

# USER MANUAL

# *Pro Lite*

## LCD Monitor

*Pro Lite H2130*  
*Pro Lite H2010*  
*Pro Lite H1900*

Thank you very much for choosing the iiyama LCD monitor.

We recommend that you take a few minutes to read carefully through this brief but comprehensive manual before installing and switching on the monitor. Please keep this manual in a safe place for your future reference.

ENGLISH

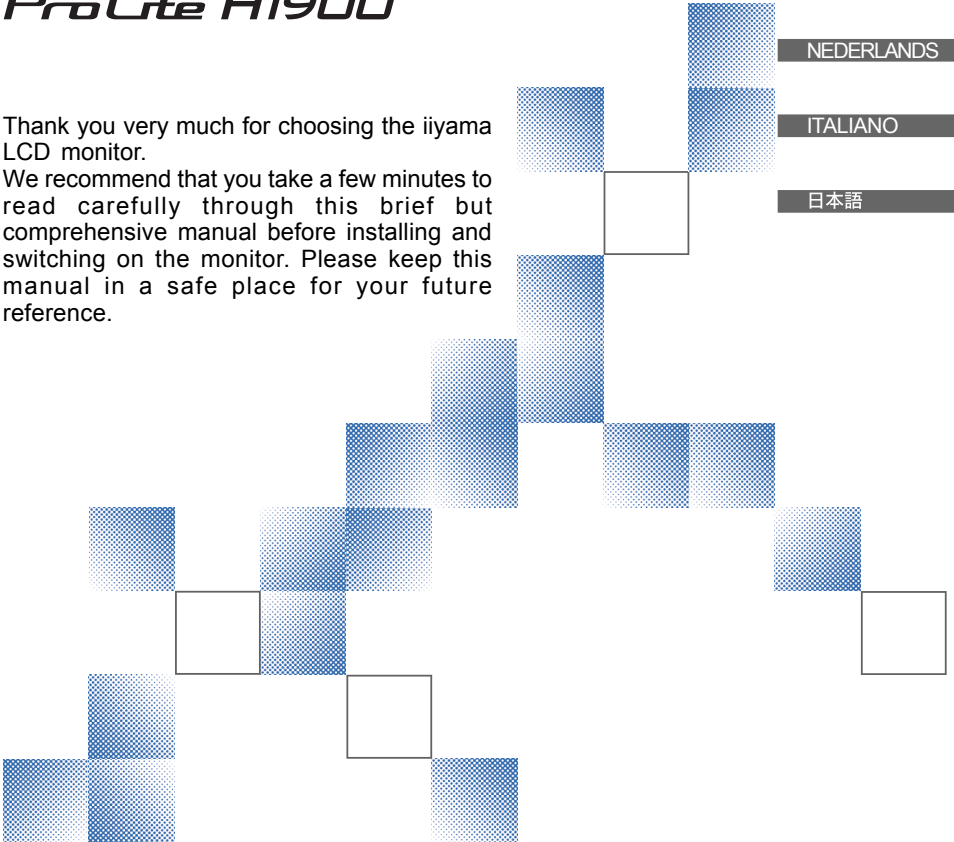
DEUTSCH

FRANCAIS

NEDERLANDS

ITALIANO

日本語





## Congratulations!

The display you have just purchased carries the TCO'03 Displays label. This means that your display is designed, manufactured and tested according to some of the strictest quality and environmental requirements in the world. This makes for a high performance product, designed with the user in focus that also minimizes the impact on our natural environment.

Some of the features of the TCO'03 Display requirements:

### Ergonomics

- Good visual ergonomics and image quality in order to improve the working environment for the user and to reduce sight and strain problems. Important parameters are luminance, contrast, resolution, reflectance, colour rendition and image stability.

### Energy

- Energy-saving mode after a certain time – beneficial both for the user and the environment
- Electrical safety

### Emissions

- Electromagnetic fields
- Noise emissions

### Ecology

- The product must be prepared for recycling and the manufacturer must have a certified environmental management system such as EMAS or ISO 14 001
- Restrictions on
  - o chlorinated and brominated flame retardants and polymers
  - o heavy metals such as cadmium, mercury and lead.

The requirements included in this label have been developed by TCO Development in cooperation with scientists, experts, users as well as manufacturers all over the world. Since the end of the 1980s TCO has been involved in influencing the development of IT equipment in a more user-friendly direction. Our labelling system started with displays in 1992 and is now requested by users and IT-manufacturers all over the world.



## **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:

### **TCO Development**

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): [development@tco.se](mailto: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/>

## 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.

### 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.

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

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

## FCC DECLARATION OF CONFORMITY

**Model Number:** PLH2130/PLH2010/PLH1900  
**Trade Name:** iiyama  
**Responsible party:** IIYAMA North America, Inc.  
**Address:** 65 West Street Road, Suite 101B, Warminster, PA 18974 U.S.A.  
**Telephone number:** 215-682-9050

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two 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.

This device has been tested and found to comply with the limits for Class B Personal Computers and peripherals, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a residential environment. This device 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 you determine the device does cause harmful interference to radio or television reception (this may be determined by monitoring the interference while turning the device off and on), you are encouraged to try to correct the interference by one of the following measures:

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

To meet the FCC requirements, you should use a signal cable with ferrite core at both ends.

### CAUTION

Changes or modifications not expressly approved by iiyama could void the users authority to operate the device under FCC compliance regulations.

## CANADIAN DEPARTMENT OF COMMUNICATIONS COMPLIANCE STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulation of the Canadian department of communications.

## CE MARKING DECLARATION OF CONFORMITY

This LCD monitor complies with the requirements of the EC Directive 89/336/EEC "EMC Directive" and 73/23/EEC "Low Voltage Directive" as amended by Directive 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gives correct operation in residential areas, business and light industrial premises and small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

- We reserve the right to change specifications without notice.
- All trademarks used in this user manual are the property of their respective owners.
- This manual is printed on recycled paper.

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We recommend recycling of used product. Please contact your dealer or iiyama service center. Recycle information is obtained via the Internet, using the address: <http://www.iiyama.com>  
You can access the Web page of different countries from there.

# FOR YOUR SAFETY

## SAFETY PRECAUTIONS

### WARNING

#### **STOP OPERATING THE MONITOR WHEN YOU SENSE TROUBLE**

If you notice any abnormal phenomena such as smoke, strange sounds or fumes, unplug the monitor and contact your dealer or iiyama service center immediately. Further use may be dangerous and can cause fire or electric shock.

#### **NEVER REMOVE THE CABINET**

High voltage circuits are inside the monitor. Removing the cabinet may expose you to the danger of fire or electric shock.

#### **DO NOT PUT ANY OBJECT INTO THE MONITOR**

Do not put any solid objects or liquids such as water into the monitor. In case of an accident, unplug your monitor immediately and contact your dealer or iiyama service center. Using the monitor with any object inside may cause fire, electric shock or damage.

#### **INSTALL THE MONITOR ON A FLAT, STABLE SURFACE**

The monitor may cause an injury if it falls or is dropped.

#### **DO NOT USE THE MONITOR NEAR WATER**

Do not use where water may be splashed or spilt onto the monitor as it may cause fire or electric shock.

#### **OPERATE UNDER THE SPECIFIED POWER SUPPLY**

Be sure to operate the monitor only with the specified power supply. Use of an incorrect voltage will cause malfunction and may cause fire or electric shock.

#### **PROTECT THE CABLES**

Do not pull or bend the power cable and signal cable. Do not place the monitor or any other heavy objects on the cables. If damaged, the cables may cause fire or electric shock.

#### **ADVERSE WEATHER CONDITIONS**

It is advisable not to operate the monitor during a heavy thunder storm as the continual breaks in power may cause malfunction. It is also advised not to touch the plug in these circumstances as it may cause electric shock.

## CAUTION

### INSTALLATION LOCATION

Do not install the monitor where sudden temperature changes may occur, or in humid, dusty or smoky areas as it may cause fire, electric shock or damage. You should also avoid areas where the sun shines directly on the monitor.

### DO NOT PLACE THE MONITOR IN A HAZARDOUS POSITION

The monitor may topple and cause injury if not suitably located. Please also ensure that you do not place any heavy objects on the monitor, and that all cables are routed such that children may not pull the cables and possibly cause injury.

### MAINTAIN GOOD VENTILATION

Ventilation slots are provided to keep the monitor from overheating. Covering the slots may cause fire. To allow adequate air circulation, place the monitor at least 10 cm (or 4 inches) from any walls. Do not remove the tilt stand when operating the monitor. Ventilation slots on the back of the cabinet will be blocked and the monitor may overheat if the stand is removed. This may cause fire or damage. Operating the monitor on its back, side, upside down or on a carpet or any other soft material may also cause damage.

### DISCONNECT THE CABLES WHEN YOU MOVE THE MONITOR

When you move the monitor, turn off the power switch, unplug the monitor and be sure the signal cable is disconnected. If you do not disconnect them, it may cause fire or electric shock.

### UNPLUG THE MONITOR

If the monitor is not in use for a long period of time it is recommended that it is left unplugged to avoid accidents.

### HOLD THE PLUG WHEN DISCONNECTING

To disconnect the power cable or signal cable, always pull it by the plug. Never pull on the cable itself as this may cause fire or electric shock.

### DO NOT TOUCH THE PLUG WITH WET HANDS

Pulling or inserting the plug with wet hands may cause electric shock.

### WHEN YOU INSTALL THE MONITOR ON YOUR COMPUTER

Be sure the computer is strong enough to hold the weight of the monitor, otherwise, you may damage your computer.

### DO NOT PUT FLOPPY DISKS NEAR THE SPEAKERS (For ProLite H2130)

Magnetically recorded data, such as on a floppy disk, may become corrupted by the magnetic field produced by the speakers if the disks are placed on or near the speakers.

