User Manual

HIT-W153

**Healthcare Infotainment
Terminal Computer**

Trusted ePlatform Services

ADVANTECH

Instructions for the User

The document combines text and illustrations, providing a comprehensive overview of the system. The information is presented as a sequential steps of actions, allowing the user to learn 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 damage to the equipment or other property.*

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

Safety Instructions

1. Read these safety instructions carefully.
2. Retain this user manual for future reference. Any use of the equipment requires a full understanding and strict observation of all safety instructions. Observe all WARNINGS and CAUTIONS as rendered throughout this manual and on labels on the equipment.
3. The equipment must be repaired by trained service personnel only. Advantech recommends that a service contract be obtained with Advantech Service and that all repairs be carried out by them. Otherwise the correct functioning of the device may be compromised.

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

4. 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.
5. Disconnect the equipment from all AC outlets before cleaning. Use only a damp cloth for cleaning. Do not use liquid or spray detergents.
6. Protect the equipment from humidity.

Caution! *To avoid short circuiting and otherwise damaging the equipment, do not allow fluids to come into contact with the equipment. 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.*

7. Place the equipment on a reliable surface during installation. Dropping or letting the equipment fall may cause damage.
8. 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.*

9. Ensure that the voltage of the power source is correct before connecting the equipment to a power outlet.
10. Position the power cord away from high-traffic areas. Do not place anything over the power cord.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage from transient overvoltage.

Caution! *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). This may damage the equipment.*

12. If your computer is losing dramatic time or the BIOS configuration resets to the default settings, this indicates that the battery has no charge.

Caution! *Do not replace battery yourself. Please contact a qualified technician or your retailer.*

The equipment 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 recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Caution! *A battery charge indicator is not included with this device.*

13. Improper installation of VESA mount kits can result in serious injury. VESA mounts should be installed by a professional technician. Contact the service technician or your retailer if you need this service. Detailed instructions for VESA mount installation are provided in Appendix A.
14. CLASSIFICATION
    1). Class I internally powered
    2). No applied parts
    3). Continuous operation
    4). Not AP or APG category.

Warning! *This device is not suitable for operation in the presence of flammable anesthetic mixtures that contain oxygen or nitrous oxide, or for use with life support systems.*

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.*

15. Users must not allow SIP/SOPs and patients to come into contact.
16. When networking with electrical devices, the operator is responsible for ensuring that the resulting system meets the requirements set forth in 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

17. Any accessory equipment 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 system standard IEC 60601-1-1. Any person who connects additional equipment to the signal input or output port configures a medical system, and is therefore, responsible for ensuring that the system complies with the requirements of the system standard IEC 60601-1-1. 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 the technical services department or your local representative.

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

18. Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "hospital only" or "hospital grade".

19. Use a power cord that matches the voltage of the power outlet, has been approved, and complies with the safety standards of your particular country.

> **Note!** *Follow national requirements to dispose of the unit.*
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> **Warning!** Do not modify the equipment without authorization from the manufacturer.
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> ⚠️

> **Warning!** To avoid risk of electric shock, only connect this equipment 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 the operating instructions or consult the user manual

IEC 60417 -5009: Standby

IEC 60417-5032: Alternating current

IEC 60417-5021: Equipotentiality

ISO 7010-M002: Follow usage instructions

Contents

Chapter 1

Introduction

This chapter provides a brief introduction to HIT-W153.

- Overview
- System Configuration

1.1 Introduction

Advantech's HIT-W153 healthcare infotainment terminal (HIT) is an all-in-one computing device aimed at healthcare applications. Equipped with an Intel® Pentium® N4200 quad-core processor, Windows 10 IoT Embedded OS, 5.6" W true-flat touchscreen, and onboard isolated Giga-LAN port, HIT-W153 provides a key solution for hospital bedside care and patient monitoring. Moreover, with its LAN-enabled architecture, the HIT-W153 terminal can also serve as an integrated hospital gateway, transferring service calls and LED light signals from hospital rooms to centralized nursing stations via LAN.

HIT-W153 terminals are designed for integration with existing hospital systems to support general purpose medical computing, data collection, access to patient records, remote monitoring, and the delivery of care functions in a hospital environment. However, HIT-W153 terminals should not be used as life-support systems.

The latest version of this user manual is available for download from

http://support.advantech.com.tw/support/

1.2 Specifications

Hardware	CPU	Intel® Pentium® N4200 quad core
	Memory	4 GB of DDR3L (up to 8 GB)
	Primary Storage	M.2 2242 SSD 64 GB
	Camera	5MP CMOS
	RFID/NFC	1
	Expansion Slot	1 x Full-size mini PCIe
Display	Size	15.6" W TFT LED
	Max. Resolution	1920 x 1080 FHD
	Luminance	425 cd/m^2
	Contrast Ratio	800:1
Touchscreen	Type	Projected capacitive
Hotkeys	Screen On/Off	1
	Volume Up	1
	Volume Down	1
	Brightness Up	1
	Brightness Down	1
	Reading Light LED Button	1
Front I/O	Reset Button	1
	Nurse Call Button	1
	Audio Jack (TRRS)	1
	USB 2.0	2
Rear I/O	Smart Card Reader	1
	Handset Out (RJ12)	1
	USB 3.0	1
	Nurse Call Phoenix Port (4-pin)	1
	DC-In	1
Audio	Speaker	2 x 3-W speakers
	Internal Microphone	1

