

# ONYX-BE381

18.5" Bedside Infotainment Touch Monitor  
18.5" Wide Color TFT LCD

ONYX-BE381 Manual 1st Edition  
Feb. 2014

## Copyright Notice

This document is copyrighted, 2014. All rights are reserved. The original manufacturer reserves the right to make improvements to the products described in this manual at any time without notice.

No part of this manual may be reproduced, copied, translated, or transmitted in any form or by any means without the prior written permission of the original manufacturer. Information provided in this manual is intended to be accurate and reliable. However, the original manufacturer assumes no responsibility for its use, nor for any infringements upon the rights of third parties, which may result from its use.

The material in this document is for product information only and is subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, ONYX Healthcare Inc., assumes no liabilities resulting from errors or omissions in this document, or from the use of the information contained herein

ONYX Healthcare Inc. reserves the right to make changes in the product design without notice to its users

## Acknowledgments

---

- IBM, PC/AT, PS/2 are trademarks of International Business Machines Corporation.
- Microsoft® Windows is a registered trademark of Microsoft® Corporation.
- RTL is a trademark of Realtek Semi-Conductor Co., Ltd.
- C&T is a trademark of Chips and Technologies, Inc.
- UMC is a trademark of United Microelectronics Corporation.
- ITE is a trademark of Integrated Technology Express, Inc.
- SiS is a trademark of Silicon Integrated Systems Corp.
- VIA is a trademark of VIA Technology, Inc.

All other product names or trademarks are properties of their respective owners.

## Packing List

---

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

- BE381 Healthcare Infotainment.
- Utility CD-ROM (Please insert the ONYX-BE381 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.

### Headquarters

Onyx Healthcare Inc.

2F., No.135, Ln. 235, Baoqiao Rd., Xindian Dist.,

New Taipei City 231, Taiwan (R.O.C.)

TEL: +886-2-8919-2188

FAX: +886-2-8919-1699

E-mail: [sales@onyx-healthcare.com](mailto:sales@onyx-healthcare.com)

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

Worldwide Offices:

Onyx Healthcare, USA Inc.  
2693 Saturn Street, Brea, CA 92821, USA  
Tel: +1-714-792-0774  
Fax +1-714-792-0481  
Email: [usasales@onyx-healthcare.com](mailto:usasales@onyx-healthcare.com)

Onyx Healthcare EUROPE B.V.  
Ekkersrijt 4002, 5692 DA Son, The Netherlands  
Tel : +31-(0)499-462020  
Fax: +31-(0)499-462010  
Email: [eusales@onyx-healthcare.com](mailto:eusales@onyx-healthcare.com)

Onyx Healthcare Technology GmbH  
An der Trift 65d  
63303 Dreieich, Germany  
TEL: +49-(0)61033-7479-00  
Fax: +49-(0)61033-7479-49  
Email: [eusales@onyx-healthcare.com](mailto:eusales@onyx-healthcare.com)

Onyx Healthcare (SU ZHOU) INC.

Room 12, 2F, Building B, No.5 Xing Han Street, Suzhou Industrial Park, Jiang Su Province, China

Tel: +86-512-67625700

Fax: +86-512-67617337

Email: [cnsales@onyx-healthcare.com](mailto:cnsales@onyx-healthcare.com)

Onyx Healthcare Singapore PTE LTD

57 Genting Lane, #07-00, Singapore 349564

Tel: +65-67498749

Fax +65-67461595

Email: [sgsales@onyx-healthcare.com](mailto:sgsales@onyx-healthcare.com)

## 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.
  - a. Put this equipment on a reliable surface during installation.  
Dropping it or letting it fall could cause damage.
6. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
7. **Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.**
8. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
9. All cautions and warnings on the equipment should be noted.
10. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
11. Never pour any liquid into an opening. This could cause fire or electrical shock.
12. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

13. If any of the following situations arise, 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.
14. **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.**
15. **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, Safety requirements for medical electrical systems. Equipment not complying with UL 60601-1 shall be kept outside the patient environment, as defined in the standard.**
16. Unplug the power cord from the power adapter jack to disconnect the device.



