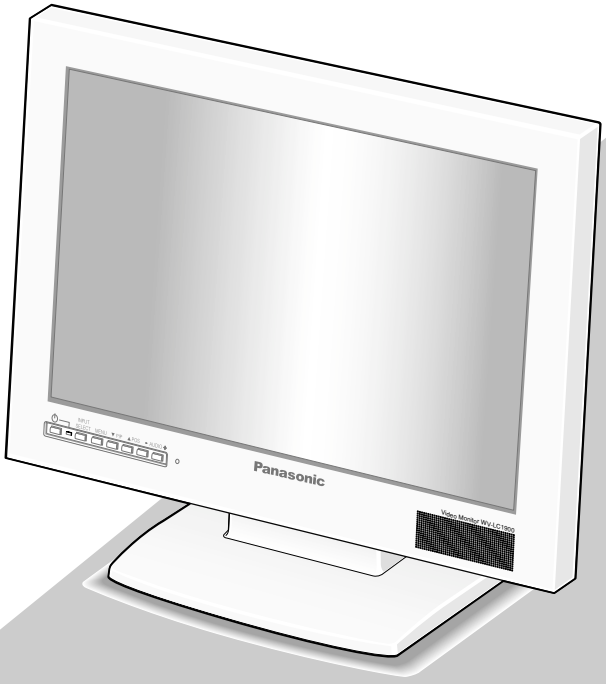
Panasonic®

Video Monitor
Operating Instructions

Model Nos. WV-LC1700
WV-LC1900



This illustration represents WV-LC1900.

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

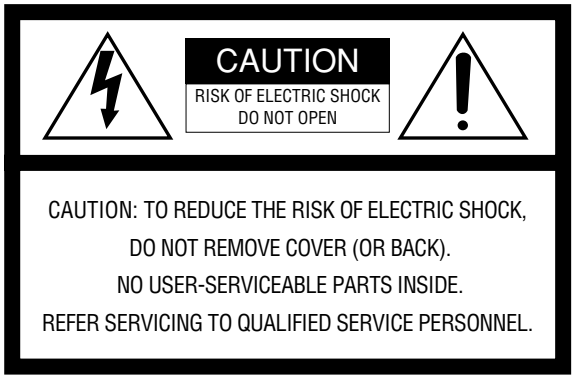
ENGLISH VERSION

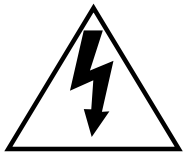
For U.S.A

This product has a fluorescent lamp that contains mercury. Dispose may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities, or the Electronic Industries Alliance:
http://www.eiae.org

WARNING:

- This apparatus must be earthed.
- Apparatus shall be connected to a main socket outlet with a protective earthing connection.
- The mains plug or an appliance coupler shall remain readily operable.
- To prevent fire or electric shock hazard, do not expose this apparatus to rain or moisture.
- The apparatus should not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, should be placed on the apparatus.
- All work related to the installation of this product should be made by qualified service personnel or system installers.
- The connections should comply with local electrical code.





The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Power disconnection. Unit with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. Unplug the power cord to disconnect the main power for all units.

For Canada

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

For U.S.A

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The serial number of this product may be found in the unit. You should note the model number and serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

Important Safety Instructions

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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THIS PUBLICATION COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS.
CHANGES ARE ADDED TO THE INFORMATION HEREIN, AT ANY TIME, FOR THE IMPROVEMENTS OF THIS PUBLICATION AND/OR THE CORRESPONDING PRODUCT (S).

Disclaimer of Warranty

IN NO EVENT SHALL MATSUSHITA ELECTRIC INDUSTRIAL CO,. LTD. BE LIABLE TO ANY PARTY OR ANY PERSON, EXCEPT FOR REPLACEMENT OR REASONABLE MAINTENANCE OF THE PRODUCT, FOR THE CASES, INCLUDING BUT NOT LIMITED TO BELOW:

(1) ANY DAMAGE AND LOSS, INCLUDING WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, CONSEQUENTIAL OR EXEMPLARY, ARISING OUT OF OR RELATING TO THE PRODUCT;

(2) PERSONAL INJURY OR ANY DAMAGE CAUSED BY INAPPROPRIATE USE OR NEGLIGENT OPERATION OF THE USER;

(3) UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER.

CONTENTS

Important Safety Instructions 3
Limitation of Liability 4
Disclaimer of Warranty 4
Preface 6
Features 6
Precautions 6
Major Operating Instructions and Their Functions 8
■ Front View 8
■ Rear View 8
Installations 10
■ Installation this monitor in a rack 10
Connections 12
■ Connection Example 12
■ Camera Connection 13
■ Connection with Two or More Video Monitors 13
■ Digital Disk Recorder Connection 13
■ PC Connection 13
Power-On 14
Audio Volume Control 15
Video Adjustment and Setup 15
■ Video Adjustment (Video Input, S-Video Input) 15
■ Video Adjustment (PC Input Connector) 17
■ Setting of PC Input 18
■ Language Setup 19
Troubleshooting 20
Specifications 21
Appearance 22
Standard Accessories 23

Preface

This is a video monitor provided with a 17"-type (V) (WV-LC1700) or a 19"-type (V) (WV-LC1900) LCD panel. It uses a motion follow-up type I-P converter circuit and a 3D Y/C separation circuit for the high quality and high definition of picture display.

Features

- Built-in SXGA panel with high-speed response, high resolution
- Supporting composite video signal, S-video signal, and analog RGB signal for personal computer (PC)
- Automatically switchable NTSC and PAL system
- PC display capacity supporting resolutions from VGA (640 x 480) to SXGA (1280 x 1024) Picture display position can be automatically adjusted.
- Audio input x1, audio output x1, and speaker output (max. 0.5 W) x 1
- On-screen setup menu
- Auto-volt power supply from 120 V AC
  Note: Supplied AC power cord supports 120 V AC only. To use this product with larger power source, replace the power cord.
- This unit can be mounted on an EIA-Standard rack by using the optional mounting bracket.
- The screw holes for wall mount bracket on the rear side are compliant with the VESA* standard (100 mm {3-15/16"} pitch). This product can be mounted on a wall by installing a locally procured mounting bracket.
  * VESA: Video Electronics Standards Association

Precautions

- **Refer all work related to the installation of this product to qualified service personnel or system installers.**
- **Do not block the ventilation opening or slots on the cover.**
- **Do not drop metallic parts through slots.**
  This could permanently damage the apparatus. Turn the power off immediately and contact qualified service personnel for service.
- **Do not attempt to disassemble this product.**
  To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance.
- **Do not strike or give a strong shock to this product.**
  It may cause damage or allow water to enter this product.
- **Do not expose this product to water or moisture. Do not try to operate it in wet areas.**
  Take immediate action if this product gets wet. Turn the power off and refer servicing to qualified service personnel. Moisture can damage this product and also cause electric shocks.