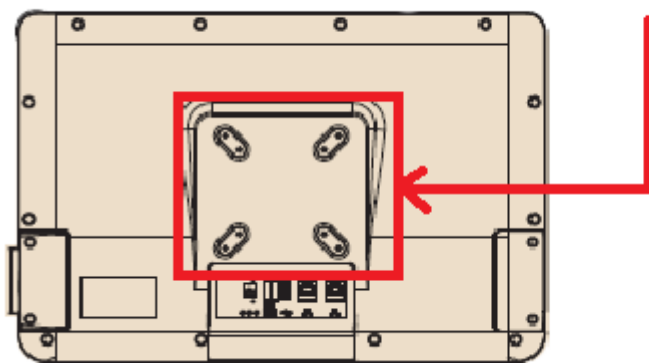| Network & Wireless	LAN (Isolated)	2 x Isolated RJ45 (10/100/1000 Mbit)
	Bluetooth	BT 4.1 (default module)
	WLAN	802.11 a/b/g/n/ac (default module)
Software	Operating System	Windows 10 IoT (64 bit)/Android 6.0.1
Mechanical	Mount Options	VESA 75 x 75 mm & 100 x 100 mm
	Dimensions (W x H x D)	400.1 x 273 x 43 mm (15.8 x 10.7 x 1.7 in)
	Weight	Net (w/o adapter): 3.2 kg (7.05 lb) Gross: 4.7 kg (10.36 lb)
Adapter		100 ~ 240 V 63W 18 ~ 19 V 3.42A W/PFC
Optional Accessories	TV Tuner (SMA Jack)	Module
	Secondary Smart Card Reader	Module
	Handset	Add-on module
	Barcode Scanner	Add-on module
Environment	Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)
	Vibration	1G
	Shock	Shock 10G peak acceleration (11 ms duration)
	EMC & Safety Certifications	CE, FCC, CCC, CB, UL ITE 62368, Medical IEC 60601, BSMI

1.3 Dimensions
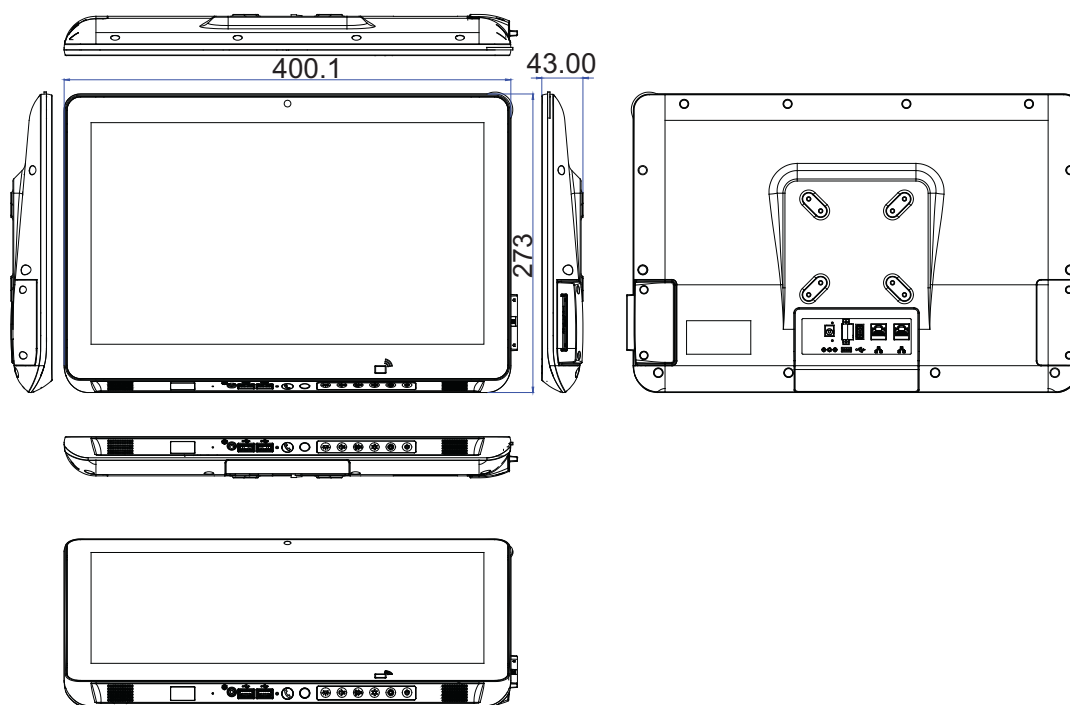
Figure 1.1 HIT-W153 dimensions

VESA Mount Bracket: 75 x 75/100 x 100 mm

Use 4 x M4 screws (depth of useful thread length >8 mm) for mounting.

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

1.3.1 Optional Modules

- Up to 8 GB of DDR4 SODIMM
- TV tuner (SMA jack)
- Handset
- Smart card
- Barcode scanner

1.3.2 Module List

Features	Interface	Description
Wi-Fi	M.2	802.11 a/b/g/n/ac + BT 4.1
RFID kit	Internal USB	13.56 MHz, ISO-15693/14443A/14443B
Camera module	Internal USB	5-megapixel CMOS
Smart card reader	Internal USB	Built-in module
Secondary smart card reader	Internal USB	Optional built-in module
Barcode scanner	Internal USB	Optional
Handset module	RJ12	Optional built-in SPK and Mic
TV tuner (SAM jack)	SMA jack	Optional

1.3.3 Cleaning and Disinfecting

During normal use, the HIT-153 terminal may become dirty and should be cleaned regularly. Follow the steps outlined below to clean the terminal.

1. Prepare cleaning water
2. Moisten a clean cloth with the cleaning water.
3. Wipe the terminal thoroughly with the moist cleaning cloth.

