

NEXA Series

NP1652



User Manual
Version 1.0

About this Manual

Thank you for purchasing NEXA 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)

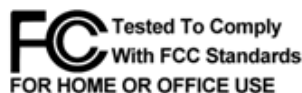
This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- 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



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	7
Package Contents	7
Overview of NEXA Series	8
Front View	8
Rear View	8
Powering ON/OFF NEXA POS.....	10
Physical Dimensions	11
Specifications	16
Touch Terminal Specifications	16
Peripherals Specifications	18
Chapter 2: Preparing For the Installation	20
System Default Settings	21
Main Board Jumper Setting and Connector Definition	22
NP1652	22
Setting the LCD Brightness	24
NP1652	24
Chapter 3: Hardware Installation	25
Installing / Replacing the Storage	25
Installing the Customer Display (Optional)	26
Installing the Secondary LCD Display (Optional)	27
Installing the Identification Reader (Optional)	28
Installing the VESA Mount (Optional)	29
Chapter 4: Frequently Asked Questions (FAQ)	30
Question 1: How do I clear CMOS?	30

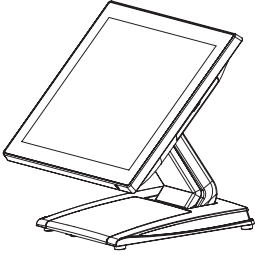
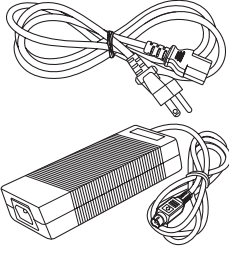
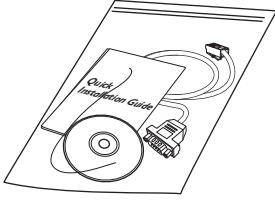
Chapter 1

Introduction

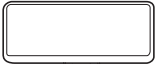
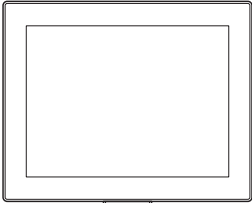


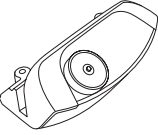

Congratulations on your purchase of this Touch Terminal. Your easy-to-use POS terminal is designed to help you enhance your business flexibility by offering superior customer experience.

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.

		
<p>Touch Terminal</p>	<p>Power Cord & Adapter</p>	<p>Accessory Kit</p>

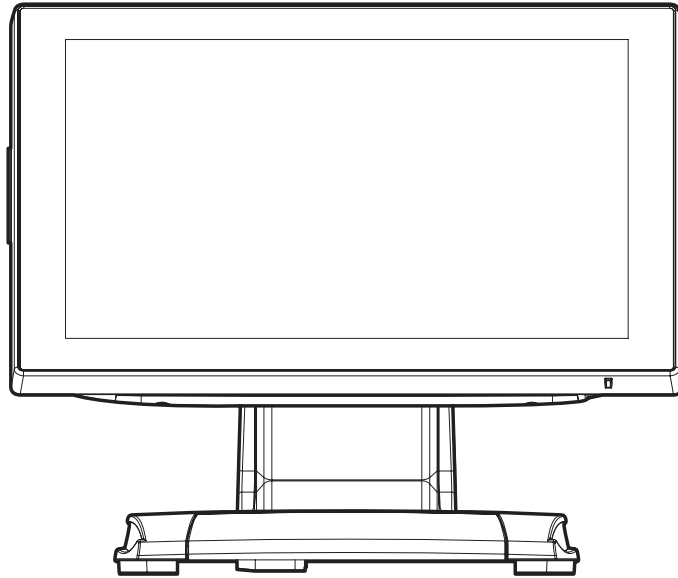
Optional Accessories

			
<p>Customer Display (VFD)</p>	<p>Secondary LCD Display (8"/10"/15")</p>	<p>MSR Reader</p>	<p>MSR + Fingerprint Identification Reader</p>
			
<p>MSR + iButton Identification Reader</p>	<p>MSR + RFID Identification Reader</p>		

Overview of NEXA Series

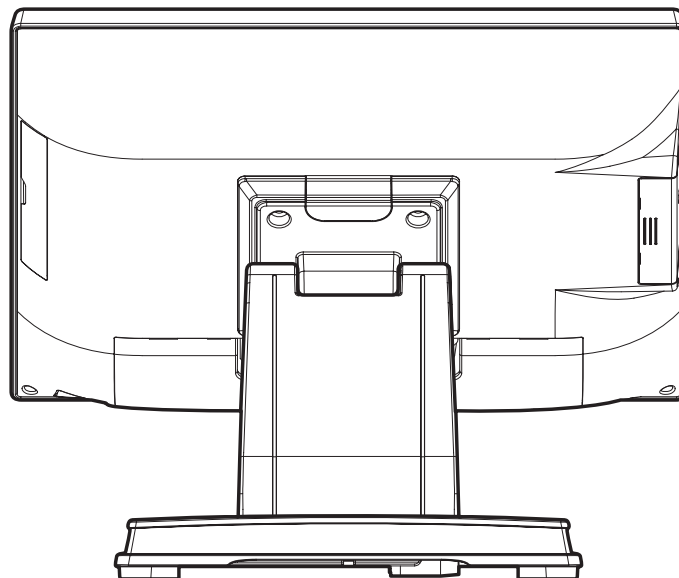
The figures in this section illustrate the components (including input and output ports) located at the front and rear of your Touch Terminal.