17. **WARNING: To avoid the risk of electric shock, the equipment must only be connected to supply mains with protective earth.**
18. **“WARNING: No modification of this equipment is allowed.”**

*Caution:*

*It may cause the danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacturer.*

## 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
5. Class I: Applied part, No AP / APG

## FCC

---


*Warning!*



This device complies with Part 18 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

---

 The logo consists of a central circle containing the letters 'UL'. Above the circle, the word 'CLASSIFIED' is written in a semi-circle. To the left of the circle is the letter 'C' and to the right is 'US'.	<p><i>BE381 AC modules are developed to suitable for the Classification Mark requirement</i></p>
---	--

## 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 ANSI/AAMI ES 60601-1, and CSA C22.2 NO 60601-1-08-CAN/CSA</i></p>
	<p><i>Touch Panel and Plastic Enclosure treat as Type B applied part.</i></p>

## Contents

### Chapter 1 General Information

1.1 Introduction.....	1-2
1.2 Feature .....	1-3
1.3 Specification .....	1-4
1.4 Dimension .....	1-10

### Chapter 2 Hardware Installation

2.1 Safety Precautions .....	2-2
2.2 A Quick Tour of the BE381 .....	2-3
2.3 Mounting Installing .....	2-5
2.4 Front button functions.....	2-6

### Chapter 3 Driver Installation

3.1 Driver Installation. ....	3-1
-------------------------------	-----

### Appendix A Miscellanea

A.1 General Cleaning Tips.....	B-2
A.2 Cleaning Tools .....	B-3
A.3 Scrap Monitor Recycling .....	B-5

Chapter

1

# General Information

## 1.1 Introduction

---

***—A bedside monitor solution for ultimate patient services that boosts patient satisfaction and well-beings.***

ONYX-BE381 offers a highly scalable bedside infotainment solution to enhance patient experiences within the hospital. Packaged with renowned software solution partners, ONYX-BE381 bedside monitors provide patients with capabilities like Health Record Viewing, Online Access, VoIP Phone, Nurse Notification, etc.

### **Clinical Applications**

- Ward, Nursing Station/Cart

### **Service Capabilities – BE381**

- **Hospital Information Access –**
  - Patient Record Access
  - Treatment Progress Reporting (i.e. Medical Charting)
  - Dietary/Meal Ordering Service
- **Monitoring/Communication –**
  - Doctor Consultation by Video Conference
  - Internet Access
  - VoIP Telephone Access
- **Health Record Viewing**
  - Video-on-Demand



- TV/Radio Broadcasting

## 1.2 Feature

---

- High definition video quality with HDMI input
- 18.5 wide color TFT LCD touch monitor light weight
- PCT touch for supporting multi-touch
- USB interface to host computer
- Light Weight at 3.2kg
- Wire remote control w/ handset function
- VOIP phone, web camera, high quality speakers
- Smart Card Reader, MSR, RFID, barcode scanner
- Reading Light
- EN60601-1 / UL 60601-1

### 1.3 Specification

Model Number	
ONYX-BE381	
Model Description	
18.5" Bedside Infotainment Touch monitor	
Main Specification	
<b>Size</b>	18.5" (16:9) Color TFT LCD
<b>Resolution</b>	1366 x 768
<b>Max. Colors</b>	16.7M
<b>Luminance</b>	300 nits
<b>View Angle</b>	170(H)/160(U)
<b>Contrast Ratio</b>	1000:1
<b>MTBF</b>	30,000 Hours
<b>Touch Screen</b>	Projected Capacitive Touch / 5-Wire Resistive Touch
<b>Optional Items</b>	<ul style="list-style-type: none"> <li>1 x MSR (USB Interface)</li> <li>1 x Wire Handset / Remote Control (USB Interface)</li> <li>1 x Barcode Reader (USB Interface, built-in w/ remote control)</li> <li>1 x RFID (USB Interface shared with Smart Card Reader)</li> <li>1 x Webcam</li> <li>1 x Smart Card Reader</li> </ul>