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 supply.*
■ *Contact your IT support department regarding the continued safety of the unit before placing it back into operation.*
■ *Do not spray cleaning agents 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 ether solvents, sharp tools, or abrasives.*
■ *Never immerse electrical connectors in water or other liquids.*

1.4 Operating Principles

The device supports input via the touchscreen, physical function keys located at the bottom of the front panel, and accessories connected through the USB ports or LAN/WLAN. The inputted data is then processed by the embedded processing unit and then output to the LCD panel, accessories, or other devices via the I/O ports or LAN/WLAN connections. Data can be stored on the device's internal storage. Thus, even when the device is turned off, the data is still maintained in the storage memory units.

1.5 Intended User Profile

■ Age: 18 to 65
■ Weight: Not relevant
■ Health: Not relevant
■ Nationality: Global
■ Patient state: VIP room patient
■ Part of the body or type of tissue used for contact: Hands and fingers, with an expected contact time of less than 1 minute
■ Education level: At least 8 years of intensive reading experience (school)
■ Knowledge:
   – Minimum: Can read and understand westernized Arabic numerals written in Arial font
   – Additional abilities: Able to distinguish every part of the device as described in the user manual
   – Training: Must be trained and authorized by the manufacturer

To be considered as trained and authorized, technicians must complete the training course developed by the manufacturer (see document HIT-W153_User Manual_Rev 1.0 for qualification methods). When considered necessary by the manufacturer, technicians will be called back for retraining/annual training.

- ■ Language: English. If other languages are required, professional translators will translate the text, which will then be reviewed by the manufacturer (see SOP document SOP_Writing_Guidelines-ed.3)
- ■ Experience: Mentally and physically competent, with specific training regarding medical symbols
- ■ Permissible impairments:
  - – Mild vision impairment or vision corrected to log MAR 0,2 (6/10 or 20/32)
  - – Single arm/hand capable of operating and controlling the device
  - – Average degree of aging-related short-term memory impairment
  - – Up to 40% hearing impairment, resulting in 60% of normal hearing at 500 Hz to 2 kHz

Chapter 2

System Setup

This chapter describes the system hardware and installation procedures for HIT-W153.

- ■ Quick Tour of HIT-W153
- ■ Installation Procedures
- ■ Software Installation
- ■ Driver Installation

2.1 Quick Tour of HIT-W153

Before setting up the HIT-W153 terminal, take a moment to familiarize yourself with the location and functions of the controls, drives, connections, and ports, as illustrated in the figures below.

When placed upright on a desktop, the HIT-W153 front panel should appear as shown in Figure 2.1.

