

User's Manual

NP-2160



Copyrights

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Liability Disclaimer

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

Regulatory Information

FCC Notices



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (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 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 turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

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

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

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS DEVICE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.

CE Notice



This device complies with **EMC Directive 2004/108/EC** issued by the Commission of the European Community.

WEEE Notice



The **WEEE** mark applies only to countries within the European Union (EU) and Norway.

This appliance is labeled in accordance with

European Directive 2002/96/EC concerning **waste electrical and electronic equipment (WEEE)**. The

Directive determines the framework for the return

and recycling of used appliances as applicable

throughout the European Union. This label is applied

to various products to indicate that the product is not

to be thrown away, but rather reclaimed upon end of

life per this Directive.

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1.

Hardware Setup

1.1. Quick Tour Back View

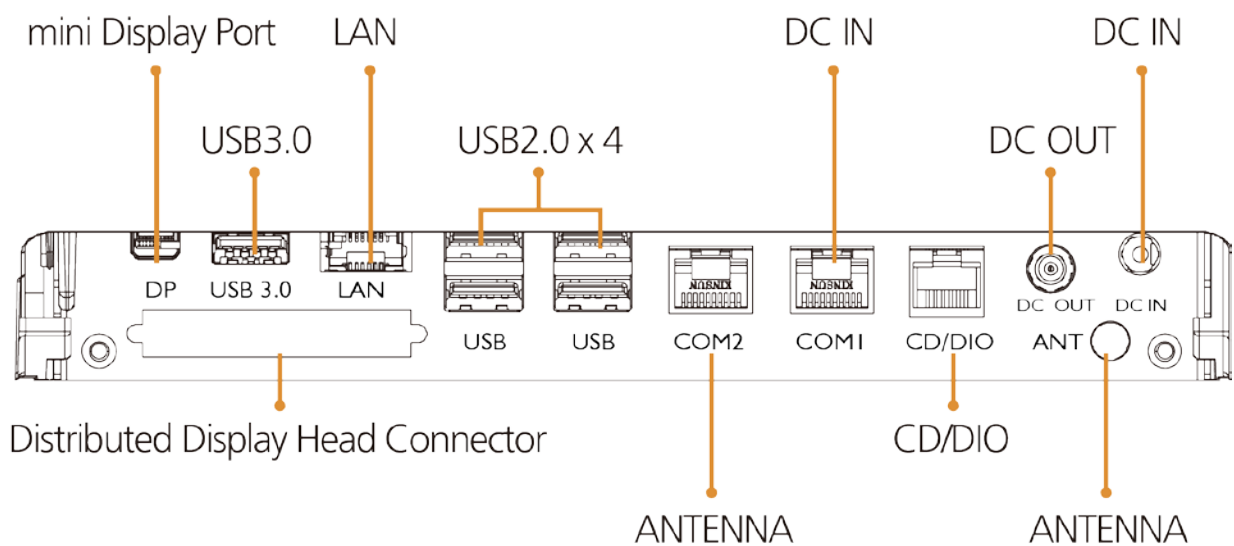


LED Indicator



The **Power** indicator will glow green when power is on.

Back Panel I/O



1.2. Basic Peripherals Installation

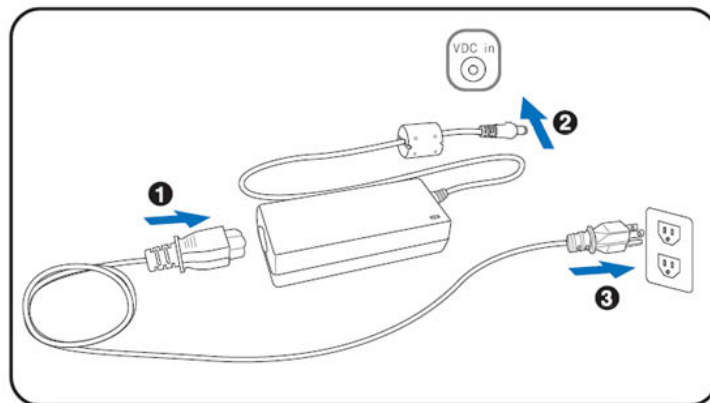
All cables and wires from peripherals to the POS device are recommended to be connected in the direction as shown below.



