

User Manual

POC-W243 Series

23.8" TFT LCD Point-of-Care
Terminal with Intel® Core™ i7
Processor

ADVANTECH

Enabling an Intelligent Planet

User Instructions

The document combines text and illustrations to provide a comprehensive overview of the system. The information is presented as step-by-step sequential actions that inform users how to use the device.

Definitions

Warning! A *WARNING* statement provides important information about a potentially hazardous situation that, if not avoided, could result in death or serious injury.



Caution! A *CAUTION* statement provides important information about a potentially hazardous situation that, if not avoided, may result in minor or moderate injury to the user or patient, or damage to the equipment or other property.



Note! A *NOTE* provides additional optional information intended to avoid inconvenience during operation.



Safety Instructions

1. Read these safety instructions thoroughly before handling the equipment.
2. Retain this user manual for future reference.
3. Use of the equipment requires a full understanding and strict observation of all portions of these instructions. Observe all warnings and cautions provided throughout this manual and on equipment labels.
4. The equipment should only be repaired or maintained by qualified service personnel. We recommend that a service contract be obtained with Advantech Customer Service in order for all repairs to be carried out by Advantech. Otherwise, the correct functioning of the equipment may be compromised.

Warning! *Because of the danger of electric shock, never remove the device cover while it is in operation or connected to a power outlet.*



5. If one of the following occurs, have the equipment checked by qualified service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated the equipment.
 - The equipment has been exposed to moisture.
 - The equipment is malfunctioning, or does not operate according to the user manual.
 - The equipment has been dropped and damaged.
 - The equipment shows obvious signs of breakage.
6. Disconnect the equipment from any AC outlet before cleaning. Use only a damp cloth for cleaning. Do not use liquid or spray detergents.
7. Protect the equipment from humidity.

Caution! *To avoid short-circuiting and otherwise damaging the device, do not allow fluids to come in contact with the device. If fluids are accidentally spilled on the equipment, remove the affected unit from service as soon as possible and contact the service personnel to verify that patient safety is not compromised.*



8. Place the equipment on a reliable surface during installation. Dropping or letting it fall may cause damage.
9. For pluggable equipment, the power outlet socket must be located near the equipment and easily accessible.

Caution! *To prevent overheating, do not cover the openings or place the device in direct sunlight or near radiant heaters.*



10. Ensure that the voltage of the power source is correct before connecting the equipment to a power outlet.
11. Position the power cord away from high-traffic areas and do not place anything over the power cord.

12. If the equipment is left idle for a long time, disconnect it from the power source to avoid damage from transient overvoltage.

Caution! *Do not leave the equipment in an uncontrolled environment with a storage temperature of below -20 °C (-4 °F) or above 60 °C (140 °F) as this may damage the equipment.*



13. If the device is losing dramatic time or the BIOS configuration has reset to the default settings, the battery has no charge.

Caution! *Do not replace the battery by yourself. Contact a qualified technician or your local sales representative for assistance.*



Caution! *A battery charging indicator is not included with this device. Indicators are added at the end of the assembly process.*



14. The device is equipped with a battery-powered real-time clock circuit. Batteries are at risk of exploding if incorrectly replaced. Replace only with same or equivalent type as recommended by the manufacturer.
15. Discard all used batteries according to the manufacturer's instructions. To protect the environment, follow all national requirements for disposing of the equipment.
16. Improper installation of a VESA mount can result in serious personal injury. Therefore, VESA mount installation should only be conducted by a qualified technician. Contact a qualified service technician or your sales representative for this service. Mount installation instructions are provided in Appendix A.

Caution! *When servicing the device, always use replacement parts that are qualified to Advantech standards. Advantech Medical cannot warrant or endorse the safe performance of third-party replacement parts for use with our medical device.*



17. For users, when operating the equipment, do not touch the SIP/SOPs and the patient at the same time.
18. When networking with electrical devices, the operator is responsible for ensuring that the resulting system meets the requirements set forth by the following standards:
 - EN 60601-1 (IEC 60601-1)
Medical electrical equipment
Part 1: General requirements for safety
 - EN 60601-1-1 (IEC 60601-1-1)
Medical electrical equipment
Part 1-1: General requirements for safety
Collateral standard: Safety requirements for medical electrical systems
 - EN 60601-1-2 (IEC 60601-1-2)
Medical electrical equipment
Part 1-2: General requirements for safety
Collateral standard: Electromagnetic compatibility; requirements and tests