2.1.1 Front View
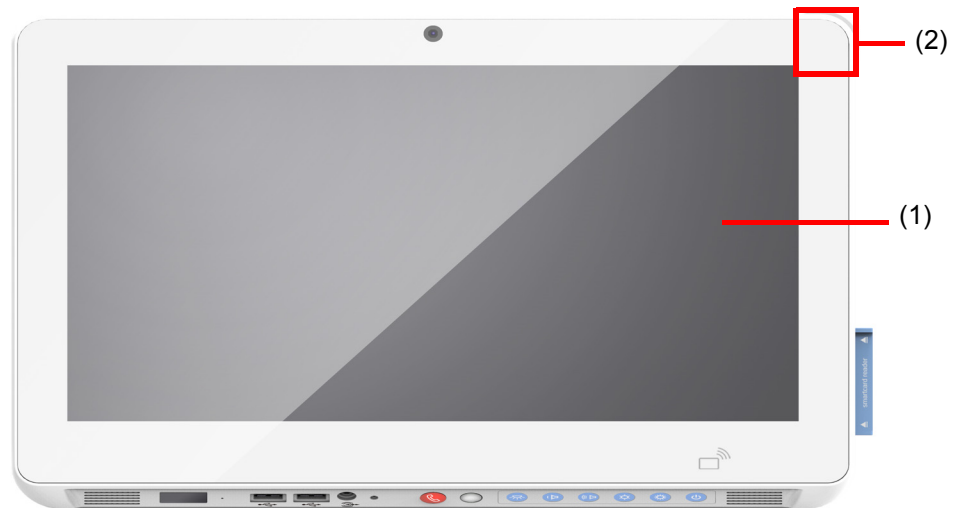
Figure 2.1 HIT-W153 front view

Front View

(1) LCD panel with touchscreen module

(2) LED indicator

2.1.2 Rear View

At the rear of the terminal located at the bottom of the panel is a recessed I/O section, as shown in Figures 2.2, 2.3, and 2.4. The I/O section includes various I/O ports, buttons, and hotkeys, which are explained in Figure 2.5.
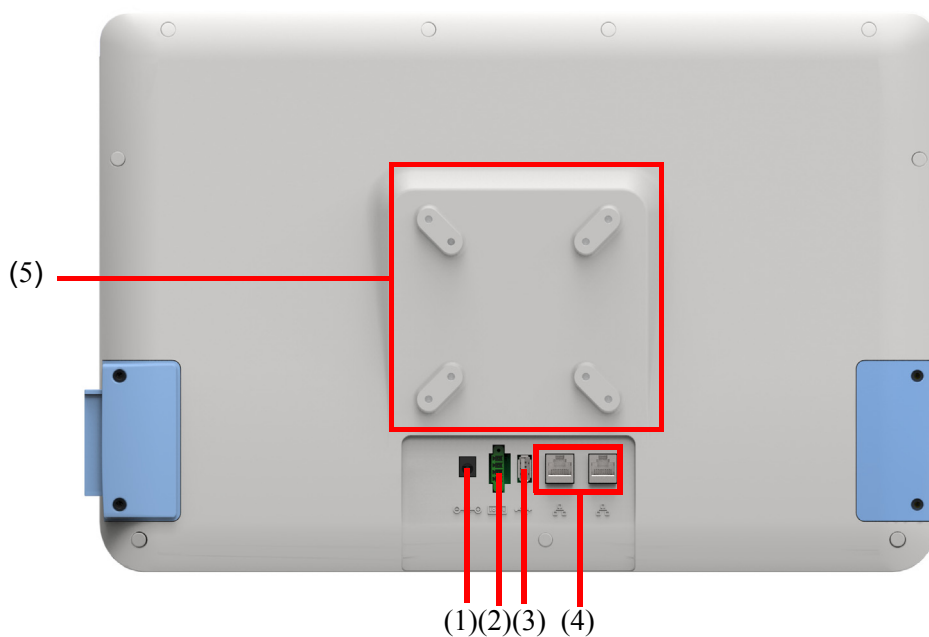
Figure 2.2 HIT-W153 rear view

Rear View

(1) DC jack

(2) Digital I/O Phoenix port (4 pin)

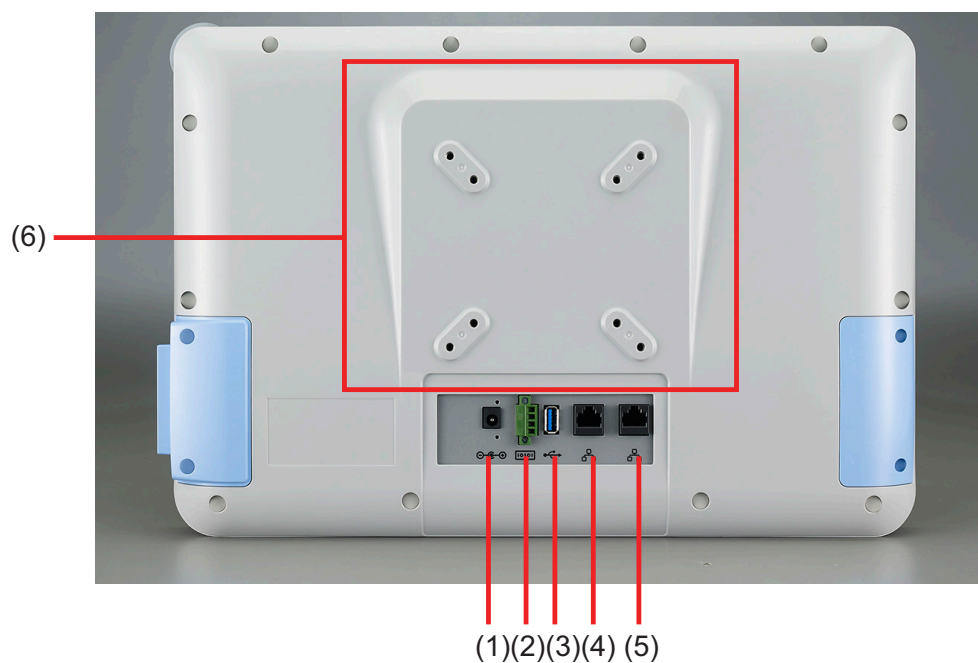(3) USB 3.0

(4) Isolated RJ-45 LAN

(5) VESA mount

Figure 2.3 HIT-W153 (with PoE) rear view

Rear View

(1) DC jack

(2) Digital I/O Phoenix port (4 pin)

(3) USB 3.0

(4) Isolated RJ-45 LAN

(5) LAN/PoE
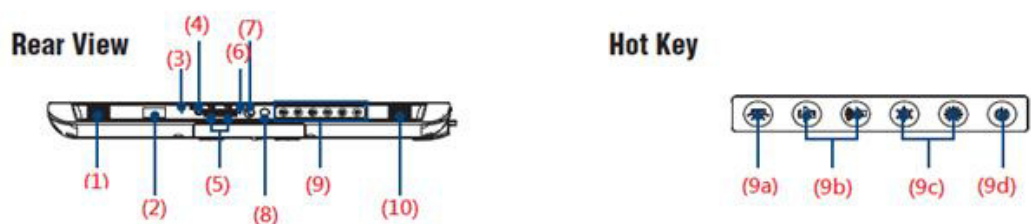
(6) VESA mount

Figure 2.4 HIT-W153 underside view

Figure 2.5 HIT-W153 I/O view

I/O View

(1) Speaker	(8) Reading light
(2) Barcode scanner	(9) Hotkey
(3) Mic	(9a) Reading light on/off
(4) Audio jack (TRSS)	(9b) Volume up/down
(5) USB 2.0	(9c) Brightness up/down
(6) Reset button	(9d) Screen on/off
(7) Nurse call button	(10) Speaker

