Panasonic®

Model No.
TH-42LFE7W
TH-50LFE7W
TH-65LFE7W

Operating Instructions
FULL HD LCD Display (for business use)

HDMI

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

TQB0AC0102-1

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

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

Table of Contents

Before use

• Illustrations and screens in this Operating Instructions are images for illustration purposes, and may be different from the actual ones.

• Descriptive illustrations in this Operating Instructions are created mainly based on the 65 inch model.

Important Safety Notice

WARNING
1) **To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.**
Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)
No naked flame sources, such as lighted candles, should be placed on / above the set.
2) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

CAUTION
This appliance is intended for use in environments which are relatively free of electromagnetic fields.
Using this appliance near sources of strong electromagnetic fields or where electrical noise may overlap with the input signals could cause the picture and sound to wobble or cause interference such as noise to appear.
To avoid the possibility of harm to this appliance, keep it away from sources of strong electromagnetic fields.

IMPORTANT INFORMATION
If a display is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:
• Using cabinets or stands recommended by the manufacturer of the display.
• Only using furniture that can safely support the display.
• Ensuring the display is not overhanging the edge of the supporting furniture.
• Not placing the display on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the display to a suitable support.
• Not standing the displays on cloth or other materials placed between the display and supporting furniture.
• Educating children about the dangers of climbing on furniture to reach the display or its controls.

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

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Safety Precautions

WARNING

■ Setup

<u>This LCD Display is for use only with the following optional accessories.</u> **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.)

• Pedestal .... TY-ST42PE7 (for TH-42LFE7W, TH-50LFE7W)
TY-ST65PE7 (for TH-65LFE7W)

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

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

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

Do not place the Display on sloped or unstable surfaces, and ensure that the Display does not hang over the edge of the base.
• The Display may fall off or tip over.

Do not place any objects on top of the Display.
• If water is spills onto the Display or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Display, please consult your local Panasonic dealer.

Transport only in upright position!
• Transporting the unit with its display panel facing upright or downward may cause damage to the internal circuitry.

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

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

Cautions for Wall Installation
• Wall installation should be performed by an installation professional. Installing the Display incorrectly may lead to an accident that results in death or serious injury. Furthermore, when installing on a wall, a wall hanging bracket that conforms to VESA standards (TH-42LFE7W: VESA 200×200, TH-50LFE7W: VESA 400×200, TH-65LFE7W: VESA 400×400) must be used.
• If you terminate the use of the Display on the wall, ask a professional to remove the Display as soon as possible.
• When mounting the Display on the wall, prevent the mounting screws and power cable from contacting metal objects inside the wall. An electric shock may occur if they contact metal objects inside the wall.

When installing the Display vertically, be sure to install the power indicator onto the top of the Display.

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.

During installation, impacts and the like may damage the Display. Please handle with care.

■ When using the LCD Display

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

Do not cover the ventilation holes.
• Doing so may cause the Display to overheat, which can cause fire or damage to the Display.

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

Do not remove the cover or modify it in any way.
• High voltages which can cause severe electric shocks are present inside the Display. For any inspection, adjustment and repair work, please contact your local Panasonic dealer.

Ensure that the mains plug is easily accessible.

Do not use any power supply cord other than that provided with this unit.
• Doing so may cause fire or electric shocks.

Securely insert the power supply plug as far as it will go.
• If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket is loose, they shall not be used.

Do not handle the power supply plug with wet hands.
• Doing so may cause electric shocks.

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

Do not remove covers and NEVER modify the Display yourself
• Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
• Have the Display checked, adjusted, or repaired at your local Panasonic dealer.

If the Display is not going to be used for any prolonged length of time, unplug the power supply plug 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 odour starts to come out from the Display, immediately unplug the power supply plug from the wall outlet.
• If you continue to use the Display in this condition, fire or electric shock could result. After checking that the smoke has stopped, contact your local Panasonic dealer so that the necessary repairs can be made. Repairing the Display yourself is extremely dangerous, and shall never be done.

If water or foreign objects get inside the Display, if the Display is dropped, or if the cabinet becomes damages, disconnect the power supply plug immediately.
• A short circuit may occur, which could cause fire. Contact your local Panasonic dealer for any repairs that need to be made.

⚠ CAUTION ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

■ When using the LCD Display

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

Be sure to disconnect all cables before moving the Display.
• If the Display is moved while some of the cables are still connected, the cables may become damaged, and fire or electric shock could result.

Disconnect the power supply plug from the wall socket as a safety precaution before carrying out any cleaning.
• Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it becoming dusty.
• If dust built up on the power cord plug, the resultant humidity can damage the insulation, which could result in fire. Pull the power cord plug out from the wall outlet and wipe the mains lead with a dry cloth.

Do not burn or breakup batteries.
• Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Cleaning and maintenance ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

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

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

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

Notes before use ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

The usage environment of the liquid crystal panel may have an effect on the screen display. In addition, depending on the viewing angle, changes in hue or irregularities in brightness may occur.
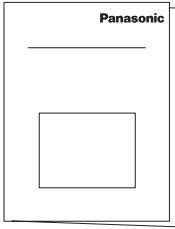• Please note that this is a characteristic of the liquid crystal panel and not a malfunction.