Front View



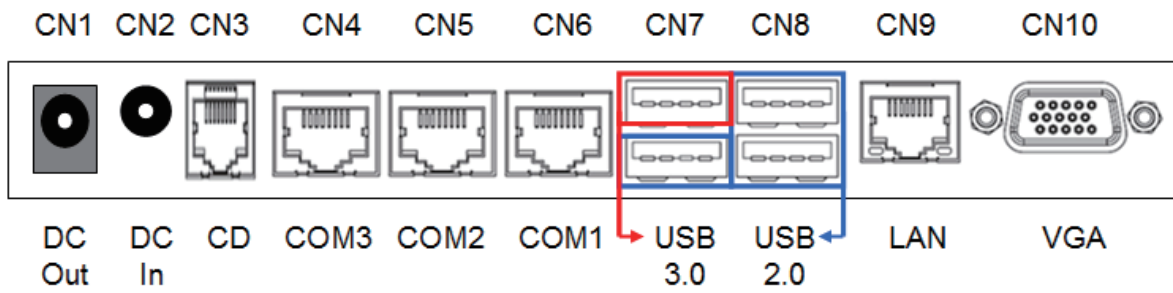
Standard Type

Rear View



Standard Type

I/O Ports

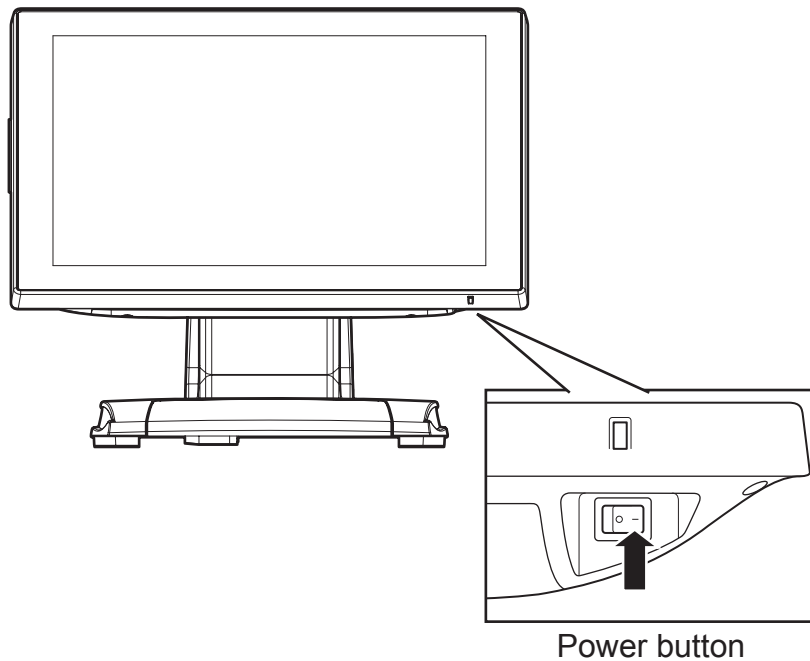


Item	Connector Definition
CN1	12V DC Output
CN2	12V DC Input
CN3	RJ12 Cash Drawer
CN4	COM 3 Serial Ports
CN5	COM 2 Serial Ports
CN6	COM 1 Serial Ports
CN7	USB 3.0 + USB 2.0
CN8	Dual USB 2.0
CN9	Gigabit LAN
CN10	VGA Connector

Powering ON/OFF NEXA POS

Power ON NEXA 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 OFF NEXA 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.

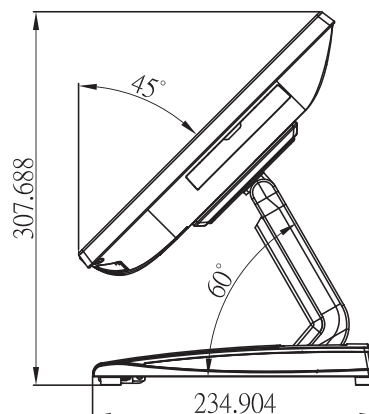
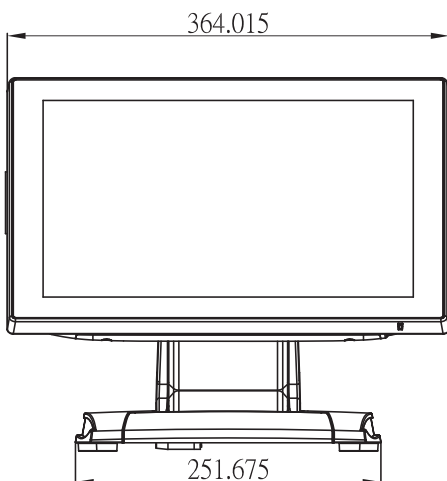
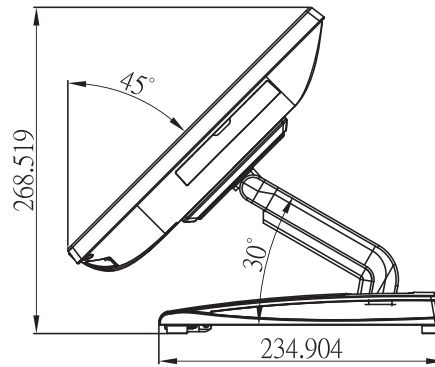
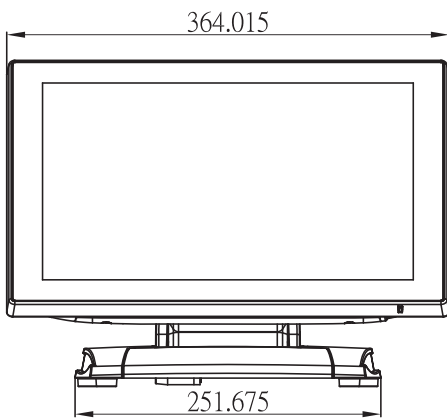
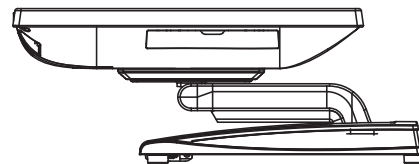
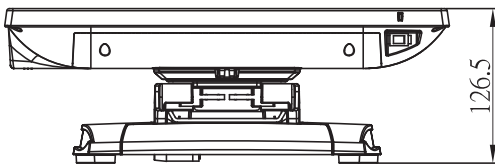
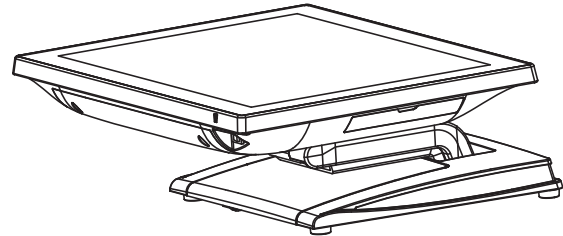
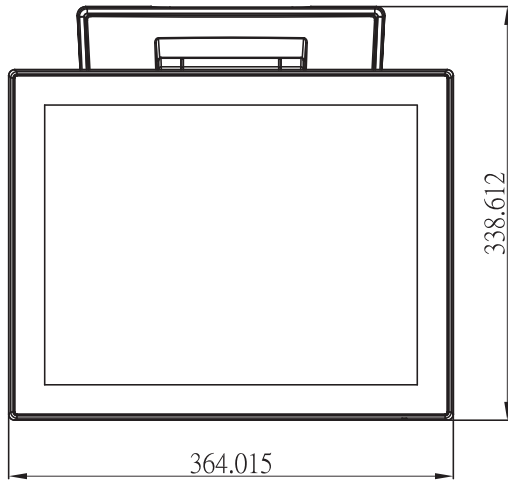
Status LED Indicator

