



User Manual

UPOS-510

15" Stylish Modularized POS System

ADVANTECH

Enabling an Intelligent Planet

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Packing List

Before you begin installing UPOS-510, please make sure that the following materials have been shipped:

- UPOS-510DP/510FP unit
- Accessories for UPOS-510DP/510FP
 - DC 12V/5A 60W adaptor (UPOS-510DP sku)
 - DC 12V/7A 84W adaptor (UPOS-510FP sku)

If any of these items are missing or damaged, contact your distributor or sales representative immediately.

Technical Support and Assistance

1. Visit the Advantech website at <http://support.advantech.com> where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Warnings

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



- Warning!**
- Input voltage rated 12V/5A (UPOS-510DP).
 - Input voltage rated 12V/7A (UPOS-510FP).
 - Use 3V/200 mAh lithium battery.
 - Packing: please carry the unit with both hands, handle with care.
 - Maintenance: to properly maintain and clean the surfaces, use only approved products or clean with a dry applicator.
 - HDD/SSD: Turn off power before inserting or removing HDD/ SSD.



Contact information

Manufacturer:

Advantech Co., Ltd.

No.1, Alley 20, Lane 26, Rueiguang Road Neihu District, Taipei, Taiwan 114, R.O.C.

TEL: (02) 2792-7818

Distributed in Europe by:

Advantech Europe GmbH Kolberger Straße 7 D-40599 Düsseldorf, Germany

Tel: 49-211-97477350

Fax: 49-211-97477300

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
15. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
16. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**
17. **CAUTION: USE RECOMMENDED MOUNTING APPARATUS TO AVOID RISK OF DANGER.**

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

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Chapter 1

General Information

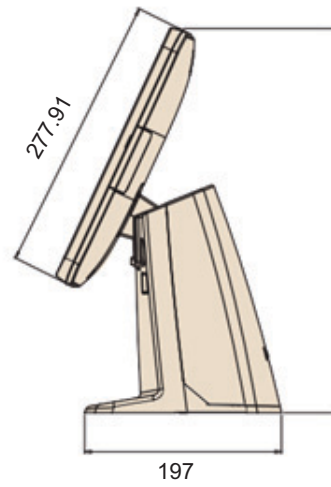
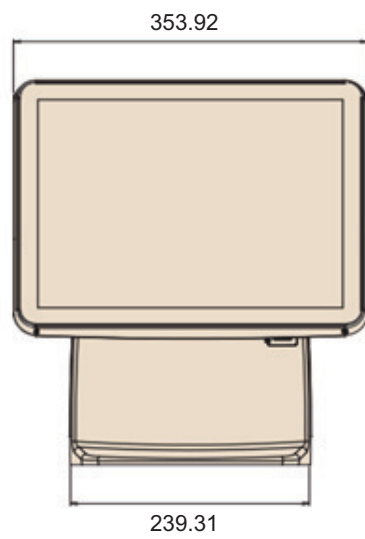
1.1 Introduction

The UPOS series is a modern and sleek industrial Point of Sales system. Borderless front touch panel maximizes the viewing area. Aluminum alloy coated stand provides secure support to the display. A small footprint enables the system to be deployed in space limited scenarios. Snap-in back cover allows quick access to the system and easy maintenance, and the front display reserved hatches on the top and both sides allow peripheral expansion.

1.2 Specifications

	Model	510D	510F
System	CPU	Intel® Celeron® J1900 processor	Intel® Celeron® 3955U/Core™ i5-6300U/ Core™ i3-6100U
	System Memory	SODIMM x1 (Maximum up to 8GB DDR3L)	SO DIMM x1 (Maximum up to 16GB DDR4-2133)
Storage	HDD	1 x 2.5" SATA HDD/SSD Bay	1 x 2.5" SATA HDD/SSD Bay (optional 2nd SATA3)
	SATA	SATA II (3.0Gb/S)	SATA III (6.0Gb/S)
	Expansion	1 x Full-size mini PCIe (for mSATA/Wi-Fi/BT)	
Display	Resolution	15" TFT LCD (1024 x 768) with LED backlight	
	Brightness	250 cd/ m2	
	Touch Screen	P-Cap Touch	
External I/O	Serial Port	2 x COM (RJ48 with 5V/12V selectable by internal jumper, 1A)	
	USB Port	2 x USB	xUSB in front xUSB 3.0 in I/O bay
	Video Output	1 x VGA1 Port (DSUB-15) 1 x Display Port (Reserved for BOX PC)	
	Ethernet	1 x RJ-45 Gigabit Ethernet(10/100/1000)	
	Cash Drawer	1 x RJ11 (12V Default /24V by internal jumper)	
	DC In	4 pin power jack	
	DC Out	12V 2-pin connector for 2nd display	
	Speaker	1 x 2W speakers	
	Power Button	Power Switch (LED indicator inside)	
	Display Hatch (Top)	VGA for second display	
	Display Hatch (Right)	PS/2 + USB	
	Display Hatch (Left)	Reserved	
Optional Modules	Adapter	60W	84W
	Second Display	Supports 10.1" TFT LCD/VFD via display hatch (top). Supports 15" TFT LCD via rear pole mount	
	Peripherals	MSR MSR + iButton MSR + Fingerprint MSR + RFID MSR + IC card	
	Connectivity	WiFi (802.11 b/g/n) or Bluetooth	
Mechanical & Environmental	Color	Black / White / Black+Orange	
	Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)	
	Humidity	10 ~ 95% @ 40 °C, non-condensing	
	Certifications	CE/FCC/CCC	
Software	OS Support	POSReady 7 / Win 10 IoT Enterprise	