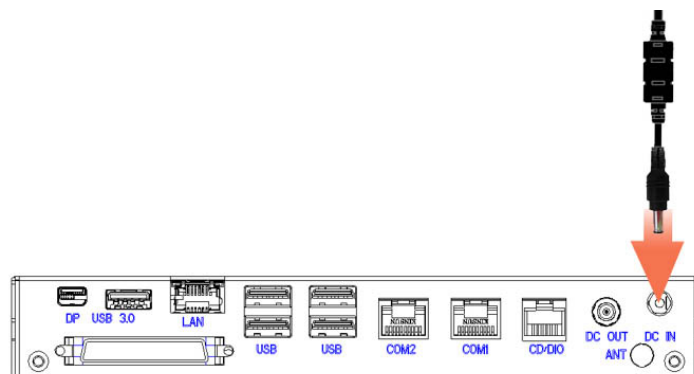
Power Adapter

Important!

Plug the AC adapter into the POS/PPC, and then connect to the mains power supply.

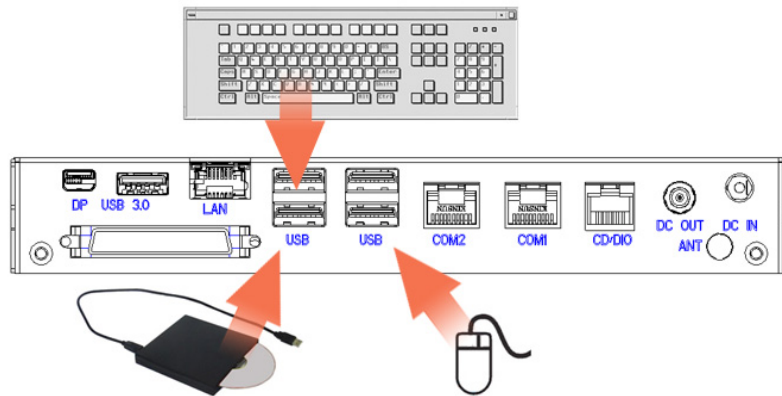


Connect the 2-pin output jack of the adapter to the **DC 19V** jack on the back panel of the device.



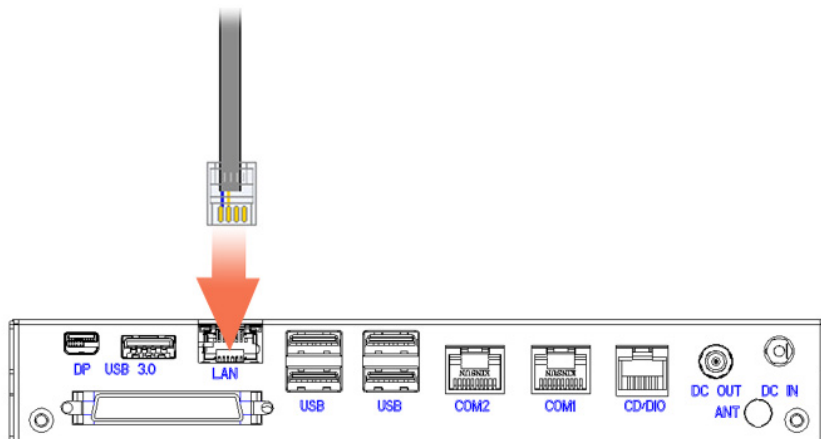
USB Mouse, USB Keyboard and USB ODD

Connect your USB Mouse, USB Keyboard and USB ODD to **USB** ports on the back panel of the device.



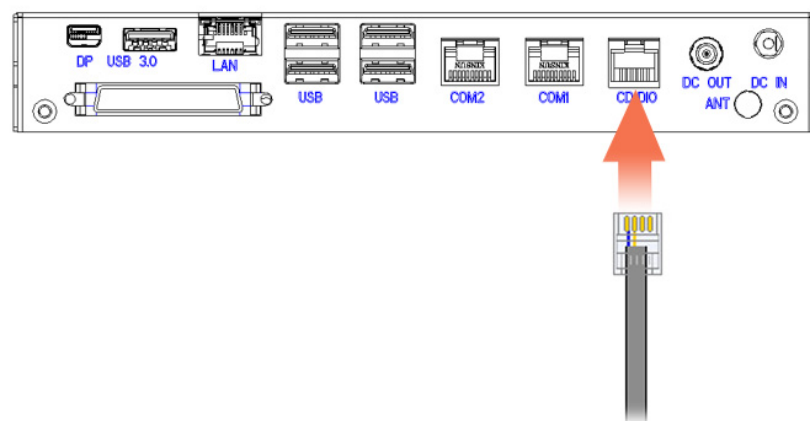
LAN Cable

Connect one end of RJ-45 LAN cable to the **LAN** port on the back panel of the device, another end to your Ethernet device.