Medical Equipment
With Respect to Electric Shock,
Fire, and Mechanical Hazards Only,
In Accordance with UL 60601-1,
CAN/CSA C22.2 No. 601.1, and
IEC 60601-1

19. All accessories connected to the analog and digital interfaces must comply with the respective nationally harmonized IEC standards (i.e., IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment). Furthermore, all configurations must comply with the IEC 60601-1-1 specifications. Any person who connects additional equipment to the signal input or output port is configuring a medical system and, therefore, is responsible to ensure the system remains compliant with IEC 60601-1-1 specifications. The equipment is designed for exclusive interconnection with IEC 60601-1-certified equipment in the patient environment and IEC 60XXX-certified equipment outside of the patient environment. If in doubt, consult Advantech's technical services department or your local sales representative.

Caution! Use suitable mounting apparatus to avoid risk of injury.



20. Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "hospital only" or "hospital grade".
21. The equipment should be powered by an approved power cable that supports the voltage of the power outlet and complies with relevant safety standards in your particular country.

Warning! Do not modify the equipment without express authorization from the manufacturer.



Warning! To avoid risk of electric shock, this equipment must be connected to a supply mains with protective earthing.



Explanation of Graphical Symbols



IEC 60878 and ISO 3864-B.3.6: Warning: dangerous voltage



ISO 7000-0434: Caution, consult accompanying documents



ISO 7000-1641: Follow operating instructions or consult instructions for use



IEC 60417 -5009: Standby



IEC 60417-5031: Direct current



IEC 60417-5021: Equipotentiality



ISO 7010-M002: Follow instructions for use

Product Disposal

Within the European Union



EU-wide legislation, as implemented in each member state, requires that waste electrical and electronic products carrying the mark shown on the left must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables and power cables. When disposing of display products, follow the guidance of your local authority or consult your local sales representative and, if applicable, follow any agreements made.

The mark on electrical and electronic products only applies to the current European Union member states.

FCC Class B

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

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. The equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the user manual, it may cause harmful interference to radio communications.

However, even when installed and used correctly, there is still no guarantee that interference will not occur. To determine whether the equipment is causing harmful interference to radio or television reception, try turning the equipment off and on again. If interference is occurring, the user is encouraged to try to correct the interference with one or more of the following measures:

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

Warning! *Any changes or modifications made to the equipment that are not expressly approved by the relevant standards authority could void your authority to operate the equipment.*



Packing List

Before installing your point-of-care terminal, ensure that the following items were included with the shipment:

- 1 x POC-W243 point-of-care terminal
- 1 x Power adapter
- 1 x CD-ROM disc with drivers and utilities
- Mount kit and screws
- 1 x VESA mount note
- 1 x China RoHs declaration

Warning! *There are no user-serviceable parts inside the device. Refer all servicing to qualified service personnel. Only the accessories indicated on the above packing list have been tested and approved for use with the device. Accordingly, we strongly recommended that only these accessories be used in conjunction with the device. Otherwise, the correct functioning of the device may be compromised.*



Additional Information and Assistance

Contact your distributor, sales representative, or Advantech's customer service center for technical support if you require additional assistance. Please have the following information ready before calling:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages

Note! *This equipment is a source of electromagnetic waves. Before use, ensure there are no EMI-sensitive devices in the surrounding area that could malfunction as a result of its use.*



Environmental Protection

- Follow national requirements to dispose of the unit.

Manufacturer

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Contents

Chapter 1	General Information	1
1.1	Introduction	2
1.2	Specifications	2
1.3	System Diagram.....	4
	Figure 1.1 POC-W243 System Diagram.....	4
	Figure 1.2 VESA Mount Installation.....	4
	Figure 1.3 POC-W243 Front Panel.....	5
1.3.1	Optional Modules	5
1.3.2	Cleaning and Disinfecting	5
1.4	Operating Principle.....	5
1.5	Intended User Profile	6
Chapter 2	System Setup.....	7
2.1	Quick System Tour.....	8
2.1.1	Front View	8
	Figure 2.1 POC-W243 Front View	8
2.1.2	Rear View	9
	Figure 2.2 POC-W243 Rear View.....	9
	Figure 2.3 I/O Layout View	9
2.2	Installation Procedures.....	10
2.2.1	Power Cord Connection.....	10
	Figure 2.4 Connecting the Power Cord	10
2.2.2	Ground Pin Connection.....	11
	Figure 2.5 POC-W243 Equipotential Terminal Pin	11
	Figure 2.6 Grounding Cable with Connector	11
2.3	BIOS Setup	11
2.4	Software Installation.....	12
2.5	Driver Installation	12
Chapter 3	Operation and Safety	17
3.1	General Safety Guide.....	18
3.2	Protect the Optical Drive	18
3.3	Thermal Management.....	18
3.4	Disconnect the Power	19
Appendix A	VESA Mounting.....	21
A.1	VESA Mount Installation	22
	Figure A.1 VESA Mount Bracket.....	22

