Tango Series

T-615W / T-815W

User Manual

Version 1.0

About this Manual

Thank you for purchasing Tango 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.

Copyright

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.
  - ◊ Liquid has been spilt on to the equipment.
  - ◊ The equipment has been dropped and damaged.
  - ◊ The equipment does not function normally.
- Do not block any ventilation openings to prevent the equipment from overheat.
- 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.

Patent

Patent pending.

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

The use of shielded cables for connection of the monitor to the graphics card is required to assure compliance with FCC regulations. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment.

CE

FC Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

RoHS

CB/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.

CCC Statement

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对干扰采取切实可行的措施。

BSMI Statement

- 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

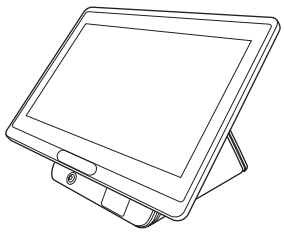
Chapter 1

Introduction

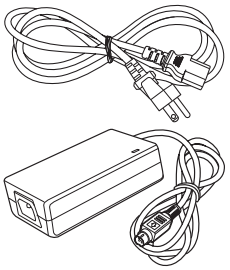
Congratulations on your purchase of this Touch Terminal. Your easy-to-use POS terminal is designed to help you enhance your business flexibility by offering superior customer experience.

Package Contents

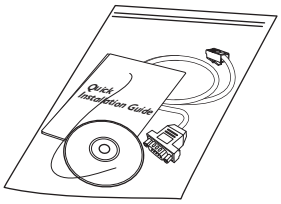
Before setting up your Touch Terminal, check that the package contains the following items. If any of the items is missing or damaged, contact your vendor immediately.



Touch Terminal

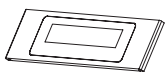


Power Cord & Adapter

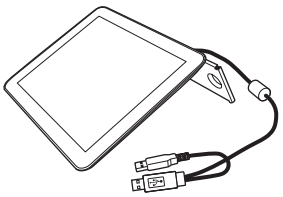


Accessory Kit

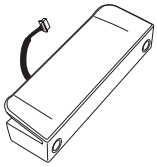
Optional Accessories



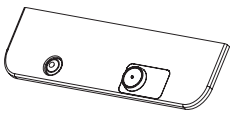
Customer Display (VFD/LCM)



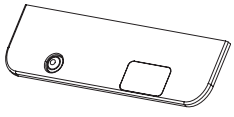
Tango View Secondary LCD Display



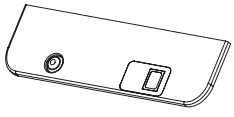
MSR Identification Reader



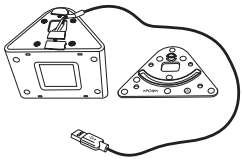
iButton Identification Reader



RFID Identification Reader



Fingerprint Identification Reader

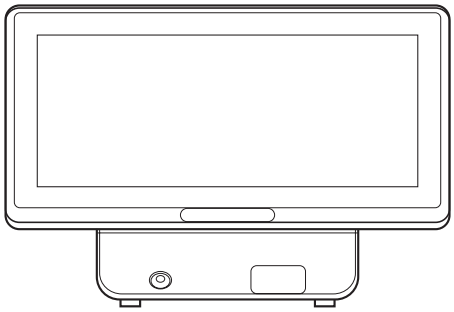


Tango Scan Barcode Reader

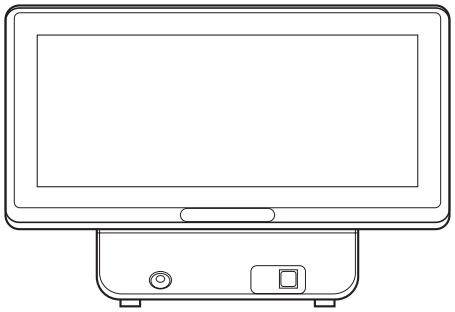
Product Overview

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

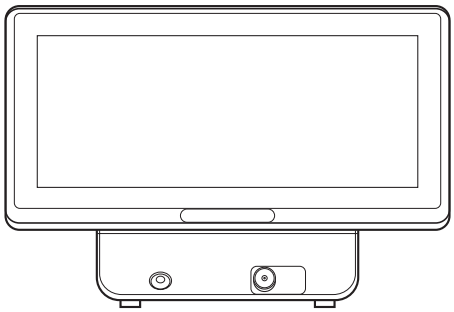
Front View



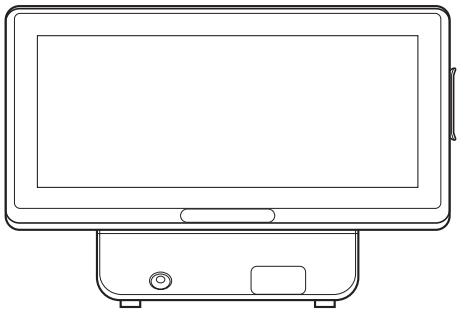
Standard Type



Fingerprint Identification Reader Type (Optional)

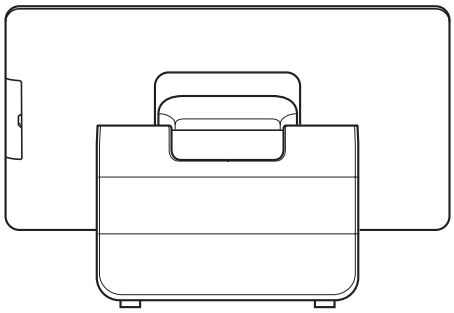


iButton Identification Reader Type (Optional)

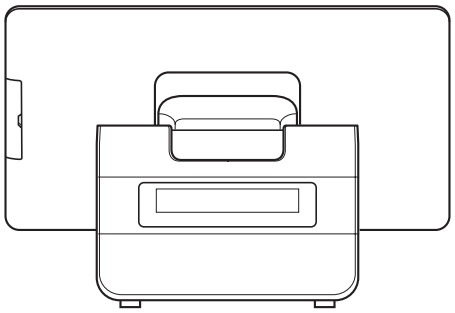


MSR Identification Reader Type (Optional)

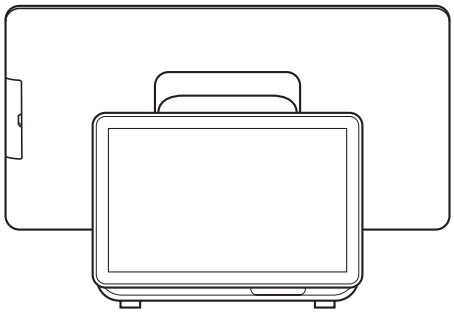
Rear View



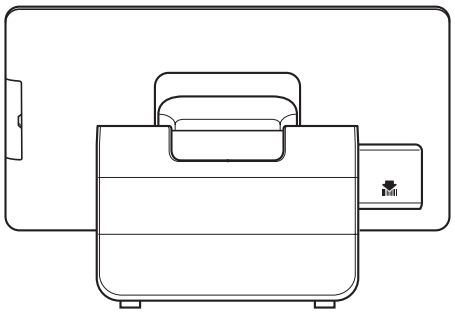
Standard Type



Customer Display Type (Optional)

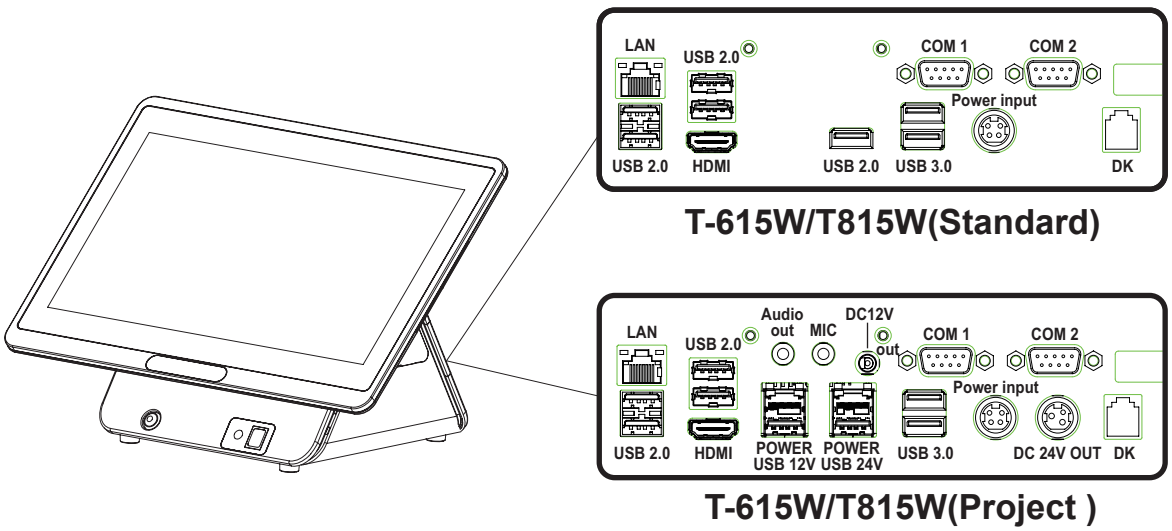


Tango View Secondary LCD Display Type (Optional)



Standard with Tango Scan Barcode Reader Type (Optional)

