Viva Series

V-2150E

About this Manual

Thank you for purchasing Viva Series Touch Terminal. This terminal offers highly enhanced features, with easy connection to various optional devices for optimal performance. This user manual describes how to setup and connect your terminal.

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Safety Information

⚠ Before you Proceed:

- Read the safety notices and the User Manual carefully before using the product.
- Keep the box and packaging in case the product needs to be shipped in the future.
- Follow the product and warning label instructions.
- Any changes or modifications that do not follow the instructions in this manual will void this product's warranty.

⚡ Power Supply Safety Notes:

- To avoid electric shocks, disconnect the power cord from the electrical outlet before relocating the system.
- Make sure the voltage of the power outlet conforms within voltage range of the terminal. Failure to comply may cause the electric shock or damage to the terminal. If you are not sure of the electricity voltage that you are using, consult your local electricity company.
- To avoid fire or electric shocks, do not overload electric power outlets.
- Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.

Operating Instructions

- Keep this manual for future reference.
- Keep this equipment from moisture and dust.
- Place the equipment on a stable surface before setting it up.

- If there is any of the following situation arise, notify a qualified service technician immediately:

  ◊ The power cord or plug is damaged.

  ◊ The equipment has been dropped and damaged.

  ◊ The equipment does not function normally.

- Do not leave the equipment in a non air-conditioned environment where the storage temperature may go above 70°C (158°F), as this can cause damage to the equipment.

Maintenance

- Gently wipe screen with a clean soft hair lens brush, or a lint-free cloth.

- Do not apply pressure to the screen while cleaning.

- Do not spray any liquid directly onto the screen or the casing of the terminal.

- Chemical cleaners have been reported to cause damage on the screen of the terminal.

Warning and Attention

- The technical descriptions and specifications of the equipment are subject to change without notice.

- For safety reasons, wear gloves when assembling the product.

- Risk of explosion if battery is replaced by an incorrect type.

- Dispose of used batteries according to the instructions.

CE Statement

- A Class III equipment with an enclosure made of HB material and using a non-special connector for the a.c./d.c. input has to have a marking stating the following: "Use only power supplies listed in the user instructions" or "For applicable power supplies see user instructions". This statement shall also be in the user-instructions.

- If product with laser module, the class of laser should be mentioned. The warning as attachment.

Federal Communications (FCC Statement)

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference.

- This device must accept any interference received including interference that may cause undesirable operation.

  This equipment has been tested and found to comply within the limit of a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by switching the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the interference receiving antenna.

- Increase the distance of separation between the equipment and interference receiver.

- Connect the equipment to a power outlet on a circuit different from that to which the interference receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Warning
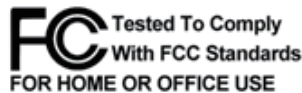
LVD Statement

- A Class III equipment with an enclosure made of HB material and using a non-special connector for the a.c./d.c. input has to have a marking stating the following: "Use only power supplies listed in the user instructions" or "For applicable power supplies see user instructions". This statement shall also be in the user-instructions.

- If product with laser module, the class of laser should be mentioned. The warning as attachment.

- 接螢幕與顯示卡所使用的防磁纜線必須確實遵守FCC規範。未獲廠商明確同意而擅自變更或修改本裝置，可能導致使用者的使用權限失效，而無法繼續操作本設備。
- 警告使用者：這是甲類的資訊產品，在居住的環境中使用時，可能成射頻干擾，在這種情況使用者會被要求採取某些適當的對策。

WEEE Notice

The WEEE logo (shown at the left) on the product or on its box indicates that this product must not be disposed of or dumped with your other household waste. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please contact your local city center, household waste disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

# Contents

Chapter 1

Introduction

Congratulations on your purchase of this Touch Terminal. Your easy-to-use POS terminal is designed to help you enhance your business flexibility by offering superior customer experience.
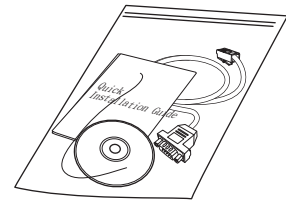
Package Contents

Before setting up your Touch Terminal, check that the package contains the following items. If any of the items is missing or damaged, contact your vendor immediately.
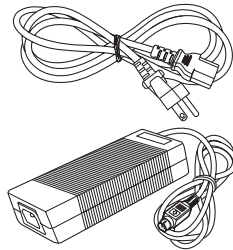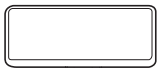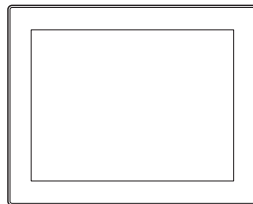
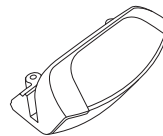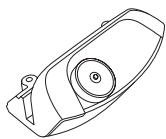|		
Touch Terminal	**Power Cord & Adapter**	**Accessory Kit**

Optional Accessories

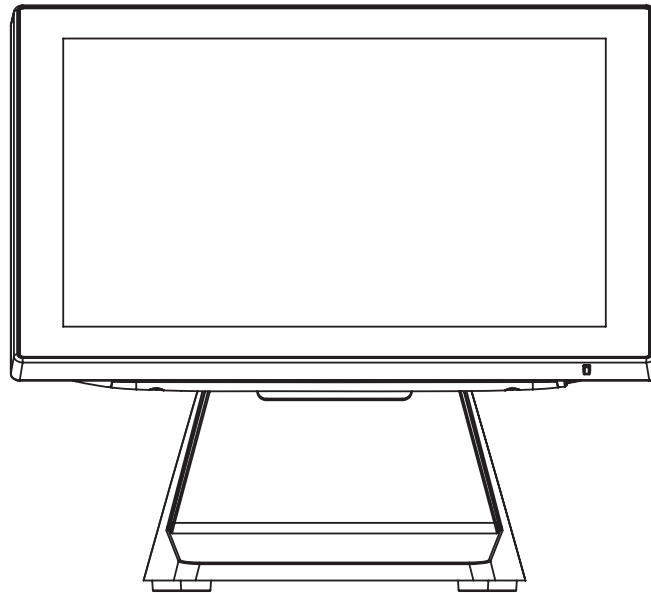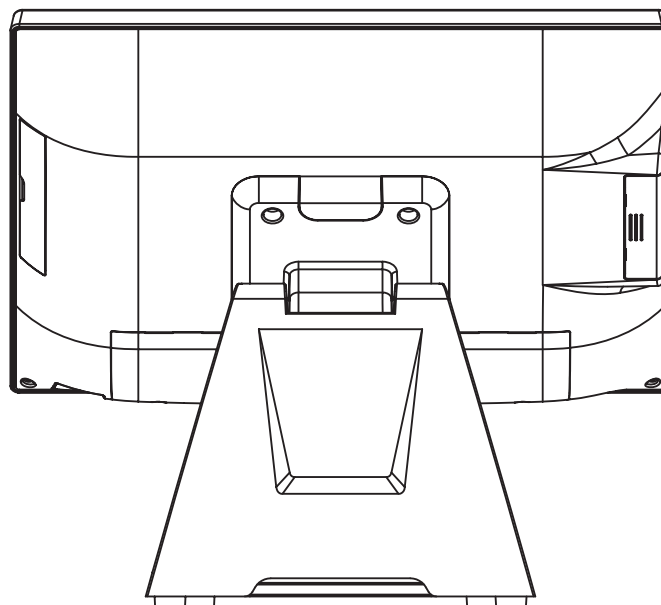|		
Customer Display (VFD)	**Secondary LCD Display (8"/10"/15")**	**MSR Reader**
MSR + iButton Identification Reader	**MSR + RFID Identification Reader**	

