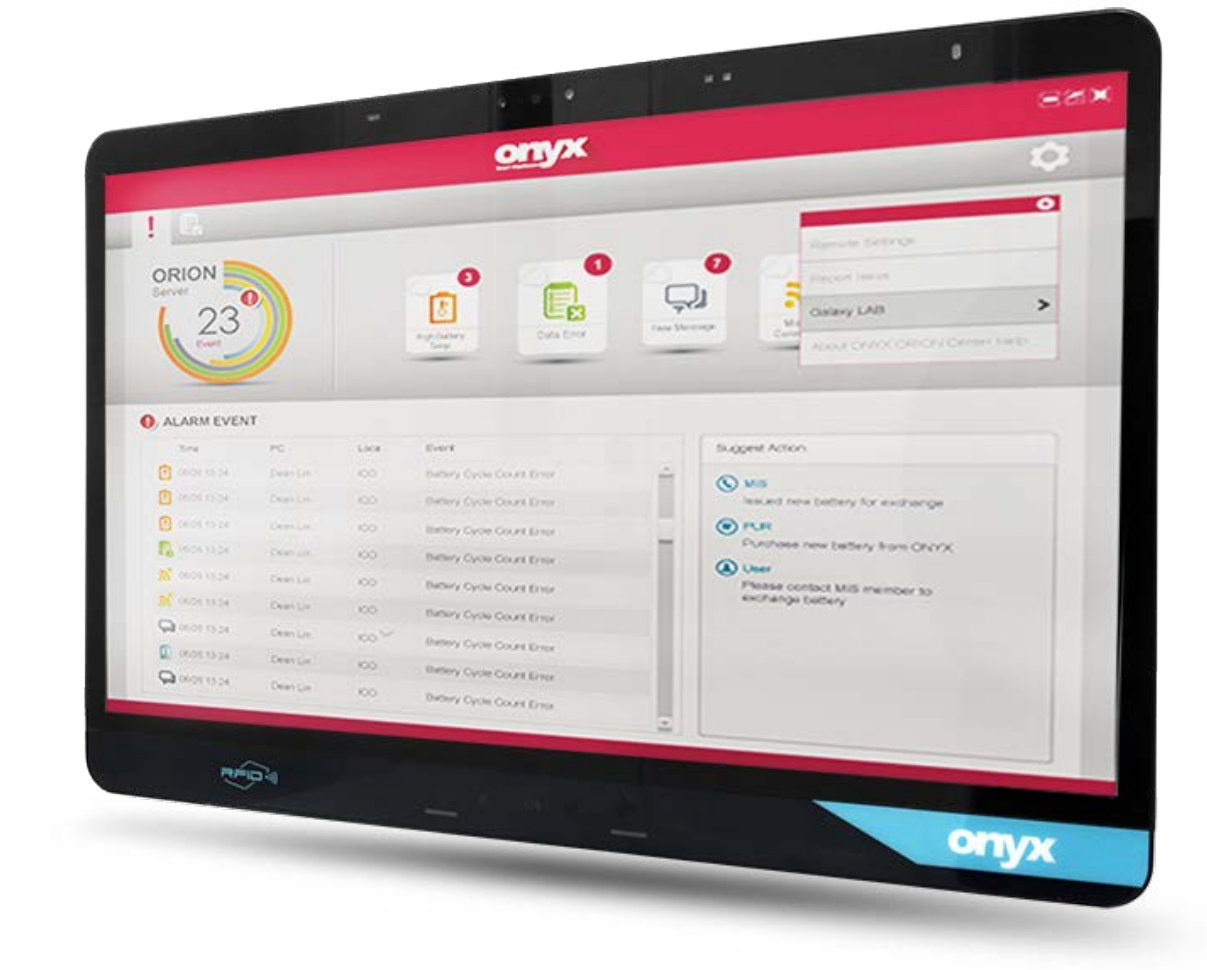
Onyx Venus-224/244



User guide

PARITYMEDICAL

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Thank you for choosing to buy a Parity Medical solution!

This solution is intended to be used in conjunction with a Workstation on Wheels (WOW) or mounted solution, bringing clinical information access to the point of care. It was designed for use by medical practitioners and relevant administrative support staff; it should not be used by patients or anyone who has a health condition or disability which would impede their ability to manoeuvre or operate it safely.

This user guide is for users of the solution and instructs how to safely operate it, explaining the basic functions, adjustments, troubleshooting and maintenance procedures to be performed by the user. Various parts of the solution are discussed by means of text, illustrations, photographs and standard terms.

Parity Medical is dedicated to ensuring the safety, comfort and convenience of the users as well as the patients under their care. All users should familiarise themselves with the contents of this user guide before operating the solution and store this document in a location where it can be referred to whenever necessary.

From time to time, we may need to make updates to this user guide. The latest version of this document is always accessible at **https://www.paritymedical.com/u/all-in-one-pc.html**.

Symbols

Regulatory agencies for health products require the use of symbols, often in place of textual statements, to improve the conspicuousness of required information, such as important safety information.

The symbols used in this guide and on the cart are described below. Be sure to observe the instructions indicated by each symbol to ensure the safe use of your Parity Medical solution.

Symbol	Description
	Indicates instructions to prevent a potentially hazardous situation that may result in injury or equipment damage.
	A reminder that the user should read the user guide before starting work or operating the equipment.