Cash Drawer

Connect one end of RJ-12 cable to the **Cash Drawer** port on the back panel of the device, another end to your cash drawer.



Customer Display

1. Remove the customer display mounting hole cover from the device and pull out the connector from the device.



2. Adjust the hinge of the customer display, and then connect to the device as shown below.



3. Mount the customer display to the device and tighten the two PHILLIPS M3 screws as shown below.



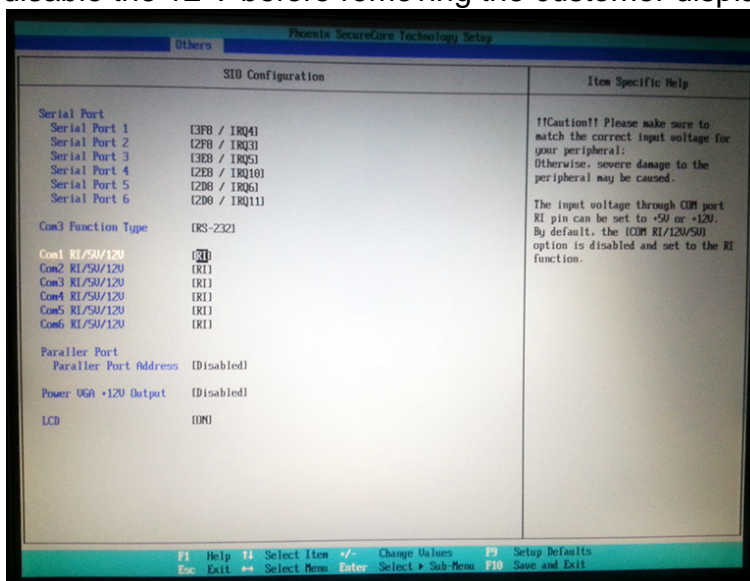
4. Finished.



B. Power Supply Configuration

Power up the device and hit the DEL key to enter the BIOS. When the BIOS screen appears use the TAB key to select Advanced. Use the arrow keys to select Super IO Configuration then type ENTER. The screen below will appear. Use the arrow keys to select **Serial Port 6** RI/5V depending on what port the customer display is connected to. Select 5V to enable power to the correct COM port. Type F10 to save the settings and exit the BIOS setup.

Caution: Never enable the 12 V without the customer display attached and be sure to disable the 12 V before removing the customer display.



NOTE: The figure above is for reference only; it is possible that the actual screen on your device does not agree with it.

MSR

1. Remove the MSR cover from the device.



2. Connect the cable of the MSR assembly to the device.



MSR

3. Tighten the two PHILLIPS M3 screws to fix the MSR assembly as shown below.



4. Finished.



Note:

The RS232 MSR is powered by **COM5**, Baud rate is 9000, 8, n, 1.

1.3. Adjust Angle

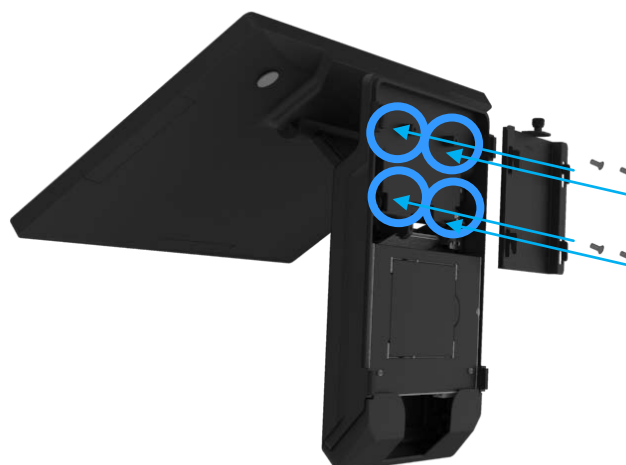


1.4. Turn on the device

1. Make sure all peripherals are connected properly.
2. Press and hold the power switch until the power indicator on the front panel glow green.