Accessories

Accessories Supply

Check that you have the accessories and items shown ✓
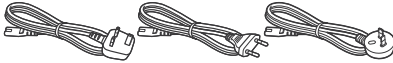
☐ Operating Instruction book

Panasonic

☐ Remote Control Transmitter
N2QAYB000691

☐ Batteries for the Remote Control Transmitter
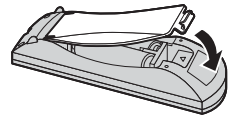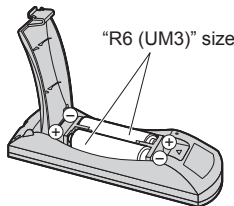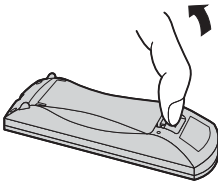(R6 (UM3) Size × 2)

☐ Power supply cord

Attention
Store small parts in an appropriate manner, and keep them away from young children.

Remote Control Batteries

Requires two R6 batteries.

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

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

   "R6 (UM3)" size

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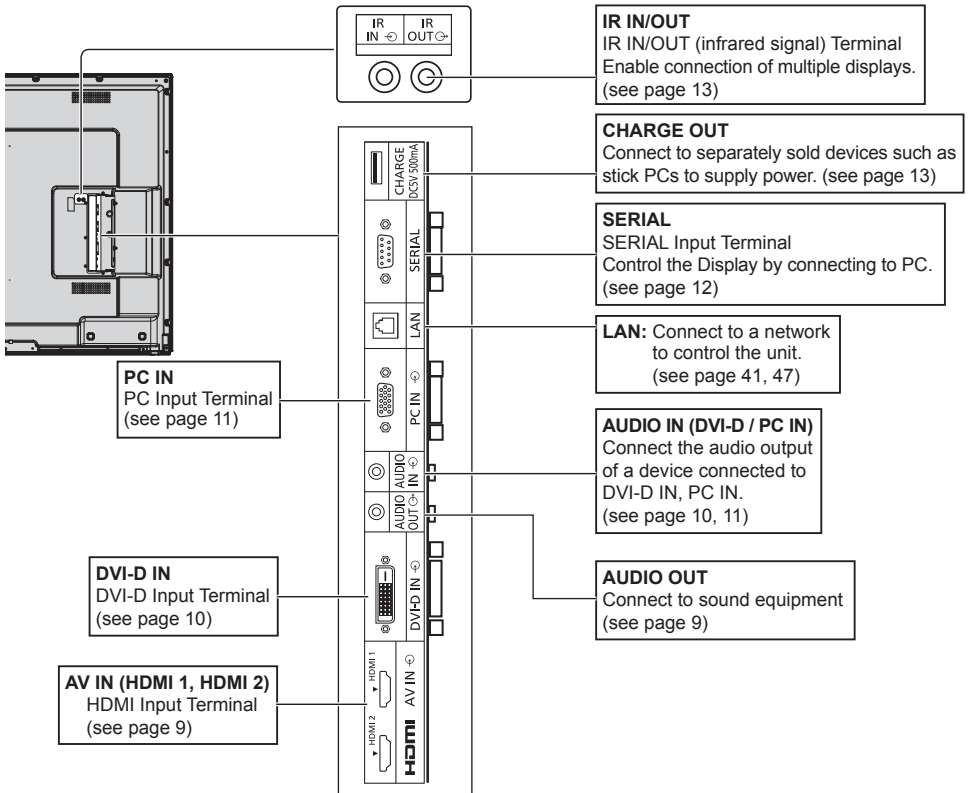
Connections

AC cord connection
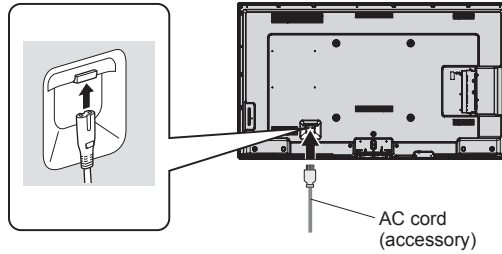
AC cord
(accessory)

Notes:
• Insert the AC cord firmly into place.
• When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.
• The included AC cord is for use with this unit only.

Video equipment connection

IR IN/OUT
IR IN/OUT (infrared signal) Terminal
Enable connection of multiple displays.
(see page 13)

CHARGE OUT
Connect to separately sold devices such as
stick PCs to supply power. (see page 13)

SERIAL
SERIAL Input Terminal
Control the Display by connecting to PC.
(see page 12)

LAN: Connect to a network
to control the unit.
(see page 41, 47)

PC IN
PC Input Terminal
(see page 11)

AUDIO IN (DVI-D / PC IN)
Connect the audio output
of a device connected to
DVI-D IN, PC IN.
(see page 10, 11)

DVI-D IN
DVI-D Input Terminal
(see page 10)

AUDIO OUT
Connect to sound equipment
(see page 9)

