

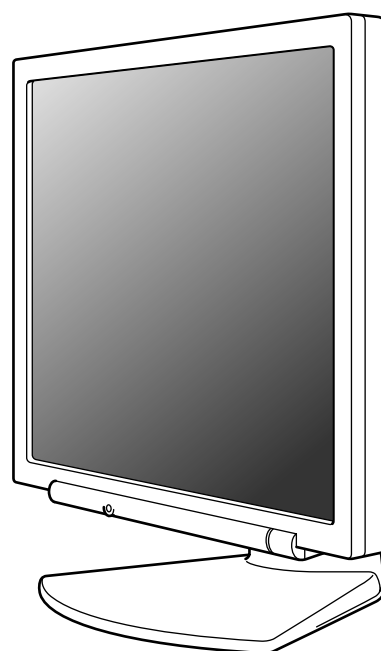
SHARP®

LCD Monitor
LCD Farbmonitor
Moniteur LCD
Monitor LCD
Monitor LCD

LL-171A

LL-171G

OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
MANUALE D'USO
MANUAL DE FUNCIONAMIENTO



LL-171A

Notice for Users in the USA

IMPORTANT:

To aid in reporting in case of loss or theft, please record the monitor's model and serial numbers in the space provided. The numbers are located on the rear of the monitor.

Model No.:

Serial No.:

FCC Statement

WARNING – FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

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

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

Use nothing but the included cables and AC cord to insure compliance with FCC regulation for Class B computing equipment.

Declaration of Conformity

SHARP LCD Color Monitor LL-171A-W/LL-171A-B/LL-171G-W/LL-171G-B

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430
TEL: 1-800-BE-SHARP



* As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org

Notice for Users in Europe

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som komplette ras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

CAUTION:

TO PREVENT ELECTRICAL SHOCK, DISCONNECT THE AC CORD BEFORE SERVICING.

CAUTION:

FOR A COMPLETE ELECTRICAL DISCONNECTION, PULL OUT THE MAIN PLUG.

VORSICHT:

UM DIE STROMZUFUHR VOLLSTÄNDIG ZU UNTERBRECHEN, DEN NETZSTECKER HERAUSZIEHEN ENTFERNEN.

ATTENTION :

POUR UN ARRÊT TOTAL DE L'APPAREIL, DEBRANCHEZ LA PRISE DU COURANT SECTEUR.

VARNING:

FÖR TOTAL ELEKTRISK URKOPPLING, KOPPLA UR KONTAKTEN OCH.

PRECAUCION:

PARA UNA COMPLETA DESCONEXION ELECTRICA DESENCHUFE LA CLAVIJA DE LA RED.

PRECAUCION:

A FIN DE EVITAR DESCARGAS ELÉCTRICAS, DESCONECTE EL ENCHUFE DE LA RED ANTES DE REALIZAR CUALQUIER OPERACIÓN DE SERVICIO.

ATTENZIONE:

PER EVITARE FOLGORAZIONI, SCOLLEGATE IL CAVO DI COLLEGAMENTO ALLA RETE IN ALTERNATA PRIMA DI EFFETTUARE UN INTERVENTO DI SERVIZIO TECNICO.

ATTENZIONE:

PER UNO SCOLLEGAMENTO ELETTRICO COMPLETO, TIRATE FUORI LA SPINA PRINCIPALE.

Notice for Users in the UK

FOR CUSTOMERS IN U.K.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW : **Earth**
BLUE : **Neutral**
BROWN : **Live**

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

- The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter **E** or by the safety earth \perp or coloured green or green-and-yellow.
- The wire which is coloured BLUE must be connected to the terminal which is marked with the letter **N** or coloured black.
- The wire which is coloured BROWN must be connected to the terminal which is marked with the letter **L** or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt consult a qualified electrician.

"WARNING: THIS APPARATUS MUST BE EARTHED."

Notice for Users in Australia

Service Inquiries

Please contact your dealer for service if required or contact Sharp Corporation of Australia on 1 300 13 50 22 for referral to your nearest Sharp authorized Service Center.



TCO Development

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): development@tco.se

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: <http://www.tco-info.com/>

Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

What does labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user. Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

Environmental requirements

Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

Cadmium**

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

Mercury**

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit. There is however one exception. Mercury is, for the time being, permitted in the back light system of flat panel monitors as there today is no commercially available alternative. TCO aims on removing this exception when a mercury free alternative is available.

CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

Lead**

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

* Bio-accumulative is defined as substances which accumulate within living organisms.

** Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

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Tips and safety precautions

- The TFT color LCD panel used in this monitor is made with the application of high precision technology. However, there may be minute points on the screen where pixels never light or are permanently lit. Also, if the screen is viewed from an acute angle there may be uneven colors or brightness. Please note that these are not malfunctions but common phenomena of LCDs and will not affect the performance of the monitor.
- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- If the brightness is adjusted to the minimum setting it may be difficult to see the screen.
- The quality of the computer signal may influence the quality of the display. We recommend using a computer able to emit high quality video signals.
- Never rub or tap the monitor with hard objects.
- Please understand that Sharp Corporation bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- This monitor and its accessories may be upgraded without advance notice.

Location

- Do not use the monitor where ventilation is poor, where there is a lot of dust, where humidity is high, or where the monitor may come into contact with oil or steam, as this could lead to fire.
- Ensure that the monitor does not come into contact with water or other fluids. Ensure that no objects such as paper clips or pins enter the monitor as this could lead to fire or electric shock.
- Do not place the monitor on top of unstable objects or in unsafe places. Do not allow the monitor to come into contact with strong shocks or vibrations. Causing the monitor to fall or topple over may damage it.
- Do not use in places where the monitor will be subject to direct sunlight, near heating equipment or anywhere else where there is likelihood of high temperature, as this may lead to generation of excessive heat and outbreak of fire.

The Power Cord

- Do not damage the power cord nor place heavy objects on it, stretch it or over bend it. Also, do not add extension cords. Damage to the cord may result in fire or electric shock.
- Use only the power cord supplied with the monitor.
- Insert the power plug directly into the AC outlet. Adding an extension cord may lead to fire as a result of overheating.
- Do not remove or insert the power plug with wet hands. Doing so could result in electric shock.

Tips and safety precautions

Monitor and accessory checklist

- Please check that the following items are included in the package.
 - LCD monitor (1)
 - Analog signal cable (1)
(model name: 0NW1738GAB01A)
 - [LL-171G] Digital signal cable (1)
(model name: 0NW1748LAB007)
 - Audio cable (1)
(model name: 0NW0173056023)
 - [LL-171G] Cable clamp (2)
 - CD-ROM (1)
 - Operation manual (1)

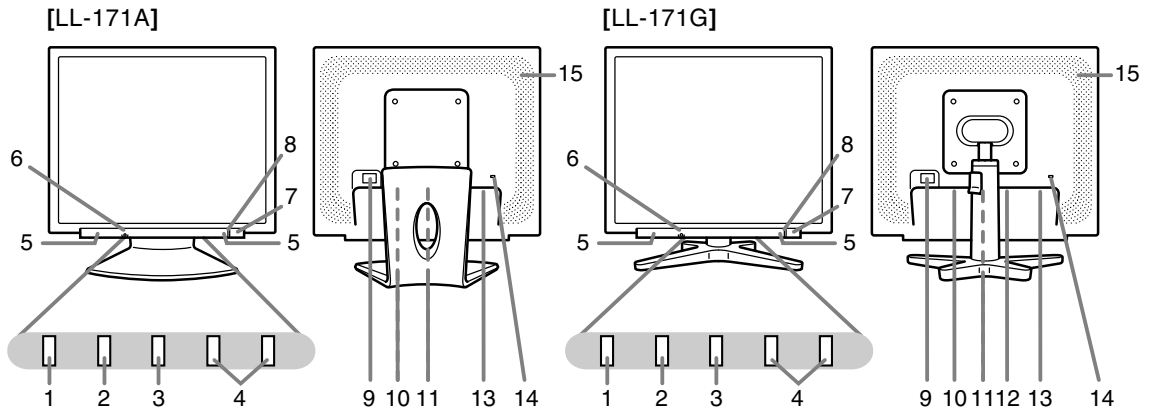
Notes:

- [LL-171A] Use only the cables supplied with the monitor.
- Be sure to use cables that are less than 3 m in length.
- [LL-171G] The analog signal cable (DVI-I29 pin – mini D-sub15 pin) is to be purchased separately.
(model name: NL-C02E)
- [LL-171G] The 2-input cable (DVI-I29 pin – DVI-D24 pin/mini D-sub15 pin) is to be purchased separately.
(model name: NL-C03J)
- You are advised to retain the carton in case the monitor needs to be transported.
- Sharp Corporation holds authorship rights to the Utility Disk program. Do not reproduce it without permission.
- The shape of the supplied accessories may not be exactly same as shown in this manual.