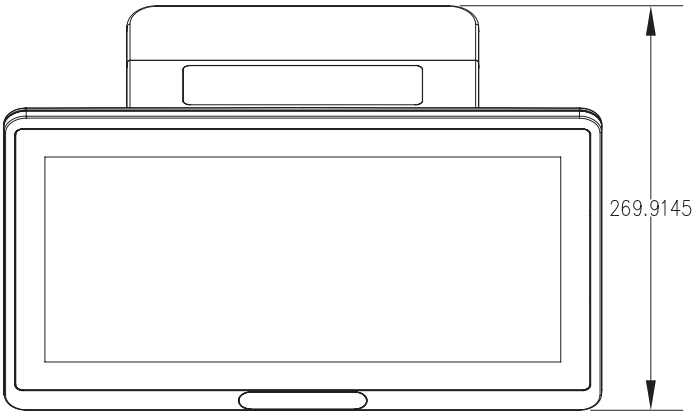
I/O Ports

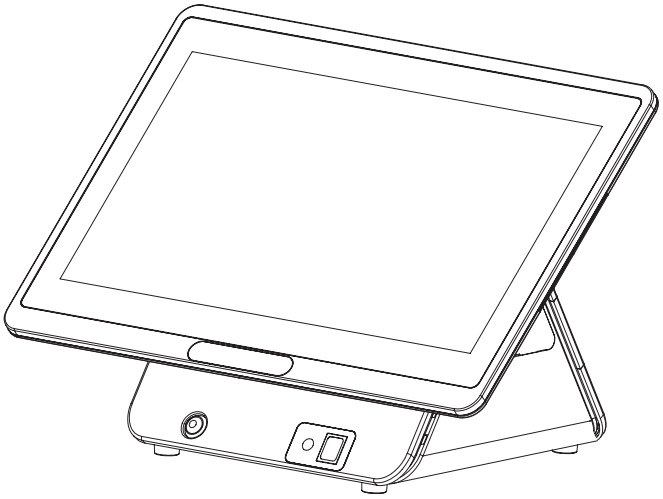


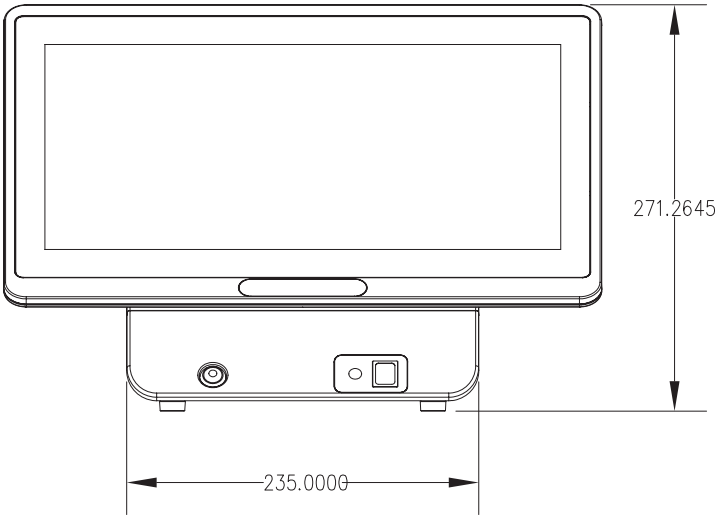
Item	Description
LAN port	Gigabit LAN connector
USB2.0 ports	USB2.0 connectors
HDMI port	HDMI Vertical connector
USB3.0 ports	USB3.0 connectors
COM1 port	COM connector
COM2 port	COM connector
Power input (DC IN jack)	DC power input
DK port	Cash Drawer output
DC 24V OUT (DC OUT jack)	24V DC power output
POWER USB 24V	24V Powered USB connector
POWER USB 12V	12V Powered USB connector
DC 12V OUT	12V DC power output
MIC port	Microphone connector
Audio Out port	Audio line output connector

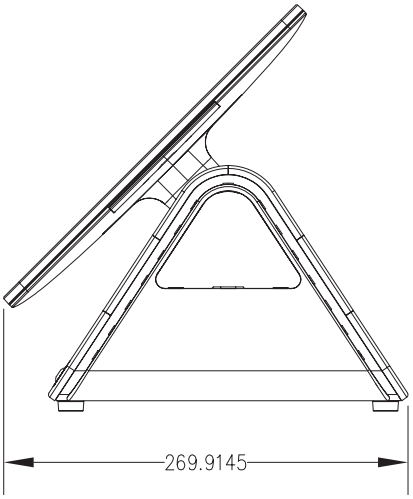
Physical Dimensions

Standard Display

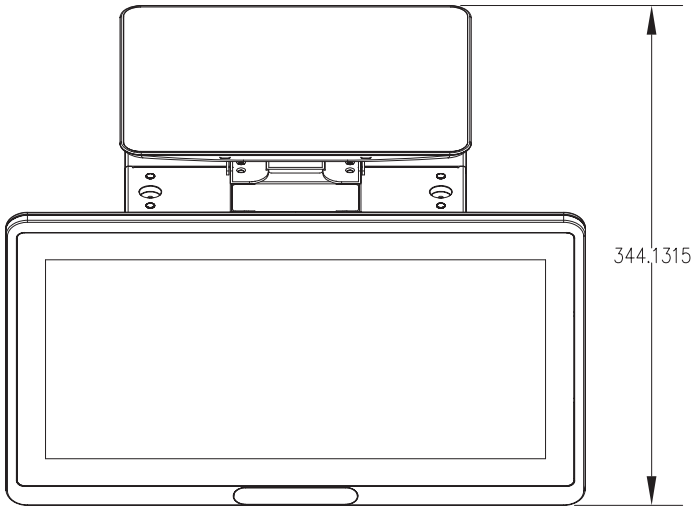


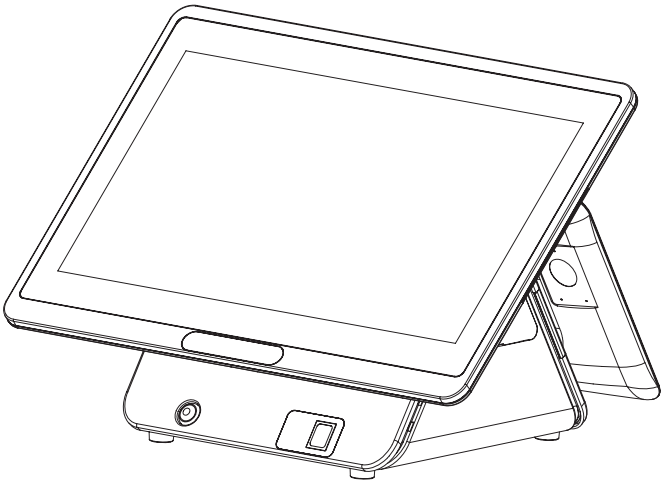


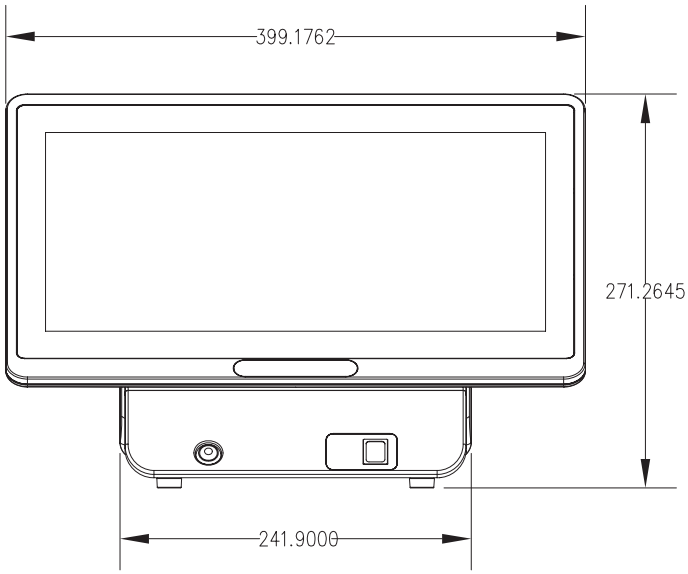


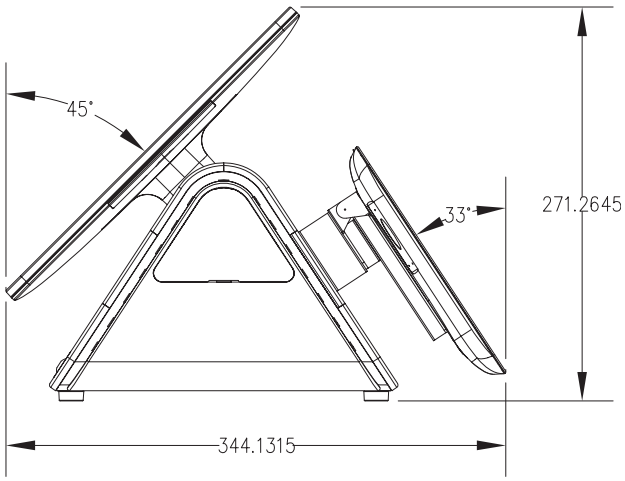


Tango View Secondary LCD Display









Specifications

Touch Terminal Specifications

Model number	Tango Series			
	T-615W		T-815W	
LCD & Touch Panel				
LCD Panel	15.6” LED-backlit display			
Resolution	1366 x 768 (default)			
Brightness	220 cd/m^2			
Touch Screen	Flat Projected Capacitive Touch			
System Configuration				
Intel® CPU	Intel® Celeron® J1900 up to 2.4GHz (Quad-core)		Intel® Skylake U Processors • Celeron® 2.0GHz • Core™ i3 2.3GHz • Core™ i5 2.4GHz	
Chipset	SoC		SoC	
Main Memory	DDR3L RAM*1 slot (max. 8GB)		DDR3L RAM*1 slot (max. 16GB)	
Storage	1 x 2.5” SATA HDD or 1 x 2.5” SSD			
I/O Ports	**STANDARD**	**PROJECT**	**STANDARD**	**PROJECT**
USB2.0	5	4	5	4
USB3.0	2	2	2	2
12V Powered USB	-	1	-	1
24V Powered USB	-	1	-	1
COM (DB-9)	2	2	2	2
	All with DC5V/12V output, setting by BIOS			
Gigabit Ethernet	1			
Line out	-	1	-	1
MIC in	-	1	-	1
PS/2 keyboard	n/a	Optional, by cable output	n/a	Optional, by cable output
HDMI (V1.4)	1			
RJ12 cash drawer	1			
	• OPOS driver& dual cash drawer support • 12V/24 selectable, setting by jumper (default 24V)			
DC12V out	n/a	1	n/a	1
Speaker output	2*1W speaker			

Model number	Tango Series			
	T-615W		T-815W	
Powering System				
Power Supply	External DC Power adapter	External DC Power adapter	External DC Power adapter	External DC Power adapter
	AC100 to 240V full range			
Power Button	1 x System button			
LOGO	LOGO Mylar with LED backlight			
Physical Dimensions				
Type of Hinge	Flip hinge or Tilt hinge			
Housing Color	Black / White			
Dimension (L x W x D)	278 x 399 x197 mm			
Packing	552 x 490 x 340 mm			
Weight	• Net weight: 6.6kg • Gross weight: 7.6kg			
Safety & Environment				
Product Certification	CE / FCC / CCC / CB / LVD certificated			
Operation Temperature	0°C to 40°C			
Storage Temperature	-25°C to 70°C			
O/S Compatibility	Windows 7 / POSReady 7 / Windows 8.1 Industry / Windows 10 IoT Enterprise / Linux Kernel 3.0 or above			

NOTE:

Specifications are subject to change without notice.