## OTHERS

### ERGONOMIC RECOMMENDATIONS

To eliminate eye fatigue, do not operate the monitor against a bright background or in a dark room. For optimal viewing comfort, the monitor should be just below eye level and 40-60 cm (16-24 inches) away from your eyes. When using the monitor over a prolonged time, a ten minute break every hour is recommended as looking at the screen continuously can cause eye strain.



## SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitors and do not indicate a problem.

### NOTE

- When you first turn on the LCD monitor, the picture may not fit in the display area because of the type of computer that is used. In this case, adjust the picture position to the correct position.
- Due to the nature of the backlight, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours. There is the possibility that the previous screen has been fixed. Pay attention sufficiently when you use LCD Monitor.
- Contact your dealer or iiyama service center for the backlight replacement when the screen is dark, flickering or not lighting up. Never attempt to replace it by yourself.

## CUSTOMER SERVICE

### NOTE

- The fluorescent light used in the LCD monitor may have to be periodically replaced. For the warranty coverage on this component, please check with local iiyama service center.
- If you have to return your unit for service and the original packaging has been discarded, please contact your dealer or iiyama service center for advice or replacement packaging.

## CLEANING

### WARNING

- If you drop any materials or liquids such as water into the monitor when cleaning, unplug the power cable immediately and contact your dealer or iiyama service center.

### CAUTION

- For safety reasons, turn off the power switch and unplug the monitor before you clean it.

### NOTE

- To protect the LCD panel, do not scratch or rub the screen with a hard object.
- Never use any of the following strong solvents. These will damage the cabinet and the LCD screen.

Thinner	Spray-type cleaner
Benzine	Wax
Abrasive cleaner	Acid or Alkaline solvent

- Touching the cabinet with any product made from rubber or plastic for a long time may cause degeneration or loss of paint on the cabinet.

### CABINET

Stains can be removed with a cloth lightly moistened with a mild detergent solvent. Then wipe the cabinet with a soft dry cloth.

### LCD

Periodic cleaning with a soft dry cloth is recommended.

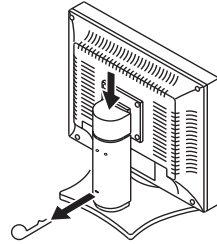
### SCREEN

Don't use tissue paper etc. because these will damage the LCD screen.

## BEFORE YOU OPERATE THE MONITOR

The monitor functions as a hub when connected to a USB compliant computer and USB peripherals. However, with older operating systems and/or BIOS settings in your computer, the USB hub may not operate. In this case, please contact your computer dealer first for advice.

**Please stand the monitor and then remove the stopper pin on the back of the stand slowly while pushing top face of the stand before you install the monitor. Careful attention is required as the monitor is sprung loaded and may expand quickly when removing it.**



Stopper pin

## FEATURES

- ◆ ProLite H2130: 54cm (21.3") TFT Color LCD Monitor
- ◆ ProLite H2010: 51cm (20.1") TFT Color LCD Monitor
- ◆ ProLite H1900: 48cm (19.0") TFT Color LCD Monitor
- ◆ Supports Resolutions up to 1600 × 1200 (ProLite H1900 supports digital input only.)
- ◆ Super Wide Viewing Angle and High Contrast
- ◆ Economy Mode  
Reduced Power Consumption
- ◆ Multi-Color Control  
Supports sRGB International Standard
- ◆ Gamma Control  
Clear Display for Moving Pictures & Photographs
- ◆ Digital Character Smoothing
- ◆ Automatic Set-up
- ◆ ProLite H2130: Stereo Speakers  
2×1.0W Retractable Stereo Speakers & Headphone Connector
- ◆ Plug & Play VESA DDC2B Compliant  
Windows® 95/98/Me/2000/XP Compliant
- ◆ DDC-CI Compliant (For Connector 'INPUT2' Only)  
Display Tune® software enables screen adjustments by computer
- ◆ Power Management (VESA DPMS Compliant)
- ◆ Ergonomic Design  
TCO '03 and MPR III Approved  
ProLite H2130-W  
ProLite H2010-W  
ProLite H1900-W  
  
TCO '99 and MPR III Approved  
ProLite H2130-B  
ProLite H2010-B  
ProLite H1900-B
- ◆ Digital Input (DVI-I) for Clear Display
- ◆ Dual Screen Display  
Multiple Screen via D-SUB Signal Output
- ◆ USB2.0 Hi-speed Hub Function
- ◆ 90° Panel Rotation Design
- ◆ VESA Mounting Standard (100mm×100mm) Compliant
- ◆ Keyhole for Security Lock

## CHECKING THE CONTENTS OF THE PACKAGE

The following accessories are included in your package. Check to see if they are enclosed with the monitor. If anything is missing or damaged, please contact your local iiyama dealer or regional iiyama office.

- Power Cable\*<sup>1</sup>
- DVI-A Signal Cable DV62\*<sup>2</sup>, DV63\*<sup>3</sup>
- DVI-D Signal Cable DV67\*<sup>2</sup>, DV68\*<sup>3</sup>
- USB Cable SU43
- Audio Cable AD25\*<sup>4</sup>
- Cable Cover
- User Manual
- Sample: Pivot® & Liquid Series software (CD)
  - Pivot®: This software enables to rotate the orientation of the screen to display in portrait or landscape mode.
  - Liquid View®: This software enables to scale icons up.
  - Liquid Surf™: This software supports Internet Explorer display.
- Sample: Display Tune® software (CD)
  - This software enables screen adjustments.
  - Consult english.txt in CD-ROM for installation.

### CAUTION

#### \*1 TO USERS IN 120V AREA

The rating of the Power Cable enclosed in 120V area is 10A/125V. If you are using a power supply higher than this rating, then a power cable with a rating of 10A/250V must be used.

However, all guarantees and warranties are void for any problems or damage caused by a power cable not supplied by iiyama.

\*<sup>2</sup> Accessory for ProLite H2130-W, ProLite H2010-W and ProLite H1900-W

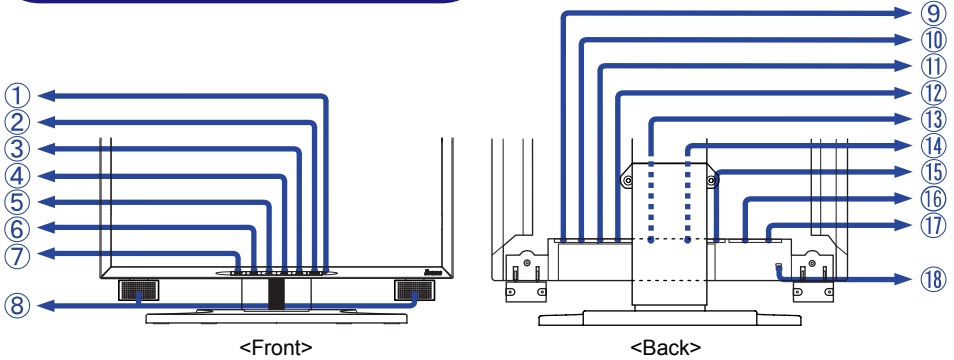
\*<sup>3</sup> Accessory for ProLite H2130-B, ProLite H2010-B and ProLite H1900-B

\*<sup>4</sup> Accessory for ProLite H2130-W/B

## OPTIONAL PARTS

Optional parts as below are available for your LCD monitor. Please contact your local iiyama dealer or regional iiyama office for them. The Speaker is attached to the monitor to output a sound from the computer or the audio equipment. The Video Adapter enables you to connect the video equipment to the monitor. The Protection Sheet is attached to LCD panel surface to protect it from stains or scratches. The Calibration Sensor adjusts a color appearance to its setting range.

- Speaker
  - ProLite H2010-W/1900-W: OSP1-2 (Bottom)    OSP2-2 (Right/Left)
  - ProLite H2010-B/1900-B: OSP1-2B (Bottom)    OSP2-2B (Right/Left)
- Video Adapter OVA3-1
- Protection Sheet
  - ProLite H2130: Parts No. 832Z001-07
  - ProLite H2010: Parts No. 832Z001-05
  - ProLite H1900: Parts No. 832Z001-04
- *ii-Style* Color Kit: Calibration Sensor, Cable, Software (CD)



① Power Indicator

- NOTE** Green: Normal operation (ProLite H2130-W)  
 Blue: Normal operation (ProLite H2130-B)  
 Orange: Power Management

The monitor enters into power management mode which reduces the power consumption to less than 4W when receiving no horizontal and/or vertical sync signal.

② Power Switch (POWER)

③ Auto Button (AUTO)

④ + / Brightness Button (+ / ☀)

⑤ - / Contrast Button (- / 🎯)

⑥ Menu Button (MENU)

⑦ Input Button (INPUT)

⑧ Speakers

⑨ USB-UP

Connect with a USB compliant computer by the USB Cable attached to the monitor.

⑩ USB-DOWN

Connect any cables from USB compliant peripherals such as mouse, keyboard, etc.

⑪ Audio Connector (AUDIO IN)

⑫ DVI-I 29pin Connector (INPUT 2)

**NOTE** DDC-CI is compliant with INPUT 2 only.

⑬ DVI-I 29pin Connector (INPUT 1)

⑭ D-SUB mini 15pin Connector (D-SUB OUT)

Output same signal as analog input to INPUT 1.

