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PROTECH Group

KS-M220/ KS-M221

Quick Reference Guide
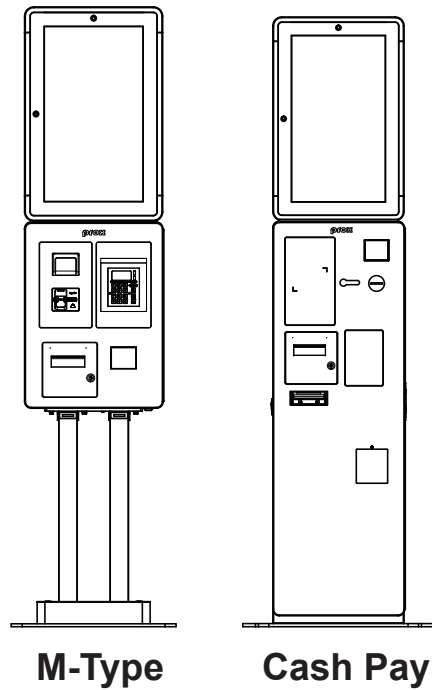
M-Type **Cash Pay**

Ver. Q2

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KS-M220 / KS-M221

Packing Checklist

If you discover any of the items below are damaged or lost, please contact your vendor immediately.

- ☑ KS-M220 / KS-M221 — x 1
- ☑ This Quick Reference Guide — x 1
- ☑ AC Power Adaptor — x 1
- ☑ Manual/Driver DVD — x 1
- ☑ Door Key — x 2

KS-M220 / KS-M221

Specifications

System

CPU	**High-End Level:** Intel® Core™ i5-7300U / Intel® Core™ i5-7300U Intel® Pentium® 4415U / **Entry Level:** Intel® Celeron J3455
Memory Support	1 x DDR4 SO-DIMM slot (Default: 4GB)
Storage	1 x 2.5" SATA HDD (Default: 500GB)
Network	2 x Gigabit 10/100/1000 Base-T Fast Ethernet (RJ45)
Power Supply	100-240V available
System Weight	**KDS:** 15.29kg / **M-Type:** 33.02kg **M-Type:** 54.22kg (with Stand) / **Cash Pay type:** 76.44kg
Dimensions (WxHxD)	**KDS:** 377 x 585 x 70mm **M-Type:** 377 x 585 x 160mm (without stand) **M-Type:** 450 x 1636 x 450mm (with stand) **Cash Pay type:** 377 x 1704.6 x 282mm
Operating System	Windows 10 IoT Enterprise LTSB 2016
Speaker	2 x 2W Speaker
LED Indicator	1 x Green LED for Power On indication (on PPC front)
EMC & Safety	CE / FCC

Operating Display

LCD	21.5" TFT Backlight (LED) LCD (Dual LVDS interface)
Max. Resolution	FHD 1920 x 1080
Brightness	250 cd/m^2
Touchscreen	Projected capacitive touch (USB interface)
Viewing Angle	Horizontal: (R) 89°/ (L) 89° / Vertical: (U) 89°/ (L) 8°

External I/O Ports

SATA/HDD Power	SATA/HDD power to external I/O with tray
Power On/Off	Power Button on I/O
System Fan Power	System fan power connector on I/O

Add-ons (optional)

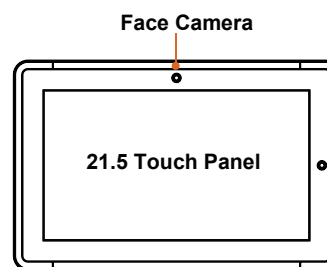|	
Face Camera	2.1M FHD Camera
Barcode Scanner	1D / 2D Barcode
Thermal Printer	2" or 3" Standalone Thermal printer
Wi-Fi Module	2T2R PCIe Half-Mini Card

