User Manual

HIT-W183

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.

The text provides explanations and instructs the user step-by-step in the practical use of the product by providing short, clear instructions in an easy-to-follow sequence.

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 information intended to avoid inconveniences during operation.*

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Safety Instructions

1. Please read these safety instructions carefully and follow these instructions for use.
2. Retain this user manual for future reference. Any use of the product requires a full understanding and strict observation of all safety instructions. Observe all WARNINGS and CAUTIONS provided throughout this manual and on labels on the equipment.
3. Repair of this equipment should only be conducted by trained service personnel. Advantech recommends that a service contract be obtained with Advantech Service and that all repairs also be carried out by them. Otherwise, the correct functioning of the device may be compromised.

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

4. If one of the following situations occurs, have the equipment checked by service personnel:
   - The power cord or plug is damaged.
   - Liquid has penetrated into 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 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 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 power source voltage is correct before connecting the equipment to a power outlet. Position the power cord away from high-traffic areas. Do not place anything over the power cord. If the equipment is not used for a long time, disconnect the equipment from the power source to avoid damage from transient over voltage.

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.*

10. If the system clock is unable to maintain accurate time or the BIOS configuration resets to the default settings, the battery has no power.

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

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 recommended by the manufacturer. Discard used batteries according to the manufacturer’s instructions

Caution! *A battery charge indicator is not included with this device. The indicator will be added to the finished system during final assembly.*

11. Improper installation of a VESA mount can result in serious personal injury! Therefore, we recommend that a professional technician perform VESA mount installation. Please contact an authorized service technician or your sales representative if you need this service. Otherwise, VESA mount installation instructions are provided in Appendix A.1.3.

12. CLASSIFICATION:
    1). Class I internal power
    2). No applied parts
    3). Continuous operation
    4). Neither AP nor APG category

Warning! *This device is not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide, or for use with life support systems.*

13. Follow local regulations when disposing of the unit to ensure environmental protection.

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 devices.*

14. To prevent static electricity from causing harm to the device or patient, do not touch patients when also holding the device.

15. When networking with electrical devices, the operator is responsible for ensuring that the resulting system meets 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
16. 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 IEC 60601-1-1 standard. Any person who connects additional equipment to the signal input/output port configures a medical system, and is therefore, responsible that the system complies with the requirements of the IEC 60601-1-1 standard. The unit is 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 sales representative.

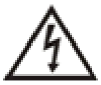
Caution! *Use suitable mounting apparatus to avoid risk of injury.*

17. Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked “Hospital Only” or “Hospital Grade”.
18. Use a power cord that matches the voltage of the power outlet and that has been approved and complies with the safety standards of your country.
    .

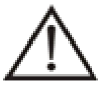
Warning! *Do not modify the equipment with the authorization of the manufacturer.*

Warning! *To avoid electric shock, the equipment must only be connected to a supply mains with protective earthing.*

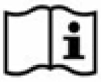
Explanation of Graphical Symbols



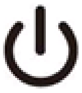
IEC 60878 and ISO 3864-B.3.6: Warning: Dangerous voltage



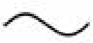
ISO 7000-0434: Caution, consult accompanying documents



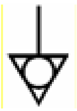
ISO 7000-1641: Follow the operating instructions or consult the instructions for use



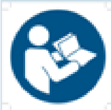
IEC 60417 -5009: Standby



IEC 60417-5032: Alternating current



IEC 60417-5021: Equipotentiality



ISO 7010-M002: Follow the instructions for use

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Chapter 1

Introduction

This chapter briefly introduces the HIT-W183 product.

- Introduction
- Specifications
- Dimensions
- Operating Principles
- Intended User Profile

1.1 Introduction

The HIT-W183 healthcare infotainment terminal features an Intel® Pentium® N4200 quad-core processor with Windows 10 IoT Embedded OS pre-installed, 18.5" widescreen full-flat touchscreen with 10-point projected capacitive touch control, onboard isolated Giga-LAN port, as well as other standard I/O including 1 x USB 3.0, 2 x USB 2.0, 1 x audio jack, and 1 x mic-in. Developed to provide a bedside care and monitoring solution for hospital applications, the HIT-W183 terminal's LAN-enabled architecture allows it to also function as an integrated gateway device. Nursing assistance calls and LED light signals can be transmitted via LAN from the terminal to nursing stations for improved patient care.

Intended Use

Designed for integration with existing hospital systems, the HIT-W183 terminal can be used by healthcare staff to access medical records and hospital information systems, retrieve laboratory results, monitor patient vital signs, and document treatment observations. Meanwhile, patients can use the terminal to watch movies/TV, play games, surf the Internet, send emails, request nurse assistance, and manage the ward environment, such as adjust the bed height, lighting, and curtains.

The HIT-W183 healthcare infotainment terminal should not be used as 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

Hardware	CPU	Intel® Pentium® N4200 quad-core
	Memory	4 GB DDR3L (up to 8 GB)
	Primary Storage	M.2 2242 SSD 64 GB
	Camera	5 MP CMOS
	RFID/NFC	1
	Expansion Slot	1 x Full-size mini PCIe
Display	Size	18.5" widescreen TFT LED
	Max. Resolution	1920 x 1080 FHD
	Luminance	350 cd/m^2
	Contrast Ratio	1000:1
Touchscreen	Type	Projected capacitive
Hotkey	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 Watt
	Internal Microphone	1
Network & Wireless	LAN (Isolated)	2 x Isolated RJ45 (10/100/1000 Mbit)
	Bluetooth	Bluetooth 4.1 (default)
	WLAN	802.11 a/b/g/n/ac (default)
Software	OS	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)	466.4 x 311.5 x 43 mm (18.4 x 12.3 x 1.7 in)
	Weight	Net weight (w/o adapter): 3.89kg (8.58 lb) Gross weight: 5.94 kg (13.1 lb)
Adapter		100 ~ 240 V 63W 18 ~ 19 V 3.42A W/PFC
Option	TV Tuner (SMA Jack)	Module
	Second 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, IEC 60601-1, IEC 62368, BSMI