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

2.1.3 HIT-W153 with Handset (Optional)

HIT-W153 can be equipped with an optional handset for bedside usage. The handset features dual microphones to reduce the background noise and ensure clear communication. Figure 2.6 shows the HIT-W153 terminal integrated with a handset.
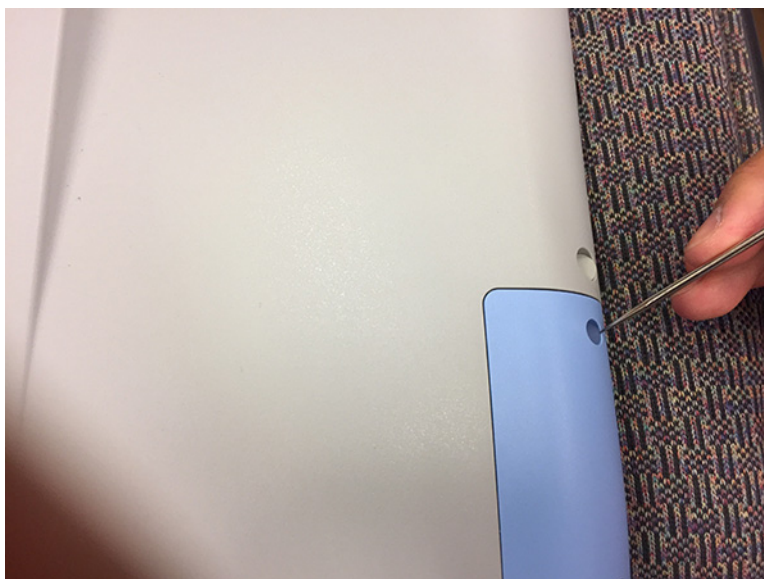
Handset Dimensions (W x H x D): 57 x 192 x 69 mm (2.24 x 7.55 x 2.71 in)

Figure 2.6 HIT-W153 with handset

Handset Installation Instructions

1. Remove the two rubber plugs from the blue I/O cover on the left side of the rear of the terminal.

2.   Remove the two affixing screws.

3.   Open the I/O cover to access the RJ12 connector

4. Attach the handset bracket to the terminal via the screw holes.

5. Replace the original blue I/O cover with an I/O cover with a handset hole. Tighten the screws to affix the cover in place. Then replace the rubber plugs.

2.2 Installation Procedures

2.2.1 Connecting the Power Cord

The HIT-W153 terminal can only be powered by a DC power adapter.

ITE: FSP/Model no. 9NA0654706

Medical: SINPRO/Model no. MPU64-107

When handling power cords, ensure to hold them by the plug ends only.

Follow the instructions outlined below to connect the power cord.

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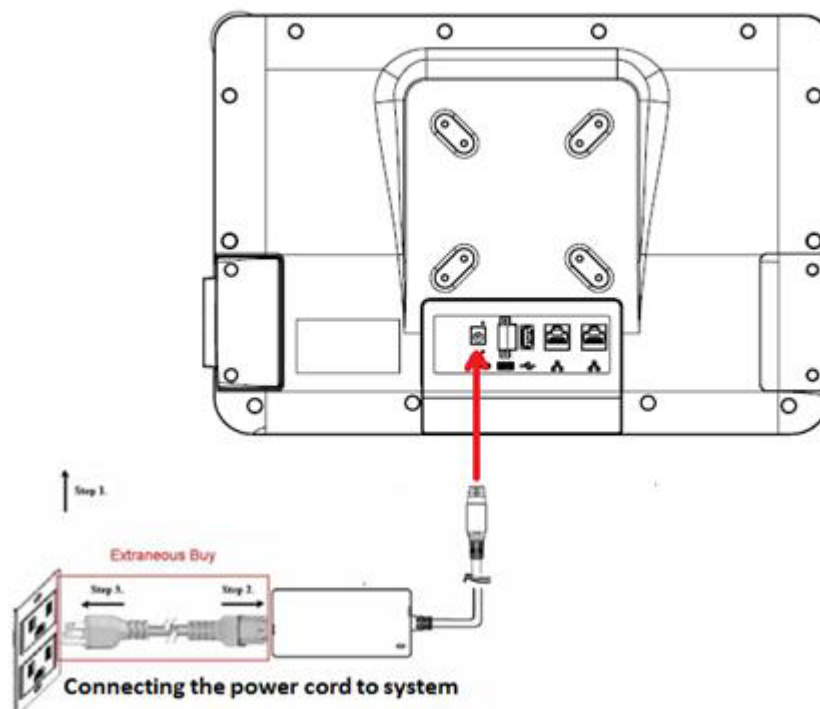3. Connect the 3-pin male plug of the power cord to an electrical outlet.

Figure 2.7 Connecting the power cord

Warning! *The HIT-W153 terminal is powered by a 63-watt power supply and special adapter, as depicted in the above figure.*

If a medical adaptor is connected to HIT-W153, the customer must ensure that the device complies with the legal and regulatory standards for this hardware.

2.3 Running the BIOS Setup Program

The HIT-W153 terminal was most likely setup and configured by your dealer prior to delivery. Nonetheless, you may still find it necessary to use the BIOS setup program to adjust the system configuration information, such as the current date and time or hard drive type. The BIOS setup program is stored in read-only memory and can be accessed by pressing the "Del" key on your keyboard immediately after powering on/ resetting the system.

2.4 Software Installation

Recent releases of operating systems from major vendors include setup programs that load automatically and guide users through hard disk preparation and operating system installation.

> **Note!** *The system is pre-installed with software prior to shipment.*
>
> *For customers looking to develop unique applications, refer to the document "HIT Series Java Library".*

2.5 Driver Installation

After software installation, the chipset, graphics, Ethernet, audio, and touchscreen functions can be configured from the system image file.

The relevant drivers and utilities can be downloaded from the Advantech website at http://support.advantech.com/support/new_default.aspx.

The various drivers and utilities have their own text files that help users install the drivers and understand their functions. These text files are a useful supplement to the information provided in this manual.

Troubleshooting

If the terminal is malfunctioning or operating abnormally (for example, the system will not power on although the power adapter is plugged in), contact your distributor/ sales representative or Advantech's customer service center for technical support. Please have the following information to hand 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
- Symptoms, photo or video if available.