1.5. VESA Kit installation



2.

I/O Definition

Please refer the detailed technical information about all I/O ports as followings.

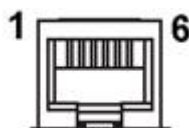
2.1. Serial Port



COM Port			
PIN	Description	PIN	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI / 5V /12V
5	GND		

PIN	R232	RS422	RS485
1	DCD	TX-	D-
2	RXD	TX+	D+
3	TXD	RX+	
4	DTR	RX-	

2.2. Cash Drawer



RJ12

PIN	Description	PIN	Description
1	GND	4	12V/19V
2	D_OUT0	5	D_OUT1
3	D_IN	6	GND

Cash Drawer Control

Status	Address	Value
Open	48CH	Bit 2 = 0x4 Bit 2 = 0x8
Close	48CH	Auto Lock
Read Status	48CH	Bit 0 = 0x40 Bit 1 = 0x0

Specification

Main Board	
CPU	Intel® Bay Trail-Mobile/Desktop SoC Processor: - Celeron® N2930 (4 cores, up to 2.16 GHz, TDP 7.5 Watt) - Celeron® J1900 (4 cores, up to 2.42 GHz, TDP 10 Watt)
System Memory	SO-DIMM DDR3L 1067/1333MHz x 1, Max. 8GB
Graphic	Intel® HD Graphics
Thermal Solution	Fan-less
BIOS	Phoenix uEFI BIOS
O.S. support	Windows Embedded POSReady 7 Windows 7 Professional for Embedded Systems Windows Embedded 8.1 Industry Windows 10 Linux kernel 3.0+ & associated distributions Android 4.4.4 Compliant OS
Display	
Display Size	15" 4:3 Industrial grade panel
Brightness	250 nits (typ. w/o touch)
Panel backlight type	LED
Brightness	1024 x 768
Resolution	10-points P-CAP type
Touch Screen	Bezel-Free
Front panel type	0°~90°
Storage Device	
Interface	SATA (3.0Gb/S) x 2
HDD / SSD	2.5" SATA HDD / SSD x 1 mSATA slot x 1
Indicators	
Indicators	Power
I/O Ports	
Serial	RS-232 x 3, DB-9 Pin9 with RI/5V/12V selectable by BIOS. COM 1: RS-232, RJ-50 with convert to DB-9 cable COM 2: RS-232, RJ-50 with convert to DB-9 cable COM 3: RS-232/422/485, DB-9 COM 6: RS-232, Internal reserved for 2x20 VFD Customer Display
USB	USB 3.0 x 1 USB 2.0 x 4
LAN	Gigabit Ethernet by RJ-45 x 1, support Wake on LAN
Cash Drawer	RJ-12 x 1, support 12V / 24V DC cash drawer
DP / HDMI	Mini DisplayPort x 1 (supporting active converter cable to VGA, DVI, HDMI)
DC-in	19VDC input, 2-pins radio jack x 1

DC-out	12VDC/1A output, 2-pins radio jack x 1
Others	
Expansion Slot	Half size Mini PCIe x 1
Mounting mechanism	Support VESA Mount
Communication	Wireless LAN module, half size mini PCIe type (Optional)
Power Supply	External adapter, 19V DC input, 65Watt/ 90Watt optional
Connectivity	Intel AC3160 802.11AC/b/g/n Wireless LAN with Bluetooth V4 module, half size mini PCIe type (Optional)
Color	Black, White
Protection	IP65 for front panel
Material	Die-cast Aluminum Alloy
Certifications	CE / FCC / VCCI / WEEE / RoHS
Dimension (WxDxH)	36.2 x 28.9 x 25.2 cm (14.2 x 11.4 x 9.9 inch)
Net Weight / Gross Weight	5 kg, 11 lb / 6.5 kg, 14 lb
Environmental Conditions	
Operating Temperature	0°C ~ 40°C
Storage Temperature	-20°C ~ 60°C
Humidity	20% to 85% RH (non condensing)