1.3 Dimensions

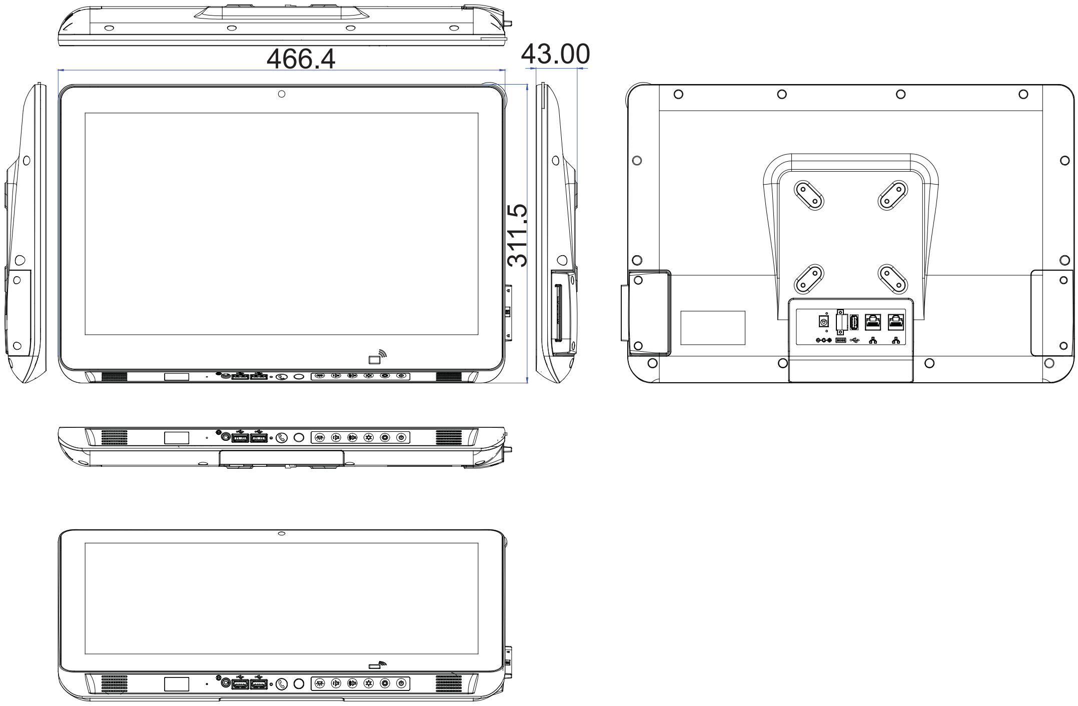
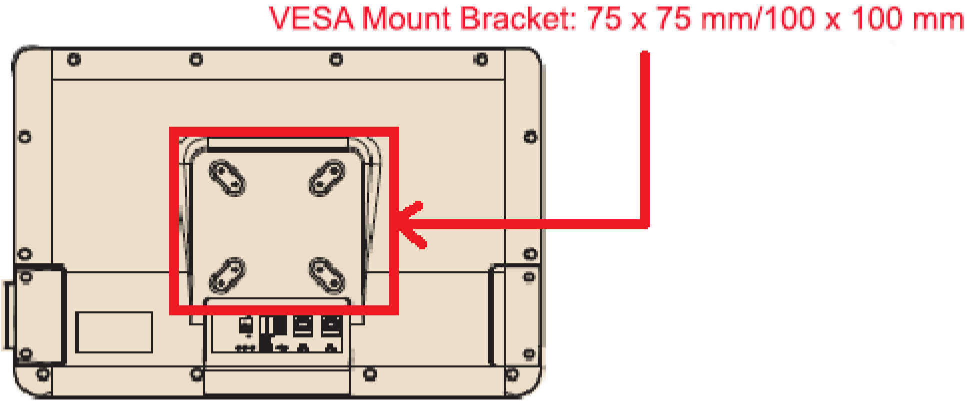


Figure 1.1 Dimensions of HIT-W183



VESA mount support: 75 x 75 mm/100 x 100 mm
Use 4 x M4 screws, with a depth of useful thread length >8 mm

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

1.3.1 Optional Modules

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

1.3.2 Module List

Features	Interface	Description
Wi-Fi	M.2	802.11 a/b/g/n/ac + Bluetooth 4.1
RFID kit	Internal USB	13.56 MHz, ISO-15693/14443A/14443B
Camera module	Internal USB	5 MP CMOS
Smart card reader	Internal USB	Built-in module
Second 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 (SMA jack)	SMA jack	Optional

1.3.3 Cleaning and Disinfecting

During normal use of the HIT-w183 healthcare infotainment terminal, the device may become dirty and should be regularly cleaned.

Steps

1. Prepare pure water for cleaning.
2. Moisten a cloth in the water and then wipe the HIT terminal.
3. Use a dry cloth to wipe the terminal again thoroughly.

Caution!

- *Do not immerse or rinse the HIT terminal or peripherals. If liquid is accidentally spilled on the device, disconnect the terminal from the power source.*
- *Contact the IT support department regarding the continued safety of the terminal before placing it back into operation. Do not spray any cleaning agents on the chassis.*
- *Do not use disinfectants that contain phenol.*
- *Do not autoclave or clean the HIT terminal or peripherals using 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 terminal's data input points are the touch panel, physical keys located at the bottom of the front panel, accessories connected via USB ports, and LAN/WLAN connections. The device's processing unit receives the inputted data, execute relevant computations, and then outputs the data to the LCD panel, accessories, or other integrated devices via the I/O ports or LAN/WLAN connections. Data can be stored in the system's internal storage, and even when the terminal is powered off, the data is retained in the system memory.

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 applied to or interacted with: Hands and fingers, expected contact time shall be less than 1 minute
- Education level: At least 8 years of intensive reading experience (school)
- Knowledge:
  - Minimum - Able to read and understand westernized Arabic numerals written in Arial font
  - Able to distinguish every part of the terminal as described in the user manual
- Technician: Must be trained and authorized by the manufacturer
  To be considered trained and authorized, technicians must complete the training course developed by the manufacturer (see the document HIT-W183_User Manual_Rev 1.0 for further information). When determined to be necessary by the manufacturer, the technician may be called back for retraining. Annual training is also necessary.

- Language skills: English. If other languages are required, a professional translation company shall be employed to translate the interface. This translation must then be reviewed by the manufacturer (see the SOP document SOP_Writing_Guidelines-ed.3).
- Experience: Mentally and physically competent with specific medical training to understand the graphical symbols
- Permissible impairments:
  - Mild reading vision impairment or vision corrected to log MAR 0,2 (6/10 or 20/32)
  - Single-arm/hand system capable of guiding and holding a device
  - Average degree of aging-related short term memory impairment
  - Hearing impairment of 40% resulting in 60% hearing ability at 500 Hz ~ 2 kHz

Chapter 2

System Setup

This chapter describes the hardware features of the HIT-W183.