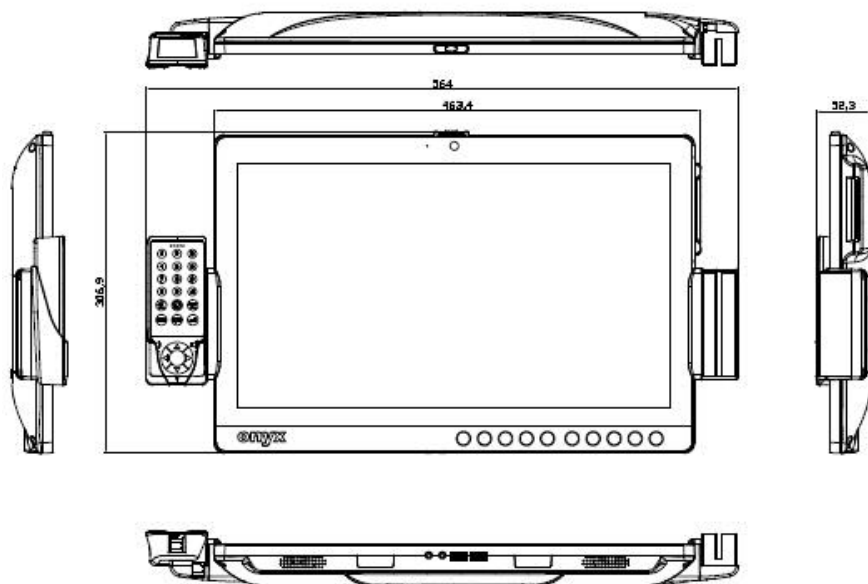
<b>I/O</b>	
<b>Front USB</b>	2 x External USB2.0 on bottom I/O
<b>Rear USB</b>	2 x Rear USB2.0 for connecting Host computer
<b>Video in</b>	HDMI / VGA x 1
<b>Front Audio</b>	Speaker out x 1 and Microphone-in x1
<b>Rear Audio</b>	Audio-in x 1 and Microphone-in x1
<b>Speaker</b>	2 x 2W High Quality Speakers
<b>LCD Specification</b>	
<b>Note:</b>	
<p>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.</p>	
<b>Touch Screen</b>	
<b>Type</b>	5 Wire Resistive
<b>Resolution</b>	2048 x 2048
<b>Light Transmission</b>	> 80%
<b>Lifetime</b>	35 million activities
<b>Mechanical Specifications</b>	
<b>Model</b>	BE381 Series
<b>Architecture</b>	Close-Frame Design
<b>Front Bezel</b>	Complete flat for easy cleaning

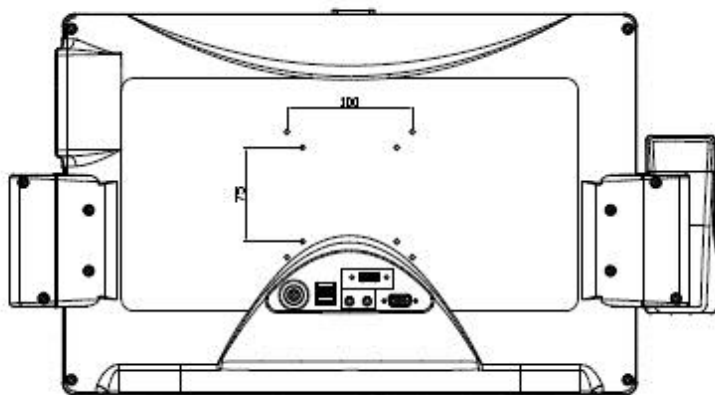
<b>Color</b>	White/Gray
<b>Mounting / Holder</b>	VESA 75/100mm, Desk Top, Wall Mount, Ceiling Mount
<b>Construction</b>	3mm ABS + PC Plastic Housing
<b>Dimension (WxHxD)</b>	564 x 306.9 x 62.3 (mm)
<b>Net Weight</b>	3.5kg
<b>Gross Weight</b>	6.4 kg
<b>Packing Filler</b>	PE foam
<b>Buttons</b>	On front bezel
<b>Infection control design</b>	Anti-microbial design (Optional)
<b>Handset</b>	Left side of Bedside Monitor
<b>Web Camera</b>	Top Center Position on the Bedside Monitor w/ IPX1 Water-Proof Shielding Cover
<b>MSR</b>	Mounted on the right side of the unit while facing the front bezel
<b>RFID Reader</b>	Top Right Corner of Beside Monitor Same location of Smart Card Reader
<b>Smart Card Reader</b>	Top Right Corner of Beside Monitor Same location of RFID Reader
<b>Power Supply Requirement</b>	
<b>Model No.</b>	HITRON.HEMG50-S120420-7
<b>Input Voltage</b>	100 ~ 240 V, 50/60 Hz, 1.2~0.63A