Overview of Viva Series

The figures in this section illustrate the components (including input and output ports) located at the front and rear of your Touch Terminal.
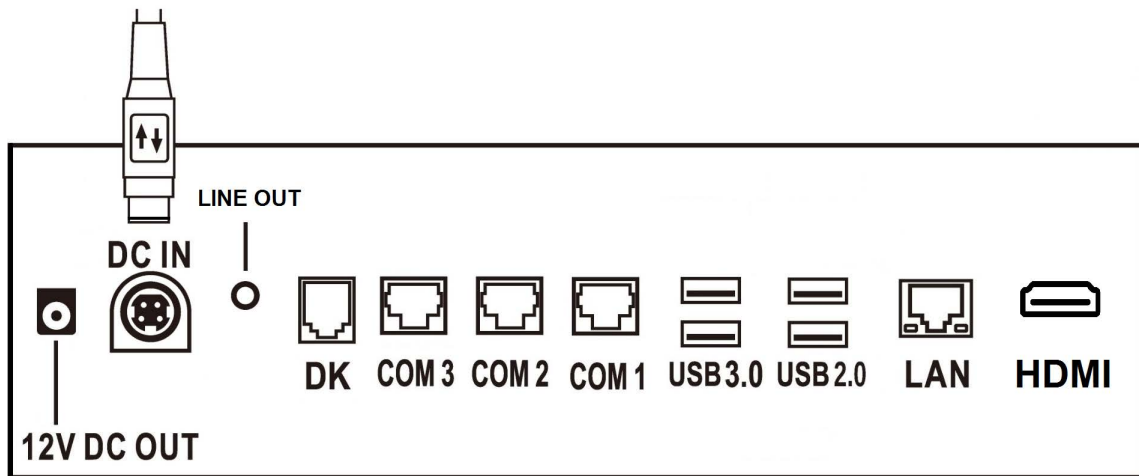
Front View

Standard Type

Rear View

Standard Type

I/O Ports

Item	Connector Definition
DC OUT jack	12V DC power Output
DC IN jack	24V DC power input
Line Out port	Audio line output connector
DK port	Cash Drawer output
COM ports	COM1/2/3 connectors
USB2.0 ports	USB2.0 connectors
USB3.0 ports	USB3.0 connectors
LAN port	Gigabit LAN connector
LAN port	HDMI output connector

Powering ON/OFF Viva POS

Power ON Viva POS

The power button is located at the bottom side of the back cover.
Press down the power button to power on the POS.
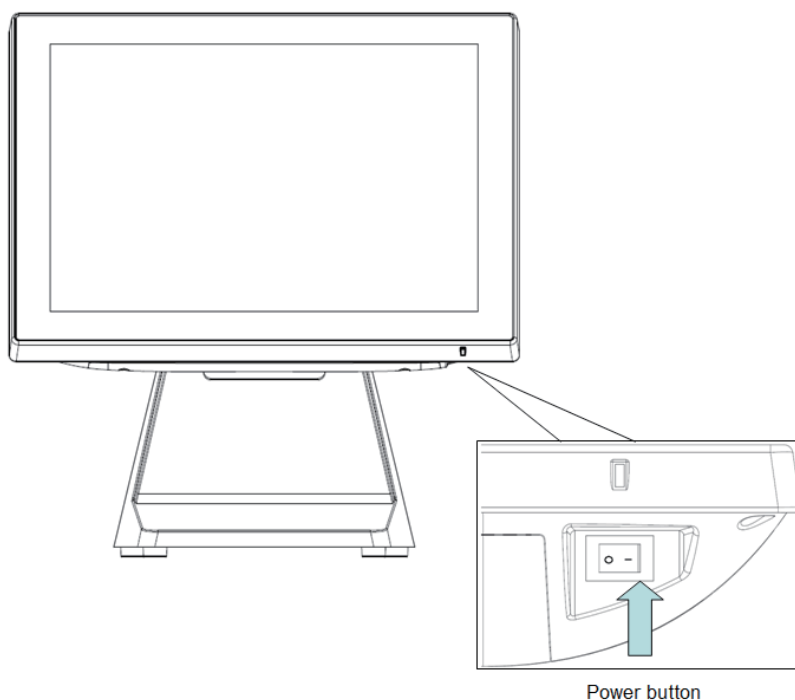
Power button

Power OFF Viva POS

In most cases, press the power button of the POS to power the system off.
If the terminal fails to turn off the machine for unknown reasons, please be
advised to hold the power button more than 4 seconds to force a shutdown
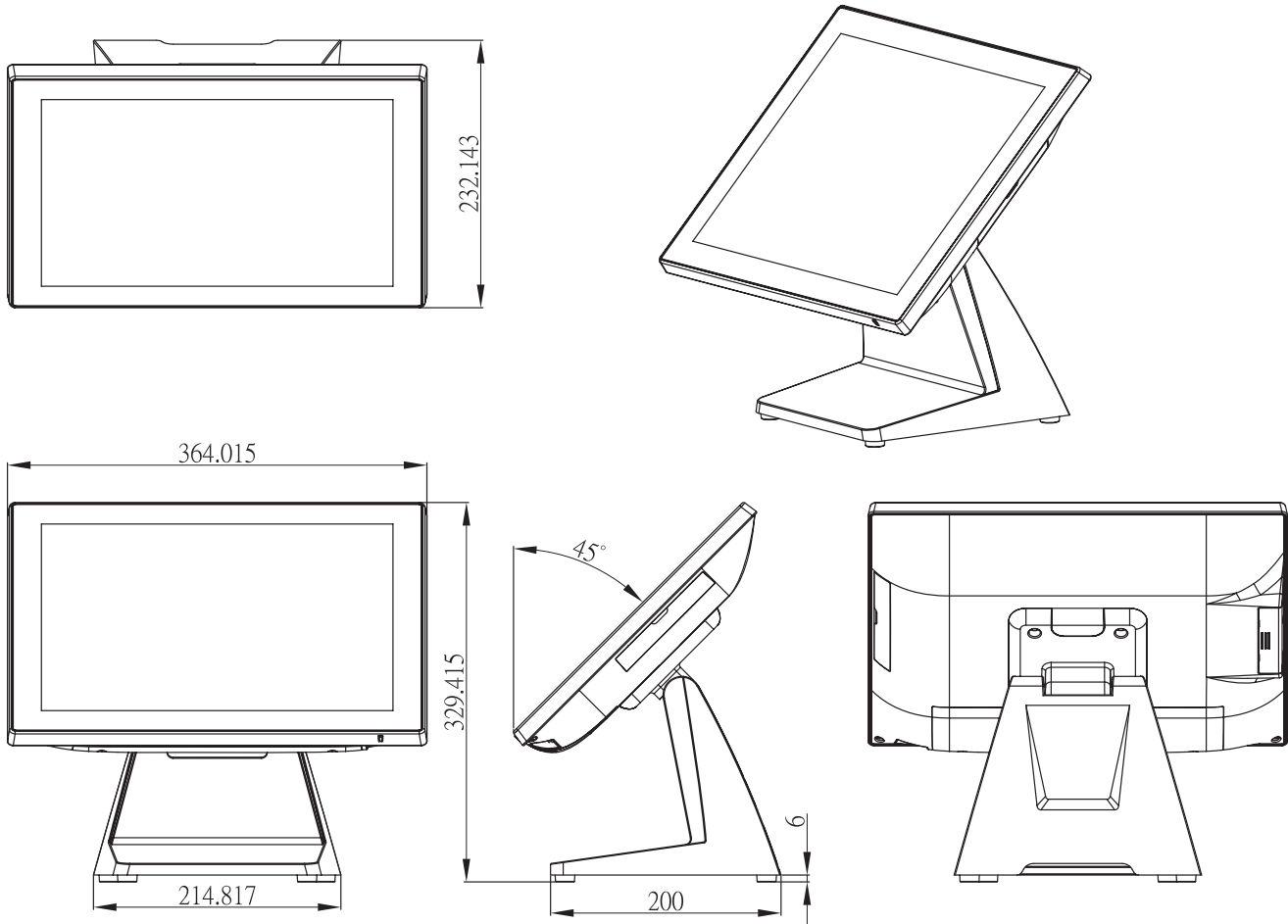of the system.