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

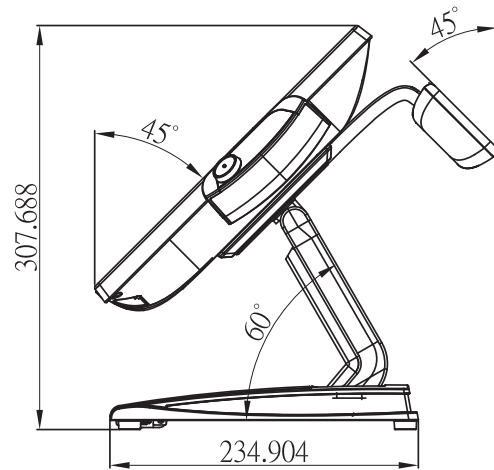
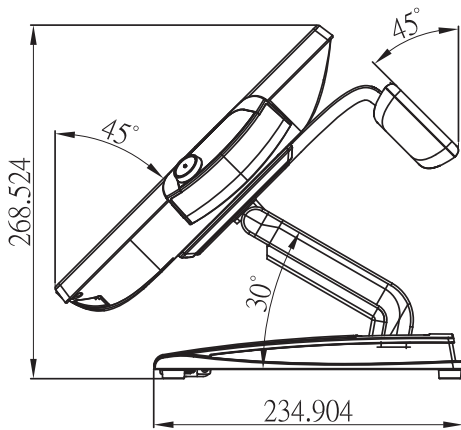
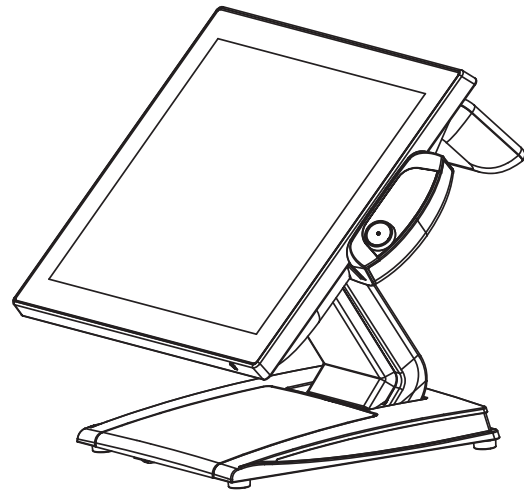
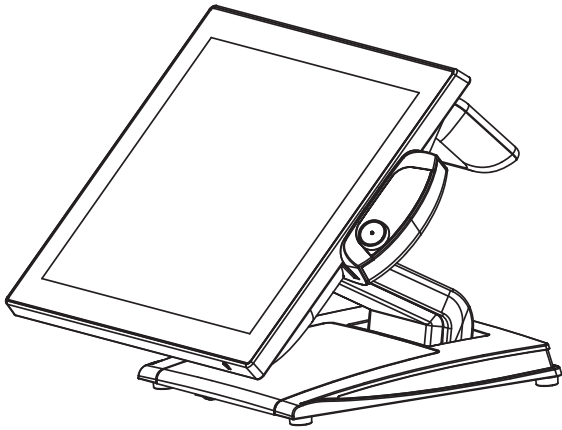
Standard Display



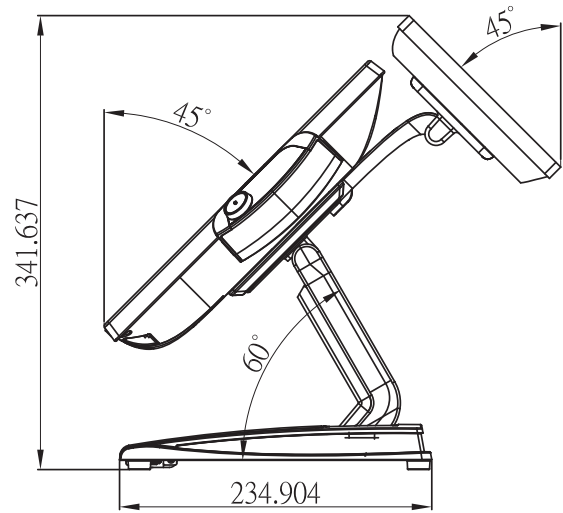
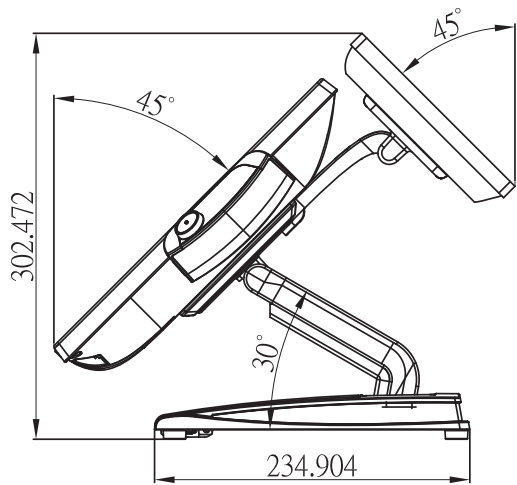
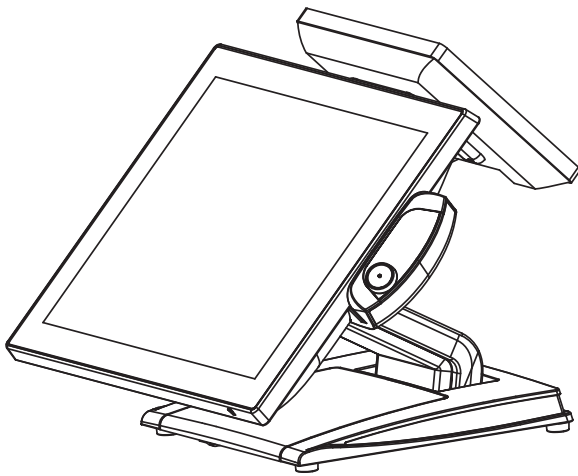
INTRODUCTION

LCM (Liquid Crystal Module)

VFD Customer Display

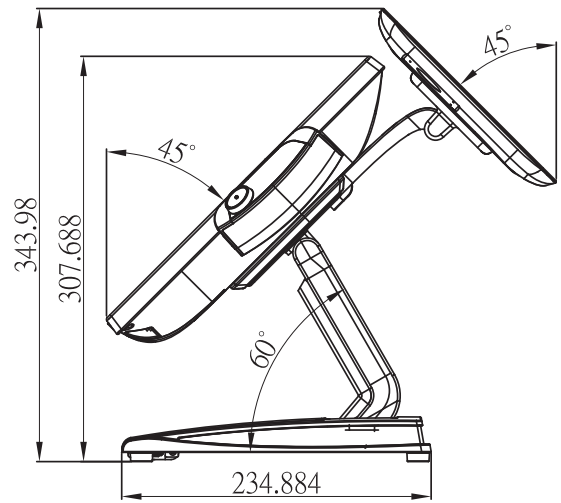
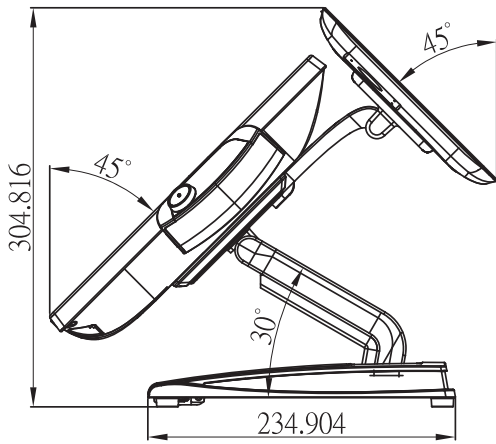
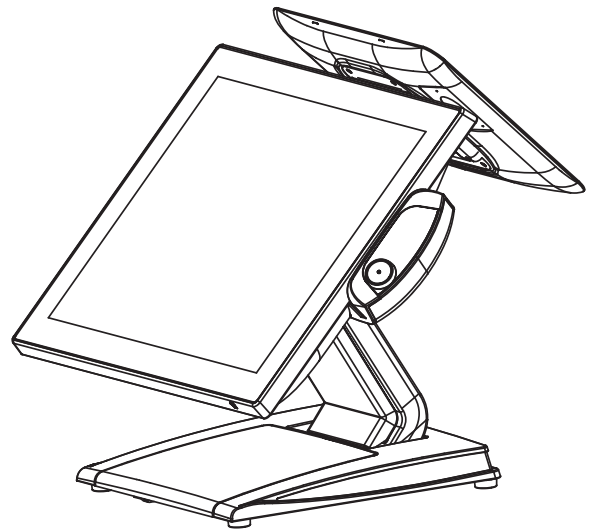
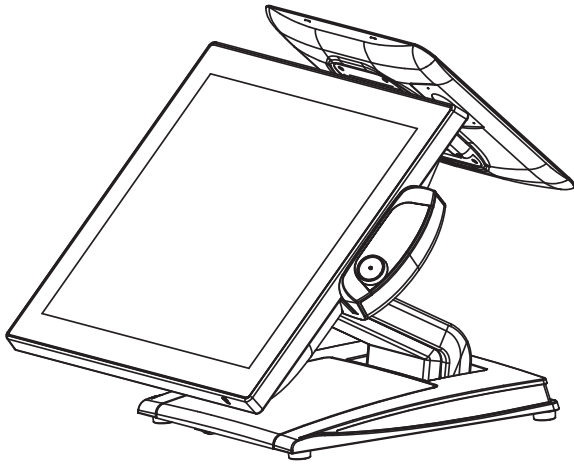