**NOTE** Optional Video Adapter for video input can be connected to D-SUB mini 15pin connector.

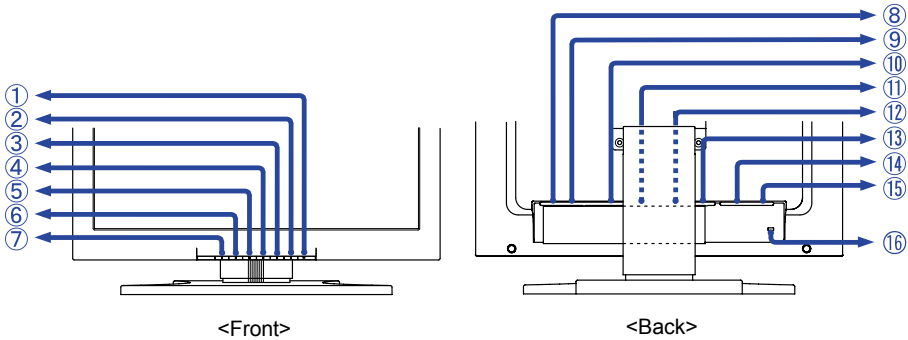
⑮ Headphone Connector

⑯ AC Connector (AC IN)

⑰ Main Power Switch

⑱ Keyhole for Security Lock

**NOTE** You can fasten a security lock and cable to prevent the monitor from being removed without your permission.



① Power Indicator

**NOTE**

Green: Normal operation (ProLite H2010-W / ProLite H1900-W)

Blue: Normal operation (ProLite H2010-B / ProLite H1900-B)

Orange: Power Management

The monitor enters into power management mode which reduces the power consumption to less than 4W when receiving no horizontal and/or vertical sync signal.

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⑥ Menu Button (MENU)

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⑨ USB-DOWN

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⑩ DVI-I 29pin Connector (INPUT 2)

**NOTE**

DDC-CI is compliant with INPUT 2 only.

⑪ DVI-I 29pin Connector (INPUT 1)

⑫ D-SUB mini 15pin Connector (D-SUB OUT)

Output same signal as analog input to INPUT 1.

**NOTE**

Optional Video Adapter for video input can be connected to D-SUB mini 15pin connector.

⑬ Optional Speaker Connector (DC OUT)

⑭ AC Connector (AC IN)

⑮ Main Power Switch

⑯ Keyhole for Security Lock

**NOTE**

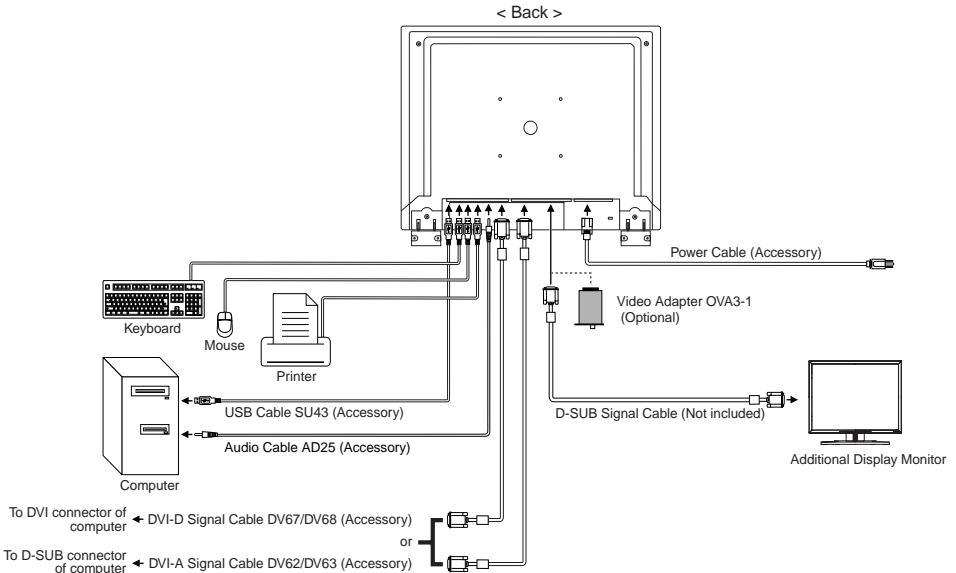
You can fasten a security lock and cable to prevent the monitor from being removed without your permission.

- ① Ensure that both the computer and the monitor are switched off.
- ② Connect the computer to the monitor with the signal cable. (See page 31 for CONNECTOR PIN ASSIGNMENT.)
- ③ Connect the monitor to the USB compliant computer with the USB Cable when using the USB hub features.
- ④ Connect the monitor to the audio equipment with the Audio Cable for computer when using the audio features.
- ⑤ Connect the Power Cable to the monitor first and then to the power supply.

**NOTE**

- The signal cables used for connecting the computer and monitor vary by the type of computer used. An incorrect connection may cause serious damage to both the monitor and the computer.
- For connection to Macintosh computers, contact your local iiyama dealer or regional iiyama office for a suitable adaptor.
- Make sure you tighten the finger screws at each end of the signal cable.
- In case your computer is not compatible with USB2.0, the USB hub is compatible with USB1.1.
- Cables are connected easily by rotating the panel 90 degrees. (See page 12 for PANEL ROTATION.)
- Cables can be bundled together inside the cover at the back of the stand. See page 11 for cable wiring.

[Example of Connection]

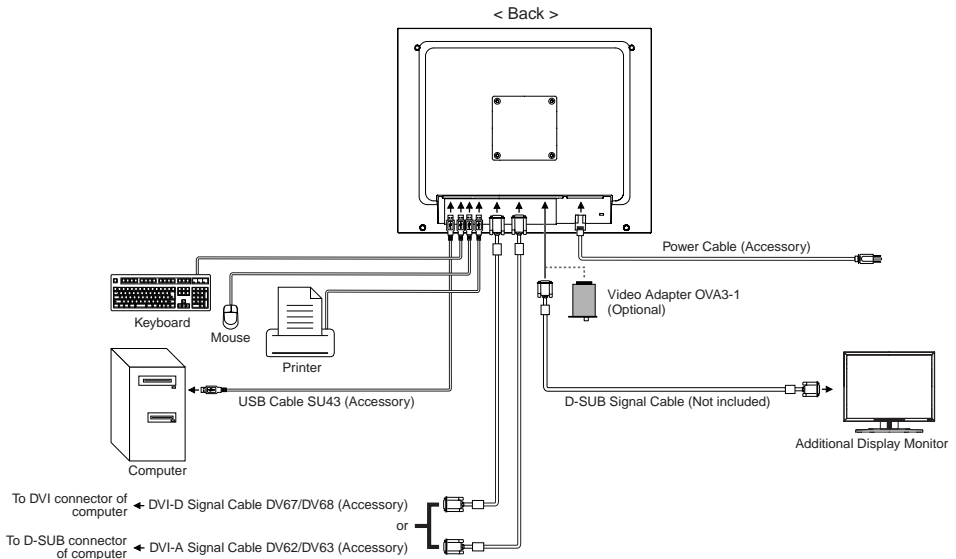


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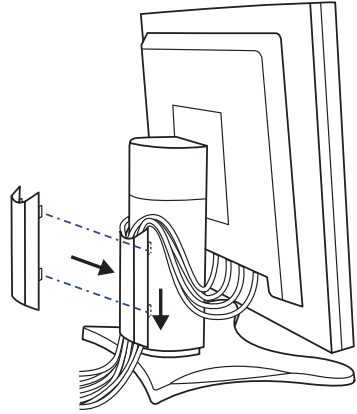
[Example of Connection]





[Cable Wiring]

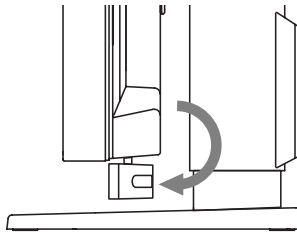
- ① Collect cables at the back of the stand.
- ② Place the cover by inserting the tabs into guide holes and then sliding the cover downward.



**PREPARING THE SPEAKER**

**ProLite H2130**

Pull down the speaker with rotating it forward as indicated below.



**COMPUTER SETTING**

■ Signal Timing

Change to the desired signal timings listed on page 30 in COMPLIANT TIMING.

■ Windows 95/98/Me/2000/XP Plug & Play

The iiyama LCD monitor complies with DDC2B of VESA standard. The Plug & Play function runs on Windows 95/98/Me/2000/XP by connecting the monitor to DDC2B compliant computer with the Signal Cable supplied. Windows 95/98/Me/2000/XP Monitor Information File for iiyama monitors may be necessary for your computer and obtained via the Internet, using the address:

- <http://www.iiyama.com>
- <http://www.iiyama.us> (U.S.A.)
- <http://www.iiyama.co.uk> (U.K.)

**NOTE**

- For additional information on how to download the driver for your monitor, please access one of the internet sites noted above.
- Monitor Drivers are not required in most cases for Macintosh or Unix operating systems. For further information, please contact your computer dealer first for advice.

## ADJUSTING THE HEIGHT AND THE VIEWING ANGLE

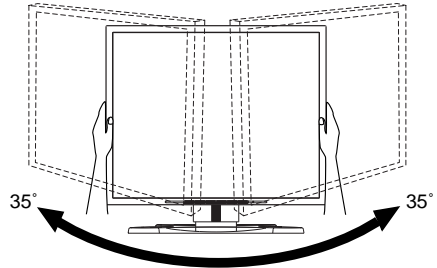
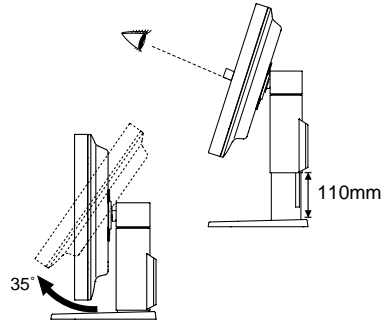
- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's height and angle to your own preference.
- Hold the panel so that the monitor does not topple when you change the monitor's height or angle.
- You are able to adjust the monitor's height up to 110mm, angle up to 35 degrees right and left, 35 degrees upward.

**NOTE** ■ Do not touch the LCD screen when you change the height or the angle. It may cause damage or break the LCD screen.

- Careful attention is required not to catch your fingers or hands when you change the height or the angle.

### For ProLite H2130

- The speaker should be retracted when you use the monitor at lowest position and minimum angle. If you use the monitor without retracting the speaker, it may cause damage because the speaker touches to the stand.