Contents

Overview of key features

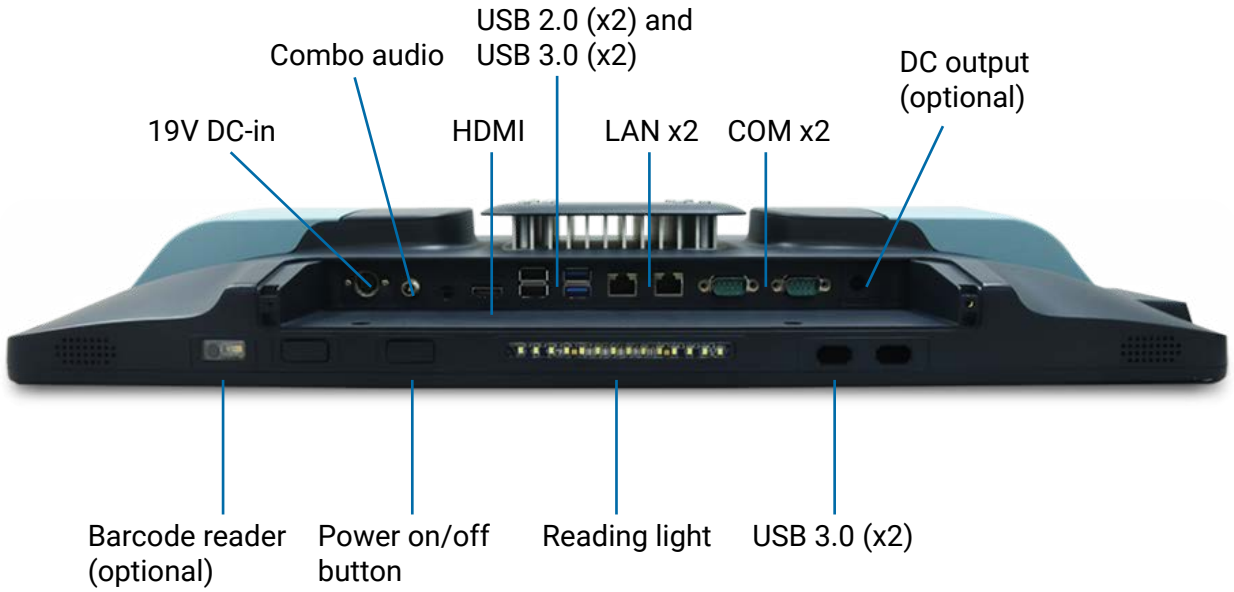
- The Onyx Venus is a medical-grade all-in-one PC, which is often sold together with a workstation on wheels (WOW) or mounting solution.
- Available in 22” or 24” screen sizes.
- Supports Windows 11.
- Certified to EN 60601-1 standards.
- Offers extremely high reliability and a UK repair centre (at Parity Medical’s office on the Wirral).
- Offers a smart card reader to support high speed data transfer and ID check by smart card reader.
- Fan-less cooling, no air vents and a smooth/seamless surface design dramatically reduce the risk of cross-infection.
- Designed to be quick and safe to clean daily with hospital cleaning agents. The front panel is IP65 rated for protection from liquids and dust.
- Dual hot-swappable lithium-ion batteries provide stable power. Batteries may be swapped out during use to support 24 hours of uninterrupted run time.
- The Infinity Smart Screensaver is easy to set up and can automatically log out and close the screen a few seconds after a user walks away from the computer, protecting sensitive information and increasing power savings.
- Comes with a free remote battery management system (“Orion”).

Buttons and controls

LED indicator: 3-colour display mode

- Blinking purple light: Battery capacity at 0%
- Solid purple light: Battery capacity less than 20%
- Solid orange light: Battery capacity between 21 – 39%
- Solid green light: Battery capacity more than 40%
- Solid blue light: Battery is charging

Input/output (I/O) ports

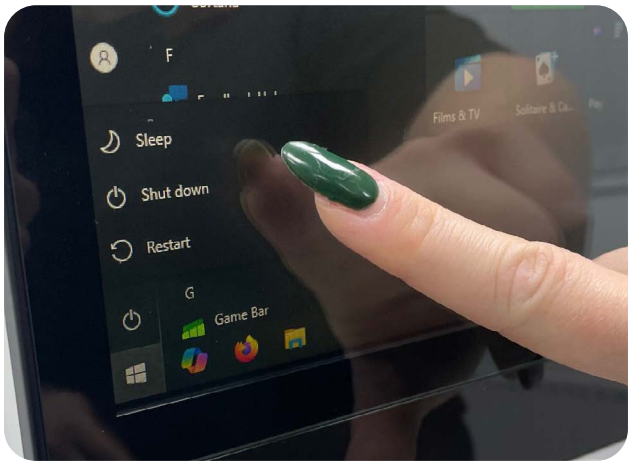


Instructions for use

Power on/off

On the far right of the PC, press and hold down the power button symbol to turn the PC on. Relese the button once it illuminates.

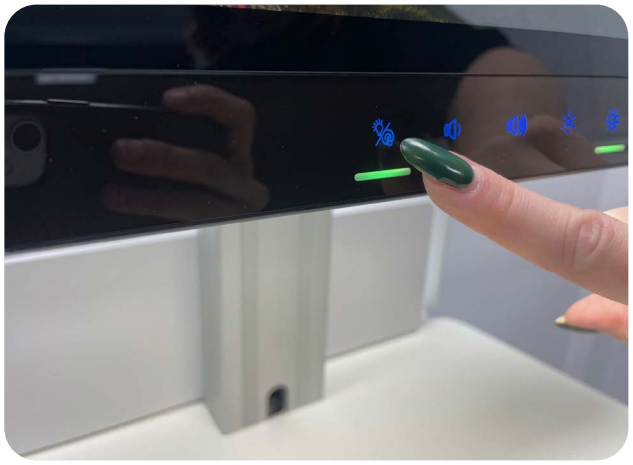
Turning off your PC is important for system reliability. To turn your PC off, it is recommended to shut down via the operating system. To do this, select “Shut down” from the Windows start menu and then select “OK”. Alternatively, you can push and hold the power button on the screen for 10 seconds and the system will shut down automatically.



