PC1015

10.1” Price Checking Terminal

User's Manual

Version 1.1

P/N: 4018101500110P

2017.07

This page is intentionally left blank.

Revision History

Version	Release Time	Description
1.0	2017.03	Initial release
1.1	2017.07	1.5 Specifications: Update LCD display section 2.2 Connection: Add notes about not to use PoE and DC power at the same time.

Copyright

Copyright © 2017 ARBOR Technology Corp. All Rights Reserved.

This document contains proprietary information protected by copyright. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

Disclaimer

The information in this document is subject to change without prior notice in order to improve the reliability, design and function. It does not represent a commitment on the part of the manufacturer.

Under no circumstances will the manufacturer be liable for any direct, indirect, special, incidental, or consequential damages arising from the use or inability to use the product or documentation, even if advised of the possibility of such damages.

About This Manual

This user's manual provides the general information and installation instructions for the product. The manual is meant for the experienced users and integrators with hardware knowledge of personal computers. If you are not sure about any description in this manual, consult your vendor before further handling.

We recommend that you keep one copy of this manual for the quick reference for any necessary maintenance in the future. Thank you for choosing ARBOR products.

Contents

Preface ..... **iv**
Declaration of Conformity iv
CE iv
FCC iv
RoHS iv
SVHC / REACH v
Symbols Descriptions vi
Important Safety Instructions vi
General Cleaning Tips viii
Cleaning Tools ix
Recommended Cleaning Procedures ix
Disposing of the Equipment x
Additional Information & Technical Support xi
Warranty xii

Chapter 1 Introduction **1**
1.1 Product Highlights 2
1.2 Package Contents 2
1.3 Ordering Information 2
1.4 Dimensions 3
1.5 Specifications 4
1.6 Barcode Scanner Specifications 6

Chapter 2 Getting Started **7**
2.1 Getting to Know the Terminal 8
2.2 Connection 9
2.3 Attaching to a VESA Mount 12
2.4 Powering on/off the Terminal 13

Chapter 3 Using the Terminal **15**

Declaration of Conformity

CE

The CE symbol on your product indicates that it is in compliance with the directives of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

This product has passed the CE test for environmental specifications when shielded cables are used for external wiring. We recommend the use of shielded cables. This kind of cable is available from ARBOR. Please contact your local supplier for ordering information.

FCC

This device complies with Part 18 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the guarantee of this device could void the user's authority to operate the equipment.

RoHS

ARBOR Technology Corp. certifies that all components in its products are in compliance and conform to the European Union's Restriction of Use of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2002/95/EC.

The above mentioned directive was published on 2/13/2003. The main purpose of the directive is to prohibit the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE) in electrical and electronic products. Member states of the EU are to enforce by 7/1/2006.

ARBOR Technology Corp. hereby states that the listed products do not contain unintentional additions of lead, mercury, hex chrome, PBB or PBDB that exceed a maximum concentration value of 0.1% by weight or for cadmium

exceed 0.01% by weight, per homogenous material. Homogenous material is defined as a substance or mixture of substances with uniform composition (such as solders, resins, plating, etc.). Lead-free solder is used for all terminations (Sn(96-96.5%), Ag(3.0-3.5%) and Cu(0.5%)).

SVHC / REACH

To minimize the environmental impact and take more responsibility to the earth we live, ARBOR hereby confirms all products comply with the restriction of SVHC (Substances of Very High Concern) in (EC) 1907/2006 (REACH --Registration, Evaluation, Authorization, and Restriction of Chemicals) regulated by the European Union.

All substances listed in SVHC < 0.1 % by weight (1000 ppm)

Symbols Descriptions

The tables below describe the symbols that may appear in the product.

This symbol of “CAUTION” indicates that there is a danger of injury to the user or a risk of damage to the product, should warning notices be disregarded.

This symbol indicates electrical warning.

Refer to the user manual for more information.