- **Cleaning**
  Turn the power off when cleaning the unit. Otherwise it may cause injuries.
  Do not use strong or abrasive detergents when cleaning this product body.
  Use a dry cloth to clean this product when it is dirty.
  When the dirt is hard to remove, use a mild detergent and wipe gently.

- **Do not operate this product beyond its specified temperature, humidity, or power source ratings.**
  Use this product under conditions where temperatures are between 0 °C and + 40 °C {+32 °F to +104 °F}, and humidity below 90 %.
  The input power source for this product is 120 V AC, 60 Hz.

* Supplied AC power cord supports 120 V AC only. To use this product with larger power source, replace the power cord.

- **Do not mount this product on places subject to constant vibrations. That may cause trouble or damage.**

- **Use only the supplied power cord or AC adapter.**

- **Be sure to remove this product if it is not in use.**

- **The surface of the LCD Panel is applied by special coating.**
  Do not point hard objects and wipe by abrasive material.
  It can cause scratches and damages on the LCD screen.

- **The LCD panel is made from a very precise technology.**
  Some bright and dark spots may exist on the monitor screen.
  It is operating normally if there are 99.99 % active pixels.

- **Image persistence may appear on the LCD after a static image with strong contrast is continuously displayed.**
  Such a phenomenon is caused by an LCD characteristic. The persistent image will disappear after a period of time.

- **Power switch**
  Even though the power switch is turned off, the power supply will not be cut.
  Unplug the power cord from the receptacle if this product is not used for a long time. When using the power supply control unit, turn off the power of the power supply control unit.

- **Notations**
  Refer to the label on the rear side of this product for the ID, power supply and other notations of this product.

- **Grounding**
  Ensure that the ground connection is properly and securely made before use. If a grounding receptacle is used, ensure that the ground resistance is 100 ohms or less.

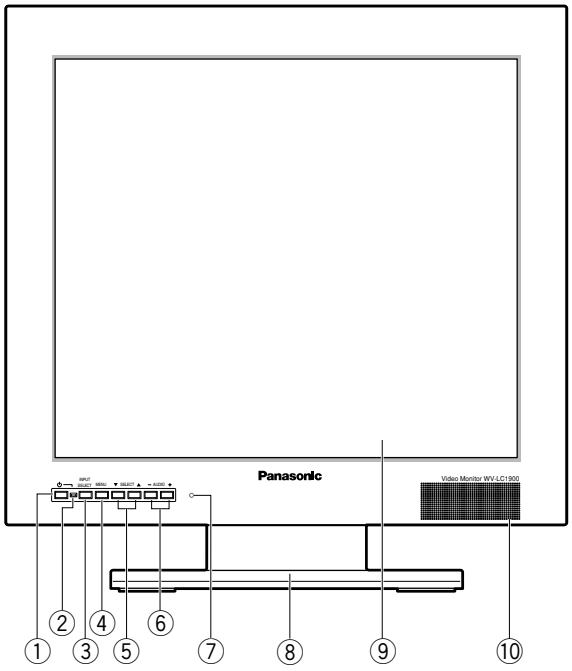
- **Power supply**
  Be sure to make the ground connection before connecting the power plug of this product to the main power supply. Also be sure to disconnect the ground after disconnecting the power plug of this product from the main power supply if necessary. Any of the following circuit breaking methods should be selected for the power cord:
  - Via a power supply control unit
  - Direct connection of the power supply plug to the receptacle without fail
  - Connection of the power supply cord to the breaker with a contact gap of 3.0mm or more. The breaker should be designed to break all the lines between the main power supply and this product except the grounding connection.

- **Installation place**
  - This product is designed to be used indoors. This product is not operable outdoors.
  - Keep approx. 5-centimeter space on the top, rear and both lateral sides of this product.
  - Install this product in a vibration-free place. Installation in a vibrating place causes this product to malfunction.
  - Do not install this product in any place where it will be subjected to direct sunlight for a long time or close to heating or cooling equipment. Failure to observe this may cause deformation, discoloration, failure, or malfunction. Also keep this product away from water droplets or water splashes.

- **Screwing**
  - The screws must be tightened with an appropriate tightening torque according to the material and strength of the installation area.
  - Do not use an impact driver. Use of an impact driver may damage the screws.
  - When a screw is tightened, make the screw at a right angle to the surface. After tightening the screws, perform visual check to ensure tightening is enough and there is no backlash.

Major Operating Instructions and Their Functions

■ Front View

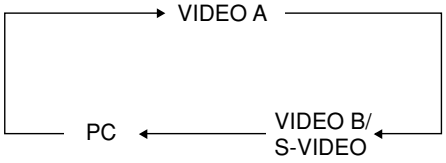


① **Power button** ⏻
Powers on or off the monitor.

Note: Power is supplied from the connected cable even while the monitor is OFF.

② **Power indicator**
This indicator lights green while power is supplied to the monitor. Even though the monitor power is turned off, it lights in red while the power supply is available.

③ **Input signal selection button (INPUT SELECT)**
Every pressing this button can change input signals as follows.

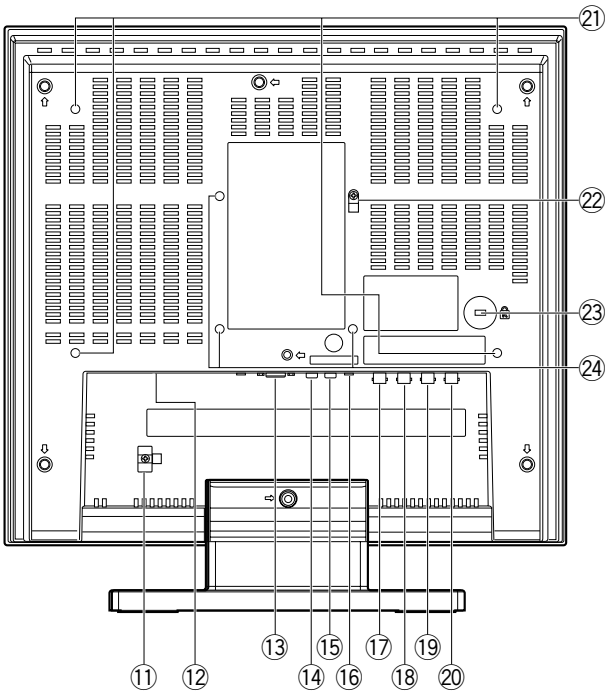


④ **Menu button (MENU)**
- Displays the VIDEO ADJUST menu.
- Determines the selected parameter in setup menus.

