Panasonic®

Operating Instructions
Display Operations
High Definition Plasma Display

HDMI

reaL D 3D

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

Dear Panasonic Customer

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

Important Safety Notice

WARNING
1) **To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.**
   Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)
   No naked flame sources, such as lighted candles, should be placed on / above the set.
2) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
3) Do not remove the earthing pin on the power plug. This apparatus is equipped with a three pin earthing-type power plug. This plug will only fit an earthing-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.
   Do not defeat the purpose of the earthing plug.
4) To prevent electric shock, ensure the earthing pin on the AC cord power plug is securely connected.

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

IMPORTANT: THE MOULDED PLUG

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

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

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

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

Do not cut off the mains plug.
Do not use any other type of mains lead except the one supplied with this display.
The supplied mains lead and moulded plug are designed to be used with this display to avoid interference and for your safety.
If the socket outlet in your home is not suitable, get it changed by a qualified electrician.
If the plug or mains lead becomes damaged, purchase a replacement from an authorized dealer.

WARNING : — THIS DISPLAY MUST BE EARTHED.

How to replace the fuse. Open the fuse compartment with a screwdriver and replace the fuse.
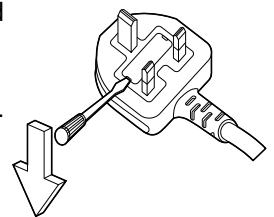
Trademark Credits
- VGA is a trademark of International Business Machines Corporation.
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- HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
- "RealD 3D" is a trademark of RealD.

Note:
Do not allow a still picture to be displayed for an extended period, as this can cause a permanent image retention to remain on the Plasma Display.
Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Safety Precautions

WARNING

■ Setup

This Plasma 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.)

- Speakers .... TY-SP42P8W-K (for TH-42PF50E),
  TY-SP50P8W-K (for TH-50PF50E)
- Pedestal TY-ST20-K, TY-ST42P50
- Mobile stand TY-ST58PF20
- Wall-hanging bracket (vertical) TY-WK42PV20
- Wall-hanging bracket (angled) TY-WK42PR20
- Ceiling-hanging bracket TY-CE42PS20
- BNC Dual Video Terminal Board TY-FB9BD
- HD-SDI Terminal Board TY-FB9HD
- HD-SDI Terminal Board with audio TY-FB10HD
- Dual Link HD-SDI Terminal Board TY-FB11DHD
- Dual HDMI Terminal Board TY-FB10HMD
- DVI-D Terminal Board TY-FB11DD
- AV Terminal Box TY-TB10AV
- 3D IR TRANSMITTER TY-3D30TRW
- Touch Panel .... TY-TP42P30K (for TH-42PF50E),
  TY-TP50P30K (for TH-50PF50E)
- 3D Eyewear TY-EW3D3SE, TY-EW3D3ME, TY-EW3D3LE
- Wireless Module ET-WM200E

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

Do not place any objects on top of the Plasma Display.
- If water is spills onto the Plasma 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 Plasma 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;
If using the pedestal (optional accessory), leave a space of 10 cm or more at the top, left and right, and 7 cm or more at the rear, and also keep the space between the bottom of the display and the floor surface.
If using some other setting-up method, follow the manual of it. (If there is no specific indication of installation dimension in the installation manual, leave a space of 10 cm or more at the top, bottom, left and right, and 7 cm or more at the rear.)

When installing the Plasma Display vertically;
Turn up the power switch for the upward direction when you install the Plasma Display vertically.
And set "Display orientation" to "Portrait" in Setup menu. (see page 45)

https://manual-hub.com/

■ When using the Plasma Display

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

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

Do not stick any foreign objects into the Plasma Display.
- Do not insert any metal or flammable objects into the ventilations holes or drop them onto the Plasma 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 Plasma Display. For any inspection, adjustment and repair work, please contact your local Panasonic dealer.

Ensure that the mains plug is easily accessible.

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

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

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

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

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

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

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

■ If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odour starts to come out from the Plasma Display, immediately unplug the power supply plug from the wall outlet.
- If you continue to use the Plasma 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 Plasma Display yourself is extremely dangerous, and shall never be done.

If water or foreign objects get inside the Plasma Display, if the Plasma 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.

Safety Precautions

⚠ CAUTION

■ When using the Plasma Display

Do not bring your hands, face or objects close to the ventilation holes of the Plasma Display.
* Heated air comes out from the ventilation holes at the top of Plasma 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 Plasma Display.
* If the Plasma 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.

This Plasma Display radiates infrared rays, therefore it may affect other infrared communication equipment. Install your infrared sensor in a place away from direct or reflected light from your Plasma Display.

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 Plasma 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.

3D Safety Precautions

WARNING

■ Small Parts

3D Eyewear contains small parts (battery and specialised band, etc.) and must be kept out of reach of small children to avoid accidental ingestion.

■ Disassembly

Do not disassemble or modify the 3D Eyewear.

⚠ CAUTION

To enjoy 3D images safely and comfortably, please read these instructions fully.

■ Use for commercial applications and public viewing

Someone in authority should responsibly convey the precautions for use of the 3D Eyewear to the user.

■ 3D Eyewear (sold separately)

Do not drop, exert pressure on, or step on the 3D Eyewear.

Be careful of the tips of the frame when putting on the 3D Eyewear.

Be careful not to trap a finger in the hinge section of the 3D Eyewear.

Pay special attention when children are using the 3D Eyewear.
3D Eyewear should not be used by children younger than 5 - 6 years old, as a guideline.
All children must be fully supervised by parents or guardians who must ensure their safety and health throughout the using 3D Eyewear.

Safety Precautions

■ Viewing 3D Content

Content for 3D viewing includes commercially available Blu-ray discs, 3D broadcasts, etc.
When preparing your own 3D content, ensure that it is properly produced.

Do not use the 3D Eyewear if you have a history of over-sensitivity to light, heart problems, or have any other existing medical conditions.

Please stop using the 3D Eyewear immediately, if you feel tired, are not feeling well or experience any other uncomfortable sensation.

Take an appropriate break after viewing a 3D movie.

Take a break of between 30 - 60 minutes after viewing 3D content on interactive devices such as 3D games or computers.

Be careful not to strike the screen or other people unintentionally. When using the 3D Eyewear the distance between the user and screen can be misjudged.

The 3D Eyewear must only be worn when viewing 3D content.

If you do not look toward the screen for a while when viewing 3D images, the 3D Eyewear may be turned off automatically.

If you suffer from any eyesight problems (short / far-sighted, astigmatism, eyesight differences in left and right), please ensure to correct your vision before using the 3D Eyewear.

Stop using the 3D Eyewear if you can clearly see double images when viewing 3D content.

Do not use the 3D Eyewear at a distance less than the recommended distance.

View from at least the recommended distance (3 times the effective height of the screen).
Recommended distance
TH-42PF50E: 1.6 m
TH-50PF50E: 1.9 m
When the top and bottom area of the screen is blackened, such as movies, view the screen at a distance 3 times further than the height of the actual image. (That makes the distance closer than above recommended figure.)

■ 3D Eyewear (sold separately) Use

Before using the 3D Eyewear, ensure no breakable objects surrounding the user to avoid any accidental damage or injury.

Remove the 3D Eyewear before moving around to avoid falling or accidental injury.

Use the 3D Eyewear only for the intended purpose and nothing else.

Do not use 3D Eyewear in the condition of high temperature.

Do not use if the 3D Eyewear is physically damaged.

Do not use any devices that emit the infrared signals near the 3D Eyewear, as this may cause the 3D Eyewear false operations.

Do not use devices (such as mobile phones or personal transceivers) that emit strong electromagnetic waves near the 3D Eyewear as this may cause the 3D Eyewear to malfunction.

Stop using the 3D Eyewear immediately if a malfunction or fault occurs.

Stop using the 3D Eyewear immediately if you experience any redness, pain, or skin irritation around the nose or temples.

In rare cases, the materials used in the 3D Eyewear may cause an allergic reaction.
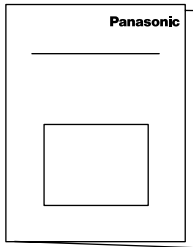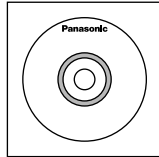
Accessories

Accessories Supply

Check that you have the accessories and items shown

Operating Instruction book
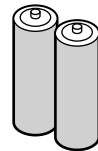
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CD-ROM × 1

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• Operating Instructions
  Display Operations
  Network Operations
• Software license statements
  GNU GENERAL PUBLIC LICENSE
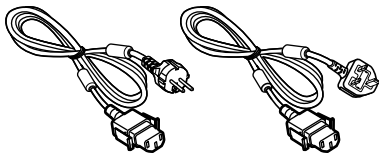 GNU LESSER GENERAL PUBLIC LICENSE
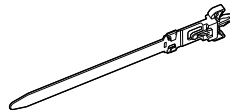
Remote Control Transmitter N2QAYB000691

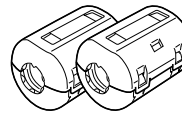Batteries for the Remote Control Transmitter (R6 (UM3) Size × 2)

Panasonic DISPLAY

Power supply cord

Clamper × 1 TMME289

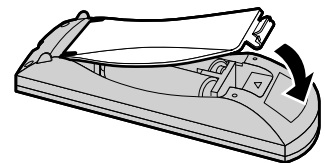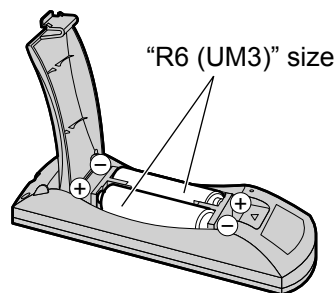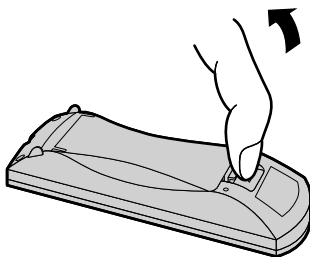Ferrite core × 2 J0KG00000014

Use the Ferrite cores to comply with the EMC standard. (refer to "Operating Instructions, Network Operations")

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.
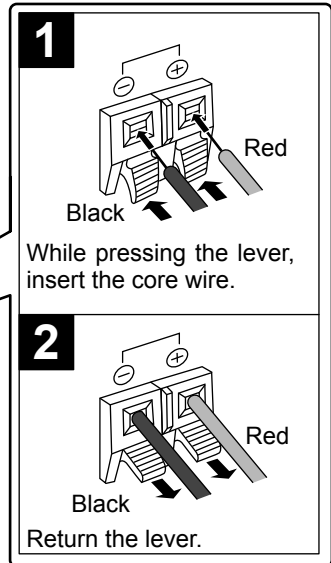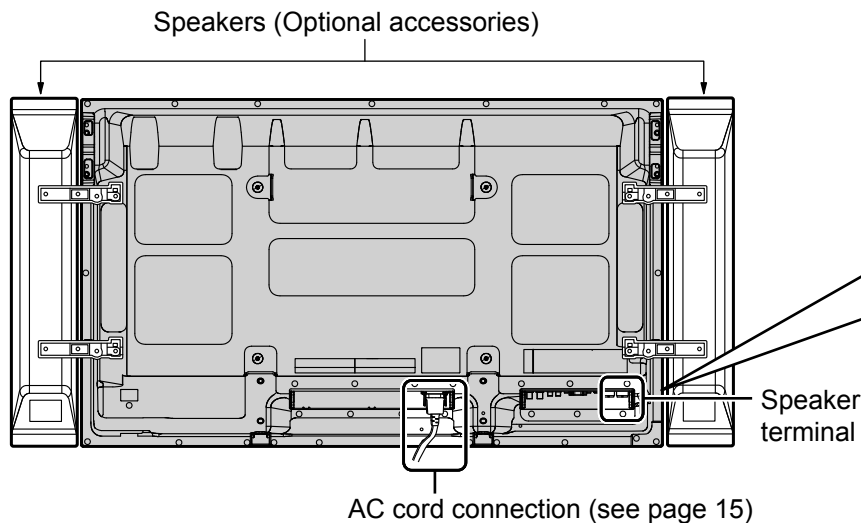Disposal of batteries should be in an environment-friendly manner.
Observe the following precaution:
1. Batteries shall always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example: "Zinc Carbon" 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 Plasma Display set.
6. Do not burn or breakup batteries.
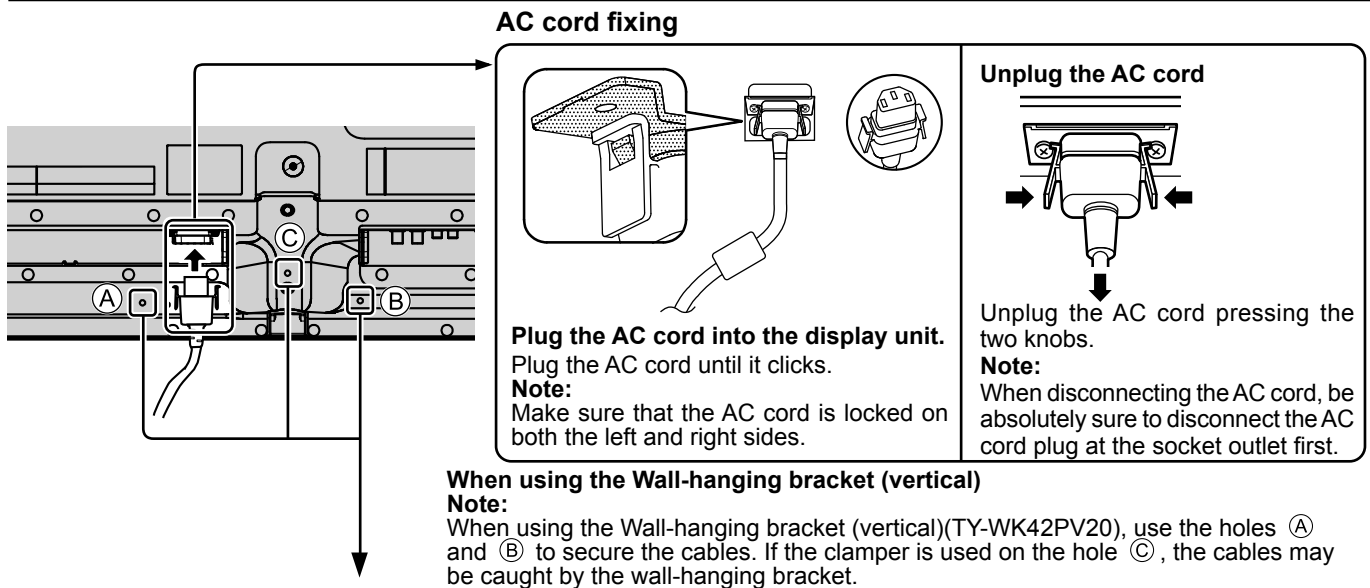7. Batteries must not be exposed to excessive heat such as sunshine, fire or the like.

Connections

Speaker connection

When connecting the speakers, be sure to use only the optional accessory speakers.
Refer to the speaker's Installation Manual for details on speaker installation.

Speakers (Optional accessories)

Speaker terminal

AC cord connection (see page 15)

1 While pressing the lever, insert the core wire.
Red
Black

2 Return the lever.
Red
Black

AC cord connection and fixing, cable fixing

AC cord fixing

Plug the AC cord into the display unit.
Plug the AC cord until it clicks.
Note:
Make sure that the AC cord is locked on both the left and right sides.

Unplug the AC cord

Unplug the AC cord pressing the two knobs.
Note:
When disconnecting the AC cord, be absolutely sure to disconnect the AC cord plug at the socket outlet first.

When using the Wall-hanging bracket (vertical)
Note:
When using the Wall-hanging bracket (vertical)(TY-WK42PV20), use the holes Ⓐ and Ⓑ to secure the cables. If the clamper is used on the hole Ⓒ, the cables may be caught by the wall-hanging bracket.
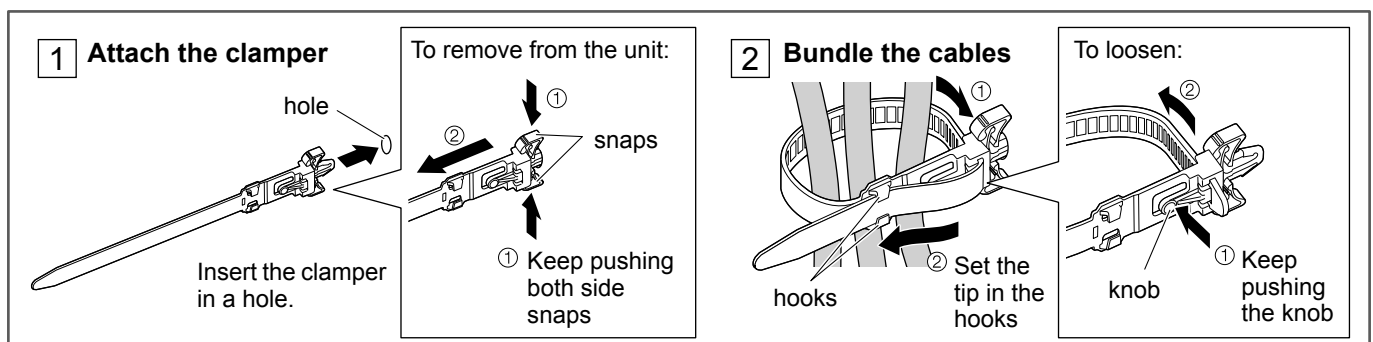
Using the clamper
Secure any excess cables with clamper as required.
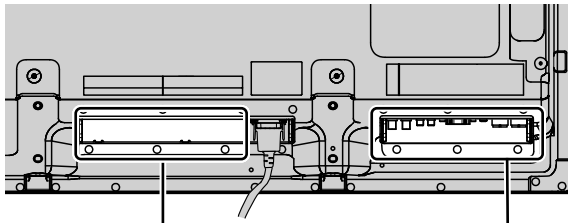**Note:**
One clamper is supplied with this unit. In case of securing cables at three positions, please purchase it separately.

1 Attach the clamper	To remove from the unit:	**2** Bundle the cables	To loosen:
hole	snaps		
Insert the clamper in a hole.	① Keep pushing both side snaps	hooks ② Set the tip in the hooks	knob ① Keep pushing the knob

Video equipment connection

Terminals are on the bottom side of the Plasma Display.

SERIAL: Control the Plasma Display by connecting to PC (see page 14)

**3D IR TRANSMITTER:** Connect the 3D IR TRANSMITTER (optional accessory).

SLOT: Terminal board (optional accessories) insert slot (see page 4)

Note:
The right side slot is for terminal board with 2-slot width. The terminal board with 1-slot width does not function when installed in the right side slot.

AV IN (VIDEO): Composite Video Input Terminal (see below)
COMPONENT/RGB IN: Component/RGB Video Input Terminal (see below)

DVI-D IN: DVI-D Input Terminal (see page 12)
PC IN: PC Input Terminal
Connect to video terminal of PC or equipment with Y, $P_B(C_B)$ and $P_R(C_R)$ output (see page 13).

AV IN (HDMI): HDMI Input Terminal (see page 12) Connect to video equipment such as VCR or DVD player.

WIRELESS MODULE, LAN: Refer to "Operating Instructions, Network Operations".