- Hardware Features
- Initial Setup
- BIOS Configuration
- Software Installation
- Driver Installation

2.1 Hardware Features

Before setting up the HIT-W183 terminal, take a moment to become familiar with the location and purpose of the controls, drives, connections, and ports (as illustrated in the figures below). The front panel of the HIT-W183 should appear as shown in Figure 2.1.

2.1.1 Front View

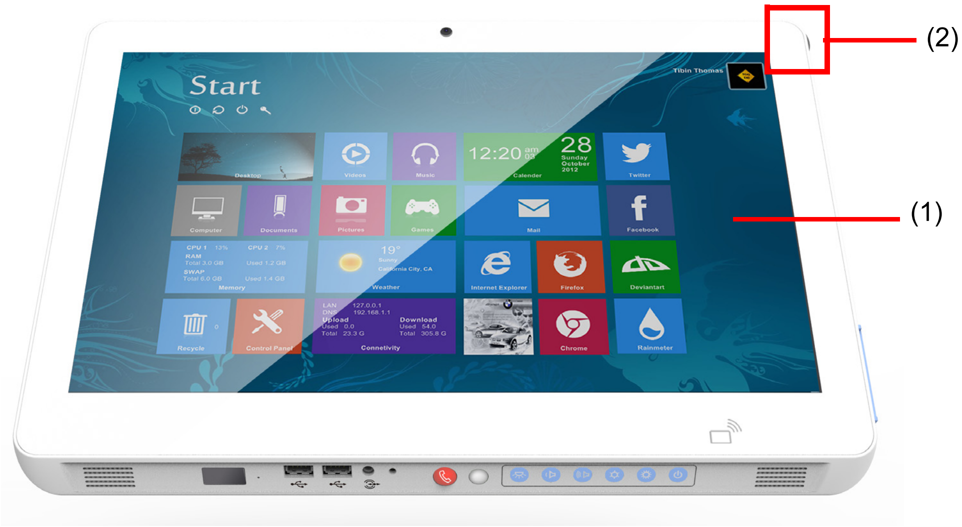


Figure 2.1 Front view of HIT-W183

Front Bezel View

(1) LCD panel with touchscreen module

(2) LED indicator light

2.1.2 Rear View

Located at the rear of the terminal is the recessed I/O interface section, as shown in Figures 2.2, 2.3, and 2.4. (The I/O section includes I/O ports, buttons, and hotkeys.)

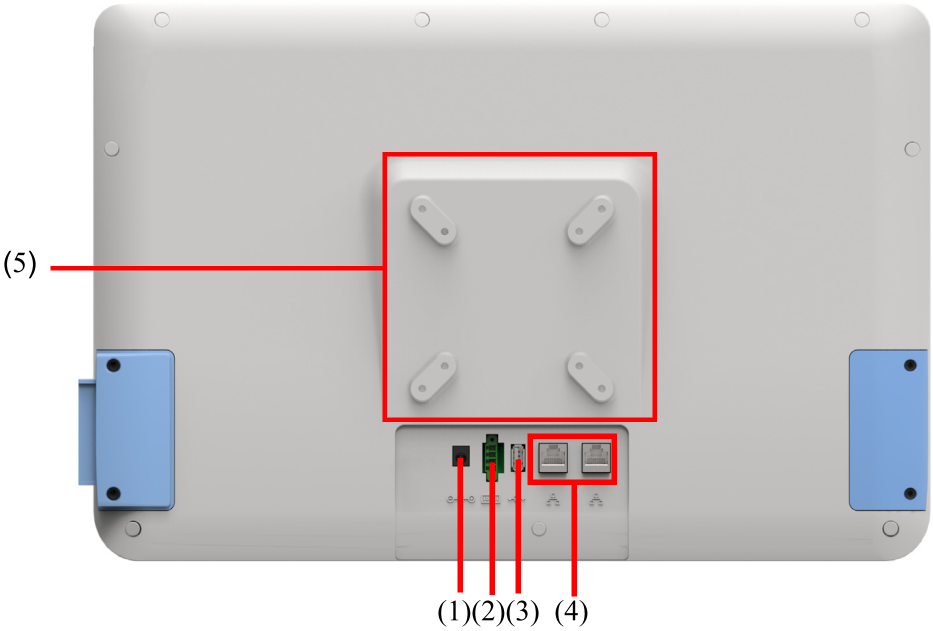


Figure 2.2 Rear view of HIT-W183

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

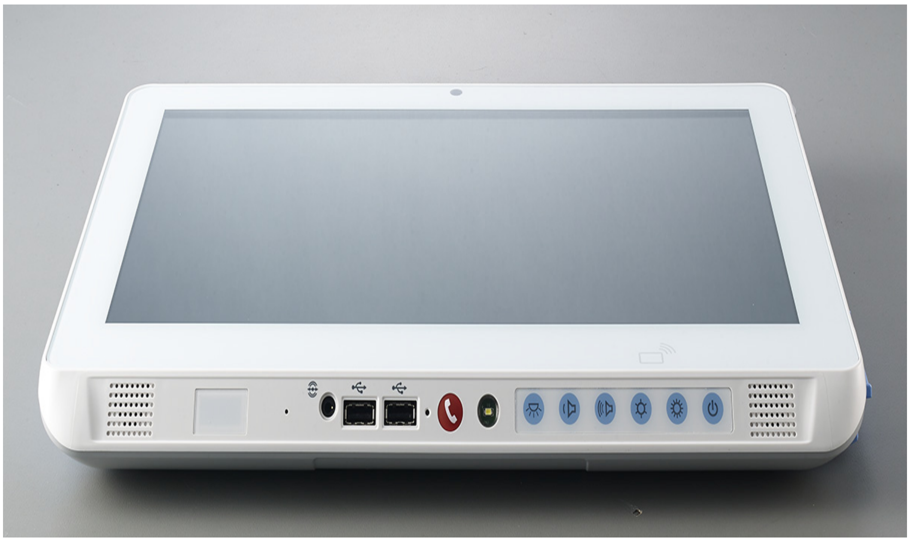


Figure 2.3 Underside view of HIT-W183

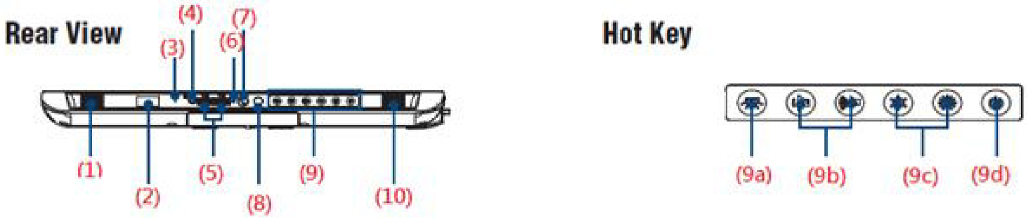


Figure 2.4 Button view of HIT-W183

Underside Buttons

(1) Speaker	(8) Reading light
(2) Barcode scanner	(9) Hot key
(3) Mic-in	(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	(10) Speaker