AV IN (HDMI 1, HDMI 2)
HDMI Input Terminal
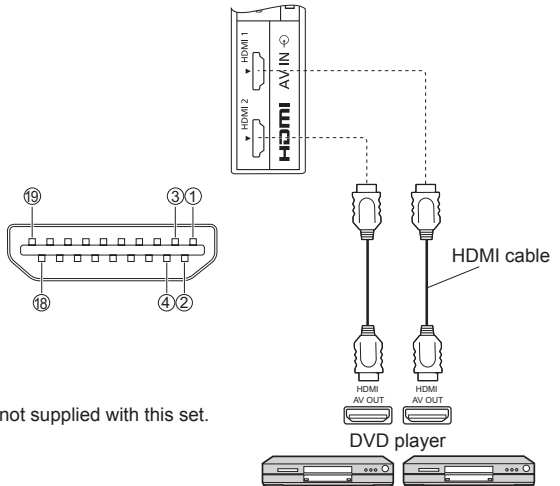(see page 9)

AUDIO OUT connection

Notes:
• Additional equipment and cables shown are not supplied with this set.
• To output sound from the AUDIO OUT terminal of the Display, be sure to set "Output Select" to "AUDIO OUT" in the
  "Sound Adjustment" menu. (see page 26)

Stereophonic sound code

audio equipment

Stereo mini plug (M3)

line-in
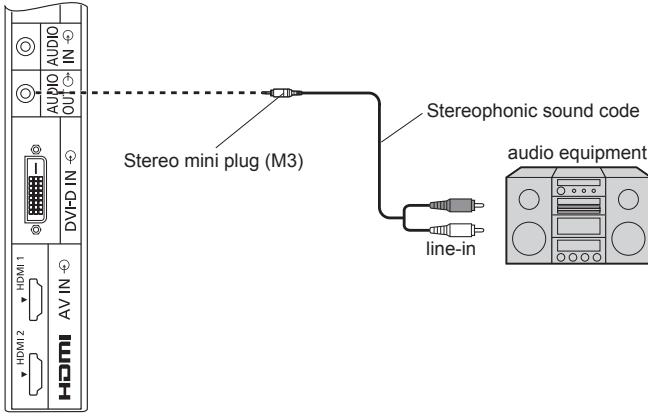
HDMI connection

[Pin assignments and signal names]

Pin No.	Signal name	Pin No.	Signal name
①	T.M.D.S Data2+	⑪	T.M.D.S Clock Shield
②	T.M.D.S Data2 Shield	⑫	T.M.D.S Clock-
③	T.M.D.S Data2-	⑬	CEC
④	T.M.D.S Data1+	⑭	Reserved (N.C. on device)
⑤	T.M.D.S Data1 Shield		
⑥	T.M.D.S Data1-	⑮	SCL
⑦	T.M.D.S Data0+	⑯	SDA
⑧	T.M.D.S Data0 Shield	⑰	DDC/CEC Ground
⑨	T.M.D.S Data0-	⑱	+5V Power
⑩	T.M.D.S Clock+	⑲	Hot Plug Detect

HDMI cable

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

DVD player

DVI-D IN connection

PC with DVI-D video out

Stereo mini plug (M3)

Shared with PC IN.

DVI-video cable (Within 5 m)
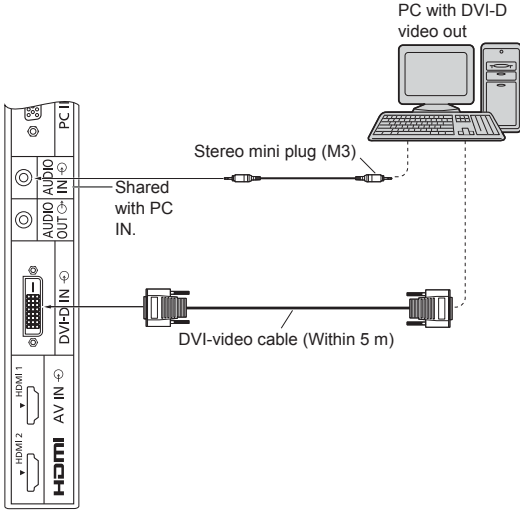
DVI-D Input Connector Pin Layouts

Connection port view
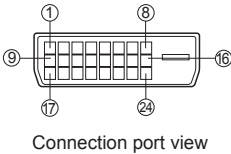
Pin No.	Signal Name	Pin No.	Signal Name
①	T.M.D.S. data 2-	⑬	———
②	T.M.D.S. data 2+	⑭	+5 V DC
③	T.M.D.S. data 2 shield	⑮	Ground
④	———	⑯	Hot plug detect
⑤	———	⑰	T.M.D.S. data 0-
⑥	DDC clock	⑱	T.M.D.S. data 0+
⑦	DDC data	⑲	T.M.D.S. data 0 shield
⑧	———	⑳	———
⑨	T.M.D.S. data 1-	㉑	———
⑩	T.M.D.S. data 1+	㉒	T.M.D.S. clock shield
⑪	T.M.D.S. data 1 shield	㉓	T.M.D.S. clock+
⑫	———	㉔	T.M.D.S. clock-

Notes:
• Additional equipment and cables shown are not supplied with this set.
• Image deterioration may occur depending on the length or the quality of the cable.