Guidance and Manufacturer's Declaration – Electromagnetic Emissions		
The HIT-W153 terminal is intended for use in the electromagnetic environment specified below. Customers and end users should ensure that HIT-W153 terminals are operated in such environments.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	HIT-W153 terminals use RF energy for internal functions only. Therefore, RF emissions are very low and unlikely to cause interference to nearby electronic equipment.
RF emissions CISPR 11	Class B	HIT-W153 terminals are suitable for use in any type of establishment, 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 HIT-W153 Terminals			
HIT-W153 terminals are intended for use in an electromagnetic environment where radiated RF disturbances are controlled. Customers and end users can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and HIT-W153 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 with a rated maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the transmitter frequency, 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

The HIT-W153 terminal is intended for use in the electromagnetic environment specified below. Customers and end users should ensure that HIT-W153 terminals are operated in such environments.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environ-ment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, con-crete, 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/out-put lines	±2 kV for power supply lines ±1 kV for input/ output lines	The mains power quality should be that of a typical commercial or hospital envi-ronment.
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	The mains power quality should be that of a typical commercial or hospital envi-ronment.
Interruptions and voltage varia-tions on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0,5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	<5% UT (>95% dip in UT) for 0,5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	The mains power quality should be that of a typical commercial or hospital envi-ronment. If users of HIT-W153 terminals require con-tinued operation during power interruptions, we recommend using an uninterruptible power supply or a battery to power the terminal.
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 commer-cial or hospital environment.

Note: UT refers to the mains AC voltage prior to application of the test level.

Guidance and Manufacturer's Declaration – Electromagnetic Immunity

The HIT-W153 terminal is intended for use in the electromagnetic environment specified below. Customers and end users should ensure that HIT-W153 terminals are operated in such environments.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
			Portable and mobile RF communications equipment should be operated no closer to any part of the HIT-W153 terminals, including cables, than the recommended separation distance calculated from the equation applicable to the transmitter frequency. **Recommended separation distance** $d = 1,2\sqrt{P}$ $d = 1,2\sqrt{P}$ 80 MHz to 800 MHz $d = 2,3\sqrt{P}$ 800 MHz to 2,5 GHz 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 metres (m). 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]. Interference may occur in the vicinity of equipment marked with the following symbol:
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2,5 GHz	Vrms V/m	

Note 1: At 80 MHz and 800 MHz, 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.

[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 broadcasts, and TV broadcast cannot be theoretically predicted with accuracy. To assess the electromagnetic environment caused by fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location where HIT-W153 terminals are used exceeds the applicable RF compliance level, the HIT-W153 terminal should be assessed to verify normal operation. If abnormal performance is observed, additional measures, such as reorienting or relocating the HIT-W153 terminal, may be necessary.**

[b] **Over the 150 kHz to 80 MHz frequency range, field strengths should be less than V/m.**

Chapter 3

Operation and Safety

3.1 General Safety Guide

For your own safety and that of your equipment, always heed the safety precautions outlined below.

Disconnect the power plug (by pulling the plug, not the cord) from your computer if any of the following occurs:

- ■ The power cord or plug becomes frayed or otherwise damaged
- ■ Liquid has been spilled in the case
- ■ 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 computer or screen
- ■ You want to remove/install any parts

3.2 Thermal Design

When the HIT-W153 terminal is in operation, it is normal for the rear metal heatsink to become warm. The metal heatsink functions as a cooling surface that transfers heat from inside the device to the cooler air outside. Do not block this heatsink with any soft material.

> **Warning!** Do not place the HIT-W153 terminal on a pillow or other soft material when powered on because the material may block the airflow and cause the terminal to overheat.

3.3 Disconnect the Power

The only way to disconnect power completely is to unplug the power cord. Ensure that at least one end of the power cord is within easy reach to enable you to unplug the device when necessary.

Warning! *The AC power cord is equipped with a 3-wire grounding plug (the plug has a third grounding pin). This plug will fit only 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 bypass the purpose of the grounding plug.*

Warning! *Never push objects of any kind into the device through the openings of the case. This is dangerous and may result in fire or dangerous electric shock.*

Never place anything on the case before powering off the device.

Never turn the device on unless all of its internal and external parts are in place.

Operating the device when open or missing parts is dangerous and may damage the equipment.

Appendix A

Watchdog and Audio Path API

A.1 Watchdog and Audio Path API

The HIT-W153 terminal is equipped with a watchdog and audio path API to enable system integrators to conveniently control and protect the system.
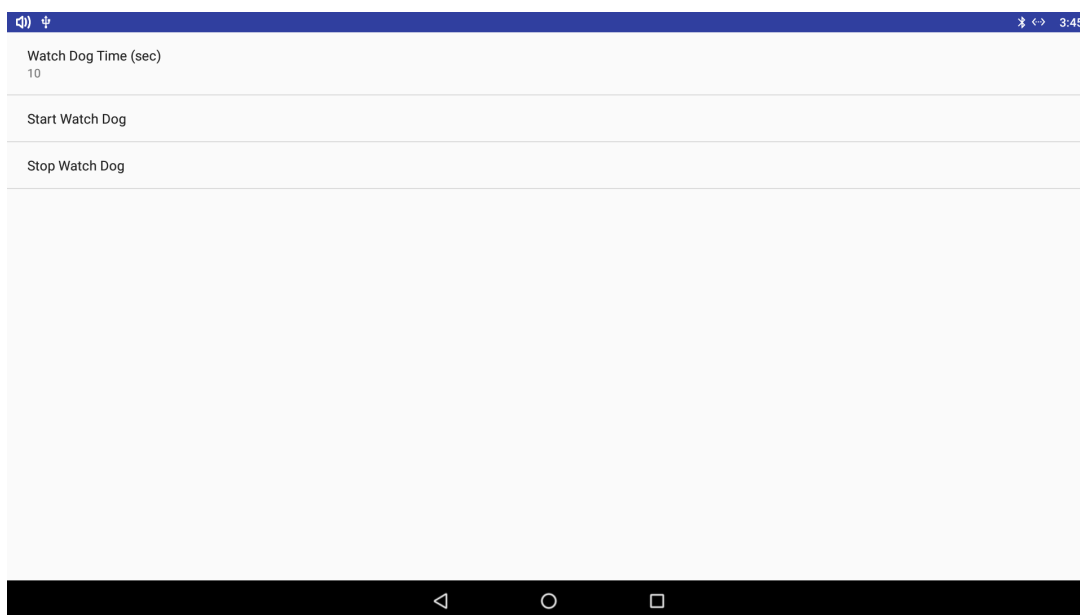
A.1.1 Watchdog

