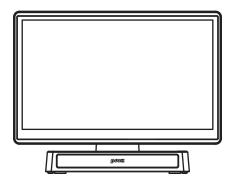
PROTECH Group

PA-J500

Quick Reference Guide



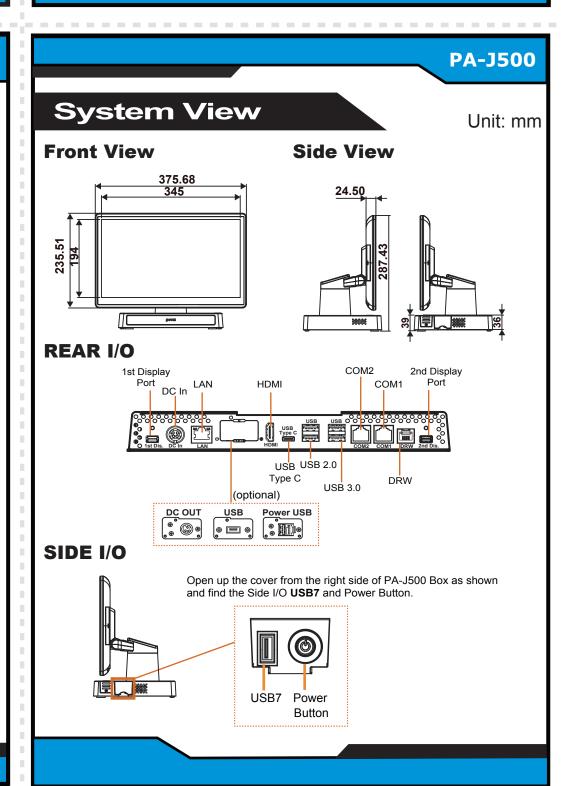
Ver. Q5

All Rights Reserved. Copyright 2023

PA-J500

Specifications

System	CPU Support	Intel [®] Core [™] i5-1145G7E / i3-1115G4E / Pentium [®] 7505 (fanless) / Celeron [®] 6305E (fanless)
	Memory	1 x DDR4 260-pin SO-DIMM slot (up to 16GB)
	Storage	1 x M.2 2242 / 1 x M.2 2280
	Network	1 x RJ45, 10/ 100/1000 Mbps / 1 x M.2 (Key E, 2230)
	O.S. Support	Windows 10
	Primary Display	15.6", 1366 x 768 or 1920 x 1080
	2nd Display	10.1" Monitor with Touch
	Wall Mount Type	VESA 75 x 75mm
	Audio	1 x 2W Speaker
	System Weight	POS: 4.23 kg / POS + 2nd Display: 5.33 kg
	Dimensions (WxHxD)	POS: 375.68 x 287.43 x 194.95 mm POS + 2nd Display: 375.68 x 287.43 x 213.26 mm
Storage	SATA	1 x M.2 2242 / 1 x M.2 2280, SATA interface
I/O Ports	Display	1 x Mini DP for Primary/ 2nd display(for Protech original display only) 1 x HDMI 1.4
	USB	Rear I/O: 2 x USB 2.0 / 2 x USB 3.1 / 1 x USB Type-C Side I/O: USB 2.0
	Serial Ports	2 x RJ45 (all support 5V/12V selectable by jumper) (RS-232 interface)
	LAN	1 x Giga LAN (RJ45) for 10/100/1000 Mbps
	Cash Drawer	1 x RJ11 (+12V or +24V selectable) (default at +24V)
	DC In	1 x 4-pin DC power jack (4pin, DIN)
	Option	1 x USB 2.0 or 1 x 24V Power USB (1A) or 1 x DC Out (1A)
Add-ons	Customer Display	VFD kit, 20 columns x 2 lines STN LCD display
	MSR	JIS I,II, ISO Track1+2+3 (USB interface)
	2nd Display	10.1" with P-cap touch
	Fingerprint	Silicon Fingerprint Module (USB interface)
	iButton	iButton module (USB interface)
	Scanner	2D: PDF417, QR Code, Micro QR, Data Matrix
Display	Primary Display	15.6", TFT LCD (Resolution: 1366 x 768 or 1920 x 1080) Brightness: 220 cd/m ²
	Touchscreen	Bezel-free P-CAP touch panel (USB interface)
	2nd Display	10.1" Monitor with Touch
Environment	EMC & Safety	CE / FCC
	Operating Temp.	0°C ~ 35°C (32°F ~ 95°F)
	Storage Temp.	-5°C ~ 60°C (23°F ~ 140°F)
	Humidity	20% ~ 90%