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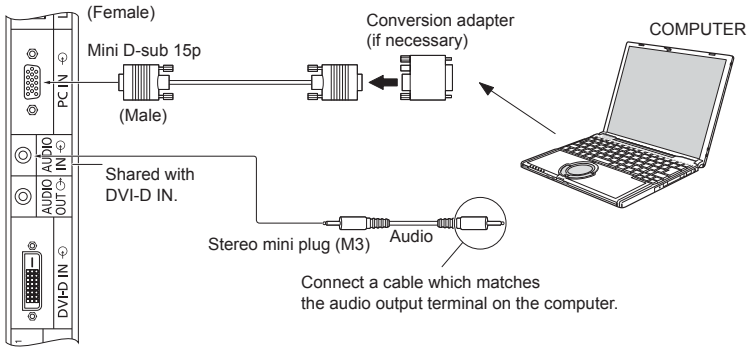
Notes:
- Computer signals which can be input are those with a horizontal scanning frequency of 30 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- The display resolution is a maximum of 1,440 × 1,080 dots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

**Signal Names for Mini D-sub 15P Connector**
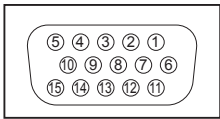
Pin Layout for PC Input Terminal

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

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 I/F Select" in the "Network Setup" menu to "RS-232C".
(see page 41)

COMPUTER

(Male)

RS-232C Straight cable

(Female)   D-sub 9p
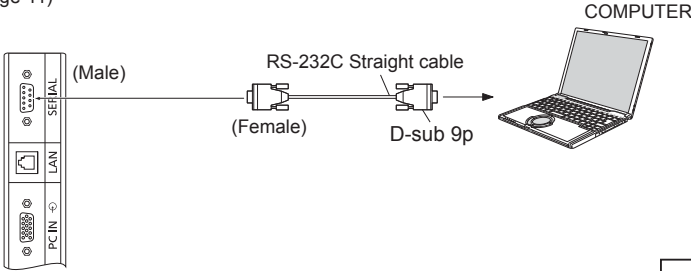
Notes:
• Use the RS-232C straight cable to connect the computer to the Display.
• The computer shown is for example purposes only.
• Additional equipment and cables shown are not supplied with this set.
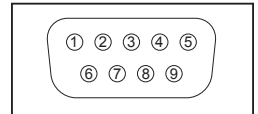
Pin layout for SERIAL Terminal

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.

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	-

Signal names for SERIAL IN terminal

Pin No.	Details
②	R X D
③	T X D
④	DTR
⑤	GND
⑥	DSR
⑦ ⑧	(Shorted in this set)
① • ⑨	NC

These signal names are those of computer specifications.

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.

STX | C1 C2 C3 | : | P1 P2 P3 P4 P5 | ETX
Start (02h) 3-character command (3 bytes) Colon Parameter(s) (1 - 5 bytes) End (03h)
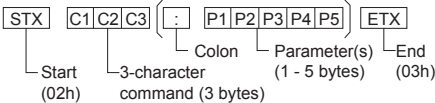
Notes:
• If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
• If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.
• Consult an Authorized Service Center for detail instructions on command usage.

Command

Command	Parameter	Control details
PON	None	Power ON
POF	None	Power OFF
AVL	***	Volume 000 - 100
AMT	0	Audio MUTE OFF
	1	Audio MUTE ON
IMS	None	Input select (toggle)
	HM1	HDMI 1 input (HDMI1)
	HM2	HDMI 2 input (HDMI2)
	DV1	DVI-D IN input (DVI)
	PC1	PC IN input (PC)
DAM	None	Screen mode select (toggle)
	ZOOM	Zoom1
	FULL	16:9
	NORM	4:3
	ZOM2	Zoom2

With the power off, this display responds to PON command only.

IR IN/OUT (infrared signal) connection

Connect between the IR OUT terminal of the first display and the IR IN terminal of the second display with a 3.5 mm stereo mini plug.
Infrared signals will be sent from the first display to the second display.

First display   Second display

Third display

* Stereo mini plug (M3)
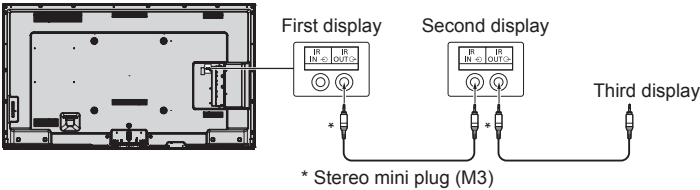
IR of the second display will not work in this connection.
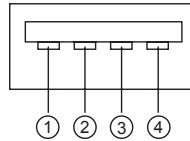It is possible to configure a daisy chain connection by repeating the connection above.

CHARGE Terminals connection

Power can be supplied when a separately sold stick PC or such other device is connected.
Note:
To supply power, be sure to set "5V Charge" to "On" in the "Options" menu. (see page 44)

stick PC

USB cable
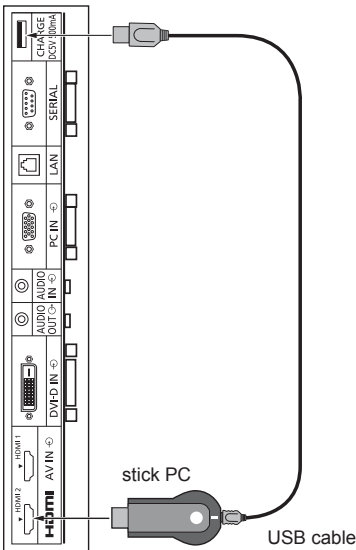
Pin Layout and Signal Names of CHARGE Terminal

①	+5V
②	NC
③	NC
④	GND

Up to 5V/500 mA power can be supplied to an external device when an image is received.