Note! *The equipotential terminal must be linked to the hospital's grounding/earthing system before system bootup to protect the equipment and operator.*

2.1.3 HIT-W183 with Handset (Optional)

The HIT-W183 terminal can be equipped with an optional handset for bedside use. The handset (as shown in Figure 2.5) features two microphones and noise cancellation technology to eliminate environmental noise and ensure optimal sound quality.

Handset Dimensions: 57 (W) x 192 (H) x 69 (D) mm

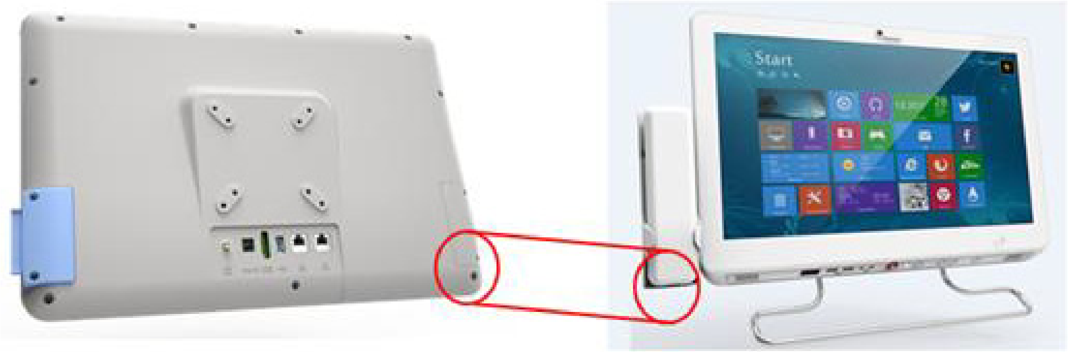
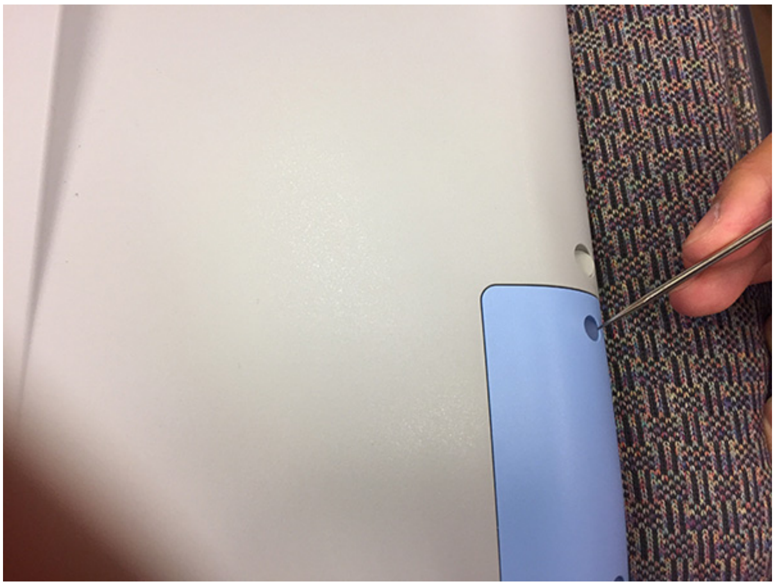


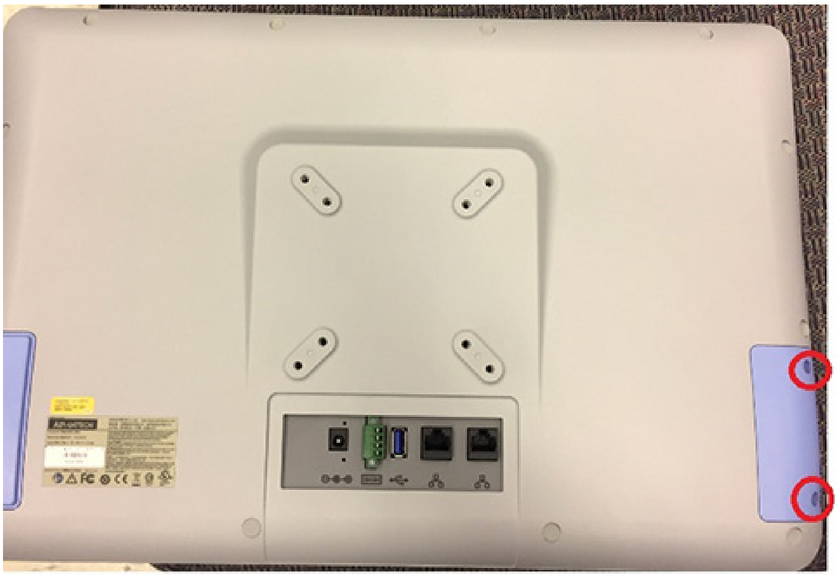
Figure 2.5 Handset installation

Handset Installation Instructions:

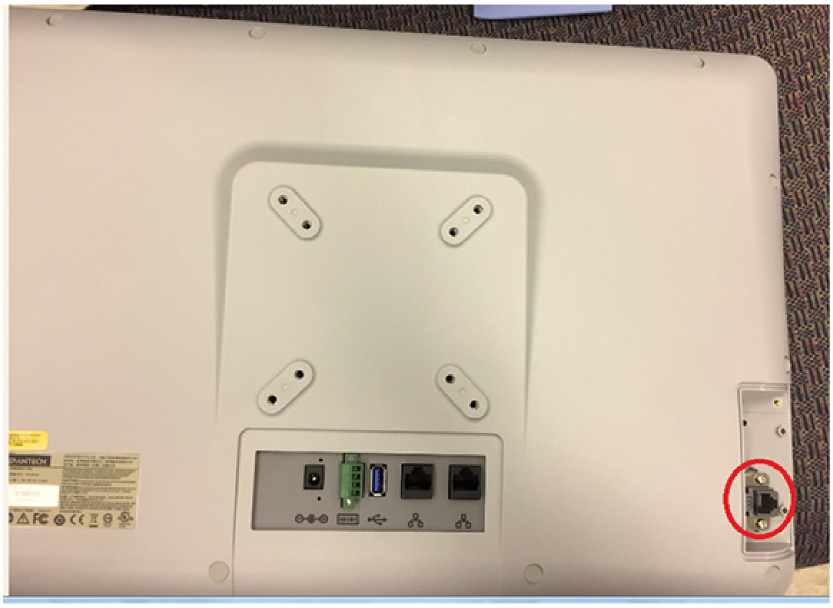
1. Remove the two rubber plugs from the blue I/O cover on the left side of the rear of the terminal.