Chapter 2

Preparing For the Installation

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

- Tango Series do not support PCI slot.
- Do not insert or remove any device or component from the Tango Series while the power is turned on.
- If using Tango Series 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 Tango Series 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 WEPOS/POSReady/Windows Embedded on the HDD (O/S pre-installed as an option), the manufacturer provides an optional recovery DVD with the preloaded operating system delivered with the Touch Terminal. The System Integrator shall take care of software restoration after an OS recovery. A manufacturer-supplied USB interface COMBO drive will be required for such action. Other brands of COMBO drive may require a specific driver different from what is supported in the recovery DVD. **Please use the recovery DVD for rescue operation only. Using it otherwise may wipe out whatever is stored in the HDD**. All upgrade device drivers needed for manual installation are available in the subfolder “\drivers” in the OS recovered HDD. Then follow the instructions from your system integrator for software recovery.

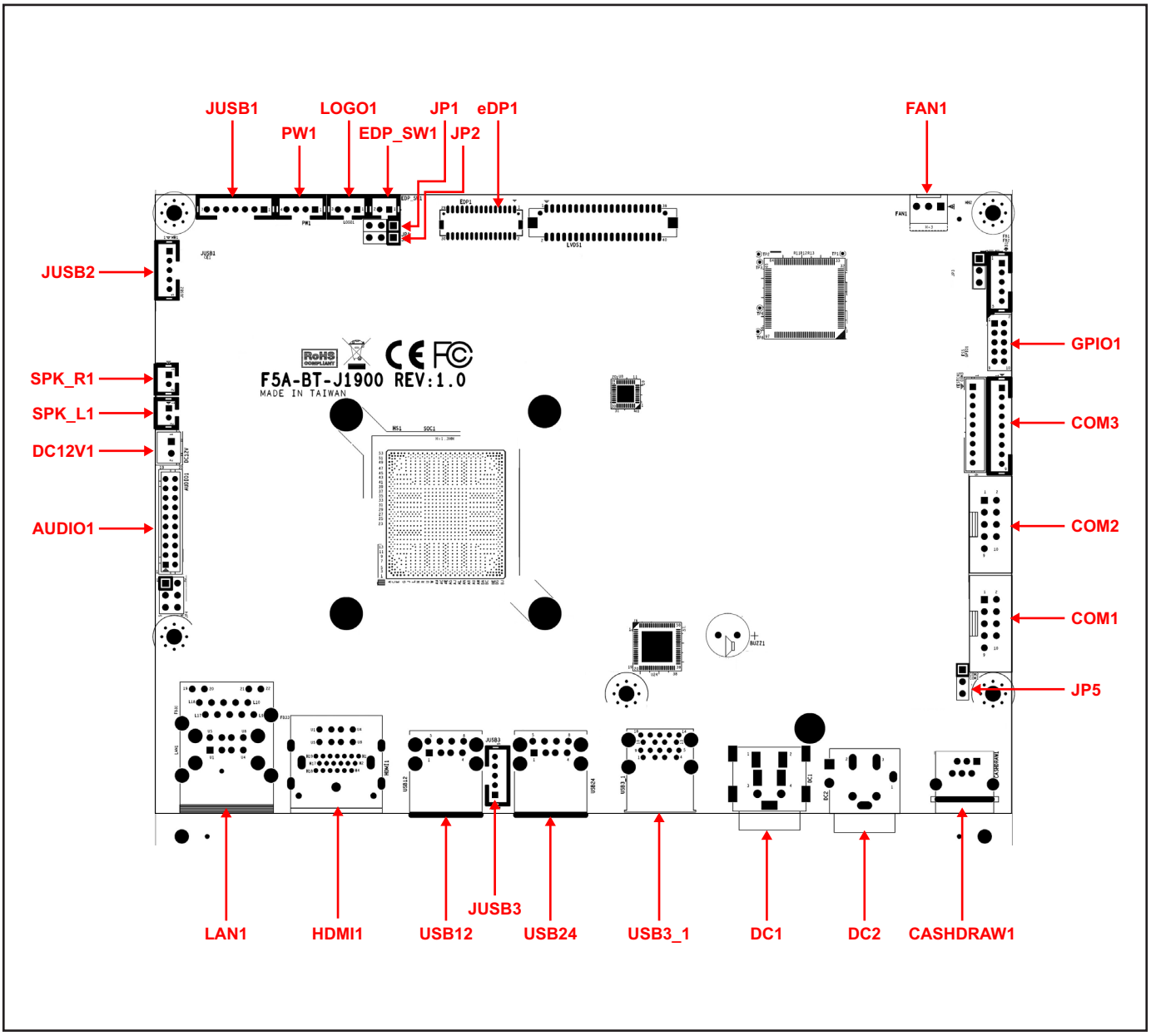
System Default Settings

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

COM1	COM2	COM3	COM4
3F8	2F8	3E8	2E8
IRQ4	IRQ3	IRQ5	IRQ10

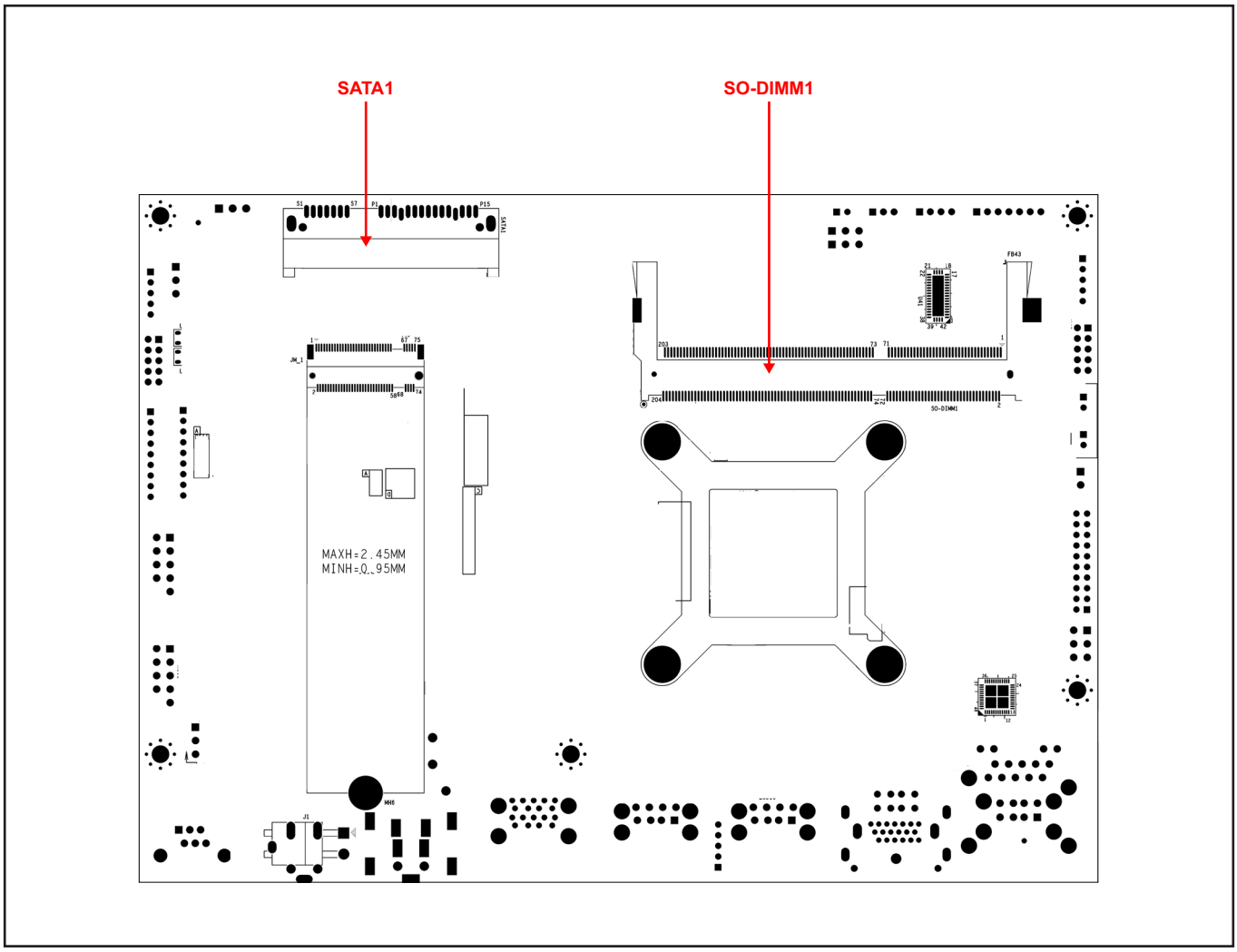
Main Board Jumper Setting and Connector Definition

615W Top View



Connector/Jumper	Description
COM1	COM connector
COM2	COM connector
COM3	COM connector
CASHDRAW1	Cash Drawer output
DC2	24V DC power input
DC1	DC power output
JUSB2	E-SATA + USB connector
USB3.0 ports	USB3.0 connectors (x2)
USB24	24V Powered USB connector
USB12 / JUSB3 *(Select one)*	12V Powered USB connector / USB connect *(Select one)*
HDMI1	• HDMI Vertical connector • USB 2.0 connectors (x2)
LAN1	• Gigabit LAN connector • USB 2.0 connectors (x2)
AUDIO1	Mic in / Audio out and 12V DC power output
DC12V1	12V DC power output connect
SPK_L1	L channel Speaker output
SPK_R1	R channel Speaker output
JUSB2	USB connector
JUSB1	USB connector
PW1	Power switch connector
LOGO1	Logo power output
EDP_SW1	Flip switch connector
FAN1	FAN connector
SATA 1	SATA 3.0 2.5" HDD/SSD 7+15 PIN Dock
SO-DIMM1	DDR3L SO-DIMM

