

Slim Medical Display

ONYX-317/319/322

ONYX-317/319/322

**High Brightness
Slim Medical Display**

ONYX-317/319/322 Manual 1st Edition
Nov, 2010

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Packing List

Before you begin installing your Bedside Terminal, please make sure that the following items have been shipped:

- ONYX-317/319/322 Slim Medical Display
- Utility CD-ROM (Please insert the ONYX-317/319/322 CD-ROM into external CD-ROM drive.) which Contains User's Manual (in PDF format), Drivers and Utilities

If any of these items are missing or damaged, you should contact your distributor or sales representative immediately.

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Safety & Warranty

1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning.
Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation.
Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. **Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.**
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, only qualified

service personnel should open the equipment.

14. If any of the following situations arises, get the equipment checked by service personnel:

- a. The power cord or plug is damaged.
- b. Liquid has penetrated into the equipment.
- c. The equipment has been exposed to moisture.
- d. The equipment does not work well, or you cannot get it to work according to the user's manual.
- e. The equipment has been dropped and damaged.
- f. The equipment has obvious signs of breakage.

15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.

16. External equipment intended for connection to signal input/output or other connectors, shall comply with relevant UL / IEC standard (e.g. UL 1950 for IT equipment and UL 60601-1 / IEC 60601 series for systems – shall comply with the standard IEC 60601-1-1, Safety requirements for medical electrical systems. Equipment not complying with UL 60601-1 shall be kept outside environment, as defined in the standard.

Classification

1. Degree of protection against electric shock: not classified
2. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.
3. Mode of operation: Continuous
4. Type of protection against electric shock: Class I equipment

FCC

Warning!



This device complies with Part 15 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.

UL Module Description



Onyx-317/319/322 AC modules are developed to suitable for the Classification Mark requirement

Safety Symbol Description

The following safety symbols are the further explanations for your reference.

	<p><i>Medical equipment with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1, and CAN/CSA C22.2 NO. 601.1</i></p>
	<p><i>Attention, consult ACCOMPANYING DOCUMENTS.</i></p>
	<p><i>Ground wire Protective Ground wire.</i></p>
	<p><i>Medical equipment with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1, and CAN/CSA C22.2 NO. 601.1</i></p>
	<p><i>Do not free abandon</i></p>

Below Table for China RoHS Requirements

產品中有毒有害物質或元素名稱及含量

Onyx Panel PC/ Workstation

部件名稱	有毒有害物質或元素					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr(VI))	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
印刷電路板 及其電子元件	x	○	○	○	○	○
外部信號 連接器及線材	x	○	○	○	○	○
外殼	x	○	○	○	○	○
中央處理器 與記憶體	x	○	○	○	○	○
硬碟	x	○	○	○	○	○
液晶模組	x	○	○	○	○	○
光碟機	x	○	○	○	○	○
觸控模組	x	○	○	○	○	○
電源	x	○	○	○	○	○

O：表示該有毒有害物質在該部件所有均質材料中的含量均在 SJ/T 11363-2006 標準規定的限量要求以下。

X：表示該有毒有害物質至少在該部件的某一均質材料中的含量超出 SJ/T 11363-2006 標準規定的限量要求。

備註：

一、此產品所標示之環保使用期限，系指在一般正常使用狀況下。

二、上述部件物質中央處理器、記憶體、硬碟、光碟機、觸控模組為選購品。

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Chapter

1

**General
Information**

1.1 Introduction

ONYX launches a series of Slim Medical Display – the ONYX-317, ONYX-319 and ONYX-322. The ONYX-317, ONYX-319 and ONYX-322 which are 17" XGA (1280 x 1024), 19" SXGA (1280 x 1024) and 21.5" SXGA (1920 x 1080) respectively are rugged true color TFT display panels that have been approved according to EN60601-1 and UL60601-1 standards for limited power leakage and electronic emission.

These two medical level displays' brightness, resolution, and contrast ratio are better than standard LCD displays. ONYX -317, ONYX -319 and ONYX -322 provide a DVI port for medical images. This DVI port prevents signal distortion during transmission. An **On Screen Display (OSD)** on the front panel allows convenient operation.

