JVC

Show Your True Colours.

LCD Monitor

LT-32WX50EU

INSTRUCTIONS

LCD Monitor ◆ **INSTRUCTIONS**

Moniteur LCD ◆ **MANUEL D'INSTRUCTIONS**

LCD Monitor ◆ **BEDIENUNGSANLEITUNG**

Televisore a cristalli liquidi ◆ **ISTRUZIONI**

Monitor LCD ◆ **MANUAL DE INSTRUCCIONES**

ЖК-монитор ◆ **ИНСТРУКЦИИ ПО ЭКСПЛУАТАЦИИ**

液晶顯示器 ◆ **使用說明書**

LCT2621-001A-H

JVC

LCD Monitor

LT-32WX50EU

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

INSTRUCTIONS

Warning

Please follow all the guidelines below.

> **Never try to repair the product yourself!**
> - **To prevent electrical shock, do not open cover or take apart the AC adapter. Repair should be done by service personnel only.**
> - If the problem cannot be solved in "Troubleshooting" (➔ page 44), unplug the power cord and contact your retailer.
>
> **If the product is damaged or behaving strangely, stop using it at once!**
> - Unplug the power cord and contact your retailer.

Follow this manual regarding setup!
- Connect only to a 100-240 V, 50 Hz/60 Hz AC outlet.

Make enough room for inserting and removing the power plug!

Place this product as close to the outlet as possible!
- Even if the product's power lamp is unlit, the main power supply is not cut off unless the power cord is unplugged. The main power supply for this product is controlled by inserting or removing the power plug.

Do not use any power cords or AC adapters other than those provided with this product!
- Use of power cords or AC adapters other than those provided may cause fire or malfunction.
- When several kinds of power cord are provided in the package, use the one which fits your AC outlet.
- Do not let the AC adapter hang down while using.
- Do not cover or wrap the AC adapter with clothes or sheets or the like.
- Leave space around the AC adapter to prevent overheating.

Connect the power cord to a grounding outlet.
- This plug will fit only into a grounded power outlet. If you are unable to insert the plug into the outlet, contact your electrician to install the proper outlet. Do not defeat the safety purpose of the grounded plug.
- When you insert the power cord to a grounding outlet, the product gets grounded.
- Improper grounding may lead to an electric shock.

Never cut or damage the power cord!
- If the power plug is not the right shape, or the power cord is not long enough, use an appropriate plug adapter or extension cable. (Consult your retailer.)

Do not allow the product to fall!
- Do not rest your elbows on, or allow children to hang from the product. There is a risk that the product will fall and cause injuries.
- Make use of the hole on the back of the stand to prevent the product from falling easily. (➜ page vii)

When installing the monitor on the wall, ask your dealer to install.

When installing the product:
- Use the cabinets or stands which are specified or recommended by the manufacturer.
- Use furniture on which the product can be installed steadily.
- Do not install the product in the way that any part of the product protrudes from the platform or furniture.
- Do not install the product on tall furniture (bookshelf, cupboard, etc.) without proper fixing.
- Do not install the product on a furniture-covering cloth or the like.
- Take care that children do not climb upon furniture to operate the product.

Take care when handling the glossy finish!
- For more details, see page vi.

Handle LCD panel with care!
- Use a soft, dry cloth when cleaning.

Hold the product so as not to scratch the screen!
- Do not touch the screen when carrying the product.

Never place anything on the product!
- Placing liquids, naked flames, cloths, paper, etc. on the product may cause a fire.

Never expose to rain or moisture!
- To prevent fire or electric shock, never allow liquids to enter the unit.

Never insert objects into the cabinet openings!
- It may cause a fatal electric shock. Take care when children are near.

Warning

Do not carry the product on your own!

● In order to prevent accidents, ensure that the product is carried by two or more people.

On disposal of the product!

● Follow the instruction in "Information for Users on Disposal of Old Equipment and Batteries". (➔ page v)

■ Registered trademarks, the model name, and power rating are written on the labels placed under the terminal cover on the rear of the product.

■ For more details on installation, usage and safety, consult your retailer.

Note for United Kingdom power cord only

The plug of United Kingdom power cord has a built-in fuse. When replacing the fuse, be sure to use only a correctly rated approved type, re-fit the fuse cover. (Consult your dealer or qualified personnel.)

How to replace the fuse

Open the fuse compartment with the blade screwdriver, and replace the fuse.

Fuse
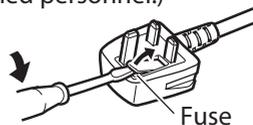
For UK only:

If you accidentally cut the power cord

Attach a new plug following the steps below. If in doubt, contact your local retailer.

Important

● Never connect to the larger terminal marked with an "E", the safety earth symbol "⏚" or coloured green or green-and-yellow.

● The wires in the mains lead on this product are coloured with the following code:

  ● Blue: Neutral wire (connect to the black terminal, or one marked "N")

  ● Brown: Live wire (connect to the red terminal, or one marked "L")

Dear Customer,

This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety.

European representative of Victor Company of Japan, Limited is:

JVC Technical Services Europe GmbH

Postfach 10 05 04

61145 Friedberg

Germany

Information for Users on Disposal of Old Equipment and Batteries

[European Union]
These symbols indicate that the electrical and electronic equipment and the battery with this symbol should not be disposed of as general household waste at its end-of-life. Instead, the products should be handed over to the applicable collection points for the recycling of electrical and electronic equipment as well as batteries for proper treatment, recovery and recycling in accordance with your national legislation and the Directive 2002/96/EC and 2006/66/EC.

By disposing of these products correctly, you will help to conserve natural resources and will help to prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of these products. For more information about collection points and recycling of these products, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Products

Battery

Notice:
The sign Pb below the symbol for batteries indicates that this battery contains lead.

Warning

[Business users]
If you wish to dispose of this product, please visit our web page http://www.jvc.eu/ to obtain information about the take-back of the product.

[Other Countries outside the European Union]
These symbols are only valid in the European Union.
If you wish to dispose of these items, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment and batteries.

Maintenance

Cleaning the screen

The screen of this monitor is coated with layers of thin films, such as a coating to prevent unwanted reflections. Damages to these layers can lead to irreversible changes in appearance such as uneven colour, discolouration, and scratches. Follow the instructions below to prevent such troubles.

- Do not paste or stick anything using any glues or adhesive tapes.
- Do not write anything on the screen.
- Do not strike the screen with a hard object.
- Avoid condensation on the screen.
- Do not wipe the screen with solvent such as alcohol, thinner, or benzine.
- Do not wipe the screen forcefully.

If the screen gets stained, wipe it with a soft dry cloth or a soft cloth soaked in water or water-diluted neutral detergent and wrung well.

Cleaning the cabinet

Wipe stains off the cabinet with a soft cloth. If the cabinet gets heavily stained, wipe it with a soft cloth soaked in water-diluted neutral detergent and wrung well, then wipe with a soft dry cloth.

To avoid the deterioration or damages of the cabinet such as its paint's peeling away, be careful about the following:

- Do not wipe the cabinet using solvent such as alcohol, thinner, or benzine.
- Do not expose the cabinet to any volatile substance such as insecticides.
- Do not allow any rubber or plastic in contact for a long time.

Carrying the monitor

When carrying the monitor, hold it by the sides as illustrated.
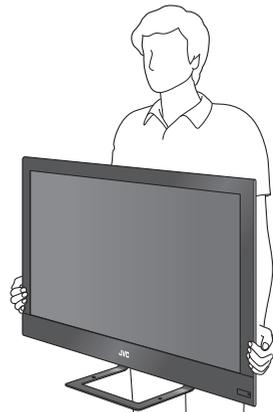
Ventilation openings

Keep space around the product as illustrated below at minimum for proper ventilation.
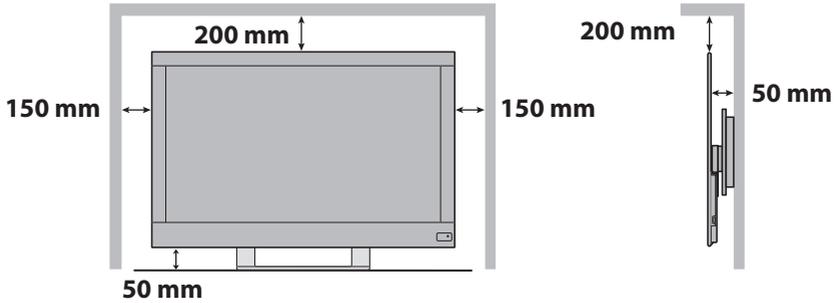
To avoid burn-in

Do not display a still picture for an extended period of time. Doing so may cause a faint image to remain on your screen.

To prevent an accidental fall

To prevent injury, the monitor must be fixed to the floor/cabinet.

When fixing the monitor to the floor/cabinet

Use bolts and nuts or screws (ø 4 mm, not supplied) to fix the monitor to the floor/cabinet utilizing the holes of the stand.

Bolt/screw
(not supplied)
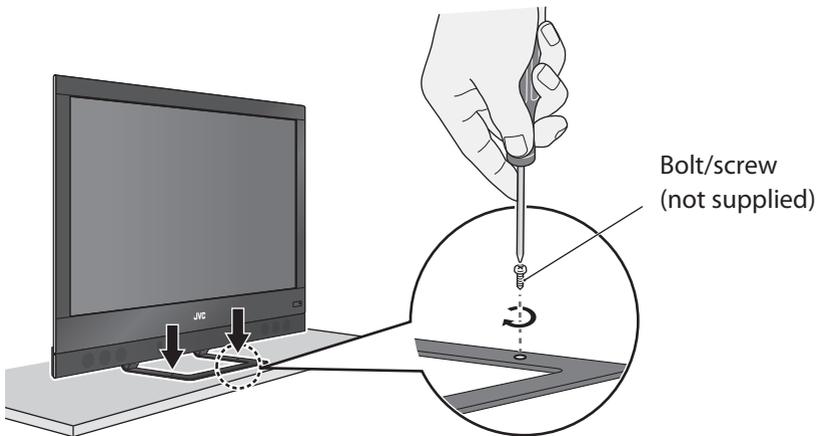
Features

> More precise adjustment of picture quality with a wide range of adjustment properties ➜ page A-2

> Enjoy SLR digital camera photographs ➜ page A-11

> Slim cabinet provides you with greater freedom of choice for installation

> Quick response making video games more exiting — Game Mode ➜ page A-5

> Operating HDMI devices from the TV remote controller — HDMI CEC compatible ➜ page 11

Contents

Technical information

You can search for picture/sound menu items from the
adjustment you want to make, and quickly find the page
containing detailed information.