VIDEO and COMPONENT / RGB IN connection

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

RCA-BNC Adapter plug

AUDIO L-R: Shared with VIDEO and COMPONENT/RGB IN

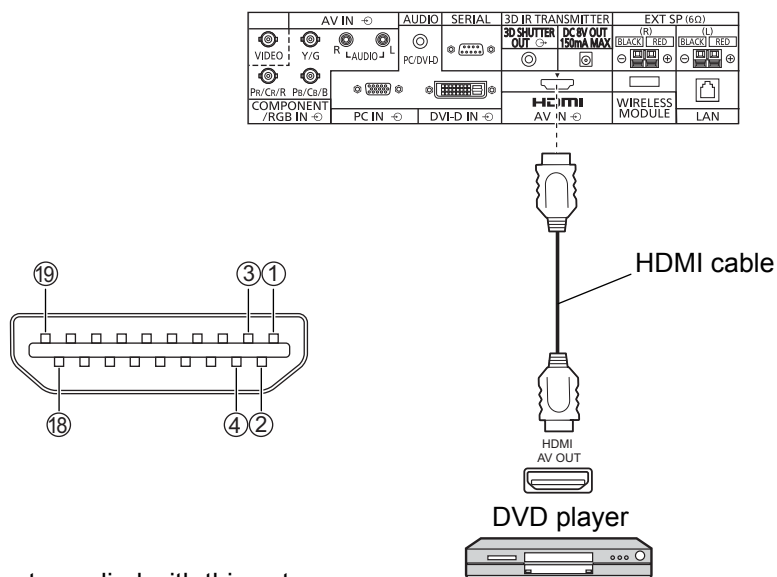RCA-BNC Adapter plug

VIDEO OUT

L
R AUDIO OUT

VCR
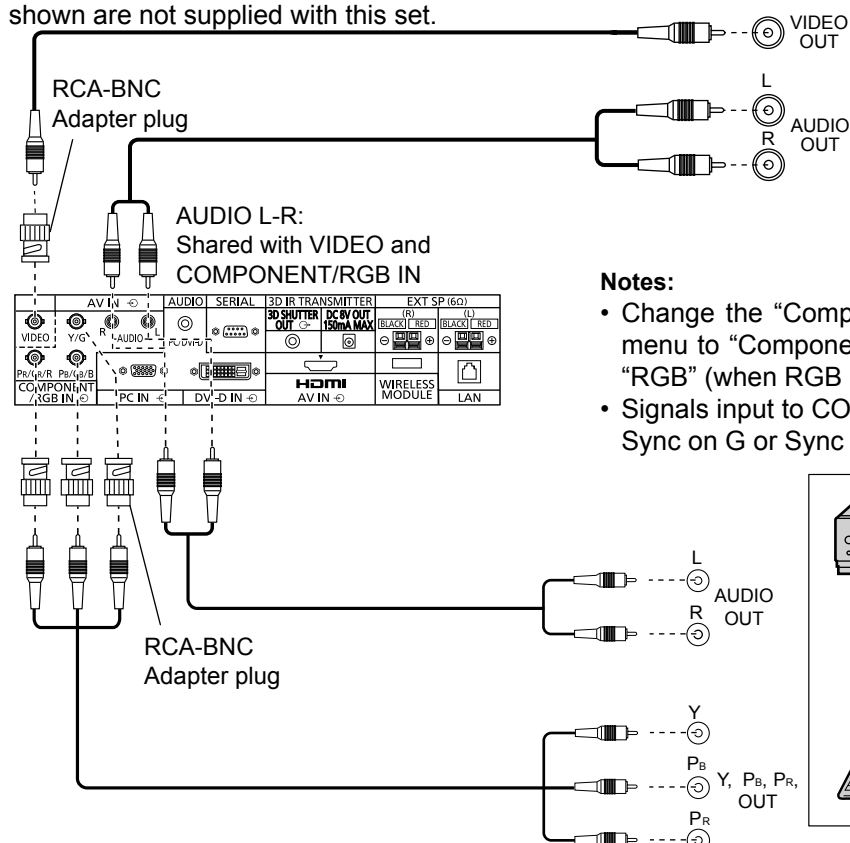
Notes:
• Change the "Component/RGB-in select" setting in the "Setup" menu to "Component" (when Component signal connection) or "RGB" (when RGB signal connection). (see page 50)
• Signals input to COMPONENT/RGB IN terminals correspond to Sync on G or Sync on Y.

L
R AUDIO OUT

DVD Player

Computer

RGB Camcorder

Y
P_B
P_R
Y, P_B, P_R, OUT

11
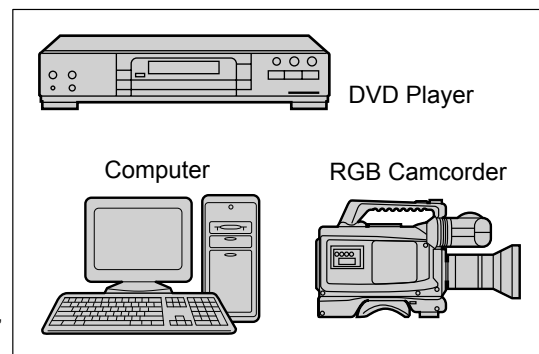
Connections

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

DVD player

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

DVI-D IN connection

PC with DVI-D video out

Shared with PC IN.

Stereo mini plug (M3)

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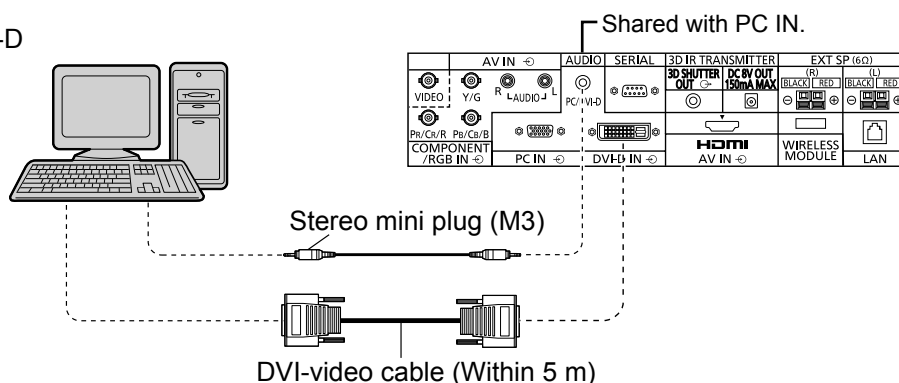
DVI-D Input Connector Pin Layouts
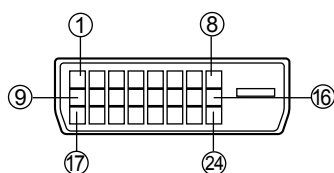
Connection port view

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.
• Use the DVI-D cable complying with the DVI standard. Image deterioration may occur depending on the length or the quality of the cable.
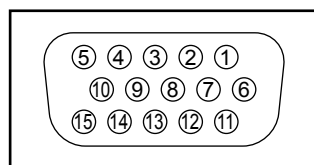
PC Input Terminals connection

Shared with DVI-D IN.

COMPUTER

Conversion adapter
(if necessary)

(Female)
Mini D-sub 15p

RGB
PC cable

(Male)

Audio
Stereo mini plug (M3)

Connect a cable which matches
the audio output terminal on the computer.
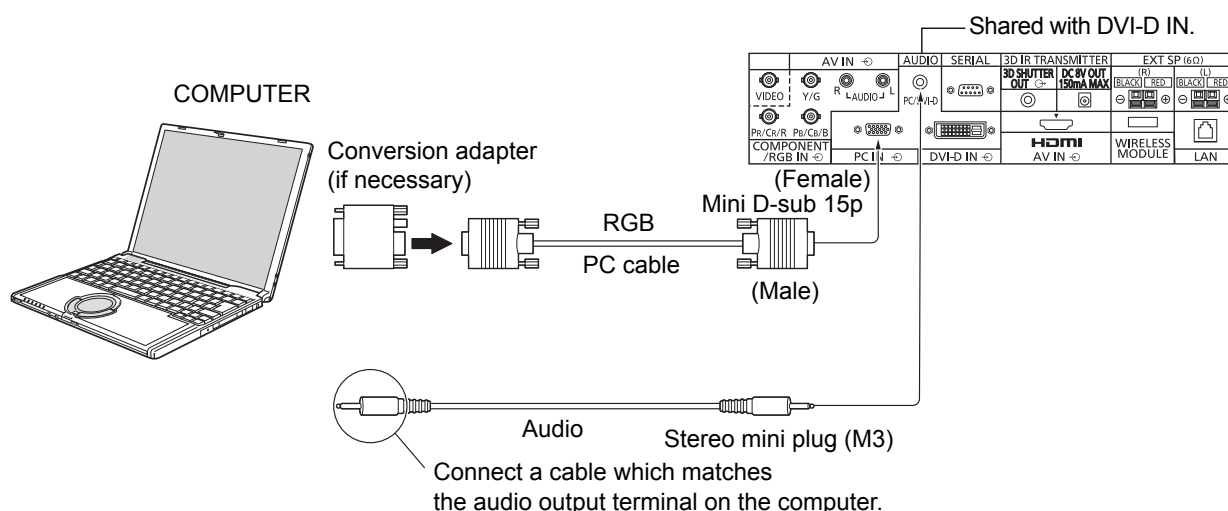
Notes:

- With regard to the typical PC input signals that are described in the applicable input signals list (see page 64), adjustment values such as for the standard picture positions and sizes have already been stored in this unit. You can add up to eight PC input signal types that are not included in the list.
- Computer signals which can be input are those with a horizontal scanning frequency of 15 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.
- Component Input is possible with the pin 1, 2, 3 of the Mini D-sub 15P Connector.
- 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 50)

Signal Names for Mini D-sub 15P Connector

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R (P_R/C_R)	⑥	GND (Ground)	⑪	NC (not connected)
②	G (Y)	⑦	GND (Ground)	⑫	SDA
③	B (P_B/C_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

⑤ ④ ③ ② ①
⑩ ⑨ ⑧ ⑦ ⑥
⑮ ⑭ ⑬ ⑫ ⑪

Pin Layout for PC Input
Terminal

SERIAL Terminals connection

The SERIAL terminal is used when the Plasma 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". (refer to "Operating Instructions, Network Operations")

COMPUTER

Pin layout for SERIAL Terminal

RS-232C Straight cable
(Female)

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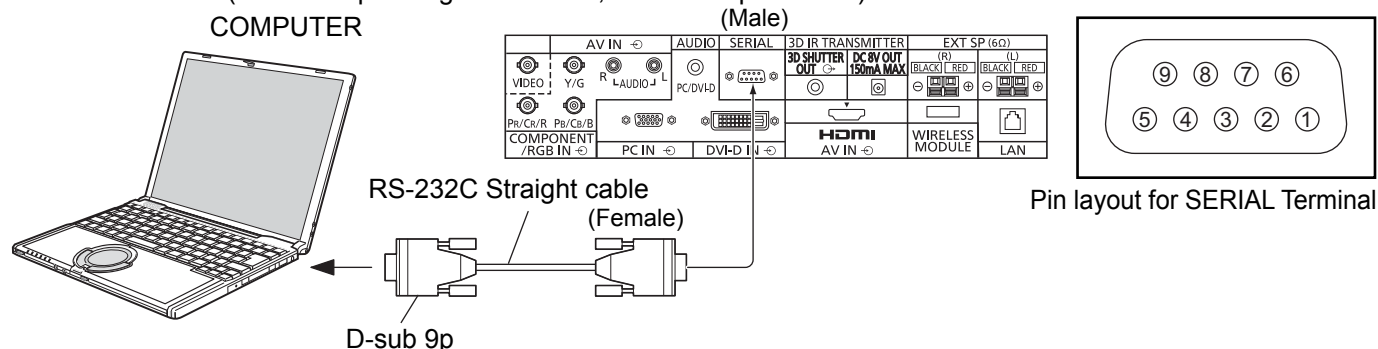
Notes:
- Use the RS-232C straight cable to connect the computer to the Plasma Display.
- The computer shown is for example purposes only.
- Additional equipment and cables shown are not supplied with this set.

The SERIAL terminal conforms to the RS-232C interface specification, so that the Plasma 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	-

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)
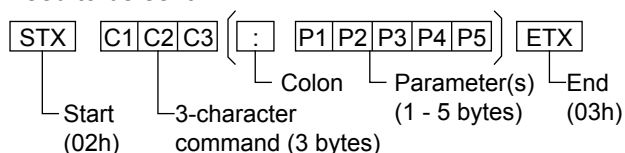
Notes:
- If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.
- S1A and S1B of Command IMS are available only when a dual input terminal board is attached.
- Consult your local Panasonic dealer for detail instructions on command usage.

Signal names for D-sub 9P connector

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

These signal names are those of computer specifications.

Command

Command	Parameter	Control details
PON	None	Power ON
POF	None	Power OFF
AVL	**	Volume 00 - 63
AMT	0	Audio MUTE OFF
	1	Audio MUTE ON
IMS	None	Input select (toggle)
	SL1	SLOT input (SLOT INPUT)
	S1A	SLOT input (SLOT INPUT A)
	S1B	SLOT input (SLOT INPUT B)
	VD1	VIDEO input (VIDEO)
	YP1	COMPONENT/RGB IN input (COMPONENT)
	HM1	HDMI input (HDMI)
	DV1	DVI-D IN input (DVI)
	PC1	PC IN input (PC)
	NW1	Network input (NETWORK)
DAM	None	Screen mode select (toggle)
	ZOOM	Zoom, Zoom1
	FULL	16:9
	JUST	Just, Just1 (For Video/SD/HD signal)
	NORM	4:3, 4:3 (1)
	ZOM2	Zoom2 (For Video/SD/HD signal)
	ZOM3	Zoom3 (For Video/SD/HD signal)
	SJST	Just2 (For HD signal)
	SNOM	4:3 (2) (For HD signal)
	SFUL	4:3 Full (For HD signal)
	14:9	14:9 (For Video/SD/HD signal)

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

Power On / Off

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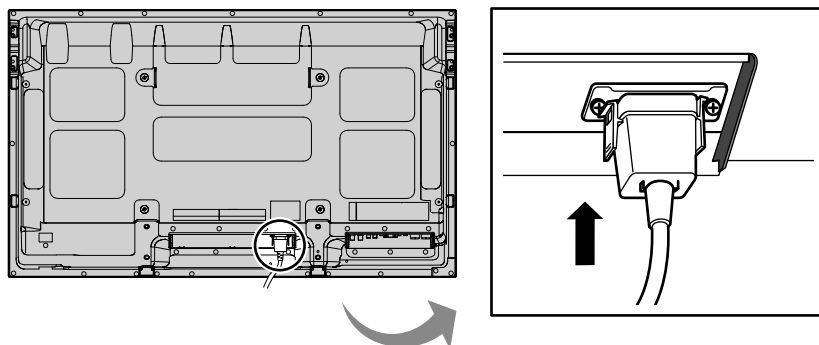
**Connecting the plug to the Wall Outlet**

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 Plasma Display to turn the set on: Power-On.

Power Indicator: Green

[Starting up the network]
It takes some time for the network to start up just after the power is turned on.
During that time, "Network Setup" in the "Setup" menu is grayed out and cannot be set.

Power Indicator

Remote Control Sensor
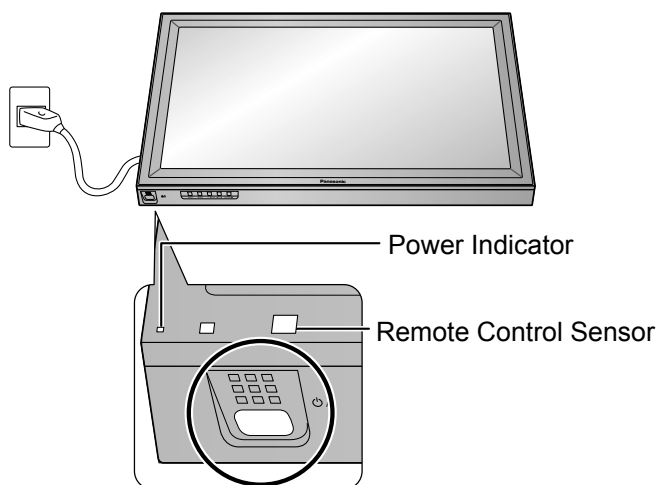
Press the ⏻ button on the remote control to turn the Plasma Display off.

Power Indicator: Red (standby)

Press the ⏻ button on the remote control to turn the Plasma Display on.

Power Indicator: Green

Turn the power to the Plasma Display off by pressing the ⏻/| switch on the unit, when the Plasma 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.

Power On / Off

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

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

○ △ ○
◁ ■ ▷
▽
Select   Set

① Select the language.
② Set.

Day/Time Setup

Day/Time Setup		
	Time	MON 99:99
Set		
Day	◀ MON ▶	
Time	◀ 99:99 ▶	

Day/Time Setup		
	Time	MON 99:99
Set		
Day	TUE	
Time	10:00	

① Select "Day" or "Time".
② Setup "Day" or "Time".

① Select "Set".
② Set.

Display orientation

Display orientation
Landscape
Portrait

① For vertical installation, select "Portrait".
② Set.
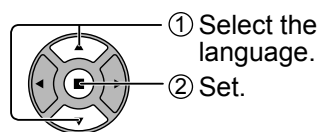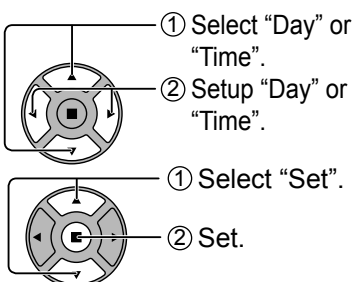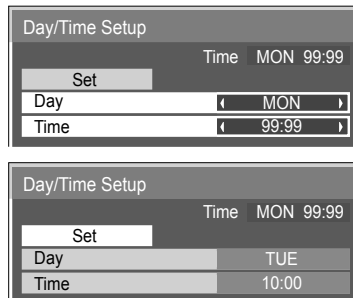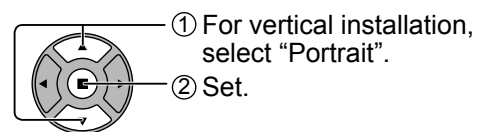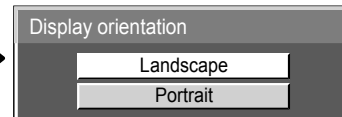
Notes:
• Once the items are set, the screens won't be displayed when switching on the unit next time.
• After the setting, the items can be changed in the following menus.
  OSD Language (see page 45)
  Day/Time Setup (see page 35)
  Display orientation (see page 45)

Power ON warning message

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

3D Safety Precautions

> When 3D images will be viewed by unspecified number of people or used for commercial applications, someone in authority should convey the following precautions.
> These precautions should be followed in the home as well.
>
> 3D Viewing/ 3D Content/ Viewing distance/ 3D Eyewear recommendations
> - To enjoy 3D images safely and comfortably, please read the Operating Instructions fully.

Activate 3D Safety Precautions if you deliver 3D images to unspecified audiences for business or other purposes. If "3D Function" in "3D Settings" is set to "On", a warning message is displayed every time the power is turned ON. (see page 36)

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 45)
These message displays can be set with the following menu: Options menu
  3D Safety Precautions (see page 57)
  Power On Message (see page 56)

Selecting the input signal

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

Input signals will change as follows:

PC→NETWORK→VIDEO→COMPONENT*→HDMI→DVI

PC: PC input terminal in PC IN.
NETWORK: Network input terminal in LAN or WIRELESS MODULE.
VIDEO: Video input terminal in AV IN (VIDEO).
COMPONENT*: Component or RGB input terminal in COMPONENT/RGB IN.
HDMI: HDMI input terminal in AV IN (HDMI).
DVI: DVI input terminal in DVI-D IN.
* "COMPONENT" may be displayed as "RGB" depending on the setting of "Component/RGB-in select". (see page 50)

When an optional Terminal Board is installed:

PC→NETWORK→SLOT INPUT→VIDEO→COMPONENT→HDMI→DVI

SLOT INPUT: Input terminal in Terminal Board

Note:
When a Terminal Board incompatible with the Plasma Display is installed, "Non-Compatible Function Board" is displayed.

When a Terminal Board with dual input terminals is installed:

PC→NETWORK→SLOT INPUT A→SLOT INPUT B→VIDEO→COMPONENT→HDMI→DVI

SLOT INPUT A, SLOT INPUT B: Dual input terminal in Terminal Board.
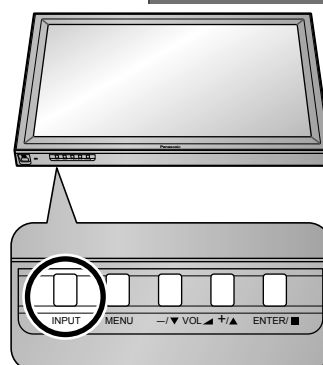
Notes:
• Selecting is also possible by pressing the INPUT button on the unit.
• Outputs the sound as set in "Audio input select" in the Options menu. (see page 59)
• Select to match the signals from the source connected to the component/RGB input terminals. (see page 50)
• Image retention (image lag) may occur on the plasma display panel when a still picture is kept on the panel for an extended period. The function that darkens the screen slightly is activated to prevent image retention (see page 62), but this function is not the perfect solution to image retention.

Basic Controls

Main Unit

Brightness Sensor
Detects the brightness in the viewing environment

Remote control sensor

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 24)

INPUT   MENU   –/ ▼VOL ▲ +/▲   ENTER/■

Enter / Aspect button
(see page 20, 24)

Main Power On / Off Switch

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 "Slot power" is set to "On". See page 56)
  Orange (Depending on the type of the function board installed, when the power is supplied to the slot)
  Orange (When "Control I/F Select" is set to "LAN" or "WEB Control" is set to "On". Refer to "Operating Instructions, Network Operations")
- Power-ON ...... Green
- PC Power management (DPMS)
  .... Orange (With PC input signal. See page 42)
- DVI-D Power management
  .... Orange (With DVI input signal. See page 42)

MENU Screen ON / OFF
Each time the MENU button is pressed, the menu screen will switch. (see page 24)

⟶ Normal Viewing ⟶ Picture ⟶
⟵ Sound ⟵ Pos./Size ⟵ Setup ⟵

INPUT button
(INPUT signal selection)
(see page 17)

Remote Control Transmitter

ACTION button
Press to make selections.

ASPECT button
Press to adjust the aspect.
(see page 20)

Standby (ON / OFF) button
The Plasma Display must first be plugged into the wall outlet and turned on at the power switch (see page 15). Press this button to turn the Plasma Display On, from Standby mode. Press it again to turn the Plasma Display Off to Standby mode.