Chapter 1

General Information

1.1 Introduction

The POC-W243 series of point-of-care (POC) terminals feature an Intel® Core™ i7 processor, 23.8" widescreen TFT LCD panel, 1 x VGA, 1 x HDMI-out, 1 x LAN, 2 x COM, 4 x USB 2.0, 1 x 24-bit stereo audio controller, and 2 x onboard 10/100/1000 PCI-e Ethernet controllers. With support for Intel® Active Management Technology 9.5 and an optional 2.5" SATA drive, the POC-W243 terminals can be easily configured and deployed. With IP54-rated protection from dust and water ingress, POC-W243 terminals are designed to withstand operation in hospital environments, making them ideal for medical POC applications. For system integrators, the highly integrated terminal provides a convenient device for expansion and integration in a wide range of usage scenarios.

Intended Use - POC-W243 terminals are intended to serve as flexible POC devices that can be integrated with hospital systems for general purpose computing, data collection, and information display applications. However, POC-W243 terminals should not be used as part of a life-support system.

The latest version of this user manual is available for download at <http://support.advantech.com.tw/support/>

1.2 Specifications

System	Processor	Intel® Core™ i7-6600U @ 2.60 GHz
	Memory	2 x 4GB DDR4 2133 SODIMM (AQD-SQ4U4GCN21-SG)
	Graphics Controller	Intel HD Graphics 520/510
Display	Display Size	23.8" TFT LCD (16:9 widescreen)
	Type	IPS
	Resolution	1920 x 1080 max.
	Color	16.7M (6 bit + A-FRC)
	Pixel Pitch	247.5 x 247.5 μm
	Viewing Angle	178/178°
	Luminance	250 cd/m ²
	Backlight	LED
	LCD MTBF	30,000 hours
	Contrast Ratio	1000:1
Expansion	Mini PCIe	2 (1 x full-size, 1 x half-size)
		2 (1 x full-size, 1 x half-size)
	PCIe	1 x PCIe x4

I/O	Serial Ports	2 x RS-232/422/485 (isolated) for COM1/COM2
	USB	2 x USB 3.0, 2 x USB 2.0
	Audio	2 (1.5W)
	LAN	2 x Gigabit Ethernet (isolated) interfaces (RJ-45)
	HDMI	1 x HDMI out
	DisplayPort	1 x DisplayPort out
Power Supply	Input Voltage	Sinpro/HPU101-107, 100 ~ 240V, 47~ 63 Hz, 12 ~ 0.5A
	Output Voltage	16 ~ 21V _{DC} , 6.25 ~ 4.76A
Certification		EN60601-1, CE, FCC Class B
Environment	Temperature	Operating: 0 ~ 40 °C/32 ~ 104 °F Storage: -20 ~ 60 °C/-4 ~ 140 °F
	Humidity	Operating: 10 ~ 90%@40 °C non-condensing Storage: 0 ~ 90%@40 °C non-condensing
	Shock Resistance	20G peak acceleration (11ms duration)
Mechanical	Dimensions (W x D x H)	583 x 386 x 69 mm /22.95 x 15.19 x 2.71 in
	Weight	7.95 kg/17.52 lb (base unit only)
	VESA Mount	100x100, 75x75
Optional Configuration	Operating System	Windows 7/Windows 8.1 Industry Pro/Windows 10 IoT
	Memory	Up to 2 x 32GB DDR4 SODIMM
	Storage	2.5" SATA3 SSD 128GB, 5V/1.5A
	Bluetooth	4.0
	RTC Battery	Panasonic BR2032
	Touch Panel	23.8" PCTSP