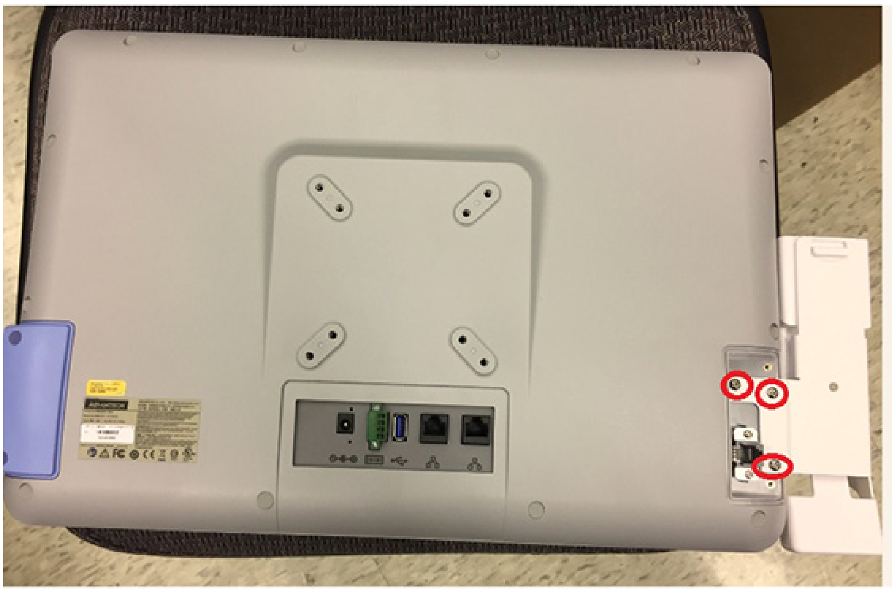
2. Remove the affixing screws of the cover.



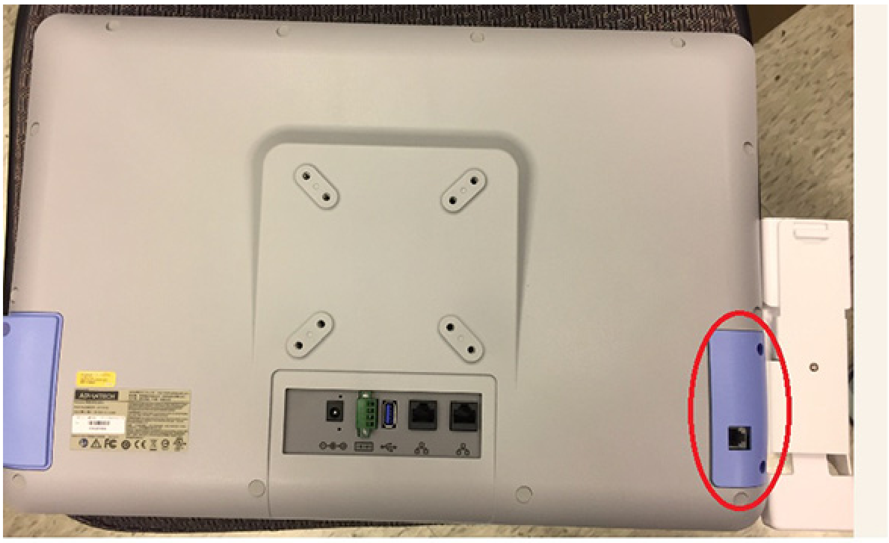
3. Open the cover to access the RJ12 connector.



4. Use screws to attach the handset bracket via the screw holes provided.



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



2.2 Initial Setup

2.2.1 Connecting the Power Cord

The HIT-W183 terminal is powered by a DC power adapter.
ITE: FSP/Model no. 9NA0654706
Medical: SINPRO/Model no. MPU64-107

When handling the power cords, hold them by the plug end only.

1. Connect the female end of the power adapter to the DC jack of the terminal (see Figure 2.6).
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.

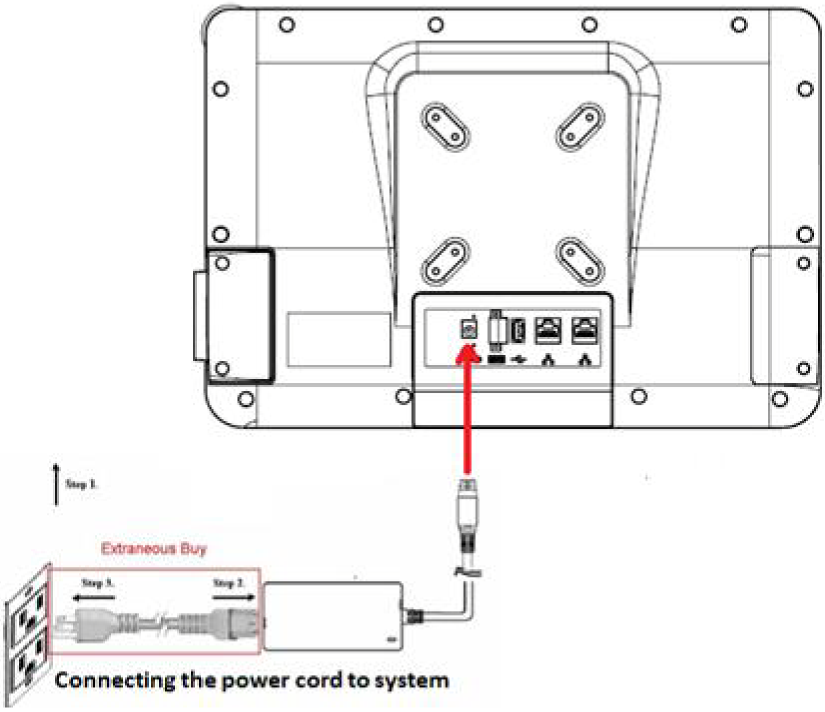


Figure 2.6 Connecting the power cord

Warning! *The HIT-W183 terminal is compatible with a 63-watt power supply and requires a special adapter, as shown in Figure 2.6.*

If a medical adaptor is connected to HIT-W183, customers must ensure that the device meets the legal and regulatory standards for this hardware.