Manual Scope

- This manual is written for use with the LL-171A and the LL-171G. When describing a different specification between the models, the model name is also given. (If the model name isn't given, the description is true for both models. For product appearance, illustrations of the LL-171A are used in this manual.)
- In this manual, Microsoft Windows XP will be referred to as "Windows XP", Microsoft Windows Millennium as "Windows Me", Microsoft Windows 2000 as "Windows 2000", Microsoft Windows 98 as "Windows 98", Microsoft Windows 95 as "Windows 95", and Microsoft Windows Version 3.1 as "Windows 3.1". When there is no need to distinguish between programs, the term "Windows" will be used.
- Microsoft and Windows are registered trademarks of Microsoft Corporation.
- Macintosh is a registered trademark of Apple Computer, Inc.
- All other brand and product names are trademarks or registered trademarks of their respective holders.

Product description



1. AUTO button [LL-171A] This button is used to perform automatic adjustment of the screen (CLOCK, PHASE, H-POS and V-POS). (p.19)
- INPUT button [LL-171G] To switch between the signal's input terminals.
2. MENU button This button is used to pop-up, select and close the OSD (On Screen Display) Menu.
3. ▼ / MODE button When the OSD Menu is displayed:
This button is used to select menu options.
When the OSD Menu is not displayed:
This button is used to set DISPLAY MODE.
4. ◀▶ buttons When the OSD Menu is displayed:
These buttons are used to select an option or adjust the value of the selected option.
When the OSD Menu is not displayed:
These buttons are used to adjust backlight brightness and speaker volume.
5. Speakers Audio entering via the external device connected to the monitor can be heard.
6. Headphone terminal Headphones (commercially available) can be connected here.
7. Power button Pressing this button turns the power on.
Press the button again to turn the power off.
8. Power LED This LED is lit green when in use and orange when in power-saving mode.
9. Main power switch
10. Power terminal
11. Audio input terminal A computer's audio output terminal can be connected here. The audio cable included should be used.
12. DVI-I input terminal [LL-171G] The computer's digital RGB output terminal or analog RGB output terminal can be connected here.
For a digital signal input: It can be connected to a computer with a DVI-compatible output terminal (DVI-D24 pin or DVI-I29 pin) and which has SXGA output ability. Depending on the computer to be connected, correct display may or may not be possible.
13. Analog RGB input terminal The analog signal cable is connected here. The analog signal cable included should be used.
14. Security lock anchor By connecting a security lock (commercially available) to the security lock anchor, the monitor is fixed so that it cannot be transported.
The security slot works in conjunction with Kensington Micro Saver Security Systems.
15. Ventilation openings Never block the ventilation openings as this may lead to overheating inside the monitor and result in malfunction.

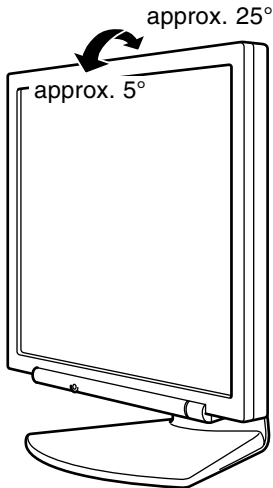
Angle adjustment, height adjustment

CAUTION!

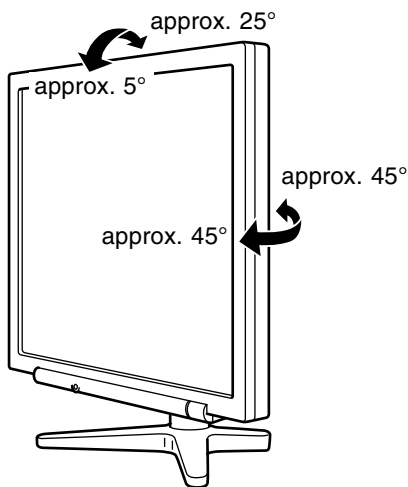
- Be sure to hold both sides of the monitor when adjusting the viewing angle. The LCD panel used in this monitor is made of glass. Pressure from hands on the LCD panel could cause damage.
- Be careful not to allow your fingers to be pinched.

Angle adjustment

[LL-171A]

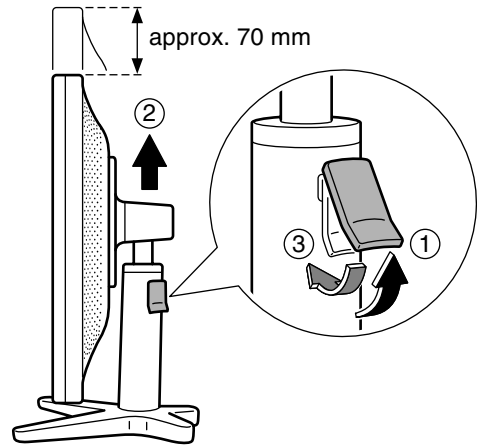


[LL-171G]



Height adjustment [LL-171G]

1. Release the lock.
2. Adjust the height of the stand.
3. Set the lock.



CAUTION!

- Be sure to release the lock before adjusting the height of the stand. Extending/contracting the stand when it's locked may result in damage to the product.
- Ensure that the stand is properly locked except while adjusting the height.

Connecting the monitor and turning the monitor on and off

CAUTION!

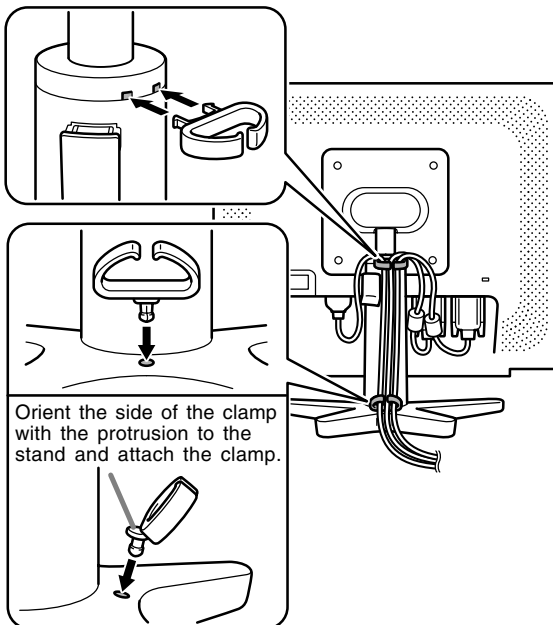
- When connecting, ensure that both the monitor and computer are switched off.
- Be careful not to over bend the cable or add extension cords as this could lead to a malfunction.

Securing the cables [LL-171G]

Use the supplied cable clamps to secure the cables connected to the terminals. The upper and lower cable clamps have different shapes. Check the shapes of the clamps before attaching them to the stand.

CAUTION!

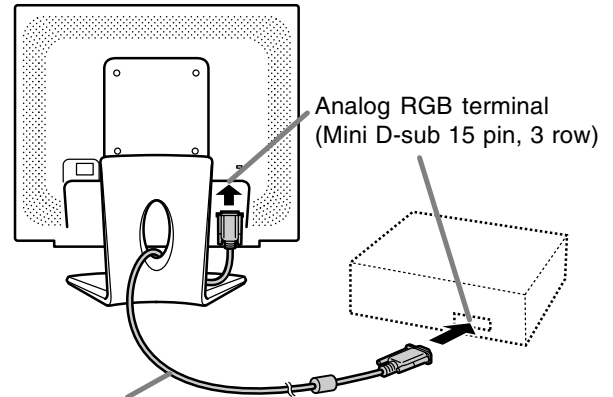
- When adjusting the viewing angle, cables may be pulled. Therefore, ensure that the cables have sufficient slack.



Connecting the monitor to a computer

Analog connection [LL-171A]

Connect the accessory analog signal cable to the analog RGB output terminal of the computer.



Analog signal cable

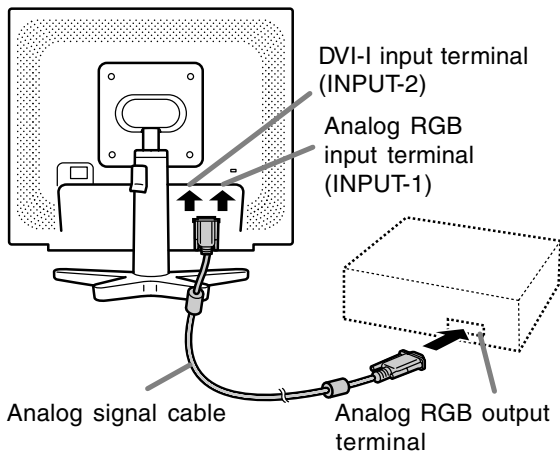
- Paying attention to connector direction, firmly insert the signal cable vertically into the connector, and then tighten the screws at both sides.