Installation

Included items

● Main unit (monitor)

● Speaker unit

● Stand

● VESA bracket

● M4 x 8 screws (for the stand or VESA bracket, × 4)

● M3 x 12 screw (for the HDMI cover, × 1)

● Remote control unit, AAA size batteries
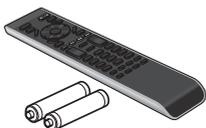
● Video cable (D-sub 15 pin / RCA)
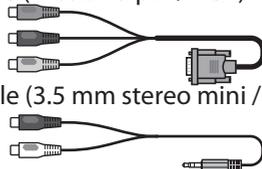
● Audio cable (3.5 mm stereo mini / RCA)

● RS-232C extension cable

● Video cable (D-sub 15 pin)

● Power cable

● AC adapter

● HDMI cover, AC terminal cover, D-sub cover, hook hole covers (× 2), bottom covers (× 2)

● SD card cover (× 1), screw (× 1)

● Instructions (this book), startup sheet, other printed material

Inserting batteries into the remote control
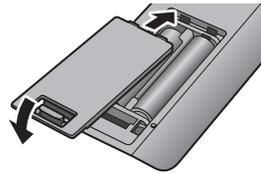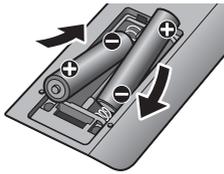
When replacing the batteries

To avoid short-circuit, place the minus end of the batteries first.

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

● Read the precautions on the battery.

● The batteries last about 6 to 12 months on regular usage.

● The included batteries are supplied for operation check and may last shorter.

Attaching the covers

● Attach the HDMI cover (3) and AC terminal cover (5) after connections have been made. Fix the HDMI cover to the unit using the supplied screw. Break off the bottom right of the HDMI cover when you want to extend the HDMI cable backwards.

● Attach the D-sub cover (1), hook hole covers (2) and bottom covers (4) when the respective openings are not in use.
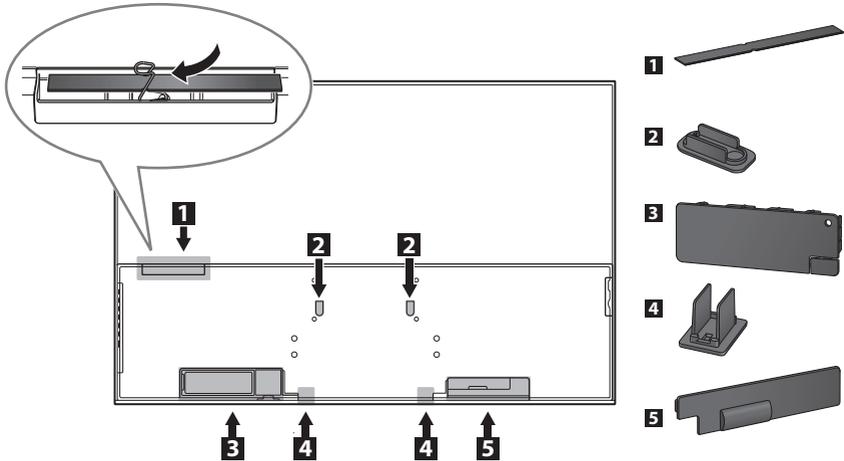
Attaching the speaker unit

Connect the speaker unit to the monitor if you do not connect any other external audio output device.

● Set the volume to the minimum level and turn the power off before you attach the speaker unit to the monitor.

● Refer to the startup sheet for details.

Installation

Install the unit properly referring to the cautions from pages ii to vii.

● Attach the stand (supplied) to stand the monitor. Refer to the startup sheet for details.

● Attach the VESA bracket using the supplied screws when installing the monitor on the wall. Refer to the startup sheet for details. Consult a specialist when you install the monitor on the wall.

Connecting external devices

### To connect a device with component terminals

ø 3.5 mm stereo mini plug
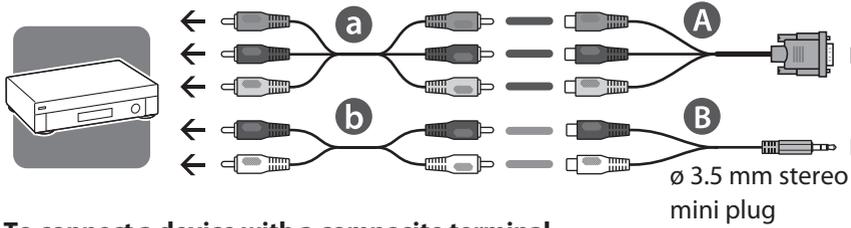
To connect a device with a composite terminal

Green
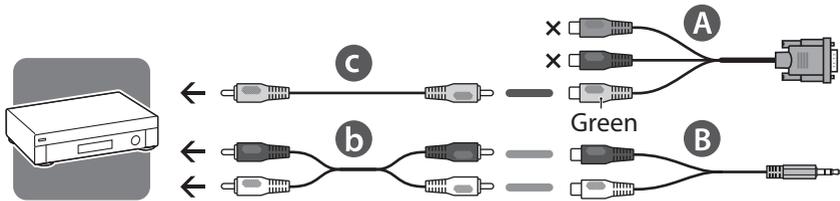
To connect a computer
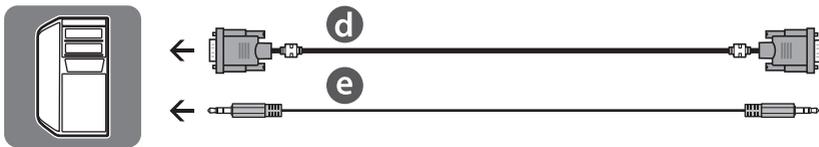
To connect a DVI device
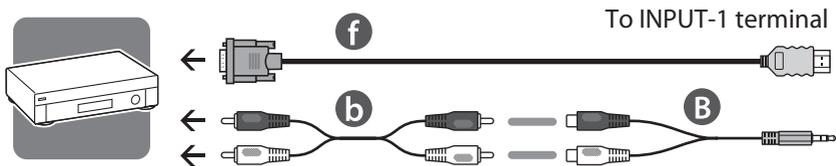
To INPUT-1 terminal

To connect an HDMI device

To INPUT-1/INPUT-2 terminals

● HDMI™ (V.1.3, with Deep Color, with x.v.Colour™, HDMI™ CEC Support)

INPUT-3:
D-sub 15 pin

C

D

RS-232C
terminal
(➔ page 40)

AUDIO IN
INPUT-1 AUDIO IN

PC IN
/ VIDEO IN

INPUT-3
(ANALOG)

RS-232C
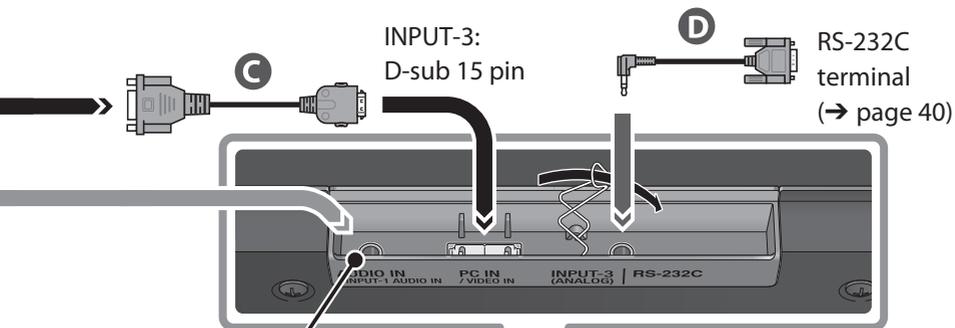
AUDIO IN terminal :
3.5 mm stereo mini
jack

INPUT-2: HDMI™ terminal

INPUT-4 :
SD card slot,
USB type slot
(➔ page 36)

INPUT-1: HDMI™
terminal

A: Video cable (supplied)
B: Audio cable (supplied)
C: Video cable (supplied)
D: RS-232C extension cable (supplied)
a: Component cable (sold separately)
b: Audio cable (sold separately)
c: Video cable (sold separately)

d: VGA cable (sold separately)
e: Audio cable (sold separately)
f: DVI-HDMI cable (sold separately)
g: HDMI cable (sold separately)

● When using the INPUT-3 terminal, set "Input-3 Setting" (➔ page 31) properly
according to the connected device.
● To reduce noise, use a VGA cable with core filters.
● When you connect a DVI device to INPUT-2, only the video signal is played
back, and the sound signal is not.

Installation

07

Connecting the power cable/AC Adapter

- Connect AC plug adapter and power cord to the monitor in the order of numbers below.
- Insert the power terminal firmly until you hear a clicking sound.

AC adapter

③

①

②
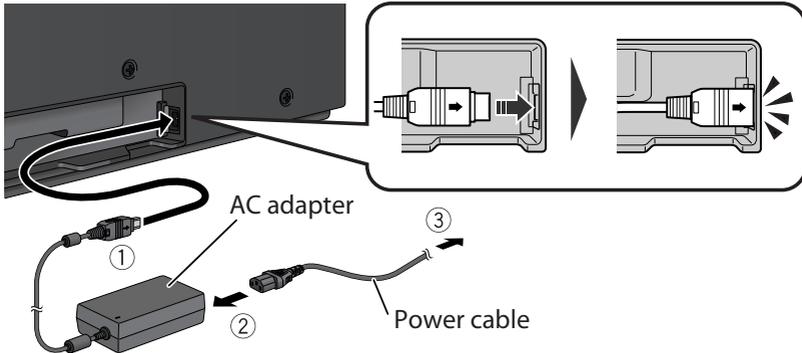
Power cable

- Ground the earth plug of the power cable to the earth terminal of the AC outlet.
- When several kinds of power cord are provided in the package, use the one which fits your AC outlet.

Initial settings

When you turn on the monitor for the first time, initial settings start. Select the menu language and the place of installation.

1 **Select the menu language.**
1-1 **Select "Menu Language" and press the [OK] button.**
1-2 **Select from the list the language you want using the [▲▼] buttons, and press the [OK] button.**
1-3 **Select [Set] and press the [OK] button.**
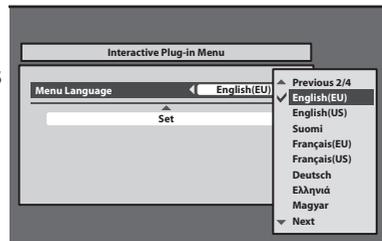
2 **Select the place of installation.**
2-1 **Select "Place of Installation" and press the [OK] button.**
2-2 **Select the place of installation using the [▲▼] buttons, and press the [OK] button.**
2-3 **Select [Set] and press the [OK] button.**
- Whichever place you select in step 2, settings and functions are the same.
- In steps 1-1 and 2-1, you can also select a setting by pressing the [◀ ▶] buttons.