<b>Output Voltages</b>	4.24A/12V. Max: 50W
<b>Operating Temperature</b>	0°C ~ 40°C (32°F ~ 104°F)
<b>Storage Temperature</b>	-20°C ~ 60°C (-4°F ~140°F)
<b>Pressure</b>	850~1000hPa(Operating) / 700~1060hPa(Transport / Storage)
<b>Storage Humidity</b>	5% ~ 95% @ 40°C, Non-Condensing
<b>Vibration</b>	Random Operation 0.5G, 5~500Hz
<b>Shock</b>	15G Peak Acceleration (11ms. Duration)
<b>Drop</b>	76cm (1 Corner, 3 Edge, 6 Surface)
<b>Noise</b>	Fanless
<b>EMC</b>	CE/FCC Class B, UL 60601-1, EN60601-1
<b>Infection Control</b>	Anti-microbial bezel material

## 1.4 Dimension

### Bedside Monitor BE381





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!

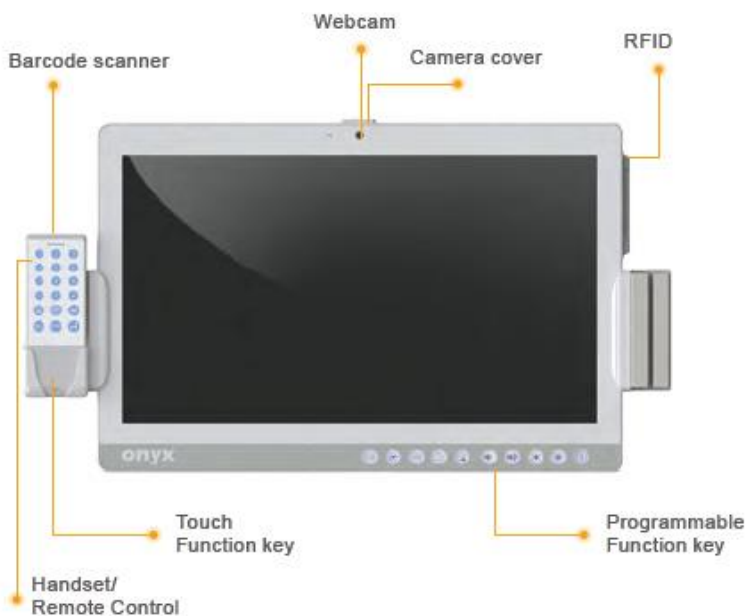


- *Always ground yourself to remove any static charge before touching the board.*
- *Modern electronic devices are very sensitive to static electric charges; please remember to use a grounding wrist strap at all times.*
- *Place all electronic components on a static-dissipative surface or in a static-shielded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