1.3 System Diagram

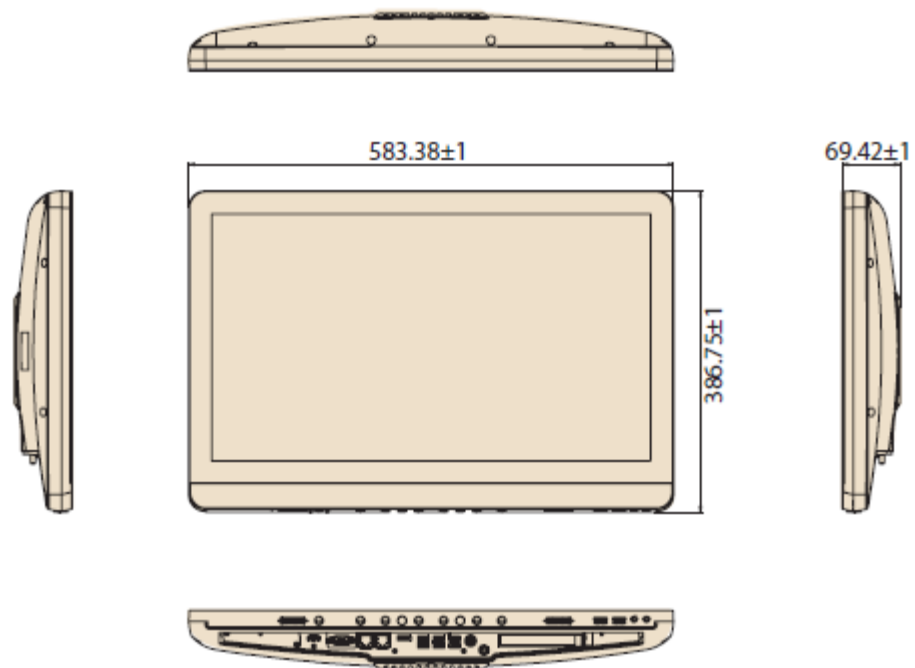


Figure 1.1 POC-W243 System Diagram

Dimensions: 583 x 386 x 69 mm/22.95 x 15.19 x 2.71 in

VESA Mount: 75x75, 100x100

Screw Type: M4 x 12L max.

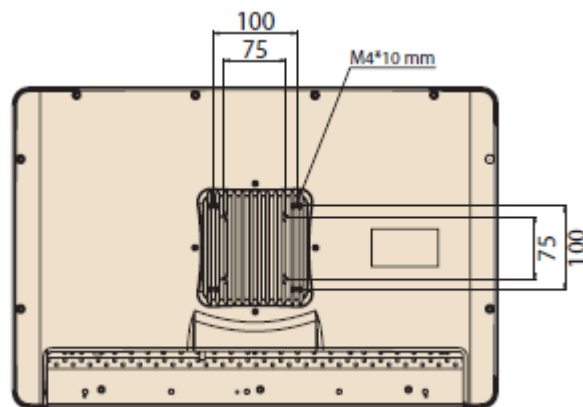


Figure 1.2 VESA Mount Installation

Warning! Use suitable mounting apparatus to avoid risk of injury.





Figure 1.3 POC-W243 Front Panel

- (1) Power
- (2) Volume down/up
- (3) Touchscreen status control
- (4) Read light control
- (5) Brightness decrease/increase

1.3.1 Optional Modules

- Memory: 2 x 32GB DDR4 SODIMM, 2.5" SATA HDD/SSD, mini-PCIe mSATA
- Touchscreen: Projected capacitive touch control

1.3.2 Cleaning and Disinfecting

The device may become dirty during normal use and, thus, should be cleaned regularly.

Steps:

1. Prepare a cleaning solution.
2. Moisten a clean cloth in the cleaning solution. then wipe the terminal surfaces. that has been moistened in the cleaning solution.
3. Use the cloth to wipe the terminal surfaces thoroughly.

- Caution!**
- *Do not immerse or rinse the terminal or its peripherals. If liquid is accidentally spilled on the device, disconnect the device from the power source. Contact your IT support department regarding the continued safety of the unit before placing it back in operation*
 - *Do not spray cleaning agent on the chassis.*
 - *Do not use disinfectants that contain phenol.*
 - *Do not autoclave or clean the terminal or its peripherals with strong aromatic, chlorinated, ketone, ether, or ester solvents, sharp tools, or abrasives. Never immerse electrical connectors in water or other liquids.*

1.4 Operating Principle

POC-W243 terminals support input via the touch panel, physical keys at the bottom of the panel, USB ports, and LAN/WLAN connections. Inputted data is processed by the CPU and output to the LCD panel, accessories, and/or peripheral devices. Additionally, data can be stored in system memory, which ensures all data and system configuration settings are retained even when the system is powered off.