Connecting the monitor and turning the monitor on and off

Analog connection [LL-171G]

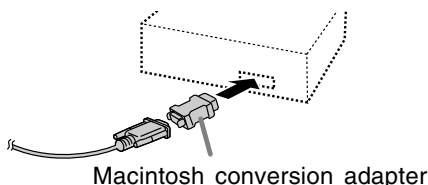
Connect the accessory analog signal cable, or separately-sold analog signal cable (model name: NL-C02E) to the analog RGB output terminal of the computer.

- Connect the accessory analog signal cable to the analog RGB input terminal (INPUT-1).
- Connect the separately-sold analog signal cable (model name: NL-C02E) to the DVI-I input terminal (INPUT-2).



- Paying attention to connector direction, firmly insert the signal cable vertically into the connector, and then tighten the screws at both sides.

If connecting to a D-sub15 pin 2 row Apple Power Macintosh, attach a Macintosh conversion adapter (commercially available) to the analog signal cable.



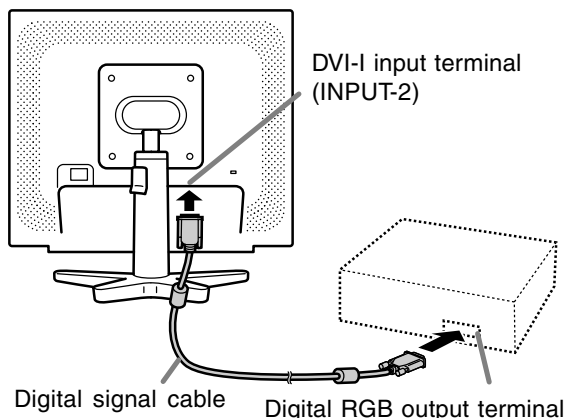
Note:

- If connecting to the Sun Ultra series, a conversion adapter (commercially available) may be required.

Digital connection [LL-171G]

Connect the accessory digital signal cable to the digital RGB output terminal of the computer.

- The monitor has an input for connecting to a computer with a DVI-compatible output connector (DVI-D24 pin or DVI-I29 pin) and SXGA output capability. (Depending on the type of computer to be connected, the display may not work correctly.)



- Paying attention to connector direction, firmly insert the signal cable vertically into the connector, and then tighten the screws at both sides.

Set the monitor as follows when establishing a digital connection with a Power Mac using an ADC-DVI adapter made by Belkin. (Operation has been checked with the Power Mac G4 M7627J/A.)

- Perform settings with the Power Mac power supply off.
1. After connecting the power cord, turn on the monitor's main power.
 2. Press the ◀ button and ▶ button simultaneously, and while doing this press the power button (i.e. turn the power on).



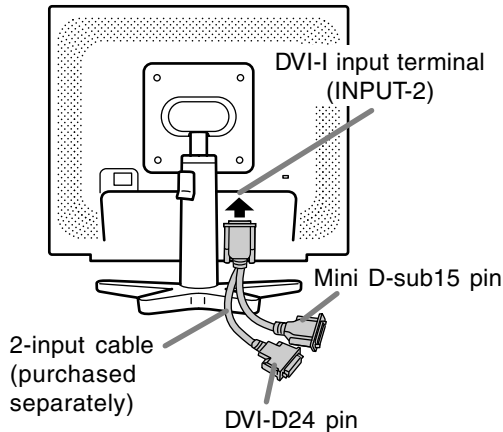
3. Set to [ON] with the ◀▶ buttons.
 - Do not set to [ON] if you are not using a Belkin ADC-DVI adapter, as this may result in incorrect display.
4. Press the MENU button.
This completes setting.

Connecting the monitor and turning the monitor on and off

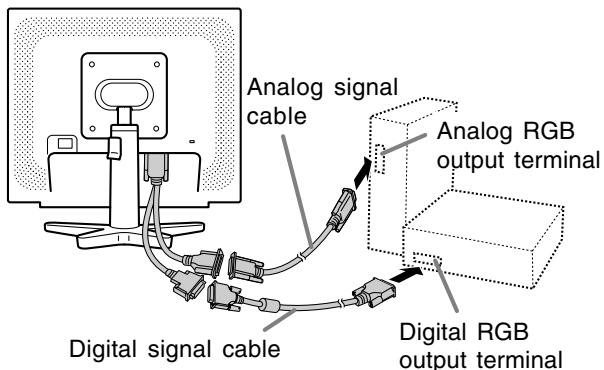
When connecting using a separately sold 2-input cable [LL-171G]

The separately sold 2-input cable (model name: NL-C03J) enables connection between the DVI-I input terminal on the monitor and the two computers. (One analog and one digital connection.)

1. Connect the 2-input cable to the DVI-I input terminal of the monitor.



2. Connect the accessory or commercially available analog signal cable and the accessory digital signal cable to the 2-input cable.
 - When using commercially available analog signal cable, both ends should be mini D-sub 15 pin.
3. Connect each signal cable to the computers.



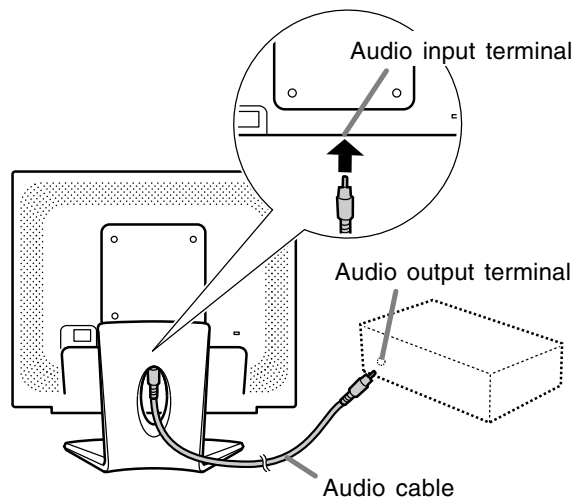
- Paying attention to connector direction, firmly insert the signal cable into the connector, and then tighten the screws at both sides.

Notes:

- When using the 2-input cable, set the connecting input terminal [INPUT-2] to [2LINES] under the MODE SELECT-2 Menu. (p.22)
- The monitor connected to the 2-input cable by analog connection may not be automatically recognized and setup under Plug & Play. Perform storage of setup information manually. (p.28)

Connect the accessory audio cable

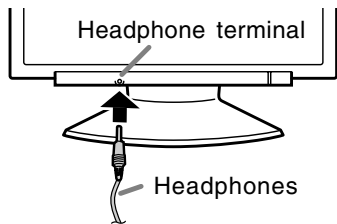
When the accessory audio cable is connected to the audio output terminal of the computer, the sound of the connected computer is output from the monitor speakers. You can also use the headphone jack of the display.



Connecting the monitor and turning the monitor on and off

Connection of headphones (commercially available)

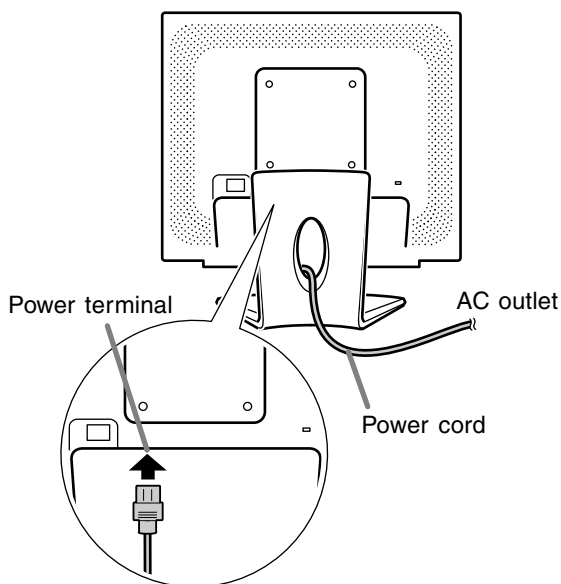
Headphones (commercially available) can be connected.



Note:

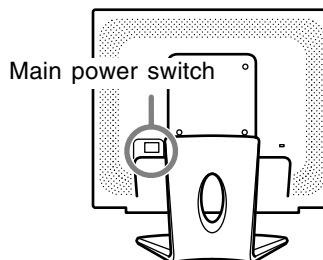
- When the headphones are connected, no sound can be heard from the monitor speakers.

Connecting the monitor to a power source



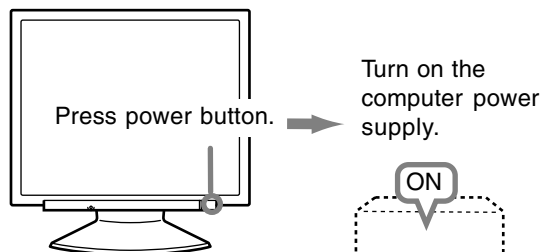
Turning the power on

1. Turn on the main power of the monitor.



- When switching the main power switch on and off, always wait for an interval of at least 5 seconds. Rapid switching may result in malfunction.