These Smart Medical Displays are designed to target the medical market and great medical operation. If you are looking for a slim medical display, the ONYX-317, ONYX-319 and ONYX-322 definitely will be your best choice for medical market applications.

1.2 Feature

These displays provides broad range of 17"/ 19"/ 21.5" LCD panels, long lifetime TFT LCD monitors.

- 17"/ 19"/ 21.5 SXGA color TFT LCD display
- Easy To Use, Compact, Slim Design
- Latex free
- OSD (On Screen Display) on the front panel for user friendly operation)
- Resistive Touchscreen (Optional)

1.3 Specification

Hardware Specifications

Display	ONYX-322: 21.5" SXGA color TFT LCD ONYX-319: 19" SXGA color TFT LCD ONYX-317: 17" SXGA color TFT LCD
VGA Signal Interface	LVDS
Expansion	N/A
OSD Button	Brightness: "+" / "-"; Sound: "+" / "-"; Power SW
I/O	RS-232 x 1 for touch controller 2 X 3W speaker on back side 1 X VGA-in 1 X DVI-in 1 X Line-in

LCD Specifications

Model Name	ONYX-317	ONYX-319	ONYX-322
Display Type	17" color TFT LCD	19" color TFT LCD	21.5" color TFT LCD
Max. Resolution	1280 x 1024	1280 x 1024	1920 x 1080
Max. Colors	16.7M	16.7M	16.7M
Dot Size (mm)	0.264 x 0.264	0.294 x 0.294	0.248 x 0.248
Luminance (cd/m²)	350 (TYP)	300 (TYP)	250 (TYP)
Viewing Angle	170°(H)	178°(H)	170°(H)

	160°(V)	178°(V)	160°(V)
Contrast Ratio	1000 : 1	1000 : 1	500 : 1
Brightness Control	Yes	Yes	Yes
Back Light MTBF	40,000 Hrs	50,000 Hrs	50,000 Hrs

Note: All ONYX's LCD products are manufactured with High precision technology. However, there are a small number of defective pixels in all LCD panels that are not able to change color. This is a normal occurrence for all LCD displays from all manufacturers and should not be noticeable or objectionable under normal operation. ONYX LCD panels are qualified for industry standard conditions in the following: total 7 dead pixels on a screen or if there are 3 within 1 inch square area of each other on the display.

Mechanical Specifications

Architecture	Close-frame
Front Bezel	Plastic bezel with resistive touch screen
Color	White
Mounting / Holder	VESA 75/100mm, Desk Top
Construction	3mm ABS + PC TYPE Plastic housing
Dimension (W x H x D)	ONYX-317: 15.1" x 13.3" x 2.8" (383mm x 338mm x 70mm) ONYX-319:

	17.4" x 14.9" x 2.8" (442mm x 379mm x 70mm) ONYX-322: 21.8" x 14" x 2.8" (546mm x 351.4mm x 70mm)
Carton Dimension	30" x 9.1" x 24" (750mm x 260mm x 550.5mm)
Net Weight	ONYX-317:12.32 lb (5.6 kg) ONYX-319:14.3 lb (6.5 kg) ONYX-322:15.18 lb (6.9 kg)
Gross Weight	ONYX-317: 15.62 lb (7.1 kg) ONYX-319: 18.4 lb (8.2 kg) ONYX-322: 24.2 lb (11 kg)
Packing Filler	PE

Power Supply Specifications

Power Requirement	Requirement DC 12V <ul style="list-style-type: none"> ■ AC adapter (Input power rating) 90~264VAC, (115VAC @ 1.35A, 230VAC @ 0.7A), 47~63Hz ■ DC Output 12V@3.46A
MTBF	100,000 hrs operation at 25°C

Environmental Specifications

Operating Temperature	0°C to 40°C (32°F ~104°F)
Storage Temperature	-20°C to 60°C (-4°F ~140°F)
Storage Humidity	5% to 95%@ 40°C, non-condensing
Storage Atmospheric Pressure	850~1000hpa