1.5 Intended User Profile

- Age: 18 ~ 65
- Weight: Not relevant
- Health: Not relevant
- Nationality: Global
- Patient state: Patients will not be operating the device
- Part of the body/type of tissue for interaction: Hands and fingers, expected contact time should be less than 1 minute
- Education level: At least 8 years of intensive reading experience (school)
- Knowledge:
 - Minimum requirements
 - Can read and understand “westernized Arabic” numerals
 - Can distinguish parts of body as described in the user manual
 - Has been trained and authorized by the manufacturer
- To be considered trained and authorized, technicians must complete the manufacturer’s training course. When considered necessary by the manufacturer, technicians may be called in for retraining and/or annual training.
- Language: English. When other languages are required, a professional translation company should be responsible for the translation, which will be reviewed by the manufacturer (see the SOP Writing Guidelines, Edition 3).
- Experience: Mentally and physically competent with relevant medical training to understand basic symbols
- Permissible impairments:
 - Mild vision impairment or vision corrected to logMAR 0,2 (6/10 or 20/32)
 - One arm/hand capable of holding and operating the device
 - Average degree of aging-related short-term memory impairment
 - Up to 40% hearing impairment; or 60% hearing capability at 500 ~ 2 kHz

Chapter 2

System Setup

2.1 Quick System Tour

Before setting up the POC-W243 terminal, take a moment to familiarize yourself with the locations and functions of the controls, drivers, connections, and ports (as shown in the figures below).

When placed upright, the front panel of the POC-W243 terminal appears as shown in Figure 2.1.

2.1.1 Front View

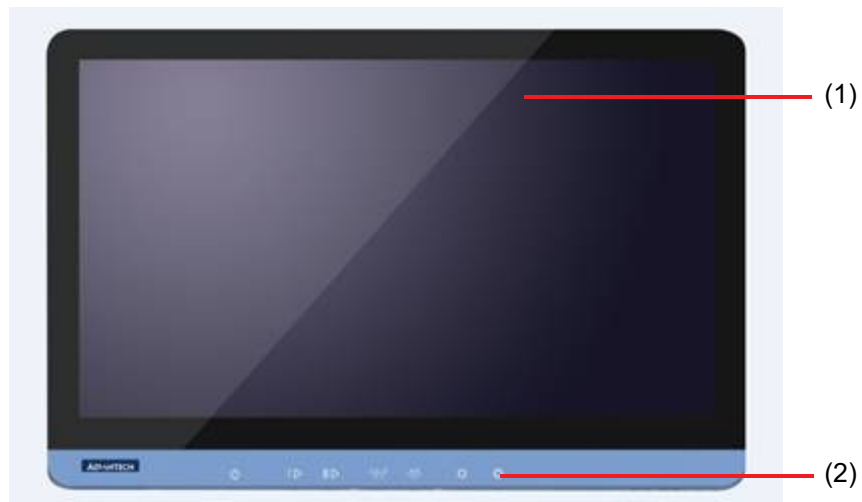


Figure 2.1 POC-W243 Front View

Front View

- (1) LCD panel with touchscreen
- (2) Power symbol with LED indicator

2.1.2 Rear View

At the rear of the terminal is a recessed I/O section located at the bottom (as shown in Figure 2.2). The I/O section features various I/O interfaces, including serial ports, VGA, Ethernet, and USB ports.

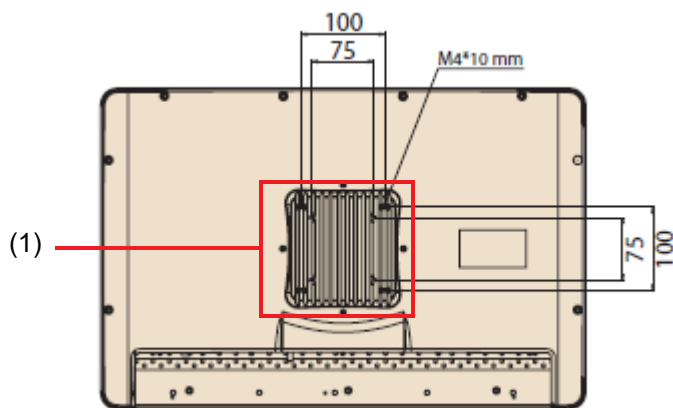
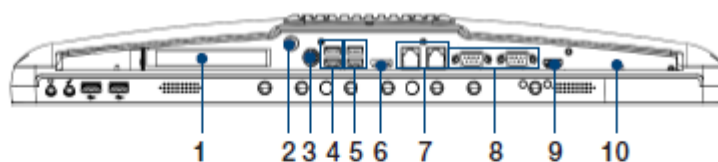