2. Press the monitor's power button.
3. Turn on the computer.



When a signal is input from the computer, the power LED lights up green, and the screen is displayed. (After power is turned on, it may take a little time until the screen is displayed.)

Note for LL-171G:

- If the input terminal to which the computer is connected has not been selected, the screen will not be displayed. If necessary, perform input terminal switching. (p.16)

Notes:

- When using an analog signal, perform an automatic screen adjustment under the following conditions (p.19):
 - Using the monitor for the first time.
 - After having changed the system settings during use.
- When using the LL-171G with a digital connection, automatic screen adjustment is unnecessary.
- Depending on the type of computer or OS, you may need to install the monitor set-up information on your system. (p.28)
- When connecting to a notebook, if the notebook computer's screen is set to display at the same time, the MS-DOS screen may not display properly. In this case, change the setting to display only the LCD monitor.

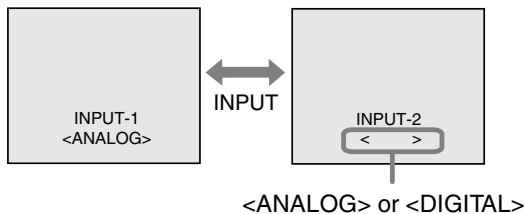
Connecting the monitor and turning the monitor on and off

Changing between input terminals

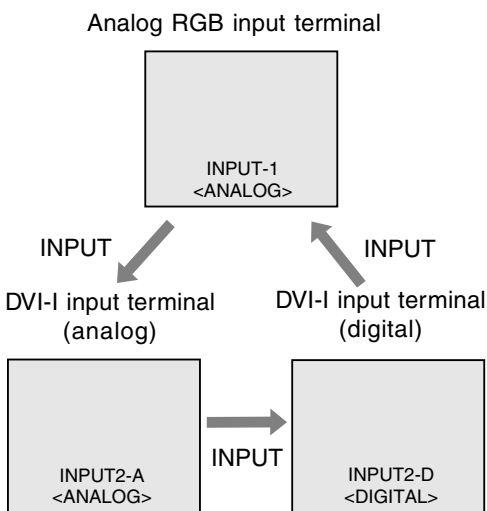
[LL-171G]

Use the INPUT button to switch between signal input terminals.

Analog RGB input terminal DVI-I input terminal



When using a 2-input cable

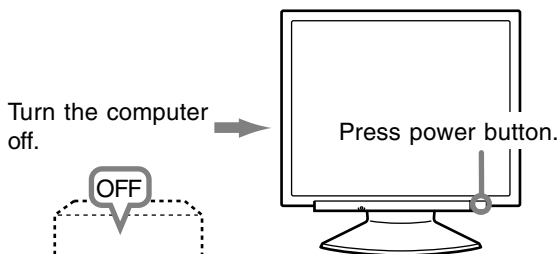


Note:

- When there is no input signal, [NO SIGNAL] is displayed.

Turning the power off

1. Turn the computer off.
2. Press the monitor's power button.
The power LED will disappear.



If the monitor will not be used for a long time, turn off the main power switch of the monitor, and remove the power plug from the outlet.

Adjusting the screen display and speaker volume

For analog signal

1. First perform an automatic adjustment. (p.19)
2. Perform manual adjustment where necessary. (p.20)

For digital signal [LL-171G]

The monitor can generally be used without adjustment. If necessary perform manual adjustment. (p.20)

Note:

- All adjustments will be saved even after turning the power off.

Resetting all adjustment values

All adjustment values can be returned to their original ex-factory values in one command.

1. Turn off the monitor power.
2. Press the MENU button and the ▼ / MODE button simultaneously, and while doing this press the power button (i.e. turn the power on). Continue to press the buttons until [ALL RESET] appears on the screen. Reset is complete when the displayed message disappears.

Notes:

- While [ALL RESET] is displayed, the control buttons are disabled.
- It is not possible to reset values when the adjustment lock is in place. Remove the adjustment lock before attempting to operate control buttons.

ADJUSTMENT Menu reset

Settings of items in the ADJUSTMENT Menu (CLOCK, PHASE, H-POS, V-POS) can be returned to their original ex-factory values.

1. Turn on the monitor power.
2. Press the MENU button and the ◀ button simultaneously. When [RESET] appears on the screen, the reset is complete.

Notes:

- While [RESET] is displayed, the control buttons are disabled.
- It is not possible to reset values when the adjustment lock is in place. Remove the adjustment lock before attempting to operate control buttons.

Adjustment lock function

By disabling the control buttons (i.e. setting the lock) any attempted changes to adjusted values will be voided.

1. Turn off the monitor power.
2. While pressing the MENU button, press the power button (i.e. turn the power on). Continue to press the buttons until [ADJUSTMENT LOCKED] appears on the screen. The lock is set when the message is displayed.

Note:

- When the lock is in place, all buttons other than the power button are disabled.

Adjustment lock release

1. Turn off the monitor power.
2. While pressing the MENU button, press the power button (i.e. turn the power on). Continue to press the buttons until [ADJUSTMENT UNLOCKED] appears on the screen. The lock is released when the message is displayed.

Adjusting the backlight

1. Without the OSD Menu being displayed, press the ◀ or the ▶ button.
2. Check that [BRIGHT] is selected. If it is not selected, press the ▼ / MODE button and select [BRIGHT].



3. Adjust by pressing the ◀ button (darker) or ▶ button (lighter).

Note:

- On Screen display for adjustment disappears several seconds after the last operation.

Adjusting the screen display and speaker volume

Adjusting the speaker volume

1. Without the OSD Menu being displayed, press the ◀ or the ▶ button.
2. Check that [VOLUME] is selected.
If it is not selected, press the ▼ / MODE button and select [VOLUME].



3. Adjust by pressing the ◀ button (decrease) or ▶ button (increase).

Note:

- On Screen display for adjustment disappears several seconds after the last operation.

Setting display mode

Color tone or brightness can be changed with one command.

STD

Displays image with the color tone results from original scheme of liquid crystal panel.

OFFICE

Display brightness is lowered. (This mode saves power.)

sRGB

sRGB is international standard of color representation specified by IEC (International Electrotechnical Commission).

Color conversion is made in taking account of liquid crystal's characteristics and represents color tone close to its original image.

VIVID

Displays an image with dynamic and vivid primary colors.

- If [DISPLAY MODE] is set to [sRGB] or [VIVID], [WHITE BALANCE] is set to [STD], and [GAMMA] is set to [0].

How to set

Press the ▼ / MODE button when the OSD Menu is not displayed.

Each time the button is pressed the next menu item appears. (STD → OFFICE → sRGB → VIVID → STD)

On Screen display for adjustment disappears several seconds after the last operation.

Checking product information

A model name (MODEL), a serial no. (S/N), and usage time (USAGE TIME) of the monitor can be checked.

1. Turn the power off.
2. While pressing the ▼ / MODE button, press the monitor's power button (i.e. turn the power on).
The product information will display.
3. Press the MENU button.

Note:

- Please note that the indication of usage time at purchase may not be 0 (zero), as a result of factory inspection and other activities during manufacture.

Adjusting the screen display

Automatic screen adjustment (When using an analog signal)

Options in the ADJUSTMENT Menu can be adjusted automatically (CLOCK, PHASE, H-POS, V-POS).

Notes:

- When setting up this monitor for the first time or after having changed an aspect of the current system, perform an automatic screen adjustment before use.
- Automatic screen adjustment is unnecessary when the LL-171G is used with a digital connection. Perform manual screen adjustment when necessary. (p.20)

Screen display for adjustment

First display an image that makes the entire screen light.

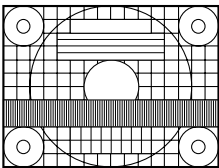
If you are using Windows, you can use the Adjustment Pattern on the accompanying CD-ROM.

Opening the Adjustment Pattern (for Windows)

This explanation is for Windows 95/98/2000/Me/XP, and assumes that the CD-ROM drive is "D" drive.

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Open [My Computer] and select CD-ROM. If using Windows 3.1, open [File Manager] and choose "D" drive.
3. Double click on [Adj_uty.exe] to run the Adjustment Program. The Adjustment Pattern will appear.

Adjustment Pattern



After completing the adjustments, press the computer's [Esc] key to exit the Adjustment Program.

Note:

- If your computer's display mode is set to 65K colors, you may see the different color levels in each color pattern or the gray scale may look colored. (This is due to the specification of the input signal and is not a malfunction.)

Adjusting the screen automatically

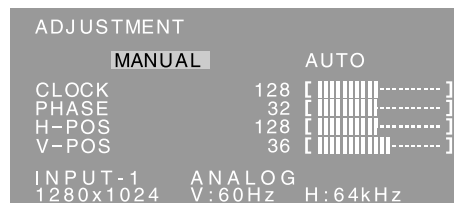
Automatic adjustment can be performed using either the AUTO button or the MENU button.