⑤ **Selection buttons (SELECT: ▼, ▲)**
These buttons move the cursor in setup menus.

⑥ **Audio buttons (AUDIO: +, –)**
These buttons adjust the audio volume level. These buttons increments or decrements the selected parameter in setup menus.

■ Rear View



⑦ **Reset switch**
Provideds restart this unit as necessary.

⑧ **Monitor stand**

⑨ **LCD panel**
Note: Take care not to pinch your hands or fingers between the LCD panel and the monitor stand.

⑩ **Speaker**

⑪ **Power cord clamp**
After the power cord has been connected, remove the screw that is used to mount the power cord clamp and fasten the power cord.

⑫ **Power input jack (AC IN)**
Connect the power cord (accessory).

⑬ **PC input connector (PC IN)**
Accepts an analog RGB signal from a PC.
Note: For timing data this connector supports, refer to p. 9 "Timing data chart for PC input".

⑭ **Audio input connector (AUDIO IN)**
With an audio cable connection, this connector accepts an audio signal from an external device and supplies the signal to the built-in speaker.

⑮ **Audio output connector (AUDIO OUT)**
Supplies an audio signal accepted by the AUDIO IN connector to another external device.

⑯ **S-video input connector (S-VIDEO IN)**
Accepts an S-video signal from an external device.
Note: This connector and the VIDEO-B IN connector is connected to the same device. When an S-video signal and composite video signal are supplied from a device at the same time, the S-video signal is accepted by priority.

⑰ **Video input B connector (VIDEO-B IN)**
Accepts a composite video signal from an external device.

⑱ **Video output B connector (VIDEO-B OUT)**
Supplies a composite video signal accepted by the VIDEO-B IN connector to another external device.

⑲ **Video input A connector (VIDEO-A IN)**
Accepts a composite video signal from an external device.

⑳ **Video output A connector (VIDEO-A OUT)**
Supplies a composite video signal accepted by the VIDEO-A IN connector to another external device.

㉑ **Screw holes for rack mount bracket (☞ page 10)**

㉒ **Fall prevention clamp**
Using the clamp with strong wire or chain (commercially available), secure the monitor to a sufficiently strong wall or pillar for fall prevention.
When a wall mounting bracket is used, remove the clamp.

㉓ **Security slot**
You can attach a lock that meets the industry standard specification (3 to 3.26 mm x 7 to 7.26 mm x 3.5 to 4 mm) {0.12" x 0.28" x 0.15"}.

㉔ **Screw holes for wall mount bracket (☞ page 11)**

Timing data chart for PC input

This monitor supports the timing data listed as follows.

Resolution	Vertical frequency (Hz)	Horizontal frequency (kHz)	Dot clock frequency (MHz)	Standards
640 x 400	85	37.9	31.500	VESA standard
720 x 400	85	37.9	35.500	VESA standard
640 x 480	60	31.5	25.175	Industry standard
	72	37.9	31.500	VESA standard
	75	37.5	31.500	VESA standard
800 x 600	56	35.1	36.000	VESA guideline
	60	37.9	40.000	VESA guideline
	72	48.1	50.000	VESA standard
	75	46.9	49.500	VESA standard
1024 x 768	60	48.4	65.000	VESA guideline
	70	56.5	75.000	VESA standard
	75	60.0	78.750	VESA standard
1152 x 864	75	67.5	108.000	VESA standard
1280 x 960	60	60.0	108.000	VESA standard
1280 x 1024	60	64.0	108.000	VESA standard
	75	80.0	135.000	VESA standard

Notes:

- If an input signal does not meet the standards (dot clock frequency, horizontal frequency, and vertical frequency), "OUT OF RANGE" will appear on the screen.

- This monitor does not support plug-and-play.

Installations

WARNING

The installations described in the figures should be made by qualified service personnel or system installers.

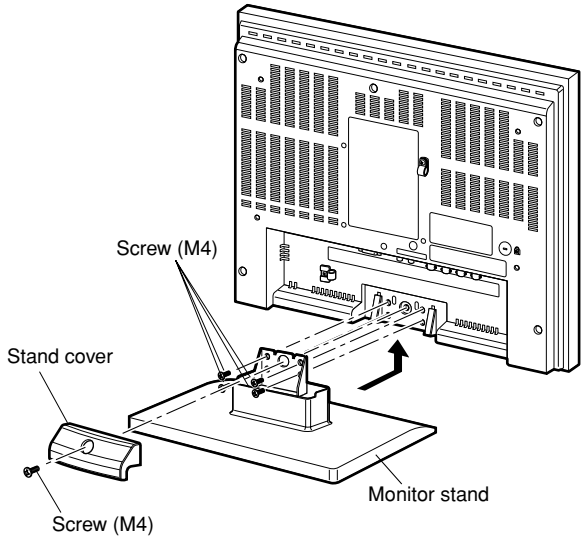
Caution: Attach this monitor to a flat wall with a locally procured mounting bracket. After the installation, secure the monitor to prevent dropping.

Important:

- Do not block the ventilation opening or slots on the cover.
- Do not mount the monitor on places subject to constant vibrations. That may cause trouble or damage.

■ Installation this monitor in a rack

Use the rack mount bracket WQ-LM191 (option) and the rack mounting screws (locally procured) to install this unit in a rack.