Figure 2.2 POC-W243 Rear View



- | | |
|------------------------------------|---|
| (1) 1 x PCIe x4 card slot | (6) 1 x DisplayPort |
| (2) 1 x Equipotential terminal pin | (7) 2 x Gigabit Ethernet (RJ45) |
| (3) DC-in | (8) 2 x RS-232/422/485 isolated serial port |
| (4) 2 x USB 2.0 | (9) 1 x HDMI |
| (5) 2 x USB 3.0 | (10) 1 x iDoor module |

Figure 2.3 I/O Layout View

Note! *The equipotential terminal must be linked to the hospital grounding/earthing mechanism before system boot up to protect the operator and device.*



2.2 Installation Procedures

2.2.1 Power Cord Connection

The POC-W243 terminal should only be powered by a DC power adapter (SINPRO model number: HPU101-107). When handling power cables, always hold the cable by the plug end.

Installation Instructions

1. Connect the female end of the power adapter to the DC jack of the panel PC (see Figure 2.7)
2. Connect the female end of the power cable to the DC power adapter.
3. Connect the 3-pin male plug of the power cable to an electrical outlet.

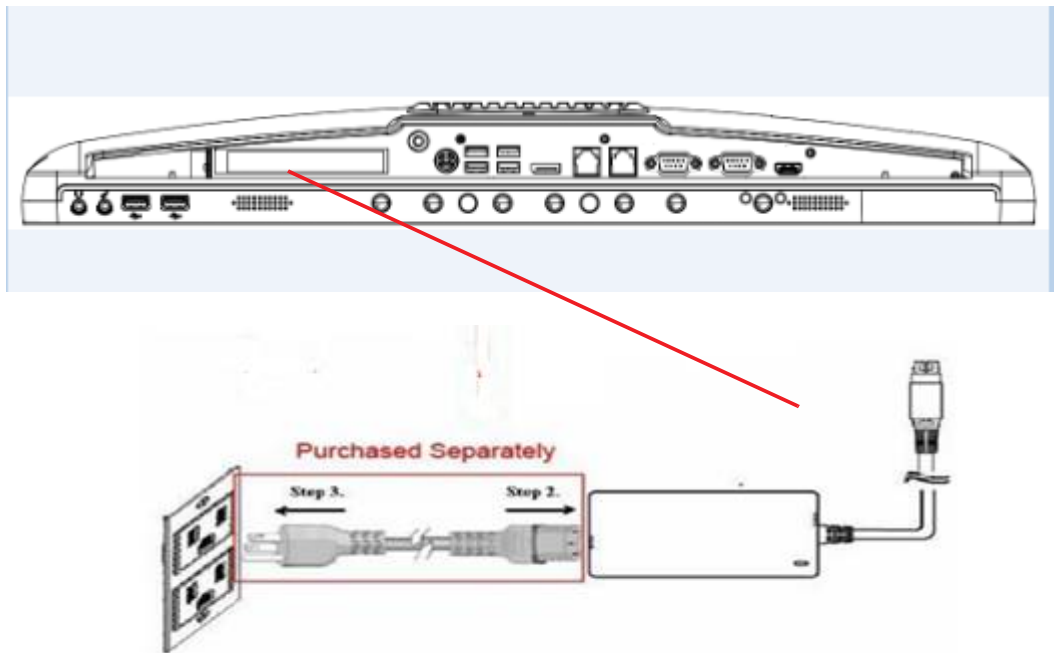


Figure 2.4 Connecting the Power Cord

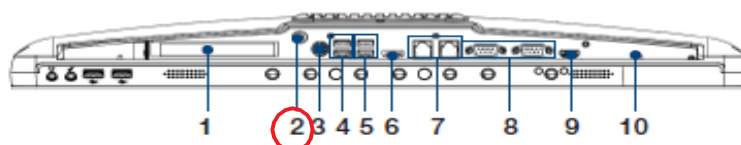
Warning! POC-W243 is supplied by a 100-watt power adapter, as shown in Figure 2.4.



If the POC-W243 terminal is connected to a medical-grade power adapter, customers must ensure legal and regulatory compliance and that the device meets the standards compliance requirements for this hardware.

2.2.2 Ground Pin Connection

1. The equipotential terminal is located at the rear of the panel PC in the recessed I/O section. It should be connected to a grounding/earthing mechanism.