POS./SIZE button
(see page 25)

PICTURE button
(see page 28)

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 27, 28, 29, 33)

POSITION buttons

INPUT button
Press to select Input signal sequentially. (see page 17)

ECO MODE (ECO)
Press to change the ECO MODE setup status. (see page 42)

FUNCTION buttons (FUNCTION)
(see page 44)

OFF TIMER button
The Plasma 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.

$$\rightarrow 30 \text{ min} \rightarrow 60 \text{ min} \rightarrow 90 \text{ min} \rightarrow 0 \text{ min (Cancel)} \leftarrow$$
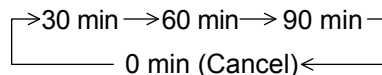
When three minutes remain, "Off timer 3 min" will flash.
The off timer is cancelled if a power interruption occurs.

AUTO SETUP button
Automatically adjusts the position/size of the screen. (see page 25)

SET UP button (see page 34)

SOUND button (see page 33)

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

R button (see page 24)
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 20)
   During 3D images
   (see page 37)
   Audio input (see page 59)
   Profile name (see page 32)
   NANODRIFT Saver operating
   (see page 40)
③ Touch Pen mode On/Off
   (see page 36)
④ Off timer
   The off timer indicator is displayed only when the off timer has been set.
⑤ Clock display (see page 56)

POWER
ASPECT OFF TIMER AUTO SETUP
POS./SIZE PICTURE SOUND SET UP
MUTE
N
R
INPUT
RECALL
ECO
FUNCTION
1   2
ZOOM

Panasonic
DISPLAY

PC ①
3D   4:3
♪ COMPONENT ②
Memory name: MEMORY2
NANODRIFT
④ 10:00
Off timer 90min ③
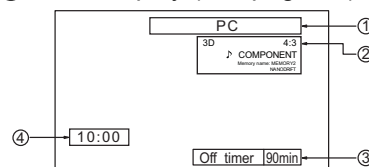
Digital Zoom (see page 21)
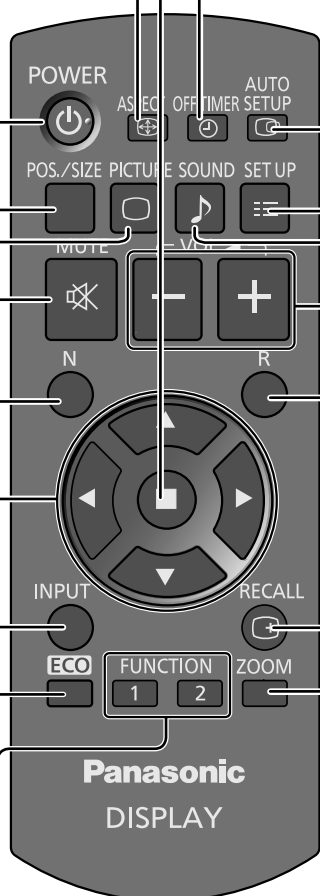
ASPECT Controls

The Plasma 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:
For details about the aspect mode, please see "List of Aspect Modes" (page 63).

[from the unit]
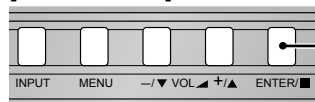
The aspect mode changes each time the ENTER button is pressed.

INPUT   MENU   −/▼ VOL ◢ +/▲   ENTER/■

For VIDEO (S VIDEO) signal input:

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For PC signal input:

→ 4:3 → Zoom → 16:9

For SD signal input (525 (480) / 60i • 60p, 625 (575) / 50i • 50p):

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For HD signal input [1125 (1080) / 60i • 50i • 60p • 50p • 24p • 25p • 30p • 24sF, 1250 (1080) / 50i, 750 (720) / 60p • 50p]:

→ 4:3 → 4:3 Full → Zoom1 → Zoom2
← Just ← 14:9 ← 16:9 ← Zoom3 ←

[For 3D images]
The aspect is fixed as "16:9" and you cannot switch.

Notes:
• The aspect mode is memorized separately for each input terminal.
• Do not allow the picture to be displayed in 4:3 mode for an extended period, as this can cause a permanent image retention to remain on the Plasma Display Panel.

All Aspect mode
Set "All Aspect" to "On" in Options menu to enable the extended aspect mode (page 56). When All Aspect mode, the aspect mode of pictures is switched as follows. For details about the aspect mode, please see "List of Aspect Modes". (page 63)

For VIDEO (S VIDEO) signal input:

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For PC signal input:

→ 4:3 → Zoom → 16:9

For SD signal input (525 (480) / 60i • 60p, 625 (575) / 50i • 50p):

→ 4:3 → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just

For HD signal input [1125 (1080) / 60i • 50i • 60p • 50p • 24p • 25p • 30p • 24sF, 1250 (1080) / 50i, 750 (720) / 60p • 50p]:

→ 4:3 Full → Zoom1 → Zoom2 → Zoom3 → 16:9 → 14:9 → Just1 → Just2 → 4:3 (1) → 4:3 (2)

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.
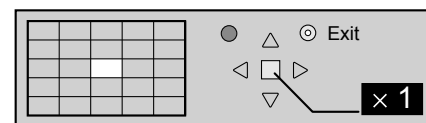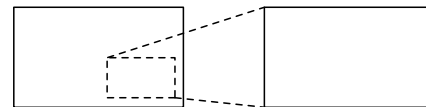
During Digital Zoom, only the following buttons can be operated.

[Remote control]

OFF TIMER button

VOL button

MUTE button

POSITION / ACTION button

[Unit]

INPUT   MENU   −/▼ VOL ◢ +/▲   ENTER/■
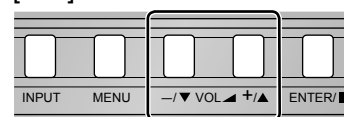
VOL button

2 **Select the area of the image to be enlarged.**
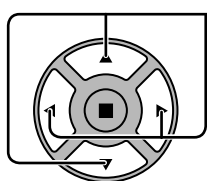
Press on the enlargement location to select.

The cursor will move.
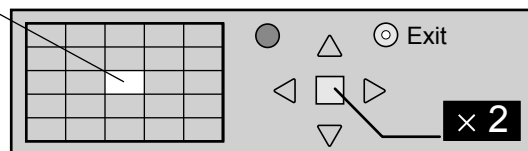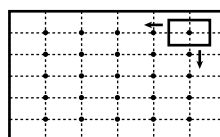
3 **Select the magnification required for the enlarged display.**
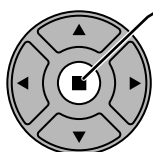
Each time this is pressed, the magnification factor changes.
This is shown in the image being displayed.

$\times 1$ → $\times 2$ → $\times 3$ → $\times 4$
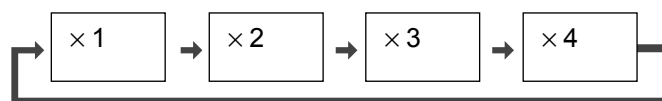
4 **Return to normal display (quit Digital Zoom).**

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:
  During 3D images (see page 36)
  When MULTI DISPLAY Setup is On (see page 46).
  When Portrait Setup is On (see page 48).
  When Screensaver (except for Negative image) is running (see page 37)
- While Digital Zoom is in operation, "Adjusting Pos./Size" cannot be used.

Viewing 3D images

You can enjoy viewing 3D images with contents or programmes compatible with 3D effect by using the 3D eyewear (optional).

Note:
You need the 3D IR TRANSMITTER (optional) and the 3D eyewear (optional) to view the 3D images on this display. For further information, see the instruction manuals of the 3D IR TRANSMITTER and the 3D eyewear.
This display supports "Frame Sequential[*1]", "Side by Side[*2]" and "Top and Bottom[*3]" 3D formats.

[*1]: The 3D format that the images for the left and right eyes are recorded with the high definition quality and alternately played back
[*2], [*3]: See "Table of images that can be seen for each 3D Picture Format and the source image format" on page 23.

To view the 3D images

To view the contents of the Frame Sequential format (ex. 3D-compatible Blu-ray Disc, etc.) with 3D effect
Connect the 3D-compatible player via an HDMI cable (see page 12) and playback the contents.
• Use fully wired HDMI compliant cable.
• For the settings of the player, read the manual of the player.
• If you use the non 3D-compatible player, the images will be displayed without 3D effect.
To view the contents of 3D formats other than Frame Sequential with 3D effect.
Match the picture format in "3D Picture Format" (see page 36) before viewing.
• You can view "Side by Side" and "Top and Bottom" with 3D effect even if you use the non 3D-compatible player.
• Please consult the suppliers of contents or programmes for availability of this service.
① **Turn the 3D Eyewear on**
  • See the instruction manual of 3D eyewear for handling.
② **Put on the 3D Eyewear**
③ **Watch the 3D images**
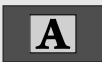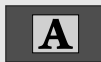
Notes:
• If the room is lit by fluorescent lights and light appears to flicker when using the 3D Eyewear, switch off the fluorescent light. Alternatively, please set "3D Refresh Rate" to "100Hz" or "120Hz" whichever reduces flicker. (see page 52)
• 3D content will not be correctly visible if the 3D Eyewear is worn upside down or back-to-front.
• Do not wear the 3D Eyewear when watching anything other than 3D images. Liquid crystal displays (such as computer screens, digital clocks or calculators, etc.) may be difficult to see while wearing the 3D Eyewear.
• Do not use the 3D Eyewear as sunglasses.
• 3D effects may be perceived differently depending on the person.

Troubleshooting for 3D Eyewear

Symptoms	Checks
Cannot see 3D images	• Has the 3D Eyewear been switched On? • Ensure that "3D Function" in "3D Settings" is set to "On". (see page 36) • Some 3D image signals may not be automatically recognized as 3D images. Set "3D Picture Format" in "3D Settings" to match the picture format. (see page 36) • Check if 3D IR TRANSMITTER is turned on and corrected properly. • Check that there are no obstacles between the 3D IR TRANSMITTER and the 3D Eyewear. If the 3D Eyewear stops receiving the infrared signal for about 5 minutes, the 3D Eyewear will be turned off automatically. • Check the available area to use the 3D Eyewear. • Depending on the person, the 3D images may be difficult to see, or cannot be seen, especially in users that have a different level of eyesight between the left and right eyes. Take the necessary steps (wearing glasses etc.) to correct your eyesight before use.
3D Eyewear is turned off automatically	• Check that there are no obstacles between the 3D IR TRANSMITTER and the 3D Eyewear or that the 3D Eyewear is placed inside the coverage area. If the 3D Eyewear stops receiving the infrared signal for about 5 minutes, the 3D Eyewear will be turned off automatically.
There is something wrong with the 3D images	• Switch "Reverse" and "Normal" under "3D Picture Sequence" in "3D Settings" (see page 36).
Indicator lamp will not light when the 3D glasses are turned ON.	• The battery may be running low or flat. Change the battery or charge the 3D glasses.

Table of images that can be seen for each 3D Picture Format and the source image format

If the picture appears to be abnormal, refer to the table below to choose the correct 3D picture format setting.

3D Picture Format / Source image format	Auto	Side by Side	Top and Bottom	Native
Side by side	*1	Normal*2		
Top and bottom	*1		Normal*2	
Normal format (2D)	Normal			Normal

*1 When the source image is not recognized correctly

*2 When "3D Function" is set to "On", the images will be displayed with 3D effect. When set to "Off", displayed without 3D effect.

• Depending on the player or contents, the image may be different from the above illustrations.

On-Screen Menu Displays

Remote Control   Unit

1 Display the menu screen.

POS./SIZE PICTURE SOUND SET UP

Press to select.
(Example: Picture menu)

MENU — Press several times.

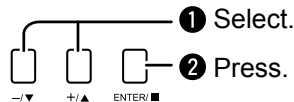Each time the MENU button is pressed, the menu screen will switch.

→ Normal Viewing → Picture —
└ Sound ← Pos./Size ← Setup ←

2 Select the item.

```
☐ Picture
Normalise  Normal
Picture Mode        ◄ Normal ►
Contrast            25
Brightness          0
Colour              0
Hue                 0
Sharpness           5
White balance       Normal
Advanced settings

Memory save
Memory load
Memory edit
```

(Example: Picture menu)

Select.

❶ Select.
❷ Press.

−/▼   +/▲   ENTER/■

3 Set.

Set.

❶ Adjust.
❷ Press.

−/▼   +/▲   ENTER/■

4 Exit the menu.

POS./SIZE PICTURE SOUND SET UP
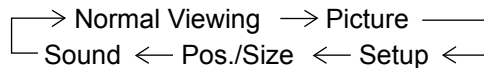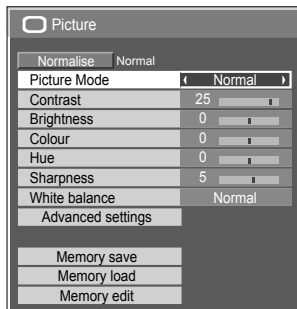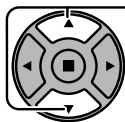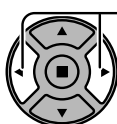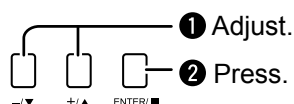
Press.

Press ◯ R to return to the previous menu.

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 ►
Contrast            ◄ 25 ►
Brightness          ◄ 0 ►
Colour              ◄ 0 ►
Hue                 ◄ 0 ►
Sharpness           ◄ 5 ►
White balance       ◄ Normal ►
Advanced settings

Memory save
Memory load
Memory edit
```
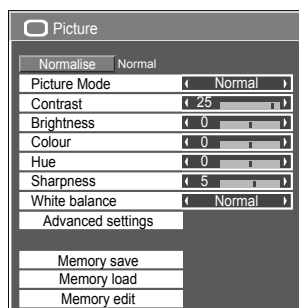
see page 28-32

Setup menu

```
≣ Setup                    1/2
        3D Settings
        Signal
        Screensaver
    Extended life settings
     ECO Mode settings
        Input label
   Function Button Settings
   Component/RGB-in select
                    ◄ RGB ►
No activity power off  ◄ Disable ►
Menu Display Duration  ◄ 30 S ►
OSD Brightness         ◄ 5 ►
OSD Language       ◄ English (UK) ►
```

```
≣ Setup                    2/2
    MULTI DISPLAY Setup
      Portrait Setup
    On/Off Timer Setup
      Day/Time Setup
      Network Setup
Display orientation  ◄ Landscape ►
```

see page 34-53

Pos./Size menu

```
Pos./Size
Normalise  Normal
      Auto Setup
☐ H-Pos       ◄ 0 ►
↔ H-Size      ◄ 0 ►
☐ V-Pos       ◄ 0 ►
↕ V-Size      ◄ 0 ►
Dot Clock     ◄ 0 ►
Clock Phase   ◄ 0 ►
Clamp Position ◄ 0 ►
1:1 Pixel Mode  ◄ Off ►
```
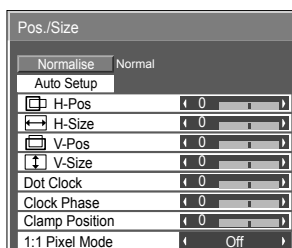
see page 25-27

Sound menu

```
♪ Sound                    1/2
Normalise  Normal
Sound Mode        ◄ Normal ►
Bass              ◄ 0 ►
Mid               ◄ 0 ►
Treble            ◄ 0 ►
Balance           ◄ 0 ►
Surround          ◄ Off ►
```