Environment

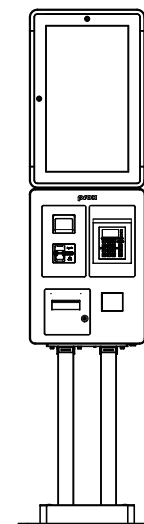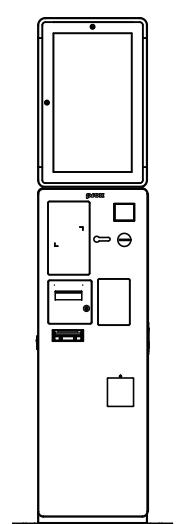|	
Temperature	Operating: 5°C ~ 35°C (41°F ~ 95°F) Storage: 0°C ~ 60°C (32°F ~ 140°F)
Humidity	20% ~ 85% (no condensation)

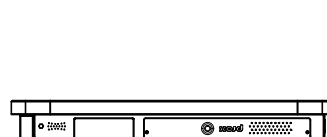
KS-M220 / KS-M221

System View

KDS Front View

Face Camera

21.5 Touch Panel
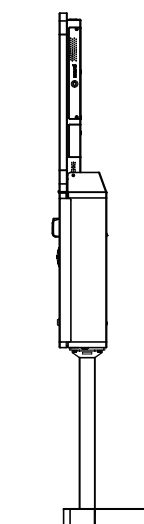
M-Type Front View

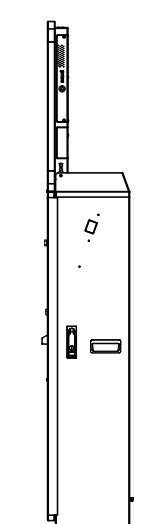**Cash Pay Front View**

KDS Side View

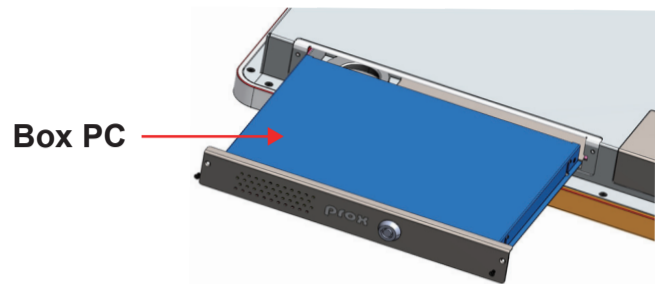**M-Type Side View**

Cash Pay Side View

Easy Maintenance

Removing Box PC
Step 1. Remove the 2 screws on the left and right sides, use the key to unlock and pull out the Box PC.
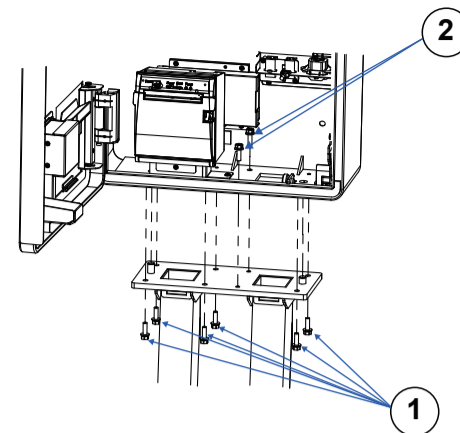
Installing Box PC
Step 1. Insert the Box PC into the KDS and insert the key to lock up.
Step 2. Pull out the key and fasten back the 2 screws to complete.

Box PC

Assembling Tripod
Step 1. Fasten the 6 screws numbered "1" in the drawing.
Step 2. Fasten the 2 screws numbered "2" as shown to complete.
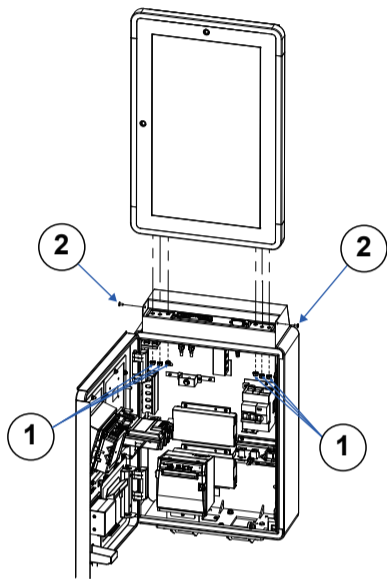
Disassembling Tripod
Step 1. Remove the 2 screws numbered "2" as shown.
Step 2. Remove the 6 screws numbered "1" in the drawing to complete.