• If current exceeding the supply capacity flows, output will be shut off and the following message will appear.
  "5V CHARGE OUT overload. Please remove cable, then turn the display off/on."
In this case, turn the power off and on with the remote control, etc.

Note:
If there is dust in a terminal, the protection circuit may function.
Cover the terminals, such as with tape, when not in use.
(The terminals are protected by tape when shipped from the factory.)

Power On / Off

Connecting the AC cord plug to the Display.
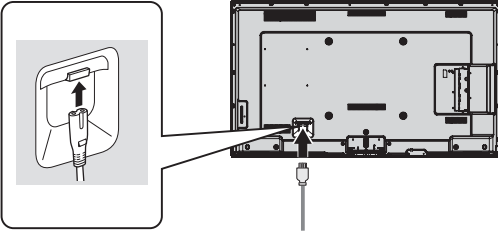
Connecting the plug to the Wall Outlet

Notes:
• Main plug types vary between countries. The power plug shown at right may, therefore, not be the type fitted to your set.
• When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.

Press the Power switch on the Display to turn the set on: Power-On.

Power Indicator: Green

Power switch

Remote Control Sensor   Power Indicator
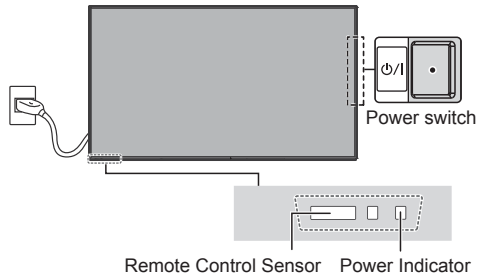
POWER

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

Power Indicator: Red (standby)

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

Power Indicator: Green

Turn the power to the Display off by pressing the ⏻/l 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.

14

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

① Select the language.

② Set.

OSD Language
English (UK)
Deutsch
Français
Italiano
Español
ENGLISH (US)
中文
日本語
Русский

PRESENT TIME Setup

① Select "DAY" or "PRESENT TIME".

② Setup "DAY" or "PRESENT TIME".

PRESENT TIME Setup	
PRESENT TIME MON 99 : 99	
Set	
DAY	◀ MON ▶
PRESENT TIME	◀ 99 : 99 ▶

① Select "Set".

② Set.

PRESENT TIME Setup	
PRESENT TIME MON 99 : 99	
Set	
DAY	TUE
PRESENT TIME	10 : 00
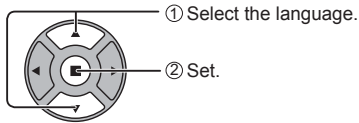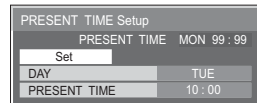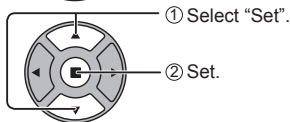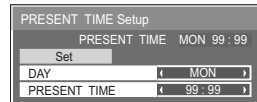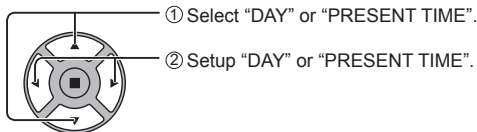
Notes:
• Once the items are set, the screens won't be displayed when switching on the unit next time.
• After the setting, the items can be changed in the following menus.
  OSD Language (see page 34)
  PRESENT TIME Setup (see page 27)

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 Setup menu is set to "Enable", a warning message is displayed every time the power is turned ON. (see page 31)

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

Power On Message (see page 44)

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:
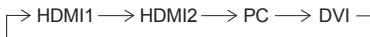
→ HDMI1 ⟶ HDMI2 ⟶ PC ⟶ DVI ⌐

HDMI1: HDMI input terminal in AV IN (HDMI1).
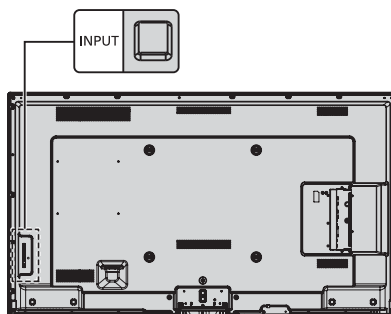HDMI2: HDMI input terminal in AV IN (HDMI2).
PC: PC input terminal in PC IN.
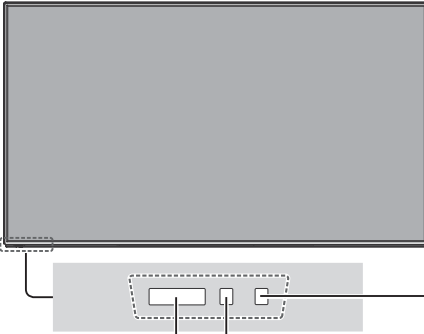DVI: DVI input terminal in DVI-D IN.