AUTO button [LL-171A]

1. Press the AUTO button.
2. Press the AUTO button again.
[ADJUSTING] will appear on the screen, and after a few seconds [ADJUSTING] will disappear. (The automatic adjustment is now complete.)

MENU button

1. Press the MENU button.
The ADJUSTMENT Menu will be displayed. (Example: Displayed screen of the LL-171G)



2. Press the ► button.
The screen will become dark and [ADJUSTING] will be displayed. After a few seconds the ADJUSTMENT Menu will return. (The automatic adjustment is now complete.)
3. Press the MENU button 5 times to make the OSD (On Screen Display) Menu disappear.

Notes:

- In most cases automatic adjustment is sufficient.
- It may not be possible to achieve correct adjustment with the first automatic adjustment. In such a case, try repeating the automatic adjustment 2 or 3 times.
- If necessary due to any of the following, manual adjustments (p.20) can be performed after the automatic adjustment.
 - When further fine adjustment is needed.
 - When [OUT OF ADJUST] is displayed. (When the screen displays an entirely dark image, the automatic screen adjustment may be disabled. When making an automatic adjustment, be sure to either use the Adjustment Pattern or try displaying an image that makes the entire screen very bright.)
 - When the computer's video input signals are Composite Sync or Sync on Green. (Automatic adjustments may not be possible.)
- Automatic adjustment may not be achieved correctly depending on what is displayed on the screen - moving pictures or the MS-DOS prompt etc.

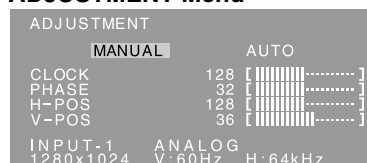
Adjusting the screen display

Manual screen adjustment

1. Display an image that makes the entire screen light. (p.19)
2. Display the OSD Menu by pressing the MENU button.

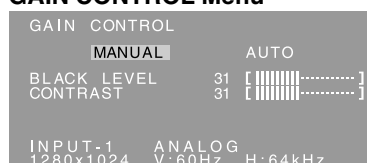
(Example: Displayed screen of the LL-171G)

ADJUSTMENT Menu



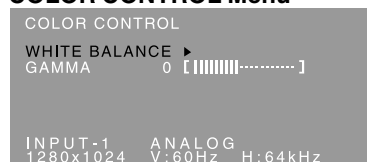
↓ MENU

GAIN CONTROL Menu



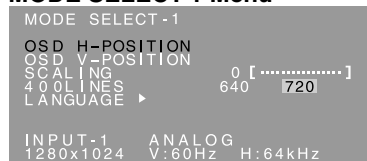
↓ MENU

COLOR CONTROL Menu



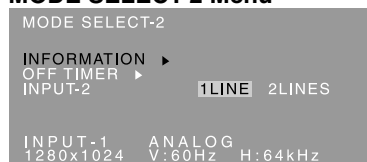
↓ MENU

MODE SELECT-1 Menu



↓ MENU

MODE SELECT-2 Menu



↓ MENU

The OSD Menu closes.

Select the option by pressing the ▼ / MODE button.

Select the option by pressing the ▼ / MODE button.

Select the option by pressing the ▼ / MODE button.

Select the option by pressing the ▼ / MODE button.

Select the option by pressing the ▼ / MODE button.

ADJUSTMENT Menu

When the LL-171G is used with a digital connection, this menu adjustment is not necessary.

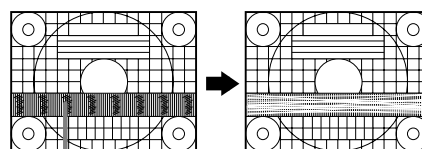
AUTO

When [AUTO] is selected with the ► button, the [CLOCK], [PHASE], [H-POS] and [V-POS] settings are automatically adjusted.

CLOCK

The figure below demonstrates how to adjust so that vertical flicker noise is not emitted.

(◀▶ buttons)



Vertical flicker noise

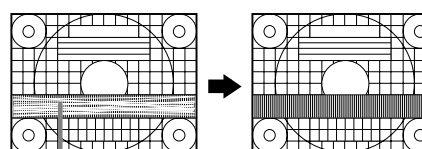
PHASE

The figure below demonstrates how to adjust so that horizontal flicker noise is not emitted.

(◀▶ buttons)

Note:

- Adjustments to [PHASE] should be made only after [CLOCK] has been correctly set.

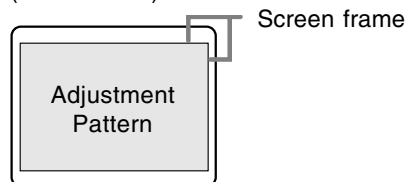


Horizontal flicker noise

H-POS (horizontal positioning) and V-POS (vertical positioning)

To center the Adjustment Pattern within the boundaries of the screen, adjust the left-right (H-POS) values and the up-down (V-POS) values.

(◀▶ buttons)



Notes:

- When the LL-171G is used with a digital connection, ADJUSTMENT and GAIN CONTROL Menu adjustments are not necessary.
- The OSD Menu automatically disappears approximately 30 seconds after the last command.
- This chapter provides the procedure how to adjust the screen by using Adjustment Pattern (for Windows).

Adjusting the screen display

GAIN CONTROL Menu

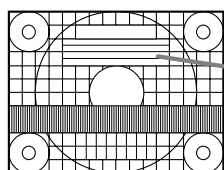
When the LL-171G is used with a digital connection, this menu adjustment is not necessary.

AUTO

When [AUTO] is selected with the ► button, the [BLACK LEVEL] and [CONTRAST] settings are automatically adjusted. After the automatic adjustment, perform manual adjustment when necessary.

BLACK LEVEL

Total screen brightness can be adjusted while watching the color pattern. (◀▶ buttons)



Color pattern

CONTRAST

While watching the color pattern, adjustments can be made so that all gradations appear.

(◀▶ buttons)

Notes:

AUTO (Auto Gain Control function)

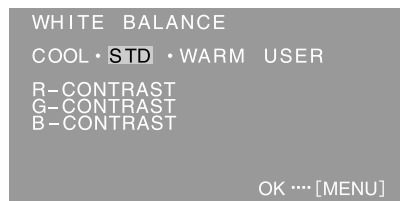
- The Auto Gain Control adjusts contrast and black level based on the brightest and darkest colors of the image displayed.
- If you are not using the Adjustment Pattern it is necessary to have black area and white area of at least 5 mm x 5 mm on the screen. Adjustment may not be possible without those areas.
- If the signal coming from the computer is Composite Sync or Sync on Green, automatic adjustment cannot be performed. Please perform manual adjustment instead.
- If [OUT OF ADJUST] is displayed, perform manual adjustment.

COLOR CONTROL Menu

WHITE BALANCE

1. After selecting [WHITE BALANCE], press the ► button.

The WHITE BALANCE menu will be displayed.



2. Use the ◀▶ buttons to select [COOL], [·], [STD], [·], [WARM] or [USER].

COOL ... Color tone bluer than standard

- Color tone slightly bluer than standard

STD Color tone standard setting

- Color tone slightly redder than standard

WARM .. Color tone redder than standard

USER

- Selecting [USER] will display the setting values for [R-CONTRAST], [G-CONTRAST] and [B-CONTRAST], in order to make fine adjustments.
- Use the ▼ / MODE button to select [R-CONTRAST], [G-CONTRAST] and [B-CONTRAST].

R-CONTRAST ◀ button for blue-green
▶ button for red

G-CONTRAST ◀ button for purple
▶ button for green

B-CONTRAST ◀ button for yellow
▶ button for blue

3. Press the MENU button.

Notes:

- On settings other than [STD] not all gradations can be displayed. To display all gradations, set to [STD].
- If [DISPLAY MODE] is set to [sRGB] or [VIVID], no other setting than [STD] can be selected.

GAMMA

Adjust so that dark and bright images are easy to see. If the screen is dark and hard to see, increase the numerical value. If it is bright and hard to see, lower the numerical value. (◀▶ buttons)

- If [DISPLAY MODE] is set to [sRGB] or [VIVID], [GAMMA] can not be set.

Adjusting the screen display

MODE SELECT-1 Menu

Note:

- Depending on the resolution of the input signal, even if menu options can be selected, the display may not change.

OSD H-POSITION (OSD horizontal position)

The position of the OSD Menu can be moved to the left and right. (◀▶ buttons)

OSD V-POSITION (OSD vertical position)

The position of the OSD Menu can be moved up and down. (◀▶ buttons)

SCALING (Level of scaling)

The sharpness of the image can be adjusted. (◀▶ buttons)

Note:

- When the display mode is set to less than 1280 x 1024 pixels, the display is enlarged to cover the whole screen (i.e. the side ratio of the display may change).