Parts identification

Main unit

Speaker unit
Remote sensor
Power indicator
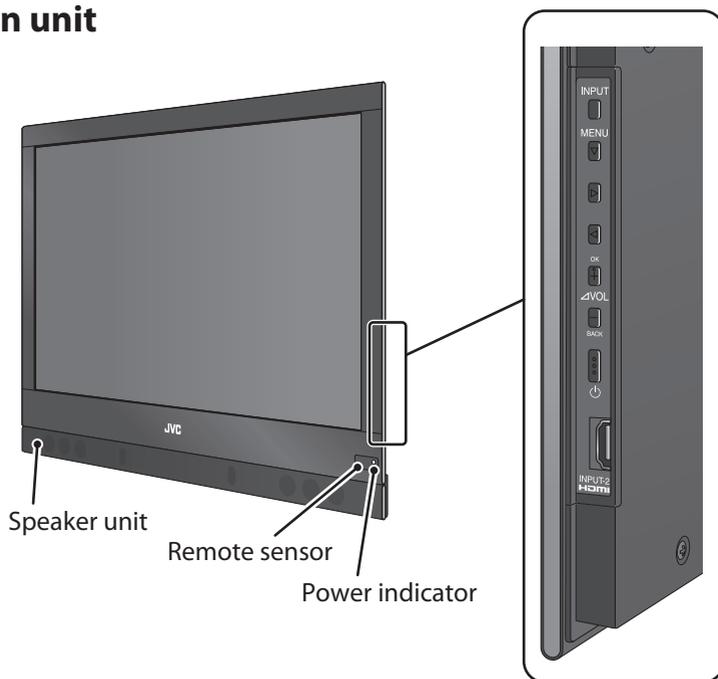
Power indicator	Lights while the monitor is on.
Remote sensor	Aim the remote control here.

⏻	Turns the monitor on/off (on standby).
INPUT	Switches the input.
MENU ▾	Opens the setting menu. Functions as the down cursor key in the menu operations.
◄ ►	Functions as the left cursor key and the right cursor key in the menu operations.
+ OK	Turns up the volume. Functions as the OK key in the menu operations.
– BACK	Turns down the volume. Functions as the BACK key in the menu operations.

Remote control

⏻/l	Turns the monitor on/off (on standby).
LINK	Opens the operation window for HDMI CEC devices. (➔ page 11)
OPTION	Opens the setup window of HDMI CEC devices. Opens the setting menu of the Photo viewer (➔ page 38).
MENU	Opens the setting menu. (➔ page 12)
EXIT	Exits from the menu.
▲▼ ◀▶ **(Cursor keys)**	Selects an item.
OK	Confirms your selection.
BACK	Goes back to the previous screen.
ZOOM	Changes the aspect. (➔ page 28)
BLUE	Press accordingly to the on-screen indications.
RED	
GREEN	
YELLOW	
◢+/–	Adjusts the volume.
◢	Attenuates the sound.
INPUT 1	Switches the input.
INPUT 2	
INPUT 3	
INPUT 4	

● Buttons not mentioned above are equipped for the operations of a TV tuner.

Controlling HDMI devices

You can control HDMI CEC devices connected to this monitor using the remote of the monitor.

- This function can be customized in the "HDMI" settings (➔ page 34).
- Devices may not operate or may function differently from described, depending on the model or the manufacturer.

1 Press the [LINK] button.

Operation window appears.

2 Select the device to control.

Select the device name under "Device".

```
Link    >Recorder

Device              Input-1

● Rec.                      »
■ Rec.Stop                  »
  NAVIGATION                »
  Function                  »
Operation Panel             ▶

Speaker              Monitor

Exit               ⊙─ Operate
EXIT                   Select
```

3 Control the selected HDMI device.

- "Rec." : Starts recording.
- "Rec.Stop" : Stops recording.
- "NAVIGATION" : Opens the playback menu of the HDMI device.
- "Function" : Opens the operation menu of the HDMI device.
- "Operation Panel" : Opens the operation panel.
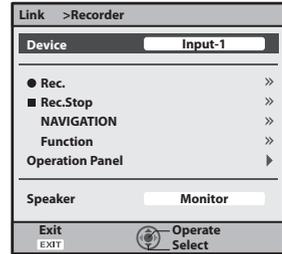
To select the audio output

When an HDMI CEC amplifier is connected to the monitor, you can select either the monitor or the amplifier as the device to output the sound signal.

- To output the sound from the amplifier, set "AMP Control" (➔ page 35) to "On", and connect the audio output terminals of the player into the amplifier.

1 Press the [LINK] button.

2 Select "Monitor" or "AMP" under "Speaker".

- "Monitor" : The sound is output from the speakers when you connect the speaker unit to the monitor. The volume buttons of the monitor control the volume of the speakers.
- "AMP" : The sound is output from the amplifier. The volume buttons of the monitor control the volume of the amplifier.

Changing the settings

Example: to change the setting of "Colour Temperature"

1 **Open the menu.**

MENU

	Picture	Page 1/3
Setting Memory		◀ Memory1 ▶
Load Preset		▶
Hue	0	
Hue Setting		▶
Colour	0	
Contrast	0	
Contrast Setting		▶
Brightness	0	
Sharpness	0	

2 **Select "Picture".**

OK
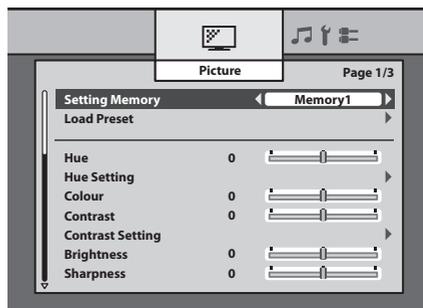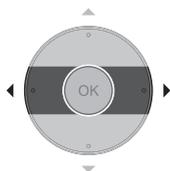
3 **Select "Colour Temperature".**

OK → OK
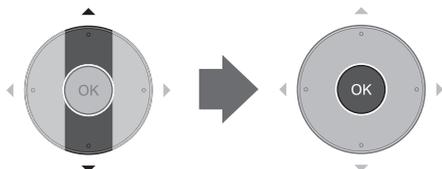
● The item currently selected is shown in orange.

4 **Select the setting you want.**

OK → OK
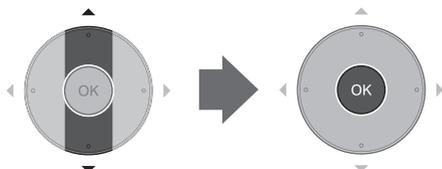
● When the selected item is followed by an adjustment screen, press the [◀ ▶] buttons to make adjustments.

5 **Finish the setting.**

EXIT

Picture		➜ page 13
Sound		➜ page 25
Setup		➜ page 27
HDMI		➜ page 34

Technical information

Show Your True Colours.

Adjust the picture to your needs

To use a preset

1 **Open the menu.**

2 **Select a memory from "Setting Memory" in "Picture".**
In the initial setting, 6 presets are assigned to each memory as follows:
- Memory1 : Standard
- Memory2 : Dynamic
- Memory3 : Theater
- Memory4 : Monitor
- Memory5 : Photo Pro
- Memory6 : Game

- See page A-4 for the detail of each preset.
- If you have modified the settings (➔ next page), the settings of each memory are different from the default.
- When the input is changed, the memory used for the input last time is automatically applied.

Picture	Page 1/3
Setting Memory	◀ Memory1 ▶
Load Preset	▶
Hue	0
Hue Setting	▶
Colour	0
Contrast	0
Contrast Setting	▶
Brightness	0
Sharpness	0
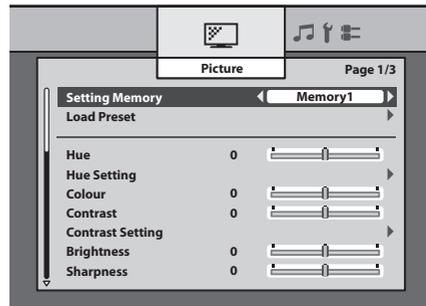
This monitor features rich menus for picture control, in addition to 10 pre-installed sets of picture settings carefully prepared by JVC to suit various types of video content and viewing environment.
Enjoy controlling appearance of pictures using the "Picture" menu, and create your own picture settings.

Adjust the picture to your needs

To customize the settings

You can create your own set of picture settings by arranging the settings of a preset. Storing several sets of settings helps you to enjoy a picture in the taste you like according to the viewing environment and characteristics of the source.

1 **Open the menu.**

2 **Select the memory you want to adjust from "Setting Memory" in "Picture".**

3 **Adjust items in "Picture".**
   → See pages 14 and later for the detail of menu items.
   ● It is recommended to use the preset of "Standard" as the base of your adjustment.
   ● Adjustments are stored into the selected memory as you change the settings.
   ● To make another set of picture settings, select another memory in step 2 above and start adjustments.

To reset the settings

If you do not like your current adjustments, load either of the preset settings into the memory which you want to reset. Settings of the selected memory are overwritten by those of the loaded preset setting.

   1 **Open the menu.**
   2 **Select the memory you want to reset from "Setting Memory" in "Picture".**
   3 **Select "Load Preset", select one of the preset settings, and press "Load".**

A-3

● **Characteristics of the 10 presets**

Dynamic

Makes pictures colourful and bright, suitable for watching in a well-light room.

Standard

The most standard setting.

Theater

Suitable for watching cinemas in a dark room.

● **Special settings**

Signage

Suitable for digital signage use in market, shops or hotels.

CCTV HD

Suitable for monitoring CCTVs in HD format.

→ See the following pages for the setting values of each preset.

Monitor

Does not apply colour adjustments or noise reductions. Input video signals are displayed as they are. Suitable for monitoring purpose.

Photo Pro

Suitable for watching still pictures of SLR digital cameras.

Game

Gives priority to the response time for picture movement. Suitable for game consoles.

CCTV SD

Suitable for monitoring CCTVs in SD format.
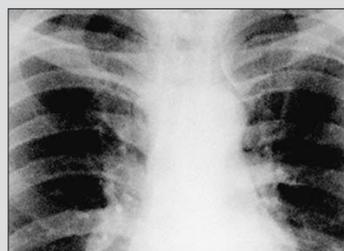
Option

Suitable for displaying medical images including x-ray pictures.
● This setting is only for approximate presentation and does not conform to any official standard of medical imaging.

● Setting values of each preset

● The settings are subject to change for amelioration.