8" Secondary LCD Display

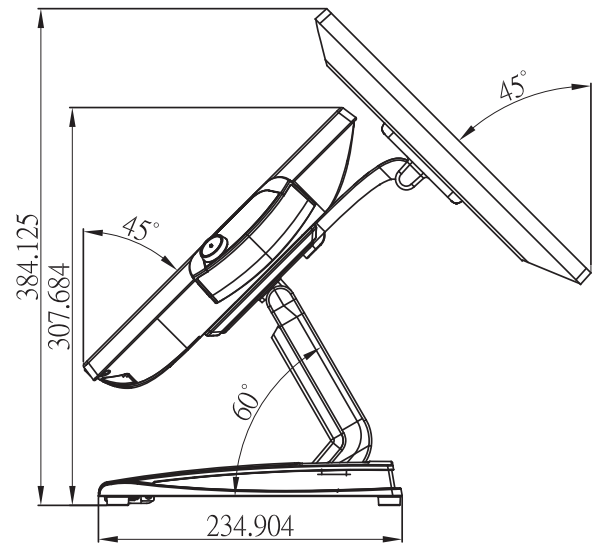
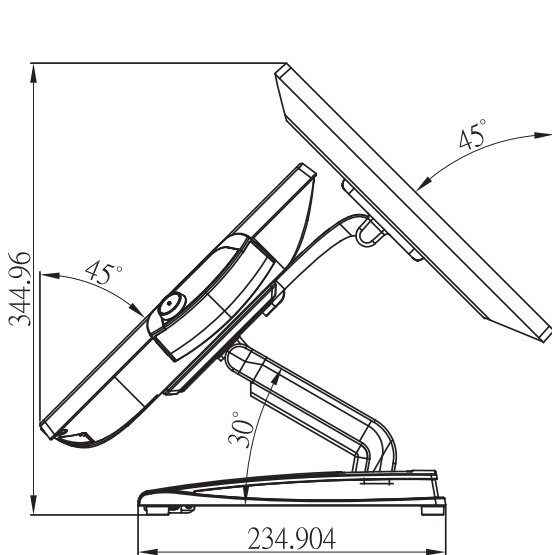
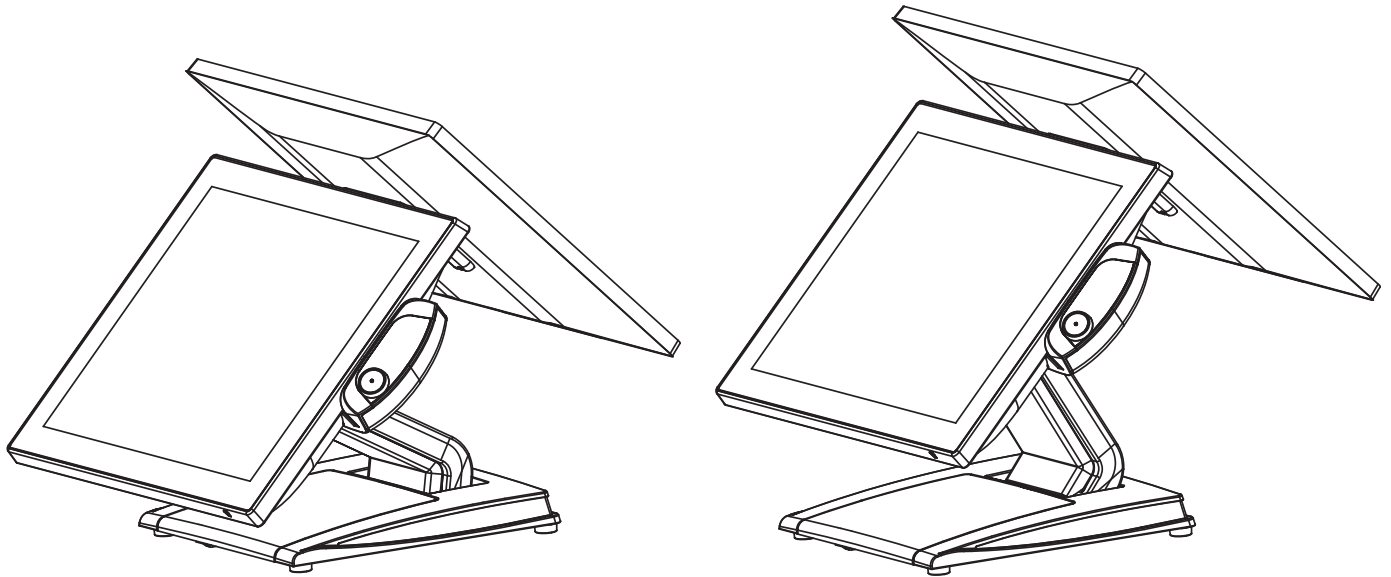


INTRODUCTION

10" Secondary LCD Display



15" Secondary LCD Display



Specifications

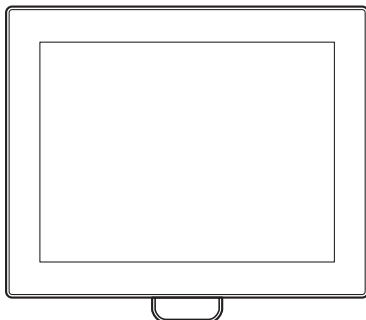
Touch Terminal Specifications

Model number	NP1652
LCD & Touch Panel	
LCD Panel	15" LED-backlit display
Resolution	1024 x 768 (default)
Brightness	250 cd/m ²
Touch Screen	Flat Projected Capacitive Touch (USB)
System Configuration	
CPU	Intel® Celeron® J1900 up to 2.4GHz (Quad-core)
Chipset	SoC
Main Memory	204Pin DDR3L RAM*1 slots, up to 8GB
Storage	1 x 2.5" SATA HDD or 1 x 2.5" SSD
I/O Ports	
USB2.0	3
USB3.0	1
RJ50 COM	3
Gigabit Ethernet	1
VGA	1
RJ12 cash drawer	1 (Dual cash drawer support, 12V/24V selectable, OPOS driver support)
DC12V out	1
DC12V in	1
Powering System	
Power Supply	External DC power adapter. AC100 to 240V full range. (DC 12V/60W)
Power Button	1 x System on/off trigger
COM port output voltage selection	COM Port 1/2/3 (0V/5V/12V by jumper setting)
Physical Dimensions	
Dimension (L x W x D)	364 (L) x 232 (W) x 329 (H) mm
Packing	512 (L) x 432 (W) x 340 (H) mm
Weight	Net weight: 4.45Kg Gross weight: 6.5Kg