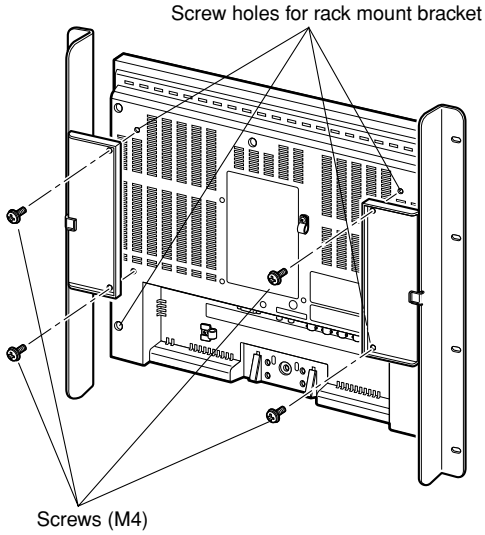


1 Remove the screw of stand cover (M4), and then remove the stand cover.

2 Remove the four screws of monitor stand, and then remove the monitor stand.

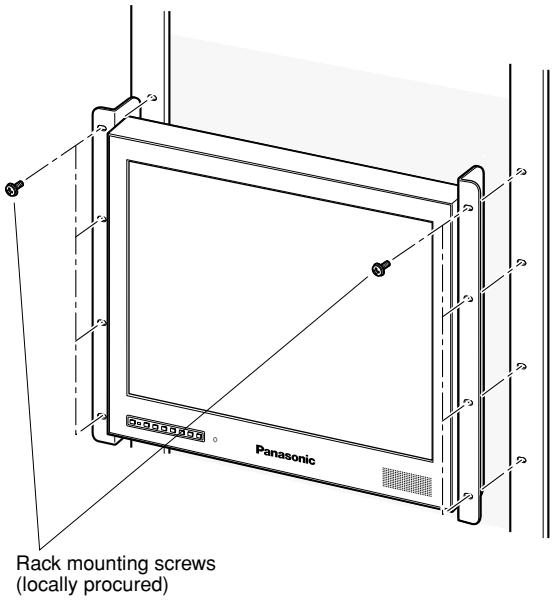
Note:

The removed stand cover, monitor stand and screws should be retained for future use.



3 Install the rack mount brackets on the rear of the monitor.

Fix the rack mount brackets firmly using four fixing screws (provided) (M4).



4 Install this unit in the rack.
Fix this unit firmly using eight mounting screws (locally procured).

5 Adjust the angle of this unit.
The angle can be adjusted from 0° down to 20°.

Important:

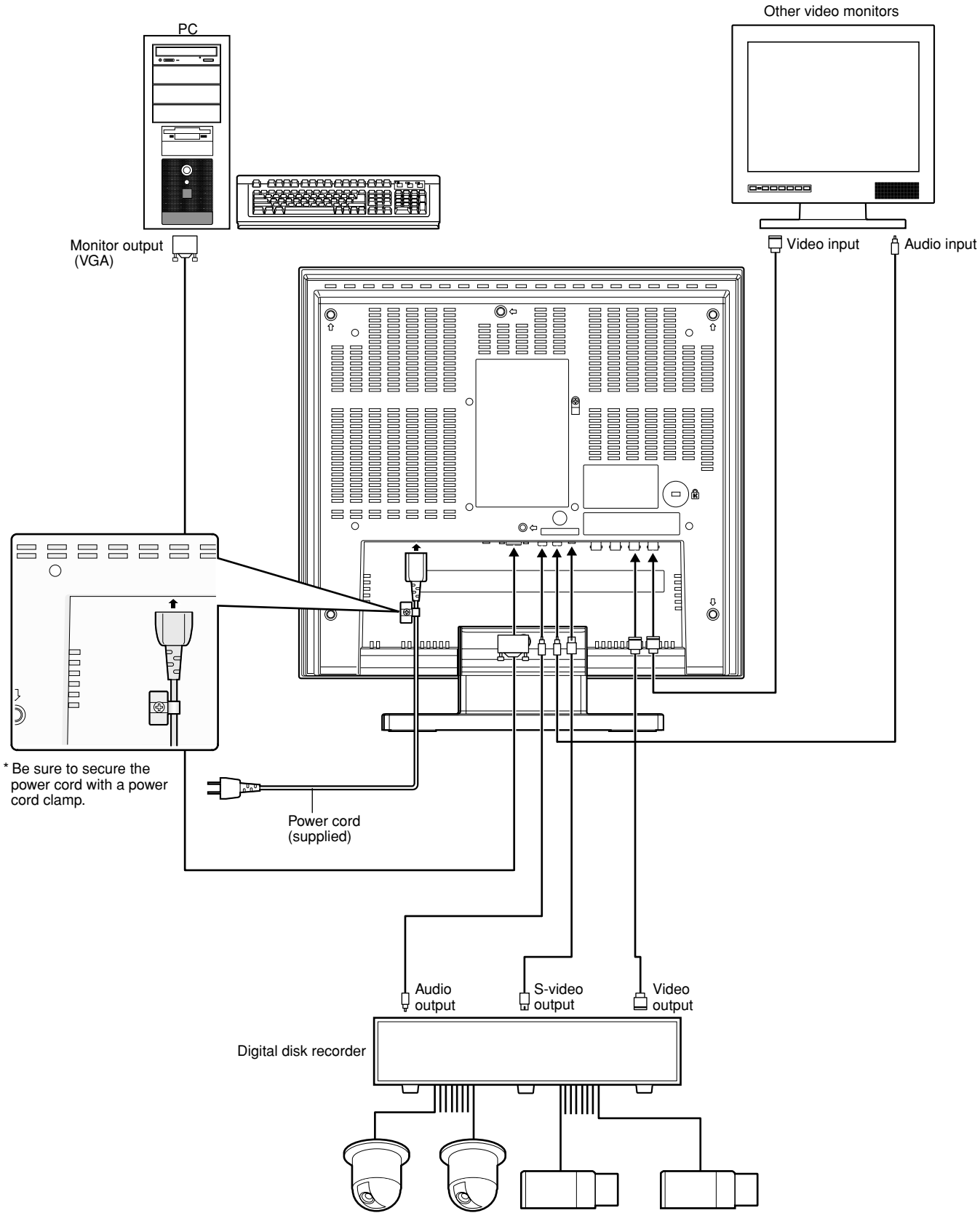
During angle adjustments, be careful not to pinch your hand or fingers in the gap. Never press the LCD panel.

Notes on the screw holes for wall mount bracket

- Check how heavy the wall mount bracket and this unit are.
- Examine the strength of the area on the wall where the monitor is to be mounted, and the pull-out strength should be more than 5 times the total weight of the wall mount bracket and this unit.

Connections

■ Connection Example



■ Camera Connection

Connect the video output connector of camera to the VIDEO IN connector with a coaxial cable.

Note: Make sure that the cable length between the camera and monitor is as follows.