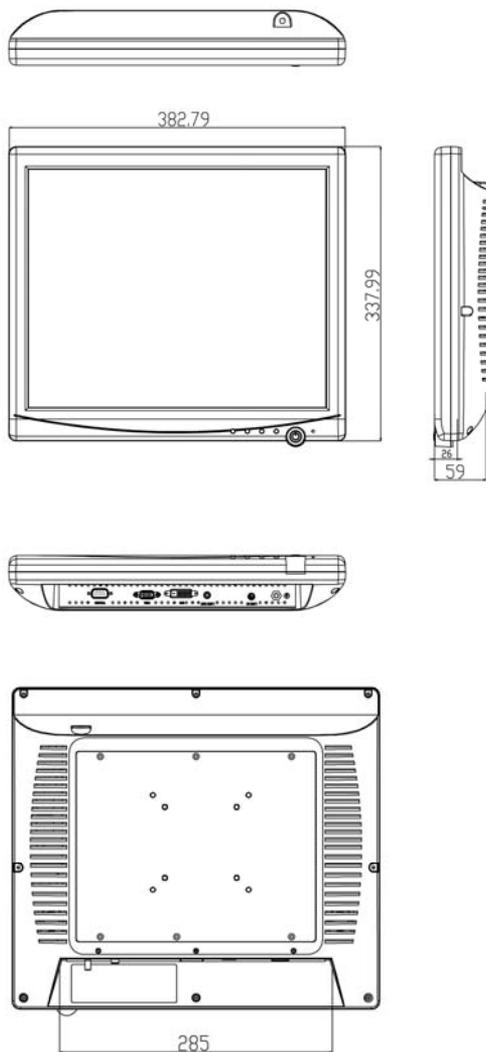
Shock	ONYX-317/319:15G peak acceleration (11 msec. duration) / operation ONYX-322:20G peak acceleration (11 msec. duration) / operation
Drop	76cm (1 Corner, 3 Edge, 6 Surface)
EMI / Safety	CE / FCC Class B/ UL 60601-1/ EN 60601-1
IP	Front bezel, IP-65 compliant

TouchScreen (Optional)

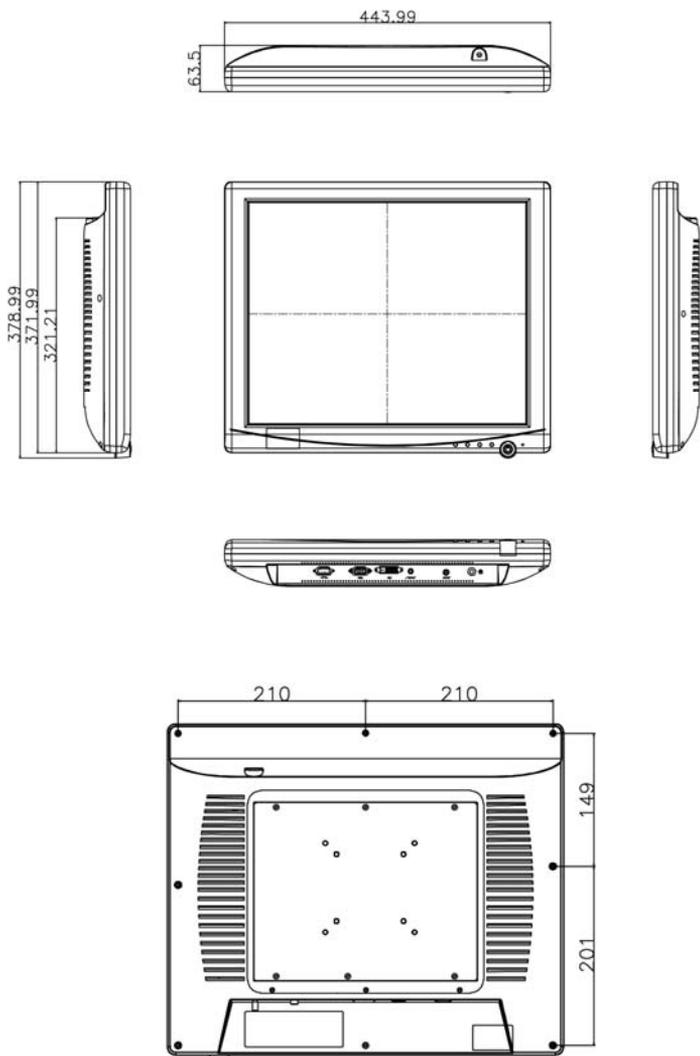
Type	5-wire, Analog Resistive
Interface	RS-232 Interface
Resolution	2048 x 2048
Light Transmission	> 80% ± 2%
Life Time	35 million times