1.3 Dimension

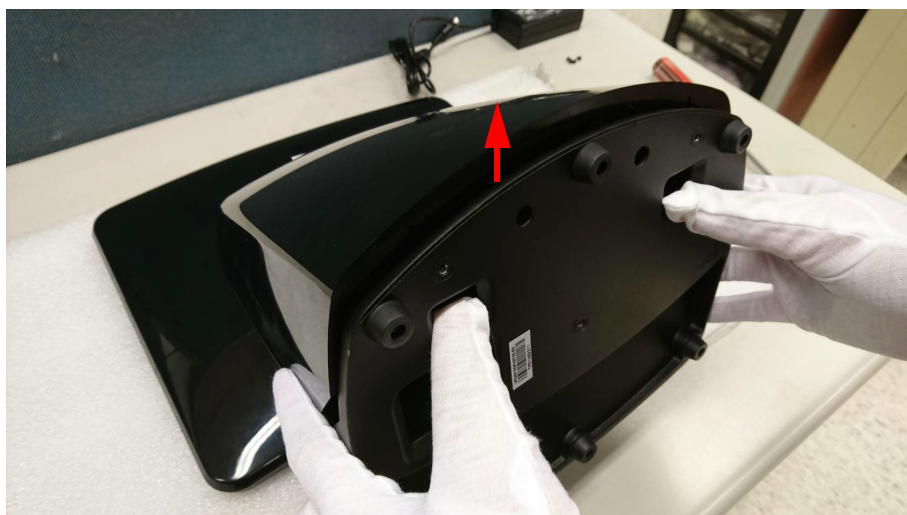
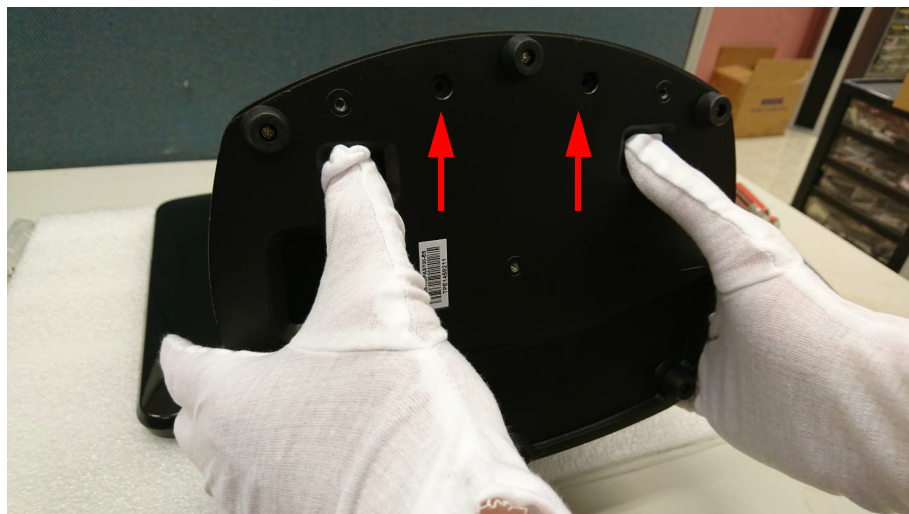