Note:
Selecting is also possible by pressing the INPUT button on the unit.

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
- Power-ON ...... Green
- HDMI1 Power management
  HDMI2 Power management
  .... Orange (With HDMI1 or HDMI2 input signal. See page 32)
- PC Power management
  .... Orange (With PC input signal. See page 32)
- DVI-D Power management
  .... Orange (With DVI input signal. See page 32)

Remote control sensor

Brightness Sensor
Detects the brightness in the viewing environment. (See page 32)
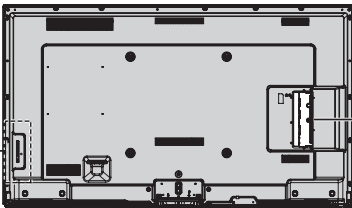
External input terminals
Connects such devices as video equipment or personal computers. (see page 8)

CHARGE DC5V 500mA

SERIAL

LAN

PC IN

AUDIO OUT / AUDIO IN

DVI-D IN

AV IN / HDMI 1

HDMI 2 / HDMI
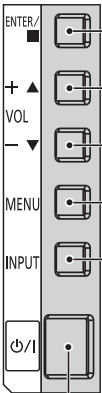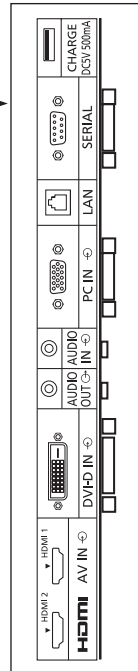
Enter / Aspect button
(see page 19, 21)

Volume Adjustment
Volume Up "+" Down "–"
When the menu screen is displayed:
"+": press to move the cursor up
"–": press to move the cursor down
(see page 21)

MENU Screen ON / OFF
Each time the MENU button is pressed, the menu screen will switch. (see page 21)

→ Normal Viewing → Picture → Setup →
→ Sound ← Pos./Size ←
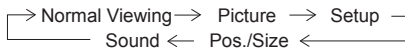
INPUT button (Input signal selection) (see page 16)

Main Power On / Off Switch

Remote Control Transmitter

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

→ 30 min → 60 min → 90 min
0 min ←
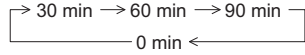
When three minutes remain, "Off timer 3 min" will flash.
The off timer is cancelled if a power interruption occurs.

ACTION button
Press to make selections.

ASPECT button
Press to adjust the aspect.
(see page 19)

Standby (ON / OFF) button
The Display must first be plugged into the wall outlet and turned on at the power switch (see page 14).
Press this button to turn the Display On, from Standby mode. Press it again to turn the Display Off to Standby mode.

POS. /SIZE button
(see page 22, 23)

PICTURE button
(see page 24, 25)

Sound mute On / Off
Press this button to mute the sound.
Press again to reactivate sound.
Sound is also reactivated when power is turned off or volume level is changed.

N button
(see page 23, 24, 25, 26)

POSITION buttons

INPUT button
Press to select input signal sequentially.
(see page 16)

ECO MODE (ECO)
Press to change the ECO MODE setup status. (see page 32)

FUNCTION buttons (FUNCTION)
(see page 45)

AUTO SETUP button
Automatically adjusts the position/size of the screen. (see page 22)

SET UP button (see page 27 - 42)

SOUND button (see page 26)

Volume Adjustment
Press the Volume Up "+" or Down "–" button to increase or decrease the sound volume level.

R button (see page 21)
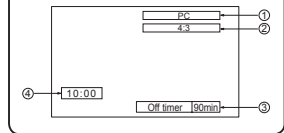Press the R button to return to previous menu screen.

RECALL button
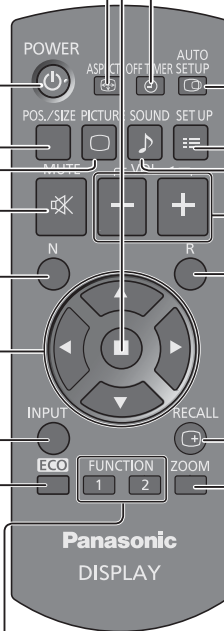Press the "RECALL" button to display the current system status.
① Input label
② Aspect mode (see page 19)
③ Off timer
The off timer indicator is displayed only when the off timer has been set.
④ Clock display (see page 44)

**Digital Zoom** (see page 20)

ASPECT Controls

The Display will allow you to enjoy viewing the picture at its maximum size, including wide screen cinema format picture.
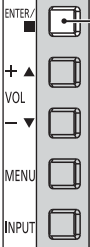
Note:
Be aware that if you put the display in a public place for commercial purposes or a public showing and then use the aspect mode select function to shrink or expand the picture, you may be violating the copyright under copyright law. It is prohibited to show or alter the copyrighted materials of other people for commercial purposes without the prior permission of the copyright holder.

ASPECT

Press repeatedly to move through the aspect options:

→ 4:3 ⟶ Zoom1 ⟶ Zoom2 ⟶ 16:9 ⟶
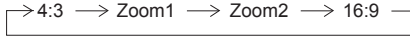
[from the unit]

ENTER/

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

VOL

MENU

INPUT

Note:
The aspect mode is memorized separately for each input terminal.