Important Safety Instructions

Read these safety instructions carefully:

1. Read all cautions and warnings on the equipment.
2. Place this equipment on a reliable surface when installing. Dropping it or letting it fall may cause damage
3. Make sure the correct voltage is connected to the equipment.
4. To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
5. For pluggable equipment, the socket outlet should be near the equipment and should be easily accessible.
6. Keep this equipment away from humidity.
7. Disconnect this equipment from the A/C outlet before cleaning it. Use a moist cloth. Do not use liquid or sprayed detergent for cleaning.
8. To fully disengage the power to the unit, please disconnect the power from the AC outlet.
9. Do not scratch or rub the screen with a hard object.
10. Never use any of the solvents, such as Thinner Spray-type cleaner, Wax, Benzene, Abrasive cleaner, Acid or Alkaline solvent, on the display. Harsh chemicals may cause damage to the cabinet and the touch sensor.

11. Remove dirt with a lightly moistened cloth and a mild solvent detergent. Then wipe the cabinet with a soft dry cloth.
12. The openings on the enclosure are for air convection and protect the equipment from overheating. DO NOT COVER THE OPENINGS.
13. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
14. If the equipment will not be used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
15. Never pour any liquid into openings. This may cause fire or electrical shock.
16. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
17. No modification of the equipment is allowed.
18. Only personnel authorised by the manufacturer may carry out technical operations on the equipment.
19. If one of the following situations arises, get the equipment checked by service personnel:

    a. The power cord or plug is damaged.

    b. Liquid has penetrated into the equipment.

    c. The equipment has been exposed to moisture.

    d. The equipment does not work well, or you cannot get it to work according to the user's manual.

    e. The equipment has been dropped or damaged.

    f. The equipment has obvious signs of breakage.

17. The sound pressure level at the operator's position, according to IEC 704-1:1982, is no more than 70dB(A).
18. Keep this User's Manual for later reference.
19. 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.

Do not use the power adapter that isn't made for the equipment. Supplying the equipment with inappropriate voltage may cause harm to the battery (if any) or, even worse, burn the equipment.

Risk of explosion if RTC (Real-Time Clock) battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

To prevent possible hearing damage, do not listen at high volume levels for long periods

General Cleaning Tips

You may need the following precautions before you begin to clean the device. When you clean any single part or component for the device, please thoroughly read and understand the details below.

1. We strongly recommended that you should shut down the system before you start to clean any single components.
2. When you need to clean the device, please rub it with a piece of dry cloth.
3. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
4. Never drop the components inside the device or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarette around the device.

Cleaning Tools

Although many companies have created products to help improve the process of cleaning your devices and peripherals, users can also use household items to clean their devices and peripherals. Below is a listing of items you may need or want to use while cleaning your devices or peripherals. Keep in mind that some components in your device may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning.

- **Cloth:** A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- **Water or rubbing alcohol:** You may moisten a piece of cloth a bit with some water or rubbing alcohol and rub it on the device. Unknown solvents may be harmful to the plastics parts.
- **Vacuum cleaner:** Absorb the dust, dirt, hair, cigarette particles, and other particles out of the device can be one of the best cleaning methods. Over time, these items can restrict the airflow in a device and cause circuitry to corrode.
- **Cotton swabs:** Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- **Foam swabs:** Whenever possible, it is better to use lint-free swabs such as foam swabs.

Recommended Cleaning Procedures

1. Close all application programs
2. Close operating software
3. Turn off the equipment
4. Remove all peripherals
5. Disconnect the power cable
6. Proceed to clean.

Disposing of the Equipment

- **Within the European Union**

  EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste.

  This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product, or if applicable, follow any agreements made between yourself. The mark on electrical and electronic products only applies to the current European Union Member States.

- **Outside the European Union**

  If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.

Additional Information & Technical Support

All ARBOR products are built to the most accurate specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new equipment is destined for the laboratory or the factory floor, you can be assured that the computer will provide the reliability and ease of operation. Your satisfaction is our primary concern. We want you to get the maximum performance from the computer. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in the computer's documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from the computer. In fact, most problems reported are minor and are able to be easily solved over the phone. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products. Do not hesitate to contact us using the following contact information:

Website: http://www.arbor-technology.com

E-mail: info@arbor.com.tw

TEL: 886-2-8226-9396

Add: 10F., No.700, Zhongzheng Rd., Zhonghe Dist., New Taipei City 235, Taiwan

Warranty

This product is warranted to be in good working order during the warranty period. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster.

Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, or inability to use this product. Vendor will not be liable for any claim made by any other related party.

Vendors disclaim all other warranties, either expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the hardware, the accompanying product's manual(s) and written materials, and any accompanying hardware. This limited warranty gives you specific legal rights.

Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.

Chapter 1

Introduction

1.1 Product Highlights

- Quad-Core ARM Cortex-A7 CPU 1.3G Hz, Android-based
- Price verification/updates in retail application
- 10.1” LCD display
- 10-point Projected Capacitive Multi-Touch
- H.265/HEVC Video Decode
- PoE connectivity (PD)
- Operating temperature: 0~45ºC

1.2 Package Contents

Upon opening the package, carefully inspect the contents. If any of the items is missing or appears damaged, contact your local dealer or distributor. The package should contain the following items:

1 x 10.1" Price Checking Terminal

1 x Quick Start Guide

Optional Accessories

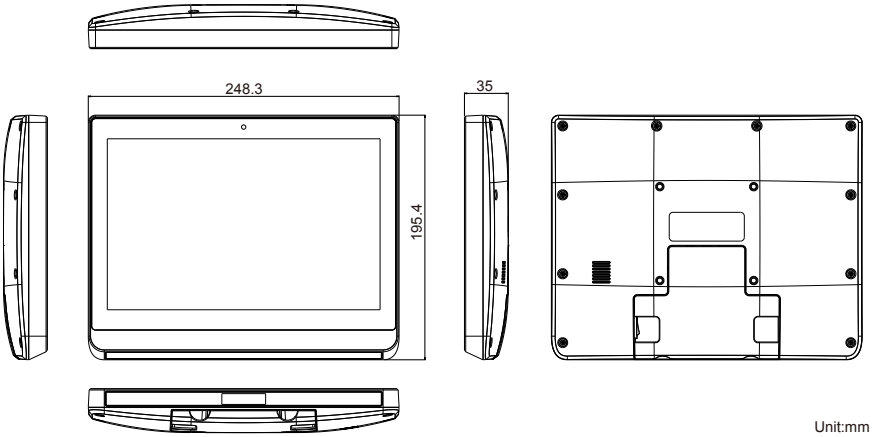
Universal power adapter, 12V/5A

1.3 Ordering Information

PC1015	10.1" terminal with projected capacitive touchscreen

Optional Configuration (CTOS* Kit) (Not Sold Separately)	
RFID & NFC-1014	RFID & NFC module kit
Barcode Scanner	1D barcode scanner
Barcode Scanner	1D/2D barcode scanner
Camera	2MP front-facing camera

1.4 Dimensions



Unit:mm

1.5 Specifications

System	
CPU	ARM Quad-Core Cortex-A7 1.3GHz (SoC)
GPU	Mali400
Memory	1GB DDR3L memory soldered on board
Storage	8GB NAND Flash soldered on board
Peripherals and Devices	
Camera	2MP front-facing camera (optional)
WLAN & Bluetooth	1 x WLAN 802.11 b/g/n & Bluetooth 4.0 + BLE
RFID & NFC	1 x 13.56MHz RFID & NFC reader with ISO 14443A/14443B/15693 support (optional)
Barcode Scanner	1D or 1D/2D barcode scanner (optional)
I/O Interface	
SD Card	1 x microSDHC/microSD card socket (internal) (Max. 32GB)
Audio	1 x 3W stereo speaker
LAN	1 x RJ-45 10/100M with PoE PD support
USB Port	1 x USB 2.0 Type-A Port
Button & Indicator	
Button	1 x Power on/off button
LED	RJ-45 connector LED (Green: DC power, Orange: PoE)
Touch Screen	
Type	10-point Projected Capacitive Multi-Touch
LCD Display	
Size/Type	10.1” TFT, LVDS type
Max. Resolution	1280 x 800 (WXGA)
Contrast Ratio	600:1 (typ.)
Backlight Type	LED
View Angle (U/D/R/L)	77.5°/77.5°/75°/75° (typ.)