Chapter 2

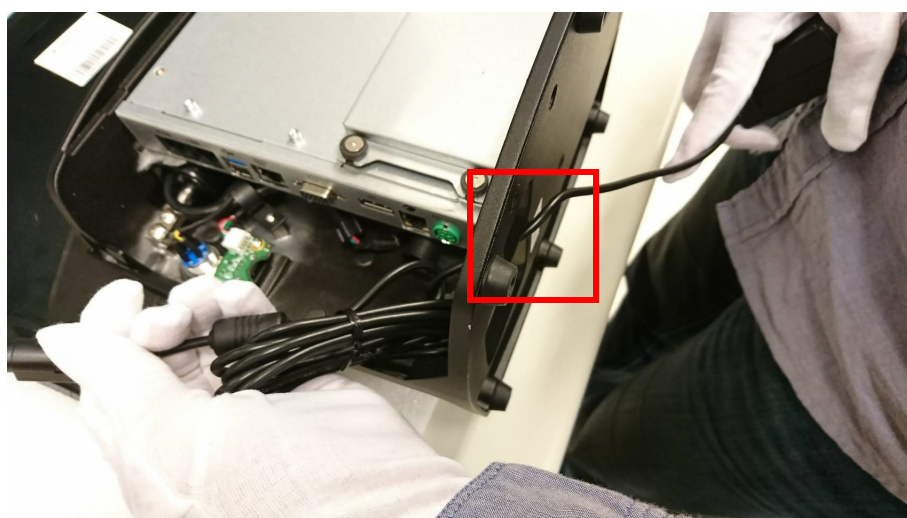
System Setup

2.1 Power On Instruction

1. Press the two fitting hooks and push up



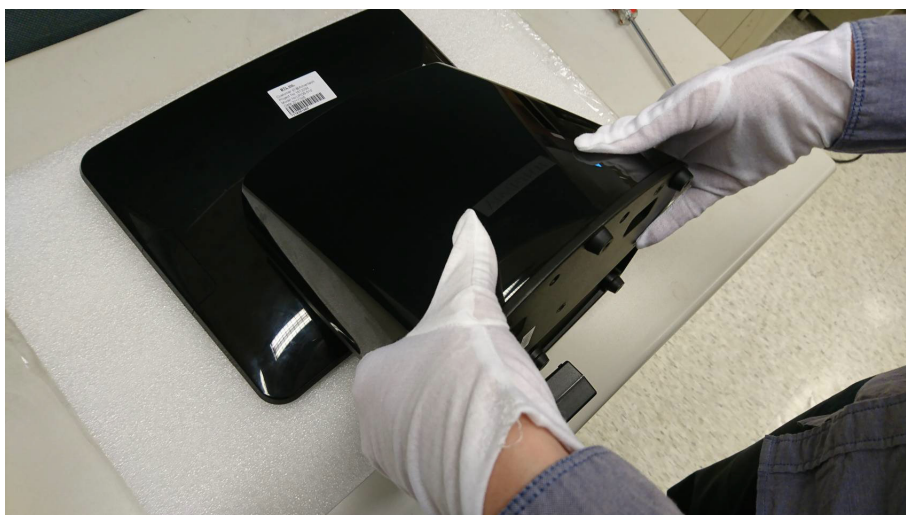
2. To plug in the adaptor:
 - a. Pass adaptor cable through the hole.



- b. Plug in the power connector.



3. Put the cover back.



4. Press power on button.



2.2 Quick Start Tour

2.2.1 Front View



Figure 2.1 Front side view

2.2.2 Rear View



Figure 2.2 Rear Side view

2.2.3 Side View

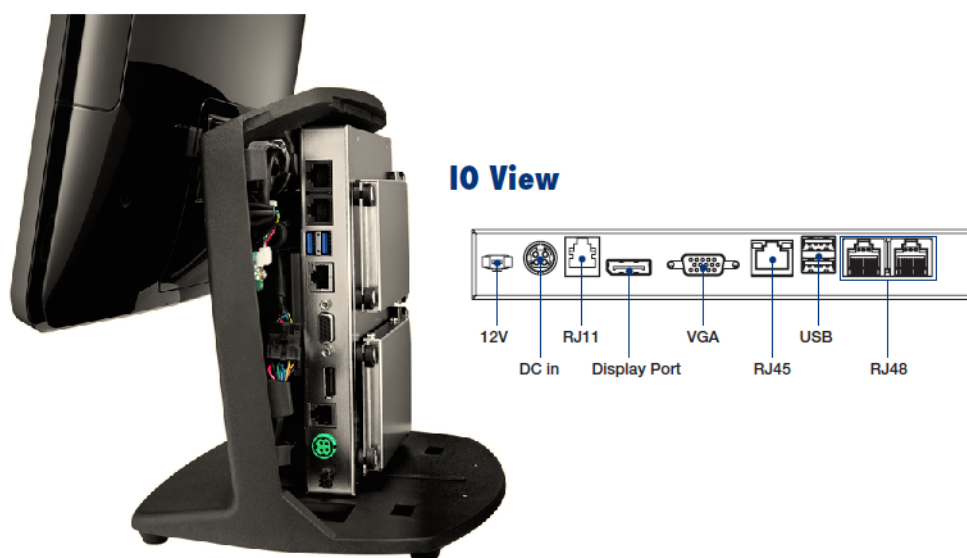
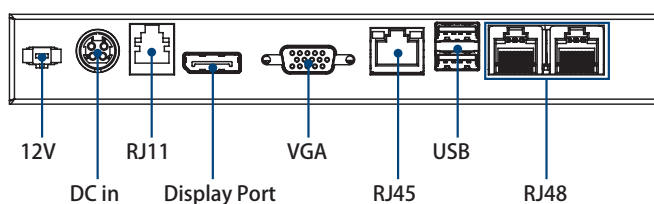