A.1.1.1 Windows OS

Users can setup the watchdog API and enable/disable the watchdog functions (including watchdog time, beeper on/off, beeper time setting) using the HIT Series Java Library provided in the SDK.
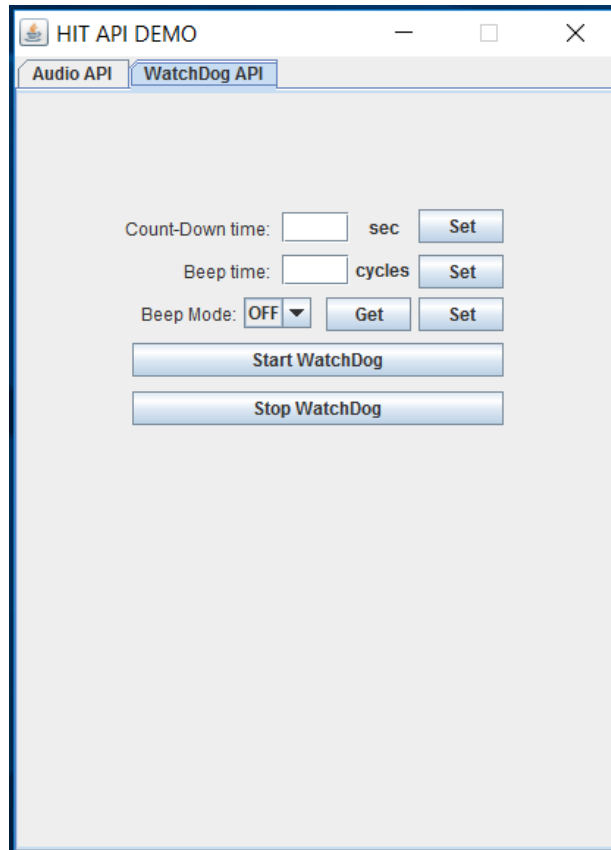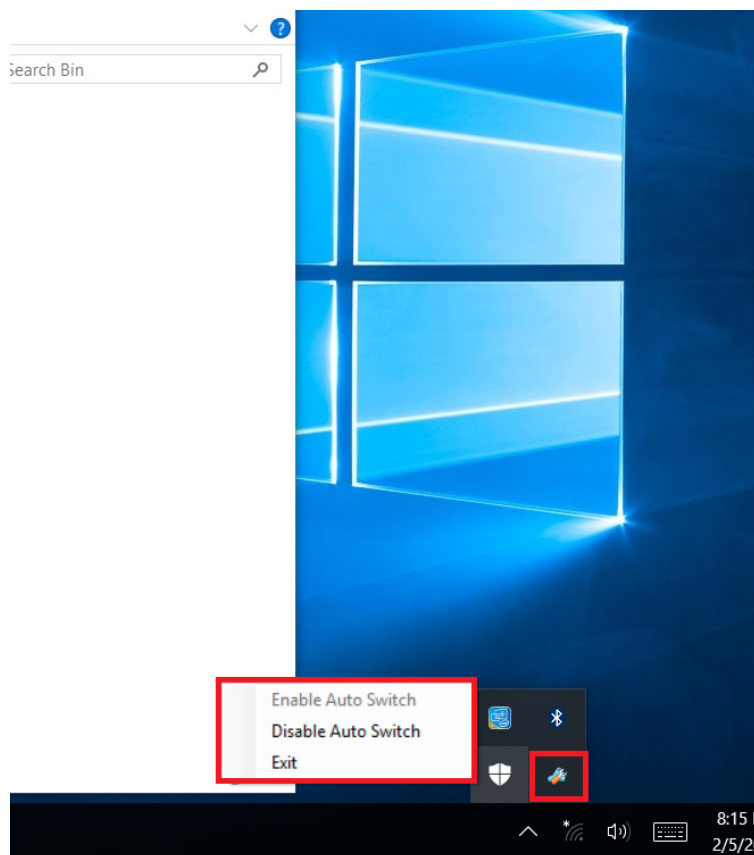
A.1.1.2 Android OS

Users can setup and configure the watchdog from the watchdog API.