1.4 Dimension

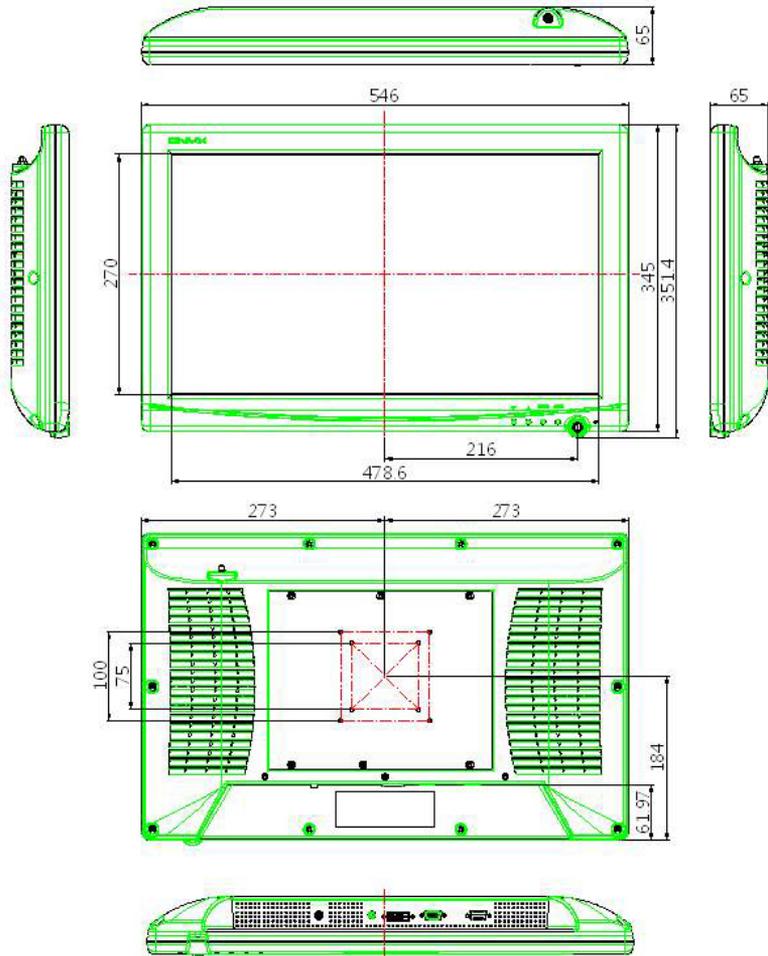
ONYX-317



ONYX-319



ONYX-322



Chapter

2

**Hardware
Installation**

2.1 Safety Precautions

Warning!



- *Always completely disconnect the power cord from your board whenever you are working on it.*
- *Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.*

Caution!



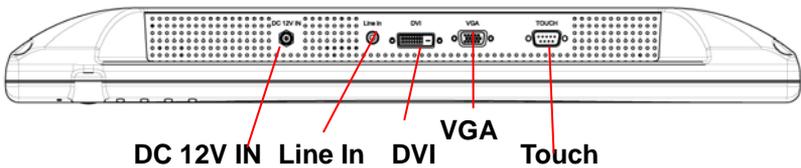
- *Always ground yourself to remove any static charge before touching the board.*
- *Modern electronic devices are very sensitive to static electric charges; please remember to use a grounding wrist strap at all times.*
- *Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis.*