Bottom View



JP1: Clear CMOS Contents

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

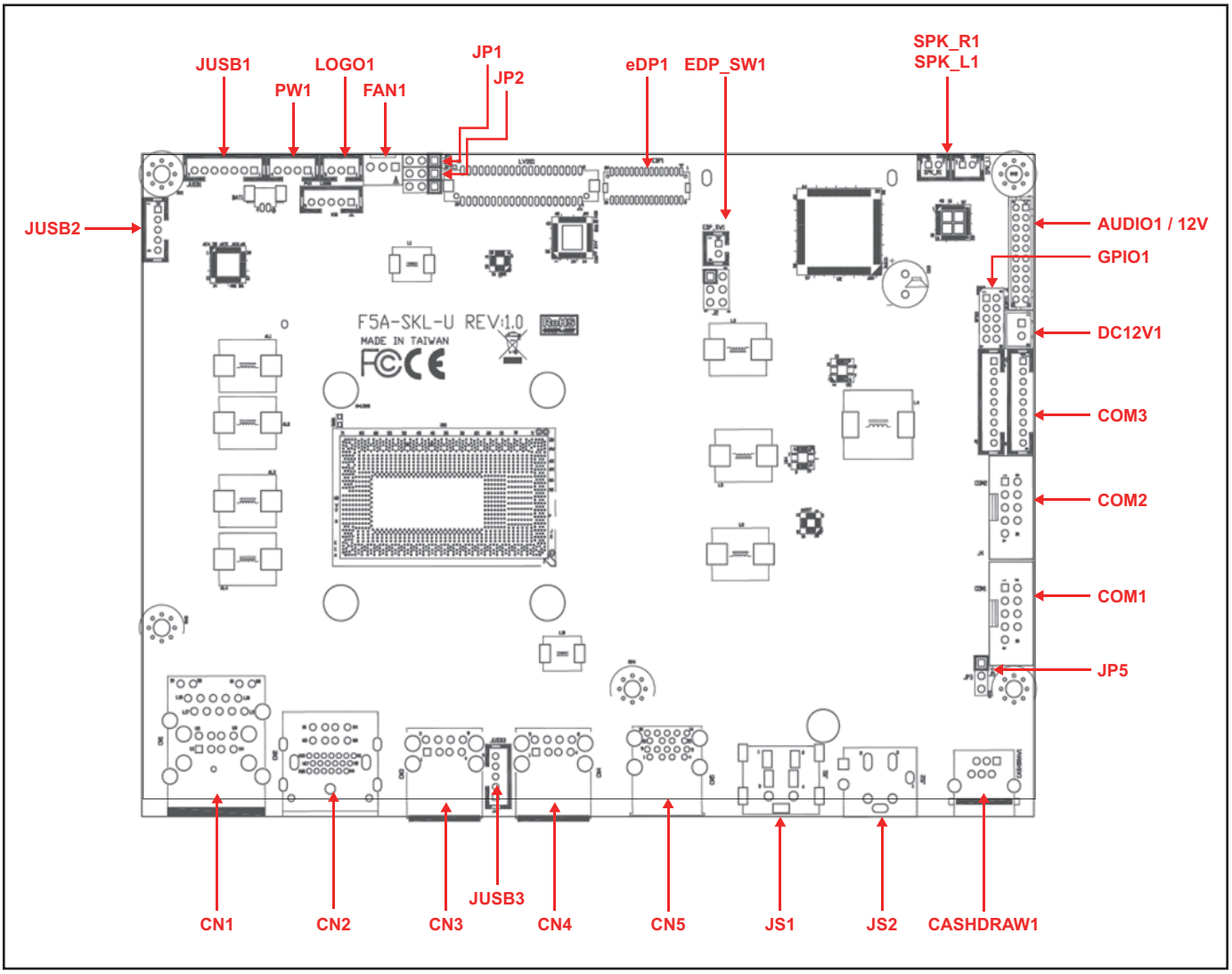
JP2: LCD Panel Power Selection

Setting		Function
1 2 3	Pin 1-2 Short/Closed	3.3V
	Pin 2-3 Short/Closed	5V

JP5: Cash Drawer Power Selection

Setting		Function
1 2 3	Pin 1-2 Short/Closed	24V
	Pin 2-3 Short/Closed	12V

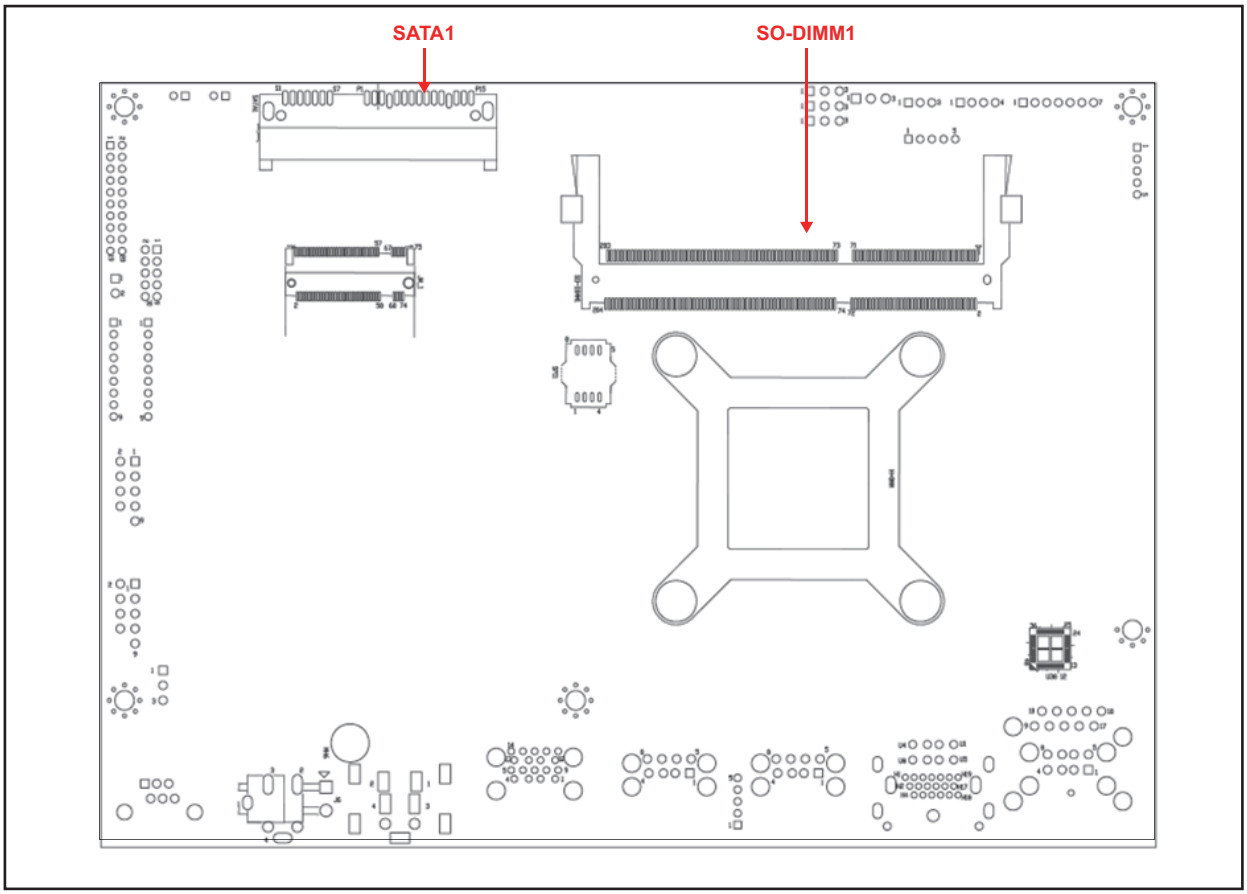
815W Top View



Connector/Jumper	Description
J5	COM1 connectors
J4	COM2 connectors
J3	COM3 connectors
CASHDRAW1	Cash Drawer output
JS2	24V DC power output
JS1	DC power input
JUSB2	USB connector (JST2.0mm 1x5)
CN5	USB3.0 x 2 connectors
CN4	24V Powered USB connector
CN3 / JUSB3 (Choose one)	12V Powered USB connector / USB connect (Choose one)
CN2	• HDMI Vertical connectorUSB 2.0 x 2
CN1	• Gigabit LAN connector USB 2.0 x 2
J1	Mic in / Audio out and 12V DC power output

Connector/Jumper	Description
DC12V1	12V output connect (JST2.5mm 1x2)
SPK_L1	L channel Speaker out (JST2.0mm 1x2)
SPK_R1	R channel Speaker out (JST2.0mm 1x2)
JUSB2	USB connectors (JST2.0mm-1x5)
JUSB1	USB connectors (JST2.0mm-1x7)
PW1	Power switch connect (JST2.0mm 1x4)
LOGO1	Logo power out (JST2.0mm 1x3)
EDP_SW1	Filp switch connect (JST2.0mm 1x2)
FAN1	FAN connect
SATA1	SATA 3.0 2.5" HDD/SSD 7+15 PIN Dock
SO-DIMM1	DDR3L SO-DIMM

Bottom View



JRTC1: Clear CMOS Contents

Setting		Function
1 2 3 	Pin 2-3 Short/Closed	Normal Default
	Pin 1-2 Short/Closed	Clear CMOS

JP1: LCD Panel Power Selection

Setting		Function
1 2 3 	Pin 1-2 Short/Closed	3.3V Default
	Pin 2-3 Short/Closed	5V

JP2: PS2 Keyboard Voltage selection

Setting		Function
1 2 3 	Pin 1-2 Short/Closed	5VSB Default
	Pin 2-3 Short/Closed	+5V

JP3 : Cash Drawer Power Selection

Setting		Function
1 2 3 	Pin 1-2 Short/Closed	12V
	Pin 2-3 Short/Closed	24V Default

Voltage Output Definition

Connector with Voltage Output	Location	Power Support
COM 1 for extension interface (9th PIN of DB-9)	Mainboard	DC5V/DC12V select by BIOS
COM 2 for extension interface (9th PIN of DB-9)	Mainboard	DC5V/DC12V select by BIOS
COM 3 for extension interface (9th PIN of DB-9)	Mainboard	DC5V/DC12V select by BIOS
Standard USB2.0 Ports	Mainboard	DC5V / 500mA

NOTE:

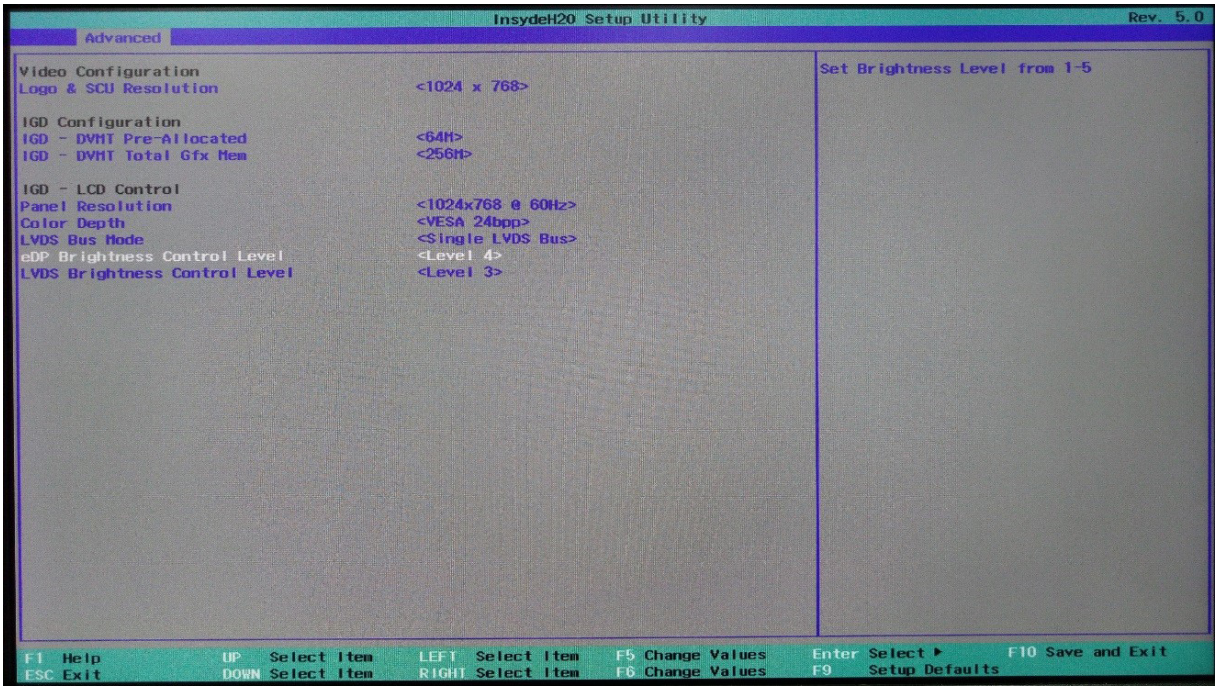
- *Do not plug in or unplug any connector except USB devices when the power is on.*
- *The current loading for all COM ports should not exceed DC 5V/3A and DC 12V/2A.*