Figure 2.3 Side inside view

2.3 I/O Ports



2.4 Setup Procedures

2.4.1 Power on UPOS

1. Connect an adaptor with input voltage rated 12V/5A for all UPOS-510D series.
2. Connect an adaptor with Input voltage rated 12V/7A for UPOS-510FP series.
3. Connect an AC power cable for all UPOS-510.
4. Be sure to always handle power cords by holding the plug ends only. Please refer to I/O Ports section above to find the DC or AC inlet and power switch.
5. Press Power On/Off. The PWR LED will turn green.

2.4.2 BIOS setup on UPOS

In most cases, the UPOS has been properly set up and configured by the dealer or SI prior to delivery. However, it may still be necessary to use the BIOS (Basic Input-Output System) setup program to change system configuration information, such as the current date and time or your type of hard drive currently installed. The setup program is stored in read-only memory (ROM). It can be accessed either when you turn on or reset the UPOS, by pressing the “Del” key on your keyboard immediately after powering on the computer. The settings you specify with the setup program are recorded in a special area of memory called CMOS RAM. This memory is backed up by a battery so that it will not be erased when you turn off or reset the system. Whenever you turn on the power, the system reads the settings stored in CMOS RAM and compares them to the equipment check conducted during the power on self-test (POST). If an error occurs, an error message will be displayed on screen, and you will be prompted to run the setup program.

2.4.3 Installing System Software

Recent releases of operating systems from major vendors include setup programs that load automatically and guide you through hard disk preparation and operating system installation. Some distributors and system integrators may have already pre-installed system software prior to shipment of your UPOS.

Note! *Installing software or drivers requires installed storage which is sold separately from standard optional SKU.*



2.4.4 Installing Drivers

After installing your system software, you will be able to set up UPOS system.

Note! *The drivers and utilities used are subject to change without notice. Please download the drivers for UPOS from our website: <http://support.advantech.com> or contact Advantech application engineers for further assistance.*



Chapter 3

Hardware Upgrade & Installation

3.1 Introduction

UPOS-510 is designed as an easily expandable system. You can install a HDD or SSD by removing the rear cover to expand the storage easily. Any maintenance or hardware operations can be easily completed after removing the rear cover.

Warning! Do not remove the rear cover until you have verified that no power is flowing within the UPOS-510. Power must be switched off and the power cord must be unplugged.



3.2 Installing 2.5" Storage

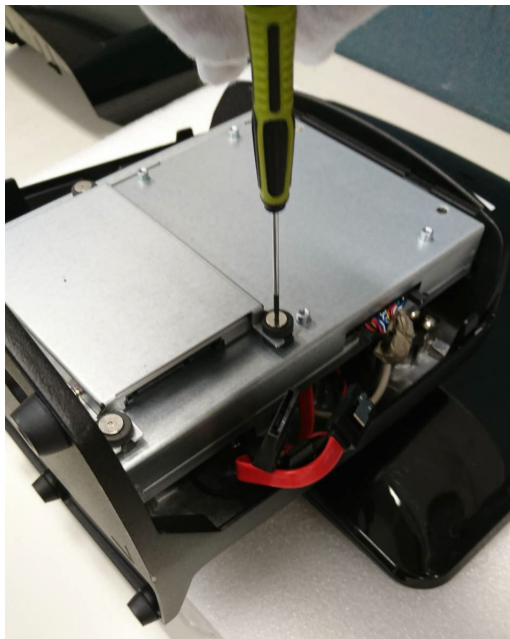
1. Carefully prepare the HDD/SSD, bracket and screws.