	Dynamic	Standard	Theater	Monitor	
Hue	0	0	0	0	
Hue Setting					
BY Gain	0	0	0	0	
BY/RY Angle	0	+2	+3	0	
Colour	+8	+4	+2	0	
Contrast	+3	0	0	0	
Contrast Setting					
Black Stretch	High	Medium	Off	Off	
Dynamic DC Offset	On	On	On	Off	
Auto Contrast	On	Off	Off	Off	
Brightness	0	0	+2	0	
Sharpness	+10	0	0	−30	
Enhancer	Mode-2	Mode-2	Mode-3	Mode-3	
Enhancer Setting					
Detail	0	−5	0	0	
H.Sharp	+10	+5	+10	0	
V.Sharp	+10	+5	+5	0	
Backlight	+30	+5	−5	0	
Backlight Setting					
Smart Picture	Off	On	On	Off	
Dynamic Backlight	High	Medium	Low	Off	
Colour System	Auto	Auto	Auto	Auto	
Colour Matrix	Auto	Auto	Auto	Auto	
Colour Space	Auto	Auto	Normal	Normal	
Colour Temperature	Mode-2	Mode-3	Mode-5	Mode-5	

Photo Pro	Game	Signage	CCTV HD	CCTV SD	Option
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	+5	+8	+14	0
0	0	0	+4	+5	0
Off	Off	Medium	High	High	Off
Off	Off	Off	Off	Off	Off
Off	Off	On	On	On	Off
0	0	0	0	−4	+2
0	−15	−10	20	20	−30
Mode-3	Mode-3	Mode-3	Mode-1	Mode-1	Mode-3
−15	0	0	0	0	0
−5	0	0	0	+5	0
−15	0	−15	0	−5	0
+5	+10	+30	+30	+30	+18
Off	On	Off	Off	Off	Off
Off	Off	Medium	Medium	Medium	Off
Auto	Auto	Auto	Auto	Auto	Auto
Auto	Auto	Auto	Auto	Auto	Auto
sRGB	Auto	Wide	Wide	Wide	Normal
Mode-5	Mode-2	Mode-2	Mode-3	Mode-3	Mode-4

	Dynamic	Standard	Theater	Monitor	
White Balance Setting					
R Drive / G Drive / B Drive	0	0	0	0	
R Cutoff / G Cutoff / B Cutoff	0	0	0	0	
Colour Management	Mode-1	Mode-2	Mode-3	Off	
Colour Mngmt. Setting					
Red Hue / Red Colour	0	0	0	0	
Yellow Hue / Yellow Colour	0	0	0	0	
Green Hue / Green Colour	0	0	0	0	
Cyan Hue / Cyan Colour	0	0	0	0	
Skin Hue / Skin Colour	0	0	0	0	
Colour : Bright Area	0	0	0	0	
Colour : Dark Area	0	0	0	0	
Gamma	Mode-2	Mode-2	Mode-3	Mode-3	
Picture Management	High	Medium	Low	Off	
Noise Reduction					
Digital VNR	Auto	Auto	Auto	Off	
MPEG NR	Low	Low	Low	Off	
3DY/C	On	On	On	Off	
Natural Cinema	Auto	Auto	Auto	Off	
Picture Delay Time	Normal	Normal	Normal	Normal	
PC Monitor Mode	Off	Off	Off	Off	
Eco Mode	Off	Off	Off	Off	
Other					
Real Bit Driver	On	On	On	Off	
100/120Hz CMD	On	On	On	Off	

	Photo Pro	Game	Signage	CCTV HD	CCTV SD	Option
	0	0	0	0	0	0
	0	0	0	0	0	0
	Off	Mode-2	Mode-1	Mode-2	Mode-1	Off
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	Mode-3	Mode-2	Mode-3	Mode-4	Mode-2	Mode-6
	Off	Medium	Medium	Medium	High	Off
	Auto	Auto	Auto	Auto	Auto	Off
	Off	Low	Low	Low	Low	Off
	On	On	On	On	On	Off
	Off	Off	Off	Off	Off	Off
	Normal	Middle	Normal	Normal	Normal	Short
	Off	Off	Off	Off	Off	Off
	Off	Off	Off	Off	Off	Off
	On	On	On	On	On	Off
	Off	On	Off	On	On	Off

A-9

Set up the monitor for your PC

Selecting the input signal

When you connect a PC to the INPUT-3 terminal, set the type of the input signal accordingly.

● **For signals in VGA60 and XGA60**
Set "Sampling Mode" to "Std". (➜ page 32)

● **For signals in WVGA60**
Set "Sampling Mode" to "Wide". (➜ page 32)

● **For signals in WXGA (1280), WXGA (1360) and WXGA60**
  1 Set "Sampling Mode" to "Wide". (➜ page 32)
  2 Set "WXGA Select" as follows. (➜ page 32)
    ● For signals in WXGA (1280): "1280*768"
    ● For signals in WXGA (1360): "1360*768"
    ● For signals in WXGA60: "1366*768"

● **For signals in SXGA60**
Set "SXGA / SXGA+" to "SXGA". (➜ page 32)

● **For signals in SXGA+60**
Set "SXGA / SXGA+" to "SXGA+". (➜ page 32)

If the picture is not aligned vertically, or letters on the screen look blurred
Set the aspect to "1:1", and adjust "Dot Clock" and "Clock Phase". (➜ page 33)
- For signals in 1920 x 1080, set the aspect to "Full" and adjust the same items.

If the picture is cropped, or extra margins are displayed around it
1. **Set the aspect to "Full".**
2. **Adjust the position of the picture using "PC Position Adjustment" until the upper left corner of the picture is positioned at the upper left corner of the display.**
3. **Adjust the size of the picture using "H Size" and "V Size" until the bottom right corner of the picture is positioned at the bottom right corner of the display.**

Enjoy SLR digital camera photographs

When you select the picture preset of "Photo Pro" in "Setting Memory", you can view the photographs just the way they were taken.
You can also view photographs on an SD card or USB device using Photo viewer. (➜ page 36)

For JPEG pictures, select "sRGB" or "AdobeRGB" under the setting of "Colour Space" (➜ page 18) according to the setting of your camera, so that the photographs are displayed more faithfully to the original.
- It is recommended not to modify the settings of "Photo Pro". In the initial setting of "Photo Pro", "Colour Space" is set to "sRGB".

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Menu index by task

Picture

Setting Memory

You can store up to 6 sets of the "Picture" settings and use them.

- When the input is changed, the memory used for the input last time is automatically applied.

■ **Memory1 / Memory2 / Memory3 / Memory4 / Memory5 / Memory6**

Load Preset

You can load one of the presets below into a memory.
You can do further adjustment based on the loaded settings.

- Select a preset and press "Load" to load a preset.
- ■ **Dynamic** : Makes pictures colourful and bright, suitable for watching in a well-light room.
- ■ **Standard** : The most standard setting.
- ■ **Theater** : Suitable for watching cinemas in a dark room.
- ■ **Monitor** : Does not apply colour adjustments or noise reductions. Input video signals are displayed as they are.
- ■ **Photo Pro** : Suitable for watching still pictures of SLR digital cameras.
- ■ **Game** : Gives priority to the response time for picture movement. Suitable for game consoles.
- ■ **Signage** : Suitable for digital signage use in market, shops or hotels.
- ■ **CCTV HD** : Suitable for monitoring CCTVs in HD format.
- ■ **CCTV SD** : Suitable for monitoring CCTVs in SD format.
- ■ **Option** : Suitable for displaying medical images including x-ray pictures.
  - This setting is only for approximate presentation and does not conform to any official standard of medical imaging.

Hue

Adjusts the tone of colour.

■ **–30 – +30** (Skin colour reddish ↔ Skin colour greenish)

Hue Setting

Adjusts the tone of colour in detail.

● The setting is fixed to 0 and unadjustable when "Colour Space" is set to "sRGB", "AdobeRGB", or "x.v.Colour".

● The setting is fixed to 0 and unadjustable when "Colour Space" is set to "Auto" and the xvYCC signal is input to the HDMI terminal.

● The setting is fixed to 0 and unadjustable when "PC Monitor Mode" is set to "On".

◆ **BY Gain**

Adjusts the amplitude of the B-Y colour difference signal. You can modify the total colouring of the picture.

■ **–30 – +30** (Small amplitude ↔ Large amplitude)

◆ **BY/RY Angle**

Adjusts the demodulation angle between the B-Y colour difference signal and the R-Y colour difference signal. You can modify the total colouring of the picture.

■ **–15 – +15** (Decreasing the angle ↔ Increasing the angle)

Colour

Adjusts the density of colour.

■ **–30 – +30** (Dilute ↔ Dense)

Contrast

Adjusts the brightness of brighter areas of pictures.

■ **–30 – +30** (Dark ↔ Bright)

Contrast Setting

Adjusts settings of functions relating with contrast.

● The functions are not available when "Colour Space" is set to "sRGB" or "AdobeRGB".
● The functions are not available when "PC Monitor Mode" is set to "On".

◆ Black Stretch

Emphasizes darker areas depending on the characteristics of a picture to make contrast clearer.

■ **High / Medium / Low / Off**

◆ Dynamic DC Offset

Controls the blackness of the picture automatically depending on the total brightness.

■ **On / Off**

◆ Auto Contrast

Emphasizes brighter areas depending on the characteristics of a picture to make contrast clearer.

■ **On / Off**

Brightness

Adjusts blackness.

■ **–30 – +30** (Dark ↔ Bright)

Sharpness

Emphasizes outlines on a picture.

- ● The setting is unadjustable when "Enhancer" is set to "Off".
- ■ **–30 – +30** (Fuzzy ↔ Sharp)

Enhancer

Selects the frequency band enhanced by "Sharpness".

- ■ **Off** : Deactivates the function.
- ■ **Mode-1 / Mode-2 / Mode-3**
(Emphasizes lower frequency band; for low-resolution picture ↔
Emphasizes higher frequency band; for high-resolution picture)

Enhancer Setting

Adjusts the effects of "Enhancer" in detail.

- ● All the settings are unadjustable when "Enhancer" is set to "Off".

◆ **Detail**

Adjusts texture of surface.

- ■ **–15 – +15** (Weaker ↔ Stronger)

◆ **H.Sharp**

Adjusts sharpness of horizontal outlines.

- ■ **–15 – +15** (Weaker ↔ Stronger)

◆ **V.Sharp**

Adjusts sharpness of vertical outlines.

- ■ **–15 – +15** (Weaker ↔ Stronger)

Backlight

Adjusts the brightness of backlight.

- ■ **–30 – +30** (Darker ↔ Brighter)

Backlight Setting

Adjusts settings of functions relating with backlight.

◆ Smart Picture

Reduces the backlight automatically in dazzling scenes.
■ **On / Off**

◆ Dynamic Backlight

Reduces the backlight automatically in dark scenes to represent black deeper.
■ **High / Medium / Low / Off**

Colour System

Selects the colour system for the picture signal which is input to INPUT-3 from composite terminal.

- ● The setting is adjustable only when "Input-3 Setting" is set to "Composite". (➜ page 31)
- ● The setting is unadjustable when "PC Monitor Mode" is set to "On".
- ■ **Auto** : An appropriate colour system is automatically applied depending on the type of the input signal. Normally select this.
- ■ **PAL/50** : When the colour system is PAL.
- ■ **PAL/60** : When the colour system is PAL 60.
- ■ **SECAM** : When the colour system is SECAM.
- ■ **NTSC3.58** : When the colour system is NTSC 3.58.
- ■ **NTSC4.43** : When the colour system is NTSC 4.43.
- ■ **PAL M** : When the colour system is PAL-M.
- ■ **PAL N** : When the colour system is PAL-N.

Colour Matrix

Selects the colour matrix used for colour conversion.

- The setting is fixed to "Auto" and unadjustable when "Colour Space" is set to "sRGB", "AdobeRGB", or "x.v.Colour".
- The setting is fixed to "Auto" and unadjustable when "PC Monitor Mode" is set to "On".
- The setting is fixed to "Auto" and unadjustable when "Colour Space" is set to "Auto" and the xvYCC signal is input to the HDMI terminal.

- **Auto** : An appropriate colour matrix is applied automatically.
- **709** : The colour matrix conforming ITU-R BT.709 is used for conversion.
- **601** : The colour matrix conforming ITU-R BT.601 is used for conversion.

Colour Space

Changes the range of colour representation.

- "sRGB" or "AdobeRGB" is selectable when "PC Monitor Mode" is set to "On".
- Even when "Auto" is selected, the setting may not switch to "x.v.Colour" automatically depending on the connected device or the connection status.