Status LED Indicator

LED status indicator, which is located at the bottom edge of the LCD panel, is mainly
responsible for notifying users of the current system status by emitting various LED signals. In the
chart provided below, it describes all the possible LED status as a quick reference.

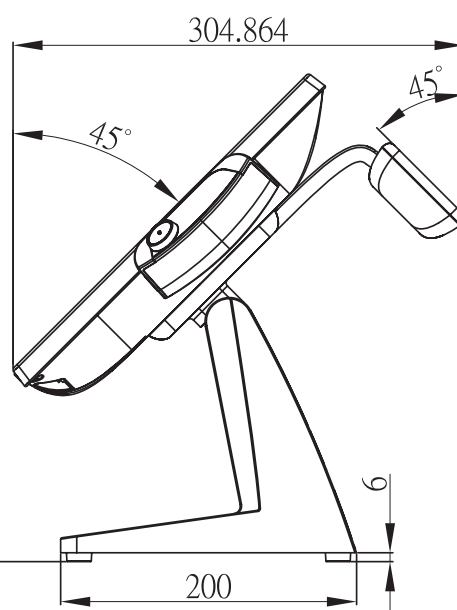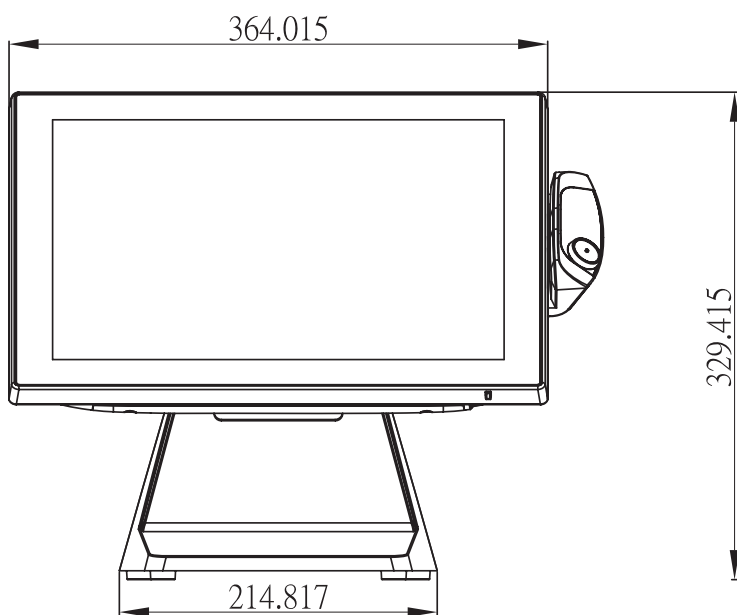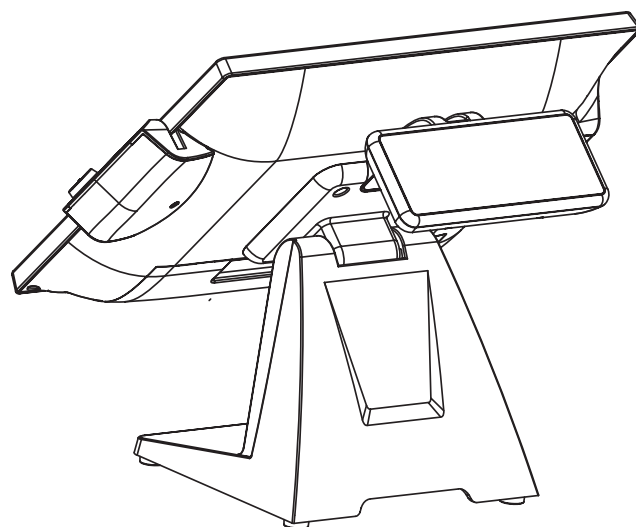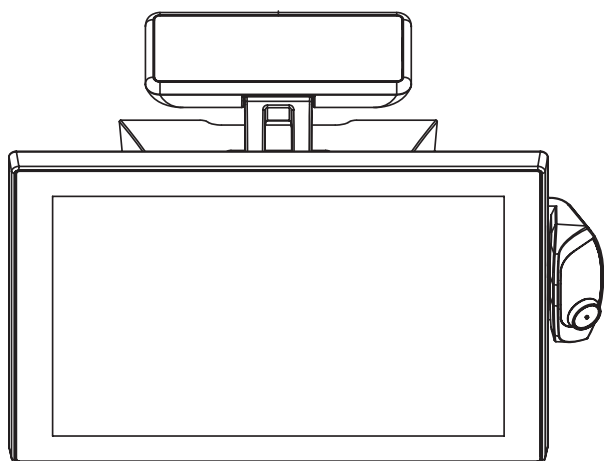| LED Status	System Status	AC power adapter	Description
OFF	OFF	OFF	System power OFF
Green	OFF	ON	System standby
Blue	ON	ON	System power ON

Physical Dimensions

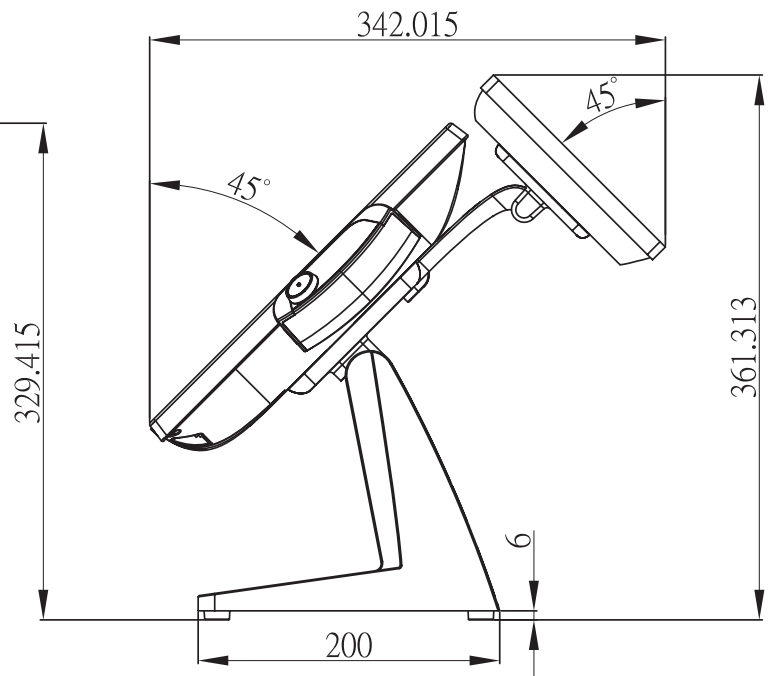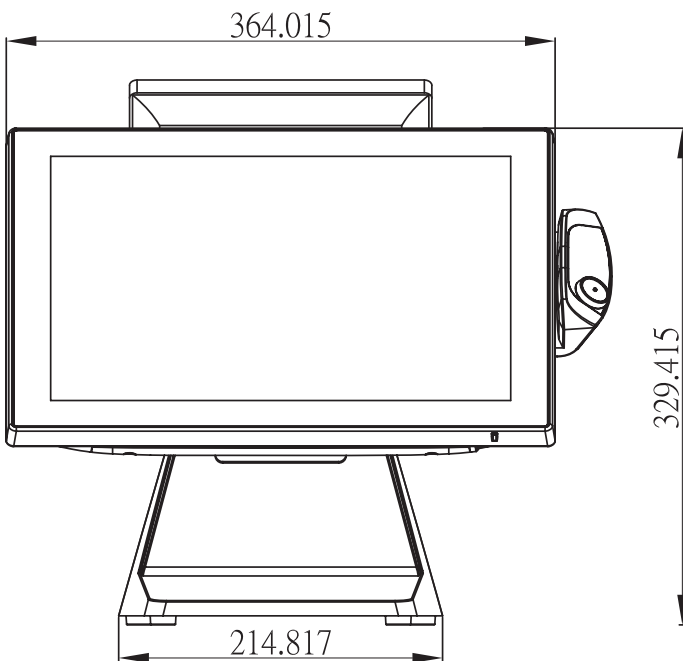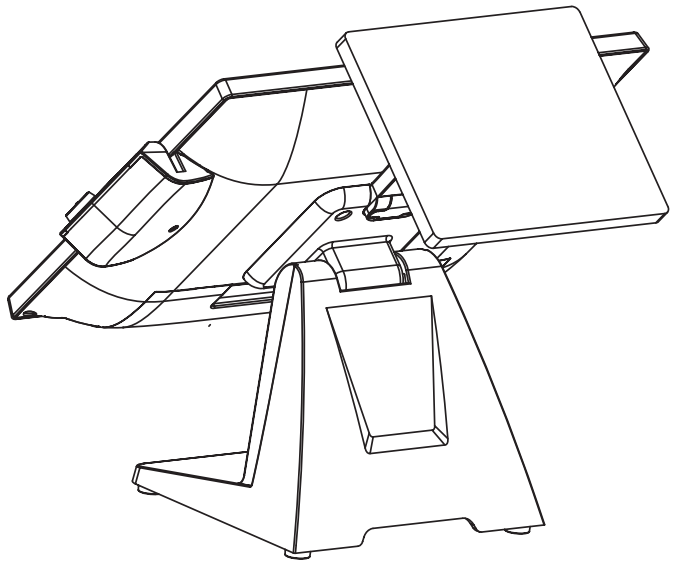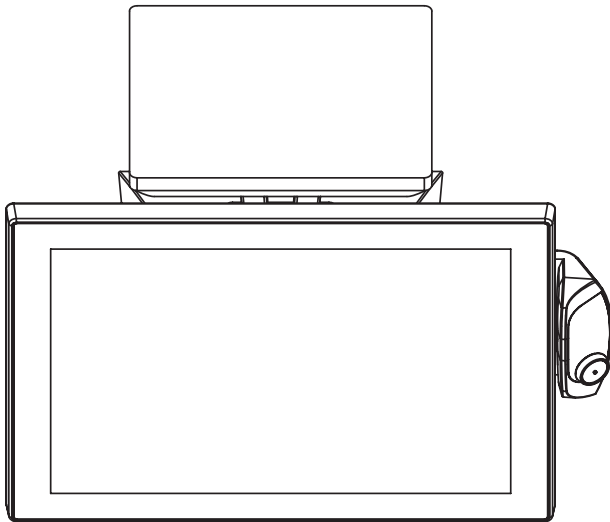## Standard Display