2. Fix the screws on four sides (total 4 x screws)
Screwdriver type: M3

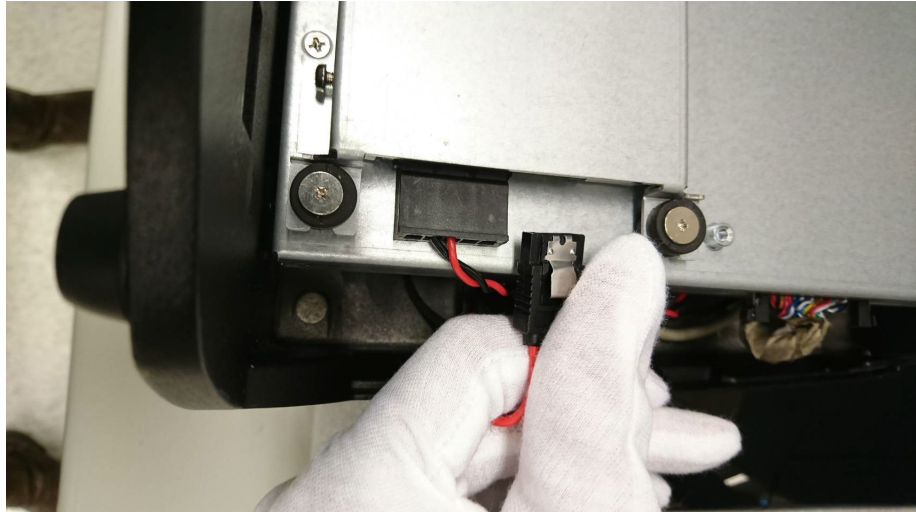


3. Lock the HDD/SSD onto the bracket with 4 x screws
Screwdriver type:M2

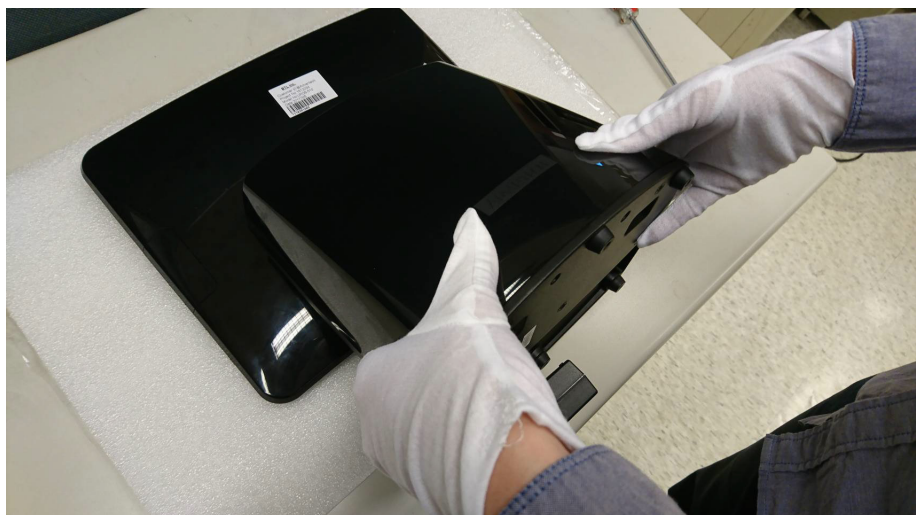


4. Plug in the SATA cable and power cable.





5. Assemble the HDD/SSD completely and put the cover back on.



Appendix **A**

Peripheral Family

A.1 Peripheral

Peripherals	P/N	Description
VFD display ENG/pole	UPOS-P01-A102	VFD display, ENG, H7cm, pole mount for UPOS-510/UPOS-520
VFD display CHT/pole	UPOS-P01-A103	VFD display, CHT, H7cm, pole mount for UPOS-510/ UPOS-520
10.1" 2nd display/rear	UPOS-P02-A100	10.1" 2nd display, rear mount for UPOS-510/UPOS-520
10.1" 2nd display/pole	UPOS-P02-A101	10.1" 2nd display, pole mount for UPOS-510
15" 2nd display	UPOS-P02-A102	15" 2nd display, pole mount for UPOS-510
15" 2nd display w/ p-cap	UPOS-P02-A103	15" 2nd display, P-cap touch, HDMI, VGA, pole mount for UPOS
MSR, PS2	UPOS-P03-A100	MSR, PS2 for UPOS-510/UPOS-520
MSR, PS2+ibutton	UPOS-P03-A101	MSR, PS2+ibutton for UPOS-510/ UPOS-520
MSR, PS2+RFID	UPOS-P03-A102	MSR, PS2+RFID for UPOS-510/ UPOS-520
MSR, PS2+fingerprint	UPOS-P03-A103	MSR, PS2+fingerprint for UPOS-510/ UPOS-520
MSR, PS2+IC	UPOS-P03-A104	MSR, PS2+IC card for UPOS-510/ UPOS-520
Cash drawer	UPOS-P06-A000	Cash drawer for all UPOS series

A.2 Thermal Printer

Peripherals	P/N	Description
Thermal printer U SB+ Serial	UPOS-P04-A000	SLK-TE213, 50~82.5mm, 300mm/s, USB+ Serial
Thermal printer USB + Ethernet	UPOS-P04-A001	SLK-TE213, 50~82.5mm, 300mm/s, USB+ Ethernet
Thermal printer USB+ Serial+ Ethernet	UPOS-P04-A002	SLK-T21EB, 50~82.5mm, 220mm/s, USB+ Serial+ Ethernet
Thermal printer USB+ Serial	UPOS-P04-A003	SLK-TL212, 50~82.5mm, 220mm/s, USB+ Serial
Thermal printer USB+ Parallel	UPOS-P04-A004	SLK-TE213, 50~82.5mm, 300mm/s, USB+ Parallel