## PANEL ROTATION

- ① Adjust the monitor's height to the maximum.
- ② Rotate the panel 90 degrees.

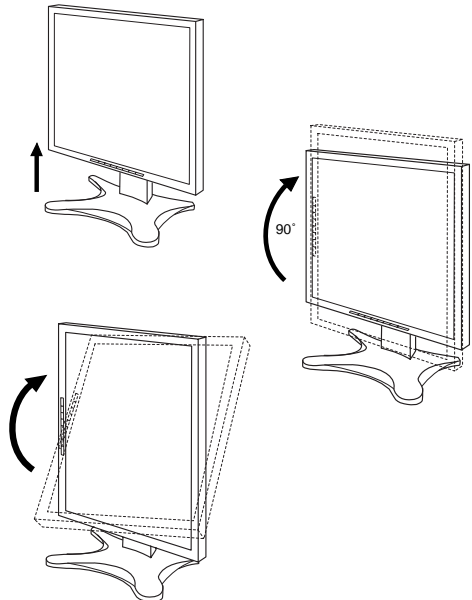
Portrait: Turn clockwise.

Landscape: Turn counter clockwise.

**NOTE** ■ Attempting to rotate without fully extending upward may cause damage to stand.

- Please use attached Pivot® software for rotating the image on the screen.

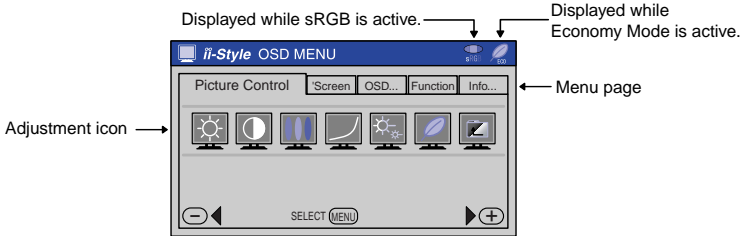
- ③ Adjust the monitor's angle to your preference.




# OPERATING THE MONITOR

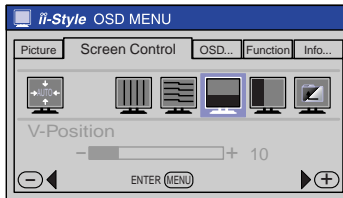
To create the best picture, your iiyama LCD monitor has been preset at the factory with the COMPLIANT TIMING shown on page 30. You are also able to adjust the picture by following the button operation shown below. For more detailed adjustments, see page 22 for SCREEN ADJUSTMENTS.

- ① Press the Menu Button to start the On Screen Display feature. There are additional Menu pages which can be switched by using the + / - Buttons.

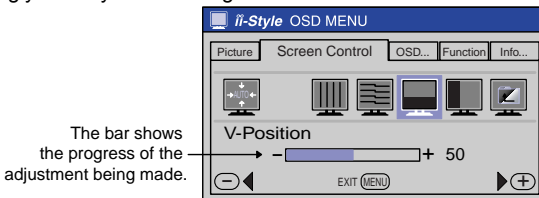


- ② Select the Menu page which contains the adjustment icon relating to the adjustment you want to make. Press the Menu Button again. Then, use the + / - Buttons to highlight the desired adjustment icon.
- ③ Press the Menu Button again. Use the + / - Buttons to make the appropriate adjustment or setting.

For example, to correct for vertical position, select Menu page of Screen Control and then press the Menu Button. Then, select  (V-Position) by using the + / - Buttons.



An adjustment scale appears after you press the Menu Button. Use the + / - Buttons to change the vertical position settings. The vertical position of the overall display should be changing accordingly while you are doing this.



## NOTE

- The On Screen Display disappears several seconds after you stop pressing the buttons while performing an adjustment.
- The On Screen Display disappears immediately when you press the Auto Button.
- Any changes are automatically saved in the memory when the On Screen Display disappears. Turning off the power should be avoided while using the Menu.
- Adjustments for Brightness, Contrast, Clock, Phase and Position are saved for each signal timing. Except for these adjustments, all other adjustments have only one setting which applies to all signal timings.

## ADJUSTMENT MENU CONTENTS

### Direct

You can skip the Menu pages and display an adjustment scale directly by using the following button operations.

- Brightness: Press the Brightness Button when the Menu is not displayed.
- Contrast: Press the Contrast Button when the Menu is not displayed.
- Signal Select: Press the Input Button when the Menu is not displayed.
- Auto Set-up: Press the Auto Button when the Menu is not displayed.

#### For ProLite H2130

- Volume: Press the Menu Button within 5 seconds after pressing the Brightness Button or the Contrast Button during the direct adjustments above.

### NOTE

#### ■ SWITCHING BRIGHTNESS / CONTRAST / VOLUME ADJUSTMENT

(The VOLUME adjustment is for ProLite H2130 only.)

To switch between Brightness, Contrast and Volume adjustments, press the Menu Button within 5 seconds after pressing the Brightness Button or the Contrast Button during the direct adjustments above.

⇒ Brightness → Contrast → Volume □

#### ■ SIGNAL SELECT (INPUT1 / INPUT2)

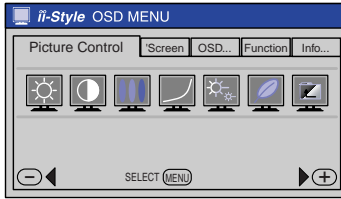
Select either INPUT1 or INPUT2 for the signal input when both of the signal inputs are connected to a signal source.






























**In case of selecting “Auto” in the adjustment item: Auto Search,**  
select INPUT1 or INPUT2 automatically for the signal input by pressing the Input Button.

**In case of selecting “Manual” in the adjustment item: Auto Search,**  
press the Input Button and then the Menu Button. Select the input signal (INPUT1 Analog / INPUT1 Digital / INPUT2 Analog / INPUT2 Digital) by pressing the + / – Buttons.

# Analog / Digital Input

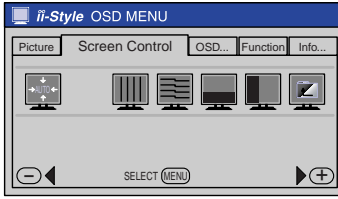
## Menu : Picture Control (Analog / Digital)



























Adjustment Item	Problem / Option	Button to Press			
 <b>Brightness *</b> <b>Direct</b>	Too dark	 			
	Too bright	 			
 <b>Contrast</b> <b>Direct</b>	Too dull	 			
	Too intense	 			
 <b>Color Temp. / Matrix</b>  <b>NOTE</b> ■ sRGB is an international standard which defines and unifies the difference of color appearance between equipment. ■ You can not adjust the Brightness, Contrast and Gamma in sRGB mode because those settings are locked.	9300K	Bluish white (9300K)			
	6500K	Reddish white (6500K)			
	User	 	R (Red)	Too weak	 
			G (Green)		
			B (Blue)		
	Matrix	 	Y (Yellow)	Too light	 
			M (Magenta)		
C (Cyan)					
sRGB	sRGB mode				
CAL	Calibration mode: Color appearance is set to the range adjusted by an optional calibration sensor.				
 <b>Gamma</b>	Normal	Normal			
	Hi.Cont	High contrast			
	Dark	Dark			
	User	Gamma: approx.1.8, 2.0, 2.2 or 2.4 is selected.			
 <b>Sharpness</b>	1 2 3 4 5	 			
	You can change the picture quality from 1 to 5 (soft to sharp). Press the + Button to change the picture quality in numerical order. Press the – Button to change the picture quality in reverse numerical order.				
 <b>Economy Mode</b>	User	Back-light is too dark	 		
		Back-light is too bright	 		
	Mode 1	Brightness of back-light is reduced by Approx.10%.			
Mode 2	Brightness of back-light is reduced by Approx.50%.				
 <b>Return to Menu</b>	Highlight "Menu : Picture Control" again.				

\* Adjust the User of Economy Mode when you are using the monitor in a dark room and feel the screen is too bright.

**Menu : Screen Control (Analog)**



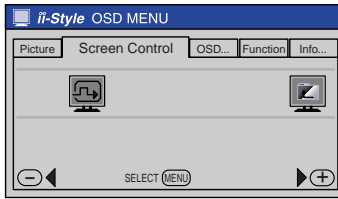
Adjustment Item	Problem / Option		Button to Press
 <b>Auto Set-up</b> *1 <b>Direct</b>	NO	Return to Menu.	
	YES	Adjust Clock, Phase, V-Position and H-Position automatically.	
<b>NOTE</b> The screen becomes dark for approximately five seconds during the adjustment.			
 <b>Clock</b> *2	To correct flickering text or lines		  
 <b>Phase</b> *2	To correct flickering text or lines		  
 <b>V-Position</b>	 Too low  Too high		   
 <b>H-Position</b>	 Too far to the left  Too far to the right		   
 <b>Return to Menu</b>	Highlight "Menu : Screen Control" again.		


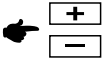

\*1 For best results, use the Auto Set-up in conjunction with the adjustment pattern.  
 (See page 22 for SCREENADJUSTMENTS.)

\*2 See page 22 for SCREENADJUSTMENTS.

**Direct** See page 14 for Direct adjustment.

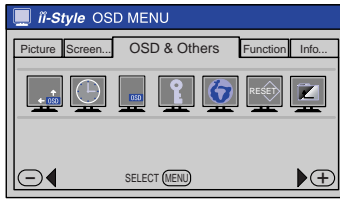
**Menu : Screen Control  
(Digital)**
















Adjustment Item	Problem / Option	Button to Press
 <p>DVI Filter *</p> <p><b>NOTE</b> This function should be used to reduce screen noise caused by connecting longer cable than enclosed one.</p>	<p>To reduce screen noise</p>	
 <p>Return to Menu</p>	<p>Highlight "Menu : Screen Control" again.</p>	

\* Available for INPUT1 only.