- | | |
|------------------------------------|---|
| (1) 1 x PCIe x4 card slot | (6) 1 x DisplayPort |
| (2) 1 x Equipotential terminal pin | (7) 2 x Gigabit Ethernet (RJ45) |
| (3) DC-in | (8) 2 x RS-232/422/485 isolated serial port |
| (4) 2 x USB 2.0 | (9) 1 x HDMI |
| (5) 2 x USB 3.0 | (10) 1 x iDoor module |

Figure 2.5 POC-W243 Equipotential Terminal Pin

2. Prepare the grounding cable and the other terminal linked to the hospital's grounding/earthing mechanism.



Figure 2.6 Grounding Cable with Connector

3. Connect the grounding cable to the panel PC's equipotential terminal pin.

2.3 BIOS Setup

Your POC-W243 terminal was most likely setup and preconfigured by the vendor prior to delivery. However, you may still find it necessary to access the BIOS setup program to modify the system configuration data, such as the date and time or type of hard drive.

The BIOS utility is stored in read-only memory and can be accessed when the device is powered on by pressing <F2> or during boot up.

The configuration settings are recorded in CMOS RAM. This memory is backed up by a battery to ensure it is retained when the system is powered off.

Upon boot up, the system reads the settings stored in CMOS RAM and compares the data to the results of the equipment check performed during the power on self-test (POST). If a discrepancy is identified, an error message will be displayed onscreen, and users will be prompted to run the setup program.

2.4 Software Installation

Recent releases of operating systems (OS) from major vendors include setup programs that load automatically and guide users through hard disk preparation and operating system installation. The information below provides instructions regarding OS installation on the system hard drive.

Note! *Some distributors and system integrators may have pre-installed system software before delivering your panel PC.*



If OS installation is required, insert the OS installation or setup disk into the external disk drive. The BIOS utility supports system bootup directly from the CD-ROM drive. Power on or reset the system, then press <F2> or to boot into the BIOS setup menu and adjust the boot device sequence.

When <F12> is pressed during bootup, a popup menu appears with a list of bootable devices. Users can select the device for bootup.

POC-W243 terminals will automatically load the OS driver from the CD-ROM. However, if a setup or installation program menu is displayed on screen, follow the instructions provided. The setup program will guide you through hard drive preparation and OS installation.

2.5 Driver Installation

After installing the OS, users can install the chipset, graphics, Ethernet, audio, and touchscreen drivers from the external CD-ROM drive. All drivers, except for the CD-ROM drive driver are stored on the CD-ROM disk in the Drivers and Utilities folder.

The various drivers and utilities on the CD-ROM disk are accompanied by text files that provide driver installation instructions and function descriptions. Those files are a useful supplement to the information provided in this manual.

Troubleshooting


- Failure to power on
- Failure to power off
- The power LED is on but there is no DC power output
- AC power is connected and the switches are on, but the system will not bootup

If the POC-W243 terminal does not operate according to the user manual or is functioning abnormally, contact your distributor, local sales representative, or Advantech's customer service center for technical support.

Guidance and Manufacturer's Declaration – Electromagnetic Emissions		
POC-W243 series terminals are intended for use in the electromagnetic environment specified below. The customer or user of the POC-W243 series should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The POC-W243 series uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The POC-W243 series is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Recommended separation distances between portable and mobile RF communications equipment and the POC-W243 series			
POC-W243 series terminals are intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or user can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and POC-W243 terminals as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2 \sqrt{P}$	80 MHz to 800 MHz $d = 1,2 \sqrt{P}$	800 MHz to 2,5 GHz $d = 2,3 \sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. Note 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
POC-W243 series terminals are intended for use in the electromagnetic environment specified below. The customer or user of the POC-W243 series should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment –guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Main power quality should be that of a typical commercial or hospital environment.
interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% <i>UT</i> (>95% dip in <i>UT</i>) for 0,5 cycle 40% <i>UT</i> (60% dip in <i>UT</i>) for 5 cycles 70% <i>UT</i> (30% dip in <i>UT</i>) for 25 cycles <5% <i>UT</i> (>95% dip in <i>UT</i>) for 5 sec	<5% <i>UT</i> (>95% dip in <i>UT</i>) for 0,5 cycle 40% <i>UT</i> (60% dip in <i>UT</i>) for 5 cycles 70% <i>UT</i> (30% dip in <i>UT</i>) for 25 cycles <5% <i>UT</i> (>95% dip in <i>UT</i>) for 5 sec	Main power quality should be that of a typical commercial or hospital environment. If the user requires continued operation during power mains interruptions, it is recommended that the POC-W243 terminal be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: <i>UT</i> is the A.C. mains voltage prior to application of the test level.			