Appendix **B**

Peripheral Installation Guide

B.1 Peripheral Installation SOP- MSR

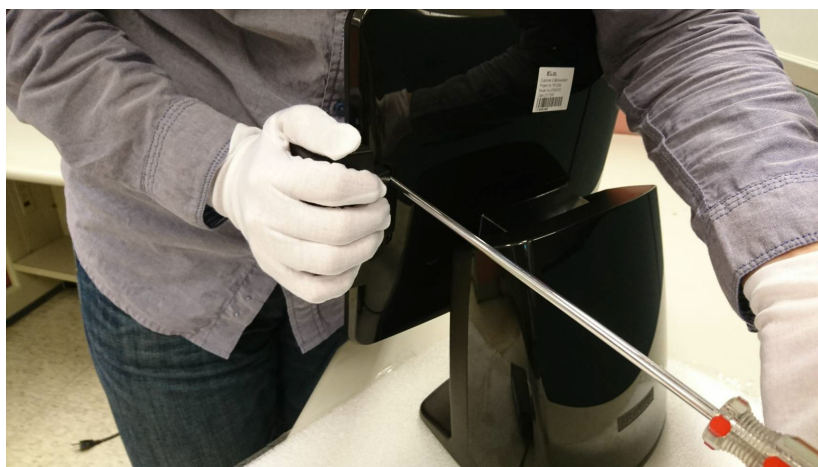
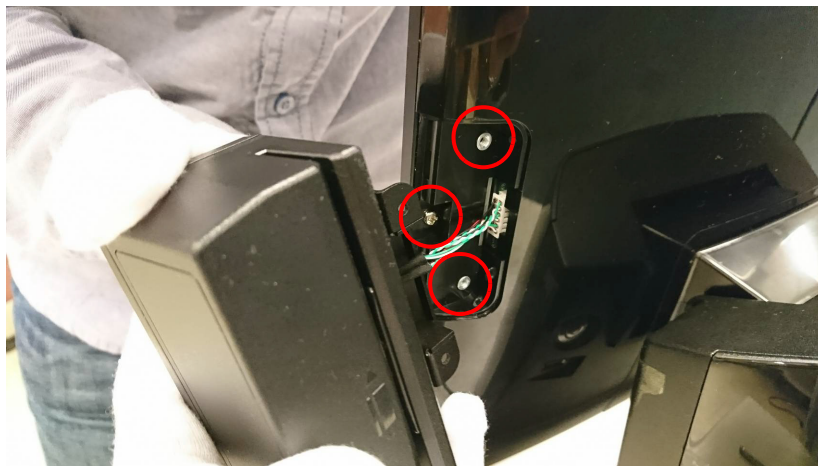
1. Remove the cover.



2. Plug in the MSR cable.



3. Lock the two screws and ensure they are tightly fixed.



B.2 Installing a 10.1" Second Display

1. Remove the cover.

Caution! We suggest using a cloth and avoid scratching the cover.