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

Digital Zoom

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

1   **Display the operation guide.**

ZOOM   Press to access Digital Zoom.
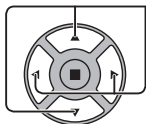The operation guide will be displayed.
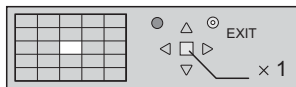
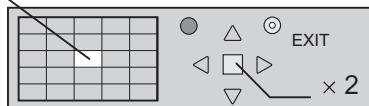**During Digital Zoom, only the following buttons can be operated.**

[Remote control]

POSITION /
ACTION button

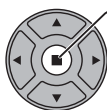**2**   **Select the area of the image to be enlarged.**

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.

$\times 1 \rightarrow \times 2 \rightarrow \times 3 \rightarrow \times 4$

4   **Return to normal display (quit Digital Zoom).**

R

Press to exit from the 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 35).
  When Screensaver is running. (see page 29, 30)
• While Digital Zoom is in operation, "Adjusting Pos./Size" cannot be used.
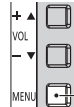
On-Screen Menu Displays

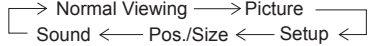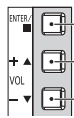|	**Remote Control**	**Unit**
1 **Display the menu screen.**	POS./SIZE PICTURE SOUND SET UP Press to select. (Example: Picture menu)	Press several times. Each time the MENU button is pressed, the menu screen will switch. → Normal Viewing → Picture → Sound ← Pos./Size ← Setup ←

2 Select the item.

Picture		
Normalise Normal		
Picture Mode	Normal	
Backlight	100	
Contrast	70	
Brightness	50	
Colour	50	
Sharpness	50	
White balance	Normal	
Advanced settings		
FRAME CREATION	Max	
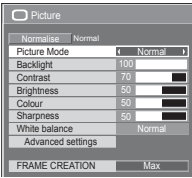
(Example: Picture menu)

Select.

❷ Press.
❶ Select.

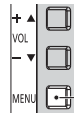**3 Set.**

Adjust.

❷ Press.
❶ Adjust.

4 Exit the menu.

POS./SIZE PICTURE SOUND SET UP
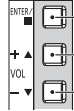
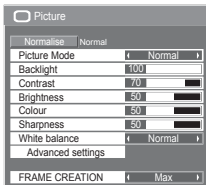Press.
Press ◯ to return to the previous menu.

Press several times.

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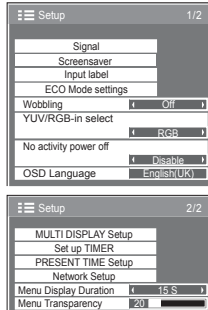**Note:** Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.
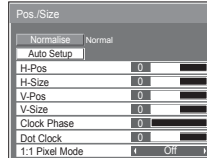
Picture menu

Picture		
Normalise Normal		
Picture Mode	Normal	
Backlight	100	
Contrast	70	
Brightness	50	
Colour	50	
Sharpness	50	
White balance	Normal	
Advanced settings		
FRAME CREATION	Max	

see page 24, 25

Setup menu

Setup	1/2
Signal	
Screensaver	
Input label	
ECO Mode settings	
Wobbling	Off
YUV/RGB-in select	RGB
No activity power off	Disable
OSD Language	English(UK)

see page 22, 23

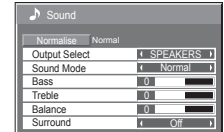| Setup	2/2
MULTI DISPLAY Setup	
Set up TIMER	
PRESENT TIME Setup	
Network Setup	
Menu Display Duration	15 S
Menu Transparency	20

see page 27-42

Pos./Size menu

Pos./Size	
Normalise Normal	
Auto Setup	
H-Pos	0
H-Size	0
V-Pos	0
V-Size	0
Clock Phase	0
Dot Clock	0
1:1 Pixel Mode	Off
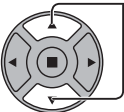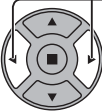
see page 22, 23

Sound menu

Sound	
Normalise Normal	
Output Select	SPEAKERS
Sound Mode	Normal
Bass	0
Treble	0
Balance	0
Surround	Off

see page 26

21

Adjusting Pos./Size

1 POS./SIZE ⎯⎯⎯ Press to display the Pos./Size menu.

2 ⎯⎯⎯ Press to select the menu to adjust.

3 ⎯⎯⎯ Press to adjust the menu.

4 POS./SIZE ⎯⎯⎯ Press to exit from adjust mode.

Pos./Size		
Normalise Normal		
Auto Setup		
H-Pos	0	
H-Size	0	
V-Pos	0	
V-Size	0	
Clock Phase	0	
Dot Clock	0	
1:1 Pixel Mode	◀ Off ▶	
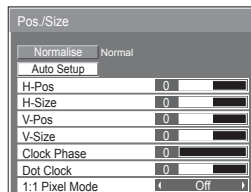
Note:
Unadjustable items are grayed out. Adjustable items differ depending on the input signal and the display mode.