```
♪ SDI Sound Output         2/2
Left Channel      ◄ Channel 1 ►
Right Channel     ◄ Channel 1 ►
Sound Out         ◄ Off ►
Level Meter       ◄ Off ►
```

see page 33

24

https://manual-hub.com/
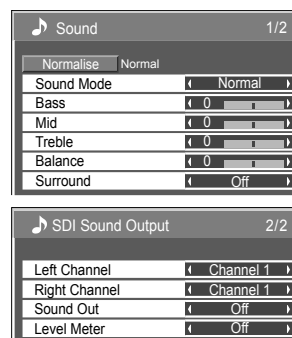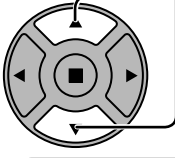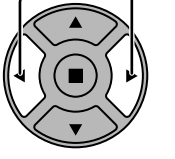
Adjusting Pos./Size

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 ▶
Dot Clock	◀ 0 ▶
Clock Phase	◀ 0 ▶
Clamp Position	◀ 0 ▶
1:1 Pixel Mode	◀ Off ▶
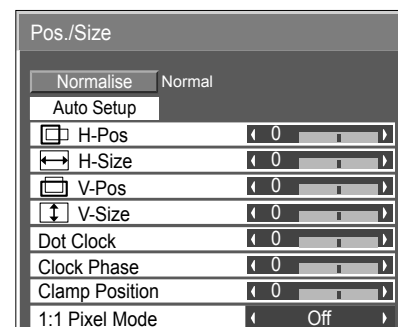
Note:
Unadjustable items are grayed out.
Adjustable items differ depending on the input signal and the display mode.

Notes:
• Adjustment details are memorized separately for different input signal formats (Adjustments for component signals are memorized for 525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 1125 (1080) / 60i · 50i · 60p · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i, 750 (720) / 60p · 50p each, and RGB/PC/Digital signals are memorized for each frequency.)
• 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 Picture Pos./Size function.

Auto Setup When inputting a PC signal as an example, "H-Pos/V-Pos", "H-Size/V-Size", "Dot Clock" and "Clock Phase" are automatically corrected.
This setting is enabled under the following conditions:
• When inputting an analog signal (Component/PC):
 This setting is enabled if "Component/RGB-in select" (see page 50) in Setup menu is "RGB".
• When inputting a digital signal (HDMI/DVI):
 A PC format signal enables this setting.
When the signal is not PC format, this setting is enabled only if "Over Scan" (see page 26) is "Off" or "1:1 Pixel Mode" (see page 27) is "On". "H-Size/V-Size" is not automatically adjusted.
This setting will be invalid and will not work under the following conditions:
• When NETWORK input is selected.
• When VIDEO signal input
• During Multiple display, Portrait display or Digital Zoom.
• Aspect is set to "Just"
• "Display size" in the Options menu (see page 55) is set to "On"

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.

Auto mode
When the "Auto Setup" is set to "Auto" in the Options menu (see page 56), automatic position adjustment starts:
• When the display power is turned ON.
• When the input signal is switched.

Notes:
- If the dot clock frequency of an analog signal is 162 MHz or higher, "Dot Clock" and "Clock Phase" cannot be automatically corrected.
- When digital signal input, Dot Clock and Clock Phase cannot be made.
- Auto Setup may not work when a cropped or dark image is input. In such case, switch to a bright image with borders and other objects are clearly shown, and then try auto setup again.
- Depending on the signal, out of alignment may occur after Auto Setup. Carry out fine tuning for the position/size as required.
- If Auto Setup cannot set properly for vertical frequency 60Hz XGA signal (1024×768@60Hz, 1280×768@60Hz, and 1366×768@60Hz), pre-selecting the individual signal in "XGA Mode" (see page 51) 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, or for image signal with tri-level synchronizing signal added.
- If Auto Setup cannot adjust correctly, select "Normalise" once and press ACTION (■), then adjust Pos./Size manually.

H-Pos	Adjust the horizontal position.	**V-Pos**	Adjust the vertical position.
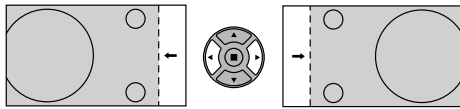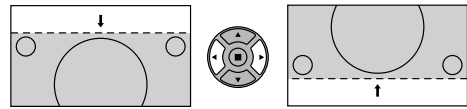
H-Size	Adjust the horizontal size.	**V-Size**	Adjust the vertical size.
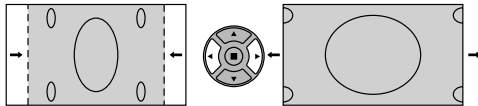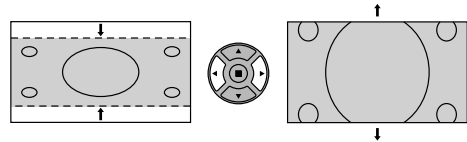
Dot Clock **(During Component/PC input signal)**
Periodic striped pattern interference (noise) may occur when a striped pattern is displayed. If this happens, adjust so that any such noise is minimized.

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

Over scan Turn image over scan On/Off.
Configurable signals are as follows:
525i, 525p, 625i, 625p, 750/60p, 750/50p (Component Video, RGB, DVI, SDI, HDMI)
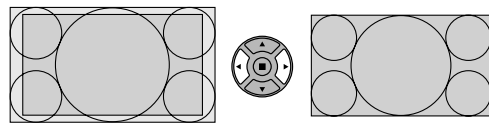
On   Off

Notes:
- When "Off" is set, "H-Size" and "V-Size" cannot be adjusted.
- When the "Display size" is set to "On" in the Options menu, this setting will be invalid. (see page 55)

Clamp Position **(During Component/PC input signal)**
Adjusts the clamp position when black parts of the image have no detail due to underexposure or are tinged with green.
Optimum value for Clamp Position adjustment
When black parts have no detail due to underexposure (blackout)
→ Value that causes least blackout is the optimum.
When black parts are tinged with green
→ Value that cancels the greenishness without causing blackout is the optimum.

1:1 Pixel Mode Adjusts the display size when 1125i, 1125p or 1250i signal is input.
Notes:
• 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, 1250 (1080) / 50i
• Select Off when flickering is shown around the image.
• H-Size and V-Size cannot be adjusted when On is selected.

Off   On
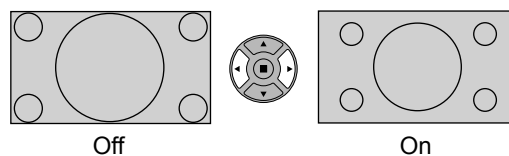
1:1 Pixel Mode
(2k1k)
(For 2k1k signals)

When the input signal is a 2k1k signal (2048 × 1080 / 24p, 2048 × 1080 / 24sF), the display size is adjusted as follows.

Off   On (Left)   On (Center)   On (Right)
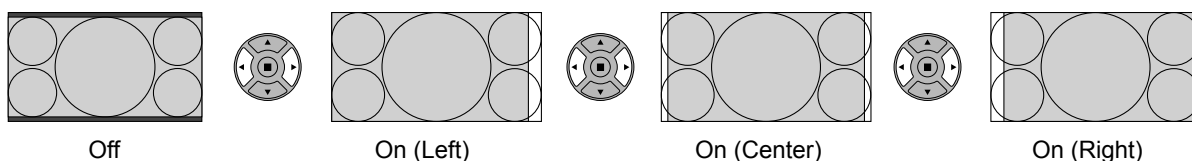
Note:
2k1k signals can only be received when the Dual Link HD-SDI Terminal Board (TY-FB11DHD) is installed.
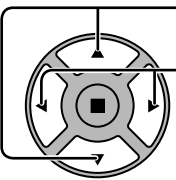
Helpful Hint (N / Normalise Normalisation)

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 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 ▶	
Contrast	25	
Brightness	0	
Colour	0	
Hue	0	
Sharpness	5	
White balance	◀ Normal ▶	
Advanced settings		
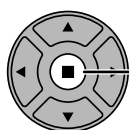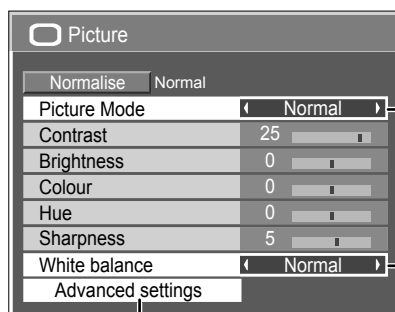
——— Press to enter Advanced settings.

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

Advanced settings

Normalise	Normal	
Black extension	◀ 0 ▶	
Input level	◀ 0 ▶	
Gamma	◀ 2.2 ▶	
W/B High R	◀ 0 ▶	
W/B High G	◀ 0 ▶	
W/B High B	◀ 0 ▶	
W/B Low R	◀ 0 ▶	
W/B Low G	◀ 0 ▶	
W/B Low B	◀ 0 ▶	
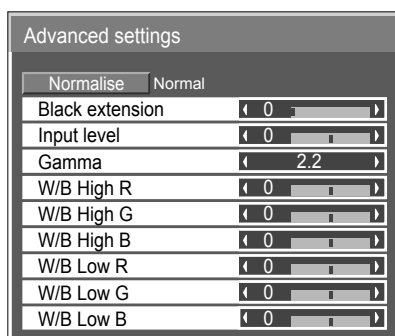
Press "◀" or "▶" button to switch between modes.

Normal ⟷ Dynamic
Monitor ⟷ Cinema

Normal
For viewing in standard (evening lighting) environments. This menu selects the normal levels of Brightness and Contrast.

Dynamic
For viewing in brighter environments. This menu selects higher than normal levels of Brightness and Contrast.

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

Monitor
For use when creating broadcast or movie content. With this picture, even if the overall average picture level (APL) changes, the brightness of areas with the same signal level does not change.

Notes:
• When "Monitor" is selected in Picture Mode, the following menu items cannot be set.
Extended life settings: Peak limit (see page 40)
MULTI DISPLAY Setup menu: Video Wall Uniformity (see page 47)
Portrait Setup menu: Video Wall Uniformity (see page 49)
• 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 "◀" or "▶" button to switch between modes.

Normal (9300K) ⟷ Cool (11500K) ⟷ Warm (6500K)

## Helpful Hint (○ᴺ / Normalise Normalisation)

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.

Item	Effect		Adjustments
Contrast	◄ Less	► More	Selects the proper brightness and density for the room.
Brightness	◄ Darker	► Brighter	Adjusts for easier viewing of dark pictures such as night scenes and black hair.
Colour	◄ Less	► More	Adjusts colour saturation.
Hue	◄ Reddish	► Greenish	Adjusts for nice skin colour.
Sharpness	◄ Less	► More	Adjusts picture sharpness.

Notes:
- You can change the level of each function (Contrast, Brightness, Colour, Hue, Sharpness) for each Picture Mode.
- The setting details for Normal, Dynamic, Cinema and Monitor respectively are memorized separately for each input terminal.
- In Contrast, there is not a noticeable change even when contrast is increased with a bright picture or reduced with a dark picture.

Advanced settings

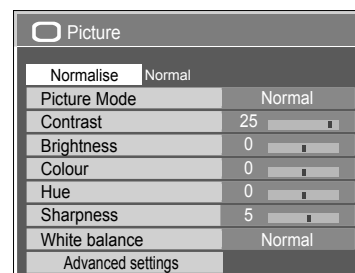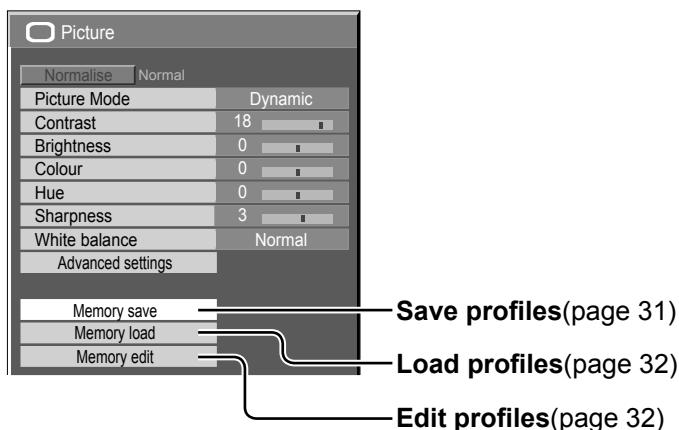| Item	Effect		Details
Black extension	◄ Less	► More	Adjusts the dark shades of the image in gradation.
Input level	◄ Less	► More	Adjustment of parts which are extremely bright and hard to see.
Gamma	◄ Down	► Up	2.0 ⟷ 2.2 ⟷ 2.4 ⟷ 2.6
W/B High R	◄ Less	► More	Adjusts the white balance for light red areas.
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 (N ⬭ / ▮ Normalise ▮ Normalisation)

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 (▮) button is pressed during "Normalise", then all adjustment values are returned to the factory settings.

Picture Profiles

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

Picture	
Normalise Normal	
Picture Mode	Dynamic
Contrast	18
Brightness	0
Colour	0
Hue	0
Sharpness	3
White balance	Normal
Advanced settings	
Memory save	
Memory load	
Memory edit	

Save profiles (page 31)
Load profiles (page 32)
Edit profiles (page 32)

Picture	
Normalise Normal	
Picture Mode	Normal
Contrast	25
Brightness	0
Colour	0
Hue	0
Sharpness	5
White balance	Normal
Advanced settings	

Save profiles   Save the picture adjustment values in the MEMORY1 profile

Edit the profile
Delete or rename the profile

MY PICTURE
MEMORY2
MEMORY3
MEMORY4
MEMORY8

MEMORY1
MEMORY2
MEMORY3
MEMORY4
MEMORY8

Load the profile   Apply the MEMORY1 profile

Original picture

Picture	
Normalise Normal	
Picture Mode	Normal
Contrast	0
Brightness	0
Colour	0
Hue	0
Sharpness	0
White balance	Normal
Advanced settings	

Custom picture

Picture	
Normalise Normal	
Picture Mode	Normal
Contrast	25
Brightness	0
Colour	0
Hue	0
Sharpness	5
White balance	Normal
Advanced settings	
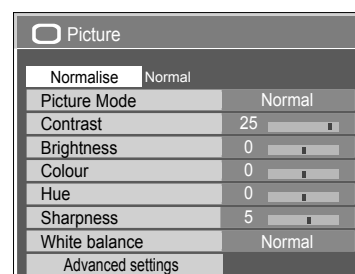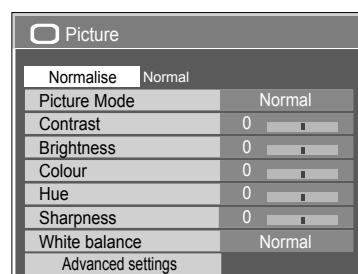
Saving profiles

Follow these steps to save picture adjustment values as profiles.
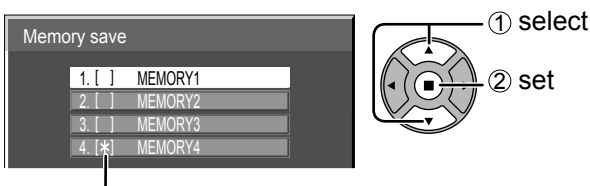**Note:**
When the settings are locked in "Extended life settings", profiles cannot be saved.

1 Specify the picture quality in the Picture menu and Advanced settings. (see page 28, 29)

2 In the Picture menu, select "Memory save".

Memory save
Memory load
Memory edit

① select
② access

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

Memory save

1. [ ]	MEMORY1
2. [ ]	MEMORY2
3. [ ]	MEMORY3
4. [∗]	MEMORY4

① select
② set

"∗" appears for a profile in which the picture adjustments have already been saved.

4 Select "Ok".

Memory save

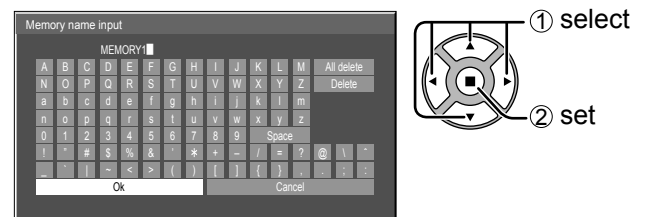Save the adjusted value in "MEMORY1"

| Ok | Cancel |
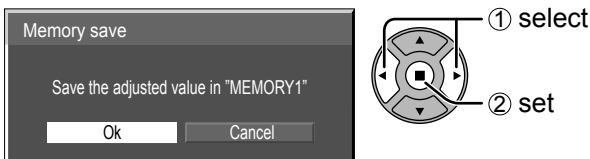
① select
② set

5 Enter a name for the profile.
[Entering profile names]
Profile names can be up to 40 characters.
To enter text, select characters in the on-screen keyboard.
Edit the default profile name in the text box as desired.

Memory name input

MEMORY1

A	B	C	D	E	F	G	H	I	J	K	L	M	All delete
N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Delete
a	b	c	d	e	f	g	h	i	j	k	l	m	
n	o	p	q	r	s	t	u	v	w	x	y	z	
0	1	2	3	4	5	6	7	8	9		Space		
!	"	#	$	%	&		∗	+	–	/	=	?	@	\	`
	·	~	<	>	(	)	[	]	{	}	_		
Ok			Cancel		

① select
② set

Example: Specifying "MY PICTURE"

① Select "All delete".

MEMORY1

All text is deleted.
To delete individual characters, select "Delete".

② Select "M".

M

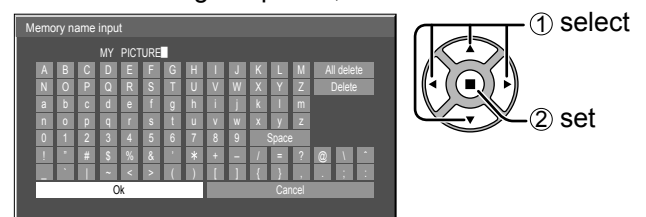Repeat this process to enter the next character.

③ Select "Y".

MY

④ Select "Space".

MY

6 When you finished entering the profile name, select "Ok".
To cancel saving the profile, select "Cancel".

Memory name input

MY PICTURE

A	B	C	D	E	F	G	H	I	J	K	L	M	All delete
N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Delete
a	b	c	d	e	f	g	h	i	j	k	l	m	
n	o	p	q	r	s	t	u	v	w	x	y	z	
0	1	2	3	4	5	6	7	8	9		Space		
!	"	#	$	%	&		∗	+	–	/	=	?	@	\	`
	·	~	<	>	(	)	[	]	{	}	_		
Ok			Cancel		

① select
② set

Loading profiles

Load profiles and apply the picture adjustment values to the display as follows.

Notes:
- Loaded profiles are stored in memory according to the selected input terminal. (see page 17)
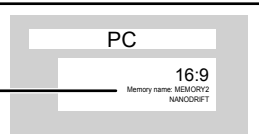- When the settings are locked in "Extended life settings", profiles cannot be loaded.

1 In the Picture menu, select "Memory load".

Memory save
Memory load
Memory edit

① select
② access

2 Select the profile to load.

Memory load
1. [✳]　MEMORY1
2. [✳]　MEMORY2
3. [✳]　MEMORY3
4. [✳]　MEMORY4

① select
② set

When profile is being loaded, profile name is displayed.

PC
16:9
Memory name: MEMORY2
NANODRIFT

Editing profiles

Delete or rename profiles as follows.

<Deleting profiles>

1 In the Picture menu, select "Memory edit".

Memory save
Memory load
Memory edit

① select
② access
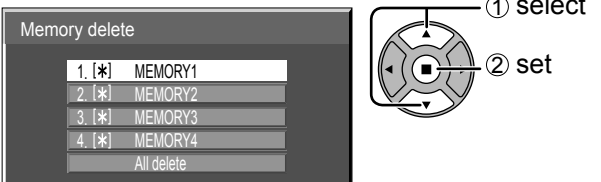
2 Select "Memory delete".

Memory edit
Memory delete
Memory name change
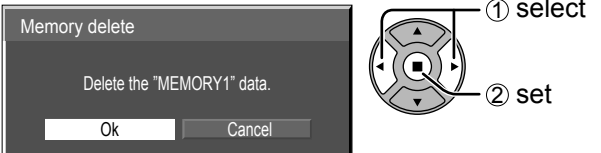
① select
② set

3 Select the profile to delete.
To delete all profiles, select "All delete".

Memory delete
1. [✳]　MEMORY1
2. [✳]　MEMORY2
3. [✳]　MEMORY3
4. [✳]　MEMORY4
All delete

① select
② set

4 Select "Ok".

Memory delete
Delete the "MEMORY1" data.
Ok　　　Cancel

① select
② set

<Renaming profiles>

1 In the Picture menu, select "Memory edit".

Memory save
Memory load
Memory edit
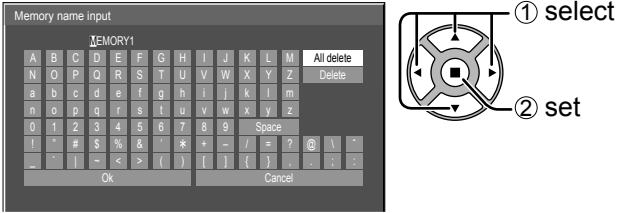
① select
② access

2 Select "Memory name change".

Memory edit
Memory delete
Memory name change
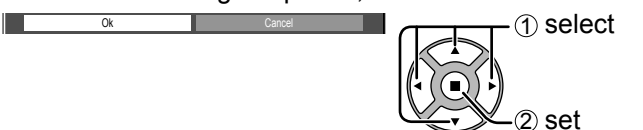
① select
② set

3 Select the profile to rename.

Memory name change
1. [✳]　MEMORY1
2. [✳]　MEMORY2
3. [✳]　MEMORY3
4. [✳]　MEMORY4

① select
② set

4 Enter a name for the profile.
Entering profile names ➡ page 31

Memory name input
MEMORY1

A	B	C	D	E	F	G	H	I	J	K	L	M	All delete
N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Delete
a	b	c	d	e	f	g	h	i	j	k	l	m	
n	o	p	q	r	s	t	u	v	w	x	y	z	
0	1	2	3	4	5	6	7	8	9	Space			
!	"	#	$	%	&	'	(	*	+	–	/	=	?	@	`
_		~	<	>	(	)	[	]	{	}	.	,	:	;
Ok						Cancel							

① select
② set

5 When you finished entering the profile name, select "Ok".
To cancel renaming the profile, select "Cancel".

Ok　　　Cancel

① select
② set

Sound Adjustment

1 SOUND ♪ ────────── 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.

♪ Sound	1/2
Normalise Normal	
Sound Mode	◀ Normal ▶
Bass	◀ 0 ▶
Mid	◀ 0 ▶
Treble	◀ 0 ▶
Balance	◀ 0 ▶
Surround	◀ Off ▶
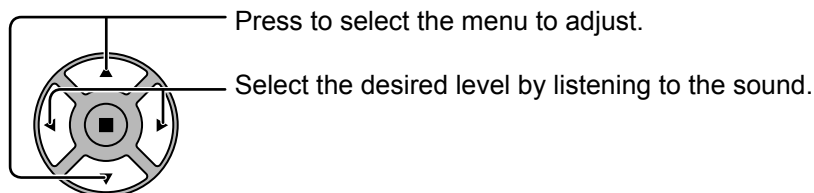
3 SOUND ♪ ────────── Press to exit from adjust mode.
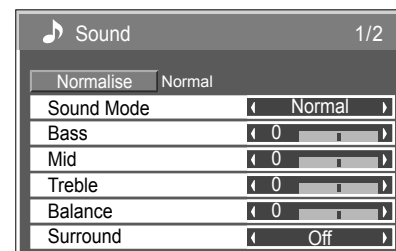
Item	Details
Sound Mode	**Normal:** Emits the original sound. **Dynamic:** Accentuates sharp sound. **Clear:** Attenuates human voice.
Bass	Adjusts low pitch sounds.
Mid	Adjusts normal sounds.
Treble	Adjusts high pitch sounds.
Balance	Adjusts left and right volumes.
Surround	Select On or Off.

Note: Bass, Mid, Treble and Surround settings are memorized separately for each Sound Mode.

Helpful Hint (N ◯ / Normalise Normalisation)

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 "Normalise", then all adjustment values are returned to the factory settings.

SDI Sound Output

This menu is available only when selecting a slot that any of the following terminal boards is installed:
HD-SDI Terminal Board with audio (TY-FB10HD) or Dual Link HD-SDI Terminal Board (TY-FB11DHD)
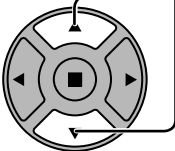
♪ SDI Sound Output	2/2
Left Channel	◀ Channel 1 ▶
Right Channel	◀ Channel 1 ▶
Sound Out	◀ Off ▶
Level Meter	◀ Off ▶

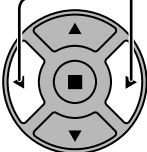| Item	Details
Left Channel	**Channel 1 to Channel 16** Selects left audio channel.
Right Channel	**Channel 1 to Channel 16** Selects right audio channel.
Sound Out	**On ⟷ Off** **On:** Enables audio output. **Off:** Disables audio output.
Level Meter	**Off ⟷ 1-8ch ⟷ 9-16ch** Sets audio channels to show in the audio level meter. 8 channels are displayed in the audio level meter; 4 channels each on both right and left sides of the display. **Off:** Hides the audio level meter. **1-8ch:** Displays the audio level meter (1-8ch) **9-16ch:** Displays the audio level meter (9-16ch)

Setup menu

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

2   Press to select the menu to adjust.

3   Press to adjust the menu.

4   SET UP   Press to exit from adjust mode.

Press ◯ R to return to the previous menu.

Setup	1/2
3D Settings	
Signal	
Screensaver	
Extended life settings	
ECO Mode settings	
Input label	
Function Button Settings	
Component/RGB-in select	
	RGB
No activity power off	Disable
Menu Display Duration	30 S
OSD Brightness	5
OSD Language	English (UK)

Setup menu screen

Setup	1/2	
3D Settings		Page 36
Signal		Page 51
Screensaver		Page 37
Extended life settings		Page 39
ECO Mode settings		Page 42
Input label		Page 43
Function Button Settings		Page 44
Component/RGB-in select		
	RGB	Page 50
No activity power off	Disable	Page 45
Menu Display Duration	30 S	Page 45
OSD Brightness	5	Page 45
OSD Language	English (UK)	Page 45

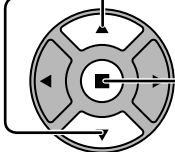| Setup	2/2	
MULTI DISPLAY Setup		Page 46
Portrait Setup		Page 48
On/Off Timer Setup		Page 35
Day/Time Setup		Page 35
Network Setup		
Display orientation	◀ Landscape ▶	Page 45

Network Setup

Set this to connect the Display to a computer via a network. For details of PJLink and Network, refer to "Operating Instructions, Network Operations".

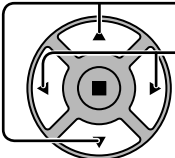# Day/Time Setup / On/Off Timer Setup

The timer can switch the Plasma Display On or Off.

Before attempting Timer Set, confirm the Time and adjust if necessary.
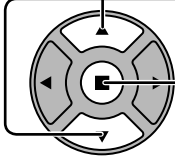Then set POWER ON Time / POWER OFF Time.

1 SET UP

Press to display the Setup menu.

2

Press to select On/Off Timer Setup or Day/Time Setup.

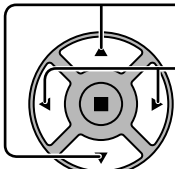Press to display the On/Off Timer Setup screen or Day/Time Setup screen.

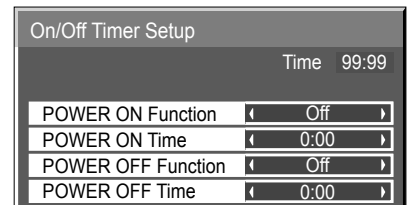| ≣ Setup	2/2
MULTI DISPLAY Setup	
Portrait Setup	
On/Off Timer Setup	
Day/Time Setup	
Network Setup	
Display orientation	Landscape
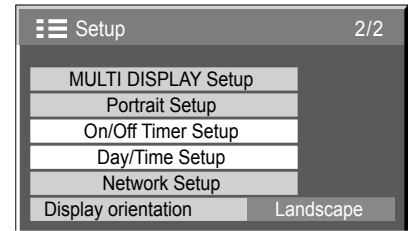
Day/Time Setup

1

Press to select Day or Time.

Press to setup Day or Time.
► button: Forward
◄ button: Back
Notes:
• Pressing "◄" or "►" button once changes Time 1 minute.
• Pressing "◄" or "►" button continuously changes Time by 15 minutes.

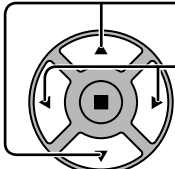| Day/Time Setup	
	Time MON 99:99
Set	
Day	◄ MON ►
Time	◄ 99:99 ►
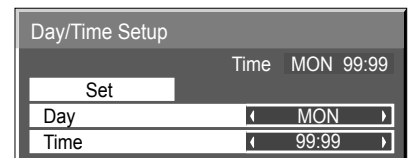
2

Press to select Set.

Press to store Day/Time Setup.
Notes:
• Set cannot be selected unless Time is set.
• Unless setting the present time other than "99:99", "Day" and "Time" cannot be set.
• The settings of "Day" and "Time" are reset when leaving the display turned off for about 7 days for the following reasons:
Pressing ⏻/| switch of the unit to turn off the display.
Disconnecting the AC cord.
Interruption of power supply.

On/Off Timer Setup

1

Press to select
POWER ON Time / POWER OFF Time.
Press to setup
POWER ON Time / POWER OFF Time.
► button: Forward
◄ button: Back
Notes:
• Pressing "◄" or "►" button once changes POWER ON Time / POWER OFF Time 1 minute.
• Pressing "◄" or "►" button continuously changes POWER ON Time / POWER OFF Time by 15 minutes.

On/Off Timer Setup	
	Time 99:99
POWER ON Function	◄ Off ►
POWER ON Time	◄ 0:00 ►
POWER OFF Function	◄ Off ►
POWER OFF Time	◄ 0:00 ►

2

Press to select POWER ON Function/POWER OFF Function.

Press to select On.

Note: Timer function will not work unless "Time" is set.

3D Settings

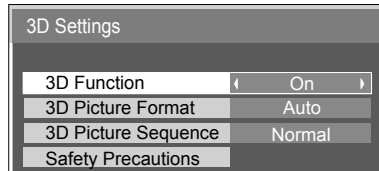To view the 3D images, please adjust and setup the 3D settings.
Note:
Set these settings for each input terminals.

Select "3D Settings" in "Setup" menu and press (■) button.

3D Settings sub-menu screen

3D Settings	
3D Function	◄ On ►
3D Picture Format	Auto
3D Picture Sequence	Normal
Safety Precautions	

• **3D Function**
  On ⟷ **Off**
  On: To view the 3D images, please set it to "On". You can see 3D images for 3D image signal and 2D images for 2D image signal.
  Off: You can see 2D images instead of 3D images.
  When set to "On", "3D" is displayed during 3D images.

PC	
3D	16:9
	NANODRIFT
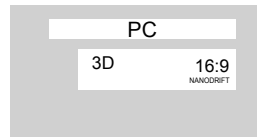
• **3D Picture Format**
  3D images method is set.
  Auto: 3D images are automatically displayed according to the signal.
  Side by Side/Top and Bottom: One of the formats of the 3D standard. Select these formats as necessary.
  Native: Displays the input signal as it is. Use to identify the format type of the input signal.

• **3D Picture Sequence**
  Normal ⟷ **Reverse**
  This function calibrates the timing to switch the right and left images as well as the timing to switch the shutter of right and left 3D Eyewear.
  Select "Reverse" if you feel that the sense of depth is unusual.
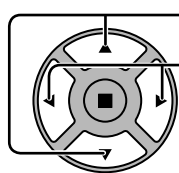
• **Safety Precautions**
  Displays the precautions for viewing 3D images.

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.

1   Select "Screensaver" in "Setup" menu and press (■) button.

2   **Function selection**

Press to select Function.

Press to select the desired function.

→ Negative image ⟷ Scrolling bar only ←
→ White screen ⟷ Overlay scrolling bar ←

Negative image	: Negative image will be displayed on the screen.
Scrolling bar only	: A white bar will scroll from left to right. The image won't be displayed.
Overlay scrolling bar	: The brightness of the image will be decreased and a white bar will scroll on it.
White screen	: The whole screen will be white.

