

Installation Guide

S-250 | S-250AL | E-250 | N-250

All-in-One POS System



Safety Precautions

Be sure to read the Safety Precautions before using the POS system.

- Before connecting, make sure the operating voltage is AC100 ~ 240V. Otherwise, you may damage the system.
- Do not install the system in an extremely hot or cold place.
- Avoid exposing the product in direct sunlight or in an enclosed space for a long period of time.
- Be careful not to place the system near other high-frequency electromagnetic devices; there is a strong possibility it will lead to a system malfunction or system error.
- Do not place heavy objects on the system.
- Please do not allow external substances to be contaminated inside the system.
- Do not change the motherboard's battery by yourself. It can damage the system.
- Before disassembling the system, disconnect all power and cables.
- Do not remove or repair the system by yourself. We highly recommend an engineer's assistance or an experienced technician to open the system, especially the LCD and touch panels which could be easily broken.
- An electrical outlet is needed near the device and it should be easily accessible.
- Risk of explosion if battery is replaced by an incorrect type.
Replace only with the same type of batteries recommended by the manufacturer.
- This device complies with the EMC (Electromagnetic Compatibility) Regulations, for business purposes. Distributors and users are advised of this matter.
- Do not use excessive force when using or pressing the touch panel.
Do not use objects with sharp edges on the touch panel.
- Please exchange the equipment if you mistakenly sold or purchased this product.
- Cleaning and Maintenance is relevantly necessary for POS terminal to be operated well.

▲ POS Terminal Security Guideline

Operating System Security

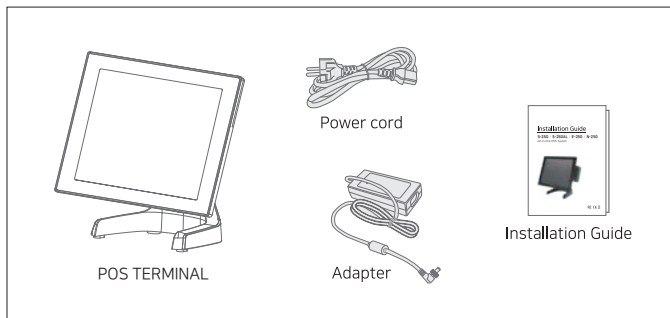
System-provided and managed by the operating system's default security settings must be configured.

▲ Touch Screen Security Guideline

Please take special care with the touch panel as it is vulnerable to scratches.

- Do not use excessive force when using or pressing the touch panel. Do not use objects with sharp edges on the touch panel.
- Be careful not to spill any liquid on the screen.
- Turn off the power switch and unplug all cables before cleaning the screen and/or the system.
- Use a soft, clean, dry cloth for cleaning the system, and do not use chemicals or detergents.

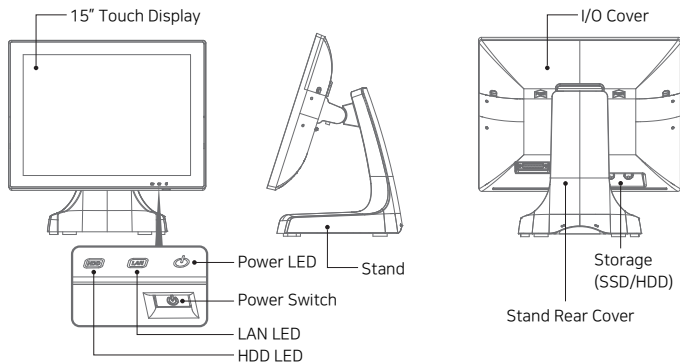
Package Contents



* Component images are for reference only and may vary by model and option.