LCM (Liquid Crystal Module)

VFD Customer Display

364.015

214.817

329.415

304.864

45°

45°

200

6

8" Secondary LCD Display

364.015

214.817

329.415

342.015

45°

45°

361.313

6

200

10" Secondary LCD Display

364.015

329.415

339.909

45°

45°

363.656

6

15" Secondary LCD Display

364.015

329.415

214.817

391.014

45°

45°

403.799

6

200
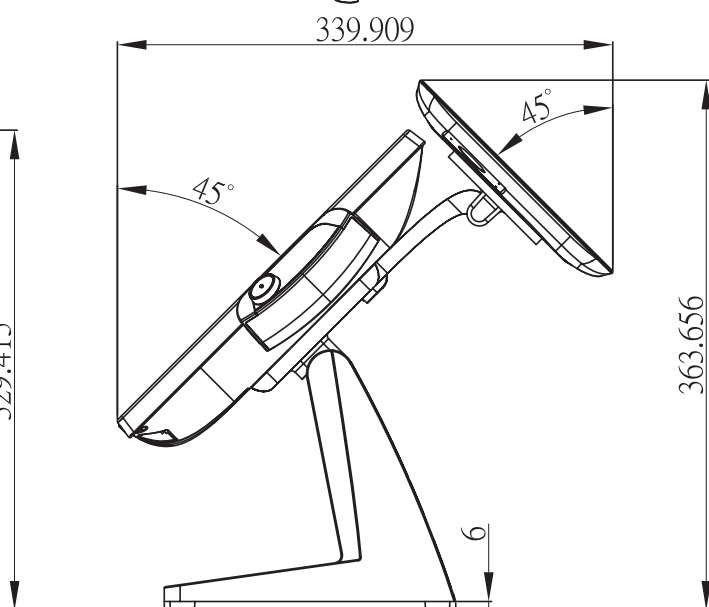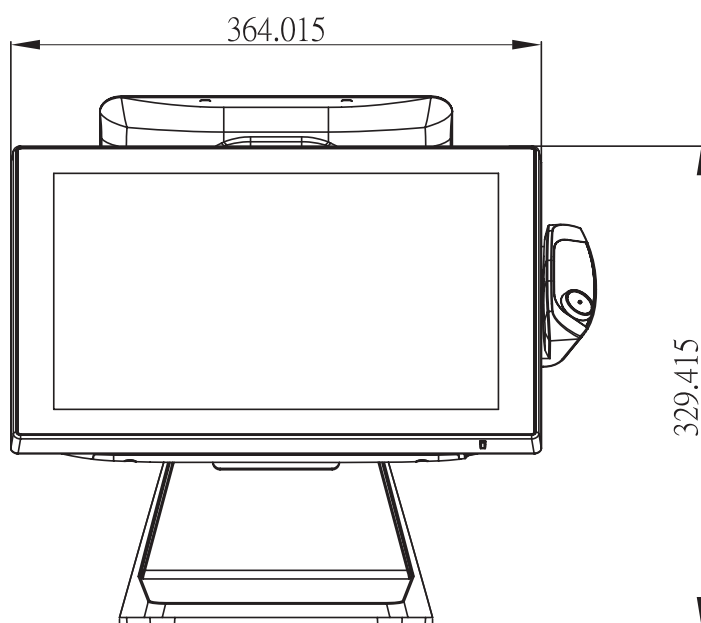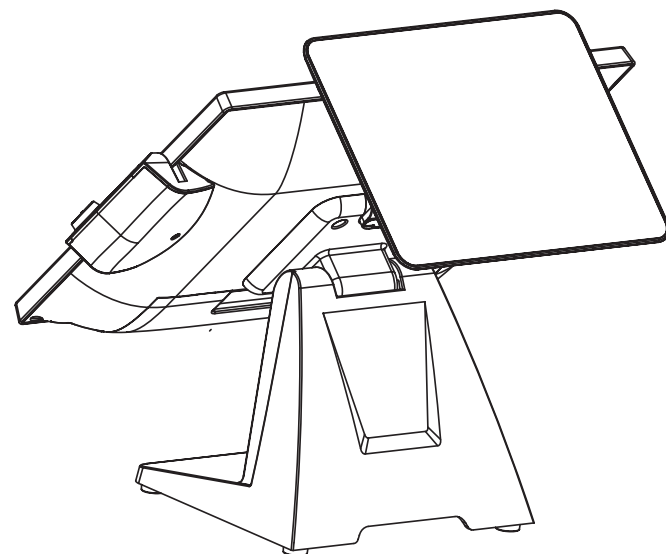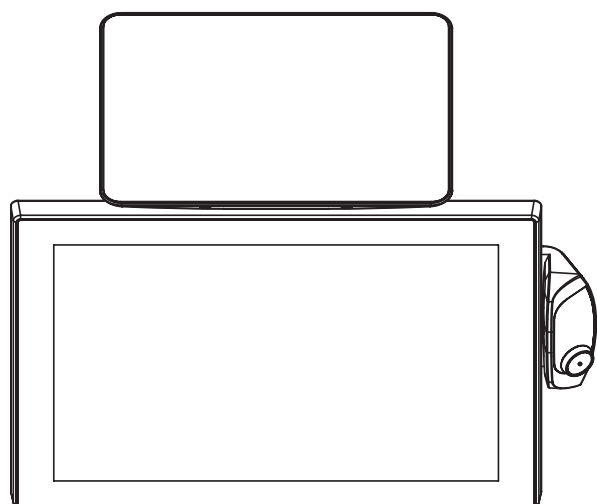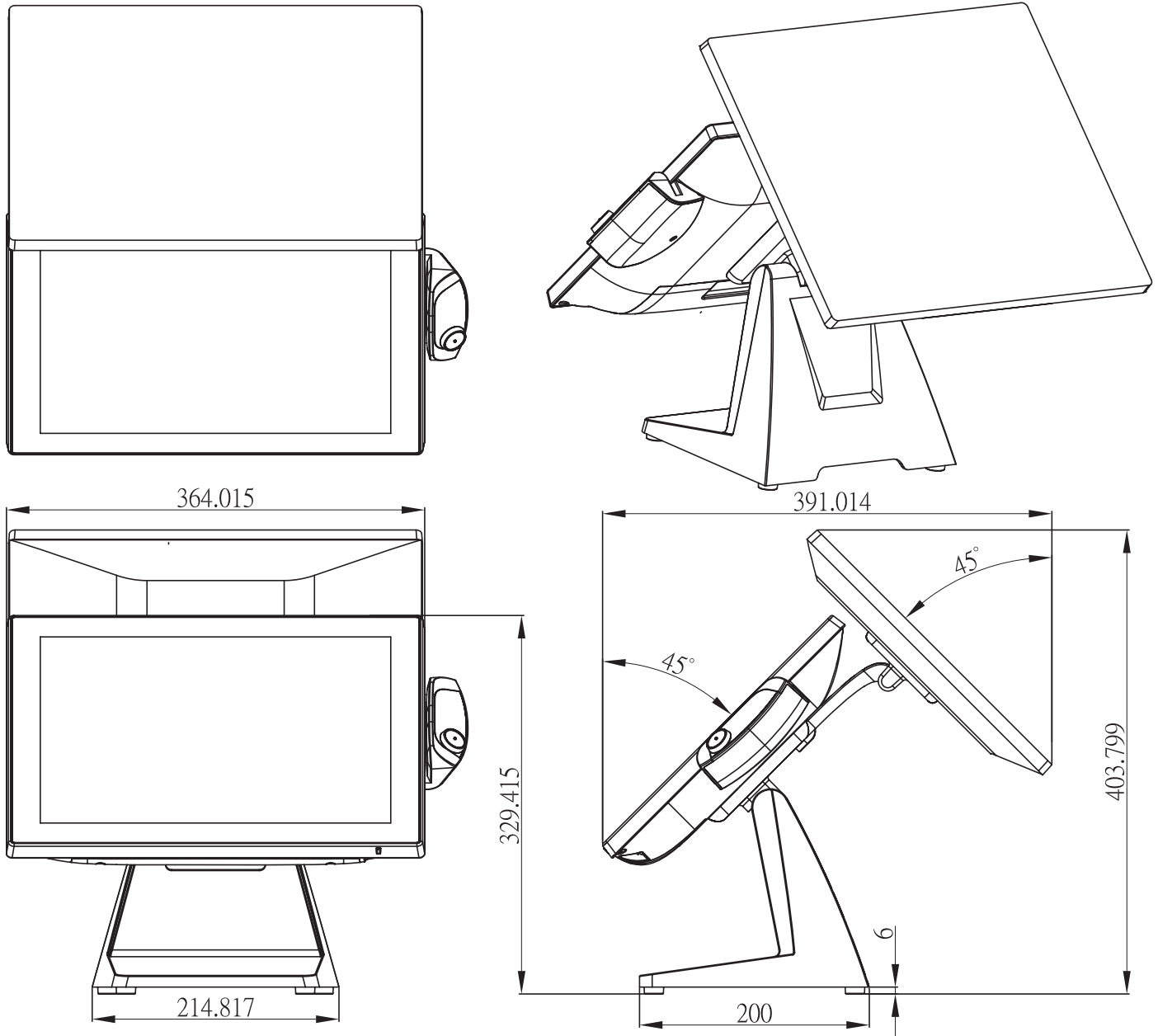
Touch Terminal Specifications