Guidance and Manufacturer's Declaration – Electromagnetic Immunity			
The POC-W243 series terminals are intended for use in the electromagnetic environment specified below. The customer or user of the POC-W243 series should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2,5 GHz</p>	<p>Vrms</p> <p>V/m</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the POC-W243 terminal, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1,2\sqrt{P}$ <p>$d = 1,2\sqrt{P}$ 80 MHz to 800 MHz</p> <p>$d = 2,3\sqrt{P}$ 800 MHz to 2,5 GHz</p> <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

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- ^a** Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which POC-W243 is used exceeds the applicable RF compliance level above, the POC-W243 terminal should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the POC-W243 terminal.
- ^b** Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Chapter 3

Operation and Safety

3.1 General Safety Guide

To ensure user safety and equipment integrity, always take the following precautions when operating or handling the POC-W243 terminal.

If any of the following occurs, immediately disconnect the power plug (by pulling the plug, not the cable) from the terminal:

- The power cord or plug is frayed or otherwise damaged
- Liquid has been spilled onto the device
- The device has been dropped or the case has been damaged
- You suspect that the device needs servicing or repair
- You want to clean the device or screen
- You want to remove/install any components

3.2 Protect the Optical Drive

To ensure the optical drive continues to function correctly, follow the recommendations below.

- Position the device so that the drive tray is not obstructed and does not bump anything when opened.
- Close the drive when not in use.
- Do not put anything on the drive tray when it is open.
- Do not touch the optical drive lens with your fingers. Do not wipe the lens with a paper towel or other abrasive surface.

3.3 Thermal Management

The POC-W243 terminal cover features vent holes that function as air inlets and outlets that transfer heat from inside the equipment to the cooler air outside. Do not block the holes/vents with any material.

During operation, it is normal for the metal heatsink at the rear of the device to become warm. The metal heatsink functions as a cooling surface that transfers heat from inside the equipment to the cooler air outside. Do not block the heatsink with any material.

Warning! *Do not place the POC-W243 terminal on a pillow or other soft material when powered on because the material may block airflow and cause the device to overheat.*



3.4 Disconnect the Power

The only way to disconnect the power completely is to unplug the power cable. When using the device, ensure that at least one end of the power cable is within easy reach to allow for unplugging if necessary.

Warning! *The AC power cable is equipped with a 3-wire grounding plug (the plug has a third grounding pin). This plug will only fit a grounded AC outlet. If you are unable to insert the plug into an outlet because the outlet is not grounded, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not try to get around this or you will defeat the purpose of the grounding plug.*



Warning! *Never push objects into the device through the cover openings as this may cause fire or electric shock.*



Never place anything on the case before powering off the device. Never power on the device if any internal or external components have been removed. Operating the device when the case is open or components are missing can be dangerous and damage the hardware.

Appendix **A**

VESA Mounting

A.1 VESA Mount Installation

The POC-W243 series terminals support VESA mounting, which allows system integrators to conveniently integrate the device into various computing infrastructures. To prevent unreliable and dangerous mounting, only use mount brackets provided by Advantech.

Mount installation should be conducted by a qualified service technician. Contact Advantech Customer Service or your sales representative if you need this service.

Installation Instructions

1. Attach the mount bracket to the heatsink of the POC-W243 terminal.
2. Secure the bracket in place using 4 of the screws provided.
3. Mount the terminal on a wall, stand, or other flat surface.

Warning! Take care to secure the mount bracket by tightening the affixing screws. A loose mount bracket poses a risk of becoming detached and causing personal injury and/or damage to the device.

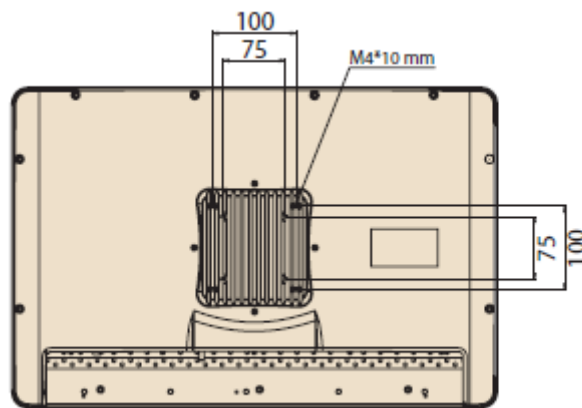


Figure A.1 VESA Mount Bracket

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