400LINES (degree of resolution)

(When using an analog signal)

You can specify the horizontal resolution of a 400-line screen when using US text, etc. (◀▶ buttons)

640: 640 x 400 dot mode

720: 720 x 400 dot mode (US text etc.)

Note:

- As the resolution input for other than 400 lines is done automatically, there is no need to set it.

LANGUAGE

You can choose the language used in OSD Menu.

1. Press the ▶ button.

The Language Selection Menu will be displayed on the screen.

2. Use the ▼ / MODE button to choose a language.

3. Press the MENU button.

MODE SELECT-2 Menu

INFORMATION

A model name (MODEL), a serial no. (S/N), and usage time (USAGE TIME) of the monitor can be checked.

1. After selecting [INFORMATION], press the ▶ button.

The product information will display.

2. Press the MENU button.

OFF TIMER

Power is automatically shut off when the set time elapses.

1. After selecting [OFF TIMER], press the ▶ button.

2. Set [ON]/[OFF] by pressing the ◀▶ buttons.

If selecting [ON], press the ▼ / MODE button and set the shut-off time by pressing the ◀▶ buttons. (Between 1 and 23 hours may be set, by the hour.)

3. Press the MENU button.

- When [ON] is selected, the remaining time is displayed in the upper right of the screen during the last 5 minutes before the shut-off. (The remaining time is displayed for approx. 5 seconds, on each minute.)

- If the power button is pressed after the first display of the remaining time but before the power shuts off, the OFF TIMER will be set to one hour.

To subsequently turn the power off, press the power button again. (When next turning on power, power is again automatically shut off when the set time elapses.)

- If the monitor is turned on when the [OFF TIMER] is set to [ON], the set time appears on the display for several seconds. (If there is no input signal, [NO SIGNAL] is displayed.)

INPUT-2 [LL-171G]

Set [1LINE] when connecting digital or analog signal cables to a DVI-I input terminal (INPUT-2) on the display.

Set [2LINES] when connecting a 2-input cable.

(◀▶ buttons)

- If the connections and settings are not correctly set, the screen will not be correctly displayed.

Monitor care

Always remove the plug from the AC outlet when cleaning the monitor.

Cabinet and control panel section

Use a soft dry cloth to lightly wipe away any grime from the cabinet and control panel.

If they are very dirty, apply neutral detergent to a dampened soft cloth, wring it out well and wipe away grime.

LCD panel section

Use a soft dry cloth to lightly wipe away dirt and dust from the surface of the LCD panel. (A soft cloth such as gauze or that used for lens cleaning is suitable.)

CAUTION!

- Never use thinner, benzene, alcohol, glass cleaner, etc, as this could lead to color change or change in shape.
- Never scratch the monitor with anything hard or apply strong pressure as this could leave marks or result in malfunction.

Storage

If the monitor will not be used for a long period of time, be sure to remove the power plug from the AC outlet.

CAUTION!

- Do not leave the monitor in contact with rubber or plastic items for long periods of time as this could lead to color change or change in shape.

Troubleshooting

If you think the monitor may be faulty, please check the following points before taking it to be repaired. If afterwards it still does not work, please contact the shop where you purchased the monitor or your nearest Sharp authorized Service Center.

The monitor's fluorescent tubes have a limited life span.

- If the screen darkens, persistently flickers or does not light up, the fluorescent tube has reached the end of its operational life span. Please inquire at the shop where you purchased the monitor or your nearest Sharp authorized Service Center.
- In the initial period of use, due to the characteristics of fluorescent tubes the screen may flicker. (This is not a malfunction.) Should this happen, check by first turning off the power, then turning it on again.

No image appears on the screen (power LED is not lit).

- Is the power cord connected properly? (p.15)
- No image appears on the screen** (power LED is lit).
- Is the computer connected properly? (p.12,13,14)
- Is the computer turned on?
- If using the LL-171G, confirm that the signal's input terminal is selected correctly. (p.16)
- If using the LL-171G, confirm that [INPUT-2] is set correctly in the MODE SELECT-2 Menu. (p.22)
- Does the computer's signal timing correspond to monitor specifications? (p.26)
- Is the computer in power-saving mode?

Control buttons do not work.

- Is the adjustment lock on? (p.17)

The image appears distorted.

- Does the computer's signal timing correspond to monitor specifications? (p.26)
- If you are using the analog signal, perform automatic screen adjustment. (p.19)
- If you can change the refresh rate on the computer you are using, change the value to a lower frequency. (p.26)

No sound can be heard from the speakers.

- Is the audio cable connected correctly? (p.14)
- Perform the volume adjustment procedure. (p.18)
- Are the headphones connected?
- There is no sound from the speakers when the monitor is in power-saving mode (the power LED lights up orange).

Specifications

Product specifications

Model name

LL-171A-W (White)/LL-171A-B (Black)
LL-171G-W (White)/LL-171G-B (Black)

LCD display

43 cm measured diagonally TFT LCD module

Resolution (max.)

SXGA 1280 x 1024 pixels

Displayable colors (max.)

Approx. 16.19 million colors (6 bit + FRC)

Brightness (max.)

250 cd/m²

Dot pitch

0.264 (H) x 0.264 (V) mm

Contrast ratio

430:1

Angle of visibility

Left-right 170°; up-down 150°
(contrast ratio > 5)

Screen display size

Horizontal 337.9 mm x Vertical 270.3 mm

Video signal

[LL-171A] Analog RGB (0.7 Vp-p) [75Ω]

[LL-171G] Analog: Analog RGB (0.7 Vp-p) [75Ω]

Digital: DVI standard based on 1.0

Sync signal

Separate Sync (TTL level: +/-), Sync on
Green, Composite Sync (TTL level: +/-)

Expansion compensation

Digital scaling (Enlarges VGA/SVGA/XGA etc. to
full screen size.)

Plug & Play

VESA DDC2B compatible

Power management

[LL-171A] VESA: based on DPMS

[LL-171G] VESA: based on DPMS

DVI: based on DMPM

Speaker output

1 W + 1 W

Input signal terminal

[LL-171A] Mini D-sub15 pin (3 row)

[LL-171G] Analog: Mini D-sub15 pin (3 row)

Digital/Analog: DVI-I29 pin

Audio input terminal

Mini stereo jack

Headphone terminal

Mini stereo jack

Height adjustment [LL-171G]

Adjustment range: approx. 70 mm

Screen tilt

Upward approx. 0 - 25°; downward approx. 0 - 5°

Screen swivel [LL-171G]

Approx. 45° from the center to the left and
approx. 45° from the center to the right.

Power supply

AC100 - 240 V, 50/60 Hz

Temperature of operating environment

5 - 35°C

Power consumption

30 W (with no audio input)

(35 W maximum, 1 W when in power-saving
mode)

Dimensions

[LL-171A]

Approx. 374 (W) x 205 (D) x 374 (H) mm

[LL-171G]

Approx. 374 (W) x 236 (D) x 368 - 438 (H) mm

Weight

[LL-171A]

Approx. 6.0 kg (approx. 4.2 kg excluding stand)
(Excluding cables.)

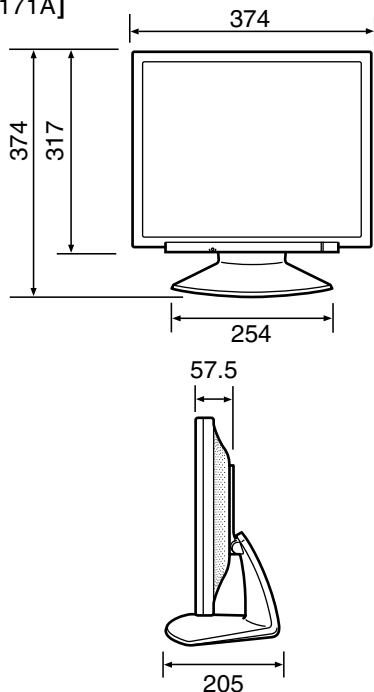
[LL-171G]

Approx. 5.6 kg (approx. 4.2 kg excluding stand)
(Excluding cables.)