Model number	NP1652
Safety & Environment	
Product Certification	CE / FCC / 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 10/ Linux Kernel 3.0 or above

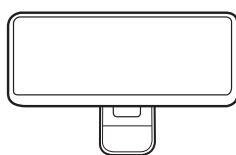
Peripherals Specifications

2nd LCD Display



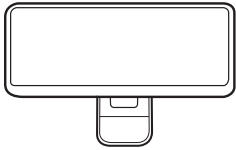
Model no.	MN-0810 / MT-0810	MN-1010 / MT-1010	MN-1510
LCD Panel	8" LED backlight	10.4" LED backlight	15" LED backlight
Touch	Resistive (for MT-0810/MT-1010 model)		
Resolution	800 x 600		1024 x 768
Color	262,144		
Viewing Angle	140° (H) / 125° (V)	110° (H) / 150° (V)	160° (H) / 140° (V)
Response Time	25ms (typical)	30ms (typical)	8ms (typical)
Contrast Ratio	500:1 (typical)		600:1 (typical)
Brightness	250 nits (typical)	300 nits (typical)	250 nits (typical)
Video Input	Analog VGA		
Power Supply	DC 12V		

Liquid Crystal Module (LCM)



Model no.	CM-3000
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

Vacuum Fluorescent Display (VFD)



Model no.	CM-7100
Display Method	Vacuum Fluorescent Display (VFD)
Polarizer color	Yellow green
Backlight color	Black
Brightness	500-1000 cd/m ²
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



MSR Reader



MSR + RFID



MSR + iButton



MSR + Fingerprint

Model No.	Function
MSR Reader	ISO Track 1/2/3 single/dual/ triple tracks of magnetic card, support ANSI/ ISO Standards 7810, 7811 1/5, 7812 & 7813. USB HID Keyboard mode interface
MSR + iButton	Dallas DS1990A compliant / With leading / ending programming function. USB HID Keyboard mode interface
MSR + Fingerprint	Digital Personal U. are .U 4500B (Optical Type / Blue Light) Module Size: Approx. 57.7mm * 35.8mm*11.0mm Compatible with USB 1.1 / 2.0 (Full Speed). 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.

- NEXA Series do not support PCI slot.
- Do not insert or remove any device or component from the NEXA Series while the power is turned on.
- If using NEXA 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 NEXA 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 POSReady/Windows Embedded 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

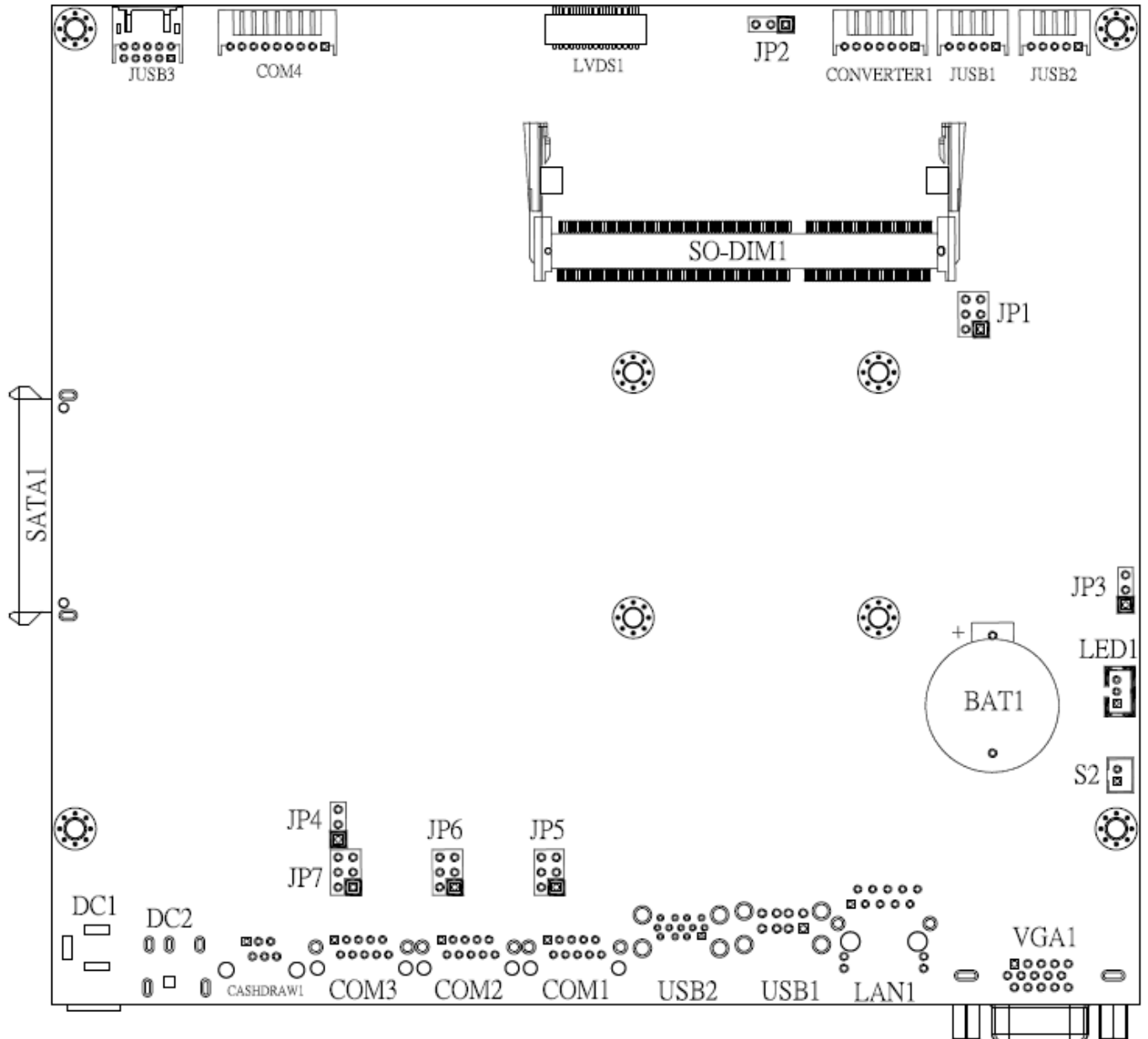
The following is the information on default settings for Touch Terminal serial ports.