Reading light / Touchscreen on/off

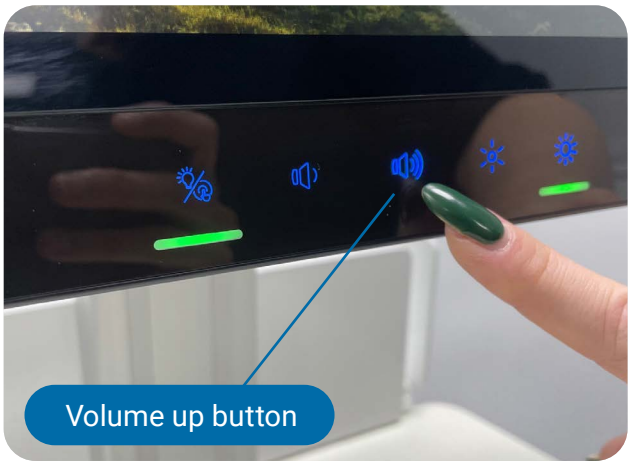
The button on the left operates two functions.

- If you press it quickly it toggles the reading light on/off.
- If you press and hold it for 3 seconds, it toggles the touchscreen capabilities of the PC on/off. A blue backlight on the icon indicates that touchscreen is currently turned on. An orange backlight on the icon indicates that it’s currently turned off.



Volume controls

Speaker volume is controlled by buttons on the front of the PC. Press the second button in the row once for volume up. Press the third button in the row for volume down.



Brightness controls

The screen brightness level is controlled by buttons on the front of the PC. Press the fourth button in the row once to increase the LCD brightness. Press the fifth button in the row to decrease the LCD brightness.

Cleaning

1. Disable the touch screen by pressing the first button below the screen and holding for three seconds. When the icon turns to an orange colour, the touchscreen capabilities have been disabled.
2. Clean the PC thoroughly using any of the approved cleaning solutions (listed on the following page). Do not spray any type of cleaning solution on the LCD panel directly— instead, spray the solution on a clean, dry cloth.
3. Wipe top to bottom to prevent streaks.
4. When you're ready to re-enable the touchscreen capabilities, press and hold the first button below the screen for three seconds. When the icon turns to a blue colour, the touchscreen capabilities have been turned on.
5. Use a separate wipe to clean the back of the PC. The approved cleaning solutions for the back (plastic) of the PC are different to the ones that are approved for the front (glass) of the PC— please be sure to review this list in advance to use acceptable cleaning agents.
6. Be sure the LCD screen is dry before using the computer.

Approved cart cleaning solutions

Using the wrong product to clean your Onyx device can damage the touchscreen or other plastic parts. Make sure any cleaning product used conforms to the following tables of acceptable use:

Touch (glass) cleaning chemicals

- ✓ Acetone
- ✓ Ammonia
- ✓ Bleach
- ✓ Ethanol
- ✓ Hydrogen
- ✓ Isopropyl alcohol
- ✓ Laundry detergents
- ✓ Methanol
- ✓ Methyl ethyl ketone
- ✓ Peroxide
- ✓ Sodium hydroxide 4%
- ✓ Toluene
- ✓ Xylene
- ✓ 5% salt water

Plastic cleaning chemicals

- ✓ Betadine microbicide; povidone-iodine solution
- ✓ Bleach sodium hypochlorite solution, 50%
- ✓ Hydrogen peroxide 3%
- ✓ Saline 10%

- ✕ Cidex Glutaraldehyde-based disinfectant
- ✕ Ethanol (ethyl alcohol)
- ✕ Methyl ethyl ketone (MEK)
- ✕ Isopropanol (isopropyl alcohol; ipa) 70%)
- ✕ Virex organic ammonium chloride-based disinfectant

Symbol legend

Exposure for 7 days:

- ✓ Acceptable
- ✕ Unacceptable

Hot swappable batteries

Battery charge status

At the rear of the PC, there are two hot swappable batteries on either side of the unit. To check the battery charge status, open the blue cover to reveal the battery location. Press the 'PUSH' button on the side of the battery and a light will indicate the amount of charge remaining.

Swapping the batteries

To change the batteries, open the blue cover to reveal the battery location. Grasp the battery firmly and pull it out of the slot (this may be safely done while the Onyx is turned on and in use). Then, insert a replacement battery in its place and re-close the blue cover.

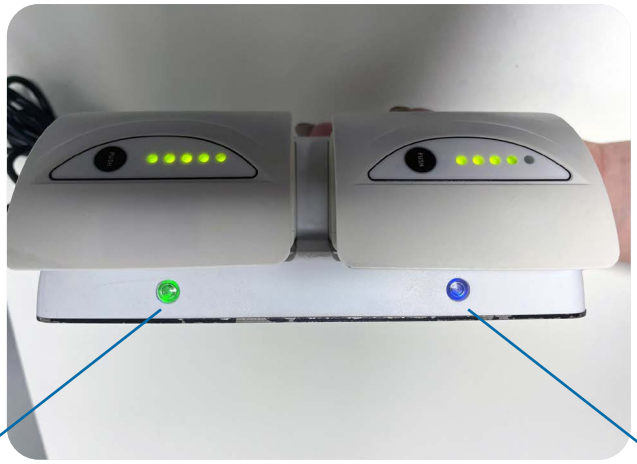
If needed, replace the second battery in the same way.