Cable type	Cable length
RG-59/U 3C-2V	250 m {820 ft.}
RG-6/U 5C-2V	500 m {1 640 ft.}
RG-11/U 7C-2V	600 m {1 968 ft.}
RG-11/U 10C-2V	800 m {2 625 ft.}

■ Connection with Two or More Video Monitors

- Connect the VIDEO OUT connector of this monitor to the video input connector of another monitor with a coaxial cable.
- Connect the AUDIO OUT connector of this monitor to the audio input connector of another monitor with an audio cable.

Notes:

- Up to 10 monitors can be connected to this monitor. If 11 or more monitors are connected, picture quality may be degraded.
- Total length of each cable should not exceed 150 m {492 ft.}.

■ Digital Disk Recorder Connection

● To Perform Recording

- Connect the VIDEO OUT connector of this monitor to the video input connector of digital disk recorder (or other recording devices) with a coaxial cable.
- If necessary, connect the AUDIO OUT connector of the monitor to the audio input connector of digital disk recorder (or other recording devices) with an audio cable.

● To Perform Playback

Do either of the following.

- Connect the VIDEO IN connector of this monitor to the video output connector of digital disk recorder (or other recording devices) with a coaxial cable.
- Connect the S-VIDEO IN connector of this monitor to the S-video output connector of digital disk recorder (or other recording devices) with an S-video cable.

● To Output Audio Signal

Connect the AUDIO IN connector of this monitor to the audio output connector of digital disk recorder (or other recording devices) with an audio cable.

■ PC Connection

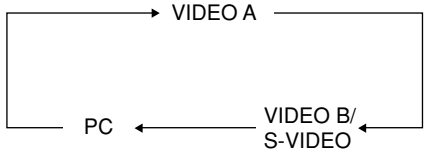
Connect the PC IN connector of this monitor to the analog RGB output connector of PC (or another device).
Check the room around the PC IN connector at the rear and procure a suitable 15-pin Mini D-sub connector cable before the cable connection.

Power-On

Before operation, check the connections between monitors and external devices (cameras, digital disk recorders, etc.) (Refer to p. 12)

1. Press the power button. The monitor will be powered on, and the power indicator will light up in green.

2. Press the INPUT SELECT button.
   Every pressing this button can change input signals as follows.

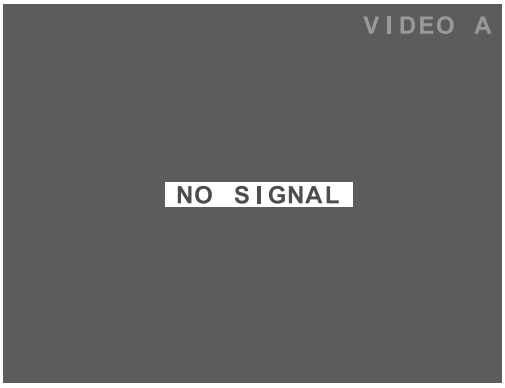


   The signal name will be displayed on the upper right corner of screen for 3 seconds.

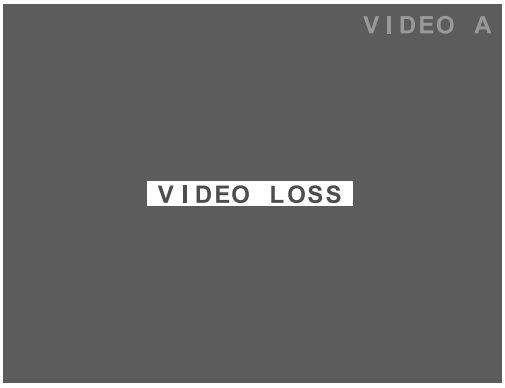
Signal name	Input signal type
VIDEO A	Composite video A
VIDEO B	Composite video B
S-VIDEO	S-video
PC	PC (Analog RGB)

Notes:

- When no input signal is supplied to the monitor, "NO SIGNAL" will be displayed on the screen.
  "NO SIGNAL" will continue to be displayed until an input signal is supplied.



- When the loss of input signal is detected due to cable disconnection, etc., "VIDEO LOSS" will be displayed on the screen.
  "VIDEO LOSS" will continue to be displayed until a cable is connected.

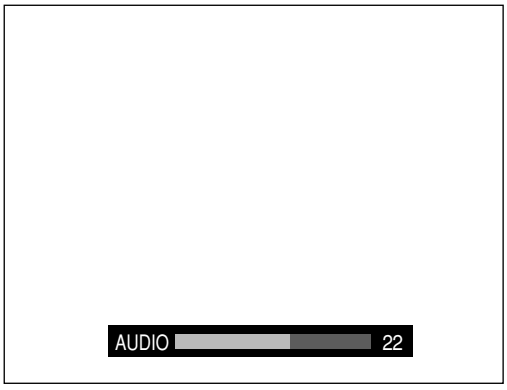


- When the PC input signal is selected and picture display position is not proper, perform the output setting of the connected PC. (Refer to the diagram in p. 9.)

Audio Volume Control

By pressing the + or – button during picture display, you can adjust the audio volume level. While the + or – button is pressed, the volume level is displayed on the screen.
–: Audio volume level goes down.
+: Audio volume level goes up.

Setting item	Effect	Setting value
AUDIO	**+:** Audio volume level goes up. **–:** Audio volume level goes down.	0 to + 40



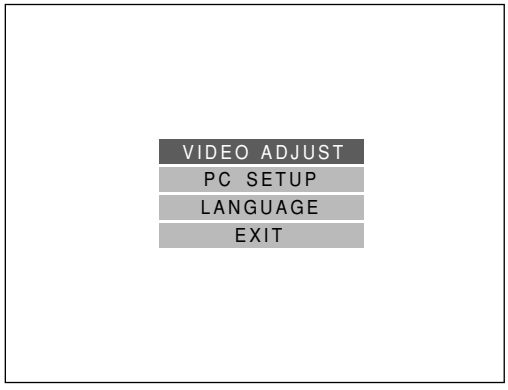
Video Adjustment and Setup

■ Video Adjustment (Video Input, S-Video Input)

Setup of this monitor will be performed in the VIDEO ADJUST menu.