V-2150E

System	CPU	Intel® Celeron® Processor J6412
	RAM	4G / 8G / 16G
Storage	SSD or HDD or M.2	SSD: 64G / 128G / 256G M.2: 64G / 128G / 256G HDD: 500G
OS	Operating Systems	Win 10 IoT Enterprise LTSC / Linux
Display	Type	15" LED Backlit LCD Display
	Resolution	1024 x 768 (4:3)
	Brightness	300 cd/m²
Touchscreen	Type	Flat Projected Capacitive Touch
I/O	Standard I/O	2 x USB 2.0 2 x USB 3.0 3 x RJ-50 RS-232 (default 0V; COM1, COM2, COM3 0V/5V/12V by Jumper) 1 x LAN 1 x RJ-11 12V/24V (default 24V for Cash Drawer) 1 x HDMI 1 x Audio Output Phone Jack 1 x DC 12V Out for DC Out 1 x DC 19V In with Lock for DC In
	Buttons	1 x Power On/Off Button
	LED	1 x Power status indicator
	Extension Kits (Optional)	MSR Card Reader Kit / RFID Reader Kit / i-Button Reader Kit / VFD Customer Display Kit / LCM Customer Display Kit / 10.4" 2nd Display Kit / 15" 2nd Display Kit
Power	Adapter	External DC Power Adapter 65W, 19V 3.43A
Mechanical	Dimensions (W x D x H)	364*232*329 mm (14.33*9.13*12.95 in)
	Weight	5.5 kg (12.13 lb)
Environment	Operating Temperature	0°C to 40°C (32°F ~ 104°F)
	Storage Temperature	-25°C to 70°C (-13°F ~ 158°F)
	Safety Certifications	CE / FCC

Peripherals Specifications

2nd LCD display	Model No.	MN-10B0H	MN-15A0H	
	LCD Panel	10.1"	15"	
	Resolution	1024 x 600	1024 x 768	
	Viewing Angle	140° (H) / 120° (V)	88° (H) / 88° (V)	
	Response Time	25ms (typical)	8ms (typical)	
	Brightness	220 nits (typical)	300 nits (typical)	
	Video Input	HDMI	HDMI	
	Power Supply	DC 12V	DC 12V	

LCM	Model No.	CM3000
	Polarizer color	White
	Backlight color	Blue
	Display Capacity	20 characters x 2 lines
	Character format	5 x 8 dots
	Character type	International (Default) English-Russia/English-Japanese/Traditional Chinese/ Simplified Chinese (Optional, factory-installed required)
	Dot Size	0.93 (W) x 1.11 (H) mm
	Input power type	5V DC
	Interface	RS232

VFD	Model No.	CM7100
	Display Method	Vacuum Fluorescent Display (VFD)
	Polarizer color	Yellow green
	Backlight color	Black
	Brightness	500-1000 cd/m2
	Display capacity	20 characters x 2 lines
	Character format	5 x 7 dot matrix, cursor
	Character type	95 Alphanumeric, 32 International characters
	Dot size	0.55 (W) X 0.75 (H) mm
	Input power type	5V DC
	Interface	RS232

2 in 1 Identification Reader	Model No.	Function
	MSR Reader	ISO Track 1/2/3 single/dual/ triple tracks of magnetic card, support ANSI/ISO Standards7810, 7811 1/5, 7812 & 7813. USB HID Keyboard mode interface
	MSR + iButton	Dallas DS1990A compliment / With leading / ending programming function. USB HID Keyboard mode interface
	MSR + RFID	Frequency 13.56MHz. ISO14443A card type MIFARE® 1K/4K/8K card type. Read only. USB HID Keyboard mode interface

Preparing For the Installation

Before you start installing Touch Terminal, read the following instructions.

Before you start installing Touch Terminal, read the following instructions.

• V-2150E do not support PCI slot.

• Do not insert or remove any device or component from the V-2150E while the power is turned on.

• If using V-2150E in a dusty environment, clean the Touch Terminal regularly.

• Only USB devices are Hot Swap capable. Be sure to turn off the power of the touch terminal and the device before making any connection or disconnection.