Charging the batteries

Batteries can be charged in the PC when the cart is plugged in at the wall or separate charging docks are available.

To charge batteries in the charging dock, simply plug the charging dock into an AC power supply and insert the battery into an empty slot. Once the battery is charged, the charge indicator light on the dock will change from blue to green.

Batteries recharge in around 90 minutes.



Green charger light indicates battery fully charged.

Blue charger light indicates battery not fully charged.

Warranty and specifications

Warranty information

The Onyx Venus comes with a 3-year warranty as standard. Performing any repairs or modifications which are not listed in this user guide will invalidate the warranty.

Main specifications

Processor	Intel® 11 gen. Tiger Lake i5 (1135G7) and i7 (1165G7)
System Memory	DDR4 up to 64GB PC-2666 MT/s
OS Support	Microsoft® Windows 10 and 11 (64bit) Ubuntu 20.04 LTS IGEL (thin client solution)
Graphics	Intel® Xe Graphics
Storage	m.2 SSD up to 4TB (m.2 2280) 2x2TB (m.2 SATA)
Wireless Communication	802.11 ax/ac/a/b/g/n + BT 4.0 (optional)
Touch	PCT (optional)
Speaker	3W x2
Trusted Platform Module	TPM 2.0
Security	Smart Card Reader (optional) Imprivata RFID reader (optional) Barcode reader (optional)

I/O

USB	Rear I/O : USB 3.0 x2, USB 2.0 x2 Front button I/O : USB 3.0 x2
Video Out	HDMI 1.4 x1
COM	COM port x2
Audio	Combo audio port x1
Ethernet	1.5kv isolated Gigabit LAN x2

DC-in	19V DC-in x1
DC-out (optional)	12-24V up to 65W

Battery packs

Model	GALLOPWIRE OPM-P01T-A0
Type	3S2P 6 cell Lithium-ion battery
Capacity	5800 / 5700 mAh
Output Voltage	10.8V

Model	GALLOPWIRE OPM-P02T-00
Type	3S3P 9 cell Lithium-ion battery
Capacity	8550 mAh
Output Voltage	10.95V

Model	INVENTUS POWER OPM-P03T
Type	3S4P 12 cell Lithium-ion battery
Capacity	12060 mAh
Output Voltage	10.8V

Display

Display Size	21.5”/23.8”
Resolution	FHD 1980 x 1080
Max. Colors	16.7M
Contrast Ratio	3000:1
Luminance (cd/m2)	250

Adaptor

Model	EDAC EM11011M-190
Input	100-240V AC, 2.0-1.0 A, 50-60Hz
Output	19V DC/ 6.31A