Video Streaming	
UDP Streaming	Support multicast UDP stream decode
RTSP Streaming	Support RTSP stream decode
HLS Streaming	Support HLS stream
Power Requirement	
Power Input	PoE input or DC 12V/5A (either one)
Adapter Input	100 ~ 240 VAC (full range)
Adapter Output	DC 12V, 5A
Mechanical & Environmental	
Operating Temp.	0 ~ 45ºC (32 ~ 113ºF)
Storage Temp.	-20 ~ 60ºC (-4 ~ 140ºF)
Operating Humidity	10 ~ 80 % @ 45ºC (non-condensing)
Dimensions (W x H x D)	248 x 195.4 x 35 mm (9.76” x 7.69” x 1.38”)
Net Weight	662g (1.46lb)
Vibration	1 Grms/ 5 ~ 500Hz/ random operation
Shock	10G/ peak (11ms)
Mounting	VESA-75 compatible
IP Rating	Compliance design with IP54
Operational Altitude	Below 2000m
Regulatory	CE, FCC Part 15 Subpart C
OS Support	
Android™ 5.1.1	

1.6 Barcode Scanner Specifications

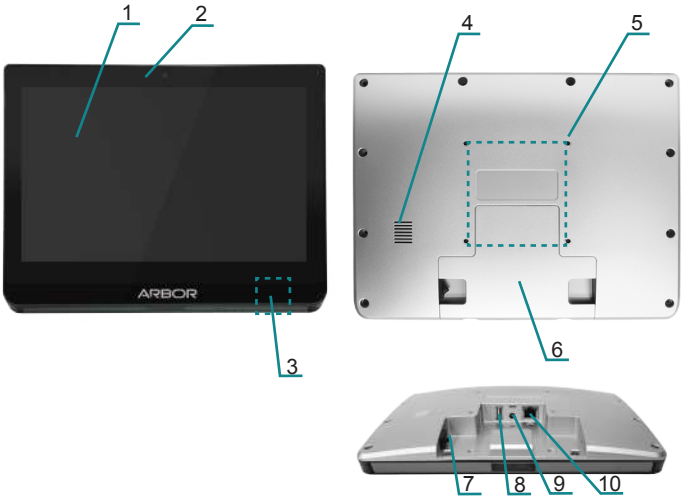
General	
Image Sensor	640 x 480 CMOS
Light Source	Red LED 625 ±10 nm
Precision	≥ 5mil
Field of View	Horizontal: 44°, Vertical: 33.2°
Symbologies	
2D	PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140), Chinese sensible code
1D	Code128, UCC/EAN-128, AIM128, EAN-8, EAN-13, ISBN/ISSN, UPC-E, UPC-A, Interleaved 2 of 5, ITF-6, ITF-4, Matrix 2 of 5, Industrial 25, Standard 25, Code39, Codabar, Code 93, Code 11, Plessey, MSI-Plessey, GS1-DataBarTM(RSS), (RSS-14, RSS-Limited, RSS-Expand)
Depth of Scan Field	
EAN13	45mm - 380mm (13mil)
Code 39	30mm - 180mm (5mil)
Data Marix	20mm - 115mm (10mil)
QR Code	25mm - 165mm (15mil)
PDF 417	30mm - 125mm (6.67mil)

Chapter 2

Getting Started

2.1 Getting to Know the Terminal

Before starting to use the terminal, get to know it first. This section will quickly familiarize you with the terminal.



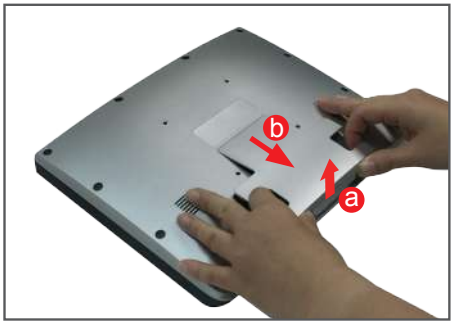
No.	Item	Descriptions
1	Touch screen	A 10-point projected capacitive multi-touch screen allowing users to interact with the terminal without a mouse or keyboard.
2	Front camera	2.0 MP front-facing camera (optional)
3	RFID/NFC	RFID/NFC reader (optional)
4	Speaker	Integrated 3W stereo speakers for audio output.
5	VESA	VESA-75 mounting holes
6	I/O Cover	Remove the cover to access the I/O ports.
7	Power button	When the terminal is powered on and the screen is on: • Press and release the button to enter “Sleep” mode". • Press and hold the button for about 7 seconds to show the “Power Off/Reboot” menu. • Press and hold the button for more than 8 seconds to enter the “Reboot” mode. When the terminal is turned off: • Press and hold the button for more than 8 seconds to turn on the terminal.