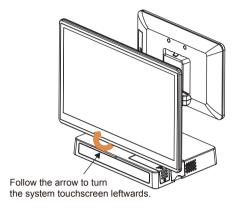
PA-J500

High Performance 15.6" POS Terminal

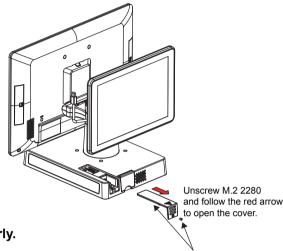
Easy Maintenance

M.2 2280 Maintenance

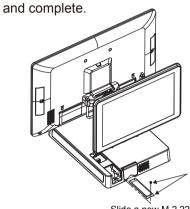
Step 1: Follow the arrow to turn the system touchscreen leftwards.



Step 2: Unscrew M.2 2280 and follow the direction of red arrow (as shown) to release the cover.



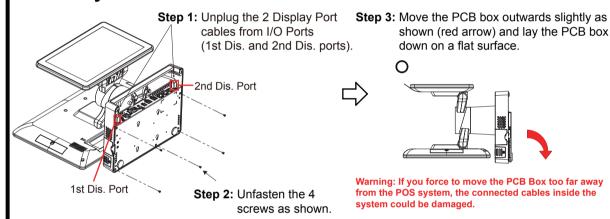
Step 3: Slide a new M.2 2280 into the M2. slot and fasten up the screw to secure the cover



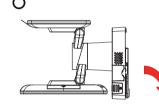
Slide a new M.2 2280 into the M2. slot and fasten up the screw to secure the cover.

Please refer to the "How To Turn System Touchscreen" section below on how to turn the primary touchscreen properly.

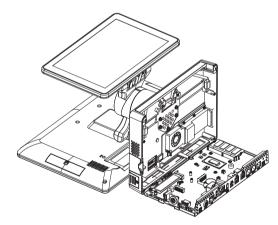
Memory Maintenance

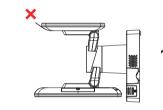


shown (red arrow) and lay the PCB box down on a flat surface.



Warning: If you force to move the PCB Box too far away from the POS system, the connected cables inside the system could be damaged.





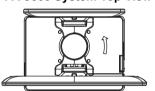
- Step 4: Open the cover and unplug all the connected cables. (Remove the LED cable and Wi-Fi antenna if Wi-Fi function is available.)
- Step 5: Change the memory and heating pad.
- Step 6: Re-connect all the unplugged cables and replace all removed screws in the order you dismantled and complete.

according to the manufacturer's instructions.

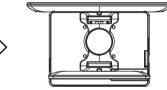
How To Turn System Touchscreen

You can turn the POS touchscreen either way. Heed that after you turn the primary touchscreen to the rear side, you must turn the primary touchscreen only in the direction you previously turned.

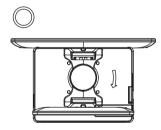
PA-J500 System Top View



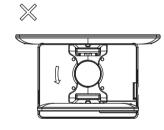
In this example, the primary touchscreen is to be turned leftwards.



The primary touchscreen has been turned as illustrated.