• The spill proof design of V-2150E conforms to IP65 standard (Front panel only).

• Always seek the help of authorized service personnel in disassembling the terminal. The manufacturer will not be held responsible in the event of damage caused by an unauthorized person.

• Before installation or disassembling of the terminal, ensure that the power is turned off. Otherwise, electric shock may occur and may void the warranty.

• For systems preloaded with Windows on the storage(O/S pre-installed as an option), the manufacturer provides recovery image. System Integrator shall take care of software restoration after having an image recovery. A manufacturer-supplied USB interface COMBO drive will be required for such action. Other brands of COMBO drive may require a specific driver. Please use the recovery image for rescue operation only. Using it otherwise may wipe out whatever is stored in the storage. Then follow the instructions from your system integrator for software recovery.

System Default Settings

The following is the information on default settings for Touch Terminal serial ports.

V-2150E

COM1	COM2	COM3	COM4	COM5
3F8	2F8	3E8	2E8	338
IRQ4	IRQ3	IRQ5	IRQ6	IRQ7

Main Board Jumper Setting and Connector Definition

V-2150E
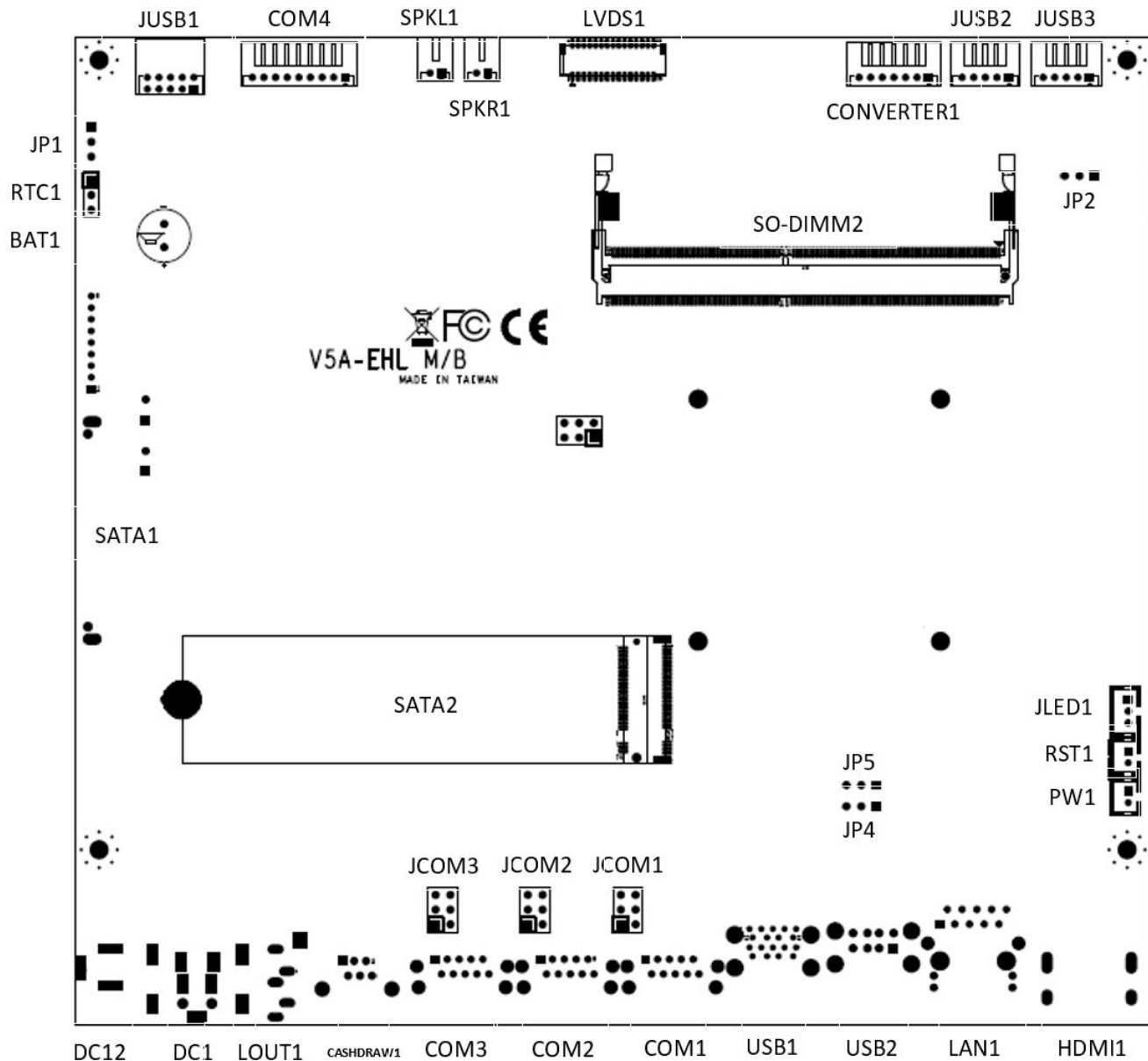
Connector/Jumper	Description
HDMI1	HDMI output
LAN1	LAN connector
USB1	USB2.0 *2 connector
USB2	USB3.0 *2 connector
COM1	COM1 connector
COM2	COM2 connector
COM3	COM3 connector

Connector/Jumper	Description
CASHDRAW1	Cash Drawer output
LOUT1	Audio line output connector
DC1	DC power input
DC12	12V DC power output
JUSB1	USB port for USB Touch
JUSB2	USB port for POS input device
JUSB3	USB port for POS input device
COM4	COM4 connector for RS-232 POS input device
LVDS1	2x15 LVDS connector
SPKR1	Speaker connector
SPKL1	Speaker connector
CONVERTER1	LED backlight inverter connector
SATA1	SATA Connector
SATA2	M.2 2280 M key
BAT1	Battery Connector
RTC1	Clear CMOS Contents
SO-DIMM2	DDR4 SO-DIMM
PW1	Power Button Connector
RST1	Reset Button Connector
JLED1	LED Connector

JP1/ JP2/ JP4/ JP5: USB Power Selection

1 2 3	Pin 1-2 Short/Closed	5VSB(Default)
	Pin 2-3 Short/Closed	5V

RTC1: Clear CMOS Contents

1 2 3	Pin 1-2 Short/Closed	Normal I(Default)
	Pin 2-3 Short/Closed	Clear CMOS

JCOM1~3 : COM 1~3 D-SUB PIN9 VOLTAGE SELECT

2 4 6 / 1 3 5	1-2=RI 3-4=+5V 5-6=+12V	Default = RI

Hardware Installation

Installing / Replacing the Storage

WARNING:

> *Be sure to turn off the power of the Touch Terminal before making any connection or disconnection.*

1. Remove the screw from the storage compartment cover. **(a)**

2. Remove the storage compartment cover. **(b)**

3. Install the storage into its compartment in the Touch Terminal, making sure the connectors are aligned correctly. **(c)**