2.2 Connecting to the computer

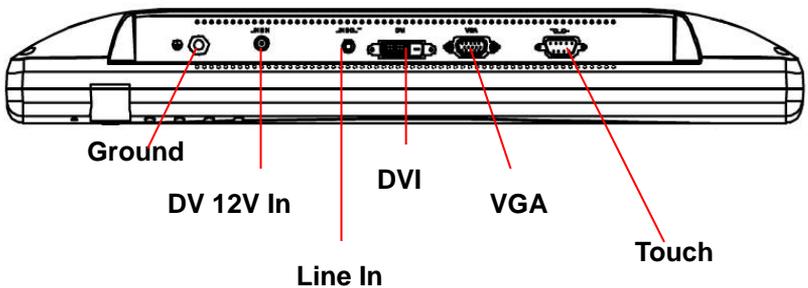
- Turn off the computer and the Slim Medical Display before the connection

I/O ports

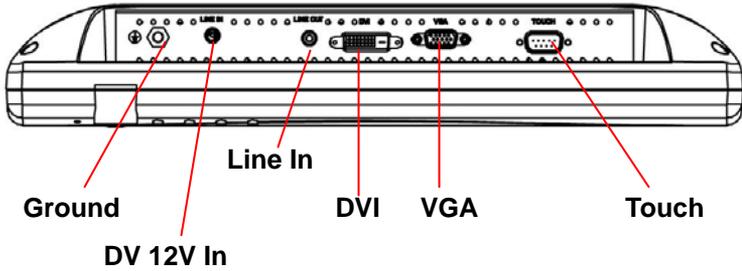
ONYX-322



ONYX-319



ONYX-317



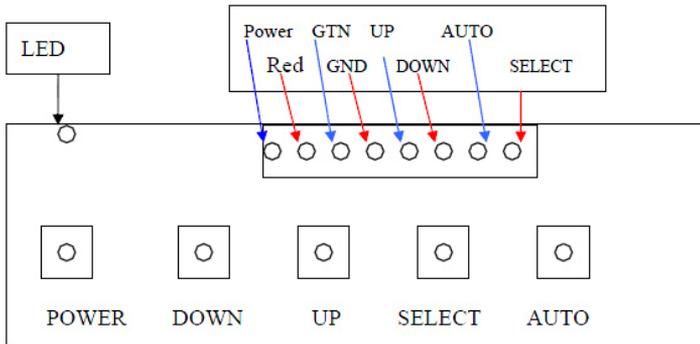
Chapter

3

**On Screen
Display Control**

3.1 On Screen Display Controller

The LCD monitor is very easy and simple to operate. There are five controls below on the rear panel. You can see their respective indicators.



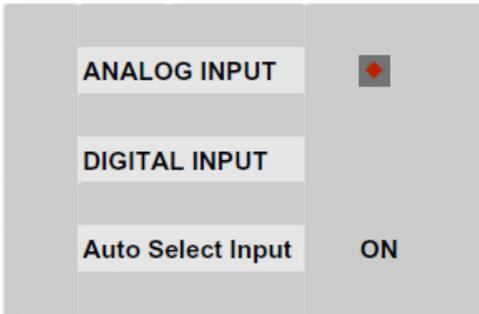
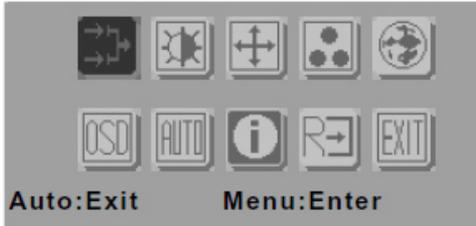
3.2 Key Selection

Button	Description
Down / Left (◀)	Decrease setting or scroll down the menu bar
Up / Right (▶)	increase setting or scroll up the menu bar
SELECT (MENU)	Activate OSD menu
Power	Turn on or off the main board