Removing KDS From M-Type and Cash Pay Type
Step 1. Open the central cabinet.
Step 2. Remove the 6 nuts (numbered 1) in the drawing.
Step 3. Remove the 2 screws (numbered 2) in the drawing.
**Step 4.** Lift up the KDS to remove and complete.

Installing KDS Onto M-Type and Cash Pay Type
Step 1. Insert KDS from top to bottom.
Step 2. Fasten the two screws (numbered 2) in the drawing.
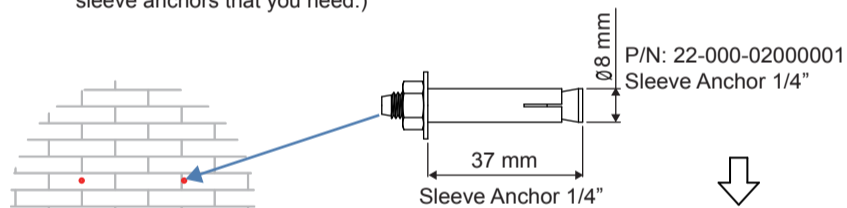**Step 3.** Fasten the six nuts (numbered 1) in the drawing to complete.

Replacing KS-M220 Roller Wheel
Step 1. Pass the axle of the wheel through the hole.
Step 2. Lock each nut and nut cap to secure and complete.
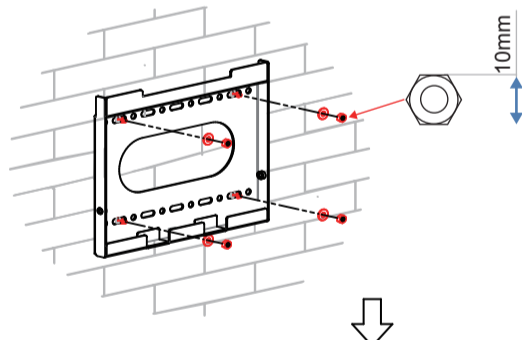**Note:** If the nut is not locked, it may cause product problems, so please be sure to lock it.
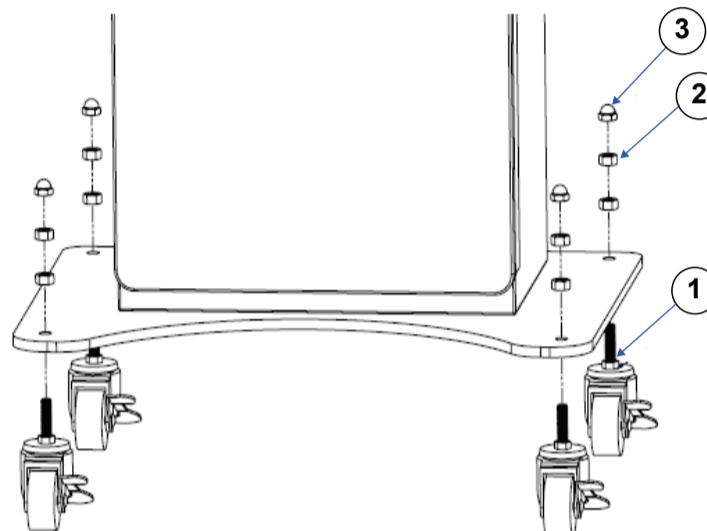
Installing Wall Mount Horizontally and Vertically
Step 1. Determine the location of the wall mount bracket to be installed on the wall and use a pencil to mark the locations that the sleeve anchors will be fastened.
Step 2. Install the sleeve anchors into the intended locations. Note that the sleeve should be installed inside the wall.
(Note: The pictures below are only for reference. You can determine the number of holes and sleeve anchors that you need.)
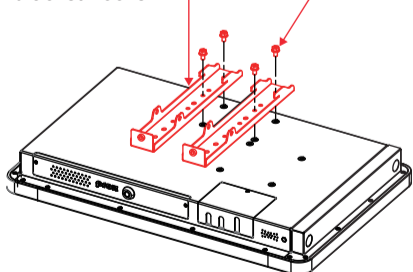
Ø8 mm
P/N: 22-000-02000001
Sleeve Anchor 1/4"