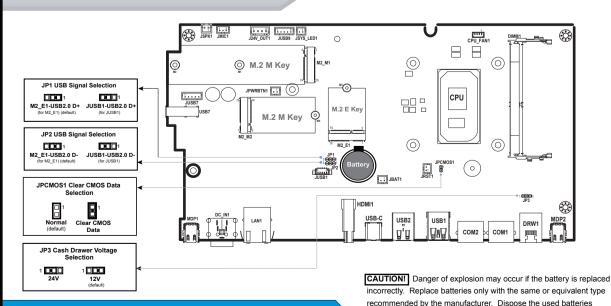
Important: Please turn the primary touchscreen only in the direction you previously turned.



Warning: If you force to turn not in the direction you previously turned, the internal structure of the POS system could be damaged.

Safety Precatuion

Jumper Setting



The following messages are reminders for safety on how to protect your system from damages and extend a long life for the system 1. Check the Cable Voltage Make sure the range of operating voltage between AC 100V ~ 240V. Otherwise, the system could be damaged

- Place your PA-J500 on a sturdy, level surface. Be sure to allow enough space to have easy access around the system
 Avoid extremely hot or cold place to install the system.
 Avoid exposure to sunlight for a long period of time or in an airtight space.
- Avoid the system from any heating device or using it outdoors in a cold winter day.
 Bear in mind that the operating ambient temperature is from 0 ~ 35°C (32°F ~ 95°F).
- · Avoid moving the system rapidly from a hot place to a cold place and vice versa as condensation may come from inside of system Place PA-J500 in strong vibration(s) may cause hard disk failure.
- Don't place the system close to any radio active device in case of signal interference.
- If the system isn't fully in DOS mode, adjust BIOS setting as the instruction: Advanced Chipset Feature => Boot display => choose "LFP". Avoid putting heavy objects on top of the system.
 Don't turn the system upside down. This may cause the hard drive to malfunction.
- Don't allow foreign objects to fall into this product. If water or other liquid spills into this product, unplug the power cord immediately.
- 4. Good Care
- When the outside of the case is stained, remove the stain with a neutral washing agent with a cloth.

 Never use strong agents such as benzene and thinner to clean the system.

 If heavy stains are present, moisten a cloth with diluted neutral washing agent or with alcohol and then wipe thoroughly
- If dust has been accumulated on the outside, remove it by using a special made vacuum cleaner for computers · Don't contact the surface of capacitive touch before entering operation system, or capacitive touch may have problems for electrostatics interface

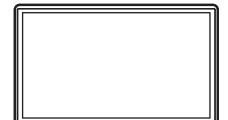
CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent ype recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system. The LCD and Touchscreen are easily breakable, please handle them