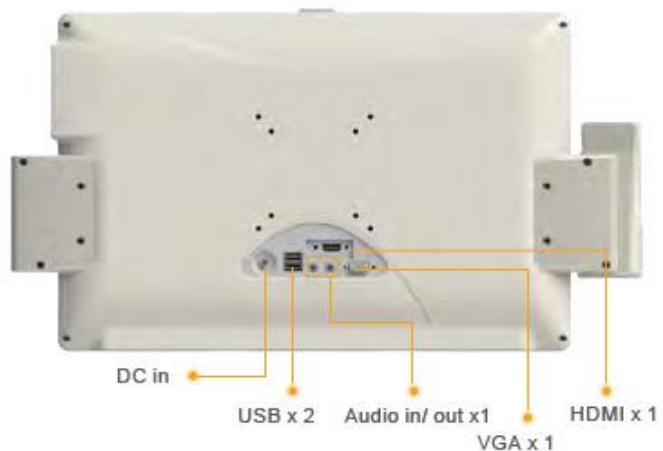
## 2.2 A Quick Tour of the ONYX-BE381

Before you start to set up the ONYX-BE381, please take a moment to familiarize yourself with the locations and purposes of the controls, drives, connections and ports. The following figures illustrate the fully loaded bedside monitor with all applicable options.

*Picture 2.1: ONYX-BE381 Bedside Monitor Front Panel View*



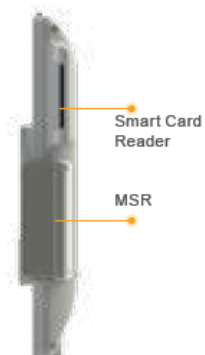
*Picture 2.2: Bedside Monitor Rear View*



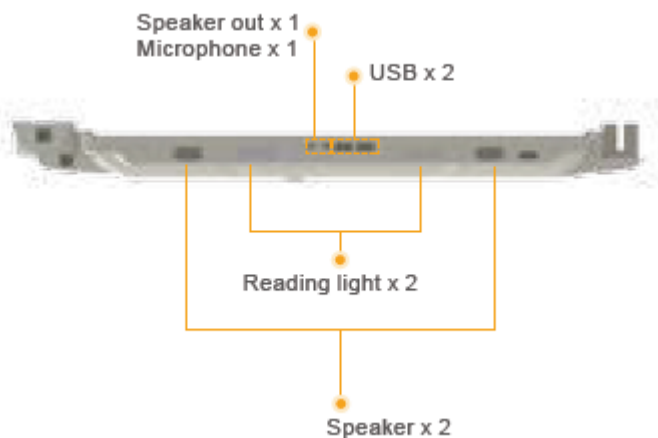
*Picture 2.x: Bedside Monitor Side View*

Remark:

Please do connect both rear USB connectors to your box PC for triggering all features of BE381.



**Picture 2.x:** *Bedside Monitor Bottom View*



Remark:

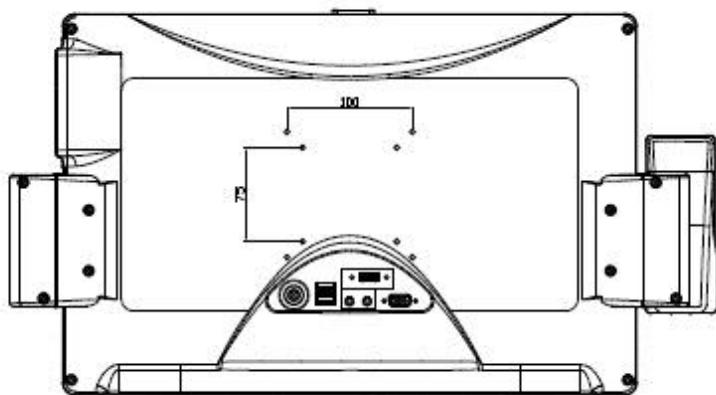
In addition, ONYX-BE381 offers a Magnetic Stripe Reader (MSR)

option upon request. Magnetic Stripe Reader is highly suggested be installed in Onyx side. Please refer to the following figure for installation location on the ONYX-BE381 Bedside Monitor.