Configuration

Front/Side/Rear view

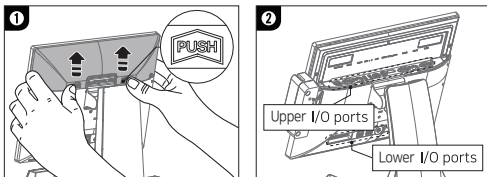


I/O Ports

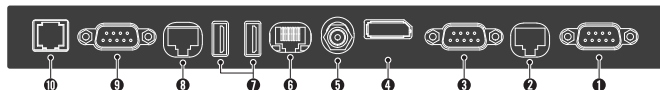
I/O Cover Disassembly

⚠ Please proceed with I/O ports connection after powering off the system.

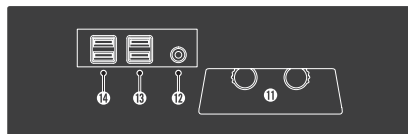
- 1 I/O cover will be disassembled by pushing the "PUSH" part of both sides.
- 2 Please connect the I/O ports after checking the locations of upper I/O and lower I/O ports.




Upper I/O ports



Lower I/O ports



- ※ I/O ports can be changed based on models/specifications/options.
* ①, ②, ③, ⑧, ⑨ special-purpose port
⇒ From the RJ45 port supply to power connector used by RJ50 plug.

RJ45 Pin Map Assignments		
	Signal Name	PJ45
	DCD	1
	DSR	2
	TXD	3
	RXD	4
	RTS	5
	CTS	6
	GND	7
① ~ ⑩ : RJ50	DTR	8
① ~ ⑩ : RJ50		

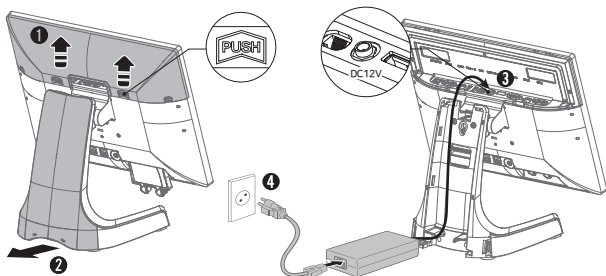
Description

① Serial(DB9) - COM1	⑥ LAN	⑪ SSD/HDD
② Serial(RJ45/RJ50) - COM2	⑦ USB 1/2	⑫ Audio
③ Serial(DB9) - COM3	⑧ Serial(RJ45/RJ50) - COM4	⑬ USB 3/4
④ DisplayPort	⑨ Serial(DB9) - COM5	⑭ USB 5/6
⑤ DC 12V	⑩ Card Reader(RJ11) - USB/COM6	

System Connection and Power on

Power Cord Connection

- ⚠ Please connect power addptor DC jack and power cord by turns after all option items are connected.
- 1 I/O cover will be disassembled by pushing the "PUSH" part of both sides.
- 2 Please disassemble it by pushing up stand rear case.
- 3 Please insert power adaptor cable by turning it into DC 12V port at upper I/O ports.
- 4 Please connect power cord after assembling it in a reverse way of disassemble.

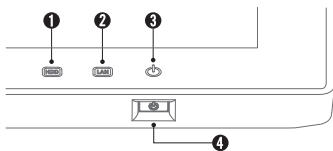


Power on

- ⚠ Please turn the power on after installing all optional items.

The power cord connects 220V (110V) power after fastening the DC plug to the mainbody of POS. Power Supply Indicator is located on the lower right side of the monitor. When power is connected, the LED will light up. Each LED lamp will indicate the operation status.

- 1 HDD LED: Operation mode (GREEN)
- 2 LAN LED: LAN Connection (RED)
- 3 Power LED: Power Connection (BLUE)
- 4 Power Switch

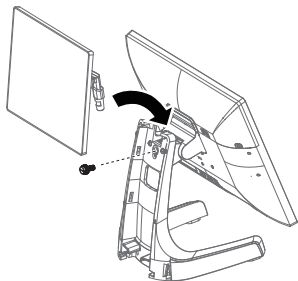
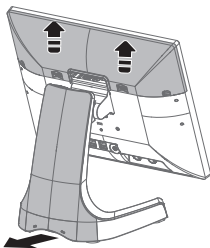