3.3 LED Function

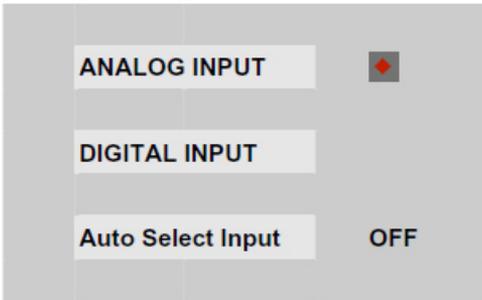
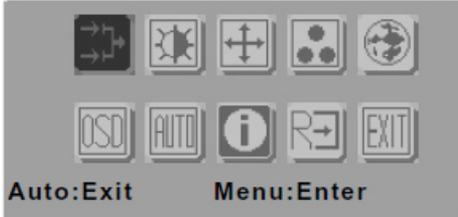
DPMS ON	Green
DPMS STANDBY	Green flicker
DPMS SUSPEND	Red
DPMS OFF	Off

3.4 OSD Main Menu: Push the MENU key



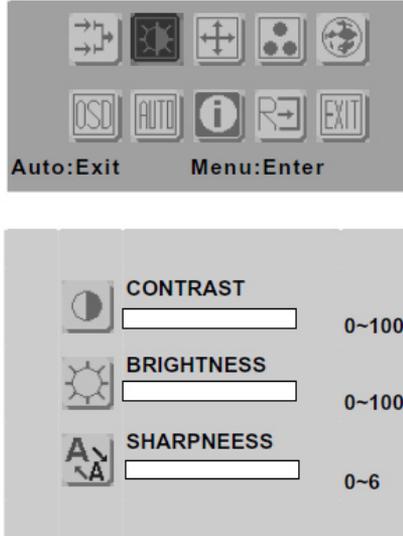
Key	Function
Power	LCD monitor power on/off
Menu	Enter to the selected option
Right/ Increase	Move the selector to the next option
Left /Decrease	Move the selector to the previous option
Auto/ Exit	Turn off OSD menu
Input selection	Change input source

3.5 Input Source Selection



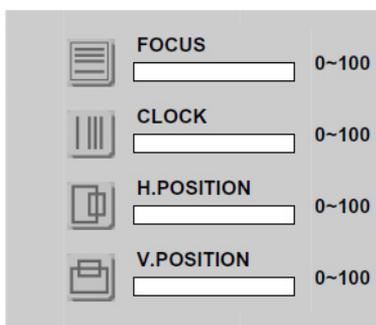
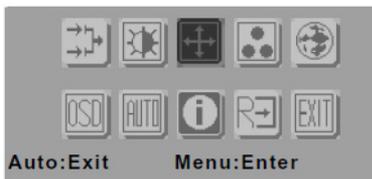
Key	Function (1)	Function (2)
Menu	Enter current sub-menu	No function
Right/ Increase	Go to next sub-menu	Increase the gauge value
Left/ Decrease	Back to previous sub-menu	Decrease the gauge value
Auto/ Exit	Return to main menu	Return to sub-menu

3.6 Contrast/Brightness – Submenu



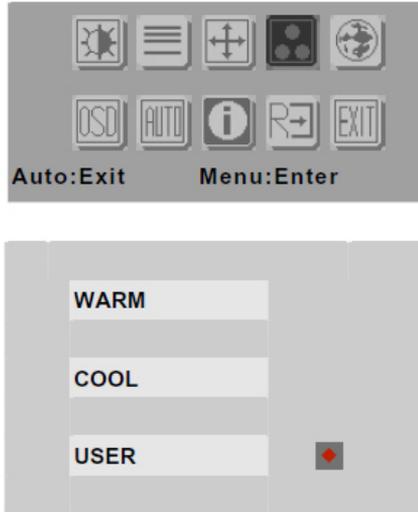
Key	Function (1)	Function (2)
Power	LCD monitor power on/off	LCD monitor power on/off
Menu	Enter current sub-menu	No function
Right/Down/Increase	Go to next sub-menu	Increase the gauge value
Left/Up/Decrease	Back to previous sub-menu	Decrease the gauge value
Auto/Exit	Return main menu	Return sub-menu