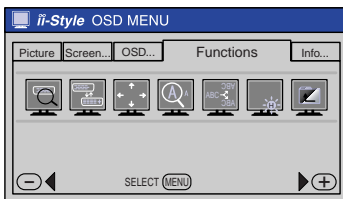
**Menu : OSD & Others  
(Analog / Digital)**


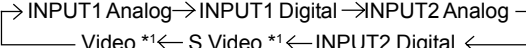




















Adjustment Item	Problem / Option		Button to Press				
 OSD Position	1 2 3 4 5 You can move the OSD display area to any one of the following 5 positions within the overall display: <table border="1" data-bbox="792 411 893 483" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>3 5</td></tr> </table>		1	4	2	3 5	  
1	4						
2	3 5						
 OSD Off Timer	You can set the OSD display duration time between 3 and 60 seconds.		  				
 OSD Rotation	OFF	Return to Normal.					
	ON	Menu screen is rotated 90 degrees in counterclockwise.					
<b>NOTE</b> Use this function when using the monitor with portrait orientation.							
 Key Lock Mode	OFF	Return to Menu.					
	ON	All adjustment items are locked out.					
<b>NOTE</b> To cancel the Key Lock Mode, keep pressing the Menu, + and – Buttons at the same time for 8 seconds or more.							
 Language	English	English	Svenska Swedish				
	Deutsch	German	Русский Russian				
	Nederlands	Dutch	中文 Chinese				
	Français	French	日本語 Japanese				
	Italiano	Italian	Polski Polish				
	Español	Spanish					
 Reset	NO	Return to Menu.					
	YES	Factory-preset data is restored.					
 Return to Menu	Highlight “Menu : OSD & Others” again.						



## Menu : Functions (Analog / Digital)



Adjustment Item	Problem / Option		Button to Press			
 Auto Search	Auto	Search the input signal automatically in the following rotation: 				
	Manual	Select the input signal by "Signal Select" function.				
 Signal Select <b>Direct</b>	INPUT1	Select the Analog input. Select the Digital input.				
	INPUT2	Select the Analog input. Select the Digital input.				
	S Video *1	Select the S Video input.				
	Video *1	Select the Video input.				
 Full Screen*2	1 to 1	Displayed at the same magnification				
	Aspect	Expansion display of Aspect				
	Full	Expansion display				
 Zoom	User	Zoom In	Zoom in the image.  			
		Zoom Out	Zoom out the image.  			
		H-Position	To move the zoom point to the right.   To move the zoom point to the left.  			
		V-Position	To move the zoom point downward.   To move the zoom point upward.  			
	4 Multi.	<table border="1" data-bbox="509 1013 582 1069"> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> </tr> </table> For 4 split screen display by 4 monitors	1	2	3	4
1	2					
3	4					
<b>NOTE</b> To cancel the "User" settings, press the Auto Button when the setting screen is displayed.						
 Flipping	OFF	Return to Normal.				
	Mirror	Mirror reversed image is displayed.				
	180°	The image rotated 180 degrees is displayed.				
 LED ON/OFF*3	OFF	LED is turned OFF.				
	ON	LED is turned ON.				
 Return to Menu	Highlight "Menu : Functions" again.					

\*1 For optional video input only. See APPENDIX B.

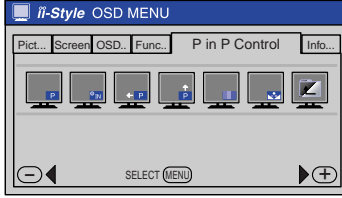
\*2 You can not select the Aspect when UXGA 1600 × 1200 is input.
























\*3 Turn OFF the LED when you are bothered by the light in multiple screen environment.

**Direct** See page 14 for Direct adjustment.

The Menu:P in P Control is available only on Analog Input and Digital Input when the Optional Video Adapter (OVA3-1) is installed in the monitor.

**Menu : P in P Control  
(Analog / Digital)**



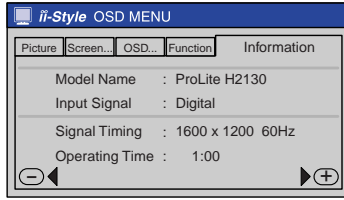
Adjustment Item		Problem / Option		Button to Press
 P in P ON	OFF	P in P function is turned off.		
	Small	Sub screen is displayed at minimum size.		
	Middle	Sub screen is displayed at normal size.		
	Large	Sub screen is displayed at maximum size.		
 P in P Input	S Video	Display a S Video picture in the sub screen.		
	Video	Display a Video picture in the sub screen.		
 P in P H-Position	Sub screen is too far to the left			 
	Sub screen is too far to the right			 
 P in P V-Position	Sub screen is too low			 
	Sub screen is too high			 
 P in P Color	Color of the sub screen is too weak			 
	Color of the sub screen is too strong			 
 P in P Hue	Color of the sub screen is purplish			 
	Color of the sub screen is greenish			 
 Return to Menu	Highlight "Menu : P in P Control" again.			

\* Available only when connecting both the computer and the audio equipment to the monitor.

P in P = Picture in Picture:

With this function, you can display two different pictures, such as a picture from the computer in the main screen and a DVD / Video picture in the sub screen at the same time.

## Menu : Information (Analog / Digital)



Model Name, Input Signal, Signal Timing and Operating Time are displayed.

## SCREEN ADJUSTMENTS

- The screen adjustments described in this manual are designed to set image position and minimize flicker or blur for the particular computer in use.
- ProLite H2130 and ProLite H2010 are designed to provide the best performance at resolution of 1600 × 1200, but can not provide the best at resolutions of less than 1600 × 1200 because the picture is automatically stretched to fit the full screen. It is recommended to operate at resolution of 1600 × 1200 in normal use.
- ProLite H1900 is designed to provide the best performance at resolution of 1280 × 1024, but can not provide the best at resolutions of less than 1280 × 1024 because the picture is automatically stretched to fit the full screen. It is recommended to operate at resolution of 1280 × 1024 in normal use.
- Displayed text or lines will be blurred or irregular in thickness when the picture is stretched due to the screen enlargement process.
- It is preferable to adjust the image position and frequency with the monitor controls, rather than the computer software or utilities.
- Perform adjustments after a warm-up period of at least thirty minutes.
- Additional adjustments may be required after the Auto Set-up depending on the resolution or signal timing.
- The Auto Set-up may not work correctly when displaying the picture other than the screen adjustment pattern. In this case, manual adjustments are required.

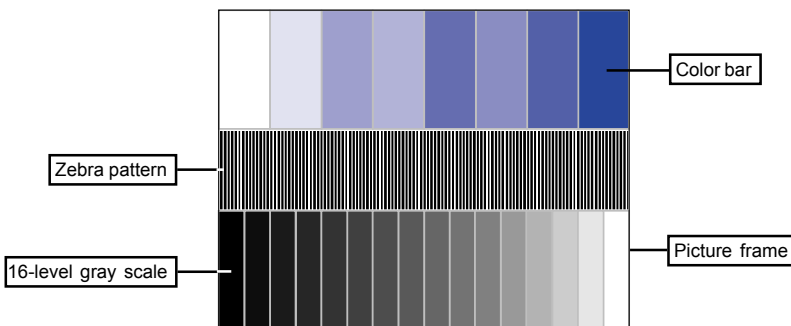
There are two ways to adjust the screen. One way is automatic adjustment for Position, Clock and Phase. The other way is performing each adjustment manually.

Perform the Auto Set-up first when the monitor is connected to a new computer, or resolution is changed. If the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up, manual adjustments are required. Both adjustments should be made by using the screen adjustment patterns in the Adjustment Program obtained via the iiyama web site (<http://www.iiyama.com> or <http://www.iiyama.co.uk>).

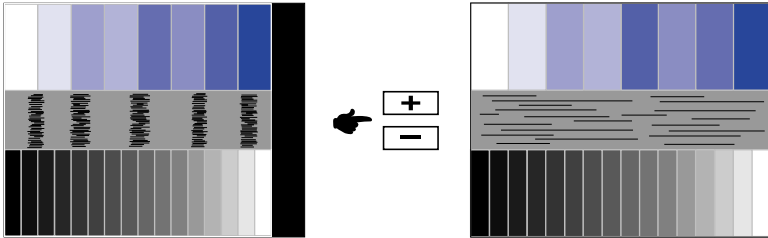
This manual explains adjustment under Windows 95/98/Me/2000/XP.

- ① Start “Adjustment Program”.
- ② Select the resolution for your monitor and the adjustment pattern appears.

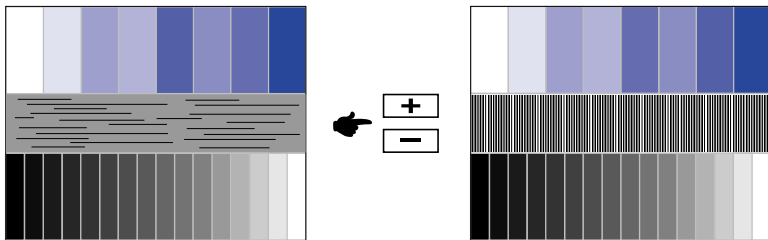
[Adjustment pattern]



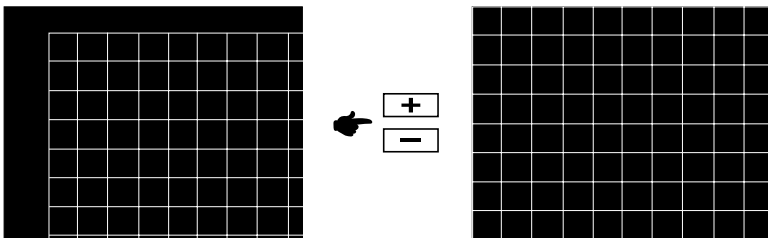
- ③ Press the Auto Set-up Button.
- ④ Adjust the image manually by following procedure below when the screen has a flicker or blur, or the picture does not fit in the display area after performing the Auto Set-up.
- ⑤ Stretch the right side of the picture frame to the right edge of the display area by adjusting the Clock.