- **Auto** : Normally applies "Wide". When the xvYCC signal is input to the HDMI terminal, "x.v.Colour" is applied automatically. When the Photo viewer is selected, "Normal" is applied automatically.
- **Normal** : HDTV standard.
- **Wide** : The wide colour gamut of the equipped LCD panel. (Wider than the HDTV standard.)
- **x.v.Colour** : Colour representation suitable for x.v.Colour.
- **sRGB** : Colour representation suitable for sRGB.
- **AdobeRGB** : Colour representation suitable for AdobeRGB.

Colour Temperature

Adjusts the colour temperature (colour tone). The higher the colour temperature, the more bluish the picture.

- ● The setting is fixed to "Mode-5" and unadjustable when "Colour Space" is set to "sRGB" or "AdobeRGB".
- ● The setting is fixed to "Mode-5" and unadjustable when "PC Monitor Mode" is set to "On".
- ■ **Mode-1** : Bluish display. (approx. 13000 K)
- ■ **Mode-2** : Less bluish than "Mode-1". (approx. 11000 K)
- ■ **Mode-3** : For general purpose. (approx. 9300 K)
- ■ **Mode-4** : For special purposes including medical imaging. (approx. 8000 K)
- ■ **Mode-5** : Standard setting. (approx. 6500 K)
- ■ **Mode-6** : For conformation of images for printing. (approx. 5000 K)
- ■ **Mode-7** : Significantly reddish setting intended for special usages in television studios. (approx. 3200 K)

White Balance Setting

Adjusts colour temperature in detail; subtle control of RGB gradations.

- ● These settings are independent of the setting of "Colour Temperature".

◆ R Drive / G Drive / B Drive

Adjusts the depth of R/G/B on bright areas.
- ■ **–30 – +30** (Dilute ↔ Dense)

◆ R Cutoff / G Cutoff / B Cutoff

Adjusts the depth of R/G/B on dark areas.
- ■ **–30 – +30** (Dilute ↔ Dense)

Changing the settings : Picture

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Colour Management

Adjusts the total colouring of pictures. Three colour management presets are available to suit a variety of colour temperature settings.

- ● The setting is fixed to "Off" and unadjustable when "Colour Space" is set to "sRGB", "AdobeRGB", or "x.v.Colour".
- ● The setting is fixed to "Off" and unadjustable when "PC Monitor Mode" is set to "On".
- ● The setting is fixed to "Off" and unadjustable when "Colour Space" is set to "Auto" and the xvYCC signal is input to the HDMI terminal.
- ■ **Mode-1** : Improving the vividness of colours. Suitable for high colour temperature.
- ■ **Mode-2** : Standard colours. Suitable for medium colour temperature.
- ■ **Mode-3** : Improving the total toning of colours. Suitable for low colour temperature.
- ■ **Off** : Deactivates the function.

Colour Mngmt. Setting

Adjusts the total colouring of pictures in detail.

- ● All the settings are fixed to 0 and unadjustable when "Colour Management" is set to "Off".
- ● All the settings are fixed to 0 and unadjustable when "Colour Space" is set to "sRGB", "AdobeRGB", or "x.v.Colour".
- ● All the settings are fixed to 0 and unadjustable when "PC Monitor Mode" is set to "On".
- ● All the settings are fixed to 0 and unadjustable when "Colour Space" is set to "Auto" and the xvYCC signal is input to the HDMI terminal.

◆ Red Hue / Red Colour

Adjusts the tone/colourfulness of red colours.
- ■ **–15 – +15** (Magenta ↔ Yellow) **/ –30 – +30** (Dilute ↔ Dense)

◆ Yellow Hue / Yellow Colour

Adjusts the tone/colourfulness of yellow colours.
- ■ **–15 – +15** (Red ↔ Green) **/ –30 – +30** (Dilute ↔ Dense)

◆ **Green Hue / Green Colour**

Adjusts the tone/colourfulness of green colours.

■ **–15 – +15** (Yellow ↔ Cyan) **/ –30 – +30** (Dilute ↔ Dense)

◆ **Cyan Hue / Cyan Colour**

Adjusts the tone/colourfulness of blue colours.

■ **–15 – +15** (Green ↔ Blue) **/ –30 – +30** (Dilute ↔ Dense)

◆ **Skin Hue / Skin Colour**

Adjusts the tone/colourfulness of skin colours.

■ **–15 – +15** (Red ↔ Yellow) **/ –30 – +30** (Dilute ↔ Dense)

◆ **Colour : Bright Area**

Adjusts the colour depth of bright areas.

■ **–15 – +15** (Dilute ↔ Dense)

◆ **Colour : Dark Area**

Adjusts the colour depth of dark areas.

■ **–15 – +15** (Dilute ↔ Dense)

Gamma

Adjusts the gamma correction value and controls the brightness and gradation of intermediately bright areas.

■ **Mode-1** : For confirmation of images for printing. (Equivalent to γ 1.8)

■ **Mode-2** : For general purpose. (Equivalent to γ 2.0)

■ **Mode-3** : Standard setting. (Equivalent to γ 2.2)

■ **Mode-4** : Setting designed according to general CRT property. (Equivalent to γ 2.4)

■ **Mode-5** : For viewing digital cinemas. (Equivalent to γ 2.6)

■ **Mode-6** : For special purposes including medical imaging. Complies with GSDF (Grayscale Standard Display Function).

■ **Mode-7** : Dark areas are brighter when compared to "Mode-3".

Picture Management

Adjusts gamma value automatically depending on the brightness of pictures.

■ **High / Medium / Low / Off**

Noise Reduction

Adjusts the settings of picture noise reduction.

● The functions are unavailable when "PC Monitor Mode" is set to "On" or
when signals in a PC signal format are coming in.

◆ Digital VNR

Reduces picture noise.

■ **Auto** : Estimates the amount of noise automatically and applies
suitable noise reduction processing.

■ **High / Medium / Low / Off**

◆ MPEG NR

Reduces noise on MPEG pictures such as mosquito-noise and block-
noise.

■ **High / Low / Off**

3DY/C

Detects the type of the picture signal (movie or still picture) which is input
to INPUT-3 from composite terminal and applies a suitable Y/C separation
process to each type.

● Unavailable when "Picture Delay Time" is set to "Short".

● Unavailable when the format of the incoming signal is other than NTSC 3.58,
PAL50, PAL M or PAL N.

■ **On / Off**

Natural Cinema

Displays quick-moving parts on cinemas originally taken on films with more clarity.

- The setting is fixed to "Off" and unadjustable when "Picture Delay Time" is set to "Short".
- The setting is fixed to "Off" and unadjustable when "PC Monitor Mode" is set to "On".
- The setting is fixed to "Off" and unadjustable when progressive picture signal is input.
- **Auto / Off**

Picture Delay Time

Adjusts the time spent for picture-improving processes. The delay time becomes shorter though picture quality is down when the processes are skipped.

- The setting is fixed to "Short" and unadjustable when "PC Monitor Mode" is set to "On".
- **Normal** : The picture-improving processes are fully applied, giving priority to picture quality.
- **Middle** : Some picture-improving processes are skipped to decrease the delay time.
- **Short** : Most of picture-improving processes are skipped to decrease the delay time more.

PC Monitor Mode

Sets the monitor for use as a PC monitor.

- Only menu items which are necessary for PC monitors are activated.
- Input signals from HDMI terminals are recognized as PC signals (R:G:B = 4:4:4) and are processed appropriately.
- **On / Off**

Eco Mode

Adjusts the brightness of backlight depending on the luminance of the room to reduce power consumption.

- **Demo** : Activating the function and indicating its performance.
- **On** : Activating the function. Its performance is not indicated.
- **Off** : Deactivates the function.

Other

◆ Real Bit Driver

Makes the gradation of 8 bit signals natural and smooth.

- Also effective on signals not in 8 bit.
- **On / Off**

◆ 100/120Hz CMD

Doubles the number of frames per second to reduce image blur.

- The setting is fixed to "Off" and unadjustable when "Colour Space" is set to "sRGB" or "AdobeRGB".
- The setting is fixed to "Off" and unadjustable when "Picture Delay Time" is set to "Short".
- The setting is fixed to "Off" and unadjustable when "PC Monitor Mode" is set to "On".
- **On / Off**

Sound

● The following settings are not adjustable while using the Photo viewer (➔ page 36).

Bass

Adjusts bass tone.
- **–6 – +6** (Weaker ↔ Stronger)

Treble

Adjusts treble tone.
- **–6 – +6** (Weaker ↔ Stronger)

Balance

Adjusts sound balance.
- **L10 – 10R** (To the left ↔ To the right)

Auto Volume Control

Turns down the volume automatically when an excessive strong sound signal is input.
- **On / Off**

Lip Sync

Adjusts the delay time of sound.
- **–3 – +3** (The sound starts earlier ↔ The sound starts later)

PEQ

Optimizes the sound for the monitor's supplied speaker unit. When the speaker unit is connected, setting "PEQ" to "On" brings high and low tones into balance, making the sound clearer. Select "Off" when connecting other speakers.

● "PEQ" stands for "Parametric Equalizer".

■ **On / Off**

Turn On Volume

Adjusts the initial volume when turning on the monitor.

■ **0 – 50**

■ **Current** : Setting the current volume to the initial.

● If the setting value surpass that of "Volume Limit", the initial volume at turning on becomes the maximum value set for "Volume Limit".

● Amplifiers connected to an HDMI terminal ignore this setting.

Volume Limit

Sets the maximum volume to prevent unexpectedly loud sound reproduction.

■ **0 – 50**

● Amplifiers connected to an HDMI terminal ignore this setting.

Reset

Restores the settings of "Sound" to the initial.

Setup

Menu Language

You can choose the language used for on-screen messages.

- **English (EU) / Deutsch / Français(UE) / Italiano / Français(UE) / Català / Nederlands / Dansk / Svenska / Norsk / Suomi / Polski / Magyar / Русский / Ελληνικά / Português / Česky / Български / Українська/ Türkçe / Română / العربية / 繁體中文 / 中文 / فارسی / Bahasa Melayu / ไทย / Español (US) / Français(US) / English (US) / 日本語**

Front Panel Lock

Makes operations through the buttons on the monitor ineffective.

- **On** : Making the buttons on the monitor ineffective.
- **Off** : Making the buttons on the monitor effective.
- ● You can turn on/off the power by pressing and holding the [⏻] button on the monitor for more than 3 seconds even when the setting is "On".
- ● You can change the setting to "Off" by pressing and holding the [MENU] button on the monitor for more than 3 seconds.
- ● The settings returns to "Off" after disconnecting the power cord.

Auto Shut Off

Turns off the monitor automatically when no signal comes in.

- **On** : Turns off the monitor automatically when no signal comes in for 10 minutes or no operation is done for 4 hours.
- **Off** : Deactivates the function.

Zoom

Adjusts the aspect of pictures.

● The setting is also adjustable through the [ZOOM] button on the remote control.

◆ Options when the current input signal is SD

■ **Auto** : When the video signal contains information about aspect ratio (WSS etc.), the aspect is switched accordingly. In other cases, the picture is displayed in either "Regular" or "Panoramic", depending on the setting of "4:3 Aspect Setting" (➔ page 31).