4. Replace the storage compartment cover **(b)** and secure with the screw. **(a)**
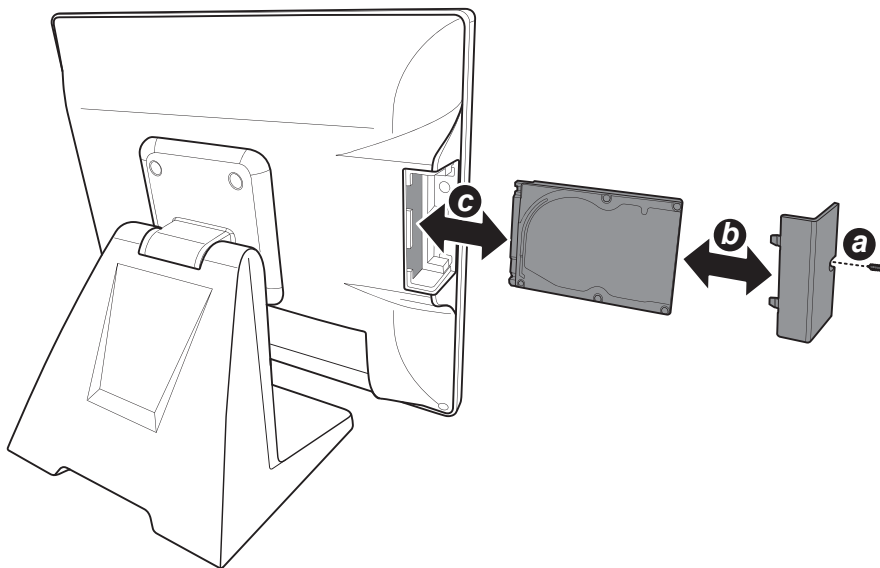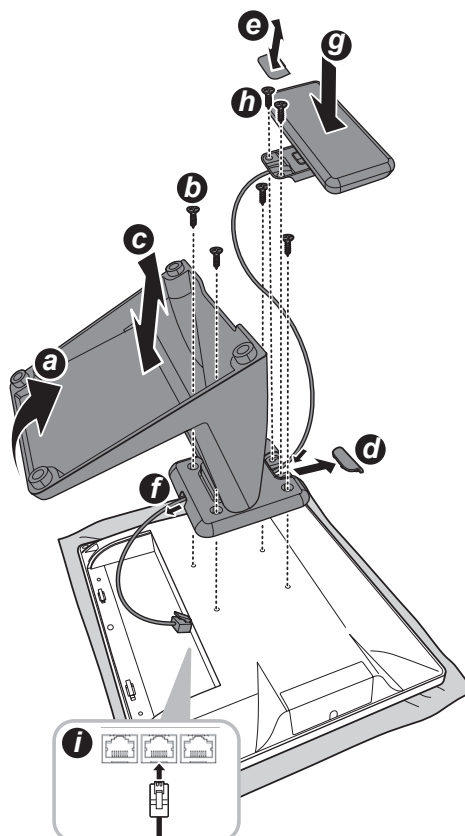
Installing the Customer Display (Optional)

WARNING:

Be sure to turn off the power of the Touch Terminal before making any connection or disconnection.

To configure the COM port voltage setting to +5V, refer to "Main Board Jumper Setting and Connector Definition" on page 21 ~ 21.

1. Place the Touch Terminal on a soft and flat surface, with the LCD panel facing down.

2. Rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**

3. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**

4. Remove the panel stand. **(c)**

5. Detach the VESA compartment cover. **(d)**

6. Detach the customer display compartment cover. **(e)**

7. Route the customer display cable through the cable compartment on the panel stand. **(f)**

8. Align and install the panel stand to the Touch Terminal. **(c)**

9. Secure the panel stand to the Touch Terminal with the four screws. **(b)**

10. Align and install the customer display into its slot on the panel stand. **(g)**

11. Secure the customer display to the Touch Terminal using the two screws **(h)**

12. Connect the customer display's interface cable to the RJ-45 COM port on the Touch Terminal. **(i)**
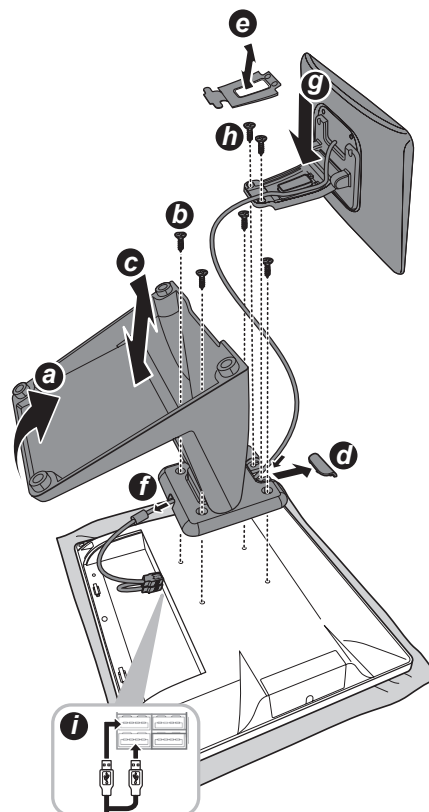
Installing the Secondary LCD Display (Optional)

WARNING:

Be sure to turn off the power of the Touch Terminal before making any connection or disconnection.

1. Place the Touch Terminal on a soft and flat surface, with the LCD panel facing down.

2. Rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**

3. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**

4. Remove the panel stand. **(c)**

5. Detach the VESA compartment cover. **(d)**

6. Remove the cable compartment cover on the secondary LCD display. **(e)**

7. Route the secondary LCD display USB Y-cable through the cable guides on the stand as illustrated. **(f)**

8. Align and install the panel stand to the Touch Terminal. **(c)**

9. Secure the panel stand to the Touch Terminal with the four screws. **(b)**

10. Align and install the secondary LCD display into its slot on the panel stand. **(g)**

11. Secure the secondary LCD display to the Touch Terminal with the two screws. **(h)**

12. Replace the cable compartment cover to the secondary LCD display. **(e)**

13. Connect the secondary LCD display's USB Y-cable to the corresponding ports on the Touch Terminal. For better brightness, suggest to plug 2 USB connectors simultaneously. **(i)**

Installing the Identification Reader (Optional)

WARNING:

Be sure to turn off the power of the Touch Terminal before making any connection or disconnection.

1. Remove the MSR (Magnetic Stripe Reader) compartment cover. **(a)**

2. Route the MSR module connector through the opening on the module. Then align an optional identification reader (Fingerprint, iButton, or RFID) with the MSR module and route its connector through the opening on the MSR module. **(b)**

3. Connect the MSR module connector and the optional identification reader connector to their resepective connectors on the Touch Panel. **(c)**

4. Align by the screw holes and then install the MSR module to the Touch Terminal. **(d)**

5. Secure the MSR module to the Touch Terminal with the two screws. **(e)**

6. Align and then press firmly to attach the identification reader to the MSR module. **(f)**

7. Secure the identification reader to the Touch Terminal with the screw. **(g)**
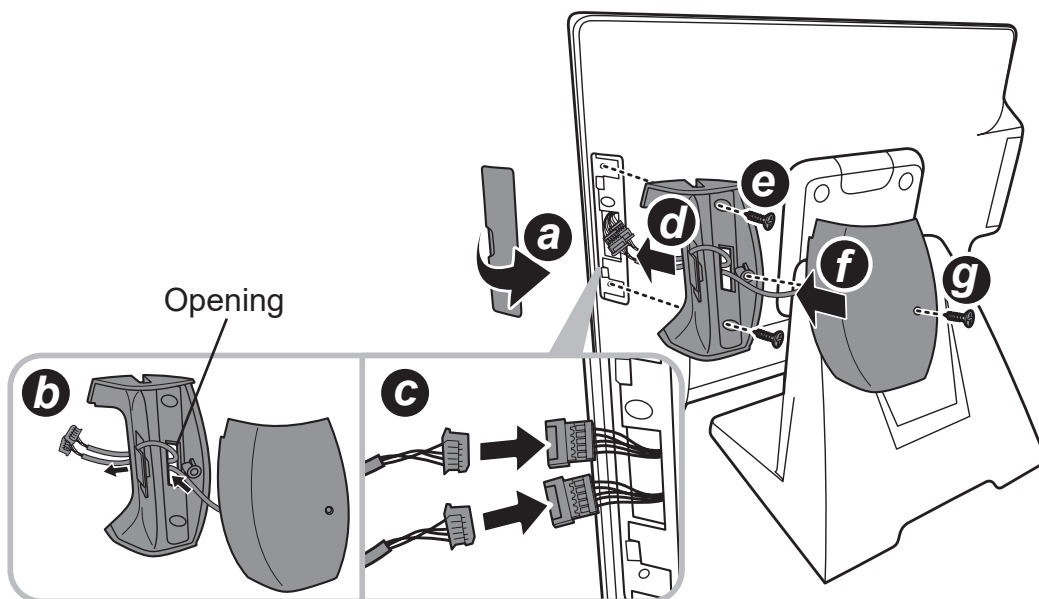
Installing the VESA Mount (Optional)