```
Screensaver
                              Time    99:99
      Start
   Function      ◄    Scrolling bar only    ►
   Mode          ◄            Off           ►
```
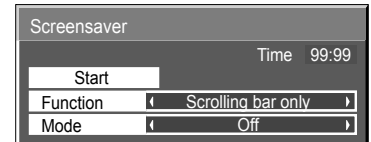
3   **Mode selection**
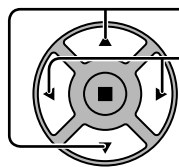
Press to select Mode.

Press to select each mode items.

→ Off
↕
Interval : Operates when Periodic Time and Operating Time are setup and those times arrive.
↕
Time Designation : Operates when Start Time and Finish Time are setup and those times arrive.
↕
Standby after SCR Saver: Operates while Screensaver duration, and display enters standby mode.
↕
→ On : Operates when Start is selected and the ACTION (■) button is pressed.

4   **Start setting**
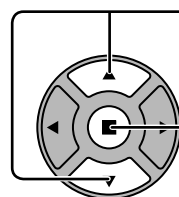
When the Mode is set to On, press to select Start.

Press to start Screensaver.
The menu screen will disappear and the Screensaver will be activated. **To stop the Screensaver under On, press the 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 Designation, Interval or Standby after SCR Saver, the relevant Time Setup will become available for selection and the Operating Time may be set. (Time cannot be set when "Mode" is "On" or "Off".)
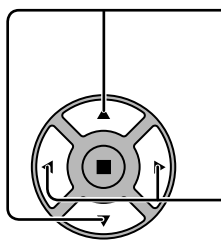
Press to select Start Time / Finish Time
(when Time Designation is selected).
Press to select Periodic Time / Operating Time
(when Interval is selected).
Press to select Screensaver duration
(when Standby after SCR Saver is selected).
Press to setup.
▶ button: Forward
◀ button: Back

Screensaver	
	Time 15:00
Start	
Function	Scrolling bar only
Mode	Time Designation
Start Time	◀ 6:15 ▶
Finish Time	◀ 12:30 ▶

Screensaver	
	Time 15:00
Start	
Function	Scrolling bar only
Mode	Interval
Periodic Time	◀ 12:00 ▶
Operating Time	◀ 3:00 ▶

Screensaver	
	Time 15:00
Start	
Function	Scrolling bar only
Mode	Standby after SCR Saver
Screensaver duration	◀ 6:15 ▶

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.
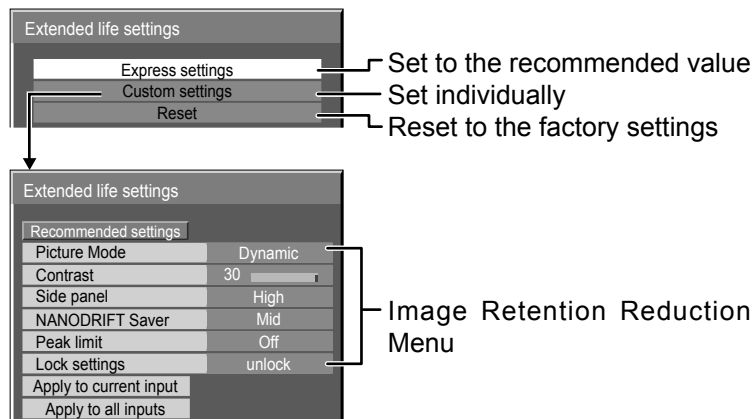
Note: Timer function will not work unless "Time" is set.

Reduces screen image retention

Extended life settings

The following settings are setup to reduce image retention:

Select "Extended life settings" in "Setup" menu and press (■) button.

Extended life settings	
Express settings	— Set to the recommended value
Custom settings	— Set individually
Reset	— Reset to the factory settings

Extended life settings	
Recommended settings	
Picture Mode	Dynamic
Contrast	30
Side panel	High
NANODRIFT Saver	Mid
Peak limit	Off
Lock settings	unlock
Apply to current input	
Apply to all inputs	

Image Retention Reduction Menu

Image Retention Reduction Menu

"Extended life settings" enables you to set the following 5 menus (Image Retention Reduction Menu) as recommended values or set them individually.

Picture Mode
Contrast
"Picture Mode" and "Contrast" are same as "Picture" menu items (see page 28). The settings of this menu will be reflected to the "Picture" menu.

Side panel
Do not display a picture in 4:3 mode for an extended period, as this can cause an image retention to remain on the side panels on either side of the display field.
To reduce the risk of such an image retention, illuminate the side panels.
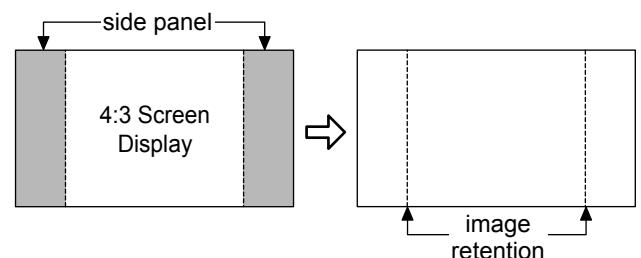
This function may be applicable to the non-picture area.

side panel

4:3 Screen Display

image retention

Off: Darken both ends.
Low: Make it dark gray.
Mid: Make it gray.
High: Make it light gray.

Notes:
• To reduce the occurrence of image retention, set the Side panel to High.
• The side panel may flash (alternate black/white) depending on the picture being shown on the screen. Using Cinema mode will reduce such flashing.

Reduces screen image retention

NANODRIFT Saver

Moves the display position of the screen slightly to reduce image retention on the display panel.

Low–High: NANODRIFT Saver operates. The display position of the screen moves at set time intervals. You can set the screen movement range. Some of the screen may appear to be missing as a result of this operation. If you change the value, a mask is displayed in the range where the picture is missing as a result of position movement.

When "NANODRIFT" Image Retention Reduction is operating, "NANODRIFT" is displayed.

PC

16:9
NANODRIFT
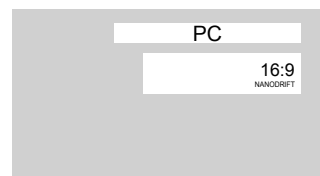
Note:
This function does not work in the following cases.
  When "MULTI DISPLAY Setup" is set to "On"
  When "PORTRAIT Setup" is set to "On"
  When in digital zoom mode

Peak limit

On: Suppresses image contrast (peak brightness).
Note: When a still picture is viewed for an extended time, the screen may become slightly darker. (see page 62)

Express settings

Set the "Image Retention Reduction" menu to the recommended settings.
All menus will be locked.
  Picture Mode: Normal
  Contrast: Recommended setting for each model
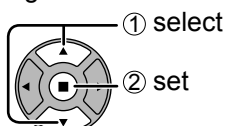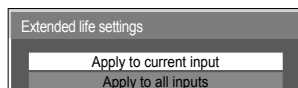 Side panel: High
  NANODRIFT Saver: Mid
  Peak limit: On
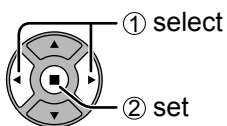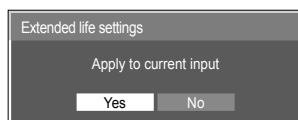
1 Select "Express settings".

Extended life settings

Express settings
Custom settings
Reset

① select
② access

2 Select the input to apply the settings.

Extended life settings

Apply to current input
Apply to all inputs

① select
② set

3 Select "Yes".

Extended life settings

Apply to current input
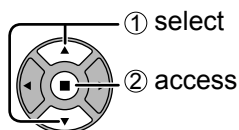
Yes   No
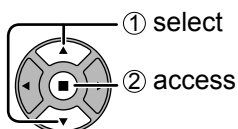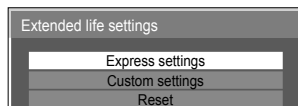
① select
② set
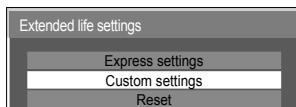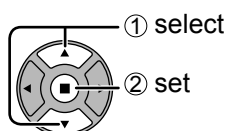
Custom settings

Set the individual "Image Retention Reduction" menu.

1 Select "Custom settings".

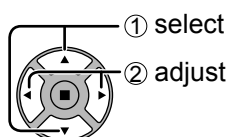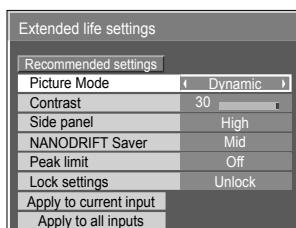| Extended life settings |
| --- |
| Express settings |
| Custom settings |
| Reset |

① select
② access

2 To set each menu to the recommended setting:
Select "Recommended settings".

Extended life settings	
Recommended settings	
Picture Mode	Dynamic
Contrast	30
Side panel	High
NANODRIFT Saver	Mid
Peak limit	Off
Lock settings	Unlock
Apply to current input	
Apply to all inputs	

① select
② set
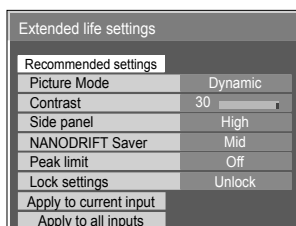
Each menu will be set as same
as the "Express settings".

3 Set each menu.

Extended life settings	
Recommended settings	
Picture Mode	◄ Dynamic ►
Contrast	30
Side panel	High
NANODRIFT Saver	Mid
Peak limit	Off
Lock settings	Unlock
Apply to current input	
Apply to all inputs	

① select
② adjust

4 To lock each menu setting:
Set the "Lock settings" to "Lock".

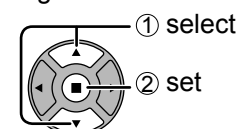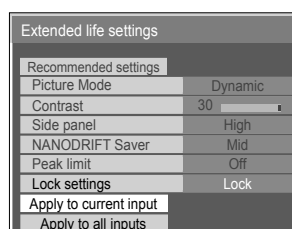| Extended life settings	
Recommended settings	
Picture Mode	Dynamic
Contrast	30
Side panel	High
NANODRIFT Saver	Mid
Peak limit	Off
Lock settings	◄ Lock ►
Apply to current input	
Apply to all inputs	

① select
② adjust
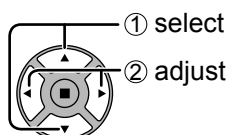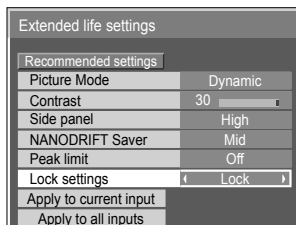
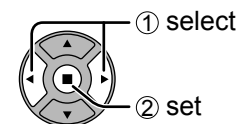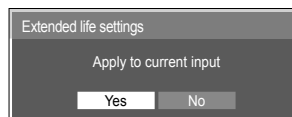When a menu is locked, it is grayed out and cannot be set.
"Picture Mode" and "Contrast" will no longer be able to set in the "Picture" menu, and they are labeled with icon to indicate their locked status. Also, "Normalise", "Memory save" and "Memory load" are not available.

Picture	
Normalise Normal	
Picture Mode	Dynamic
Contrast	30
Brightness	0
Colour	0
Hue	0
Sharpness	5
White balance	Normal
Advanced settings	
Memory save	
Memory load	
Memory edit	
🔒 Extended life settings	

5 Select the input to apply the settings.

Extended life settings	
Recommended settings	
Picture Mode	Dynamic
Contrast	30
Side panel	High
NANODRIFT Saver	Mid
Peak limit	Off
Lock settings	Lock
Apply to current input	
Apply to all inputs	

① select
② set

6 Select "Yes".

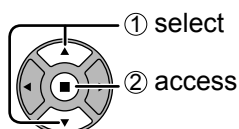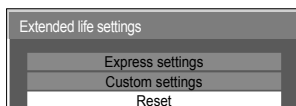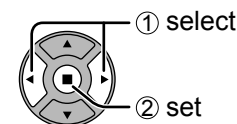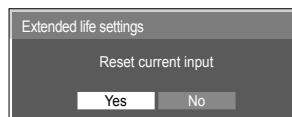| Extended life settings |
| --- |
| Apply to current input |
| Yes   No |

① select
② set

Reset

Reset the "Image Retention Reduction" menu to the factory settings. Each menu will be unlocked.

1 Select "Reset".
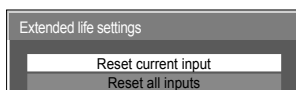
Extended life settings
Express settings
Custom settings
Reset

① select
② access

2 Select the input to reset the settings.

Extended life settings
Reset current input
Reset all inputs

① select
② set

3 Select "Yes".

Extended life settings
Reset current input
Yes   No
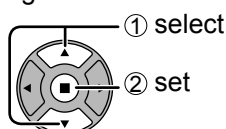
① select
② set

ECO Mode settings

Select "ECO Mode settings" in "Setup" menu and press (■) button.

ECO Mode settings

ECO Mode	◄ Custom ►
Power save	Off
Standby save	On
PC Power management	Off
DVI-D Power management	Off
No signal power off	Disable

① select
② adjust
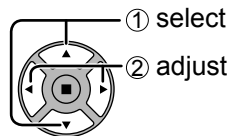
ECO Mode

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.

Power save: Sensor   DVI-D Power management: On
Standby save: On   No signal power off: Enable
PC Power management: On

Using Remote Control

When **ECO** is pressed, the "ECO Mode" setting changes.

ECO Mode	On

Custom settings

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

Power save
When this function is turned On, luminous level of the Plasma Display is suppressed, so power consumption is reduced.

  Sensor: The luminous level of the Plasma Display is automatically adjusted according to the viewing environment.

Standby save
When this function is turned On, power consumption of the microcomputer is reduced during power supply standby (see page 15, 18, 19), so standby power of the set is reduced.

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 (HD/VD sync signals) are detected for 30 or so seconds during PC signal input:
  → Power is turned off (standby); the power indicator lights up orange.
When pictures (HD/VD sync signals) are subsequently detected:
  → Power is turned on; the power indicator lights up green.

Notes:
• This function operates only during PC signal input.
• This function is effective when "Sync" is set to "Auto", "Component / RGB-in select" is set to "RGB" and during normal viewing.

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:
  → 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.

Notes:
• This function operates only during DVI signal input.
• This function is invalid during input from DVI-D Terminal Board (TY-FB11DD).
• Depending on the type of terminal board equipped, this function may be invalid.

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.

Customizing the Input labels

This function can change the label of the Input signal to be displayed. (see page 17)
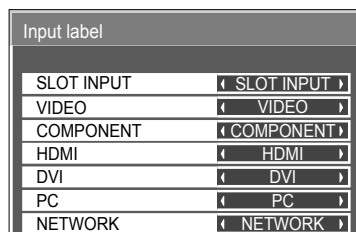
Select "Input label" in "Setup" menu and press ■ button.

▼

Input label	
SLOT INPUT	◄ SLOT INPUT ►
VIDEO	◄ VIDEO ►
COMPONENT	◄ COMPONENT ►
HDMI	◄ HDMI ►
DVI	◄ DVI ►
PC	◄ PC ►
NETWORK	◄ NETWORK ►

Image input	Input label
[SLOT INPUT]*1	SLOT INPUT / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[VIDEO]	VIDEO / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[COMPONENT]*2	COMPONENT / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[HDMI]	HDMI / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[DVI]	DVI / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[PC]	PC / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[NETWORK]	NETWORK / (Skip)

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

*1 "SLOT INPUT" is displayed when a Terminal Board is installed.

*2 "COMPONENT" may be displayed as "RGB" depending on the setting of "Component/RGB-in select". (see page 50)

When a Terminal Board with dual input terminals is installed

"SLOT INPUT" is displayed as "SLOT INPUT A" and "SLOT INPUT B" and independent settings are available.

[SLOT INPUT A]	SLOT INPUT A / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)
[SLOT INPUT B]	SLOT INPUT B / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CATV / VCR / STB / (Skip)

**When a Terminal Board with fixed display (such as Tuner Board) is installed**

Only fixed display and (Skip) are available as Input label of "SLOT INPUT".

[SLOT INPUT]   fixed display / (Skip)

Function Button Settings

Set the functions that operates when $\begin{smallmatrix}\text{FUNCTION}\\ \boxed{1}\ \boxed{2}\end{smallmatrix}$ is pressed.

Select "Function Button Settings" in "Setup" menu and press (■) button.

Function Button Settings	
Function Button 1	◀ Multi-Live ▶
Function Button 2	Scrolling bar
Function Button Guide	On
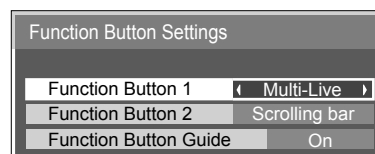
• **Function Button 1, Function Button 2**
The following functions are set to the FUNCTION button.

Note:
Factory settings are as follows.
FUNCTION1 button: Multi-Live
FUNCTION2 button: Scrolling bar

ECO Mode settings / 3D Settings / Signal / On/Off Timer Setup

The menu is displayed. (Example: ECO Mode settings)

ECO Mode settings	
ECO Mode	◀ Custom ▶
Power save	Off
Standby save	On
PC Power management	Off
DVI-D Power management	Off
No signal power off	Disable
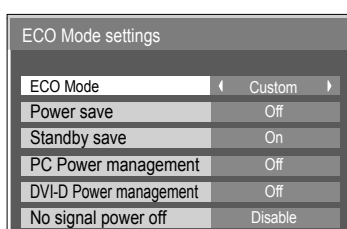
Pressing the FUNCTION button clears the menu.

Scrolling bar

Activates the "Scrolling bar only" screensaver.
After 15 minutes, the display enters standby mode.

To exit this mode, press any button.

INPUT (SLOT)* - INPUT (NETWORK)

Simply press $\begin{smallmatrix}\text{FUNCTION}\\ \boxed{1}\ \boxed{2}\end{smallmatrix}$ to select the input.
* "INPUT (SLOT)" is displayed when an optional Terminal Board is installed.
When a Terminal Board with dual input terminals is installed, "INPUT (SLOT A)" and "INPUT (SLOT B)" are displayed.

Network Setup

"Network Setup" menu is displayed.

Computer Search

The list of connectable computers on the network is displayed.

Multi-Live

Switch to the Multi-Live mode when using the "Wireless Manager mobile edition 5.5".
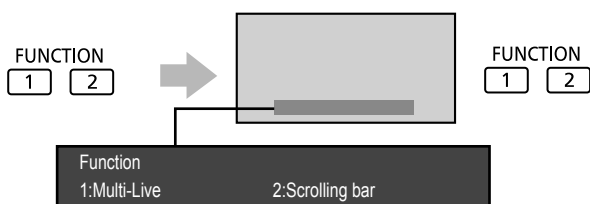
AV Mute

Mutes the audio and video. To exit this mode, press any button.

• **Function Button Guide**

The function display setting for the FUNCTION button is configured.
On: Press the FUNCTION button to display the function list of the button.
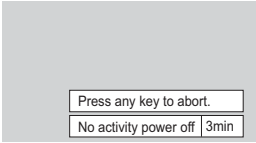**Off:** The function list is not displayed.

The operation starts.

Function	
1:Multi-Live	2:Scrolling bar

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No activity power off

Disable ⟵⟶ Enable

When this function is set to "Enable", the power is turned off (standby) automatically when there is no operation of the Plasma Display for 4 hours.
Starting from 3 minutes before the turn off, the remaining time will be displayed.

> Press any key to abort.
>
> | No activity power off | 3min |

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.