## 2.3 Mounting Installing

---

Onyx-BE381 is suitable for VESA75/100mm interface pads for desktop stand.



*Attention: When operating the Medical PC, please allow 15cm clearance area for optimal heat dissipation.*

## 2.4 Front Button Functions

















	Button		User Mode	Menu Mode Press both “Mode” and “Volume Down” at 1 second for entering menu mode
1		Power	Turn on/off monitor	
2		Brightness Up	Brightness increase	Enter
3		Brightness Down	Brightness decrease	ESC
4		Volume Up	Volume increase	Go up
5		Volume Down	Volume decrease	Go down
6		Touch On/Off	Turn on/off touch	
7		Reading Light On/Off	Turn on/off reading light	
8		Mode	Switch input signal	





Remark: “Menu” mode is reserving for IT members for adjusting engineering setting as color temperature, which is not recommended to release to end user.



**2.5 Remote Control Functions**

	Key Mapping (key on keyboard)	Default	Remark
①	"1"		
②	"2"		
③	"3"		
④	"4"		
⑤	"5"		
⑥	"6"		
⑦	"7"		

	"8"		
	"9"		
	"0"		
	"shift" + "8"		
	"shift" + "3"		
	"Alt + Page Up" "Ctrl + R"		Same as Skype
	"Alt + Page Down"		Same as Skype
	"Enter"		
	"ESC"		
	"F15"		
		1. Press  1 second 2. Press  3 seconds 3. Press  to trigger barcode	Turn off automatically if no press after 20 seconds
	"Up"		
	"Down"		

	"Left"		
	"Right"		
		Volume up	
		Volume down	

Chapter

3

## Driver Installation

---

There are several installation ways depending on the driver package under different Operating Systems.

***Please follow the sequence below to install the drivers:***

BE381

Install Smart Card Reader and RFID Driver

- OK5121 for RFID

Install Magnetic Swipe Card (MSR) Driver

Install Resistive Touch Driver

- PenMount for Resistive T/S

Remote Control and Handset

Install Barcode Driver

Install USB Audio Driver

appendix

A

## Miscellaneous

## A.1 General Cleaning Tips

---

Please refer to the following precautions and fully understand the warning details prior to cleaning the device.

1. Never spray or squirt the liquids directly onto any monitor 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 monitor.
4. Never drop the components inside the monitor or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals that are used to clean the unit. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarettes around the monitor.
7. Please remember to clean up the monitor by weekly.
8. ONYX Healthcare Inc. has tested and verified these cleaning disinfectants, CIDEX, Viraguard, Control III Disinfectant Germicide, Caviwipes, Dispatch Disinfectant Cleaner CLH69101, Puregreen 24 Disinfectant, as safe to be used with the BE181. Use of any other disinfectants will void the warranty.

## A.2 Cleaning Tools

---

Although many companies have created products to help improve the process of cleaning your monitor and peripherals users can also use household items for cleaning purposes. Below is a list of items you may need or want to use while cleaning your monitor or monitor peripherals.

Keep in mind that some components in your monitor 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, using a piece of cloth is still recommend.
- **Water or rubbing alcohol** – You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the monitor. Unknown solvents may be harmful to the plastics parts.
- **Vacuum cleaner** – Using a force to remove the dust, dirt, hair and other particles from a monitor can be one of the best methods of cleaning. Over time, these items can restrict the airflow in a monitor 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:**

- 1. We strongly recommended that you should shut down the system before you start to clean any components.*
- 2. It is recommended that the monitor is cleaned daily.*

**Please follow the steps below before cleaning the device.**

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 Monitor Recycling

---

If any monitor equipments needs maintenance or is beyond repair, we strongly recommended that we are informed as soon as possible, enabling us to find a suitable solution. For monitors that are no longer useful, please contact worldwide distributors for recycling.

The worldwide distributors are shown on the following website:

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

**Note:**

Please follow the national requirement for unit disposal.