No.	Item	Descriptions
8	USB port	USB 2.0 Type-A port. To connect to a USB device.
9	DC-IN jack	DC 12V power input jack. To connect to a power outlet using the provided power adapter.
10	LAN port	10/100M RJ-45 port with PoE support. To connect to a PoE power sourcing equipment (PSE), such as a switch or hub, to provide power to the terminal. As PoE provides both data and power connections in one Ethernet cable, the PoE connection eliminates the need for connecting the DC-IN jack to a power outlet. The RJ-45 connector comes with LED to indicate the power source: Green: Power is supplied from DC power jack. Orange: Power is supplied from PoE.

2.2 Connection

1. Before proceeding, remove the cover of the I/O ports.

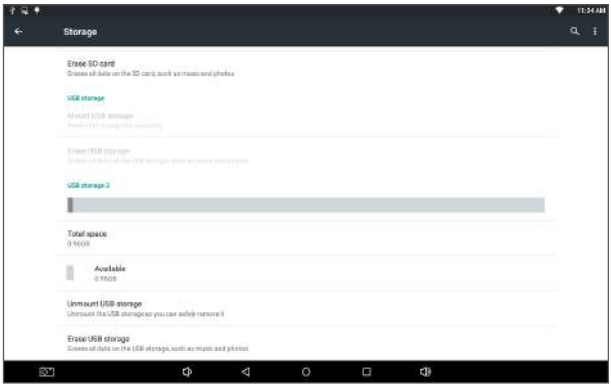
   Lift up the bottom of the cover a little bit and then release the cover from the latch.



2. Connecting your USB peripheral to the terminal as needed.

   The terminal comes with a USB port for connection of USB peripherals (e.g., USB flash drive, keyboard, mouse, printer) to the terminal. To use this port, simply connect the USB peripheral to the USB port on the rear of the terminal.

To verify the connection of the USB device after you power on the terminal, tap **Settings** > **Device** > **Storage** > **USB Storage 2** and you should be able to find the USB device's information.



3. Connect to a local area network as needed.

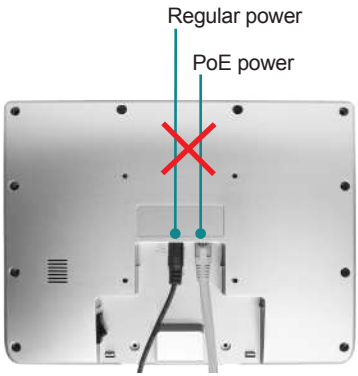
   The terminal comes with a LAN port allowing you to connect the terminal to a wired local area network. The LAN port supports PoE, a standard that transmits power and data through one Ethernet cable. If you connect it to a PoE network equipment, then you don't need to connect the DC IN jack to a power outlet.

   To connect the terminal to a wired network, using a Ethernet cable, connect one end to the LAN port on the rear of the terminal. Then connect the other end of the Ethernet cable to a hub, switch or router.

   With the LAN port connected to a network, you should configure the network settings as needed according to your network environment.

4. Connect the terminal to a power source. The terminal is powered on upon power connection.

   Caution: The terminal can be powered through PoE or 12V DC. You should use either one as the power source. Please do not apply both at the same time, otherwise the terminal will be damaged.



To connect the terminal to AC power:

Locate the **DC-IN** jack on the rear of the terminal. Plug the DC cord of the power adapter into the **DC-IN** jack. Then plug one end of the AC power cord into the AC adapter and the other end into an electrical outlet.