Menu Display Duration / OSD Brightness

Set the display time and brightness of the on-screen menu display.
Menu Display Duration: 5 S - 30 S
OSD Brightness: 1 - 5

OSD Language

Select your preferred language.

■ Selectable languages

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

Display orientation

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

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

Notes:
• Turn up the power switch for the upward direction when you set Display vertically.
• When you change this setting, fan control and panel drive control will be switched as the power is turned on next time.

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Setup for MULTI DISPLAY

By lining up Plasma Displays in groups, for example, as illustrated below, an enlarged picture may be displayed across all screens.
For this mode of operation, each plasma display has to be set up with a Display number to determine its location.
Note:
During Multi display, the 3D images are displayed as 2D images.
(Example)

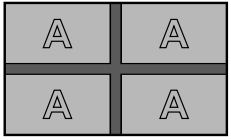group of 4 (2 × 2)   group of 9 (3 × 3)   group of 16 (4 × 4)   group of 25 (5 × 5)

How to Setup MULTI DISPLAY

1 Select "MULTI DISPLAY Setup" in "Setup" menu and press ■ button.

2 Press to select the MULTI DISPLAY Setup.

Press to select "On" or "Off".

MULTI DISPLAY Setup	
MULTI DISPLAY Setup	◄ Off ►
Horizontal Scale	◄ × 2 ►
Vertical Scale	◄ × 2 ►
Seam hides video	◄ Off ►
Location	◄ A1 ►
Video Wall Uniformity	◄ Off ►

Item	Details
MULTI DISPLAY Setup	Select "On" or "Off". **Note:** If you set MULTI DISPLAY Setup to On, Portrait Setup will be unavailable.
Horizontal Scale	Select "× 1", "× 2", "× 3", "× 4", "× 5".
Vertical Scale	Select "× 1", "× 2", "× 3", "× 4", "× 5".
Seam hides video	Select "On" or "Off". To hide joints between displays. To show joints between displays. Suitable for moving image display. Suitable for still image display. On Off
Location	Select the required arrangement number. (A1-E5 : Refer to the following) **Display Number locations for each arrangement.** **(Examples)**

(2 × 1)

A1	A2

(2 × 3)

A1	A2
B1	B2
C1	C2

(4 × 2)

A1	A2	A3	A4
B1	B2	B3	B4

(4 × 4)

A1	A2	A3	A4
B1	B2	B3	B4
C1	C2	C3	C4
D1	D2	D3	D4

(5 × 5)

A1	A2	A3	A4	A5
B1	B2	B3	B4	B5
C1	C2	C3	C4	C5
D1	D2	D3	D4	D5
E1	E2	E3	E4	E5

| Item	Details
Video Wall Uniformity	Reduces the peak of brightness for each display to enable as uniform display as possible. Select "Off" or "On". The brightness depends on each display's setting. The brightness difference is minimized. Off On **Note:** If you set Video Wall Uniformity to On, the following menus will be unavailable and these settings will be fixed to the initial values. Picture menu: Colour, Hue, Input level (Advanced settings)

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.
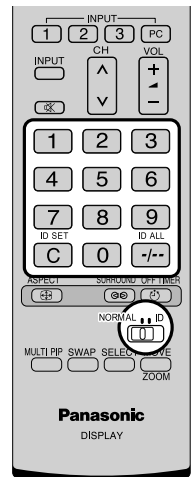
Note:
To operate this function, please purchase ID remote controller sold separately.
Object model : EUR7636090R

1   Switch ^{NORMAL ID} to ^{NORMAL ID} 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 [CH ∧∨] button.

ID Cancellation

Press [-/--] button on remote control. (This has the same effect as pressing the [C], [0], [0] buttons at the same time.)

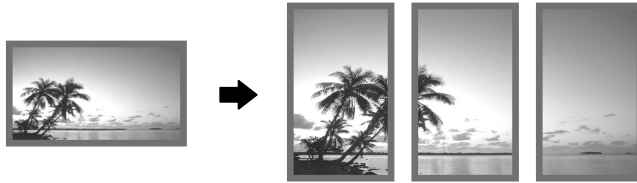**Notes:**
• Set the Remote ID "On" to operate the ID remote control.
  If Remote ID is set to "On", you can use the remote control without identical ID number during option menu display. (see page 55)
• The ID remote control cannot be used when ID select is set to anything other than 0, and the remote control ID is not the same as the ID select number (see page 55).

Setup for Portrait

Divide an input image into 3 parts, and display one of them to a plasma display which is set vertically. The image will be enlarged 3 times and rotated 90-degree.

(Example)

Notes:
- When using the Portrait function with displays set vertically, "Display orientation" in Setup menu has to be set to "Portrait" (see page 45).
- Turn up the power switch for the upward direction when you set Display vertically.
- During Portrait display, the 3D images are displayed as 2D images.

How to setup Portrait

1 Select "Portrait Setup" in "Setup" menu and press (■) button.

2 Press to select the Portrait Setup.
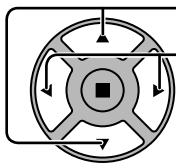
Press to select "On" or "Off".

Note:
If you set Portrait Setup to On, MULTI DISPLAY Setup will be unavailable.

Portrait Setup	
Portrait Setup	◀ Off ▶
Seam hides video	Off
Viewing Area	16 : 9
Location	1
Video Wall Uniformity	Off

3 Press to select Seam hides video.
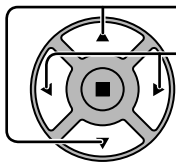
Press to select "Off" , "On".

Portrait Setup	
Portrait Setup	Off
Seam hides video	◀ Off ▶
Viewing Area	16 : 9
Location	1
Video Wall Uniformity	Off

To hide joints between displays.	To show joints between displays.
Suitable for moving image display.	Suitable for still image display.
On	Off

4 Viewing Area / Location

Viewing Area: Set a mode of image division for Portrait function.
Location: Set a location of image to be displayed for Portrait function.
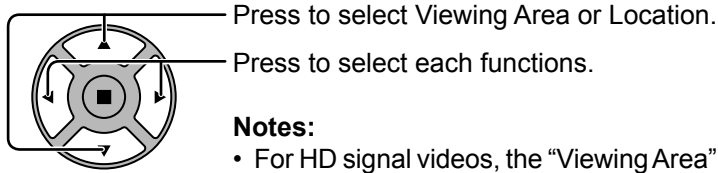
Press to select Viewing Area or Location.

Press to select each functions.

Notes:
• For HD signal videos, the "Viewing Area" is set at "16:9", and cannot be changed.
HD signal: 1125(1080) / 60i • 50i • 60p • 50p • 24p • 25p
  • 30p • 24sF, 750(720) / 60p • 50p, 1250(1080) / 50i
• When "Viewing Area" is "16:9", the aspect mode is set to "16:9".

Portrait Setup	
Portrait Setup	Off
Seam hides video	Off
Viewing Area	◄ 16 : 9 ►
Location	◄ 1 ►
Video Wall Uniformity	Off

Location setting

When Portrait Setup is "On":
Display the image of the selected location.
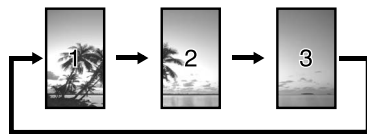
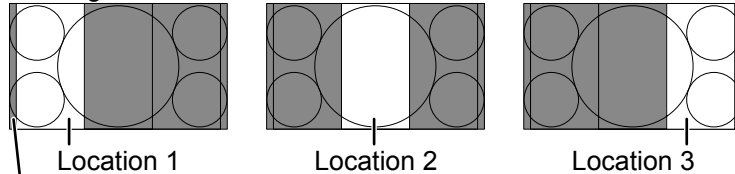
When Portrait Setup is "Off":
Represent an area of the selected Location at a normal brightness and darken the rest of it.
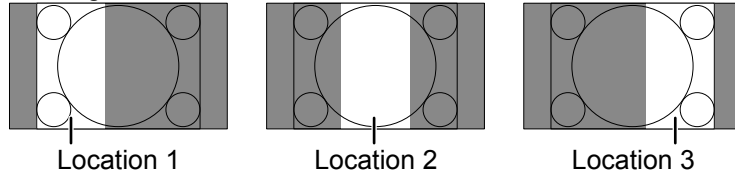

Viewing Area and Location

The mode of image division and the Location by setting of Viewing Area is as follows.

Viewing Area : 16:9

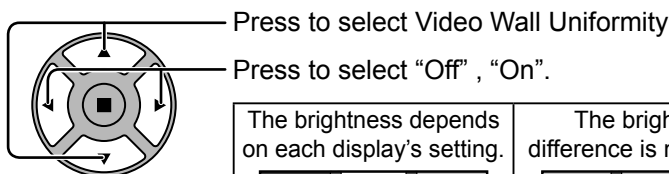

Location 1   Location 2   Location 3
Undisplayed area (48 dots)

Suitable to display 16:9 images. 4:3 images extend transversely.
Both right and left sides of the image are cut by 48 dots.

Viewing Area : 4:3

Location 1   Location 2   Location 3

4:3 images are displayed without changing aspect ratio.
Although the images of each Location overlap, you can adjust Pos./Size to display the image normally. (see page 25)

5 Video Wall Uniformity

Reduces the peak of brightness for each display to enable as uniform display as possible.

Press to select Video Wall Uniformity

Press to select "Off" , "On".

The brightness depends on each display's setting.	The brightness difference is minimized.
A A A	A A A
Off	On

Portrait Setup	
Portrait Setup	Off
Seam hides video	Off
Viewing Area	16 : 9
Location	1
Video Wall Uniformity	◄ Off ►

Note:
If you set Video Wall Uniformity to On, the following menus will be unavailable and these settings will be fixed to the initial values.
Picture menu: Colour, Hue, Input level (Advanced settings)

Setup for Input Signals

Component / RGB-in select

Component $\longleftrightarrow$ **RGB**

Select to match the signals from the source connected to the Component / RGB or PC input terminals.
Y, P_B, P_R signals $\Rightarrow$ "Component"
RGB signals $\Rightarrow$ "RGB"

Note:
Make setting of the selected input terminal (COMPONENT/RGB IN or PC IN).

YUV / RGB-in select

YUV $\longleftrightarrow$ **RGB**

Select to match the signals from the source connected to the DVI input terminals.
YUV signals $\Rightarrow$ "YUV"
RGB signals $\Rightarrow$ "RGB"

Notes:
• Selection may not be possible, depending on which optional board is installed.
• Make setting of the selected input terminal (SLOT or DVI-D IN).

Signal menu

Note:
"Signal" setup menu displays a different setting condition for each input signal.

Select "Signal" in "Setup" menu and press ⬛ button.

For Video (S VIDEO)

Signal	[AV]
3D Y/C Filter (NTSC)	◄ On ►
Colour system	Auto
Cinema reality	Off
Noise reduction	Off

For Component

Signal	[Component]
Sync	◄ Auto ►
Cinema reality	Off
XGA Mode	Auto
Noise reduction	Off
H-Freq. 63.98 kHz	
V-Freq. 60.02 Hz	
Signal Format 1280×1024/60i	

For RGB

Signal	[RGB]
Sync	◄ Auto ►
Cinema reality	Off
XGA Mode	Auto
Noise reduction	Off
H-Freq. 63.98 kHz	
V-Freq. 60.02 Hz	
Signal Format 1280×1024/60i	

For Digital

Signal	[Digital]
Cinema reality	◄ Off ►
Noise reduction	Off
H-Freq. 63.98 kHz	
V-Freq. 60.02 Hz	
Dot Clock Freq. 108.0 MHz	
Signal Format 1280×1024/60i	

• 3D Y/C Filter (NTSC)
This menu is displayed when BNC Dual Video Terminal Board (TY-FB9BD) is installed to the unit.
Set this menu when the moving image looks unnatural during Video (S Video) input signal.
On ⟷ Off
Note:
When On, this setting only affects NTSC input signals.

• Colour system

$$\text{Auto} \longleftrightarrow \text{PAL} \longleftrightarrow \text{SECAM} \longleftrightarrow \text{M.NTSC} \longleftrightarrow \text{NTSC}$$

Set the colour system to match the input signal. When "Auto" is set, Colour system will be automatically selected from NTSC/PAL/SECAM/M.NTSC.
To display PAL60 signal, select "Auto" or "PAL".
If the picture 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.

• Cinema reality
When "On", the display attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second.
If the picture is not stable, turn the setting to "Off".
On ⟷ Off
Note:
When On, this setting only affects the following signal input:
• NTSC / PAL signal input during Video (S Video) input signal.
• 525i(480i), 625i(575i), 1125(1080)/60i signal input during "Component" input signal.

• XGA Mode
This menu is displayed when the input signal is analog (Component/PC). This unit supports three types of XGA signals with 60Hz vertical frequency having different aspect ratios and sampling rates (1,024 × 768 @ 60Hz, 1,280 × 768 @ 60Hz and 1,366 × 768 @ 60Hz).
Auto ⟷ 1024×768 ⟷ 1280×768 ⟷ 1366×768
Auto: Automatically selected from 1024×768/1280×768/1366×768.
Switch the setting to suit the input signal for better display depends on the angle of view or display resolution condition.
Note:
After making this setting, be sure to make each adjustment (such as "Auto Setup") on the "Pos./Size" menu as necessary. (see page 25)

Setup for Input Signals

• Sync
This function operates only during input from PC IN terminal.

Setting RGB sync signal
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.

↕

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

Setting Component sync signal
Confirm that the input is set to Component input (this setting is valid only for Component 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.

↕

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

Note:
Signals input to COMPONENT/RGB IN terminals correspond to Sync on G or Sync on Y.

• SDI Through
Set the active through function of the Dual Link HD-SDI Terminal Board (TY-FB11DHD).

On ⟷ Off

On: Enables active through.

Off: Disables active through.

Note:
Settings can only be performed for this menu when a slot mounted with a Dual Link HD-SDI Terminal Board (TY-FB11DHD) is selected.

• FRAME CREATION
Automatically compensates the picture frame rate and removes juddering movements to make the images smooth.

Off ⟷ Mid ⟷ Max

Note:
Depending on the contents, images may be noisy. To prevent the noise, change the setting.

• 3D Refresh Rate
Reduces juddering or flicker of image due to lighting interference during 3D viewing.

100Hz ⟷ 120Hz

Note:
This setting is disabled when "FRAME CREATION" is set to "Off".

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

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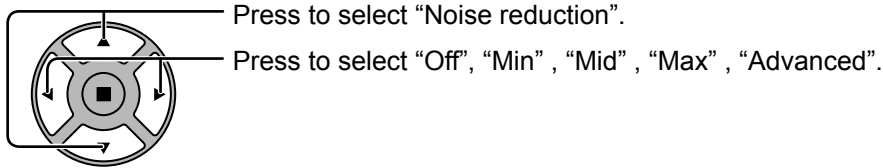
Auto: Switches the dynamic range automatically between "Video(16-235)" and "Full(0-255)" according to the input signal.

Note:
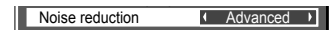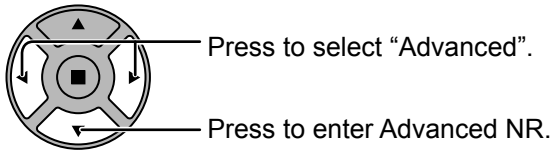This function can be set only for HDMI signal input.

• Noise reduction

Sets the following three NR (Noise Reduction) functions together.
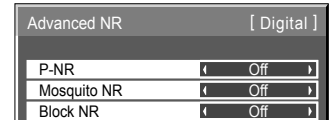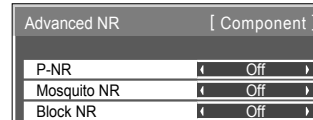P-NR, Mosquito NR, Block NR

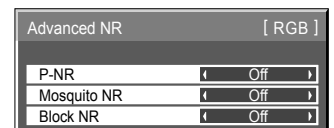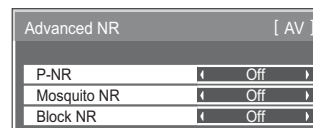Press to select "Noise reduction".

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

| Noise reduction | ◄ Off ► |

Advanced NR

Sets the three NR functions separately.

1

Press to select "Advanced".

Press to enter Advanced NR.

| Noise reduction | ◄ Advanced ► |

▼

Advanced NR	[AV]
P-NR	◄ Off ►
Mosquito NR	◄ Off ►
Block NR	◄ Off ►

Advanced NR	[RGB]
P-NR	◄ Off ►
Mosquito NR	◄ Off ►
Block NR	◄ Off ►

2

Press to select P-NR, Mosquito NR or Block NR.

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

Advanced NR	[Component]
P-NR	◄ Off ►
Mosquito NR	◄ Off ►
Block NR	◄ Off ►

Advanced NR	[Digital]
P-NR	◄ Off ►
Mosquito NR	◄ Off ►
Block NR	◄ Off ►

P-NR: Automatically reduces unwanted picture noise.
Mosquito NR: Reduces mosquito noise around subtitles on MPEG videos.
Block NR: Reduces block noise when playing MPEG videos.

Note:
Noise reduction cannot be adjusted while a PC signal is being applied.
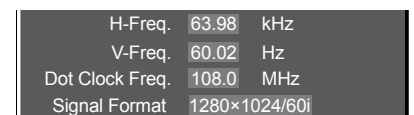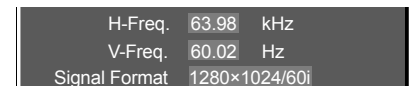
• Input signal display

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:
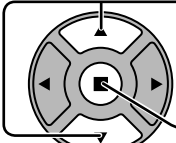 Horizontal 15 - 110 kHz
 Vertical   48 - 120 Hz
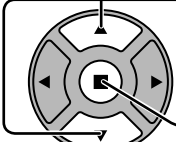
The dot clock frequency is displayed during DVI signal input.

H-Freq.	63.98	kHz
V-Freq.	60.02	Hz
Signal Format	1280×1024/60i	

H-Freq.	63.98	kHz
V-Freq.	60.02	Hz
Dot Clock Freq.	108.0	MHz
Signal Format	1280×1024/60i	

Options Adjustments

1 SET UP ⊟ — Press to display the Setup menu.

2 — Press to select "OSD Language".

— Press for more than 3 seconds.

3 — Press to select "Options".

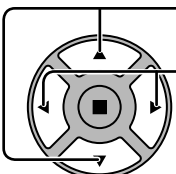| Options |
|---|
| Shipping |

— Press to display the Options menu.

4 — Press to select your preferred menu.

— Press to adjust the menu.

5 SET UP ⊟ — Press to exit from Options menu.

Options	1/3
Weekly Command Timer	
Audio input select	
Touch Panel settings	
Input Search	
Onscreen display	On
Initial input	Off
Initial VOL level	Off 0
Maximum VOL level	Off 0
Input lock	Off
Button lock	Off
Remocon User level	Off

Options	2/3
Off-timer function	Enable
Initial Power Mode	Normal
ID select	0
Remote ID	Off
Serial ID	Off
Display size	Off
Studio W/B	Off
Studio Gain	Off

Options	3/3
Slot power	Off
Power On Screen Delay	Off
Clock Display	Off
All Aspect	Off
Auto Setup	Manual
Rotate	Off
Advanced Motion Resolution	On