NOTE:

- *Use only wall mount kits approved by the manufacturer. Wall mount kits are sold separately.*
- *The Touch Terminal device is compatible with a VESA mounting hole pattern of 75x75mm.*

1. Place the Touch Terminal on a soft and flat surface, with the LCD panel facing down.

2. Rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**

3. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**

4. Remove the panel stand. **(c)**

5. Align and install the mount bracket on the back of the Touch Terminal. **(d)**

6. Secure the mount bracket to the Touch Terminal with the four screws. **(e)**

7. Drill four small holes on the mounting location and insert the plastic washers into the holes. **(f)**

8. Align by the screw holes and then install the wall bracket on the wall. **(g)**

9. Secure the wall bracket to the wall with the four supplied screws. **(h)**

10. Align and hook the Touch Terminal to the wall bracket, and then push down to secure it into place. **(i)**
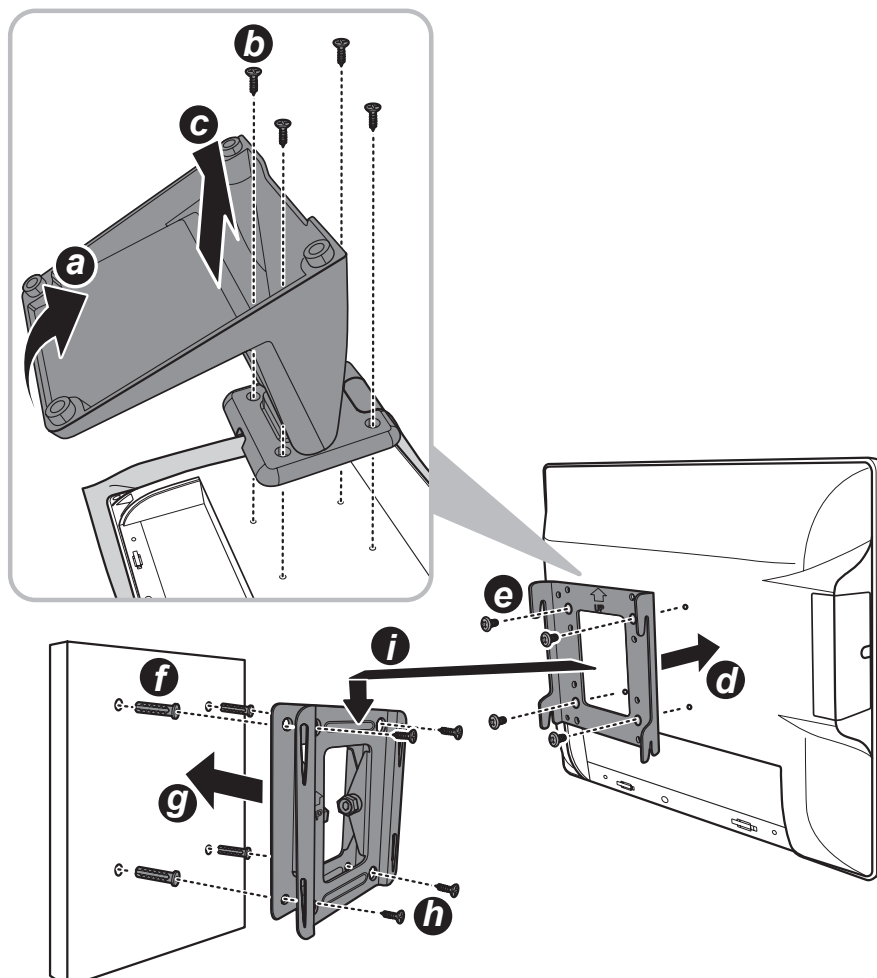
Chapter 4

Frequently Asked Questions (FAQ)

Question 1: How do I clear CMOS?

V-2150E

Answer: To clear CMOS, do the following:

1. Turn off power and pull out the power cord.
2. Insert the jumper cap to clear CMOS PIN and remove the jumper cap from clear CMOS PIN.
3. Switch on the power again.
4. Press F2 to enter CMOS setting and load optimized defaults.
5. Save changes and reboot the system.
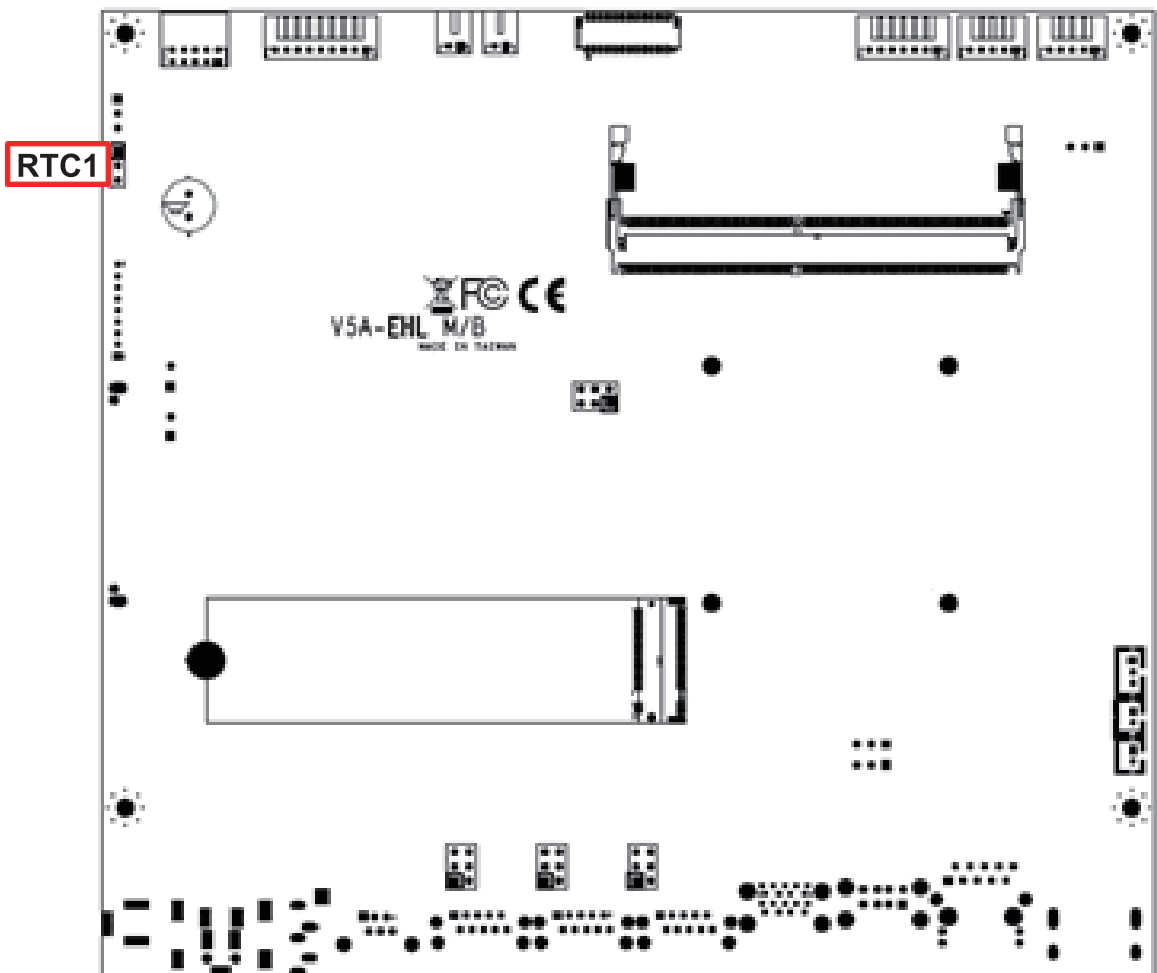
Remark:

JP3: Clear CMOS Contents

1 2 3	Pin 1-2 Short/Closed	Normal
	Pin 2-3 Short/Closed	Clear CMOS