PROTECH Group

PA-J500

Quick Reference Guide



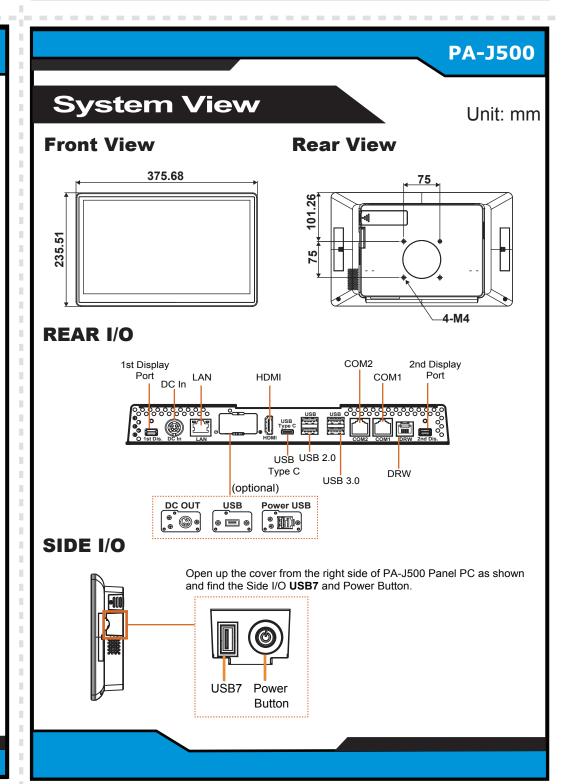
Ver. Q5

All Rights Reserved. Copyright 2023

PA-J500

Specifications

	ODU O	Intel [®] Core™ i5-1145G7F / i3-1115G4F /
System	CPU Support	Intel [®] Core™ i5-1145G7E / i3-1115G4E / Pentium [®] 7505 (fanless) / Celeron [®] 6305E (fanless)
	Memory	DDR4, 1 x 260-pin SO-DIMM (Max.up to 16GB)
	Storage	1 x M.2 2242 / 1 x M.2 2280
	Network	1 x RJ45, 10/ 100/1000 Mbps / 1 x M.2 (Key E, 2230)
	O.S. Support	Windows 10
	Primary Display	15.6", 1366 x 768 or 1920 x 1080
	2nd Display	10.1" Monitor with Touch
	Wall Mount Type	VESA 75 x 75 standard
	Audio	1 x 2W Speaker
	System Weight	3.6 kg
	Dimensions (WxHxD)	375.68 x 235.51 x 60.5 mm
Storage	SATA	1 x M.2 2242 / 1 x M.2 2280, SATA interface
I/O Ports	Display	1 x Mini DP for Primary/ 2nd display(for Protech original display only) 1 x HDMI 1.4
	USB	Rear I/O: 2 x USB 2.0 / 2 x USB 3.1 / 1 x USB Type-C Side I/O: USB 2.0
	Serial Ports	2 x RJ45 (all support 5V/12V selectable by jumper) (RS-232 interface)
	LAN	1 x Giga LAN (RJ45) for 10/100/1000 Mbps
	Cash Drawer	1 x RJ11 (+12V or +24V selectable) (default at +24V)
	DC In	1 x 4-pin DC power jack (4pin, DIN)
	Option	1 x USB 2.0 or 1 x 24V Power USB (1A) or 1 x DC Out (1A)
Add-ons	Customer Display	VFD kit, 20 columns x 2 lines STN LCD display
	MSR	JIS I,II, ISO Track1+2+3 (USB interface)
	2nd Display	10.1" with P-cap touch
	Fingerprint	Silicon Fingerprint Module (USB interface)
	iButton	iButton module (USB interface)
	Scanner	2D: PDF417, QR Code, Micro QR, Data Matrix
Display	Primary Display	15.6", TFT LCD (Resolution: 1366 x 768 or 1920 x 1080) Brightness: 220 cd/m ²
	Touchscreen	Bezel-free P-CAP touch panel (USB interface)
	2nd Display	10.1" Monitor with Touch
Environment	EMC & Safety	CE / FCC
	Operating Temp.	0°C ~ 35°C (32°F ~ 95°F)
	Storage Temp.	-5°C ~ 60°C (23°F ~ 140°F)
	Humidity	20% ~ 90%



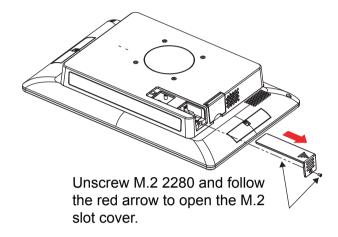


PA-J500 High Performance 15.6" Panel PC

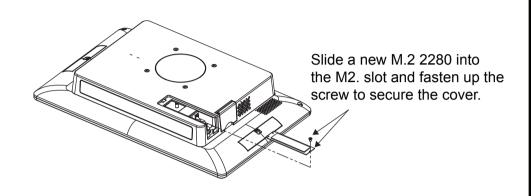
Easy Maintenance

M.2 2280 Maintenance

Step 1: Unscrew M.2 2280 and follow the direction (red arrow) to release the cover.

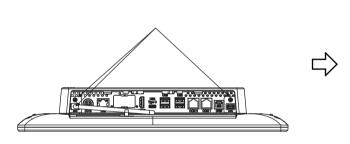


Step 2: Slide a new M.2 2280 into the M2. slot and fasten up the screw to secure the cover and complete.

