection Stereo mini jack (M3) × 1 PC IN High-Density Mini D-sub 15 Pin 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) AUDIO Stereo mini jack (M3) × 1 SERIAL IN SERIAL OUT AUDIO SERIAL OUT AUDIO COntent Protection Compatible with HDCP 1.1 0.5 Vrms, Shared with PC IN G without sync 0.7 Vp-p (75 Ω) B: 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 OUT AUDIO CONTENT				RCA Pin jack × 2				
AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with PC IN PC IN High-Density Mini D-sub 15 Pin 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) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN				DVI-D 24 Pin × 2		0		
PC IN High-Density Mini D-sub 15 Pin 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) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT RCA PIN JACK × 2 (L / R) Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN M3 mini jack x 3		DVI-D OUT						
G without sync 0.7 Vp-p (75 Ω) B: 0.7 Vp-p (75 Ω) R: 0.7 Vp-p (75 Ω) R: 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN		DO 111	AUDIO	i				
B: 0.7 Vp-p (75 Ω) R: 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN M3 mini jack × 3		PC IN		High-Density Mini D-sub 15 Pin				
R: 0.7 Vp-p (75 Ω) HD/VD: 1.0 - 5.0 Vp-p (high impedance) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN								
HD/VD: 1.0 - 5.0 Vp-p (high impedance) AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN HD/VD: 1.0 - 5.0 Vp-p (high impedance) 0.5 Vrms, Shared with DVI-D IN External Control Terminal RS-232C compatible RCA PIN JACK × 2 (L / R) Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load]					,			
AUDIO Stereo mini jack (M3) × 1 0.5 Vrms, Shared with DVI-D IN SERIAL IN External Control Terminal SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT L-R Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN M3 mini jack x 3						edance)		
SERIAL IN SERIAL OUT D-sub 9 Pin × 2 RS-232C compatible AUDIO OUT RCA PIN JACK × 2 (L / R) Output level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN M3 mini lock × 3			AUDIO	Stereo mini jack (M3) × 1		- /		
AUDIO OUT Control		SERI						
OUT Cutput level: Variable (-∞ — 0 dB) [INPUT 1 kHz / 0 dB, 10 kΩ Load] REMOTE IN M3 mini lock x 3		SERIA	L OUT		RS-232C compatible			
REMOTE IN M3 mini jack x 2			L-R		[INPUT 1 kHz / 0 dB, 10 kΩ Load	i]		
		REMO		,				
38.1" (967 mm) (W) × 42.4" (1,076 mm) (W) × 49.1" (1,248 mm) (W) ×		NEIVIU		38 1" (967 mm) (W) x	42 4" (1 076 mm) (W) x	49 1" (1 248 mm) (W) x		
Dimensions (W × H × D) 22.1" (560 mm) (H) × 24.5" (621 mm) (H) × 28.3" (718 mm) (H) ×	Dim	ensions (W	× H × D)					
2.7" (68 mm) (D) 2.7" (68 mm) (D) 2.7" (68 mm) (D)			,					
Mass (weight) approx. 31.9 lbs approx. 36.8 lbs approx. 56.8 lbs	Mas	ss (weight)		1				

Note:

- Design and specifications are subject to change without notice. Mass and dimensions shown are approximate.
- This equipment complies with the EMC standards listed below.
 - FCC Part 15, Subpart B, Class B
 ICES-003: 2012 Issue 5, Class B
 ANSI C63.4-2009

<Software Information for This Product>

This product has software installed partially licensed under the Free BSD LICENSE.

Free BSD LICENSE regulations under the above specifications are as follows:

(These regulations are set by the third party; therefore the original (English) regulations are stated.)

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