NP1652

COM1	COM2	COM3	COM4	COM5	COM6
3F8	2F8	3E8	2E8	2F0	2E0
IRQ4	IRQ3	IRQ5	IRQ10	IRQ5	IRQ10

Main Board Jumper Setting and Connector Definition


NP1652




Connector/Jumper	Description
VGA1	VGA output
LAN1	LAN connector
USB1	USB2.0 *2 connector
USB2	USB3.0 *1 connector USB2.0 *1 connector
CASHDRAW1	Cash Drawer output
COM1	COM1 connector
COM2	COM2 connector
COM3	COM3 connector

Connector/Jumper	Description
DC2	12V DC power input
DC1	12V DC power output
JUSB1	USB port for POS input device
JUSB2	USB port for POS input device
JUSB3	USB port for USB Touch
LED1	POWER LED
COM4	COM4 connector for RS-232 POS input device
LVDS1	2x15 LVDS connector
CONVERTER1	LED backlight inverter connector
SATA1	SATA Connector
SO-DIMM1	DDR3/DDR3L SO-DIMM
S2	Power Button Connector
JP2	PANEL Power Selection
JP3	Clear CMOS Contents
JP4	Cash Drawer Power Selection
JP5	COM1 RS232 RI/+5V/+12V Power Setting
JP6	COM2 RS232 RI/+5V/+12V Power Setting
JP7	COM3 RS232 RI/+5V/+12V Power Setting


JP2 LCD Panel Power Selection

1 2 3 	Pin 1-2 Short/Closed Pin 2-3 Short/Closed	3.3V 5V
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
JP3 : Clear CMOS Contents

1 2 3 	Pin 1-2 Short/Closed Pin 2-3 Short/Closed	Normal Clear CMOS
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
JP4 : Cash Drawer Power Selection

1 2 3 	Pin 1-2 Short/Closed Pin 2-3 Short/Closed	24V 12V
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
JP5 : COM 1 D-SUB PIN9 VOLTAGE SELECT

1 3 5 	1-2=0V / R1 3-4=+5V 5-6=+12V	Default = 0V
--	------------------------------------	--------------

JP6 : COM 2 D-SUB PIN9 VOLTAGE SELECT

1 3 5 	1-2=0V / R1 3-4=+5V 5-6=+12V	Default = 0V
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JP7 : COM 3 D-SUB PIN9 VOLTAGE SELECT

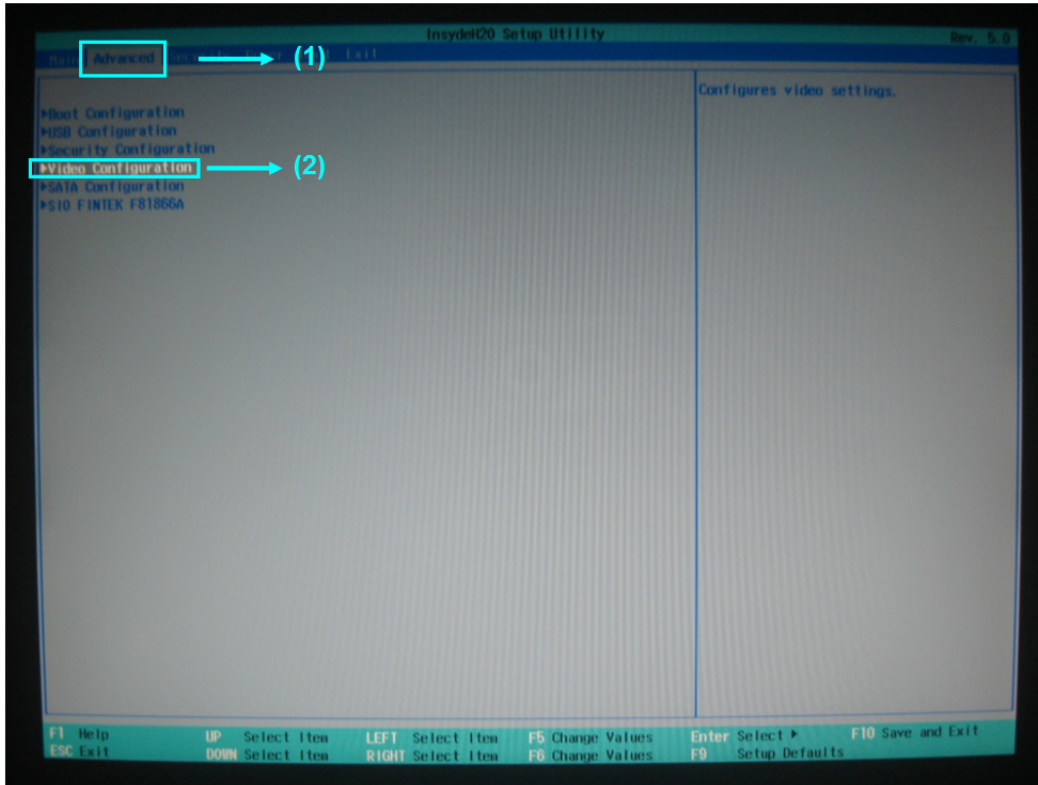
1 3 5 	1-2=0V / R1 3-4=+5V 5-6=+12V	Default = 0V
--	------------------------------------	--------------