- ⑥ Adjust the Phase to correct horizontal wavy noise, flicker or blur in the zebra pattern.



- ⑦ Select "Position" in the Adjustment Program and adjust the H-Position and V-Position so that the frame of the cross-hatch pattern fits into the display area.

**NOTE**

- When the left side of the picture frame moves away from the left edge of the display area during the Clock adjustment, adjust Clock and H-Position alternately.
- Another way to make the Clock adjustment is to correct the vertical wavy lines in the zebra pattern.
- The picture may flicker during the Clock, H-Position and V-Position adjustment.
- In case the picture frame is bigger or smaller than the data display area after the Clock adjustment, repeat steps from ③.
- In the case that a strong flicker or blurs remain on a part of the screen, repeat the adjustments from ⑤ to readjust the Clock. If the flicker or blurs still remain then set the refresh rate to 60Hz and repeat the adjustments from step ③.
- Adjust the H-Position after the Phase adjustment if the horizontal position moves during the adjustment.

- ⑧ Select “Brightness” in the Adjustment Program and adjust the Brightness and Contrast so that all 16 levels of gray in the grayscale pattern are visible. Click on “FINISH” to close the Adjustment Program.

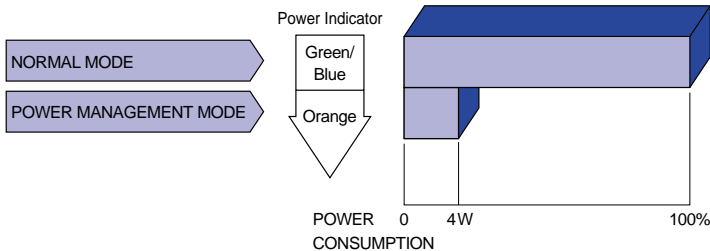
## POWER MANAGEMENT FEATURE

The power management feature of this product complies with every power saving requirement of VESA DPMS. When activated, it automatically reduces unnecessary power consumption of the monitor when your computer is not in use.

To use the feature, the monitor needs to be connected to a VESA DPMS compliant computer. There is a power management step the monitor takes as described below. The power management function, including any timer settings is configured by the operating system. Check your operating system manual for information on how this can be configured.

### Power Management Mode

When the H-sync signal / V-sync signal / H and V sync signals from the computer are off, the monitor enters into Power Management Mode which reduces the power consumption to less than 4W. The screen becomes dark, and the power indicator turns to orange. From Power Management Mode, the image reappears in several seconds when either the keyboard or the mouse are touched again.



### NOTE

- Even when using the power management mode, the monitor consumes electricity. Turn off the Power Switch whenever the monitor is not in use, during the night and weekends, to avoid unnecessary power consumption.
- It is possible that the video signal from the computer may be on while the H or V sync signal is missing. In this instance, the POWER MANAGEMENT feature may not work properly.

# TROUBLE SHOOTING

If the monitor fails to operate correctly, please follow the steps below for a possible solution.

1. Perform the adjustments described in OPERATING THE MONITOR, depending on the problem you have. If the monitor does not get a picture, skip to 2.
2. Consult the following items if you cannot find an appropriate adjustment item in OPERATING THE MONITOR or if the problem persists.
3. If you are experiencing a problem which is not described below or you cannot correct the problem, discontinue using the monitor and contact your dealer or iiyama service center for further assistance.

Problem	Check
① The picture does not appear.  (Power indicator does not light up.)  (Power indicator is green/blue.)  (Power indicator is orange.)	<input type="checkbox"/> The Power Cable is firmly seated in the socket. <input type="checkbox"/> The Power Switch is turned ON. <input type="checkbox"/> The AC socket is live. Please check with another piece of equipment.  <input type="checkbox"/> If the blank screen saver is in active mode, touch the keyboard or the mouse. <input type="checkbox"/> Increase the Contrast and/or Brightness. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.  <input type="checkbox"/> If the monitor is in power management mode, touch the keyboard or the mouse. <input type="checkbox"/> If the input video signal selection is different, switch the Signal Select. <input type="checkbox"/> The computer is ON. <input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
② The screen is not synchronized.	<input type="checkbox"/> The Signal Cable is properly connected. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor. <input type="checkbox"/> The video output level of the computer is within the specification of the monitor.
③ The screen position is not in the center.	<input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.
④ The screen is too bright or too dark.	<input type="checkbox"/> The video output level of the computer is within the specification of the monitor.
⑤ The screen is shaking.	<input type="checkbox"/> The power voltage is within the specification of the monitor. <input type="checkbox"/> The signal timing of the computer is within the specification of the monitor.

# APPENDIX A

## SPECIFICATIONS

Model Name		ProLite H2130
LCD Panel	Driving system	a-Si TFT Active Matrix
	Size	Diagonal: 54cm / 21.3"
	Pixel pitch	0.27mm H × 0.27mm V
	Brightness	280cd/m <sup>2</sup> (Typical)
	Contrast ratio	500 : 1 (Typical)
	Viewable angle	Right / Left / Up / Down: 85 degrees each (Typical)
	Response time	20ms (Black, white, black)
Display Colors		Approx. 16.77 million
Sync Frequency		Analog: Horizontal 24.0-82.0kHz, Vertical 56.0-85.0Hz Digital: Horizontal 31.0-82.0kHz, Vertical 50.0-85.0Hz
Dot Clock		162MHz maximum
Maximum Resolution		1600 × 1200 maximum, 2 MegaPixels
Input Connector		Dual DVI-I 29pin
Output Connector		D-SUB mini 15pin
Plug & Play		VESA DDC2B™, DDC-CI
Input Sync Signal		Separate sync: TTL, Positive or Negative Composite sync: TTL, Positive or Negative Sync on green: 0.3Vp-p, Negative
Input Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive Digital: DVI (Digital Visual Interface standard Rev.1.0) compliance
Output Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive
Maximum Screen Size		432mm W × 324mm H / 17.0" W × 12.8" H
USB Standard Connectors		Rev. 2.0 / 1.1 compliance Self-powered Hi-speed hub Upstream: Series B, Downstream: Series A
Number of USB Ports		1 Upstream (For computer), 4 Downstream (For peripherals)
Input Audio Connector		ø 3.5mm stereo mini jack
Input Audio Signal		0.7Vrms maximum
Speaker		1.0W × 2 (Stereo speakers)
Headphone Connector		ø 3.5mm stereo mini jack
Power Source		100-230VAC, 50 / 60Hz, 0.75-0.34A
Power Consumption		70W maximum, Power management mode: 4W maximum*
Dimensions		466.0 × 418.5-528.5 × 241.0mm / 18.3 × 16.5-20.8 × 9.5" (W×H×D)
Net Weight		10.2kg / 22.5lbs
Tilt Angle		Right / Left: 35 degrees each, Up: 35 degrees
Environmental Considerations		Operative temperature: 5 to 35°C / 41 to 95°F Storage temperature: -20 to 60°C / -4 to 140°F Humidity (-20 to under 50°C / -4 to under 122°F) : 20 to 85% (No condensation) Humidity (50 to 60°C / 122 to 140°F) : 20 to 55% (No condensation)
Approvals		TCO '03(ProLite H2130-W), TCO '99(ProLite H2130-B), CE, TÜV-GS, MPR III (prEN50279) / ISO 13406-2, FCC-B, UL, CSA, VCCI-B

**NOTE** \* Condition: USB peripherals or audio equipment are not connected.



Model Name		ProLite H2010
LCD Panel	Driving system	a-Si TFT Active Matrix
	Size	Diagonal: 51cm / 20.1"
	Pixel pitch	0.255mm H × 0.255mm V
	Brightness	300cd/m <sup>2</sup> (Typical)
	Contrast ratio	700 : 1 (Typical)
	Viewable angle	Right / Left / Up / Down: 88 degrees each (Typical)
	Response time	16ms (Black, white, black), 10ms (Gray, Gray)
Display Colors		Approx. 16.77 million
Sync Frequency		Analog: Horizontal 24.0-82.0kHz, Vertical 56.0-85.0Hz Digital: Horizontal 31.0-82.0kHz, Vertical 50.0-85.0Hz
Dot Clock		162MHz maximum
Maximum Resolution		1600 × 1200 maximum, 2 MegaPixels
Input Connector		Dual DVI-I 29pin
Output Connector		D-SUB mini15pin
Plug & Play		VESA DDC2B™, DDC-CI
Input Sync Signal		Separate sync: TTL, Positive or Negative Composite sync: TTL, Positive or Negative Sync on green: 0.3Vp-p, Negative
Input Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive Digital: DVI (Digital Visual Interface standard Rev.1.0) compliance
Output Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive
Maximum Screen Size		408mm W × 306mm H / 16.1" W × 12.0" H
USB Standard Connectors		Rev. 2.0 / 1.1 compliance Self-powered Hi-speed hub Upstream: Series B, Downstream: Series A
Number of USB Ports		1 Upstream (For computer), 4 Downstream (For peripherals)
Power Source		100-230VAC, 50 / 60Hz, 0.75-0.34A
Power Consumption		70W maximum, Power management mode: 4W maximum*
Dimensions		466.0 × 424.0-534.0 × 241mm / 18.3 × 16.7-21.0 × 9.5" (W×H×D)
Net Weight		9.8kg / 21.6lbs
Tilt Angle		Right / Left: 35 degrees each, Up: 35 degrees
Environmental Considerations		Operative temperature: 5 to 35°C / 41 to 95°F Storage temperature: -20 to 60°C / -4 to 140°F Humidity (-20 to under 50°C / -4 to under 122°F) : 20 to 85% (No condensation) Humidity (50 to 60°C / 122 to 140°F) : 20 to 55% (No condensation)
Approvals		TCO '03(ProLite H2010-W), TCO '99(ProLite H2010-B), CE, TÜV-GS, MPR III (prEN50279) / ISO 13406-2, FCC-B, UL, CSA, VCCI-B

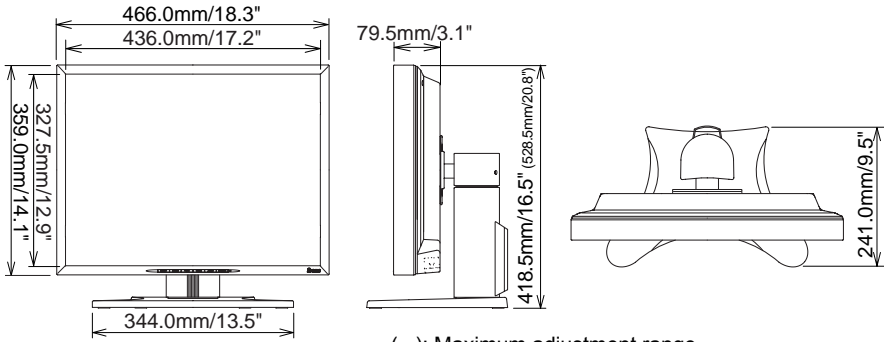
**NOTE** \* Condition: USB peripherals, optional speakers or audio equipment are not connected.