2.3 BIOS Configuration

It is possible that the HIT-W183 terminal was setup and configured by your dealer prior to delivery. However, users may still need to access the BIOS setup program to adjust the system configuration data, such as the date and time or hard drive type. The BIOS setup program is stored in read-only memory.

The BIOS setup menu can be accessed by pressing the “Delete” key immediately after powering on or resetting the device.

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 terminal is pre-installed with system software prior to shipment.*

For users wishing to develop unique applications, refer to the “HIT Series Java Library” document.

2.5 Driver Installation

After installing the system software, users can setup the chipset, graphics, Ethernet, audio, and touchscreen functions (if required) using the image file in the system.

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 are provided with text files that explain the installation process and functions and are a useful supplement to the information provided in this manual.

Troubleshooting

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

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.)
- Comprehensive 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-W183 terminal is intended for use in the electromagnetic environment specified below. Customers or users of HIT-W183 should ensure that the device is operated in such an environment.

Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The HIT-W183 terminal uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference to nearby electronic equipment.
RF emissions CISPR 11	Class B	The HIT-W183 terminal 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 HIT-W183 terminal

The HIT-W183 terminal is intended for use in an electromagnetic environment where radiated RF disturbances are controlled. Customers or users of the HIT-W183 terminal can help prevent electromagnetic interference by maintaining the minimum distance between portable and mobile RF communications equipment (transmitters) and the HIT-W183 terminal 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 metres (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.

<table>
<tr><th colspan="4">Guidance and manufacturer’s declaration – electromagnetic immunity</th></tr>
<tr><td colspan="4">The HIT-W183 terminal is intended for use in the electromagnetic environment specified below. Customers or users of the HIT-W183 terminal should ensure the device is operated in such an environment.</td></tr>
<tr><th>Immunity test</th><th>IEC 60601 test level</th><th>Compliance level</th><th>Electromagnetic environment –guidance</th></tr>
<tr><td>Electrostatic discharge (ESD)
IEC 61000-4-2</td><td>±6 kV contact
±8 kV air</td><td>±6 kV contact
±8 kV air</td><td>Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.</td></tr>
<tr><td>Electrical fast transient/burst
IEC 61000-4-4</td><td>±2 kV for power supply lines
±1 kV for input/output lines</td><td>±2 kV for powersupply lines
±1 kV for input/output lines</td><td>Mains power quality should be that of a typical commercial or hospital environment.</td></tr>
<tr><td>Surge
IEC 61000-4-5</td><td>±1 kV line(s) to line(s)
±2 kV line(s) to earth</td><td>±1 kV line(s) to line(s)
±2 kV line(s) to earth</td><td>Mains power quality should be that of a typical commercial or hospital environment.</td></tr>
<tr><td>Interruptions and voltage variations on power supply input lines
IEC 61000-4-11</td><td><5% *U*T (>95% dip in *U*T) for 0,5 cycle
40% *U*T (60% dip in *U*T) for 5 cycles
70% *U*T (30% dip in *U*T) for 25 cycles
<5% *U*T (>95% dip in *U*T) for 5 seconds</td><td><5% *U*T (>95% dip in *U*T) for 0,5 cycle
40% *U*T (60% dip in *U*T) for 5 cycles
70% *U*T (30% dip in *U*T) for 25 cycles
<5% *U*T (>95% dip in *U*T) for 5 seconds</td><td>Mains power quality should be that of a typical commercial or hospital environment. If users of the HIT-W183 terminal require continued operation during power mains interruptions, it is recommended that the HIT-W183 terminal be powered from an uninterruptible power supply or battery.</td></tr>
<tr><td>Power frequency (50/60 Hz) magnetic field
IEC 61000-4-8</td><td>3 A/m</td><td>3 A/m</td><td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td></tr>
<tr><td colspan="4">NOTE: *U*T is the AC mains voltage prior to application of the test level.</td></tr>
</table>

Guidance and manufacturer's declaration – electromagnetic immunity

The HIT-W183 terminal is intended for use in the electromagnetic environment specified below. Customers or users of the HIT-W183 terminal should ensure the device is operated in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
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	Portable and mobile RF communications equipment should be used no closer to any part of the HIT-W183 terminal, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **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:

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 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 of where the HIT-W183 terminal is used exceeds the applicable RF compliance level specified above, the HIT-W183 terminal should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the HIT-W183 terminal.**

[b] **Over the frequency range 150 kHz to 80 MHz, 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 the equipment, always take the following precautions:

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

- The power cord or plug becomes frayed or otherwise damaged
- Liquid is spilled into the case
- The equipment has been dropped or the case has been otherwise damaged
- You suspect that your computer needs service or repair
- You want to clean the computer or screen
- You want to remove/install any parts

3.2 Thermal Protection

When using the HIT-W183 terminal, it is normal for the rear metal heatsink to become warm. The rear metal heatsink of the HIT-W183 terminal functions as a cooling surface that transfers heat from inside the device to the cooler external air. Do not block this heatsink with any soft material.

Warning! *Do not place the HIT-W183 terminal on a pillow or other soft material when powered on as the material may block the airflow and cause the device to overheat.*

3.3 Disconnect the Power

The only way to disconnect the terminal from the power source 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 required.