3.7 Geometry Menu



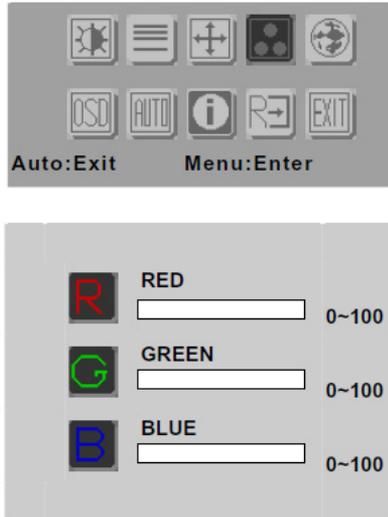
Key	Function (1)	Function (2)
Power	LCD monitor power on/off	LCD monitor power on/off
Menu	Enter current sub-menu	No function
Right/Down/Increase	Go to next sub-menu	Increase the gauge value
Left/Up/Decrease	Back to previous sub-menu	Decrease the gauge value
Auto/Exit	Return to main menu	Return to sub-menu

3.8 Color Temperature – Submenu



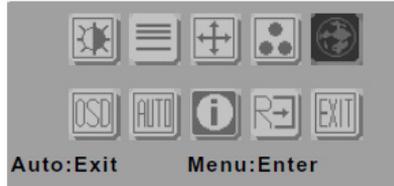
Key	Function
Power	LCD monitor power on/off
Menu	Set current sub-menu
Right/Down/Increase	Go to next sub-menu
Left/Up/Decrease	Back to previous sub-menu
Auto/Exit	Return to main menu

3.9 RGB Color-Submenu



Key	Function (1)	Function (2)
Power	LCD monitor power on/off	LCD monitor power on/off
Menu	Enter current sub-menu	No function
Right/Down/Increase	Go to next sub-menu	Increase the gauge value
Left/Up/Decrease	Back to previous sub-menu	Decrease the gauge value
Auto/Exit	Return to main menu	Return to sub-menu

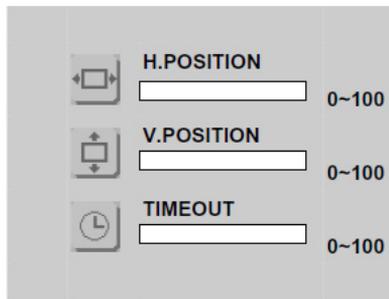
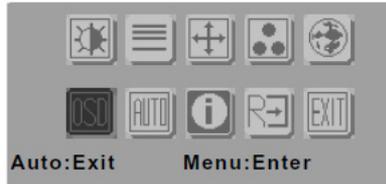
3.10 Language-Submenu



ENGLISH	繁體中文
DEUTSCH	FRANCAIS
ESPANOL	ITALIANO
簡體中文	日本語

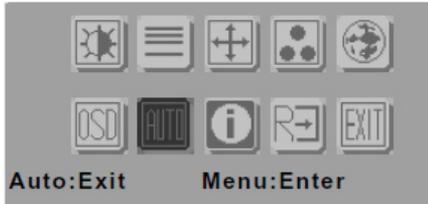
Key	Function
Power	LCD monitor power on/off
Menu	Set current sub-menu
Right/Down/Increase	Go to next sub-menu
Left/Up/Decrease	Back to previous sub-menu
Auto/Exit	Return to main menu

3.11 OSD Manager - Submenu



Key	Function (1)	Function (2)
Power	LCD monitor power on/off	LCD monitor power on/off
Menu	Enter current sub-menu	No function
Right/Down/Increase	Go to next sub-menu	Increase the gauge value
Left/Up/Decrease	Back to previous sub-menu	Decrease the gauge value
Auto/Exit	Return to main menu	Return to sub-menu

3.12 Auto Config - Submenu



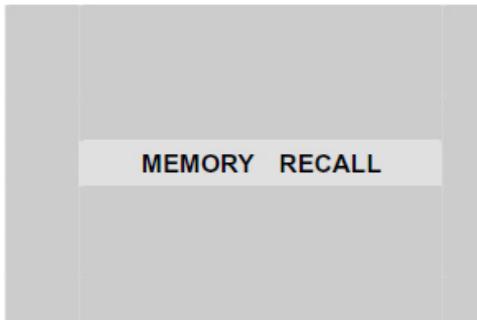
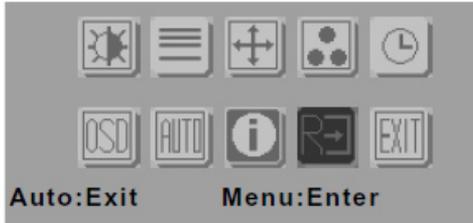
Key	Function
Power	LCD monitor power on/off
Menu	Set current sub-menu
Right/Down/Increase	Go to next menu
Left/Up/Decrease	Back to previous menu
Auto/Exit	Turn off OSD menu