Power On Message (No activity power off)	On
3D Safety Precautions	On
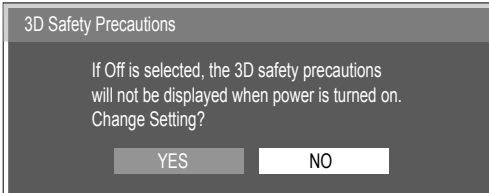
Item	Adjustments
Weekly Command Timer	Sets Weekly Command Timer. (see page 57)
Audio input select	Set up the sound when an image input is selected. (see page 59)
Touch Panel settings	Set while using Touch Panel (available as an option). (see page 59)
Input Search	Set auto input switching for when there is no signal. (see page 61)
Onscreen 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 ⊙RECALL was pressed. **Off:** Hides all the items above from view.
Initial input	Adjusts the input signal when the unit is turned on. **Off ⟷ SLOT INPUT*1 ⟷ VIDEO ⟷ COMPONENT*2 ⟷ HDMI ⟷ DVI ⟷ PC ⟷ NETWORK** *1 "SLOT INPUT" is displayed when an optional Terminal Board is installed. When a Terminal Board with dual input terminals is installed, "SLOT INPUT A" and "SLOT INPUT B" are displayed. *2 "COMPONENT" may be displayed as "RGB" depending on the setting of "Component/RGB-in select". (see page 50) **Notes:** • Only the adjusted signal is displayed. (see page 17) • 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 63 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.

Item	Adjustments
Input lock	Locks the input switch operation. **Off ⟷ SLOT INPUT*¹ ⟷ VIDEO ⟷ COMPONENT*² ⟷ HDMI ⟷ DVI ⟷ PC ⟷ NETWORK** *1 "SLOT INPUT" is displayed when an optional Terminal Board is installed. When a Terminal Board with dual input terminals is installed, "SLOT INPUT A" and "SLOT INPUT B" are displayed. *2 "COMPONENT" may be displayed as "RGB" depending on the setting of "Component/RGB-in select". (see page 50) **Notes:** • Only the adjusted signal is displayed (see page 17). • Input switch can be used when this is set to "Off".

Button lock	**Off ⟷ MENU&ENTER ⟷ On**
	Off: All the buttons on main unit can be used.
	MENU&ENTER: Locks ☐ and ☐ buttons on main unit.
	           MENU ENTER/■
	On: Locks all the button on main unit.
	Sets Button lock with the unit buttons in the following procedure.
	Off: Press ☐ four times→Press ☐ four times→Press ☐ four times→Press ☐
	           +/▲ INPUT −/▼ ENTER/■
	MENU&ENTER: Press ☐ four times→Press ☐ four times→Press ☐ four times→Press ☐
	           ENTER/■ −/▼ +/▲ ENTER/■
	On: Press ☐ four times→Press ☐ four times→Press ☐ four times→Press ☐
	          −/▼ ENTER/■ +/▲ INPUT ENTER/■

Remocon User level	**Off ⟷ User1 ⟷ User2 ⟷ User3** **Off:** You can use all of the buttons on the remote control. **User1:** You can only use ⊚, INPUT, RECALL, MUTE, VOL− VOL+ buttons on the remote control. **User2:** You can only use ⊚ button on the remote control. **User3:** Locks all the buttons on remote control.
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 ⟷ Standby ⟷ On** 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 47) 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.

Display size	Adjusts the image display size on screen.
	Off: Sets the normal image display size on screen.
	On: Sets the image display size approximately 95 % of the normal image display.
	
	Off **On**
	
	Notes:
	• This setting is valid only when the input signals are as follows;
	  NTSC, PAL, SECAM, M.NTSC, PAL60, PAL-M, PAL-N (Video)
	  525i, 525p, 625i, 625p, 750/60p, 750/50p, 1125/60i, 1125/50i, 1125/24sF, 1125/25p, 1125/24p, 1125/30p, 1125/60p, 1125/50p, 1250/50i (Component Video, RGB, DVI, SDI, HDMI)
	• This setting is invalid when digital zoom, Multi display or Portrait display is selected.
	• When "Display size" is set to "On", "H-Pos" and "V-Pos" in "Pos./Size" can be adjusted.
	• Refer to each board's operating instruction for DVI, SDI, HDMI's corresponding signals.

Options Adjustments

Item	Adjustments
Studio W/B	**Off:** Nullify all the settings adjusted. **On:** Sets the colour temperature for TV studio. **Note:** Valid only when the "Warm" is set as "White balance" in Picture menu.
Studio Gain	Sharpens the contrast for a better view when a part of the image is too light to see. **Off:** Disables "Studio Gain". **On:** Enables "Studio Gain". **Note:** This setting is valid only when the input signals are as follows: Component Video, RGB (analog), SDI, HDMI
Slot power	**Off** ⟷ **Auto** ⟷ **On** **Off:** Power is not transmitted to the slot power. **Auto:** Power is transmitted to the slot power only when main power is on. **On:** Power is transmitted to the slot power when main power is on or in the standby state. **Note:** In some cases, power is transmitted to the slot power when main power is on or in the standby state regardless of the slot power setting.
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 ⏻/| 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 ⏻/| is pressed. **1 to 30 (sec.):** Set the power-on delay time (second). After pressing ⏻/|, the display will be powered on with time delay depending on this setting. **Notes:** • During this function is working, the power indicator is blinking green. • This function also works when the power recovers from failure or after plugging off and in again the power cord. After you unplug and plug the power cord in while the unit is in standby mode and also the power is being supplied to a terminal board, the unit will start supplying the power to the board with time delay according to the setting. The power indicator lights up red first and it turns orange when the power starts being supplied to the board.
Clock Display	**Off:** Not display the clock. **On:** Display the clock. The clock is displayed at the lower left of the screen when ⏺ᴿᴱᶜᴬᴸᴸ button is pressed. 10:00 **Note:** When "Day/Time Setup" is not set, the clock is not displayed even if "Clock Display" is "On". (see page 35)
All Aspect	Sets All Aspect mode (advanced aspect setting) or default aspect mode. With each press of ⊞ᴬˢᴾᴱᶜᵀ button, the aspect changes in the selected mode. **Off:** Default aspect mode **On:** All Aspect mode Aspect mode of each setting is as follows: (Example: HD signal) **Off** 4:3→4:3 Full→Zoom1→Zoom2→Zoom3→16:9→14:9→Just **On** 4:3 (1)→4:3 (2)→4:3 Full→Zoom1→Zoom2→Zoom3→16:9→14:9→Just1→Just2
Auto Setup	Sets the operational mode of the automatic position adjustment in the Pos./Size menu. **Manual:** Automatic position adjustment starts when ᴬᵁᵀᴼ ˢᴱᵀᵁᴾ ⊡ is pressed on the remote control or automatic position adjustment is executed from the Pos./Size menu. **Auto:** Other than remote control or menu operation, automatic position adjustment starts: When the display power is turned ON. When the input signal is switched.
Rotate	**Off:** Does not rotate the image. **On:** Rotates the image 180 degrees. **Note:** During the image is rotated, the 3D images are displayed as 2D images.
Advanced Motion Resolution	Displays motion picture images at higher resolution. **On** ⟷ **Off** **Notes:** • Please set to "Off" if images look unnatural. • This function is disabled during 3D images.
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 45).

Item	Adjustments
3D Safety Precautions	3D Safety Precautions show/hide is set during power ON. **On:** 3D Safety Precaution is shown every time when the power is ON. **Off:** 3D Safety Precaution is not shown when the power is ON. When the setting changes from "On" to "Off", the confirmation screen is displayed as below. Pressing "YES" switches the setting. 3D Safety Precautions If Off is selected, the 3D safety precautions will not be displayed when power is turned on. Change Setting? YES　　NO

Normalisation

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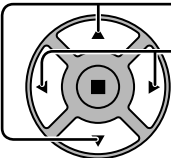
Press the ⎍ button on main unit together with ◯ button on the remote control and hold for more than 5 seconds.
The "Shipping" menu is displayed and the lock is released when it disappears.

Weekly Command Timer

You can set 7-day timer programming by setting time and command.
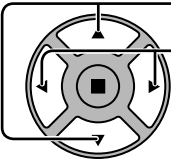
Note:
Before setting Weekly Command Timer, set Day/Time Setup. (see page 35)
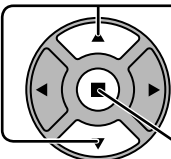
1
Press to select Function.
Press to select "On".
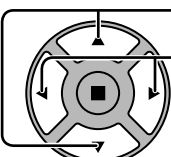
Note:
• When Function is set to On, On/Off Timer Setup (see page 35) is unavailable and Interval / Time Designation in Mode of Screensaver (see page 37) cannot be selected.

2
Press to select a day.
Press to select a program number.

Note:
• You can set the program from 1 to 7.
--- indicates unset.

3
Press to select Program Edit.

Press to show the Program Edit screen.

4
Press to select Program.
Press to change the program numbers (1-7).

Options	1/3
Weekly Command Timer	
Audio input select	
Touch Panel settings	
Input Search	
Onscreen display	On

⇩ Press ACTION (■) button

Weekly Command Timer

Function	◀ On ▶
Monday	◀ Program1 ▶
Tuesday	Program3
Wednesday	---
Thursday	Program3
Friday	---
Saturday	Program6
Sunday	Program4
Program Edit	

Program number

Thursday	Program3
Friday	---
Saturday	Program6
Sunday	Program4
Program Edit	

Program Edit screen

Weekly Command Timer	1/8
Program	◀ 1 ▶
01	8:00 PON
02	10:30 IMS:SL1
03	--:-- ---
04	--:-- ---
05	--:-- ---
06	12:00 DAM:ZOOM
07	9:12 AVL:10
08	--:-- ---

5

Press to select a command number.

Press to show the previous / next command pages (1-8) of the selected program.

Press to show the command setting screen.

Weekly Command Timer		1/8
Program		1
01	8:00	PON
02	10:30	IMS:SL1
03	--:--	---
04	--:--	---
05	--:--	---
06	12:00	DAM:ZOOM
07	9:12	AVL:10
08	--:--	---

Weekly Command Timer		8/8
Program		1
57	20:00	AVL:00
58	20:30	DAM:NORM
59	22:00	POF
60	--:--	---
61	--:--	---
62	--:--	---
63	--:--	---
64	--:--	---

Command (--- indicates unset)

Set time of timer(--:-- indicates unset)

Command numbers

6
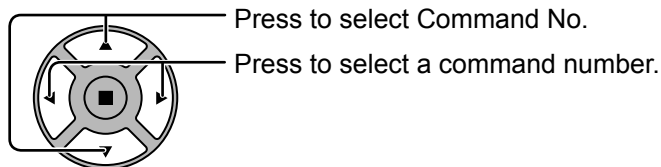
Press to select Command No.

Press to select a command number.

Command setting screen

Weekly Command Timer	
	Program 1
Command No	◀ 02 ▶
Time	10:30
Command	IMS:SL1

7

Press to select Time / Command.

Press to set each item.

Time: Set the time to execute a command program.
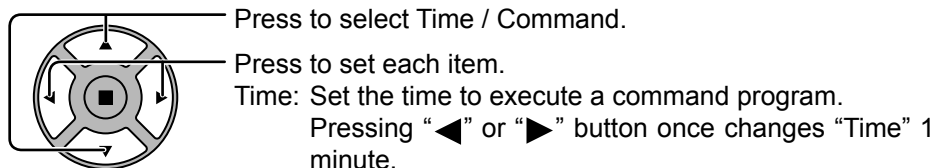
Pressing "◀" or "▶" button once changes "Time" 1 minute.

Pressing "◀" or "▶" button continuously changes "Time" by 15 minutes.

Command: Select a command to execute at the set time. This unit has 64 commands to set. (see page 66)

Weekly Command Timer	
	Program 1
Command No	02
Time	◀ 10:30 ▶
Command	◀ IMS:SL1 ▶

Notes:

• Command is performed in order of execution time, regardless of the command number.

• If a command execution time overlaps with that of other commands, these commands are performed in number order.

• Pressing ⊙N, Time becomes --:-- and Command becomes ---.

Note:

Press ⊙R to return to the previous screen.

Audio input select

Set up the sound when an image input is selected.

Options	1/3
Weekly Command Timer ▶	
Audio input select	
Touch Panel settings	
Input Search	

⇩ Press ACTION (■) button

Audio input select	
SLOT INPUT	◀ ♪ SLOT INPUT ▶
VIDEO	◀ ♪ VIDEO/COMPONENT ▶
COMPONENT	◀ ♪ VIDEO/COMPONENT ▶
HDMI	◀ ♪ HDMI ▶
DVI	◀ ♪ DVI/PC ▶
PC	◀ ♪ DVI/PC ▶
NETWORK	◀ ♪ NETWORK ▶

Press to select image input.

Press to select audio input.
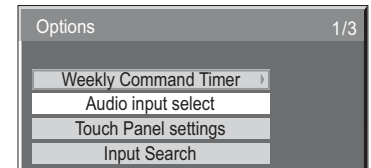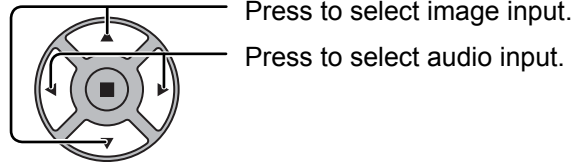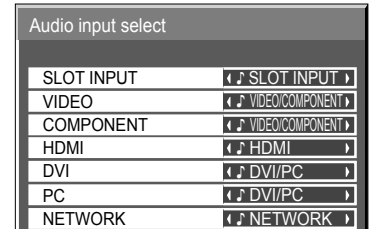
Image input	Audio input
[SLOT INPUT]*1	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[VIDEO]	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[COMPONENT]*2	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[HDMI]	SLOT INPUT / VIDEO/COMPONENT / HDMI / DVI/PC / NETWORK / NO AUDIO
[DVI]	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[PC]	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[NETWORK]	SLOT INPUT / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO

VIDEO/COMPONENT: Sound input for both VIDEO and COMPONENT.
DVI/PC: Sound input for both DVI and PC.
NO AUDIO: No audio input (Mute)

*1 "SLOT INPUT" is displayed when a Terminal Board is installed.
*2 "COMPONENT" may be displayed as "RGB" depending on the setting of "Component/RGB-in select". (see page 50)

When a Terminal Board with dual input terminals is installed
"SLOT INPUT" is displayed as "SLOT INPUT A" and "SLOT INPUT B" and independent settings are available.
To set other image inputs, you can select "SLOT INPUT A" and "SLOT INPUT B".

Image input	Audio input
[SLOT INPUT A]	SLOT INPUT A / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[SLOT INPUT B]	SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[VIDEO]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[COMPONENT]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[HDMI]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / HDMI / DVI/PC / NETWORK / NO AUDIO
[DVI]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[PC]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO
[NETWORK]	SLOT INPUT A / SLOT INPUT B / VIDEO/COMPONENT / DVI/PC / NETWORK / NO AUDIO

When Image input and Audio input differ from each other, the Audio input is displayed as below.

PC
16:9
♪ COMPONENT
NANODRIFT
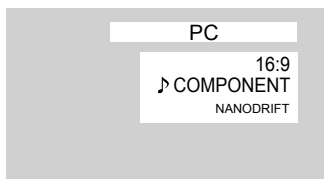
Notes:
• HDMI Audio is selectable only for HDMI Input.
• You cannot set audio of B for SLOT INPUT A, or audio of A for SLOT INPUT B.

Options Adjustments

Touch Panel settings (Settings when using Touch Panel)

The mode to restrict NANODRIFT Saver (see page 40) operation when using Touch Panel (available as an option) is set up.

Options	1/3
Weekly Command Timer	
Audio input select	
Touch Panel settings	
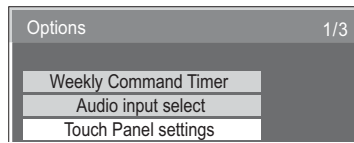
⇩ Press ACTION (■) button
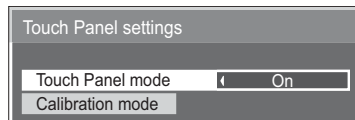
Set "Touch Panel mode" to "On".

Touch Panel settings	
Touch Panel mode	◀ On
Calibration mode	

① select
② adjust
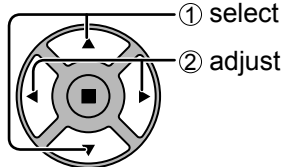
NANODRIFT Saver in Touch Panel mode: On
The value set for NANODRIFT turns into "On" and displayed in gray.
The moving distance of NANODRIFT is limited to 5 × 5 dots to prevent pointer drift on a touch panel.

Calibration mode
This setting is used in calibrating a touch panel.
You can configure the setting if "Touch Panel mode" is "On".

Select "Calibration mode" and then press (■).

Touch Panel settings	
Touch Panel mode	On
Calibration mode	

↓

Calibration mode

① select
② set
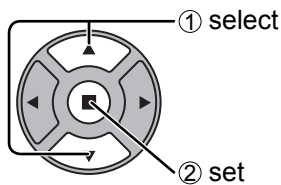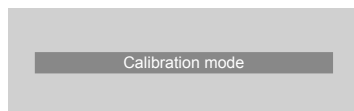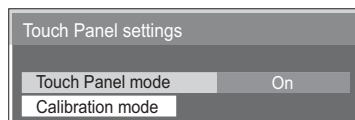
When the menu is not displayed (normal screen)
Hold down ⓝ for over 3 seconds.

The screen is displayed in the middle and NANODRIFT is deactivated for 180 seconds.
After 180 seconds or when you have the menu displayed with a remote control, Calibration mode is cancelled.

Note:
For information on how to set up Calibration, please see Touch Panel instruction manual.

Input Search

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