Setting the LCD Brightness

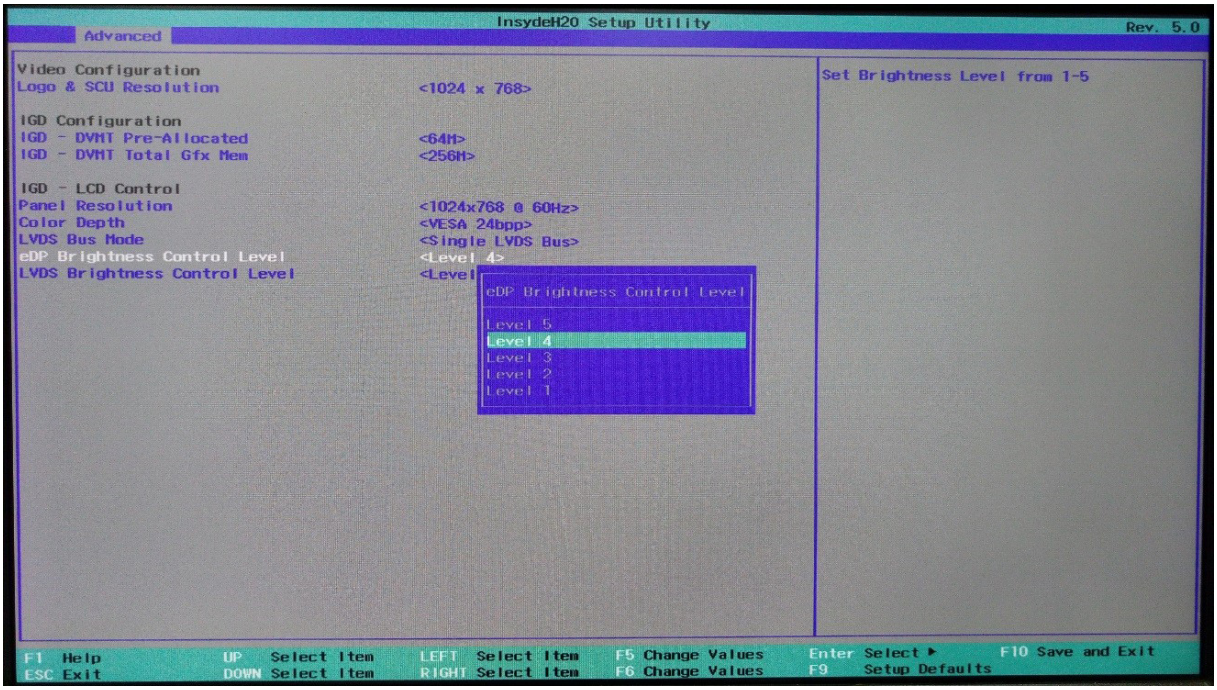
To configure the LCD brightness setting, do the following:

1. During the system boot, press <F2> to enter the BIOS Setup Utility.
2. On the **Advanced** page, select **Video Configuration**.

3. Select **eDP Brightness Control Level**.



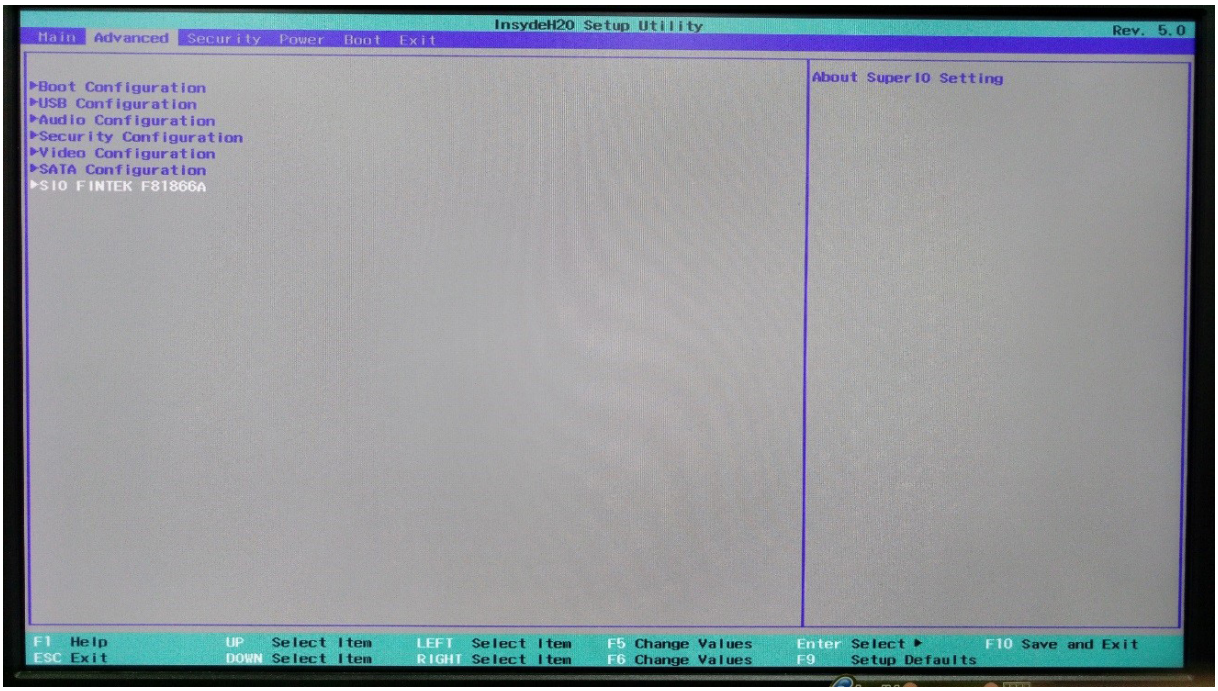
4. Select the desired brightness level setting.



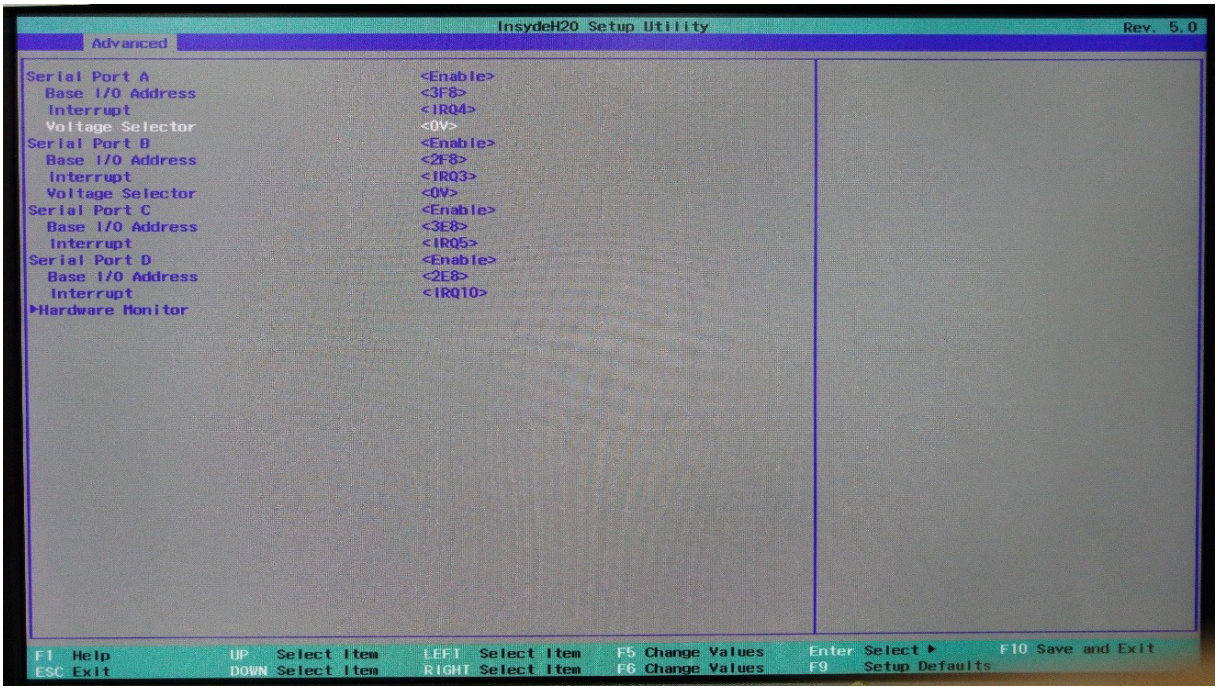
Setting the Serial Port Voltage

To configure the COM port voltage value, do the following:

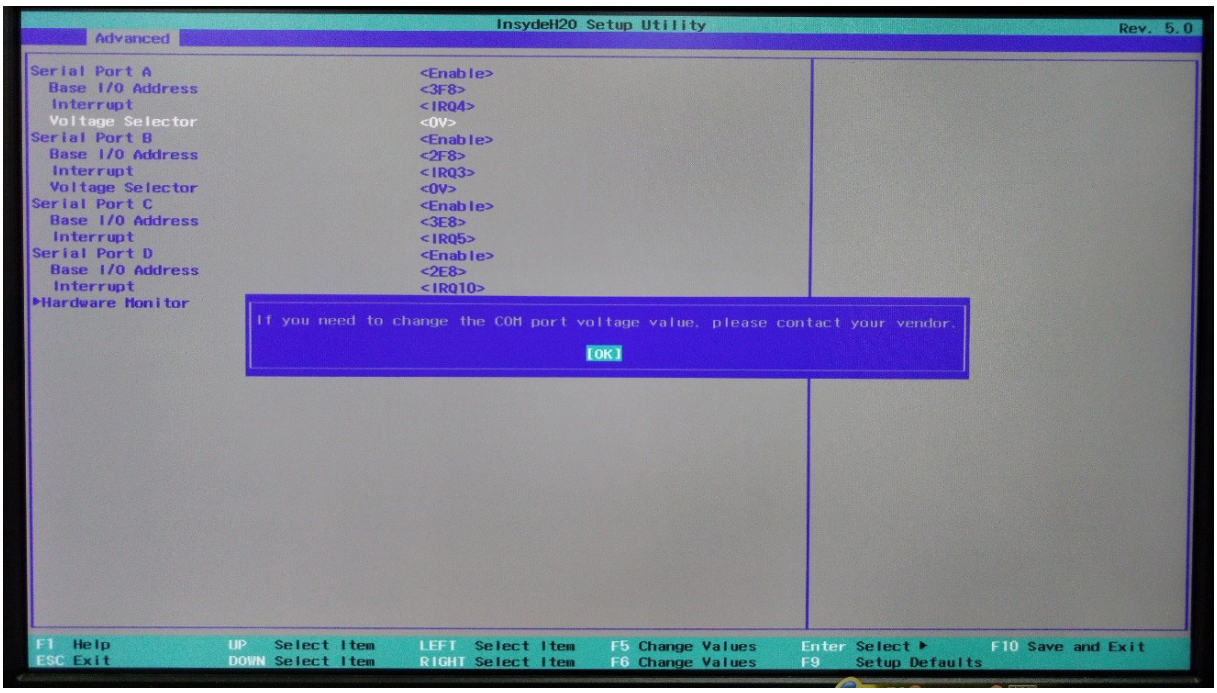
1. During the system boot, press <**F2**> to enter the BIOS Setup Utility.
2. On the **Advanced** page, select **S10 FINTEK F81866A**.



3. Under ***Serial Port A*** option, set the **Serial Port A** setting to **Enable**. Then select **Voltage Selector**.



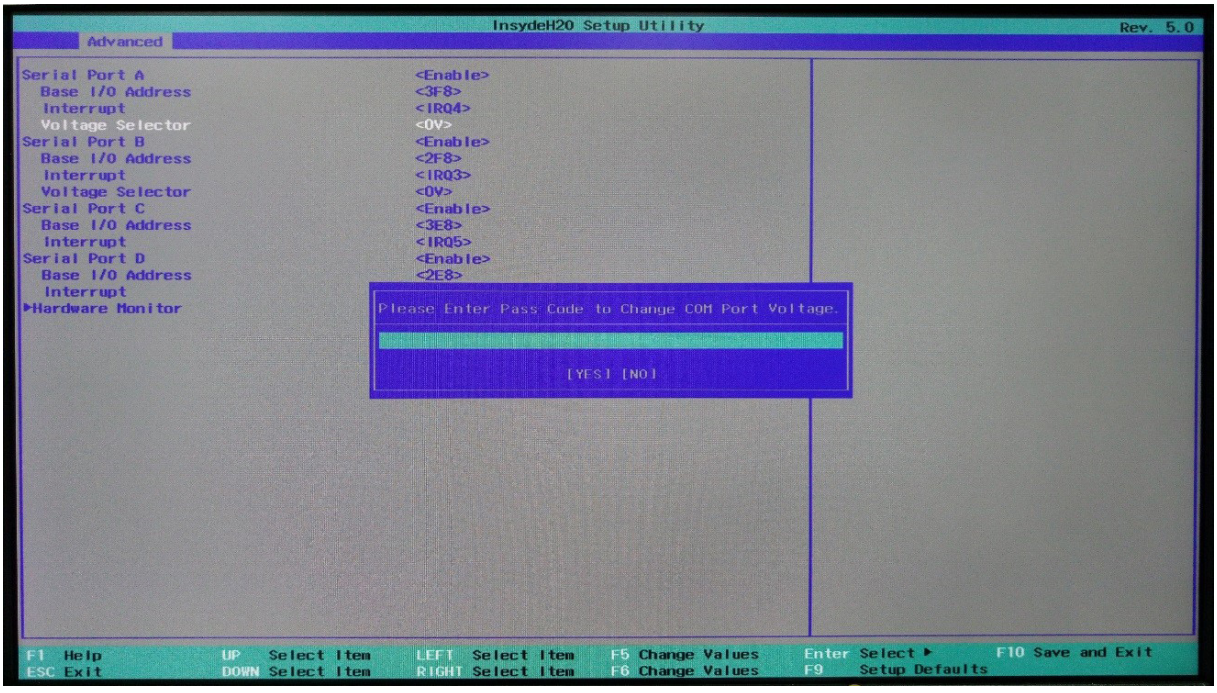
4. A confirmation message appears on the screen. Press <**Enter**> to continue.



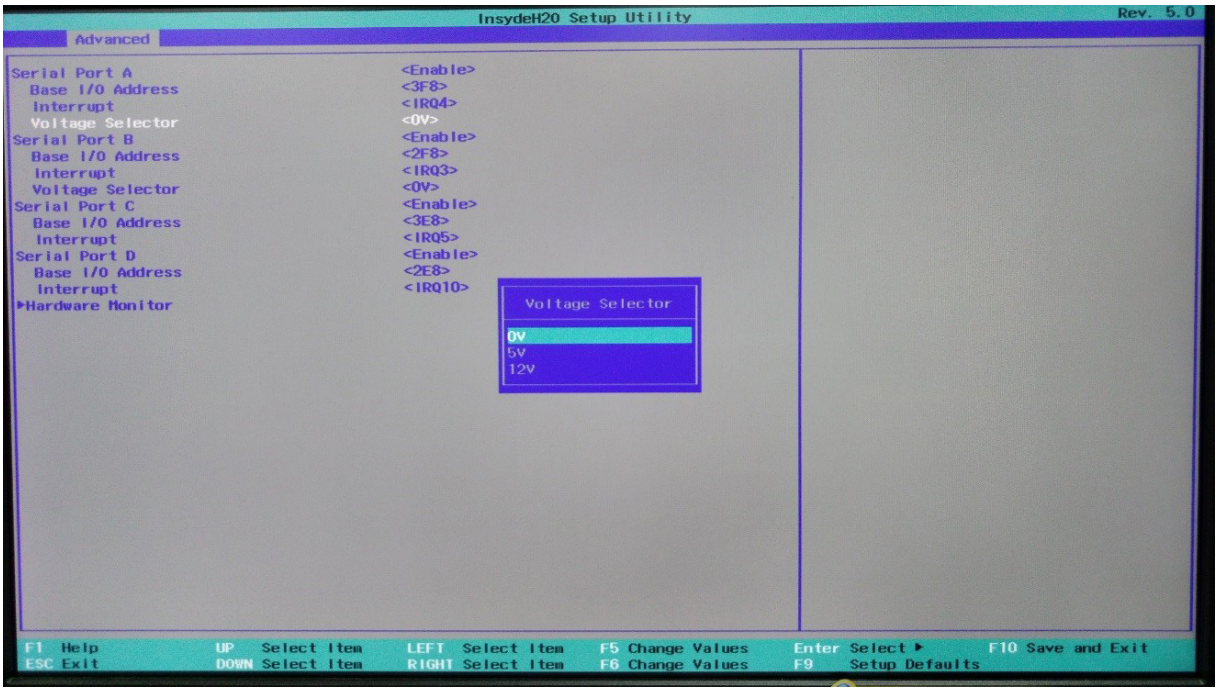
5. When prompted, enter the password. Then select **YES** to confirm.

NOTE:

The default password is "3521".



6. Select the desired voltage value of the designated COM port.



Setting the Flip-over Function

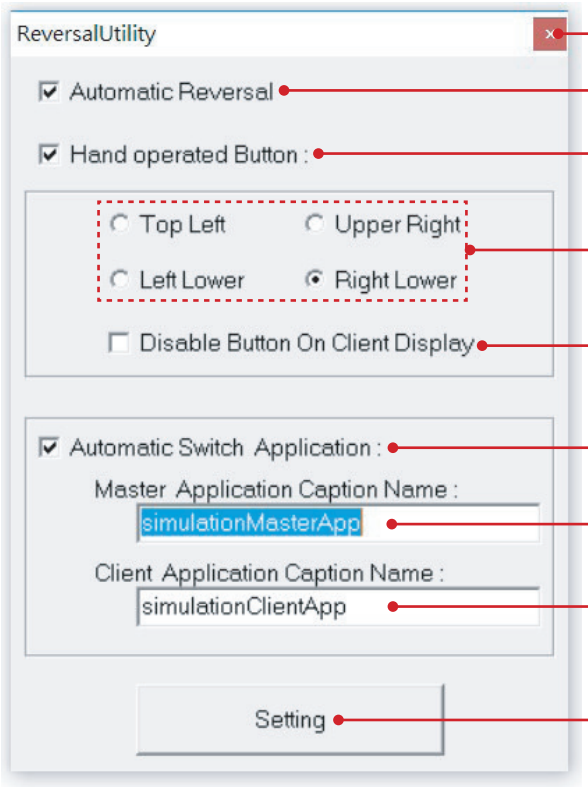
This Touch Terminal is bundled with a software that allows you to let the display to automatically flip its screen orientation as you change the display position.

1. Install the ***ReversalUtilityInstall*** software.

   NOTE:

   *Make sure the software is placed at "**C:**" folder. After installation is complete, the corresponding EXE file is located at "**C:\ReversalUtility**" folder.*

2. Double-click **ReversalUtility.exe** to launch the ***ReversalUtility*** software.
3. On the system tray, click the **Reversal** button and select **Utility**. Then do the following:



Close and exit the software.

If the box is checked, the screen orientation will be reversed automatically.

If the box is checked, the screen orientation need to be reversed manually.

Choose where you want the button to appear on the corner of the screen.

If the box is checked, the button will disappear when the screen orientation is be reversed (on the Client display).

If the box is checked, it will automatically switch to the specified APP with enlarged screen.

Set the title name of the Master APP.

Set the title name of the Client APP.