Make sure to use the AC power adapter supplied with the terminal. The power adapter specification is as below:

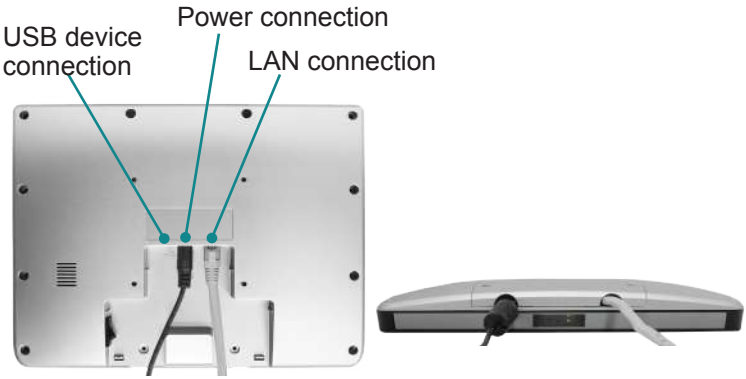
Item	Descriptions
Brand	ADAPTER TECH.
Model	ATM030-P120
Input	100~240V, 50~60Hz
Output	12V, 2.5A, 30W Max.

Warning: Use only the power adapter that comes with your terminal. Using a different power adapter may damage the terminal and invalidate warranty applying to the terminal.

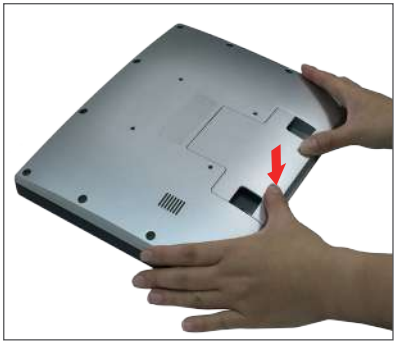
If the power source is PoE PSE, connect the Ethernet cable (not provided) to the terminal's LAN port and a PoE-capable router or switch.

As PoE transmits both data and power in one Ethernet cable, if you are using the PoE connection, there is no need for connecting the DC-IN jack to a power outlet.

5. Route the cable(s) through the openings on the bottom side. .



6. To restore the cover, push the latch of the cover into the terminal and then press the bottom of the cover firmly until it snaps into place.

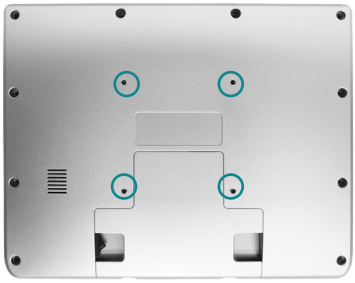


2.3 Attaching to a VESA Mount

The terminal supports 75mm M4 VESA mount so you can attach the terminal to a VESA mount kit.

To attach the terminal to a VESA mount kit:

1. Locate the four VESA mounting holes on the rear of the terminal.



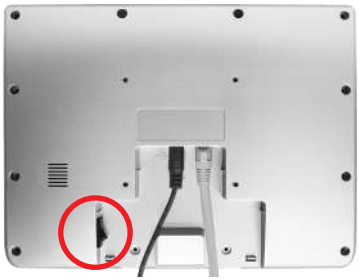
2. Attach your VESA mount kit to the rear of the terminal by matching the mounting holes with the VESA mount kit.

3. Fix the assembly with screws.

2.4 Powering on/off the Terminal

The terminal is powered on upon power connection. Also note that the barcode scanner functions right after the terminal boots into system.

To turn off the terminal, press and hold the power button for about 7 seconds to show the “Power Off/Reboot” menu to power off the terminal.



This page is intentionally left blank.

Chapter 3

Using the Terminal

The barcode scanner of the terminal starts to operate right after the terminal boots into system.

To scan a barcode, position the barcode within the red light area. Aim the barcode at the red dot for accuracy. On a successful read, the beam dies out. If the scanner fails to read to barcode within about 4 seconds, the beam dies out and the scanner attempts to read again after 2~3 seconds.

If you did not get a good read, make sure the barcode is within the effective reading distance according to the barcode type. Refer to 1.6 Barcode Scanner Specifications for the depth of scan fields.