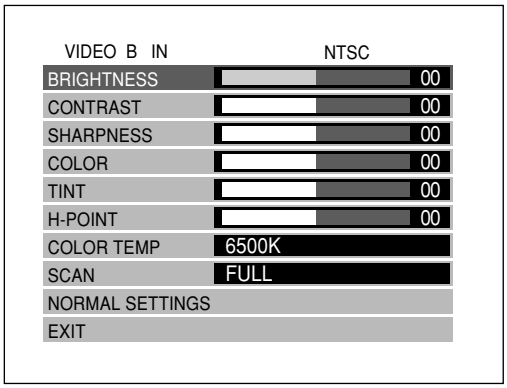
Notes:
- The menu title display differs depending on the selected input signal. Before adjustment, press the INPUT SELECT button surely to select the input signal. (Refer to p. 13.)
- If the power is shut down during setup, the setting values will not be saved.

1. Press the MENU button. The top menu will be displayed.



2. Move the cursor to VIDEO ADJUST by pressing the ▼ or ▲ button. Press the MENU button.
The VIDEO ADJUST menu will be displayed.

Present input signals are displayed in the menu title.
For video input (A): VIDEO A IN
For video input (B): VIDEO B IN
For S-video input: S-VIDEO IN



To the right side of the menu title, the input signal type is displayed as specified below.
NTSC: When a video signal input of the NTSC system is entered or if there is no signal
PAL: When a video signal input of the PAL system is entered

Notes:

- The respective setting items are allowed to set up different values in regard to each input signal. However, the same values are used in common for the video input B and S-video input.
- "TINT" can be adjusted only if the input signal is of the NTSC system.

3 Move the cursor to the following setting items by pressing the ▼ or ▲ button. Then, adjust the levels by pressing the + or – button.

Setting item	Effect	Setting value
BRIGHTNESS	**+:** Brightness level goes up. **–:** Brightness level goes down.	– 20 to + 20
CONTRAST	**+:** Contrast level goes up. **–:** Contrast level goes down.	– 20 to + 20
SHARPNESS	**+:** Picture quality becomes sharper. **–:** Picture quality becomes softer.	– 7 to + 7
COLOR	**+:** Color density level goes up. **–:** Color density level goes down.	– 20 to + 20
TINT (NTSC system only)	**+:** Tint becomes more greenish. **–:** Tint becomes more reddish.	– 20 to + 20
H-POSITION	**+:** Position is moved to the right. **–:** Position is moved to the left.	– 10 to + 10
COLOR TEMP		6500K: Reddish color is intensified (default). 9300K: Blue color is intensified.
SCAN		FULL: The overall video image is displayed throughout the screen. The aspect ratio of the video image is disregarded and the displayed image appears somewhat slender. OVER: The screen height and the image height are joined to display. Since the enlarged aspect ratio remains to be 1:1, the right and left parts of the image are slightly lost. UNDER: The screen width and the image width are joined to display. Since the enlarged aspect ratio remains to be 1:1, black strips are displayed in the top and bottom parts of the image.

Note: Value can be set differently for each input signal.

4. To reset the settings, move the cursor to NORMAL SETTINGS by pressing the ▼ or ▲ button. Press the MENU button. The currently displayed input signal (VIDEO A, VIDEO B, or S-VIDEO) will be reset to the factory default.

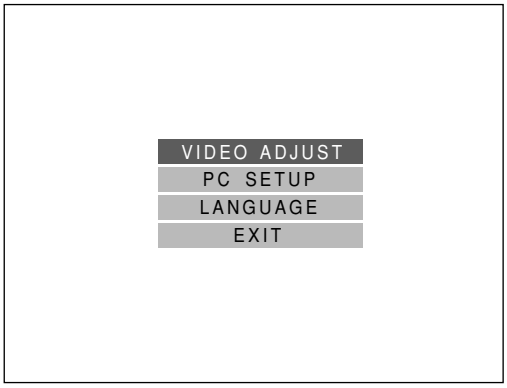
5. To return to the top menu, move the cursor to EXIT by pressing the ▼ or ▲ button. Then, press the MENU button.

6. After returning to the top menu, move the cursor to EXIT by pressing the ▼ or ▲ button. Then, press the MENU button. The monitor display return to the default status.
   Note: If no operation has been performed for 10 seconds or more, the monitor display returns to the default status.

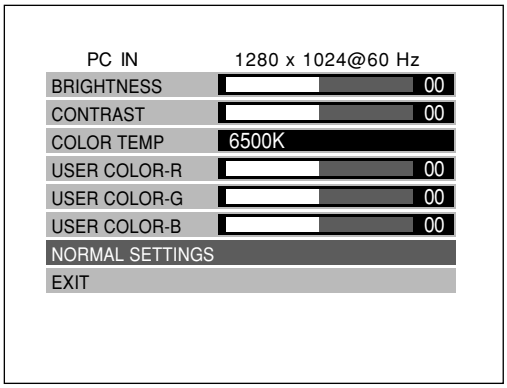
■ Video Adjustment (PC Input Connector)

Adjustment of this monitor will be performed in the VIDEO ADJUST menu.

Note: The menu title display differs depending on the selected input signal. Before adjustment, press the INPUT SELECT button surely to select the input signal. (☞ Page 8)



1. Move the cursor to VIDEO ADJUST by pressing the ▼ or ▲ button. Press the MENU button. The VIDEO ADJUST menu will be displayed.
   Present input signals are displayed in the menu title.
   For PC input: PC IN



According to the timing data table (☞ Page 9), present signals are displayed in the following position of the menu title in the format of [Resolution@Refresh rate (Vertical frequency)].

3. Move the cursor to the following setting items by pressing the ▼ or ▲ button. Then, adjust the levels by pressing the + or – button.

Setting item	Effect	Setting value
BRIGHTNESS	**+:** Brightness level goes up. **–:** Brightness level goes down.	– 20 to + 20
CONTRAST	**+:** Contrast level goes up. **–:** Contrast level goes down.	– 20 to + 20
COLOR TEMP		6500K: Red is intensified (default). 9300K: Blue is intensified. USER: User colors (R/G/B) are adjustable.
USER COLOR-R	**+:** Red density level goes up. **–:** Red density level goes down.	– 20 to + 20
USER COLOR-G	**+:** Green density level goes up. **–:** Green density level goes down.	– 20 to + 20
USER COLOR-B	**+:** Blue density level goes up. **–:** Blue density level goes down.	– 20 to + 20

Note: USER COLOR-R, USER COLOR-G, and USER COLOR-B can be adjusted only if USER has been chosen for COLOR TEMP.