```
Options                    1/3

   Weekly Command Timer
   Audio input select
   Touch Panel settings
   Input Search
```
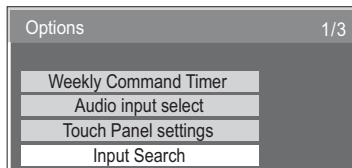
⇓ Press ACTION (■) button

```
Input Search

   Input Search        ◄    Off    ►
   Primary Input
   Secondary Input
```

① select
② adjust
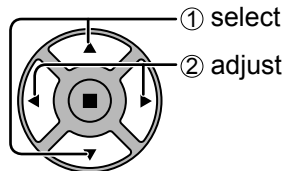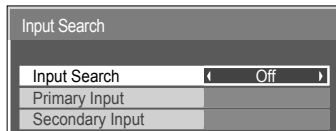
Input Search

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.

Input search is executed in the following order.

(Example) When the current input is PC

┌→ PC ┆→ NETWORK →SLOT INPUT →VIDEO →COMPONENT →HDMI →DVI ┐

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

```
         Searching...
```
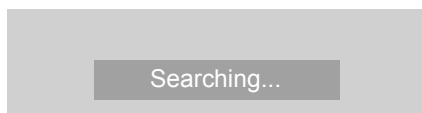
"Searching..." is displayed during the input search.

Primary Input, Secondary Input

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

(NONE) ⇔ **SLOT INPUT*** ⇔ **VIDEO** ⇔ **COMPONENT** ⇔ **HDMI** ⇔ **DVI** ⇔ **PC** ⇔ **NETWORK**

* "SLOT INPUT" is displayed when an optional Terminal Board is installed.
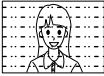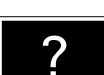
When a Terminal Board with dual input terminals is installed, "SLOT INPUT A" and "SLOT INPUT B" are displayed.

Notes:

• This menu is available only when "Input lock" is "Off". (see page 55)

• If the input is changed by this function, the last input is selected when the power is turned on next time.

If you wish to retain the original input when the power is turned on, set "Initial input" to the original input.

(see page 54)

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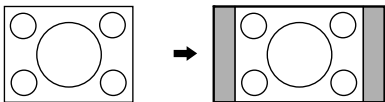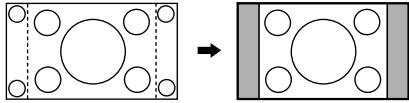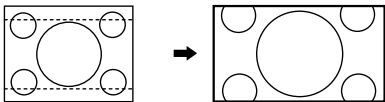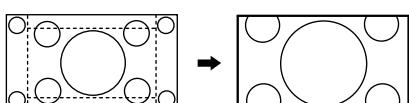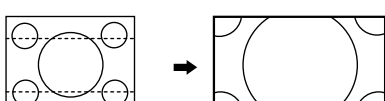
Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	**Sound**	
Interference	Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent light
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the remote control.) Check if speakers are connected properly.
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 colour system format, or frequency is input, only the input terminal indication is displayed.
No Colour	Normal Sound	Colour controls set at minimum level (see page 28, 29) Colour system (see page 51)
No remote control operations can be performed.		Check whether the batteries have discharged completely and, if they have not, whether they were inserted properly. Check whether the remote control sensor is exposed to an outdoor light or a strong fluorescent light. Check whether the remote control designed specifically for use with the unit is being used. (The unit cannot be operated by any other remote control.)
A cracking sound is sometimes heard from the unit.		If there is nothing wrong with the picture or sound, this is the sound of the cabinet undergoing very slight contractions in response to changes in the room temperature. There are no adverse effects on the performance or other aspects.
The top or bottom of the picture on the screen is cut off when I use the zoom function.		Adjust the position of the picture on the screen.
Areas at the top and bottom of the screen where the image is missing appear when I use the zoom function.		When using a video software program (such as a cinema size program) with a screen wider than one in the 16:9 mode, blank areas separate from the images are formed at the top and bottom of the screen.
I can hear sounds coming from inside the unit.		When the power is turned on, a sound of the display panel being driven may be heard: This is normal and not indicative of malfunctioning.
Parts of the unit become hot.		Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems in terms of performance or quality.
Power automatically turns off unexpectedly.		Check the settings of "PC Power management", "DVI-D Power management", "No signal power off" and "No activity power off" in the Setup menu. Any of them may be set to "On (Enable)". (see page 42, 45)
Power indicator is blinking in red.		There is possibility of malfunction. Please contact an Authorized Service Center.
This Plasma Display uses special image processing. Hence a slight time lag may occur between image and audio, depending on the type of input signal. However, this is not a malfunction.		

Plasma Display panel

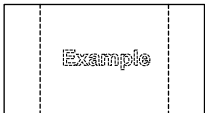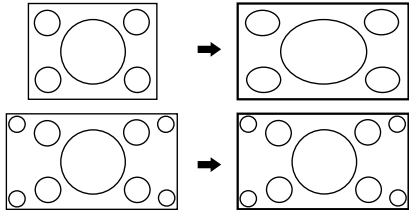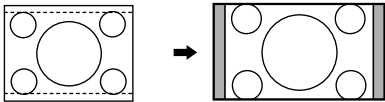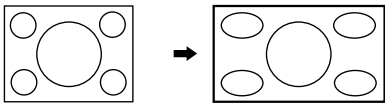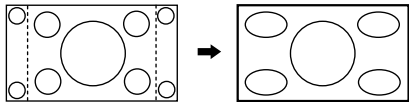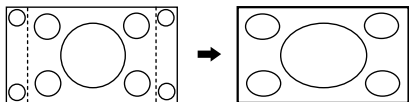| Symptoms	Check
The screen darkens slightly when bright pictures with minimal movements are shown.	The screen will darken slightly when photos, still images of a computer or other pictures with minimal movements are shown for an extended period. This is done to reduce image retention on the screen and 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.
The brightness on both sides of images in the 4:3 mode changes.	When viewing the side panels at the "High" or "Mid" setting, the brightness on both sides may change depending on the kind of program shown: This is normal and not indicative of malfunctioning.
Some parts of the screen do not light up.	The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.
Example Image retention appears	Do not allow a still picture to be displayed for an extended period, as this can cause a permanent image retention to remain on the Plasma Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. **Note:** The permanent image retention on the Plasma Display resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.
Whirring sounds can be heard from the display unit.	The display unit is fitted with a cooling fan to dissipate heat generated during normal use. The whirring sound is caused by rotation of the fan and is not a malfunction.

List of Aspect Modes

Aspect mode		Picture ➡ Enlarged screen	Description
All Aspect: On	Factory setting All Aspect: Off		
16:9	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.
14:9	14:9		Letterbox pictures with a 14:9 aspect ratio are enlarged vertically and horizontally so that their display fills the screen vertically and is slightly smaller than the screen horizontally. The top and bottom edges of the pictures are cut off. Side panels are displayed at the left and right edges of the screen.
Just ----------- Just1	Just		Pictures with a 4:3 aspect ratio are enlarged horizontally so that the picture distortion is minimized. The display of the areas around the left and right edges of the screen is slightly elongated.
Just2	–		The pictures with a 4:3 aspect ratio among the 16:9 aspect ratio signals are enlarged horizontally so that the picture distortion is minimized. The left and right edges of the pictures are cut off. The display of the areas around the left and right edges of the screen is slightly elongated.
4:3 ----------- 4:3 (1)	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.
4:3 (2)	–		The pictures with a 4:3 aspect ratio among the 16:9 aspect ratio signals are displayed with their original aspect ratio. The left and right edges of the pictures are masked with side panels.
4:3 Full	4:3 Full		The pictures with a 4:3 aspect ratio among the 16:9 aspect ratio signals are enlarged horizontally so that their display fills the screen. The left and right edges of the pictures are cut off.
Zoom ----------- Zoom1	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	Zoom2		The letterbox pictures with a 2.35:1 aspect ratio among the 16:9 aspect ratio signals 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.
Zoom3	Zoom3		Letterbox pictures with a 2.35:1 aspect ratio are enlarged vertically and horizontally so that their display fills the screen vertically and is slightly larger than the screen horizontally. The top and bottom edges as well as the left and right edges of the pictures are cut off.

Applicable Input Signals

<div align="right">*Mark: Applicable input signal</div>

	Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)	COMPONENT / RGB IN / PC IN (Dot clock (MHz))	DVI-D IN (Dot clock (MHz))	HDMI
1	525 (480) / 60i	15.73	59.94	* (13.5)	* (27.0)	*
2	525 (480) / 60p	31.47	59.94	* (27.0) *5	* (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	56.26	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)	*
17	1,250 (1,080) / 50i	31.25	50.00	* (74.25) *3		
18	2,048 × 1,080 / 24sF *7	27.00	48.00			
19	2,048 × 1,080 / 24p *7	27.00	24.00			
20	640 × 400 @70 Hz	31.46	70.07	* (25.17)		
21	640 × 480 @60 Hz	31.47	59.94	* (25.18) *6	* (25.18)	*
22	640 × 480 @72 Hz	37.86	72.81	* (31.5)		
23	640 × 480 @75 Hz	37.50	75.00	* (31.5)		
24	640 × 480 @85 Hz	43.27	85.01	* (36.0)		
25	800 × 600 @56 Hz	35.16	56.25	* (36.0)		
26	800 × 600 @60 Hz	37.88	60.32	* (40.0)	* (40.0)	*
27	800 × 600 @72 Hz	48.08	72.19	* (50.0)		
28	800 × 600 @75 Hz	46.88	75.00	* (49.5)		
29	800 × 600 @85 Hz	53.67	85.06	* (56.25)		
30	852 × 480 @60 Hz	31.47	59.94	* (33.54) *6	* (34.24)	*
31	1,024 × 768 @50 Hz	39.55	50.00		* (51.89)	*
32	1,024 × 768 @60 Hz	48.36	60.00	* (65.0)	* (65.0)	*
33	1,024 × 768 @70 Hz	56.48	70.07	* (75.0)		
34	1,024 × 768 @75 Hz	60.02	75.03	* (78.75)		
35	1,024 × 768 @85 Hz	68.68	85.00	* (94.5)		
36	1,066 × 600 @60 Hz	37.64	59.94	* (53.0)	* (53.0)	*
37	1,152 × 864 @60 Hz	53.70	60.00		* (81.62)	*
38	1,152 × 864 @75 Hz	67.50	75.00	* (108.0)		
39	1,280 × 768 @60 Hz	47.70	60.00	* (80.14)		
40	1,280 × 800 @60 Hz (1)	49.31	59.91	* (71.0)	* (71.0)	*
41	1,280 × 800 @60 Hz (2)	49.70	59.81	* (83.5)	* (83.5)	*
42	1,280 × 960 @60 Hz	60.00	60.00	* (108.0)		
43	1,280 × 960 @85 Hz	85.94	85.00	* (148.5)		
44	1,280 × 1,024 @60 Hz	63.98	60.02	* (108.0)	* (108.0)	*
45	1,280 × 1,024 @75 Hz	79.98	75.03	* (135.0)		
46	1,280 × 1,024 @85 Hz	91.15	85.02	* (157.5)		
47	1,366 × 768 @50 Hz	39.55	50.00		* (69.92)	*
48	1,366 × 768 @60 Hz	48.36	60.00	* (86.71)	* (87.44)	*
49	1,400 × 1,050 @60 Hz	65.22	60.00		* (122.61)	*
50	1,440 × 900 @60 Hz (1)	55.47	59.90	* (88.75)	* (88.75)	*
51	1,440 × 900 @60 Hz (2)	55.93	59.89	* (106.5)	* (106.5)	*
52	1,600 × 1,200 @60 Hz	75.00	60.00	* (162.0)	* (162.0)	*
53	1,600 × 1,200 @65 Hz	81.25	65.00	* (175.5)		
54	1,920 × 1,080 @60 Hz	67.50	60.00	* (148.5) *4	* (148.5)	*
55	1,920 × 1,200 @60 Hz	74.04	59.95		* (154.0)	*
56	Macintosh13" (640 × 480)	35.00	66.67	* (30.24)		
57	Macintosh16" (832 × 624)	49.72	74.54	* (57.28)		
58	Macintosh21" (1,152 × 870)	68.68	75.06	* (100.0)		

*1: Based on SMPTE 274M standard.
*2: Based on SMPTE RP211 standard.
*3: Based on SMPTE 295M standard.
*4: The input signal is recognized as 1,125 (1,080) / 60p.
*5: When selected the RGB format and 525p signal input to the PC IN terminal, it is recognized as VGA 60Hz signal.
*6: When inputted VGA 60Hz format signal from the other than PC IN terminal, it is recognized as 525p signal.
*7: Based on SMPTE 292M and 372M standards. These signals can be received when the Dual Link HD-SDI Terminal Board (TY-FB11DHD) is installed.

Note: Signals without above specification may not be displayed properly.
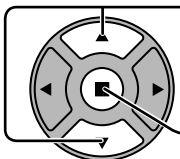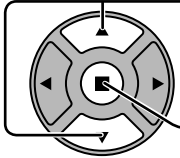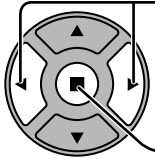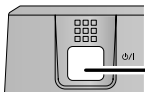
Applicable Input Signals

Video input (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	Modified NTSC	15.73	59.94

Shipping condition

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

1 SET UP

Press to display the Setup menu.

2 Press to select "OSD Language".

Press for more than 3 seconds.

3 Press to select "Shipping".

Press to display the Shipping menu.

4 Press to select "YES".

Press to confirm.

5 Wait for 10 seconds.

6 Press the power switch (⏻/|) on main unit to turn the power off.

Setup	1/2
3D Settings	
Signal	
Screensaver	
Extended life settings	
ECO Mode settings	
Input label	
Function Button Settings	
Component/RGB-in select	RGB
No activity power off	Disable
Menu Display Duration	30 S
OSD Brightness	5
OSD Language	English (UK)

Options
Shipping
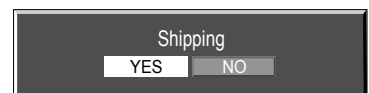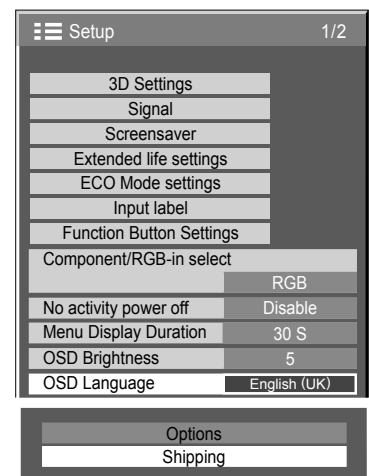
Shipping
YES   NO

[from the unit]
1 Press the MENU button till the Setup menu is displayed.
2 Press the Volume Up"+" or Down"–" button to select "OSD Language".
3 Press and hold the 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.

Command list of Weekly Command Timer

No.	Command	Control details
1	AAC:MENCLR	Audio Menu (Clear)
2	AAC:MENDYN	Audio Menu (Dynamic)
3	AAC:MENSTD	Audio Menu (Standard)
4	AAC:SURMON	Surround (ON)
5	AAC:SUROFF	Surround (OFF)
6	AMT:0	Audio Mute (OFF)
7	AMT:1	Audio Mute (ON)
8	–	–
9	–	–
10	AVL:00	Audio Volume (00)
11	AVL:10	Audio Volume (10)
12	AVL:20	Audio Volume (20)
13	AVL:30	Audio Volume (30)
14	AVL:40	Audio Volume (40)
15	AVL:50	Audio Volume (50)
16	AVL:60	Audio Volume (60)
17	DAM:FULL	Aspect (16:9)
18	DAM:JUST	Aspect (Just)
19	DAM:NORM	Aspect (4:3)
20	–	–
21	DAM:ZOOM	Aspect (Zoom)
22	–	–
23	–	–
24	–	–
25	–	–
26	–	–
27	–	–
28	–	–
29	–	–
30	–	–
31	–	–
32	–	–
33	–	–
34	–	–
35	–	–
36	–	–
37	–	–
38	–	–
39	IMS:SL1	Input select (SLOT INPUT)
40	IMS:S1A	Input select (SLOT INPUT A)
41	IMS:S1B	Input select (SLOT INPUT B)
42	IMS:VD1	Input select (VIDEO)
43	IMS:YP1	Input select (COMPONENT)
44	IMS:HM1	Input select (HDMI)
45	IMS:DV1	Input select (DVI)
46	IMS:PC1	Input select (PC)
47	IMS:NW1	Input select (NETWORK)
48	–	–
49	–	–
50	–	–
51	–	–
52	–	–
53	–	–
54	–	–
55	OSP:SCR0	Screen Saver Scrolling bar only (OFF)
56	OSP:SCR1	Screen Saver Scrolling bar only (ON)
57	POF	Power OFF
58	PON	Power ON
59	SSC:FNC0	Screen Saver function (Scrolling bar only)
60	SSC:FNC1	Screen Saver function (Negative image)
61	SSC:MOD0	Screen Saver (Mode (OFF))
62	SSC:MOD3	Screen Saver (Mode (ON))
63	VMT:0*	Picture Mute (OFF)
64	VMT:1*	Picture Mute (ON)

* Picture Mute cannot be unlocked by powering off/on with the remote control. Turn off and on again with the button on the unit or enter the command VMT:0 to unlock Picture Mute.

Specifications

	TH-42PF50E	TH-50PF50E
Power Source		220 - 240 V AC, 50/60 Hz
Power Consumption		
Power on	365 W	445 W
Stand-by condition	0.5 W	0.5 W
Power off condition	0.3 W	0.3 W
Plasma Display panel	Drive method : AC type 42-inch, 16:9 aspect ratio	Drive method : AC type 50-inch, 16:9 aspect ratio
Screen size	921 mm (W) × 518 mm (H) × 1,057 mm (diagonal)	1,105 mm (W) × 622 mm (H) × 1,268 mm (diagonal)
(No.of pixels)		2,073,600 (1,920 (W) ×1,080 (H)) [5,760 × 1,080 dots]
Operating condition		
Temperature		0 °C - 40 °C
Humidity		20 % - 80 %

Applicable signals			
Colour System			NTSC, PAL, PAL60, SECAM, Modified NTSC
Scanning format			525 (480) / 60i · 60p, 625 (575) / 50i · 50p, 750 (720) / 60p · 50p, 1125 (1080) / 60i · 60p · 50i · 50p · 24p · 25p · 30p · 24sF, 1250 (1080) / 50i
PC signals			VGA, SVGA, XGA, SXGA UXGA ···· (compressed) Horizontal scanning frequency 15 - 110 kHz Vertical scanning frequency 48 - 120 Hz

Connection terminals				
AV IN	VIDEO		BNC	1.0 Vp-p (75 Ω)
	AUDIO L-R		RCA Pin jack × 2	0.5 Vrms, Shared with COMPONENT/RGB IN
	HDMI			TYPE A Connector
COMPONENT/RGB IN				
	Y/G		BNC	with sync 1.0 Vp-p (75 Ω)
	PB/CB/B		BNC	0.7 Vp-p (75 Ω)
	PR/CR/R		BNC	0.7 Vp-p (75 Ω)
	AUDIO L-R		RCA Pin jack × 2	0.5 Vrms, Shared with VIDEO
DVI-D IN			DVI-D 24 Pin	Compliance with DVI Revision 1.0
			Content Protection	Compatible with HDCP 1.1
	AUDIO		Stereo mini jack (M3) × 1	0.5 Vrms, Shared with PC IN
PC IN			High-Density Mini D-sub 15 Pin	Y or G with sync 1.0 Vp-p (75 Ω) Y or G without sync 0.7 Vp-p (75 Ω) PB/CB/B: 0.7 Vp-p (75 Ω) PR/CR/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			External Control Terminal D-sub 9 Pin	RS-232C compatible
3D IR TRANSMITTER				for 3D IR TRANSMITTER (TY-3D30TRW)
	3D SHUTTER OUT			M3 jack × 1
	DC 8V OUT			Center plus, for EIAJ 4mm plug
WIRELESS MODULE				for Wireless module (ET-WM200E)
LAN				RJ45 10BASE-T/100BASE-TX, compatible with PJLink™
EXT SP			Speaker Terminal	6 Ω, 16 W [8 W + 8 W] (10 % THD)

Dimensions (W × H × D)	1,020 mm × 610 mm × 89 mm	1,210 mm × 724 mm × 89 mm
Mass (weight)		
main unit only	approx. 25.0 kg net	approx. 33.0 kg net
with speakers	approx. 29.0 kg	approx. 38.0 kg

Notes:
- Design and specifications are subject to change without notice. Mass and dimensions shown are approximate.
- This equipment complies with the EMC standards listed below.
  EN55022, EN55024, EN61000-3-2, EN61000-3-3.

This product incorporates the following software:

(1) the software developed independently by or for Panasonic Corporation,

(2) the software owned by third party and licensed to Panasonic Corporation,

(3) the software licensed under the GNU General Public License, Version 2.0 (GPL-2.0),

(4) the software licensed under the GNU LESSER General Public License, Version 2.1 (LGPL-2.1) and/or,

(5) open source software other than the software licensed under the GPL and/or LGPL.

For the software categorized as (3) and (4), please refer to the terms and conditions of GPL-2.0 and LGPL-2.1, as the case may be at
http://www.gnu.org/licenses/old-licenses/gpl-2.0.html and
http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html

The GPL/LGPL software is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

At least three (3) years from delivery of products, Panasonic will give to any third party who contact us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code and the copyright notice, covered under GPL-2.0/LGPL-2.1.
Contact Information
oss-cd-request@gg.jp.panasonic.com

For the software categorized as (5) includes as follows.

1. The software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)

2. The software developed by the University of California, Berkeley and its contributors.

3. FreeType code.

4. The Independent JPEG Group's JPEG software.

5. thttpd code.

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

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

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

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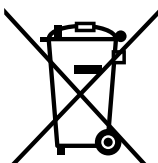
For business users in the European Union

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

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

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

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

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

Cd

Customer's Record

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

Model Number _____   Serial Number _____

Panasonic Corporation

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