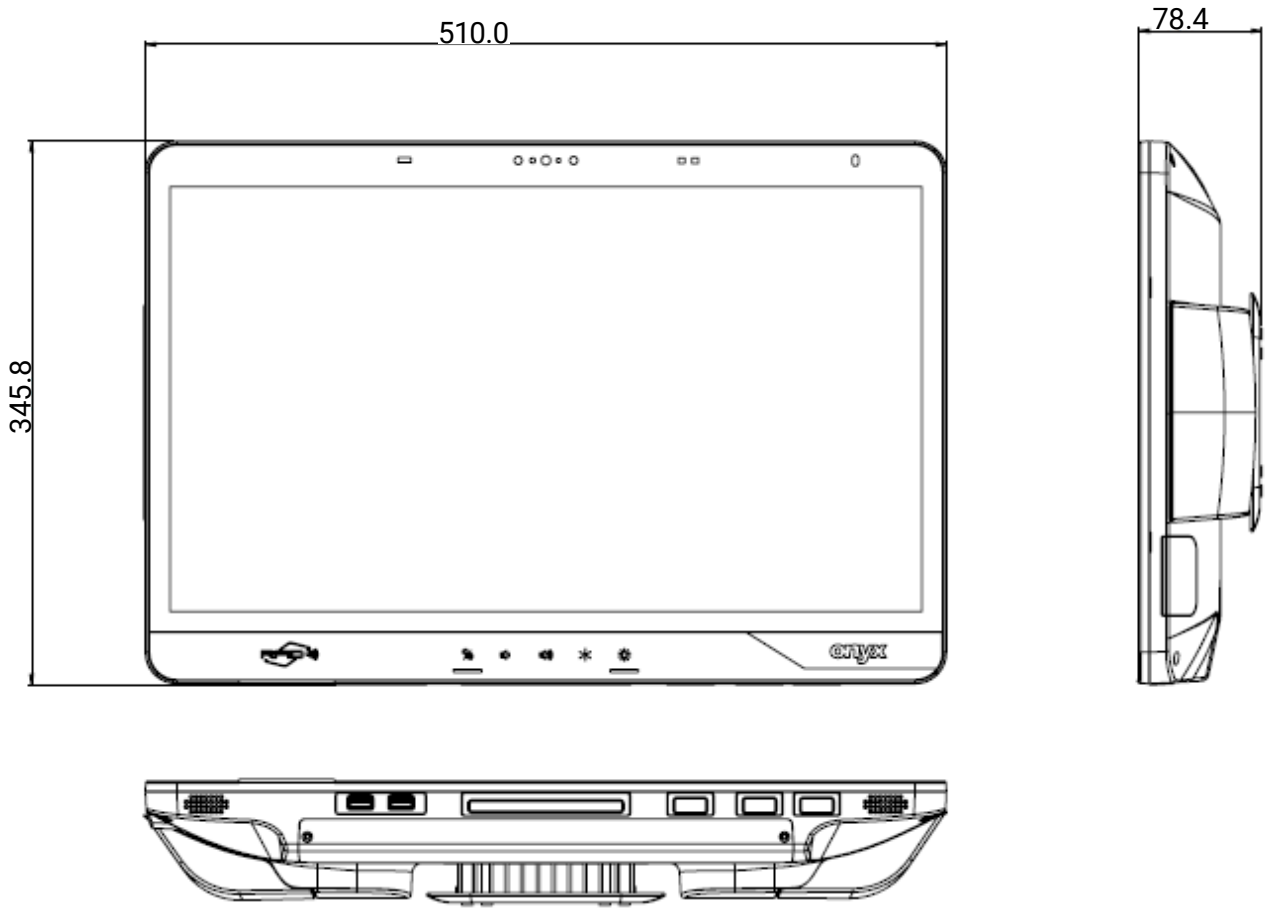
Mechanical and Environmental

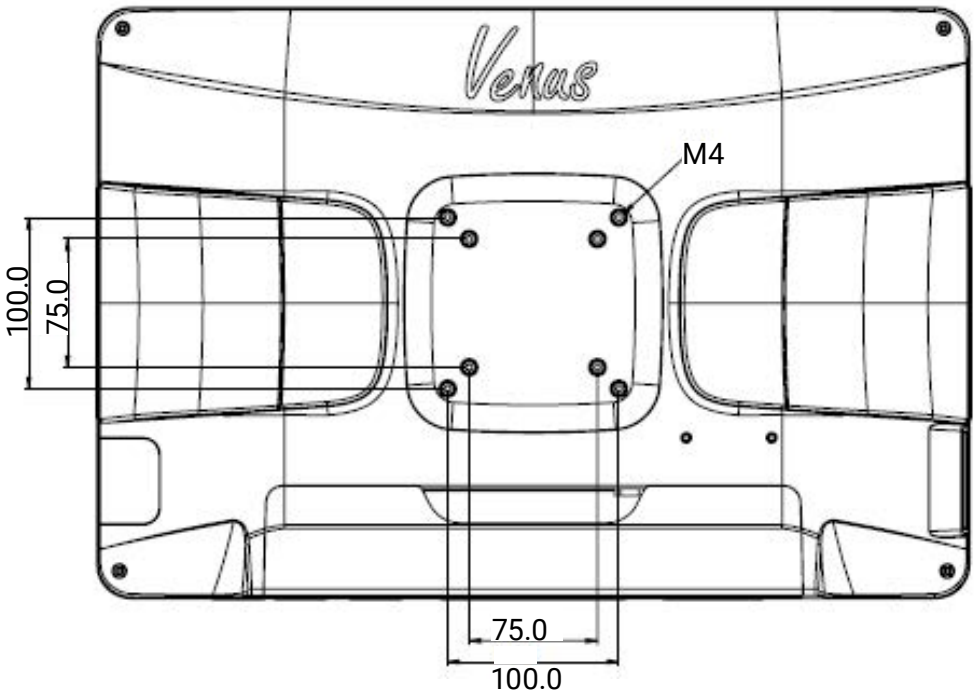
VESA	75/100 mm VESA mount	
Operating Temp.	0°C ~ 35°C(32°F ~ 95°F)	
Operating Humidity	30%~75%@35°C, non-condensing	
Operating Pressure	700 to 1060 hPa	
Storage/transport Temp.	-20°C ~ 60°C(-4°F ~ 140°F)	
Storage/transport Humidity	10%~90%@35°C, non-condensing	
Storage/transport pressure	700 to 1060 hPa	
Dimension	510(L) x 78.4(W) x 346(H)	560(L) x 78.4(W) x 373(H)
Net Weight	6kg	7kg

LCD panel technology note

All Onyx 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 colour. This is a normal occurrence for all LCD displays from all manufacturers and should not be noticeable or objectionable under normal operation. All 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.