Setting the LCD Brightness

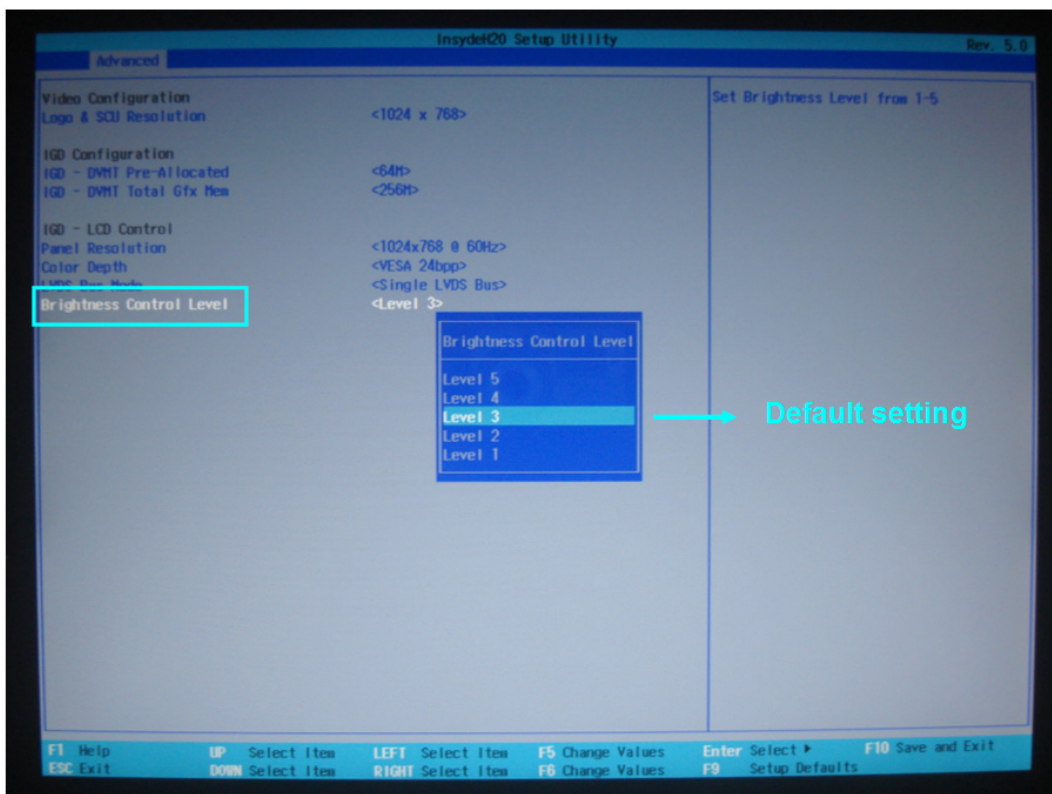
NP1652

1. Press <F2> when system booted up.

(1) Select <Advanced> (2) Select <Video Configuration>



2. Select <Brightness Control Level> to adjust LCD brightness level.



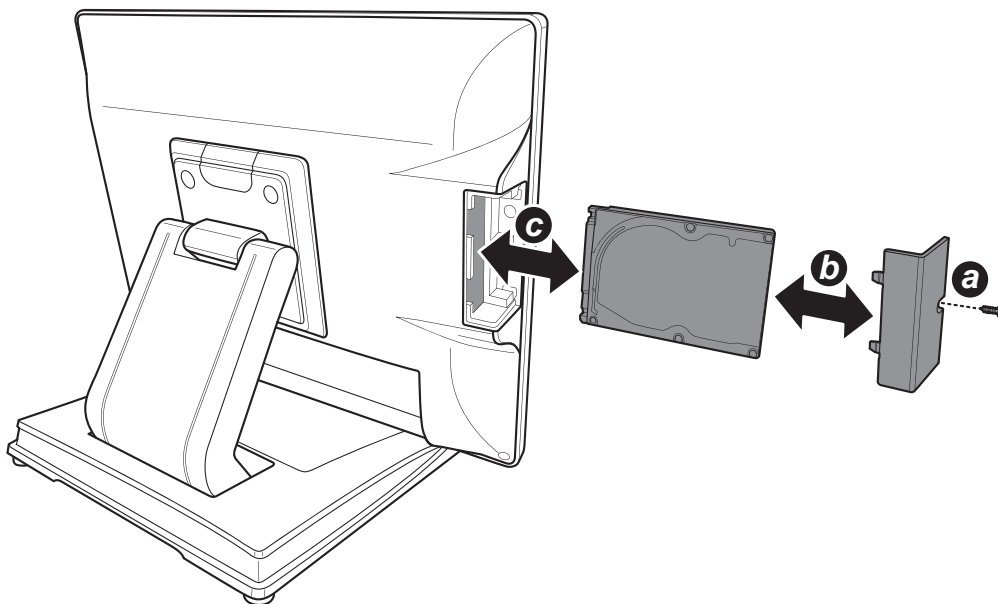
Hardware Installation

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)**.



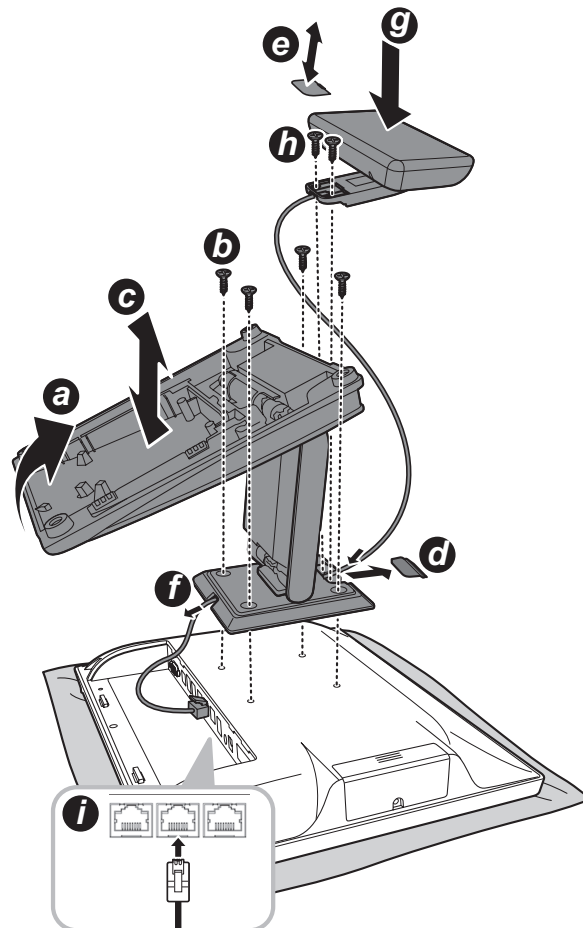
Installing the Customer Display (Optional)

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 22 ~ 23.

1. Place the Touch Terminal on a soft and flat surface, with the LCD panel facing down. Then rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**
2. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**
3. Remove the panel stand. **(c)**
4. Detach the VESA compartment cover. **(d)**
5. Detach the customer display compartment cover. **(e)**
6. Route the customer display cable through the cable compartment on the panel stand. **(f)**
7. Align and install the panel stand to the Touch Terminal. **(c)**
8. Secure the panel stand to the Touch Terminal with the four screws. **(b)**
9. Align and install the customer display into its slot on the panel stand. **(g)**
10. Secure the customer display to the Touch Terminal using the two screws. **(h)**
11. Connect the customer display's interface cable to the RJ-45 COM port on the Touch Terminal. **(i)**

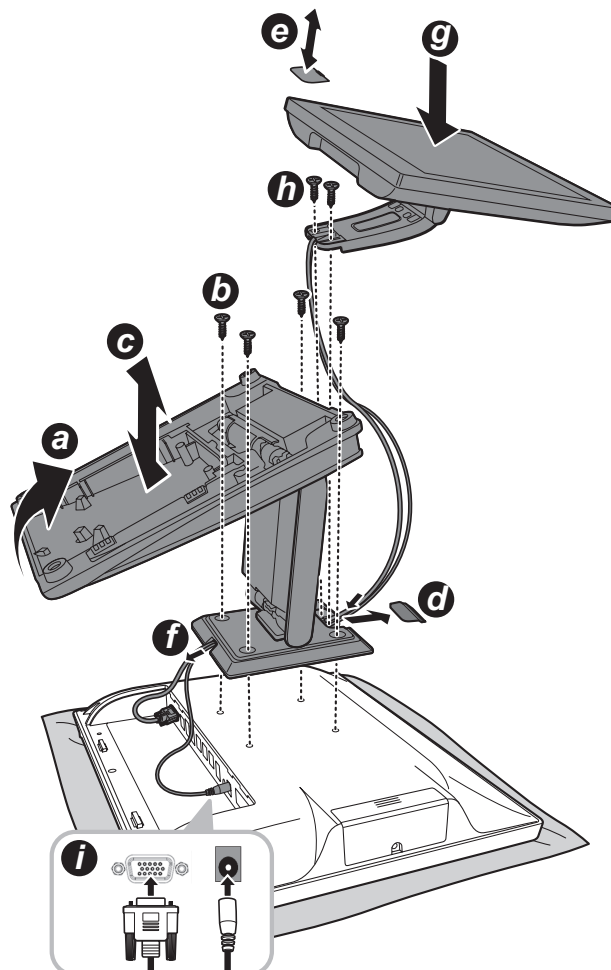


Installing the Secondary LCD Display (Optional)