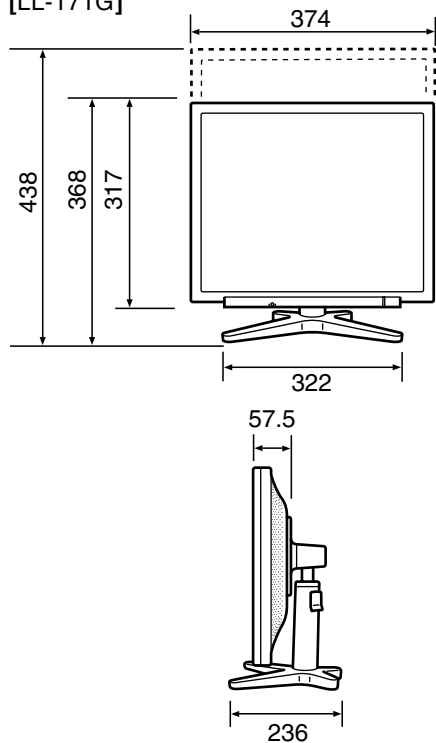
Specifications

Dimensions (Units: mm)

[LL-171A]



[LL-171G]



- Analog signal cable: approx. 1.8 m
- Audio cable: approx. 1.8 m

[LL-171G]

- Digital signal cable: approx. 1.8 m
- Analog signal cable, NL-C02E (purchased separately): approx. 2.0 m
- 2-input cable, NL-C03J (purchased separately): approx. 0.25 m

Note:

- As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Specifications

Relevant signal timings (analog)

Display mode		Hsync	Vsync	Dot frequency
VESA	640x480	31.5kHz	60Hz	25.175MHz
		37.9kHz	72Hz	31.5MHz
		37.5kHz	75Hz	31.5MHz
	800x600	35.1kHz	56Hz	36.0MHz
		37.9kHz	60Hz	40.0MHz
		48.1kHz	72Hz	50.0MHz
		46.9kHz	75Hz	49.5MHz
	1024x768	48.4kHz	60Hz	65.0MHz
		56.5kHz	70Hz	75.0MHz
		60.0kHz	75Hz	78.75MHz
	1152x864	67.5kHz	75Hz	108.0MHz
	1280x960	60.0kHz	60Hz	108.0MHz
	1280x1024	64.0kHz	60Hz	108.0MHz
80.0kHz		75Hz	135.0MHz	
US text	720x400	31.5kHz	70Hz	28.3MHz
Power Macintosh series	640x480	35.0kHz	66.7Hz	30.2MHz
	832x624	49.7kHz	74.6Hz	57.3MHz
	1024x768	60.2kHz	75Hz	80.0MHz
	1152x870	68.7kHz	75Hz	100.0MHz
	1280x1024	64.0kHz	60Hz	108.0MHz
80.0kHz		75Hz	135.0MHz	
Sun Ultra series	1024x768	48.3kHz	60Hz	64.13MHz
		53.6kHz	66Hz	70.4MHz
		56.6kHz	70Hz	74.25MHz
	1152x900	61.8kHz	66Hz	94.88MHz
		71.8kHz	76.2Hz	108.23MHz
	1280x1024	71.7kHz	67.2Hz	117.01MHz
81.1kHz		76Hz	134.99MHz	

- Recommended resolution is 1280 x 1024.
- All are compliant only with non-interlaced.
- Frequencies for Power Macintosh and the Sun Ultra series are reference values. To connect, another adapter (commercially available) may be required.
- If the monitor is receiving timing signals that are not compatible, [OUT OF TIMING] will appear. Follow your computer's instruction manual to set the timing so that it is compatible with the monitor.
- If the monitor is not receiving any signal (synch signal), [NO SIGNAL] will appear.

Relevant signal timings (digital) [LL-171G]

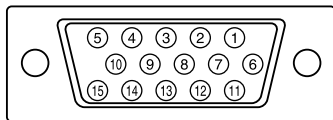
Display mode		Hsync	Vsync	Dot frequency
VESA	640x480	31.5kHz	60Hz	25.175MHz
		37.9kHz	72Hz	31.5MHz
		37.5kHz	75Hz	31.5MHz
	800x600	37.9kHz	60Hz	40.0MHz
		48.1kHz	72Hz	50.0MHz
		46.9kHz	75Hz	49.5MHz
		1024x768	48.4kHz	60Hz
	56.5kHz		70Hz	75.0MHz
	60.0kHz		75Hz	78.75MHz
	1152x864	67.5kHz	75Hz	108.0MHz
	1280x960	60.0kHz	60Hz	108.0MHz
1280x1024	64.0kHz	60Hz	108.0MHz	
US text	720x400	31.5kHz	70Hz	28.3MHz

- Recommended resolution is 1280 x 1024.
- All are compliant only with non-interlaced.
- A computer with an output terminal conforming to DVI (DVI-D24 pin or DVI-I29 pin) and with SXGA output capability can be connected here. (Depending on the type of computer to be connected, the display may not work correctly.)
- If the monitor is receiving timing signals that are not compatible, [OUT OF TIMING] will appear. Follow your computer's instruction manual to set the timing so that it is compatible with the monitor.
- If the monitor is not receiving any signal (synch signal), [NO SIGNAL] will appear.

Specifications

The analog RGB input connector pin

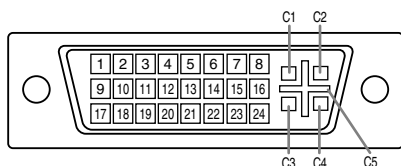
(Mini D-sub connector with 15 pins)



No.	Function
1	Red video signal input
2	Green video signal input
3	Blue video signal input
4	GND
5	GND
6	For red video signal GND
7	For green video signal GND
8	For blue video signal GND
9	+5V
10	GND
11	GND
12	DDC data
13	For Hsync signal input
14	For Vsync signal input
15	DDC clock

The DVI-I input connector pin [LL-171G]

(DVI-I connector with 29 pins)



No.	Function	No.	Function
1	TMDS data 2-	16	Hot plug detection
2	TMDS data 2+	17	TMDS data 0-
3	TMDS data 2/4 shield	18	TMDS data 0+
4	N.C.	19	TMDS data 0/5 shield
5	N.C.	20	N.C.
6	DDC clock	21	N.C.
7	DDC data	22	TMDS clock shield
8	Analog vertically synchronised signal	23	TMDS clock +
9	TMDS data 1-	24	TMDS clock -
10	TMDS data 1+	C1	Analogue red image signal
11	TMDS data 1/3 shield	C2	Analogue green image signal
12	N.C.	C3	Analogue blue image signal
13	N.C.	C4	Analogue horizontally synchronised signal
14	+5V	C5	Analogue GND
15	GND		

Power management

The LL-171A is based on VESA DPMS. The LL-171G is based on both VESA DPMS and DVI DMPM. To activate the power management function, the video card and the computer used with it must also conform to these standards.

DPMS: Display Power Management Signalling

DPMS mode	Screen	Power consumption	H-sync	V-sync
ON	Display on	35 W	Yes	Yes
STANDBY	Display off	1 W	No	Yes
SUSPEND			Yes	No
OFF			No	No

DMPM: Digital Monitor Power Management [LL-171G]

DMPM mode	Screen	Power consumption
ON	Display on	35 W
OFF	Display off	1 W

DDC (Plug & Play)

This monitor supports the VESA DDC (Display Data Channel) standard.

DDC is a signal standard for carrying out Plug & Play functions on the monitor or computer. It transfers information such as degree of resolution between the monitor and computer. You can use this function if your computer is DDC compliant and if it is set so that it can detect the Plug & Play monitor.

There are many varieties of DDC due to the differences between systems. This monitor works with DDC2B.

Installing set-up information and the ICC profile (For Windows)

Depending on the type of computer or OS, you may need to install the monitor set-up information on your system. If so, follow the steps below to install the monitor set-up information. (Depending on the type of computer or OS, command names and methods may differ. Please follow the computer's own operation manual while reading this.)

About the ICC profile

An ICC (International Color Consortium) profile is a file that describes the color reproduction characteristics of the LCD monitor. Using an application compatible with an ICC profile, highly accurate color reproduction can be realized.

- Windows 98/2000/Me/XP all use the ICC profile.
- When installing Windows 98/2000/Me/XP set-up information (described below), the ICC profile is also installed. If you would like to install the ICC profile only, please refer to **Installing the ICC profile** on page 30.
- When using the ICC profile, set as follows:
 - [DISPLAY MODE]: [STD] or [OFFICE]
 - [WHITE BALANCE]: [STD]
 - [GAMMA]: [0]

For Windows 95

Installing monitor set-up information into Windows 95.

This explanation assumes that the CD-ROM drive is "D" drive.

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click on the [Start] button. From [Settings], choose [Control Panel].
3. Double click on [Display].
4. Click on [Settings], [Advanced Properties], and [Monitor], then [Change].
5. Click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:] then click [OK].
6. Confirm that the monitor details are selected, and click [OK].
7. Check that the monitor details are displayed, then click [Apply].
8. Click [OK], and close the window.

For Windows 98

Installing monitor set-up information into Windows 98, and setting the monitor's ICC profile as a predetermined value.

This explanation assumes that the CD-ROM drive is "D" drive.

If the "Add New Hardware Wizard" has appeared:

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click [Next].
3. Check [Display a list of all the drivers in a specific location, so you can select the driver you want.], then click [Next].
4. When [Models] is displayed, click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
5. Confirm that the monitor details are selected, then click [Next], [Next], and [Finish]. If the "Add New Hardware Wizard" appears, repeat the installation commands beginning from 2 above.