Installation Options

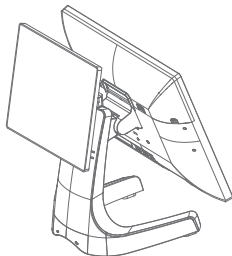
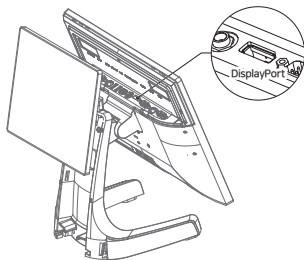
2nd Display

⚠ Please turn it on after connecting all the option items.

- 1** Please disassemble I/O cover and stand rear cover.
- 2** Please strongly tighten the plastic bolt at the rear side of stand after inserting the round-edge part of 2nd display cradle into the hole between POS system and stand.

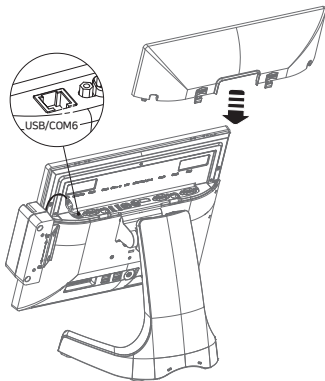
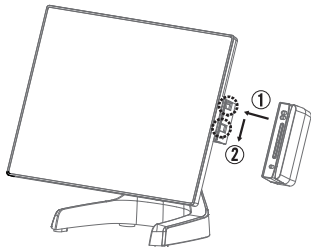


- 3** Please insert cable into display port out of I/O ports.
- 4** Please assemble I/O cover and stand rear cover.



Card Reader

- 1 Please insert Card Reader at the groove in monitor to the arrow direction ① after disassembling I/O cover and set it well by pushing to the arrow direction ②.
- 2 Please close I/O cover after inserting the cable into COM6/USB port of I/O ports.

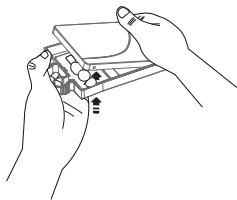
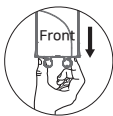
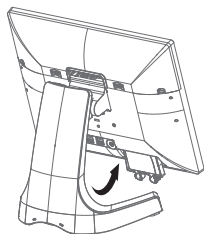


SSD Replacement

▲ Please turn the power off after finishing SSD replacement.

- 1 Please push the monitor up and pull out the SSD in Disk Tray by holding handle of Disk Tray.
- 2 When SSD is replaced, please separate SSD by pushing it up through the hole of Tray.

※ Please be cautious on direction when it is assembled.