Venus-224 dimensions



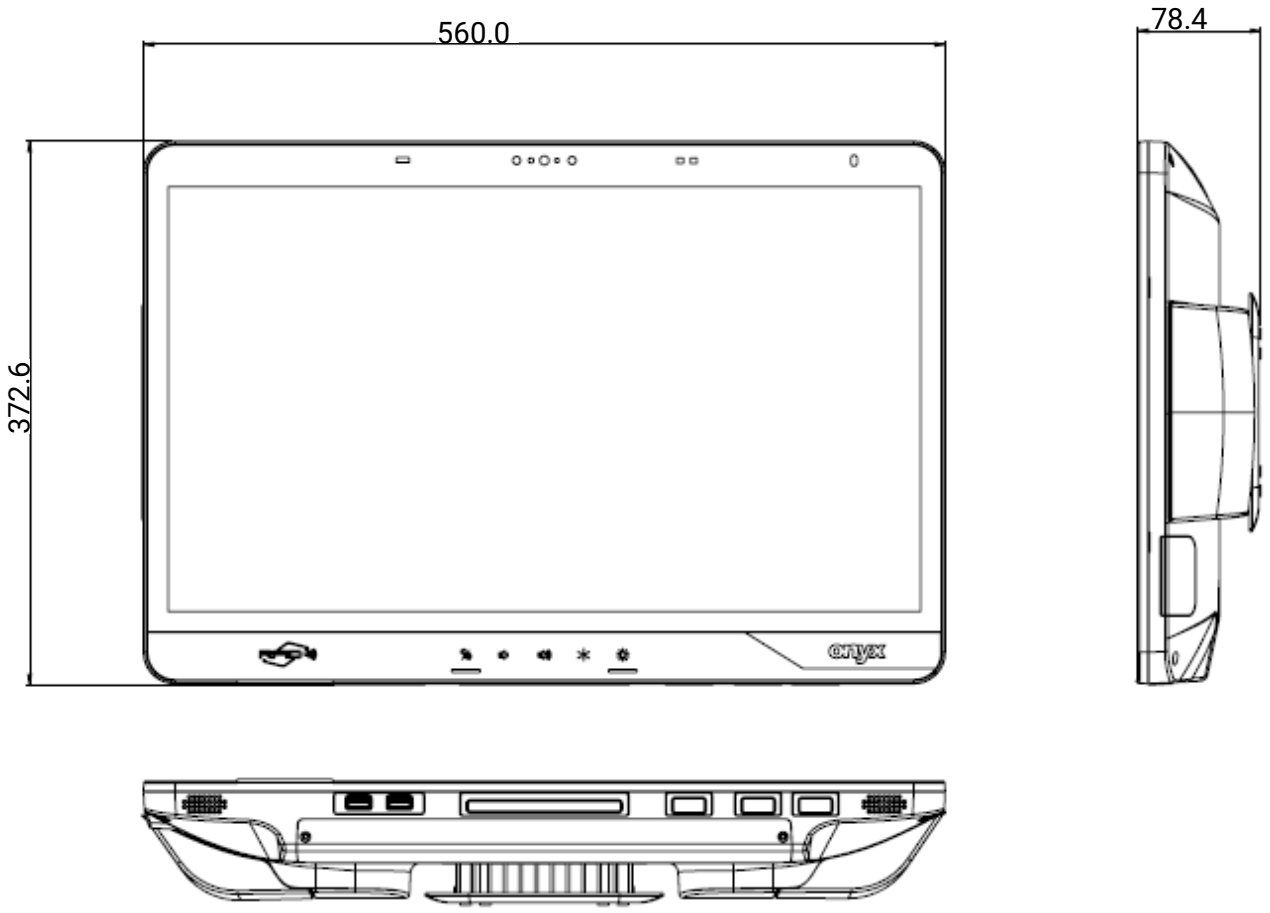


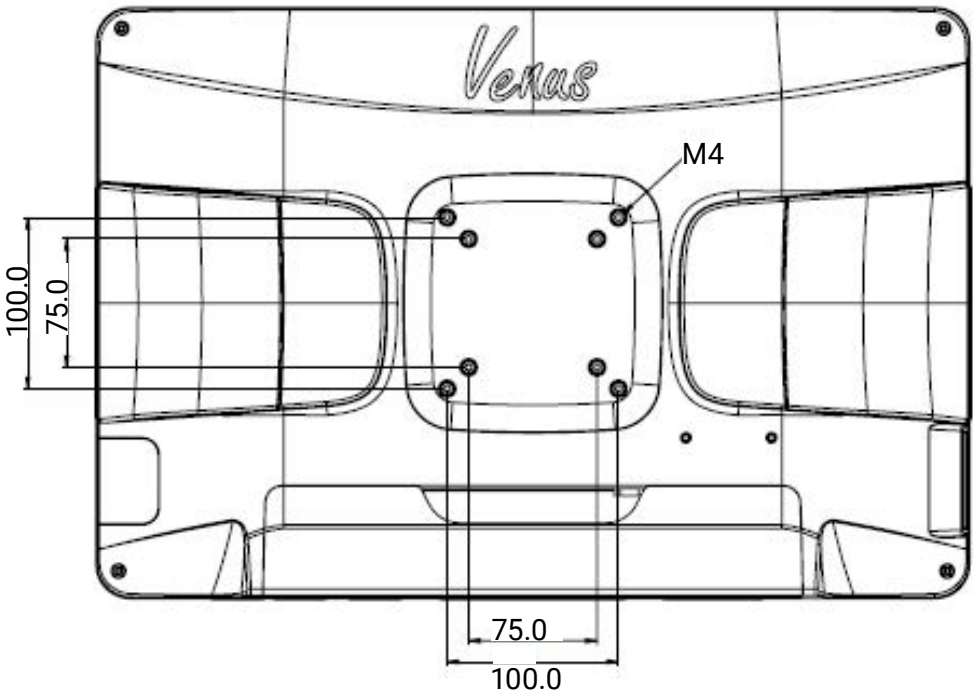
VESA mount dimension:
100 mm x 100 mm or 75 mm X 75 mm provided on rear enclosure.

4 screws provided , M4 type, 8 mm length.

The I/O side should be placed downward during installation and use.

Venus-244 dimensions





VESA mount dimension:
100 mm x 100 mm or 75 mm X 75 mm provided on rear enclosure.

4 screws provided , M4 type, 8 mm length.

The I/O side should be placed downward during installation and use.

Troubleshooting

This section is provided to help you troubleshoot issues quickly onsite. If the issue you're experiencing persists or the problem isn't covered here—or if you're unsure about anything—please contact us directly on 0151 343 0500 or raise a support ticket with our customer services team at **https://www.paritymedical.com/customer-services**.

Screen not turning on

If your Onyx Venus doesn't respond when you turn it on, check that the batteries are charged. To do this, follow the battery charge status information on page 12 of this user guide. If the batteries need to be charged, follow the charging instructions on page 13.

If this doesn't fix the issue, contact us to report the problem.