2. Plug in the second display cable.

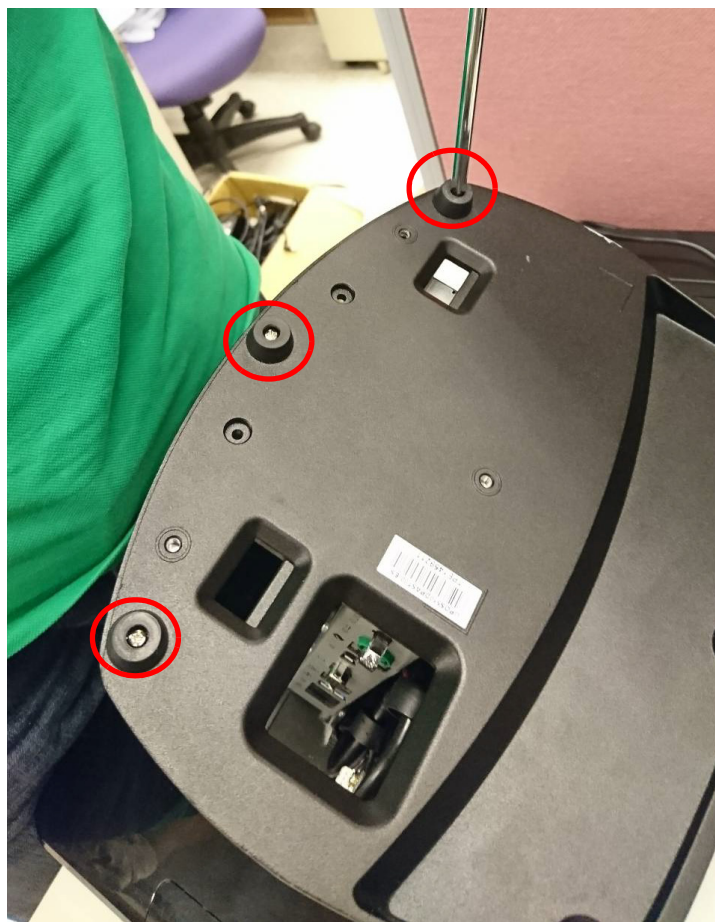


3. Lock the two screws and ensure they are secured properly.

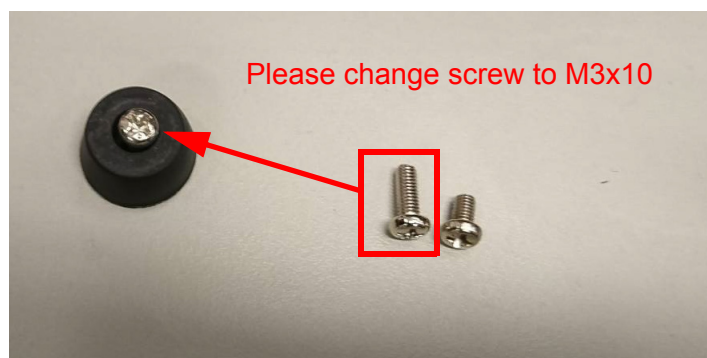


B.3 15" Second Display Pole Mount

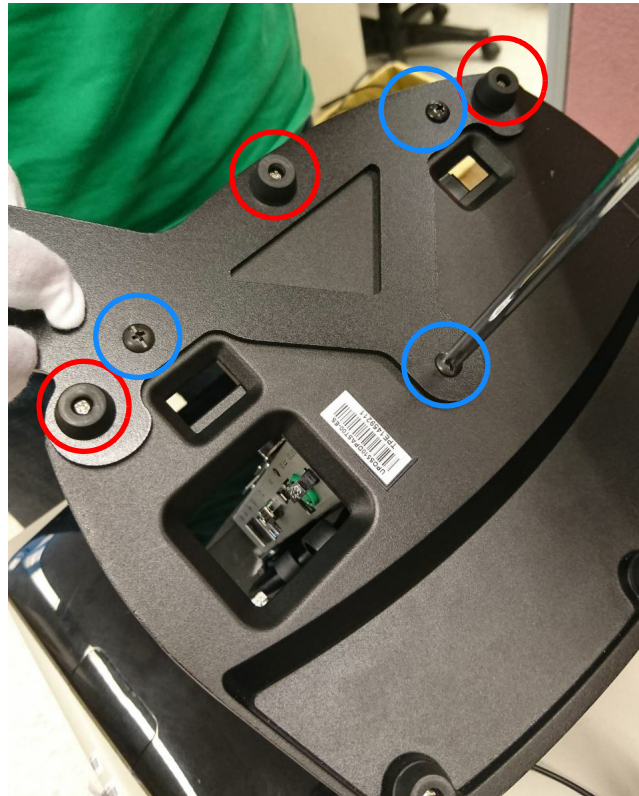
1. Loosen the rubber foot (red mark).