■ **Regular** : No modifying of aspect. Black areas remain at the left and right side of the picture.
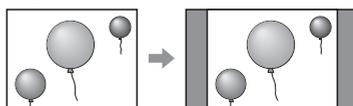
■ **Panoramic** : Zooming a picture to the width of the monitor without unnatural deformation.
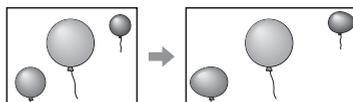
■ **14:9 Zoom** : Zooming a 14:9-aspect picture in the way that the upper and lower black bands are edged out. Black areas remain at the left and right side of the picture.
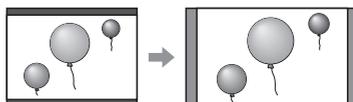
● You cannot select "14:9 Zoom" for signals in 480i and 480p.

■ **16:9 Zoom** : Zooming a picture in the way that the upper and lower black bands in a cinema program are edged out.
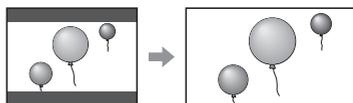
■ **16:9 Zoom Subtitle** : Zooming a picture in the way that the upper and lower black bands of a cinema program are edged out leaving space for captions.
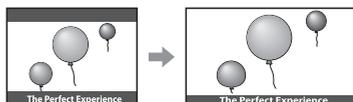
■ **Full** : Stretching a picture to the width of the monitor.

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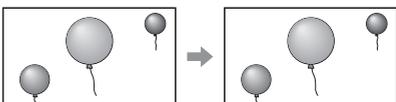
◆ Options when the current input signal is HD

● You can select "Full Native" only when the input signal is 1080i/p.

■ **Full** : Stretching a picture to the width of the monitor.
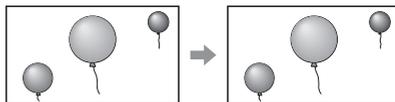
■ **Full Native** : Displaying a picture of 1080i/p without enlargement.
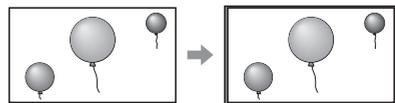
■ **Slim** : Shrinking a picture horizontally. Black areas remain at the left and right side of the picture.
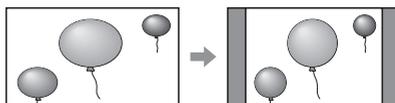
■ **Panoramic Zoom** : Zooming a picture without unnatural deformation in the way to edge out the black parts around a 4:3-aspect cinema program transferred through 16:9-aspect signal.
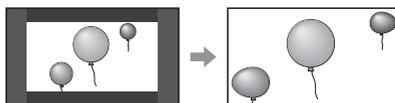
◆ Options when the current input signal is from a PC

● You cannot select "Just" and "1:1" for some input signals.

■ **Full** : Stretching a picture to the width of the monitor.
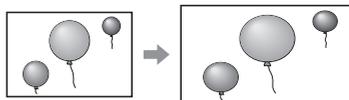
■ **Just** : No modifying of aspect. Black areas remain at the left and right side of the picture.
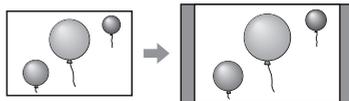
■ **1:1** : No modifying of aspect or resolution. Black areas remain around the picture.
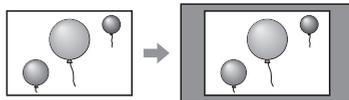
Position Adjustment

Adjusts the picture position on the monitor.

- Vertical adjustment is effective when "Zoom" is set to "14:9 Zoom", "16:9 Zoom", "Panoramic", "16:9 Zoom Subtitle", or "Panoramic Zoom".
- Horizontal adjustment is effective only when "Zoom" is set to "Panoramic Zoom".
- When a PC signal is input, adjust the position on "PC Position Adjustment" in "PC Setting".
- The positioning is reset as the power is turned off.
- The positioning is reset as the signal format changes.
- The positioning is reset as the signal aspect changes.

Power Indicator

Sets the action of the power indicator.

- **On** : The power indicator remains lit while the power is on.
- **Off** : The power indicator does not light.
- The power indicator lights regardless of this setting if no signal is input while the power is on.

Information

Displays the source indication.

- **On / Off**
- The source indication appears regardless of this setting if no signal is input.
- The source indication is displayed for 4 seconds after changing the source even if the setting is "Off".

Input Label

Adds a source name specifying a device after the source name ("Input-1" - "Input-3").

- **(No label) / VCR / DVD / Blu-ray Disc / PVR / D-VHS / STB / SAT / AMP / GAME / CAM / DISC / PC**

4:3 Aspect Setting

Selects the aspect setting which is applied when "Zoom" (➔ page 28) is set to "Auto". The picture is displayed in the selected aspect when the aspect is 4:3 or when the monitor cannot detect the aspect of a picture.

- **Regular** : Displays the picture in "Regular".
- **Panoramic** : Displays the picture in "Panoramic".

1080 Auto Setting

Selects the default aspect for 1080i/p signals.

- **Full** : Expands the picture to the full display size.
- **Full Native** : Displays the picture in the same magnification (100% scan).

Input-3 Setting

Selects the signal type for the INPUT-3 terminal (D-sub 15 pin).

- Use the supplied conversion cables and other cords according to the type of connection. (➔ page 06)
- **PC** : For PC signals
- **Component** : For component signals
- **Composite** : For composite signals

PC Setting

Adjusts the settings for PC signals.

● The items below are unadjustable when no PC signal is input: "H Size",
  "V Size", "Dot Clock", "Clock Phase", "PC Position Adjustment", and "Auto
  Position Adjustment".
● "Auto Position Adjustment" is unavailable for INPUT-3.
● "Dot Clock" and "Clock Phase" are unavailable for INPUT-1, INPUT-2.

◆ Sampling Mode

Sets the display size for an analog input signal.
■ **Std** : For VGA60 and XGA60 signals
■ **Wide** : For WVGA60, WXGA (1280), WXGA (1360) and WXGA60 signals

◆ WXGA Select

Sets the display size for an analog input signal.
■ **1280*768** : For WXGA (1280) signal
■ **1360*768** : For WXGA (1360) signal
■ **1366*768** : For WXGA60 signal

◆ SXGA / SXGA+

Sets the display size for an analog input signal.
■ **SXGA** : For SXGA60 signal
■ **SXGA+** : For SXGA+60 signal

◆ H Size

Adjusts the picture width.
■ **–20 – +20** (Smaller ↔ Larger)

◆ V Size

Adjusts the picture height.
■ **–20 – +20** (Smaller ↔ Larger)

◆ Dot Clock

Adjust this when the picture is not aligned vertically.

● The adjustment is kept after turning off the power.

■ **–20 – +20**

◆ Clock Phase

Adjust this when letters on the screen look blurred or swaying.

● The adjustment is kept after turning off the power.

■ **0 – 31**

◆ PC Position Adjustment

Adjusts the picture position on the monitor.

● The adjustment is kept after turning off the power.

◆ Auto Position Adjustment

Adjusts the picture position automatically.

◆ Reset

Restores the settings of "PC Setting" to the initial.

Reset

Restores the settings of "Setup" to the initial.

HDMI

Control with HDMI

Makes an HDMI CEC-compatible external component controllable through this monitor.

- **On** : Enables HDMI CEC control.
- **Off** : Deactivates HDMI CEC control.

One Touch Play

Starting playback on an HDMI CEC-compatible external component automatically turns on the monitor and change its source to the component.

- The setting is fixed to "Off" and unadjustable when "Control with HDMI" is set to "Off".
- Dedicated HDMI components cooperate with the monitor regardless of the setting.
- **On / Off**

Power Off Link

Turning off the monitor automatically turns off an HDMI CEC-compatible external component.

- The setting is fixed to "Off" and unadjustable when "Control with HDMI" is set to "Off".
- Dedicated HDMI components cooperate with the monitor regardless of the setting.
- **On / Off**

AMP Control

Makes an HDMI CEC-compatible amplifier controllable through the monitor.

- ● The setting is fixed to "Off" and unadjustable when "Control with HDMI" is set to "Off".
- ■ **On / Off**

Input-1 Audio

Selects the audio signal type for INPUT-1.

- ■ **Auto** : Detects the type automatically.
- ■ **Digital** : For HDMI equipment.
- ■ **Analogue** : For DVI equipment.

Reset

Restores the settings of "HDMI" to the initial.

Viewing photographs on SD card/USB device

Cautions

- Insert or remove SD cards and USB devices gently and in the right direction. Otherwise, the devices or the monitor may be damaged.
- It is recommended to keep a backup of your files.
- Do not connect a mouse, keyboard or the like.
- Do not use a USB hub or extension cable.

1 **Insert an SD card/USB device into the SD card slot/USB terminal on the side of the monitor.**

SD card cover (supplied)

Screw (ø2 x 6 mm, supplied)
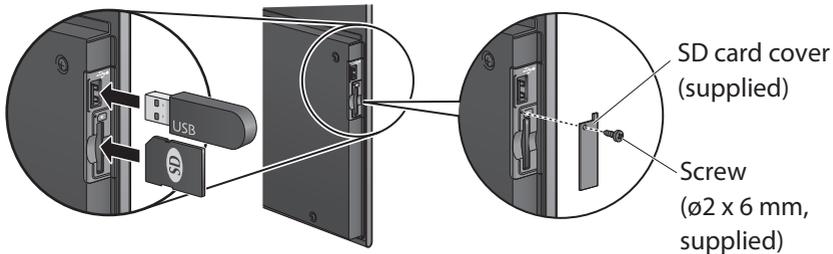
- Slide the SD card into the slot until it clicks into place.
- To remove the SD card, push it in until it clicks and then pull it out.

- Attach the SD card cover using the supplied screw to prevent theft.

2 **Set the input to "Input-4".**

The Folder Index shows a list of folders and photographs on the device .
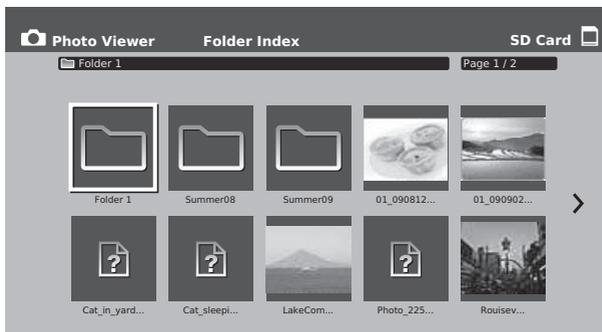
- To view the next/previous page, press [GREEN]/[RED].
- When you turn on the monitor while both an SD card and a USB device are connected, the photographs on the SD card are displayed. Select "Flash Device" in the "Device" setting (➔ page 38) to display the photographs on the USB device.
- The thumbnails of some files may not be shown.
- This monitor can only display file names as alphabetical letters.
- Photographs with large file-sizes may take a while to be displayed.

3 Select a photograph to display, and press [OK].
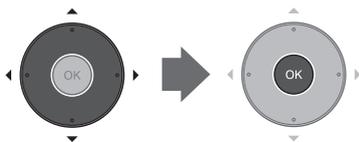
The selected photograph is displayed full-screen.