4. To reset the settings, move the cursor to NORMAL SETTINGS by pressing the ▼ or ▲ button. Press the MENU button. The currently displayed input signal (PC input) will be reset to the factory default.

5. Select EXIT, and press the MENU button. The top menu will be displayed.

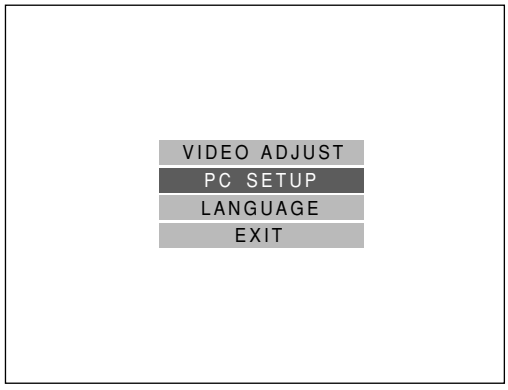
6. Select EXIT on the top menu, and press the MENU button. The monitor display return to the default status.
   Note: If no operation has been performed for 10 seconds or more, the monitor display returns to the default status.

■ Setting of PC Input

While the PC input signal is being selected, you can adjust the horizontal position and vertical position.

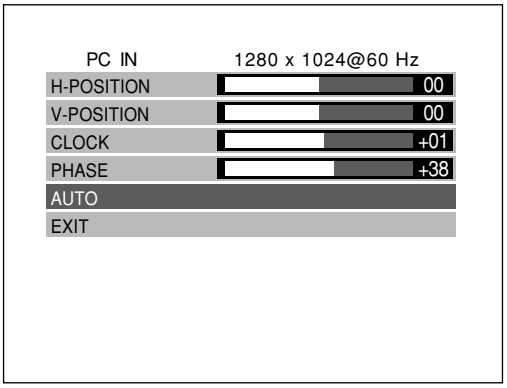
Note: Since this unit detects input signals and makes automatic adjustments as required, this setting is not required in ordinary cases.

1. Press the MENU button. The top menu will be displayed.



2. Move the cursor to SETUP by pressing the ▼ or ▲ button. Press the MENU button. The PC SETUP menu will be displayed.

   Present input signals are displayed in the menu title.
   For PC input terminal: PC IN



   According to the timing data table (☞ Page 9), present signals are displayed at the right side of the menu title in the format of [Resolution@Refresh rate (Vertical frequency)].

3. Move the cursor to AUTO by pressing the ▼ or ▲ button. Press the MENU button. The image display position will be adjusted automatically.

Notes:
- The screen flickers during automatic adjustments. This is, however, not a malfunction.
- According to the situation of video signals, it takes several seconds to 10-odd seconds to complete automatic adjustments.

If an optimal screen cannot be obtained after automatic adjustments, further operation specified below may be needed.

4. Move the cursor to the following setting items by pressing the ▼ or ▲ button. Then, adjust the levels by pressing the + or – button.

Setting item	Effect	Setting value
H-POSITION	**+:** Screen moves to the right. **–:** Screen moves to the left.	– 40 to + 40
V-POSITION	**+:** Screen moves upwards. **–:** Screen moves downwards.	– 20 to + 20
CLOCK	**+:** Clock is enlarged. **–:** Clock is contracted.	– 20 to + 20
PHASE	**+:** Phase is increased. **–:** Phase is decreased.	0 to +63

5. Select EXIT, and press the MENU button. The top menu will be displayed.

6. Select EXIT on the top menu, and press the MENU button. The monitor display return to the default status.

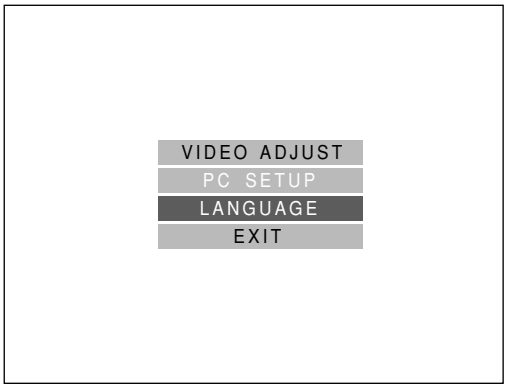
Notes:
- If no operation has been performed for 10 seconds or more, the monitor display returns to the default status.
- Check if the VGA output setting has been performed for the connected PC. (Refer to p. 9.)
- This monitor does not support plug-and-play. Depending on the connected PC, the PC SETUP menu can be controlled from the PC keyboard. However, proper adjustment is not supported.

■ Language Setup

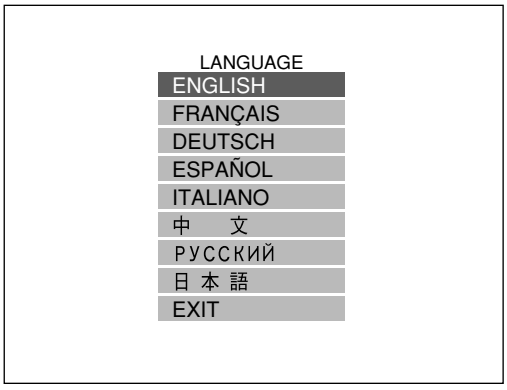
You can select the language for monitor display.

Note: If the power is shut down during setup, the setting values will not be saved.

1. Press the MENU button. The top menu will be displayed.



2. Move the cursor to LANGUAGE by pressing the ▼ or ▲ button. Press the MENU button. The LANGUAGE menu will be displayed.



3. Move the cursor to the desired language by pressing the ▼ or ▲ button. Press the MENU button. The selected language will be applied for monitor display.

4. Select EXIT, and press the MENU button. The top menu will be displayed.

Note: When any language other than Japanese is selected, the menu title and the statement of [Return] will be turned into notation of the selected language.

5. Select EXIT on the top menu, and press the MENU button. The monitor display return to the default status.

Note: If no operation has been performed for 10 seconds or more, the monitor display returns to the default status.

Troubleshooting

Check the following before requesting repair.
If a trouble cannot be corrected even after checking and trying remedy, contact your dealer.