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. Then rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**
2. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**
3. Remove the panel stand. **(c)**
4. Detach the VESA compartment cover. **(d)**
5. Remove the cable compartment cover on the secondary LCD display. **(e)**
6. Route the secondary LCD display power cable and VGA cable through the cable guides on the stand as illustrated. **(f)**
7. Align and install the panel stand to the Touch Terminal. **(c)**
8. Secure the panel stand to the Touch Terminal with the four screws. **(b)**
9. Align and install the secondary LCD display into its slot on the panel stand. **(g)**
10. Secure the secondary LCD display to the Touch Terminal with the two screws. **(h)**
11. Replace the cable compartment cover to the secondary LCD display. **(e)**
12. Connect the secondary LCD display's power cable and VGA cable to the corresponding ports on Touch Terminal. **(i)**

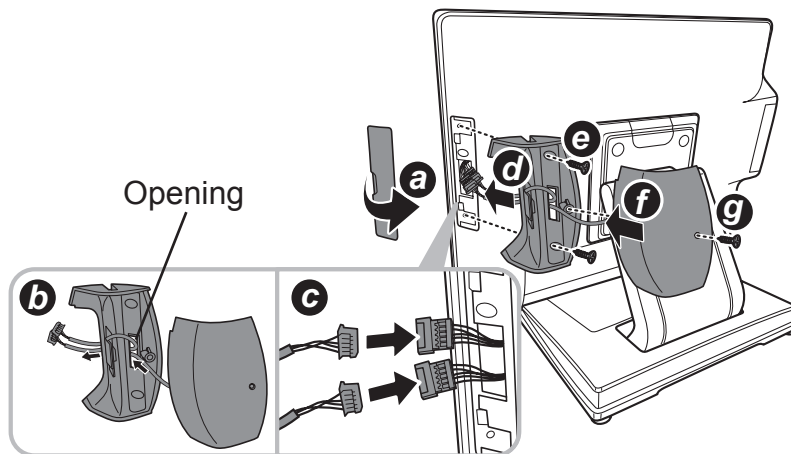


Installing the Identification Reader (Optional)

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 respective 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)**

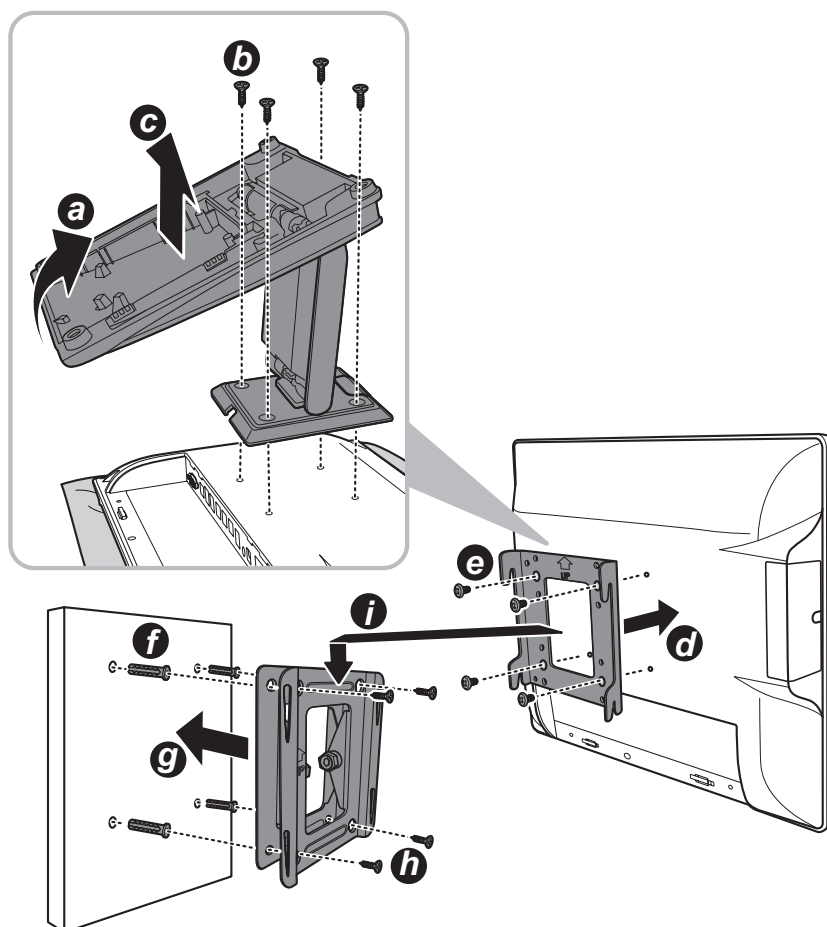


Installing the VESA Mount (Optional)

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. Then rotate the panel stand to access the screws securing the panel stand to the Touch Terminal. **(a)**
2. Remove the four screws securing the panel stand to the Touch Terminal. **(b)**
3. Remove the panel stand. **(c)**
4. Align and install the mount bracket on the back of the Touch Terminal. **(d)**
5. Secure the mount bracket to the Touch Terminal with the four screws. **(e)**
6. Drill four small holes on the mounting location and insert the plastic washers into the holes. **(f)**
7. Align by the screw holes and then install the wall bracket on the wall. **(g)**
8. Secure the wall bracket to the wall with the four supplied screws. **(h)**
9. Align and hook the Touch Terminal to the wall bracket, and then push down to secure it into place. **(i)**



Chapter 4

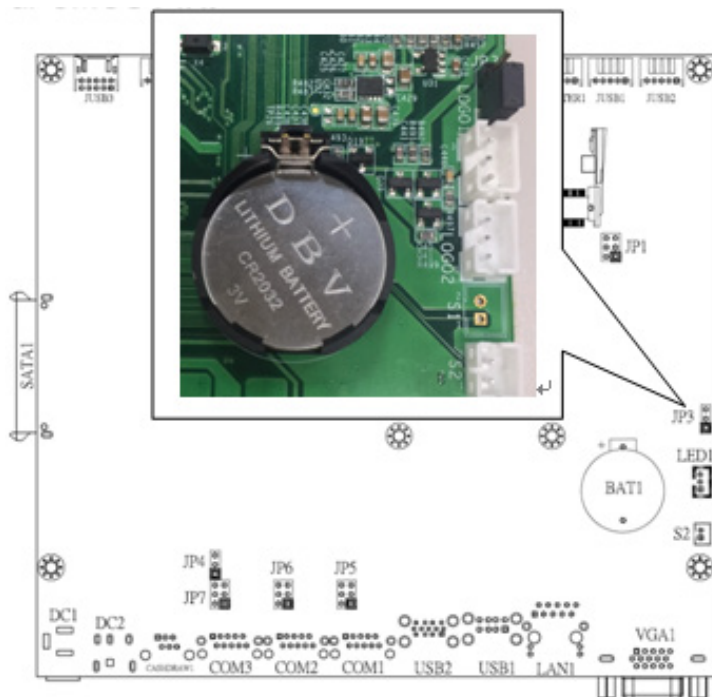
Frequently Asked Questions (FAQ)

Question 1: How do I clear CMOS?

NP1652

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

<p>1 2 3</p>	<p>Pin 1-2 Short/Closed</p> <p>Pin 2-3 Short/Closed</p>	<p>Normal</p> <p>Clear CMOS</p>
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