- Some files may be displayed with bands around the edges.
- To show the photographs in a folder, press [OK] on the folder.
- To see the next/previous photograph, press [▶]/[◀].
- To exit the full-screen display and show the Folder Index, press [EXIT].

To exit the photograph display
Select an input other than "Input-4".

To view photographs in slide show

### 1 Press [YELLOW] in the Folder Index.

YELLOW

- The slide show starts from the selected photograph.
- To pause/resume the slide show, press [OK].
- To display the photographs in a random order, press [BLUE] in the Folder Index.
- To finish the slide show, press [BACK].

To customize the settings

1 **Open the menu.**

OPTION

Photo Viewer	Viewer Option	SD Card
Device	◀ SD Card ▶	
Sort	Date	
Interval Time	10 sec	
Transition	Box	
Initial Mode	Folder Index	
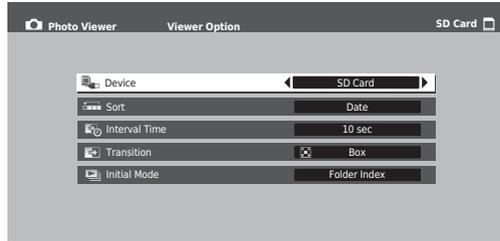
2 **Change the settings.**

OK ▶ OK

3 **Exit the menu.**

BACK
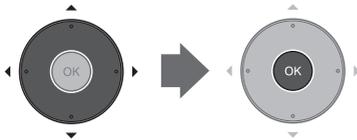
◆ **Device**

Select which device is displayed when both are connected; SD card or USB device.

◆ **Sort**

Select the display order of photographs.

■ **File Name** : In alphabetic order by file name.

■ **Date** : In order of the date when the file was modified.

◆ **Interval Time**

Select how long each picture is displayed for during slide shows.

◆ **Transition**

Select the transition effect used during slide shows.

◆ **Initial Mode**

Select the initial mode of the Photo viewer function. Either the Folder Index is displayed, or a slide show is started automatically.

● Menu items are displayed in English if you have selected "中文", "繁體中文" or "فارسى", "العربية", "ไทย" in "Menu Language" of "Setup".

About SD cards and USB devices
- The maximum capacity of devices playable on this monitor is as follows:
  - SD cards, miniSD cards, microSD cards: 2 GB
  - SDHC cards, miniSDHC cards, microSDHC cards: 32 GB
  - USB devices: 32 GB
- When using miniSD cards or microSD cards, put them in an appropriate adapter before inserting them into the monitor.
- Use SD cards which are guaranteed to work between −25 °C and 85 °C.
- Not all SD cards or USB devices are guaranteed to work on this monitor.
- Format SD cards on a photographing device such as a digital camera, or on a computer using SD memory card formatting software.
- Format USB devices on a computer in "FAT 32" or "FAT".

Playable files
- Format: JPEG (.jpg, .JPG)
- Pixel size: 160 x 120 – 8192 x 8192 (The file size must be under 10 MB.)
- Picture files of other than JPEG format, Progressive JPEG files, JPEG 2000 files, MOTION JPEG files or music files cannot be played back.

About the displaying of pictures
- Filenames which are too long may be shortened when displayed.
- If you have edited or copied picture files on a computer, their date properties may have been modified, and their thumbnail may have been deleted.
- Some picture files may not be displayed properly due to the device which created them.
- It may take some time before pictures are displayed when the device contains a large number of files or folders.
- This monitor can display up to 9,999 files.
- Pictures in a folder deeper than the eighth layer of subfolders may not be displayed.
- When selecting a file of a format which is not supported, its thumbnail may be displayed instead.
- Picture quality can be adjusted using the items in the "Picture" menu. However, some of them are not available for the Photo viewer.
- If the screen as illustrated on the right is displayed, the Photo viewer is starting up. Wait for a while until it is ready.
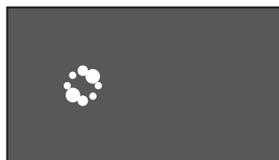
External Control

You can control LT-32WX50EU from external control equipment (a personal computer or a dedicated controller) via the RS-232C terminal on the rear of the monitor.

● Connect the RS-232C extension cable to the RS-232C terminal on the rear side of the monitor. (➔ page 07)

Communication specifications

Cable

A crossover cable with a RS-232C connector

Communication specifications

● Baud Rate: 19200 bps
● Data Bits: 8 bits
● Parity: Odd parity
● Stop Bits: 1 bit
● Flow Control: No control
● Communication Code: ASCII Code

Terminal specifications

1 2 3 4 5
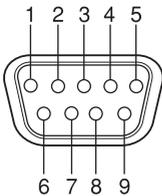
6 7 8 9

This is a male terminal.

Pin No.	Signal
1	—
2	RXD
3	TXD
4	—
5	GND
6	—
7	—
8	—
9	—

Command outline

To control the monitor from external control equipment, send operation commands to the monitor.

Example of communication procedures
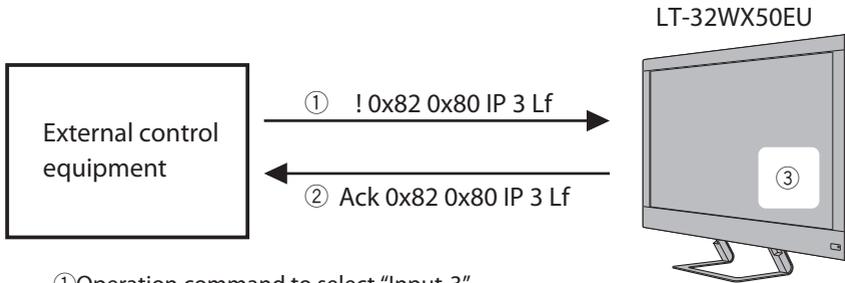
①Operation command to select "Input-3".
②Acknowledgment from the monitor.
③The input is changed to "Input-3".

Command structure

! 0x82 0x80 IP 3 Lf
  a   b   c   d e f

a:	Header	! : Operation command from the external control device. ? : Enquiry command from the external control device. @ : Response from the monitor to an enquiry command. Ack (0x06): Positive acknowledge from the monitor. Nak (0x15): Negative acknowledge from the monitor.
b:	Device ID	0x82 (fixed)
c:	Monitor ID	0x80 – 0xFF (Default setting is 0x80.)
d:	Command	See "Command list" on the next page.
e:	Data	
f:	Termination	Lf (0x0A)

External Control

Command list

● "∗" is the monitor ID. Normally, set it to "0x80".
● Enter the appropriate data to "xx" or "x".

No.	Operation commands							
1†	!	0x82	∗	P	W	x	Lf	
2†	!	0x82	∗	I	P	x	Lf	
3†	!	0x82	∗	V	L	x	x	Lf
4†	!	0x82	∗	A	M	x	Lf	
5†	!	0x82	∗	V	S	x	Lf	
6†	!	0x82	∗	A	S	x	Lf	
7	!	0x82	∗	R	C	x	x	x	x	Lf
8	!	0x82	∗	S	U	I	C	x	x	Lf
9	!	0x82	∗	S	U	R	M	x	Lf
10††	!	0x82	∗	S	U	F	K	x	Lf

† For these commands, you can make enquiry commands by entering "?" instead of "!" and omitting the data bytes. When you send an enquiry command, the monitor sends back an acknowledge, then an answer about its current status.

†† When you change this setting, setting of "Front Panel Lock" (➜ page 27) is also changed accordingly.

Functions	Data
Turns on/off the monitor.	0: Off 1: On +: Switches the power status.
Selects the input.	1: Input-1 2: Input-2 3: Input-3 4: Input-4
Adjusts the volume.	00 – 50: Sets the volume directly. +: Turns the volume up. –: Turns the volume down.
Turns muting on/off.	0: Mute is released. 1: The sound is muted. +: Switches the mute status.
Selects an item of "Setting Memory" (➔ page 13).	0: Memory1 / 1: Memory2 / 2: Memory3 / 3: Memory4 / 4: Memory5 / 5: Memory6 / +, –: Changes the setting.
Selects the aspect ratio.	0: Panoramic, Panoramic Zoom / 1: 16:9 Zoom / 2: Full / 3: Regular, Slim / 4: Full Native / 5: 14:9 Zoom / 6: 16:9 Zoom Subtitle / 7: Just / 8: 1:1 / 9: Auto / +, –: Changes the aspect ratio setting.
Sends the remote control code pass-through.	0x0000 – 0xFFFF†††
Sets the monitor ID.	0x80 – 0xFF
Enables/disables operations from the remote control.	0: Disabled. 1: Enabled.
Enables/disables operations from the touch sensor panel.	0: Disabled. 1: Enabled.

†††

LINK	0F78	▲	037C	BACK	03E6	YELLOW	233E
OPTION	0F0C	▼	037B	EXIT	0F1D	BLUE	233F
OK	030A	◄	035B	RED	233C		
MENU	037A	►	035A	GREEN	233D		

External Control

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Troubleshooting

The following are not malfunctions.

● This LCD display is built with very high precision technology; however, be aware that a few pixels may be missing or constantly lit.

● When a still image is displayed for a long time, it may remain indistinctly on the screen after the picture has changed. The remaining picture will disappear after a while.

● The following symptoms are problems only when pictures or sounds are not played back normally.

  ● A slight electric shock occurs when you touch the monitor.

  ● The top and/or rear panel of the monitor becomes hot.

  ● The monitor emits a cracking noise.

  ● The monitor emits a mechanical noise.

● If the monitor does not operate normally, perform the following to reset the monitor.

  ● Unplug the monitor from the wall outlet, and plug it in again.

Cannot turn on the monitor.
- Connect the power cord properly. (➔ page 08)

The remote control does not work.
- Insert the batteries in the correct direction. (➔ page 04)
- Replace the batteries with new ones.
- Aim the remote control to the remote sensor on the monitor.
  (➔ page 09)
  - The effective range of the remote control is about 7 meters.
- Get closer to the monitor.
- Remove any obstruction between the remote control and the monitor.

No picture from a connected device.
- Select the correct input on the monitor.
- Connect the external device properly.
- Turn on the external device and start playback.

No sound.
- Press the mute button. (※)
- Check the amplifier connection.
  - When "AMP" is selected under "Speaker", the sound is output from the amplifier, and not from the speakers of the monitor. (➔ page 11)

No picture from HDMI devices.
- Select the correct input on the monitor.
- Use a cable marked with the HDMI logo.
- Please use a High Speed HDMI™ Cable. High Speed HDMI™ Cables are tested to carry an HD signal up to 1080p and higher. (➔ page 07)

The monitor turns off automatically.
- When you want to display a picture on the monitor for a long time, select "Off" for "Auto Shut Off" (➔ page 27) in "Setup".

No sound from HDMI devices.
- Set "Input-1 Audio" properly. (➔ page 35)

Cannot control HDMI CEC devices.
- Set "Control with HDMI" to "On". (➔ page 34)
- Some devices may not accept controls by HDMI CEC.

Cannot operate the product using the buttons on the monitor.
- Set "Front Panel Lock" to "Off". (➔ page 27)

Picture from a computer is strange.
- Adjust the items under "PC Setting". (➔ page 32)

The source indication stays on the display.
- Turn on the selected external device and start playback.
  - When no signal is input, you cannot turn off the source indication.