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 PC signal is received.
This setting only operates when a PC signal is input, and the aspect is "16:9".
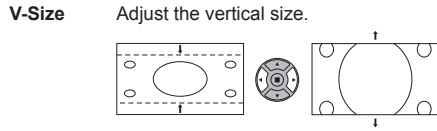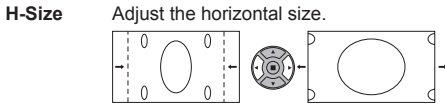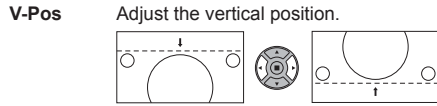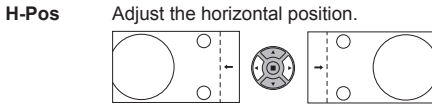
Using Remote Control

When [AUTO SETUP] 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 39) 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 "Normalise" 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 PC input signal)**
Phase Eliminate the flickering and distortion.

Dot Clock **(During 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 (DVI, HDMI)

On   Off
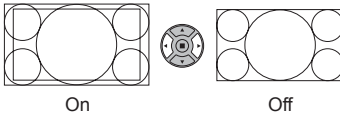
Notes:
• "Off" is effective during only "16:9" aspect mode.
• When "Off" is set, "H-Size" and "V-Size" cannot be adjusted.

1:1 Pixel Adjusts the display size when 1125i or 1125p signal is input.
Mode **Notes:**
• "On" is effective during only "16:9" aspect mode.
• Select On when you would like to replay 1920 × 1080 input signal.
• Applicable input signal;
  1125 (1080) / 50i · 60i · 24psF · 24p · 25p · 30p · 50p · 60p
• Select Off when flickering is shown around the image.
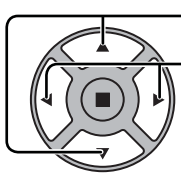• H-Size and V-Size cannot be adjusted when On is selected.

Off   On
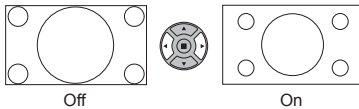
Helpful Hint (N ⃝ / Normalise Normalisation)

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 "Normalise", then all adjustment values (except "Clock Phase" and "Dot Clock") are returned to the factory settings.
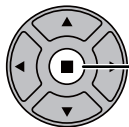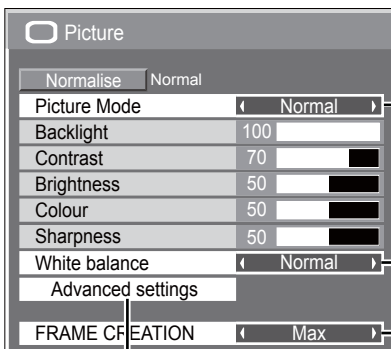
Picture Adjustments

1   PICTURE ⬜ ——— Press to display the Picture menu.
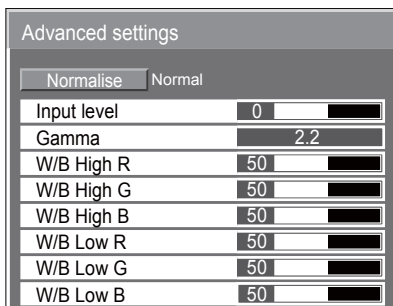
2   Select to adjust each item.

——— Press to select the menu to adjust.

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

Note:
Menu that cannot be adjusted is grayout. Adjustable menu changes depending on signal, input and menu setting.
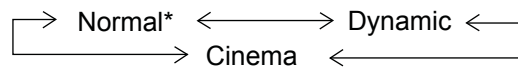
Picture		
Normalise	Normal	
Picture Mode	◀ Normal ▶	
Backlight	100	
Contrast	70	
Brightness	50	
Colour	50	
Sharpness	50	
White balance	◀ Normal ▶	
Advanced settings		
FRAME CREATION	◀ Max ▶	

——— Press to enter Advanced Settings.

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

Advanced settings	
Normalise	Normal
Input level	0
Gamma	2.2
W/B High R	50
W/B High G	50
W/B High B	50
W/B Low R	50
W/B Low G	50
W/B Low B	50

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

Normal* ⟷ Dynamic
Cinema

Normal
For viewing in standard environments.
Dynamic
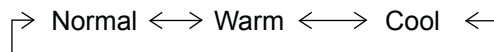For viewing in brighter environments.
Cinema
For use in viewing tone-focused pictures with brightness reduced.
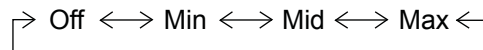
Note:
If you would like to change the picture and colour of the selected Picture menu to something else, adjust using the items in the Picture menu. (see next page)

Press the left ◀ or right ▶ button to switch between modes.
Normal ⟷ Warm ⟷ Cool

FRAME CREATION
Improves motion picture quality by reducing motion blur.
Press the left ◀ or right ▶ button to switch between modes.
Off ⟷ Min ⟷ Mid ⟷ Max

Notes:
• The mode is memorized per input terminal.
• Even if "Normalise" is selected, the Normal setting will not be restored.
• The picture and menu will disappear for a moment if you switch the mode to Off, or switch from Off to another mode.
• "FRAME CREATION" is a function for 65-inch models. This function is not available for 42 / 50-inch models.

Helpful Hint (○ᴺ / Normalise Normalization)

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