2. Change screws to M3x10 screws in the rubber foot.



3. Attach and fix six locations making sure the screws are secured properly.

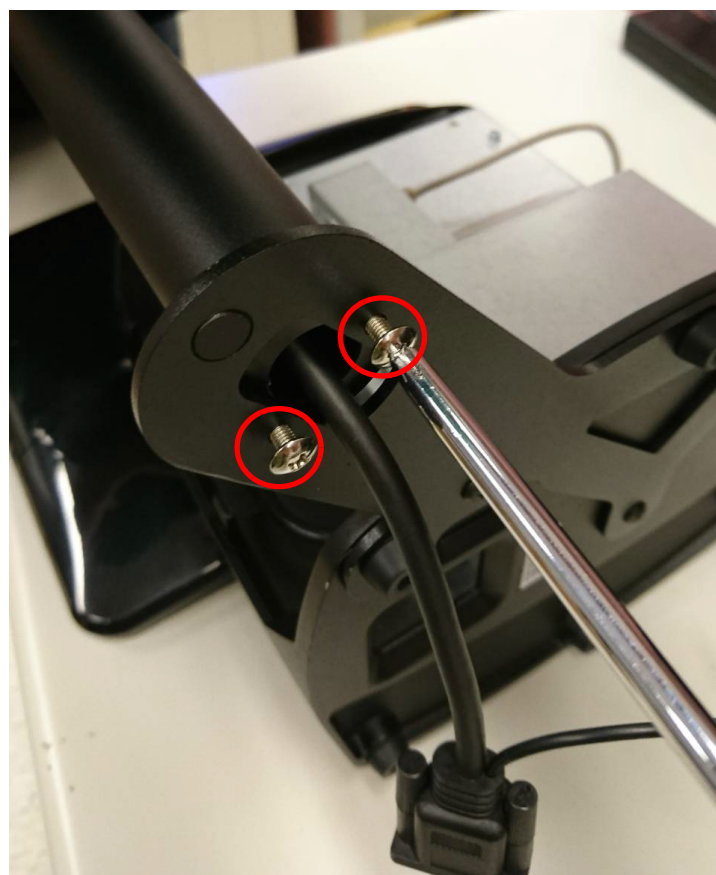
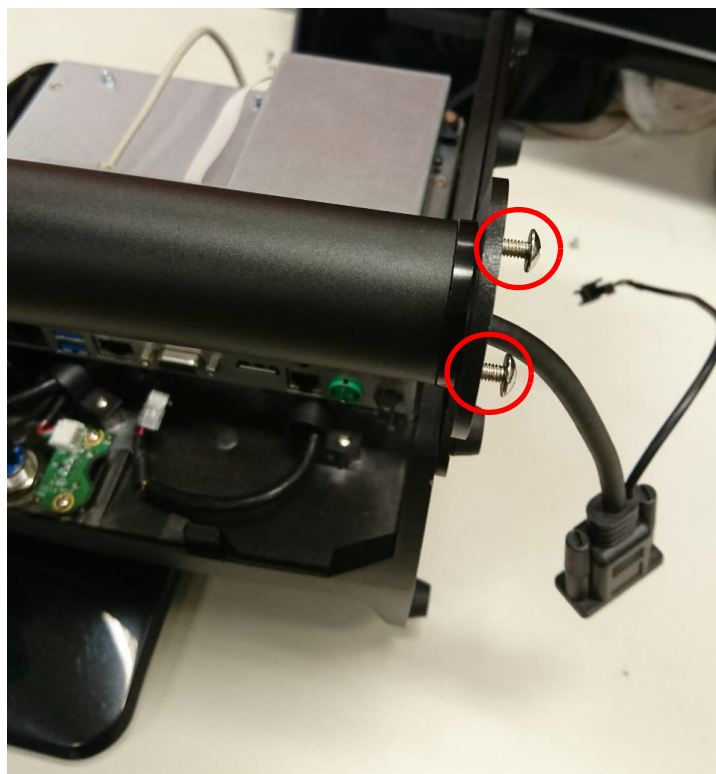


- Screw size: M4x8
- Screw size: M3x10

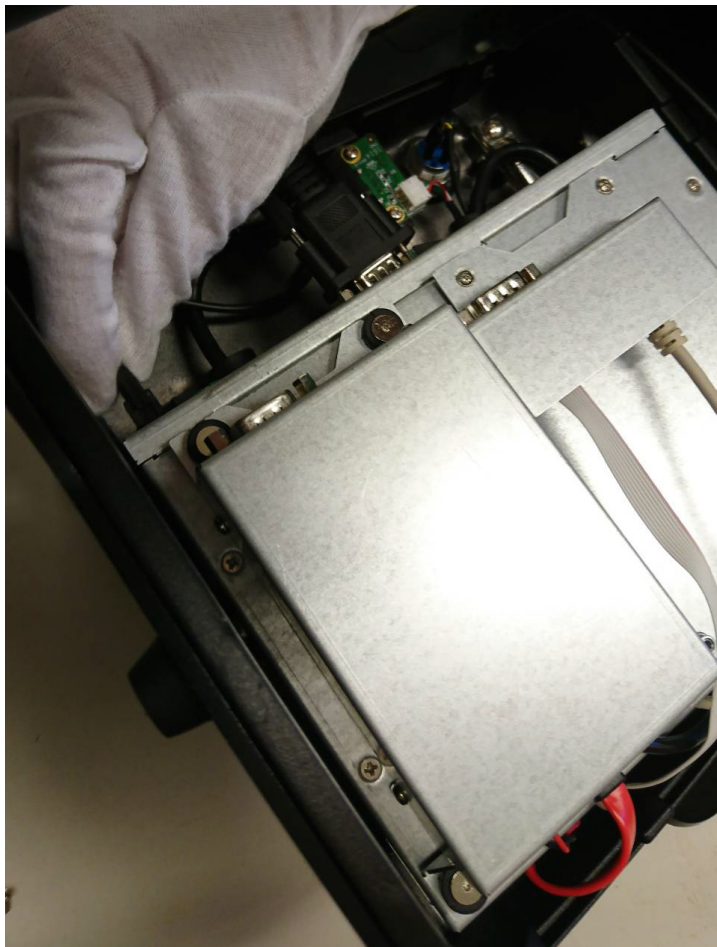
4. Place the VGA cable cross over the bracket of the second display.



5. Attach two screws and lock them tightly.



6. Plug in the VGA cable and the 12V cable.





7. Put the cover back on the system.







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Please verify specifications before quoting. This guide is intended for reference purposes only.

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