The picture and the sound do not synchronize.
- Adjust "Lip Sync". (➔ page 25)
- Adjust "Picture Delay Time". (➔ page 23)

Colours are strange.
- Adjust the items under "Picture". (➔ page A-2)
- Load one of the picture presets to discard the current settings and apply the selected preset. (➔ page A-3)

No pictures displayed from an SD card/USB device.
- Check whether the picture files are of the supported format. (➔ page 39)

Specifications

Model name	LT-32WX50EU
LCD panel	32-inch (viewable)
Screen size (visible area size measured diagonally)	801.3 mm
Display resolution	1920×1080
Display colours	1.07 billion colours (10 bit colour)
Viewing angle (TYP.)	178 ° (Horizontally) 178 ° (Vertically)
Luminance (TYP.)	400 cd/m^2
Contrast ratio (TYP.)	4000 : 1
Panel response speed	6.5 msec (G to G)
Horizontal/vertical frequency (computer signal)	Horizontal: 24.83 kHz – 67.5 kHz Vertical: 56.42 Hz – 75 Hz
Compliant video signal formats	➜ page 50
Speakers	ø 34 mm × 6 (Bass Reflex Box)
Audio output	Speakers: 5 W + 5 W
Operating environment	Operating temperature: 0 °C – 40 °C Operating humidity: 20 % – 80 % (non-condensing) (Slightly variable depending on ambient conditions for installation.)
Power requirements	DC 28V
AC adapter (FSP180-AKAN1)	AC 100 V - 240V, 50 Hz/60 Hz
Power consumption	136 W
Power consumption (on standby)	AC 230 V: 0.55 W AC 120 V: 0.67 W
Dimensions	➜ page 49
Mass	5.7 kg (without the stand) 6.9 kg (including the stand) 6.4 kg (including the VESA bracket) 7.6 kg (including the stand and the speakers) 7.1 kg (including the VESA bracket and the speakers)

Specifications

Supplied accessories	→ page 04
Input terminals	HDMI ×2, D-sub (15 pin) ×1, Audio input (3.5 mm stereo mini jack), USB type slot, SD card slot
Output terminals	Speaker output
External control	RS-232C-compliant

Display Calibration

When you want to calibrate the gamma and the white balance of the monitor, you can download a dedicated software from the web page below.

http://www.jvc-victor.co.jp/english/download/lt-32wx50/

● To perform the calibration, you need i1Display 2 of X-Rite Incorporated and a Windows PC.

● For easy understanding, pictures and illustrations are shown by being emphasized, omitted or composed, and may slightly be different from actual products.

● Design and specifications are subject to change without notice.

● HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

● "x.v.Colour" and "x.v.Colour" logo are trademarks.

● All company names and product names mentioned herein are used for identification purposes only, and may be the trademarks or registered trademarks of their respective companies.

Notice on transportation

● This monitor is precision equipment and needs dedicated packing material for transportation. Never use any packing material supplied from sources other than JVC or JVC-authorized dealers.

Dimensions

unit: mm
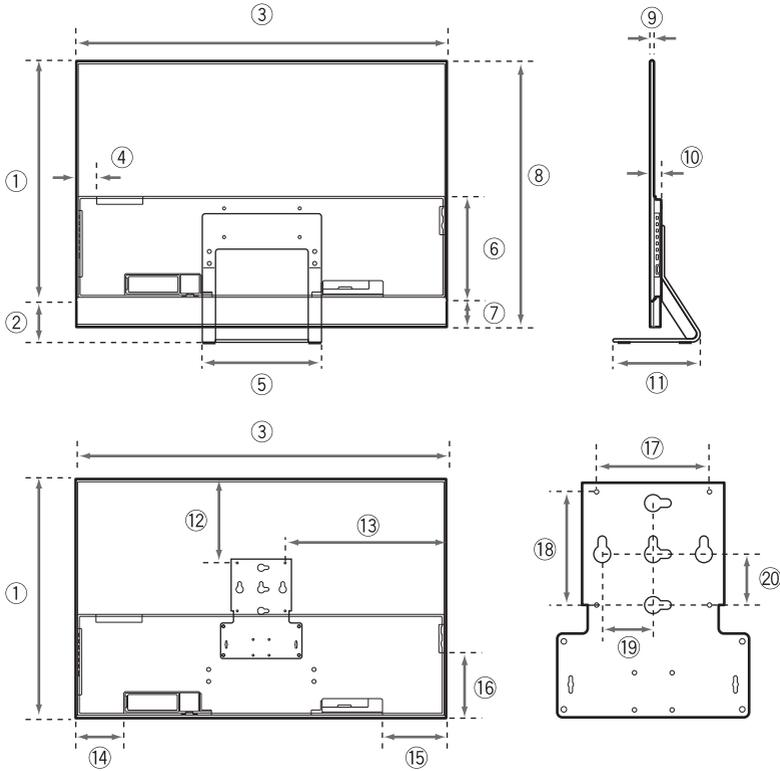
① :	496.1	⑦ :	46.5	⑭ :	99.8
② :	55.0	⑧ :	544.1	⑮ :	133.7
	/80.0 (with the speaker unit)	⑨ :	7.8	⑯ :	136.0
③ :	772.4	⑩ :	22.5	⑰ :	100.0
④ :	40.7	⑪ :	190.9	⑱ :	100.0
⑤ :	254.0	⑫ :	173.7	⑲ :	45.0
⑥ :	214.7	⑬ :	336.2	⑳ :	45.0

● Use screws of adequate length (M4 × 12 – 16) to fix the VESA bracket and wall mount adapter.

Compliant signal formats (1)

INPUT-3 terminal (PC)

Signal	Frequency		
	Vertical (Hz)	Horizontal (kHz)	Dot clock (MHz)
PC98	56.42	24.823	21.050
VGA 60[†1]	59.94	31.469	25.175
VGA 72	72.81	37.861	31.500
VGA 75	75.00	37.500	31.500
WVGA 60[†2]	60.00	31.020	33.750
SVGA 60	60.32	37.879	40.000
SVGA 72	72.19	48.077	50.000
SVGA 75	75.00	46.875	49.500
XGA 60[†1]	60.00	48.363	65.000
XGA 70	70.07	56.476	75.000
XGA 75	75.03	60.023	78.750
WXGA(1280)[†2†3]	59.87	47.776	79.500
WXGA(1360)[†2†4]	60.02	47.712	85.500
WXGA 60[†2†5]	60.00	48.363	86.715
SXGA 60[†6]	60.02	63.981	108.000
SXGA+ 60[†7]	60.02	63.981	108.000
SXGA+ 60*	60.00	65.220	122.614
1280x720	60.00	45.000	74.250
1920x1080	60.00	67.500	148.500

†1 : Set "Sampling Mode" to "Std".

†2 : Set "Sampling Mode" to "Wide".

†3 : Set "WXGA Select" to "1280*768".

†4 : Set "WXGA Select" to "1360*768".

†5 : Set "WXGA Select" to "1366*768".

†6 : Set "SXGA / SXGA+" to "SXGA".

†7 : Set "SXGA / SXGA+" to "SXGA+".

Total pixels		Effective pixels		Standard
pixel per line	line per frame	pixel per line	line per frame	
848	440	640	400	—
800	525	640	480	VESA Standard
832	520	640	480	VESA Standard
840	500	640	480	VESA Standard
1088	517	848	480	—
1056	628	800	600	VESA Standard
1040	666	800	600	VESA Standard
1056	625	800	600	VESA Standard
1344	806	1024	768	VESA Standard
1328	806	1024	768	VESA Standard
1312	800	1024	768	VESA Standard
1664	798	1280	768	—
1792	795	1360	768	VESA Standard
1793	806	1366	768	—
1688	1066	1280	1024	VESA Standard
1688	1066	1400	1050	—
1880	1087	1400	1050	—
1650	750	1280	720	—
2200	1125	1920	1080	EIA/CEA-861-D

Specifications

- Signals in a format not listed above may not be displayed properly. Change the resolution setting on the PC.
- Some signals may not be displayed properly even if their format is in the list above.
- Because signals in PC98, VGA 72, VGA 75, SVGA 72, SVGA 75, XGA 70 and XGA 75 need to be converted into 60Hz before displayed on the monitor, playback of these signals look jerky. Select other signal formats for smoother playback of moving pictures.

Compliant signal formats (2)

INPUT-3 terminal (composite)

Signal	Frequency	
	Vertical (Hz)	Horizontal (kHz)
PAL/50	50.00	15.63
PAL/60	59.94	15.73
SECAM	50.00	15.63
NTSC3.58	59.94	15.73
NTSC4.43	59.94	15.73
PAL M	59.94	15.73
PAL N	50.00	15.63

INPUT-3 terminal (component)

Signal	Frequency	
	Vertical (Hz)	Horizontal (kHz)
480/60i	59.94	15.73
576/50i	50.00	15.63
480/60p	59.94	31.47
576/50p	50.00	31.25
720/60p	59.94	44.96
720/50p	50.00	37.50
1080/60i	59.94	33.72
1080/50i	50.00	28.13
1080/60p	59.94	67.43
1080/50p	50.00	56.25
1080/30p	29.97	33.72
1080/24p	24.00	27.00

INPUT-1, INPUT-2 terminal (HDMI-HDMI)

Signal	Frequency			
	Vertical (Hz)	Horizontal (kHz)	Dot clock (MHz)	
VGA 60	59.94/60	31.469/31.5	25.175/25.2	
480/60p	59.94/60	31.469/31.5	27/27.027	
720/60p	59.94/60	44.955/45	74.176/74.25	
1080/60i	59.94/60	33.716/33.75	74.176/74.25	
480/60i	59.94/60	15.734/17.75	27/27.027	
1080/60p*	59.94/60	67.433/67.5	148.352/148.5	
576/50p	50.000	31.25	27	
720/50p	50.000	37.5	74.25	
1080/50i	50.000	28.13	74.25	
576/50i	50.000	15.63	27	
1080/50p	50.000	56.25	148.5	
1080/24p	23.976/24	26.973/27	74.176/74.25	
1080/25p	25.000	28.13	74.25	
1080/30p	29.97/30	33.716/33.75	74.176/74.25	

Total pixels		Effective pixels	
pixel per line	line per frame	pixel per line	line per frame
800	525	640	480
858	525	720	480
1650	750	1280	720
2200	562/563	1920	1080
858	262/263	720	480
2200	1125	1920	1080
864	625	720	576
1980	750	1280	720
2640	562/563	1920	1080
864	312/313	720	576
2640	1125	1920	1080
2750	1125	1920	1080
2640	1125	1920	1080
2200	1125	1920	1080

 * EIA/CEA-861-D-compliant
- Signals in a format not listed above may not be displayed properly. Change the resolution setting on the PC.
- Some signals may not be displayed properly even if their format is in the list above.

- This software is based in part on the work of the Independent JPEG Group.
- The open source software is embedded in this product. For more information, please go to:
  http://www.jvc-victor.co.jp/download/lnx/09jvc_mo/index.html
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Specifications

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