Model Name		ProLite H1900
LCD Panel	Driving system	a-Si TFT Active Matrix
	Size	Diagonal: 48cm / 19.0"
	Pixel pitch	0.294mm H × 0.294mm V
	Brightness	300cd/m <sup>2</sup> (Typical)
	Contrast ratio	1000 : 1 (Typical)
	Viewable angle	Right / Left / Up / Down: 89 degrees each (Typical)
	Response time	12ms (Black, white, black), 8ms (Gray, Gray)
Display Colors		Approx. 16.77 million
Sync Frequency		Analog: Horizontal 24.0-82.0kHz, Vertical 56.0-85.0Hz Digital: Horizontal 31.0-82.0kHz, Vertical 50.0-85.0Hz
Dot Clock		Analog: 135MHz maximum Digital: 162MHz maximum
Maximum Resolution		Analog: 1280 × 1024 maximum, 2 MegaPixels Digital: 1600 × 1200 maximum, 2 MegaPixels
Input Connector		Dual DVI-I 29pin
Output Connector		D-SUB mini15pin
Plug & Play		VESA DDC2B™, DDC-CI
Input Sync Signal		Separate sync: TTL, Positive or Negative Composite sync: TTL, Positive or Negative Sync on green: 0.3Vp-p, Negative
Input Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive Digital: DVI (Digital Visual Interface standard Rev.1.0) compliance
Output Video Signal		Analog: 0.7Vp-p (Standard), 75Ω, Positive
Maximum Screen Size		376.3mm W × 301.1mm H / 14.8" W × 11.9" H
USB Standard Connectors		Rev. 2.0 / 1.1 compliance Self-powered Hi-speed hub Upstream: Series B, Downstream: Series A
Number of USB Ports		1 Upstream (For computer), 4 Downstream (For peripherals)
Power Source		100-230VAC, 50 / 60Hz, 0.69-0.32A
Power Consumption		63W maximum, Power management mode: 4W maximum*
Dimensions		430.0 × 414.5-524.5 × 241.0mm / 16.9 × 16.3-20.6 × 9.5" (W×H×D)
Net Weight		9.0kg / 19.8lbs
Tilt Angle		Right / Left: 35 degrees each, Up: 35 degrees
Environmental Considerations		Operative temperature: 5 to 35°C / 41 to 95°F Storage temperature: -20 to 60°C / -4 to 140°F Humidity (-20 to under 50°C / -4 to under 122°F) : 20 to 85% (No condensation) Humidity (50 to 60°C / 122 to 140°F) : 20 to 55% (No condensation)
Approvals		TCO '03(ProLite H1900-W), TCO '99(ProLite H1900-B), CE, TÜV-GS, MPR III (prEN50279) / ISO 13406-2, FCC-B, UL, CSA, VCCI-B

**NOTE** \* Condition: USB peripherals, optional speakers or audio equipment are not connected.

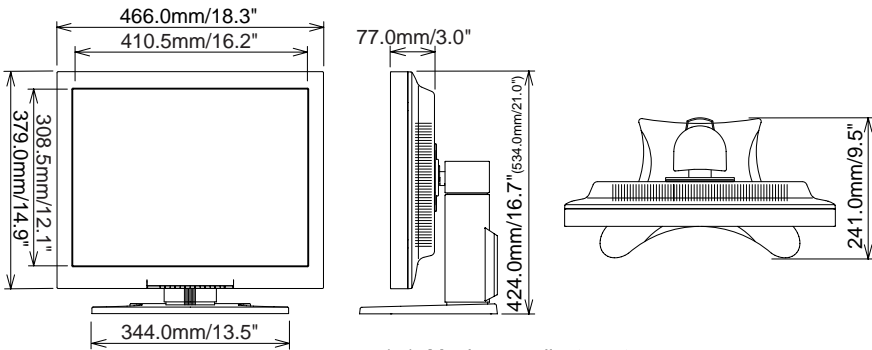
## DIMENSIONS

### ■ ProLite H2130



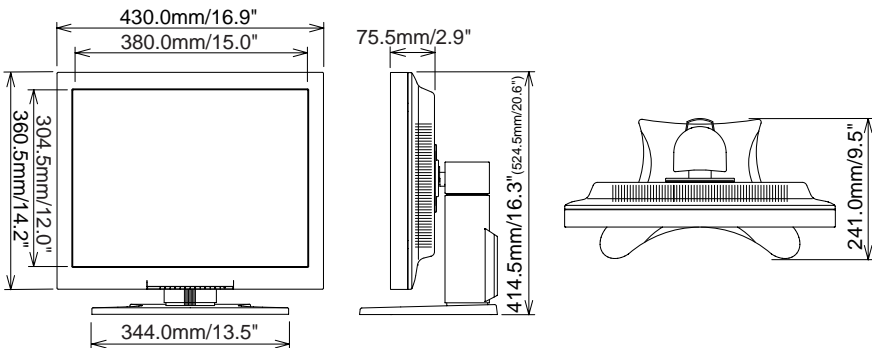
( ) : Maximum adjustment range

### ■ ProLite H2010



( ) : Maximum adjustment range

### ■ ProLite H1900



( ) : Maximum adjustment range

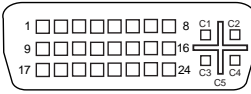
## COMPLIANT TIMING

Video Mode		Horizontal Frequency	Vertical Frequency	Dot Clock
VESA	VGA 640 × 480	31.469kHz	59.940Hz	25.175MHz
		37.861kHz	72.809Hz	31.500MHz
		37.500kHz	75.000Hz	31.500MHz
	SVGA 800 × 600	35.156kHz	56.250Hz	36.000MHz
		37.879kHz	60.317Hz	40.000MHz
		48.077kHz	72.188Hz	50.000MHz
		46.875kHz	75.000Hz	49.500MHz
	XGA 1024 × 768	48.363kHz	60.004Hz	65.000MHz
		56.476kHz	70.069Hz	75.000MHz
		60.023kHz	75.029Hz	78.750MHz
	SXGA 1280 × 1024	63.981kHz	60.020Hz	108.000MHz
		79.976kHz	75.025Hz	135.000MHz
UXGA 1600 × 1200	75.000kHz	60.000Hz	162.000MHz	
VGA TEXT	720 × 400	31.469kHz	70.087Hz	28.322MHz *
Macintosh	640 × 480	35.000kHz	66.667Hz	30.240MHz *
	832 × 624	49.725kHz	74.500Hz	57.283MHz *
	1024 × 768	60.150kHz	74.720Hz	80.000MHz *
PC9801	640 × 400	24.827kHz	56.424Hz	21.053MHz *
SUN66	1152 × 900	61.846kHz	66.004Hz	94.500MHz *

**NOTE** \* Not compliant to DVI input.

# CONNECTOR PIN ASSIGNMENT

## ■ DVI-I 29pin Connector

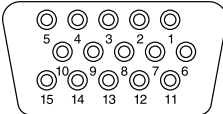


DVI-I

Pin	Input Signal	Pin	Input Signal
1	T.M.D.S Data 2–	16	Hot Plug Detect
2	T.M.D.S Data 2+	17	T.M.D.S Data 0–
3	T.M.D.S Data 2/4 Ground	18	T.M.D.S Data 0+
4	NC	19	T.M.D.S Data 0/5 Ground
5	NC	20	NC
6	Clock line (SCL) *	21	NC
7	Data line (SDA) *	22	T.M.D.S Clock Ground
8	Analog V-Sync	23	T.M.D.S Clock +
9	T.M.D.S Data 1–	24	T.M.D.S Clock –
10	T.M.D.S Data 1+	C1	Analog Red
11	T.M.D.S Data 1/3 Ground	C2	Analog Green
12	NC	C3	Analog Blue
13	NC	C4	Analog H-Sync
14	+5V Power	C5	Analog Ground
15	Ground		

\* Compliant to VESA DDC.

## ■ D-SUB mini 15pin Connector



D-SUB

Pin	Input Signal	Pin	Input Signal
1	Red video	9	NC
2	Green video	10	Ground
3	Blue video	11	Ground
4	NC	12	NC
5	NC	13	H-Sync
6	Red video ground	14	V-Sync
7	Green video ground	15	NC
8	Blue video ground		

## APPENDIX B

### Optional Video Input

**This OSD Menu is available only when the optional video adapter is installed in the monitor.**

Video input is not switched automatically from Analog or Digital input. Switch to video input by “Signal Select” on the OSD Menu or the Input Button. Under the power management mode, “Signal Select” page is displayed immediately by pressing the Menu Button when the Menu is not displayed.

#### Direct

You can skip the Menu pages and display an adjustment scale directly by using the following button operations.