Warning! *The AC power cord is equipped with a 3-wire grounding plug (a plug that 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 ignore the purpose of the grounding plug.*

Warning! *Never push objects of any kind into this product through the openings of the case. This may cause fire or electric shock.*

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

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

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

Appendix A

Watchdog API and Audio Path

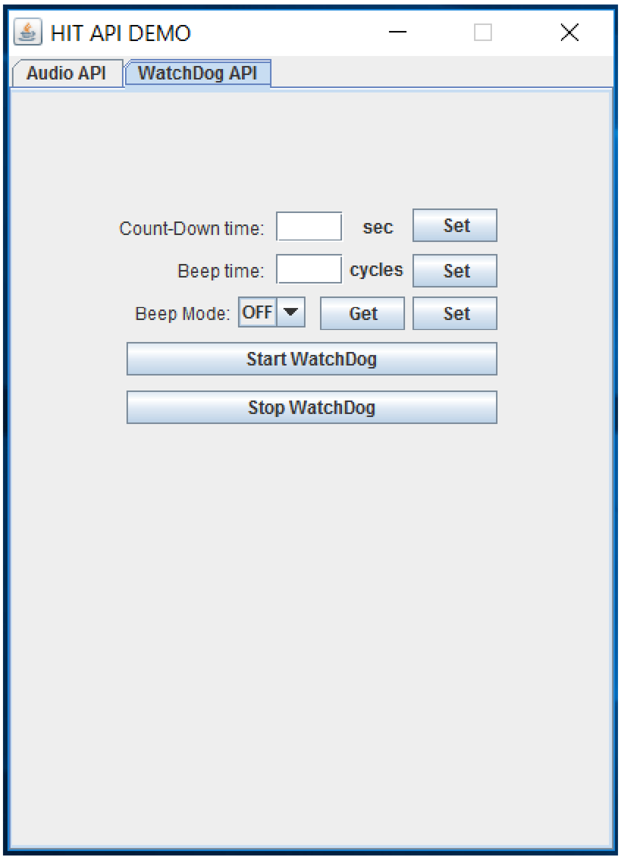
A.1 Watchdog API and Audio Path

The HIT-W183 is equipped with a watchdog API and audio path 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, and beeper time settings) via the HIT Series Java Library of the SDK.


HIT API DEMO
Audio API
WatchDog API
Start WatchDog
Stop WatchDog

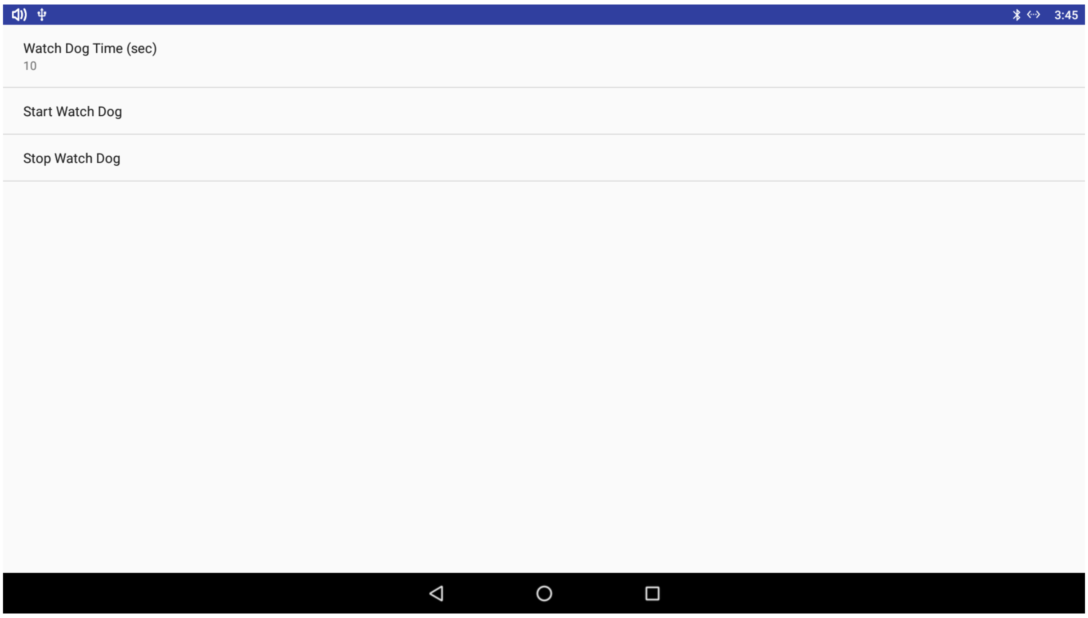
Count-Down time: sec Set

Beep time: cycles Set

Beep Mode: OFF Get Set

A.1.1.2 In Android OS

Users can use the watchdog API to setup the watchdog and configure the following settings:

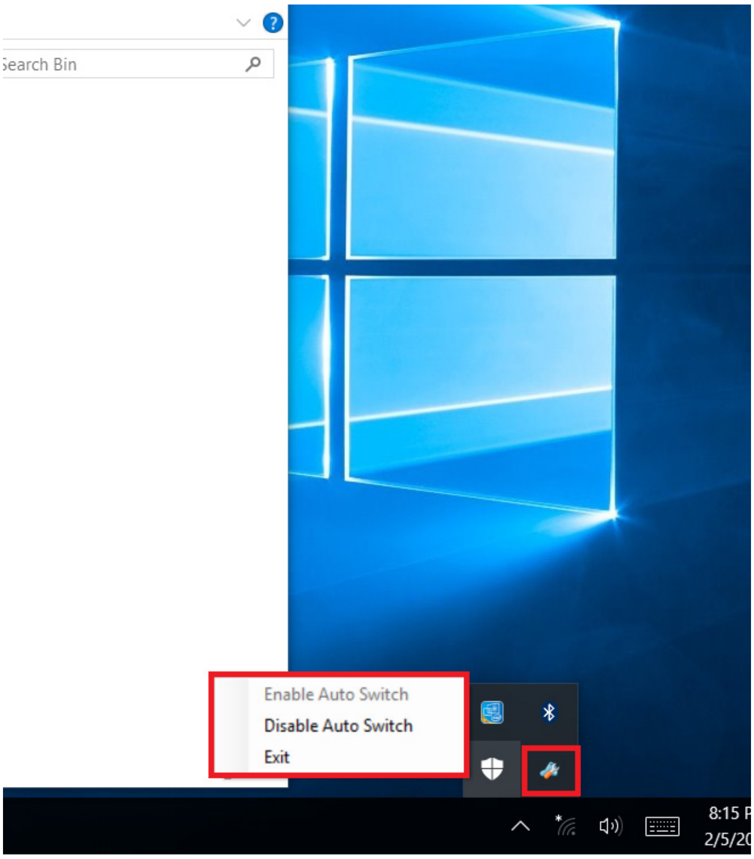

3:45
Start Watch Dog
Stop Watch Dog

Watch Dog Time (sec)
10

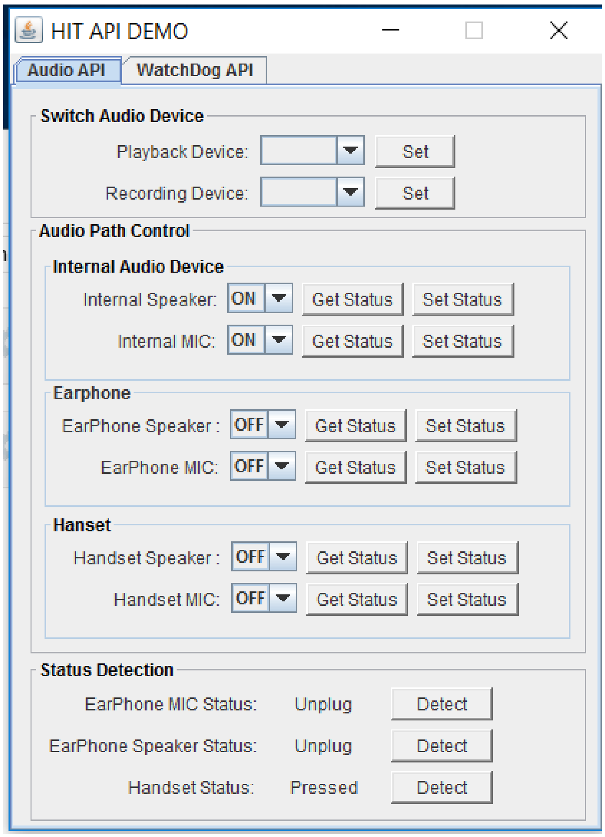
A.1.2 Audio Path

A.1.2.1 In Window OS

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


earch Bin
Enable Auto Switch
Disable Auto Switch
Exit
8:15
2/5/2

Users can turn the audio settings on/off via the audio path API in the HIT Series Java Library of the SDK.


HIT API DEMO
Audio API
WatchDog API
Switch Audio Device
Playback Device:
Set
Recording Device:
Set
Audio Path Control
Internal Audio Device
Get Status
Set Status
Earphone
Hanset
Status Detection
Detect

Internal Speaker: ON

Internal MIC: ON

EarPhone Speaker : OFF

EarPhone MIC: OFF

Handset Speaker : OFF

Handset MIC: OFF

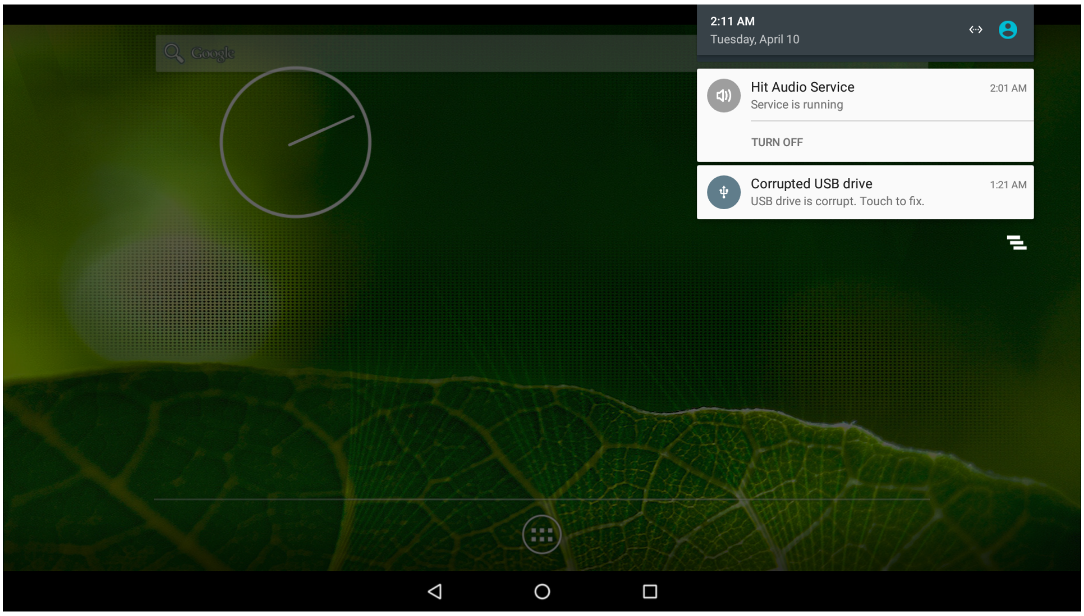
EarPhone MIC Status: Unplug

EarPhone Speaker Status: Unplug

Handset Status: Pressed

A.1.2.2 In Android OS

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



2:11 AM
Tuesday, April 10

Hit Audio Service 2:01 AM
Service is running
TURN OFF

Corrupted USB drive 1:21 AM
USB drive is corrupt. Touch to fix.

A.1.3 VESA Mount Installation

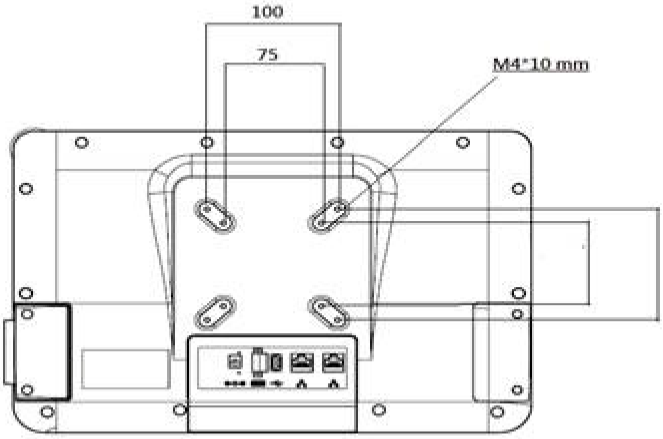
The HIT-W183 terminal also supports standard VESA mounts to facilitate convenient integration.

Only use mount brackets provided by Advantech to avoid unreliable mounting of the HIT-W183 terminal. VESA mount installation should be carried out by a professional technician. If you require this service, please contact a service technician or your local retailer.

Installation Instructions

1. Attach the VESA mount bracket to the heat sink of the HIT-W183 terminal. Secure the bracket in place using four of the Philips-head screws provided.
2. Mount the terminal onto the wall, stand, or desk mount.

Warning! *Ensure the screws of the mount bracket are fastened tightly. Loosely secured mount brackets can lead to injury.*



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