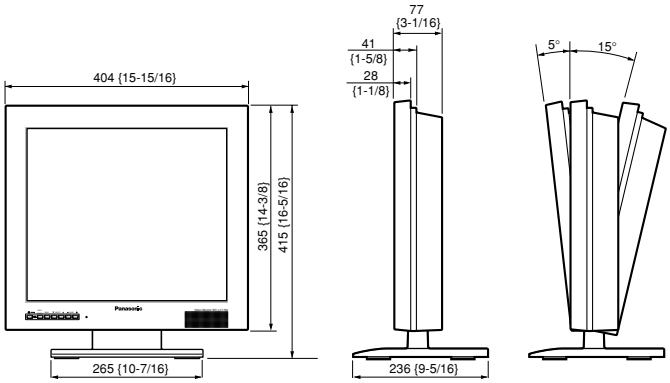
Symptom	Cause/solution	Reference pages
Power is not turned on.	Check if the power plug is properly connected to the AC outlet.	–
	Check if the power plug is properly inserted into the DC IN jack of this monitor.	–
"NO SIGNAL" appears on the screen, and no image is displayed.	Check the cables are properly inserted into the connectors.	8 - 9, 13
	Check if the cable connection is corresponding with the selected input signal.	8 - 9, 13
"OUT OF RANGE" appears on the screen, and no picture is displayed.	When the PC input signal does not meet the standards of this monitor, no picture is displayed. → Check the specifications of connected PC.	9, 18
Picture display position is not proper while the PC input signal is being selected.	Perform auto adjustment on the PC menu. If the picture display position is not properly adjusted, perform manual adjustment.	18
The power cord insulation is damaged. The power cord, plug and connectors get hot during use. The power cord gets hot when bent or stretched.	The power cord, plug and connectors are worn out. If you continue to use it, a fire or an electric shock may occur. Unplug the AC adapter immediately, and refer servicing to qualified service personnel.	–
"VIDEO LOSS" appears in the center of the screen, and no image is displayed.	Check whether the cable is appropriately connected. Check whether the external devices such as the camera are turned on.	8 - 9
No reaction is observed by pressing the front buttons.	Press the reset switch to restart this unit.	8 - 9

Specifications

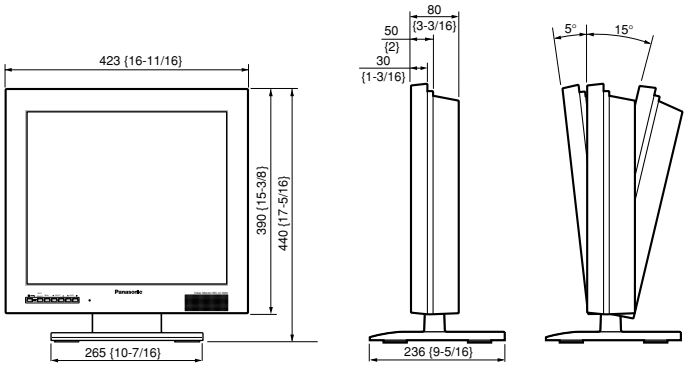
Power source:	120 V AC, 60 Hz
Power consumption:	41 W (WV-LC1700), 43 W (WV-LC1900)
Display panel:	17" (WV-LC1700), 19" (WV-LC1900) TFT LCD, built-in dual CCFT's
Display area:	337 mm (H) x 270 mm (V) {13-1/4" (H) 10-5/8" (V)} (WV-LC1700) 376 mm (H) x 301 mm (V) {14-13/16" (H) 11-7/8" (V)} (WV-LC1900)
Number of pixels:	1 280 x 1 024 (SXGA)
Aspect ratio:	5 : 4
Maximum brightness:	300 cd/m^2 (typical)
Maximum contrast ratio:	800 : 1 (typical)
Display colors:	Approx. 16 700 000
Viewing angle (L/R/U/D):	80 °/80 °/75 °/85 ° (contrast ratio 10 : F1, typical)
TV mode:	Composite video input / Y/C video input: NTSC/PAL (auto)
Horizontal resolution:	500 or more TV lines
Video input (VIDEO-A IN, VIDEO-B IN):	1.0 V [P-P]/75 Ω (BNC), composite video signal
Video output (VIDEO-A OUT, VIDEO-B OUT):	Auto-termination loop-thru (BNC)
S-video input (S-VIDEO IN):	Y=1.0 V [P-P]/75 Ω, C= 0.3 V [P-P]/75 Ω, mini DIN jack
PC input (PC IN):	RGB, 0.7 V [P-P]/75 Ω, horizontal and vertical timing pulse: TTL, 15-pin mini D-sub connector
Speaker output:	0.5 W
Audio input:	–8 dB/Hi-Z, RCA pin jack
Audio output:	Loop-thru output, RCA pin jack
Ambient operating temperature:	0 °C to +40 °C {+32 °F to +104 °F}
Ambient storage temperature:	–20 °C to 60 °C {–14 °F to +140 °F}
Ambient operating humidity:	Less than 90 %
Screw holes for VESA mounting bracket:	100 mm {3-15/16"} pitch, VESA standard
Dimensions:	WV-LC1700: 404 mm (W) x 415 mm (H) x 236 mm (D) {15-15/16" (W) x 16-3/8" (H) x 9-5/16" (D)} (including the monitor stand) 404 mm (W) x 365 mm (H) x 77 mm (D) {15-15/16" (W) 14-3/8" (H) 3-1/16" (D)} (excluding the monitor stand) WV-LC1900: 423 mm (W) x 440 mm (H) x 236 mm (D) {16-11/16" (W) 17-5/16" (H) x 9-1/16" (D)} (including the monitor stand) 423 mm (W) x 390 mm (H) x 80 mm (D) {16-11/16" (W) 15-3/8" (H) x 3-1/8" (D)} (including the monitor stand)
Weight:	WV-LC1700: 9.0 kg {20 lbs.} (including the monitor stand) 7.7 kg {17 lbs.} (excluding the monitor stand) WV-LC1900: 10 kg {22 lbs.} (including the monitor stand) 8.7 kg {19 lbs.} (excluding the monitor stand)

Appearance

WV-LC1700



WV-LC1900



(Unit: mm/inch)

Standard Accessories

Operating Instructions (This Document) ..... 1 pc.
Warranty Card..... 1 pc.
Power Cord ..... 1 pc.

Panasonic System Solutions Company,
Unit Company of Panasonic Corporation of North America
www.panasonic.com/business/
For customer support, call 1.800.528.6747
Three Panasonic Way 2H-2, Secaucus, New Jersey 07094

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5770 Ambler Drive,Mississauga,
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Nt0708-0/1 3TR005612AAA Printed in Taiwan