Touchscreen not working

If the monitor is not responding to touch, check that the left hand icon below the screen is not flashing orange — this indicates that the touchscreen function is currently disabled.

To turn touchscreen capabilities back on, press and hold the button for three seconds. The icon turning to a blue colour indicates that the touchscreen function has been turned back on.

Batteries not charging

It is important that you follow a regular charging routine for your hot swappable batteries. Batteries that have been depleted of charge for extended periods of time will be permanently damaged and cannot be recharged.

If the batteries have not been discharged for an extended period of time, check for signs of damage on the battery unit. If the battery is damaged, remove it immediately and discontinue use as it is unsafe to use. If in doubt, contact our customer services team to report the issue and we can arrange for an inspection or we'll send a quotation for replacement batteries.

Orion remote management system

An introduction to Orion

“Orion” is a hardware monitoring solution provided by Onyx Healthcare, which allows system administrators to monitor the status of every Venus in their estate in real-time. It offers the ability for IT departments to manage their estate of batteries easily and also offers the ability to speed up the diagnosis of technical issues. It is included free of charge when you purchase an Onyx Venus.

Key features of Orion

1. Provides real-time monitoring of key system metrics, such as:
    - Battery health, capacity, cycle count, voltage and current draw
    - Connected network, network utilisation, Wi-Fi strength and IP address
    - Hardware statistics such as SSD wear level, current BIOS and EC firmware versions, SDK versions and current software versions.

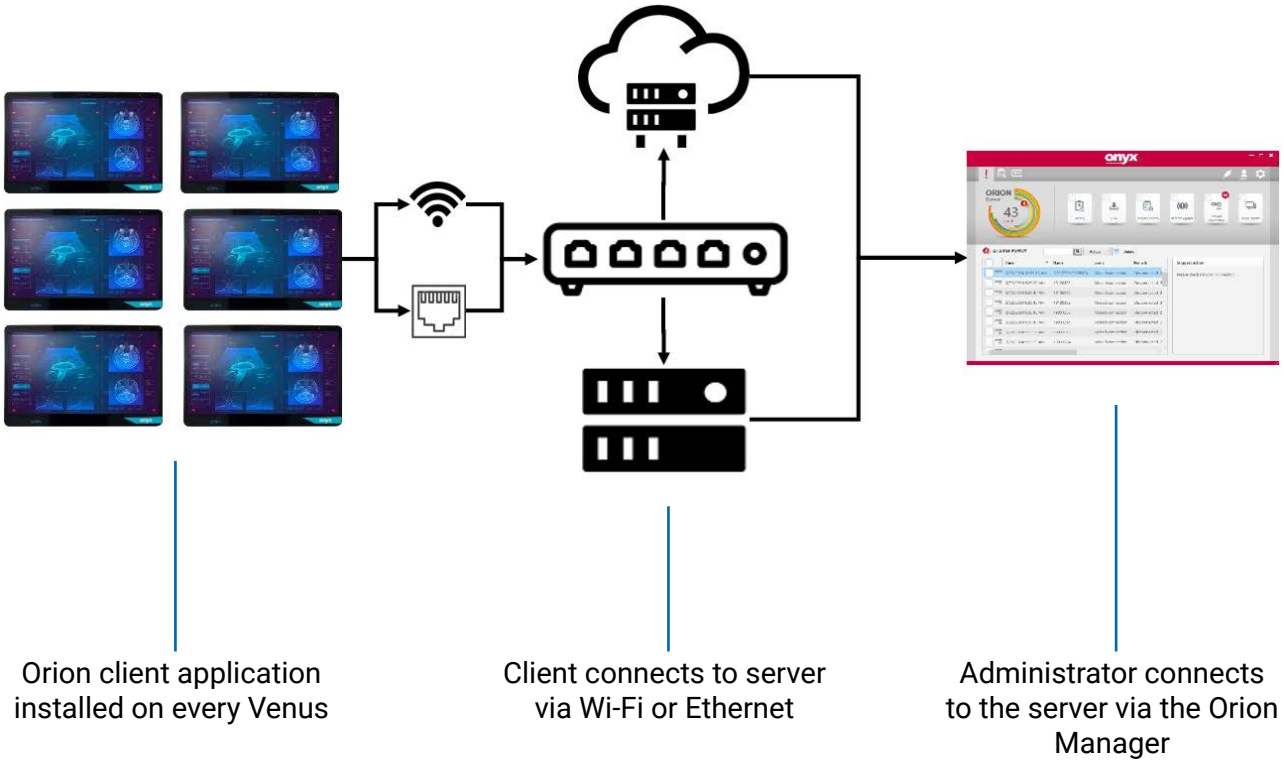
2. Enables remote management of system settings and functions, such as:
    - Display brightness
    - Battery alert levels
    - Reading light toggle
    - Audio toggle

3. Sends direct messages to specific Venus PCs, allowing IT technicians to speak directly to logged-in users to provide remote assistance.

Deploying Orion

Orion can be deployed in many ways, depending on how how your infrastructure is configured. A typical deployment consists of a central server which is hosted by the customer (ie, the NHS Trust) on their own internal network. All client PCs then connect to this server and can be remotely managed from one central location.

Typical Orion deployment topology



The Orion software suite

Orion Client

The Orion software suite consists of three separate applications:

1. The Orion client — a small footprint application which runs in the background on each and every Venus on a customers estate.
2. This connects to the Orion server and sends device information over the network connection.
3. It can display to the currently logged in user all the same information as can be viewed on the Orion Manager, this can help with support calls when a technician is in contact with an end user.