If the "Add New Hardware Wizard" has not appeared:

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click on the [Start] button. From [Settings], choose [Control Panel].
3. Double click on [Display].
4. Click on [Settings], [Advanced] and [Monitor].
5. In [Options], check [Automatically detect Plug & Play monitors] and click on [Change].
6. Click [Next].
7. Click on [Display a list of all the drivers in a specific location, so you can select the driver you want.], then click [Next].
8. When [Models] is displayed, click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
9. Confirm that the monitor details are selected, then click [Next], [Next], and [Finish].
10. Check that the monitor details are displayed, then click [Apply].
11. Click [OK], and close the window.

Installing set-up information and the ICC profile (For Windows)

For Windows 2000

Installing monitor set-up information into Windows 2000, and setting the monitor's ICC profile as a predetermined value.

This explanation assumes that the CD-ROM drive is "D" drive.

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click on the [Start] button. From [Settings], choose [Control Panel].
3. Double click on [Display].
4. Click on [Settings], [Advanced] and [Monitor].
5. Click on [Properties], [Driver] and [Update Driver].
6. When [Upgrade Device Driver Wizard] appears, click [Next].
7. Check [Display a list of the known drivers for this device so that I can choose a specific driver] and click [Next].
8. When [Models] is displayed, click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
9. Select the monitor from the list displayed and click [Next].
10. Click [Next], confirm that the monitor's name appears on the screen, and click [Finish]. If [The Digital Signature Not Found] appears, click [Yes].
11. Click on [Close].
12. Click [OK], and close the window.

For Windows Me

Installing monitor set-up information into Windows Me, and setting the monitor's ICC profile as a predetermined value.

This explanation assumes that the CD-ROM drive is "D" drive.

- If the "Add New Hardware Wizard" has appeared:
1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
 2. Check [Specify the location of the driver [Advanced]] and click [Next].
 3. Check [Display a list of all the drivers in a specific location, so you can select the driver you want.], then click [Next].
 4. When [Models] is displayed, click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
 5. Select the monitor details from the list, then click [Next], [Next], and [Finish]. If the "Add New Hardware Wizard" appears, repeat the installation commands beginning from 2 above.

If the "Add New Hardware Wizard" has not appeared:

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click on the [Start] button. From [Settings], choose [Control Panel].
3. Double click on [Display].
4. Click on [Settings], [Advanced] and [Monitor].
5. In [Options], check [Automatically detect Plug & Play monitors] and click on [Change].
6. Check [Specify the location of the driver [Advanced]] and click [Next].
7. Check [Display a list of all the drivers in a specific location, so you can select the driver you want.] and click [Next].
8. When [Models] is displayed, click on [Have disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
9. Select the monitor details, then click [Next], [Next], and [Finish].
10. Check that the monitor details are displayed, then click [Apply].
11. Click [OK], and close the window.

Installing set-up information and the ICC profile (For Windows)

For Windows XP

Installing monitor set-up information into Windows XP, and setting the monitor's ICC profile as a predetermined value.

This explanation assumes that the CD-ROM drive is "D" drive.

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
2. Click on the [Start] button. Choose [Control Panel].
3. Switch to "Classic View".
4. Double click on [Display].
5. Click on [Settings], [Advanced] and [Monitor].
6. Click on [Properties], [Driver] and [Update Driver].
7. When [Hardware Update Wizard] appears, check [Install from a list or specific location [Advanced]] and click [Next].
8. Check [Don't search. I will choose the driver to install.] and click [Next].
9. Click on [Have Disk], confirm that [Copy manufacturer's files from:] is [D:], and click [OK].
10. Select the monitor from the list displayed and click [Next].
If [has not passed Windows Logo testing...] appears, click [Continue Anyway].
11. Confirm that the monitor's name appears on the screen.
12. Click on [Finish].
13. Click on [Close].
14. Click [OK], and close the window.

Installing the ICC profile

Installing the monitor's ICC profile. (If the set-up information has already been installed, so too has the profile, and there is no need to install it.)

This explanation assumes that the CD-ROM drive is "D" drive.

1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
 2. Click on the [Start] button. From [Settings], choose [Control Panel].
 3. Double click on [Display].
 4. Click on [Settings] and [Advanced].
 5. Click on [General] and from [Compatibility] select [Apply the new display setting without restarting], then click on [Color Management].
 6. Click [Add], and select CD-ROM as the file location.
 7. Choose the color profile that you would like to install, and click on [Add].
 8. Choose the profile and click on [Set As Default].
 9. Click [OK], and close the window.
- When using the ICC profile, set as follows:
 - [DISPLAY MODE]: [STD] or [OFFICE]
 - [WHITE BALANCE]: [STD]
 - [GAMMA]: [0]

Information about the ColorSync profile (For MacOS)

About the ColorSync profile

ColorSync is Apple Computer's color management system and enables color reproduction characteristics to be realized when used with a compatible application. A ColorSync profile describes the color characteristics of the LCD monitor.

Notes:

- This monitor's ColorSync profile works with MacOS 8.5 or above.
- When using the ColorSync profile, set as follows:
 - [DISPLAY MODE]: [STD] or [OFFICE]
 - [WHITE BALANCE]: [STD]
 - [GAMMA]: [0]

Setting up the ColorSync profile

Notes:

- It is necessary to have **PC Exchange** or **File Exchange** installed in your system.
 - Depending on the type of computer or OS, command names and methods may differ. Please follow the computer's own operation manual while reading this.
1. Load the accessory CD-ROM into the CD-ROM drive of the computer.
 2. Copy the profile to be used from the CD-ROM to the ColorSync profile folder in the system folder.
 3. Using the ColorSync on the control panel, choose the profile to be used.

Instructions for attaching a VESA-compliant arm

An arm or stand based on the VESA standard (commercially available) can be attached to the monitor. Procurement of the arm or stand is at the customer's discretion.

Arms or stands able to be used

Attachments must satisfy the following.

- Compatible with the VESA standard.
- Have a gap of 100 mm x 100 mm between the screw holes on the section to be attached.
- Not be likely to fall off or break off after being attached to the monitor.

How to attach the arm or stand

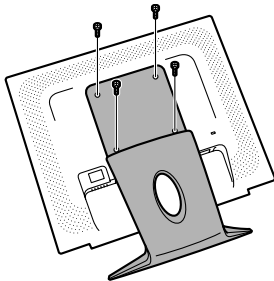
- Be careful not to over bend the cable or add extension cords as this could lead to malfunction.
- While following these instructions, please also refer to the installation instructions in the operation manual included with the arm or stand.

CAUTION!

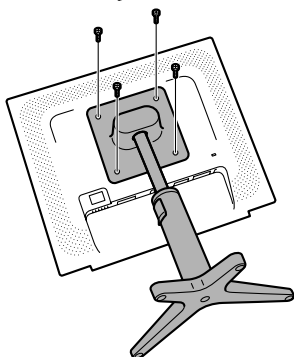
- Be careful not to get your fingers pinched between the display and stand nor to let the stand drop. These could lead to injury.

1. Remove the cables.
2. Spread out a soft cloth on a suitable horizontal surface.
3. Being careful not to damage the monitor, gently lay the monitor on it display-side down.
 - For the LL-171G, extend the stand as long as possible and lock it before positioning the monitor. (p.11)
4. Remove the four screws and then remove the stand from the monitor.

[LL-171A]



[LL-171G]



Notes:

- The stand is specially made for use with this monitor. Once having removed the stand, never attempt to attach it to another device.
- Once having removed the screws, store them together with the stand and if the stand is ever re-attached be sure to use the original screws. Using different screws could lead to a malfunction.



CAUTION!

Do not disassemble the stand. Parts may spring out and cause injury.

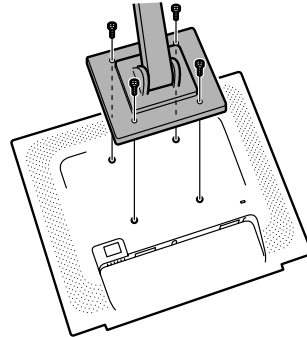


CAUTION!

Store the stand of the LL-171G in its most extended position.

When the stand is stored in a contracted state, the lock may accidentally release and the stand may abruptly extend, causing injury.

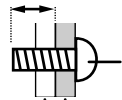
5. Attach the arm to the monitor with the four screws.



Note:

- The screws used to attach the arm should be M4 screws with a length of 4 - 5 mm protruding from the surface to be attached. Using different screws could cause the monitor to fall off or to be internally damaged.

4 - 5 mm



Screw used to attach arm

Arm

Part of monitor to which arm is attached

Memo

Memo

A large, empty rectangular box with rounded corners, intended for writing a memo. The box is defined by a thin black border and occupies most of the page area below the title.

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