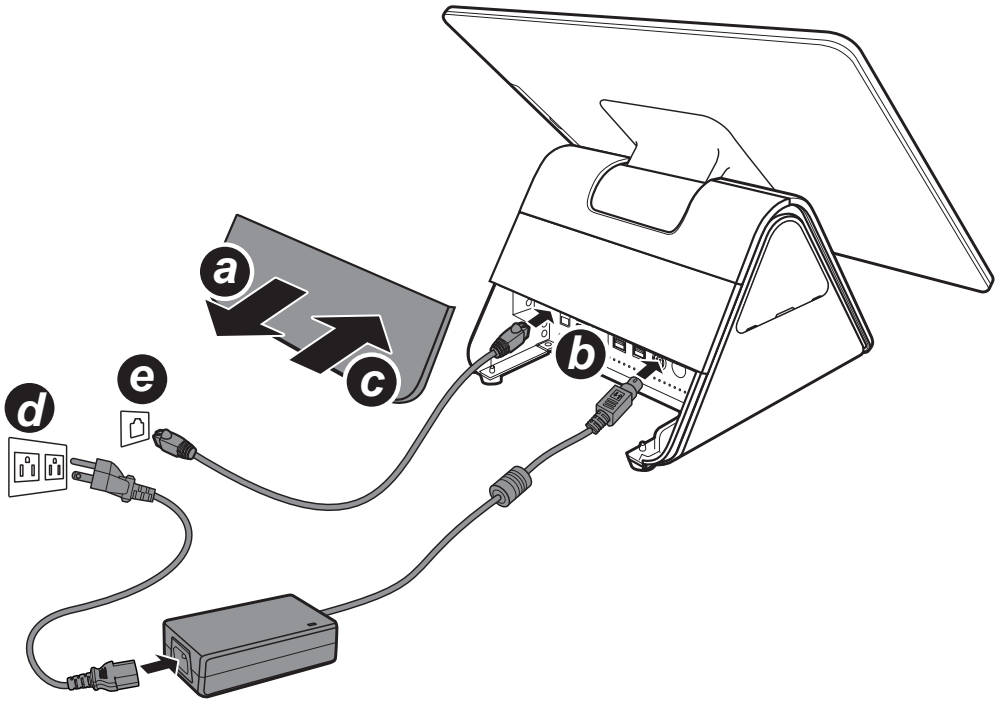
Save the settings.

Chapter 3

Hardware Installation

Installing the Power Cord, Power Adapter, and Network Cable

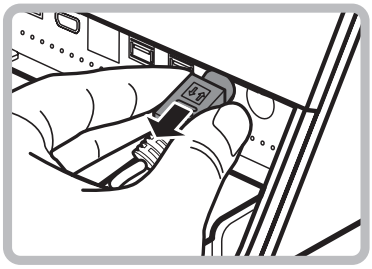
1. Remove the connectors cover. **(a)**
2. Connect the network cable to the LAN port. Then connect the power adapter to the DC IN jack. **(b)**
3. Align and install the connectors cover. **(c)**
4. Connect the power adapter to the power cord. Then plug the other end of the power cord to an electrical outlet. **(d)**
5. Connect the network cable to connect to a hub or switch. **(e)**



WARNING:

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

- When removing the power adapter, be sure to hold the end of power adapter firmly and pull it out.

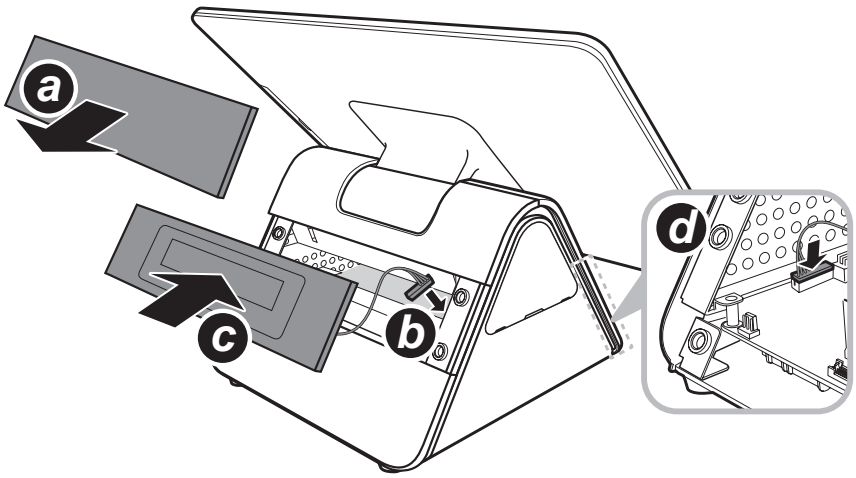


Installing the Customer Display (Optional)

WARNING:

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

1. Remove the dummy display cover. **(a)**
2. Route the customer display's interface cable so that it reaches its connector. **(b)**
3. Install the customer display into its slot. **(c)**
4. Flip the LCD panel so that the screen is facing backwards.
5. Remove the front middle and bottom covers.
6. Connect the customer display's interface cable to the COM3 connector on the mainboard. **(d)**
7. Replace the front middle and bottom covers.

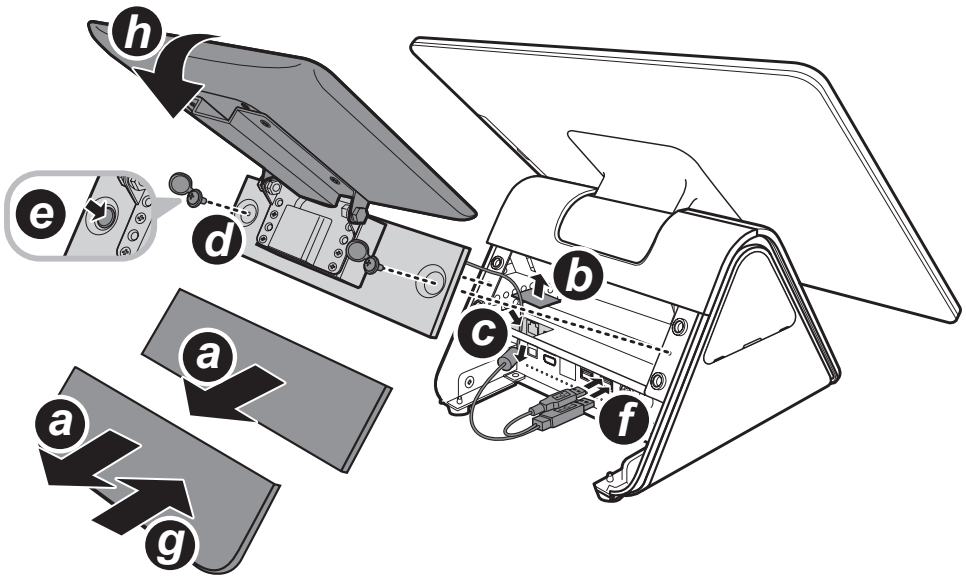


Installing the Tango View Secondary LCD Display (Optional)

WARNING:

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

1. Remove the dummy display and the connectors covers. **(a)**
2. Detach the dummy cable compartment cover **(b)**, and then route the secondary LCD display's power cable and touch USB cable through the hole **(c)**.
3. Align and install the secondary LCD display bracket into its slot. Then secure the bracket with the two screws. **(d)**
4. Replace the rubber screw covers. **(e)**
5. Connect the secondary LCD display's power cable and touch USB cable to the corresponding ports on the Touch Terminal. **(f)**
6. Align and install the connectors cover. **(g)**
7. Carefully push firmly the secondary LCD display to flip it so that the screen is facing outwards. **(h)**

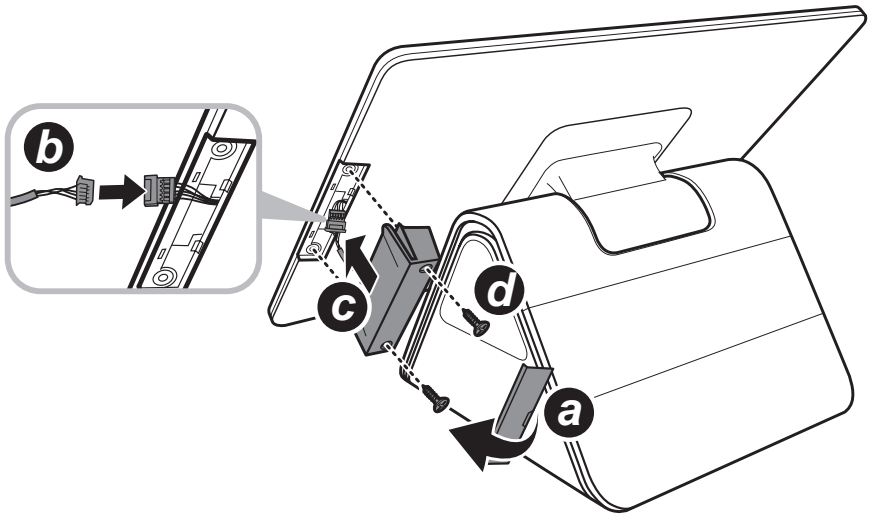


Installing the Magnetic Stripe Reader (MSR) (Optional)

WARNING:

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

1. Remove the MSR module compartment cover. **(a)**
2. Firmly connect the MSR connector into the slot inside the compartment. **(b)**
3. Align and install the MSR module onto its compartment. **(c)**
4. Secure the MSR module to the Touch Terminal with the two screws. **(d)**