3.13 Mode Information - Submenu



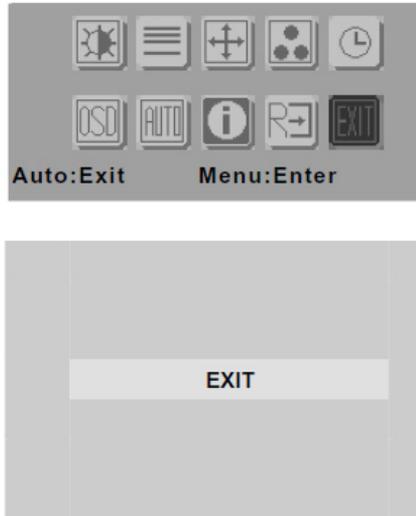
Key	Function
Power	LCD monitor power on/off
Menu	No function
Right/Down/Increase	Go to next menu
Left/Up/Decrease	Back to previous menu
Auto/Exit	Turn off OSD menu

3.14 Memory Recall - Submenu



Key	Function
Power	LCD monitor power on/off
Menu	Set current sub-menu
Right/Down/Increase	Go to next menu
Left/Up/Decrease	Back to previous menu
Auto/Exit	Turn off OSD menu

3.15 Exit menu - Submenu



Key	Function
Power	LCD monitor power on/off
Menu	Set current sub-menu
Right/Down/Increase	Go to next menu
Left/Up/Decrease	Back to previous menu
Auto/Exit	Turn off OSD menu

Chapter

4

**Driver
Installation**

4.1 Touch screen Driver Installation

1. Click on the ***Touch*** folder
2. Double click on ***exe** file and follow the instructions that the window shows
3. The system will help you install the driver automatically

Appendix

A

Miscellanea

A.1 General Cleaning Tips

You may need the following precautions before you begin to clean the computer. When you clean any single part or component for the computer, please read and understand the details below fully.

1. Never spray or squirt the liquids directly onto any computer component. If you need to clean the device, please rub it with a piece of dry cloth.
2. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
3. Turn the system off before you start to clean up the component or computer.
4. Never drop the components inside the computer or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarette around the computer.

A.2 Cleaning tools

Although many companies have created products to help improve the process of cleaning your computer and peripherals users can also use household items to clean their computers and peripherals. Below is a listing of items you may need or want to use while cleaning your computer or computer peripherals.

Keep in mind that some components in your computer may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning tips.

- **Cloth** - A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- **Water or rubbing alcohol** – You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the computer. Unknown solvents may be harmful to the plastics parts.
- **Vacuum cleaner** - Absorb the dust, dirt, hair, cigarette particles, and other particles out of a computer can be one of the best methods of cleaning a computer. Over time these items can restrict the airflow in a computer and cause circuitry to corrode.

- **Cotton swabs** - Cotton swabs moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- **Foam swabs** - Whenever possible it is better to use lint free swabs such as foam swabs.

Note:

We strongly recommended that you should shut down the system before you start to clean any single components.

Please follow the steps below.

1. Close all application programs
2. Close operating software
3. Turn off power switch
4. Remove all device
5. Pull out power cable

A.3 Scrap Computer Recycling

If the computer equipments need the maintenance or are beyond repair, we strongly recommended that you should inform us as soon as possible for the suitable solution. For the computers that are no longer useful or work well, please contact with worldwide distributors for recycling.

The worldwide distributors show on the following website:

<http://www.onyx-healthcare.com/Contact.php>

Note:

Follow the national requirements to dispose unit