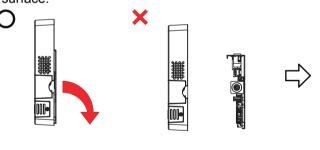


Memory Maintenance

Step 1: Release the 2 screws and unplug the DP cable from the I/O Ports.

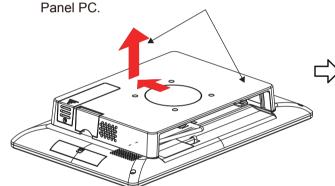


Step 4: Move the PCB box outwards slightly as shown (red arrow) and lay the PCB box down on a flat surface.

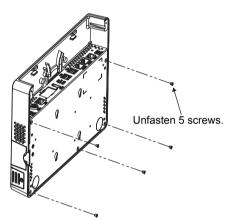


Warning: If you force to move the PCB Box too far away from PPC, the connected cables inside could be damaged.

Step 2: Follow the directions (red arrows) below to separate PCB Box from the touchscreen of



Step 3: Unfasten 5 screws as shown:



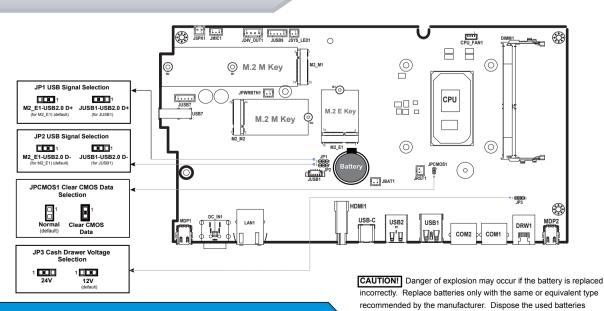
Step 5: Open the cover and unplug all the connected cables.

Step 6: Change the memory and heating pad.

Step 7: Re-connect all the unplugged cables and replace all removed screws in the order you dismantled and complete.

Safety Precatuion

Jumper Setting



according to the manufacturer's instructions.

Make sure the range of operating voltage between AC 100V ~ 240V. Otherwise, the system could be damaged

- Place your PA-J500 on a sturdy, level surface. Be sure to allow enough space to have easy access around the system
- Avoid extremely hot or cold place to install the system.
- Avoid exposure to sunlight for a long period of time or in an airtight space.

Avoid the system from any heating device or using it outdoors in a cold winter day.
 Bear in mind that the operating ambient temperature is from 0 ~ 35°C (32°F ~ 95°F).

· Avoid moving the system rapidly from a hot place to a cold place and vice versa as condensation may come from inside of system Place PA-J500 in strong vibration(s) may cause hard disk failure.

Don't place the system close to any radio active device in case of signal interference.

narioning

- If the system isn't fully in DOS mode, adjust BIOS setting as the instruction: Advanced Chipset Feature => Boot display => choose "LFP".

- Avoid putting heavy objects on top of the system.

- Don't turn the system upside down. This may cause the hard drive to malfunction.

 Don't allow foreign objects to fall into this product. If water or other liquid spills into this product, unplug the power cord immediately.

4. Good Care

When the outside of the case is stained, remove the stain with a neutral washing agent with a cloth.

Never use strong agents such as benzene and thinner to clean the system.

If heavy stains are present, moisten a cloth with diluted neutral washing agent or with alcohol and then wipe thoroughly

· If dust has been accumulated on the outside, remove it by using a special made vacuum cleaner for computers

. Don't contact the surface of capacitive touch before entering operation system, or capacitive touch may have problems for electrostatics interface

CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent ype recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. WARNING! Some internal parts of the system may have high electrical voltage. And therefore we strongly recommend that qualified engineers can open and disassemble the system. The LCD and Touchscreen are easily breakable, please handle them with extra care.