Specification

Model	S-250	S-250AL	E-250
System			
Processor	7th or 8th Generation Intel® Core™ i3, i5, i7 Processors (Fanless)	(Fanless) 12th Generation Intel® Core™ i3(i215U), i5(i235U), i7(i255U) Processors	(Fanless) Intel® Celeron® Quad-core Processor J6412 2.0GHz/2.6GHz
Chipset/BIOS	Intel® Kaby Lake SoC / AMI	Intel® Alder Lake SoC / AMI UEFI	Intel® Elkhart Lake SoC / AMI
Storage	2.5" SATA III SSD 128GB (SSD 256/512GB, optional)		
Memory	4GB SO-DIMM		
	DDR4 2133MHz x 2 (Max 32GB, optional)	DDR4 3200MHz x 1 (Max 32GB, optional)	DDR4 2666MHz~3200MHz x 1 (Max 32GB, optional)
Graphics	Intel® HD Graphics 620 / Intel® Iris® Plus Graphics 640	Core i3-1215U - Intel® UHD Graphics for 12th Gen Intel® Processors Core i5-1235U / Core i7-1255U - Intel® Iris® Xe Graphics	Intel® UHD Graphics for 10th Gen Intel® Processors
OS	Windows 10 IoT Enterprise(64bit), Windows 11 IoT Enterprise(64bit)		
Display & Touch			
Display Type	15" LED Backlight (1024 x 768 Resolution) *15.6" FHD (1920 x 1080 Resolution / 16:9) Available. (Excluding S-250)		
Touch	PCAP 10 Point Multi-touch		
I/O Interfaces(Rear Top & Bottom Ports)			
USB	2 x USB 2.0 (Rear Top x 2), 4 x USB 3.0(Rear Bottom x 4), 1 x USB 2.0 (RJ11)		
Serial	6(DB9 x 3, RJ50(RJ45) x 2, RJ11 x 1) COM1, 3, 5(DB9): +5V on Pin #9, Selectable by BIOS COM2, 4 (RJ50, RJ45): Support +5V and 12V for Special Devices and can be used for Kitchen Printer COM6(RJ11): USB 2.0 and RS232 with +5V/1A for Card Reader		
Audio	1 x Audio-out / 3.5mm		
Display Port	1 x DisplayPort(Included 1 x USB 2.0 / Power Delivery +12V) + Can be used for HDMI and DVI, VGA Monitor by Converter Cable.		
LAN	1 x RJ45(Base-T 10/100/1000 Ethernet)		
Speaker(optional)	1 x 1W	1 x 3W	
Peripheral Options			
2nd Display	<ul style="list-style-type: none"> • LCD Type: 9.7" or 15" LCD (USB Port x 1) • Touch Monitor: 9.7" or 15" LCD with Capacitive Touch (USB Port x 1) - by single cable(no power & USB cable) • Standard Monitor: supported standard DP, HDMI, DVI, VGA monitor by change monitor cable • Standard and Powered DP MST Hub: supported standard or powered(customized) DP MST Hub. 		
Customer Display(CDP)	FSTN LCD Type(20 columns x 2 lines)		
Card Reader(MSR/SCR)	Smart Card Reader: ISO/IEC7816 EMV Level 1 Magnetic Stripe Reader: ISO 7811 ID-1 All Tracks • Interface: USB(HID) and RS232C(COM6)		
Dallas Reader	Dallas Reader(i-button): 6 Characters/Prefix and Suffix • Interface: USB(HID) and RS232C(COM6)		
Physical Dimension			
Dimension(W x D x H)	362 x 237 x 357 (mm)		
Weight	4.5 kg		
Environment			
Power Supply	DC 12V/5A (AC 100V~240V, 60W)	DC 12V/7A (AC 100V~240V, 84W)	DC 12V/5A (AC 100V~240V, 60W)
Temperature	Operating Temp : 0~40°C / Storage Temp : -20~60°C / Humidity : 20~90%		
Certifications	CE, FCC, KC		



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Specification

Model	N-250
System	
Processor	Intel® Processor N97, up to 3.60 GHz (Fanless)
Chipset/BIOS	Intel® Alder Lake-N SoC / AMI UEFI
Storage	2.5" SATA III SSD 128GB (SSD 256/512GB, optional)
Memory	4GB SO-DIMM DDR4 3200MHz x 1 (Max 16GB, optional)
Graphics	Intel® UHD Graphics
OS	Windows 10 IoT Enterprise(64bit), Windows 11 IoT Enterprise(64bit)
Display & Touch	
Display Type	15" LED Backlight (1024 x 768 Resolution) * 15.6" FHD (1920 x 1080 Resolution / 16:9) Available
Touch	PCAP 10 Point Multi-touch
I/O Interfaces(Rear Top & Bottom Ports)	
USB	2 x USB 2.0 (Rear Top x 2), 4 x USB 3.0(Rear Bottom x 4), 1 x USB 2.0 (RJ11)
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LAN	1 x RJ45(Base-T 10/100/1000 Ethernet)
Speaker	1 x 3W
Peripheral Options	
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Temperature	Operating Temp : 0~40°C / Storage Temp : -20~60°C / Humidity : 20~90%
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