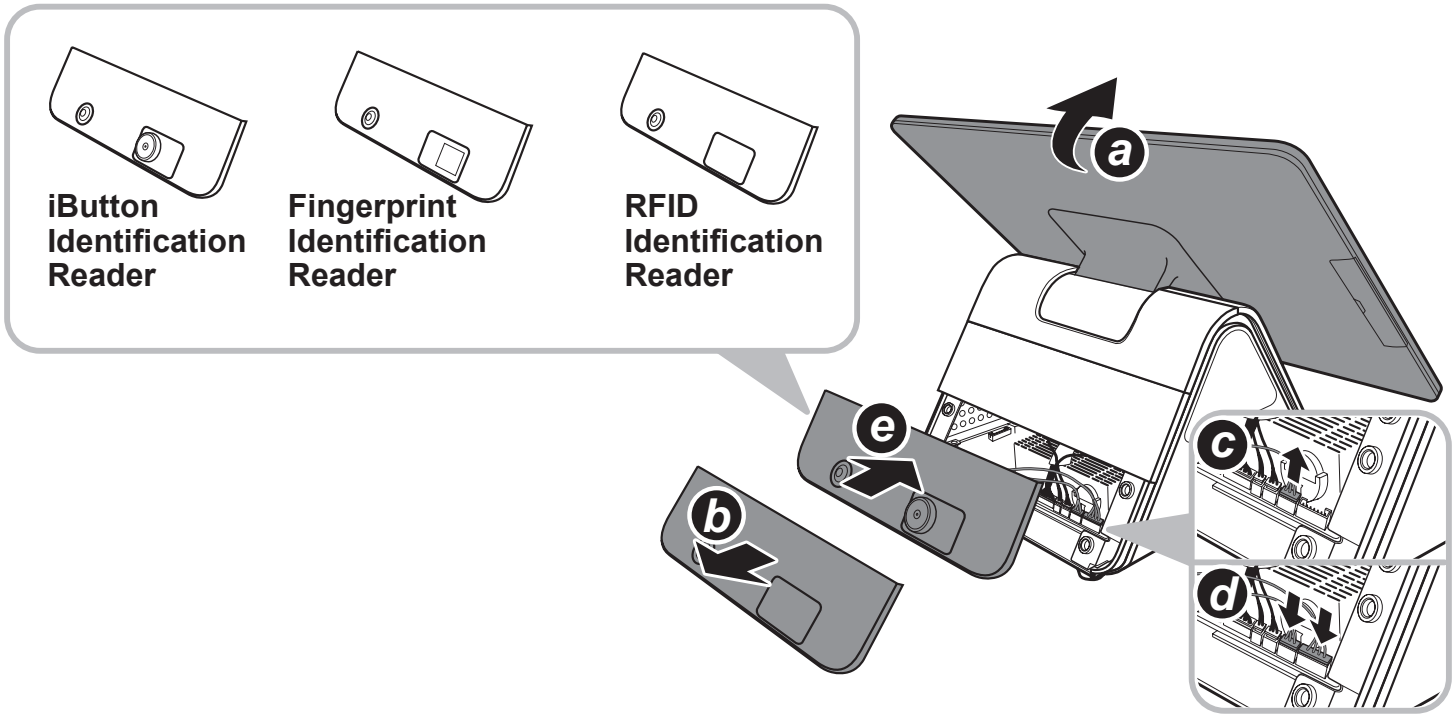


Installing the Identification Reader (Optional)

WARNING:

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

1. Flip the LCD panel so that the screen is facing backwards. **(a)**
2. Remove the front bottom cover. **(b)**
3. Carefully disconnect the power cable from the mainboard connector. **(c)**
4. Firmly connect the identification reader and power cables to the mainboard connectors. **(d)**
5. Align and install the identification reader. **(e)**

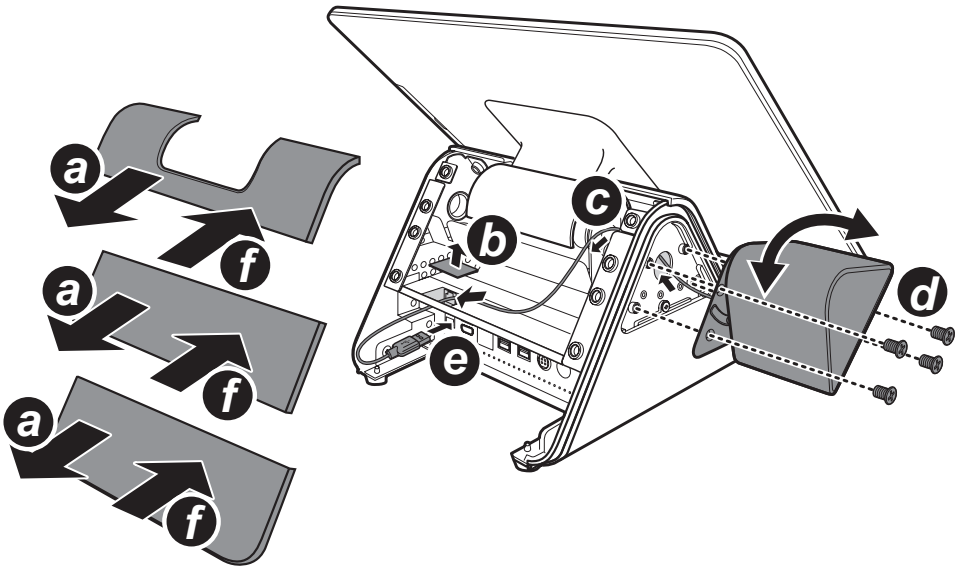


Installing the Tango Scan Barcode Reader (Optional)

WARNING:

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

1. Remove the three covers located at the rear side of the Touch Terminal. **(a)**
2. Detach the dummy cable cover. **(b)**
3. Route the USB cable through the holes. **(c)**
4. Align the bracket and push slightly the scan barcode reader aside so that you can access the screw holes. Then use the four screws to secure the bracket. **(d)**
5. Connect the USB cable to the USB port of the Touch Terminal. **(e)**
6. Replace the three rear covers. **(f)**



Chapter 4

Frequently Asked Questions (FAQ)

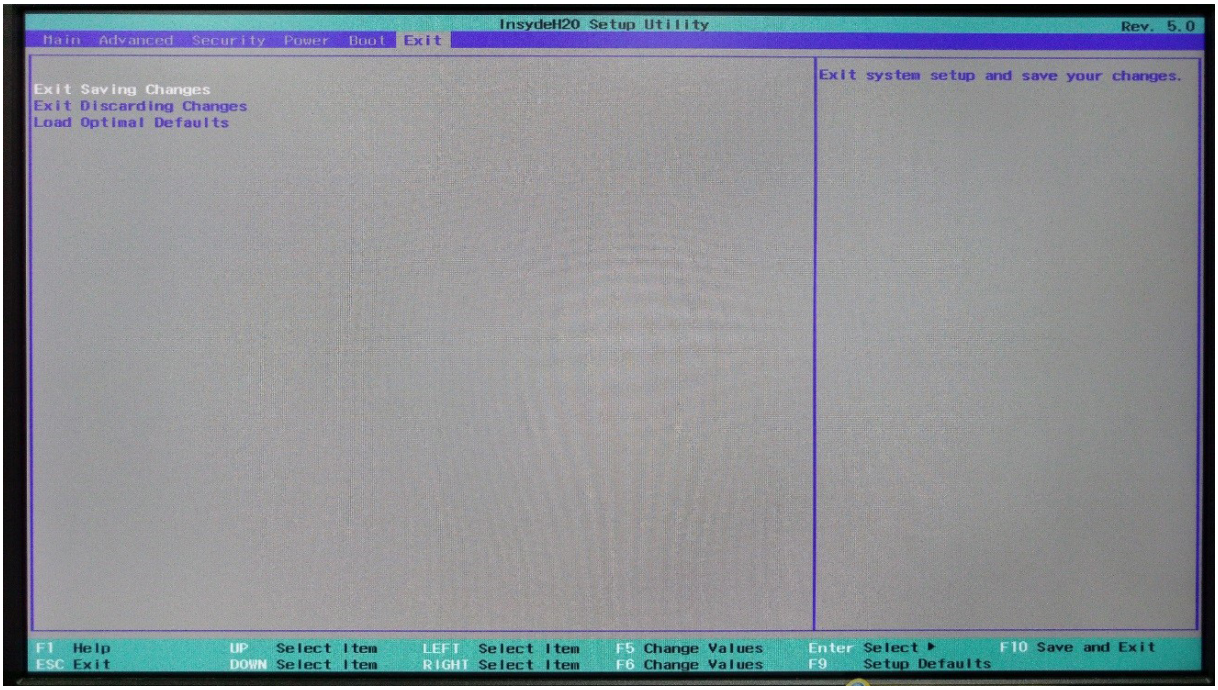
Question 1: Why does the system appear unstable after updating BIOS?

Answer: Load optimized defaults (or load SETUP Default) after flashing BIOS. If the system remains unstable, clear CMOS to solve the problem.

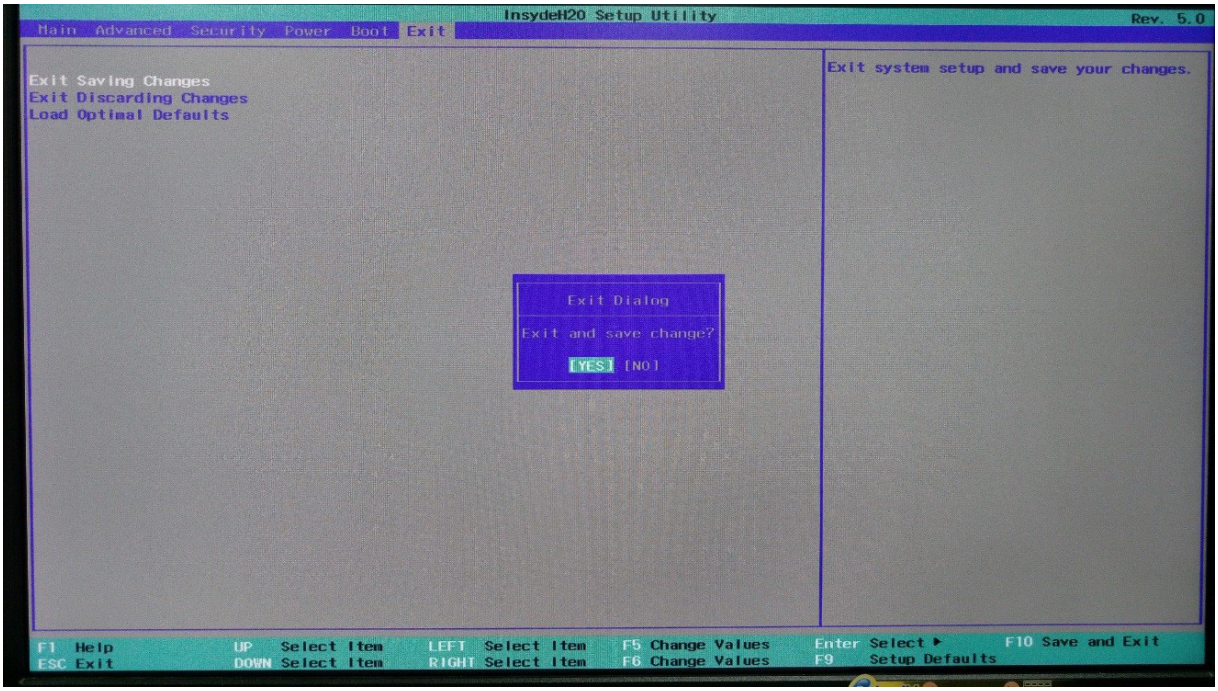
To load optimized defaults, do the following:

1. On the **Exit** page, select **Load Optimal Defaults**. When the confirmation message appears, select **Yes** to confirm.

2. Select **Exit Saving Changes**.



3. Select **Yes** to save the settings.



Question 2: How do I clear CMOS?

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.

Question 3: How to use Boot Menu?

Answer: To use the Boot Menu, do the following:

1. Press <**F10**> to enter the Boot Menu.
2. Select the Boot device from the Boot Menu.