- **Brightness:** Press the Brightness Button when the Menu is not displayed.
- **Contrast:** Press the Contrast Button when the Menu is not displayed.
- **Signal Select:** Press the Input Button when the Menu is not displayed.
- **Picture Lock:** Press the Auto Button when the Menu is not displayed.

#### For ProLite H2130

- **Volume:** Press the Menu Button within 5 seconds after pressing the Brightness Button or the Contrast Button during the direct adjustments above.

#### NOTE

#### ■ SWITCHING BRIGHTNESS / CONTRAST / VOLUME ADJUSTMENT

**(The VOLUME adjustment is for ProLite H2130 only.)**

To switch between Brightness, Contrast and Volume adjustments, press the Menu Button within 5 seconds after pressing the Brightness Button or the Contrast Button during the direct adjustments above.

→ Brightness → Contrast → Volume →

#### ■ SIGNAL SELECT (INPUT1 / INPUT2 / S VIDEO / VIDEO)

Select INPUT1, INPUT2, S VIDEO or VIDEO for the signal input when two or more signal inputs are connected to a signal source.

**In case of selecting “Auto” in the adjustment item: Auto Search,**

press the Input Button and then the Menu Button. Select INPUT1, INPUT2, S VIDEO or VIDEO for the signal input so that the input signal (INPUT1 Analog / INPUT1 Digital / INPUT2 Analog / INPUT2 Digital / S VIDEO / VIDEO) is automatically detected.

**In case of selecting “Manual” in the adjustment item: Auto Search,**

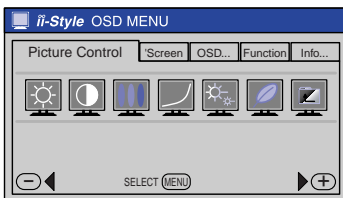
press the Input Button and then the Menu Button. Select the input signal (INPUT1 Analog / INPUT1 Digital / INPUT2 Analog / INPUT2 Digital / S VIDEO / VIDEO) by pressing the + / - Buttons.






















#### ■ PICTURE LOCK

“Frame Locked.” is displayed and picture on the screen is locked when pressing the Auto Button while the Menu is not displayed.

Press the Auto Button again to unlock.

**Menu : Picture Control (Video)**

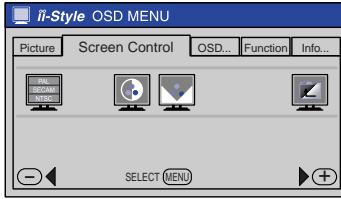










Adjustment Item	Problem / Option		Button to Press		
 <b>Brightness *</b> <b>Direct</b>	Too dark Too bright		 <b>+</b>  <b>-</b>		
 <b>Contrast</b> <b>Direct</b>	Too dull Too intense		 <b>+</b>  <b>-</b>		
 <b>Color Temp. / Matrix</b>  <b>NOTE</b> <ul style="list-style-type: none"> <li>sRGB is an international standard which defines and unifies the difference of color appearance between equipment.</li> <li>You can not adjust the Brightness, Contrast and Gamma in sRGB mode because those settings are locked.</li> </ul>	9300K	Bluish white (9300K)			
	6500K	Reddish white (6500K)			
	User	 <b>MENU</b>	R (Red)	Too weak	 <b>+</b>
			G (Green)	Too strong	 <b>-</b>
			B (Blue)		
	Matrix	 <b>MENU</b>	Y (Yellow)	Too light	 <b>+</b>
M (Magenta)			Too deep	 <b>-</b>	
C (Cyan)					
sRGB	sRGB mode				
CAL	Calibration mode: Color appearance is set to the range adjusted by an optional calibration sensor.				
 <b>Gamma</b>	Normal	Normal			
	Hi.Cont	High contrast			
	Dark	Dark			
	User	Gamma: approx.1.8, 2.0, 2.2 or 2.4 is selected.			
 <b>Sharpness</b>	Too soft Too sharp		 <b>+</b>  <b>-</b>		
 <b>Economy Mode</b>	User	Back-light is too dark	 <b>+</b>		
		Back-light is too bright	 <b>-</b>		
	Mode 1	Brightness of back-light is reduced by Approx.10%.			
Mode 2	Brightness of back-light is reduced by Approx.50%.				
 <b>Return to Menu</b>	Highlight "Menu : Picture Control" again.				

\* Adjust the User of Economy Mode when you are using the monitor in a dark room and feel the screen is too bright.

**Direct** See page 32 for Direct adjustment.

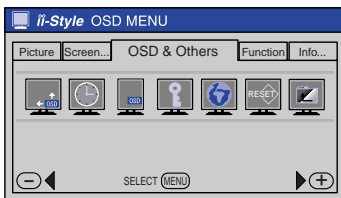
## Menu : Screen Control (Video)
















Adjustment Item	Problem / Option		Button to Press
 Color System	AUTO	Switch the broadcast system automatically. Select this in normal use.	
	NTSC	Switch the broadcast system to NTSC by force.	
	PAL	Switch the broadcast system to PAL by force.	
	SECAM	Switch the broadcast system to SECAM by force.	
 Color	Too weak		 <input data-bbox="946 494 996 518" type="button" value="+"/>
	Too strong		 <input data-bbox="946 526 996 550" type="button" value="-"/>
 Hue	Purplish		 <input data-bbox="946 582 996 606" type="button" value="+"/>
	Greenish		 <input data-bbox="946 614 996 638" type="button" value="-"/>
 Return to Menu	Highlight "Menu : Screen Control" again.		

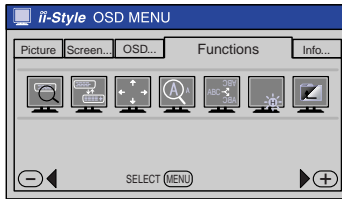



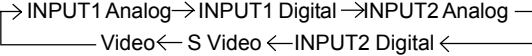



















## Menu : OSD & Others (Video)



Adjustment Item	Problem / Option		Button to Press				
 OSD Position	1 2 3 4 5 You can move the OSD display area to any one of the following 5 positions within the overall display: <table border="1" data-bbox="812 411 912 483"> <tr> <td>1</td> <td>4</td> </tr> <tr> <td>2</td> <td>3 5</td> </tr> </table>		1	4	2	3 5	  
1	4						
2	3 5						
 OSD Off Timer	You can set the OSD display duration time between 3 and 60 seconds.		  				
 OSD Rotation	OFF	Return to Normal.					
	ON	Menu screen is rotated 90 degrees in counterclockwise.					
<b>NOTE</b> Use this function when using the monitor with portrait orientation.							
 Key Lock Mode	OFF	Return to Menu.					
	ON	All adjustment items are locked out.					
<b>NOTE</b> To cancel the Key Lock Mode, keep pressing the Menu, + and – Buttons at the same time for 8 seconds or more.							
 Language	English	English	Svenska				
	Deutsch	German	Русский	Swedish			
	Nederlands	Dutch	中文	Russian			
	Français	French	日本語	Chinese			
	Italiano	Italian	Polski	Japanese			
	Español	Spanish		Polish			
 Reset	NO	Return to Menu.					
	YES	Factory-preset data is restored.					
 Return to Menu	Highlight “Menu : OSD & Others” again.						

**Menu : Functions  
(Video)**

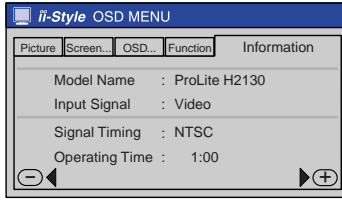


Adjustment Item	Problem / Option		Button to Press				
 <b>Auto Search</b>	Auto	Search the input signal automatically in the following rotation: 					
	Manual	Select the input signal by "Signal Select" function.					
 <b>Signal Select</b> <b>Direct</b>	INPUT1	Select the Analog input. Select the Digital input.					
	INPUT2	Select the Analog input. Select the Digital input.					
	S Video	Select the S Video input.					
	Video	Select the Video input.					
	Full Screen	1 to 1	Displayed at the same magnification				
 <b>Zoom</b>	Aspect	Expansion display of Aspect					
	Full	Expansion display					
	User	Zoom In	Zoom in the image.	 			
		Zoom Out	Zoom out the image.	 			
		 <b>MENU</b>	To move the zoom point to the right.	 			
H-Position		To move the zoom point to the left.	 				
 <b>MENU</b>		To move the zoom point downward.	 				
V-Position	To move the zoom point upward.	 					
4 Multi.	<table border="1" data-bbox="487 1013 560 1069"> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> </tr> </table>	1	2	3	4	For 4 split screen display by 4 monitors	
1	2						
3	4						
<b>NOTE</b> To cancel the "User" settings, press the Auto Button when the setting screen is displayed.							
 <b>Flipping</b>	OFF	Return to Normal.					
	Mirror	Mirror reversed image is displayed.					
	180°	The image rotated 180 degrees is displayed.					
 <b>LED ON/OFF*</b>	OFF	LED is turned OFF.					
	ON	LED is turned ON.					
 <b>Return to Menu</b>	Highlight "Menu : Functions" again.						

\* Turn OFF the LED when you are bothered by the light in multiple screen environment.

**Direct** See page 32 for Direct adjustment.

## Menu : Information (Video)



Model Name, Input Signal, Signal Timing and Operating Time are displayed.

## POWER MANAGEMENT FEATURE

The monitor can provide the POWER MANAGEMENT feature while the video input is available by using the video adapter.

When the signal from the video equipment is off, the monitor enters into Power Management Mode which reduces the power consumption to less than 4W and the power indicator turns to orange. From Power Management Mode, the image reappears in several seconds when the signal is input from the video equipment.

### Specifications for Optional Video Input

Input Connector	RCA pin jack S-Video terminal
Input Video Signal	Video*: NTSC, PAL, SECAM

**NOTE** \* Not all broadcast systems are supported.