A.1.2 Audio Path

A.1.2.1 Windows OS

The default setting for the audio switch is enabled. Users can enable/disable this function via the system settings.
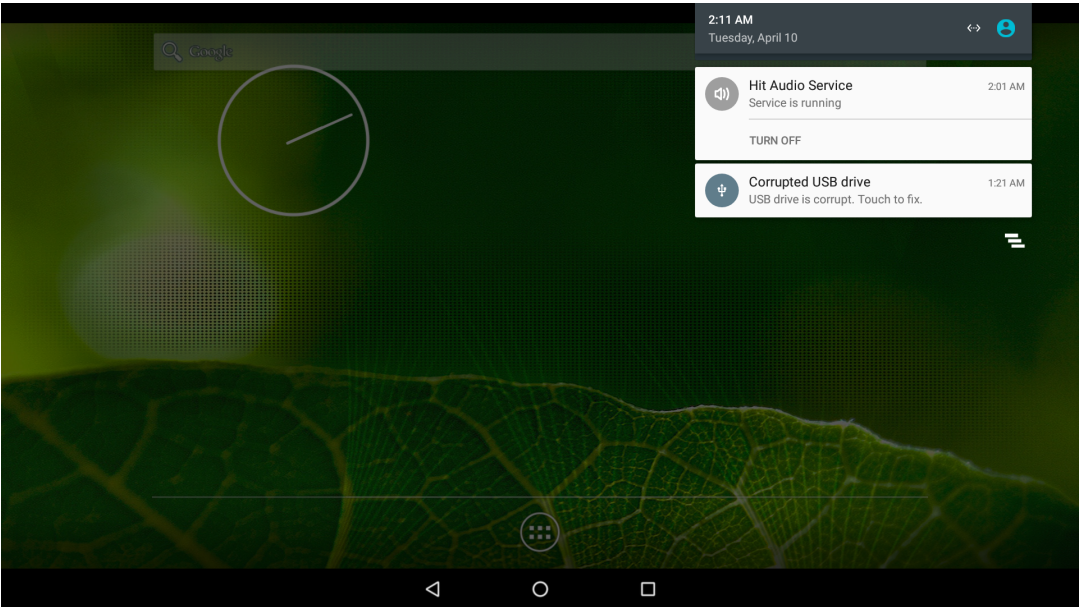
Users can turn the audio settings on/off via the audio path API provided in the HIT Series Java Library of the SDK.
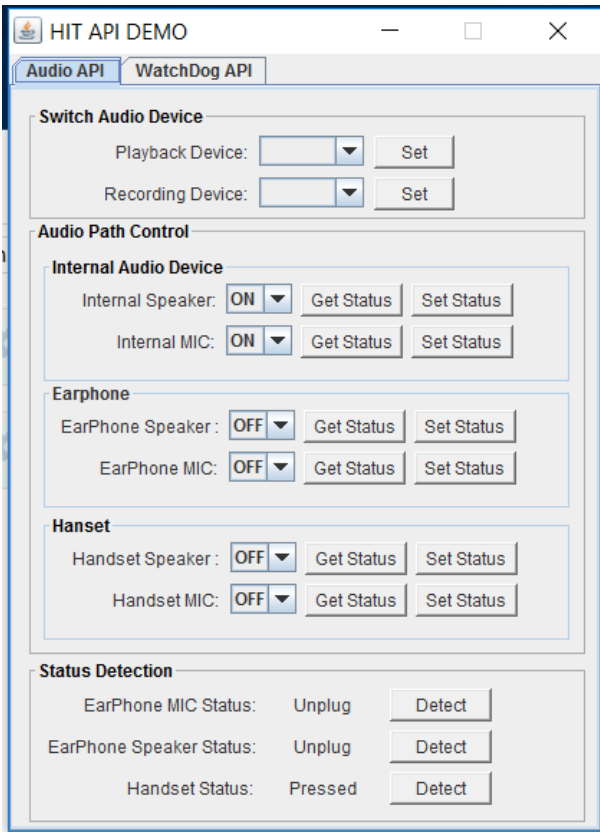
A.1.2.2 Android OS

The default setting for the audio switch is enabled. Users can enable/disable this function via the system settings.

A.1.3 VESA Mount Installation

HIT-W153 terminals support standard VESA mounting to enable system integrators to conveniently integrate the device into their existing infrastructure.

To prevent unreliable mounting and avoid injury, use only the mounting brackets provided by Advantech. VESA mount installation should be conducted by a professional technician. Please contact a service technician or your retailer if you require this service.

Installation Instructions

1. Attach the mount bracket to the heat sink of the HIT-W153 terminal. Secure the bracket in place using 4 of the Phillips head screws provided.
2. Mount the terminal on a wall, stand, or other flat surface.

Warning! *Be sure to secure the screws of the mount bracket tightly. If the joint between the mount bracket and HIT-W153 terminal is loose, the terminal may fall and cause injury.*
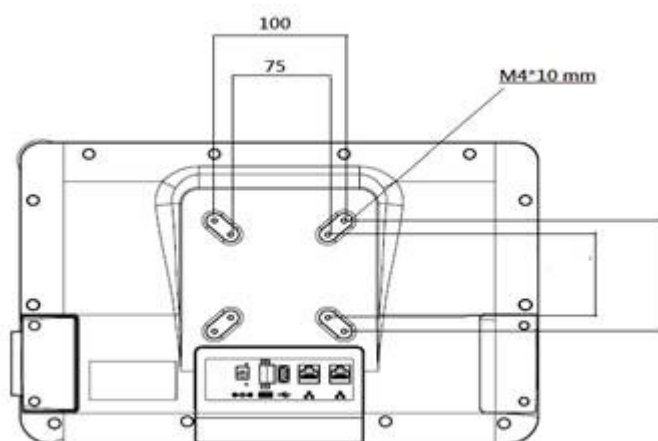
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