The Orion client application

More detailed system information is available via the settings menu. This gives access to the following hardware controls:

- Toggling the reading light
- Toggling the touchscreen
- Toggling the speaker
- Setting the display brightness
- Setting custom battery alert behaviours

Orion Server

The server application is the application which is installed to a dedicated or virtual server. It can be hosted locally at the hospital or it can be cloud based using a cloud provider such as Microsoft Azure or Amazon Web Services.

The Orion software suite contains the database which stores all the data sent to it from each client which connects to the server.

The server application itself is very basic but gives a system administrator the following information:

- Server status
- Server IP and Port
- Currently connected clients
- Ability to stop or start the server
- Database location (allows for migration and backup)

Orion Manager

The Orion Manager is the primary way which you interact with the Orion software suite. It acts as a portal to the server and provides a comprehensive set of tools to view and manage all the data collected by the server. Individual clients can be grouped together in order to better organise and manage systems across large estates.

Reports can be exported for further analysis to determine trends and usage patterns.

The manager is broken down into three distinct sections:

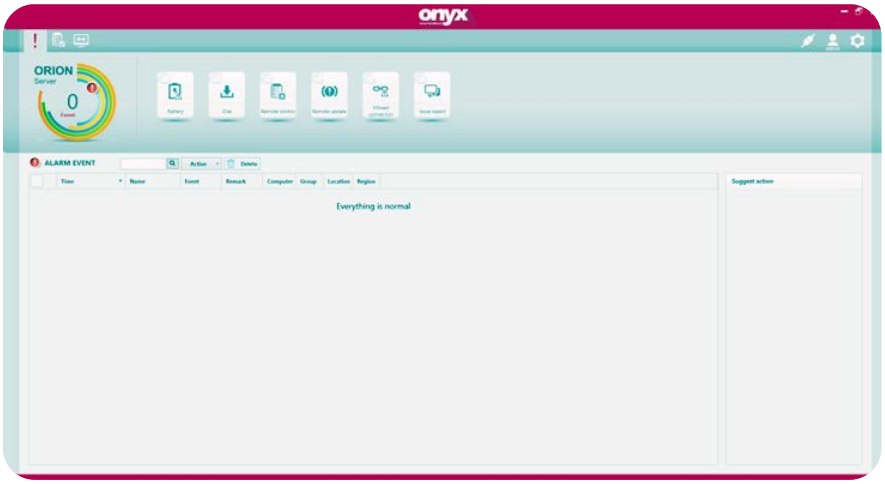
1. The dashboard
2. The device information screen
3. The remote management screen

These sections are explained in more detail in the following pages.

1. The dashboard

The dashboard gives an administrator important information about alerts from clients, based on specific criteria at a glance.

Alerts are based on battery status, disk status, remote control commands, remote update alerts, missing connections or flagged issues.



2. The device information screen

The device information screen is the main section for analysing device data of which a considerable amount of data is collected by the server, this includes:

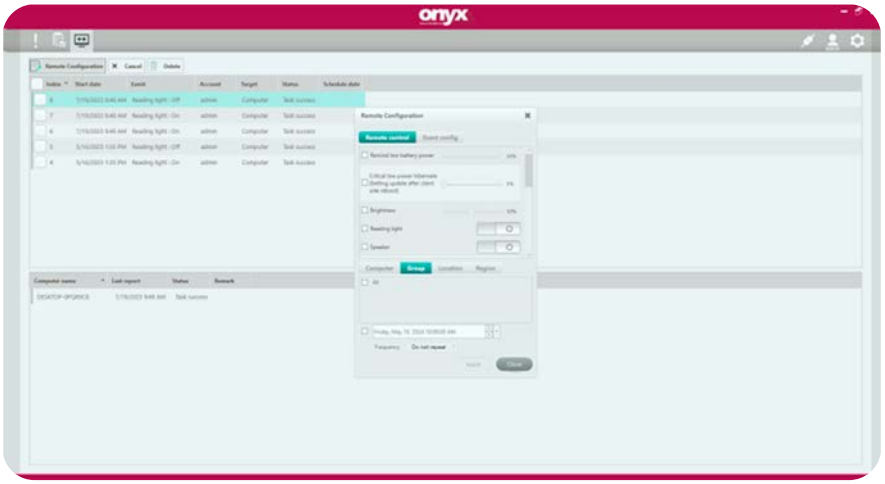
Computer information: Device name, assigned groups, power status, overall battery capacity, remaining runtime, charge/discharge current, logged in user, CPU utilisation, Wi-Fi SSID, Wi-Fi Signal strength, IP address, network utilisation, disk utilisation, SSD wear level, device serial number, device uptime, BIOS and EC firmware version and Orion SDK version.

Battery information: Installed battery serial number, individual battery capacity, battery health, cycle count, voltage, current, temperature, manufacture date, design capacity, full charge capacity and design voltage.

3. The remote management screen

Remote control functionality allows an Orion administrator to send remote control commands to individual, groups or an entire estate of Venus PCs simultaneously. The type of remote commands that can be sent are:

- Setting custom battery alerts and behaviours
- Setting display brightness levels
- Toggling reading lights (handy for identifying specific machine for a field technician)
- Toggling the touchscreen functionality
- Toggling the speaker
- Sending messages to the logged in user (handy for remote technical support or notifying a user about a restart etc)
- Pushing remote updates to the client or changing server details after a migration
- Forcing a system to perform a backup or an image recover



Onyx Venus-224/244

Thank you for choosing to use a Parity Medical solution.
If you have any further questions or require clarification on maintaining or operating this product, please contact us for further assistance.
Our contact details are provided below.

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