37 mm
Sleeve Anchor 1/4"

The sleeve part should be hiddened into the wall.

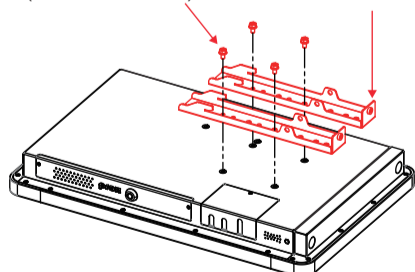**Step 3.** Fix the KDS mount bracket-rail onto the wall:

10mm

Step 4. Fasten 2 x mount bracket-hook (P/N: 20-206-02115482) onto the rear of KDS with 4 screws (M6x1.0Px12mm) (P/N: 22-251-60012011).

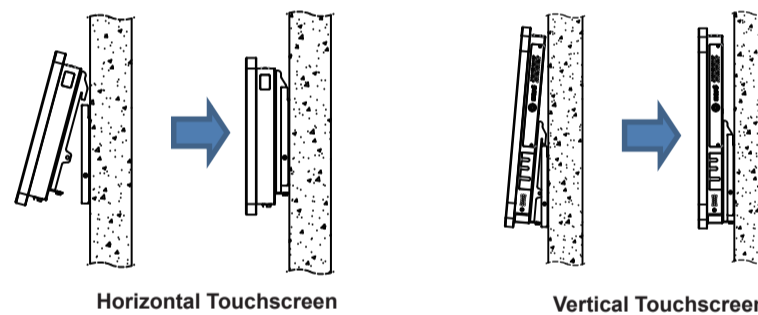Fasten two KDS mount bracket-hooks.
Tighten 4 screws (M6x1.0Px12mm)
Horizontal Touchscreen

Tighten 4 screws (M6x1.0Px12mm)
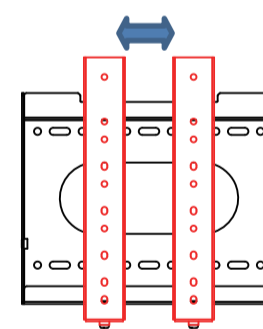Fasten two KDS mount bracket-hooks.
Vertical Touchscreen

Step 5. Attach the KDS installed with the mount bracket-hook onto the mount bracket-rail fixed on the wall.
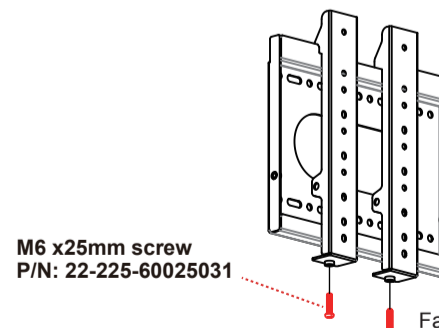
Horizontal Touchscreen

Vertical Touchscreen

Step 6. Adjust KDS to secure the mount bracket-hook into mount bracket-rail firmly.

Step 7. Fasten the two M6 screws to complete the installation.

M6 x25mm screw
P/N: 22-225-60025031
Fasten two M6 screws.

Safety Precaution

The following messages are reminders for safety on how to protect your system from damages and extend a long life of the system.

1. Check the Cable Voltage
 • The range of operating voltage should be AC 100~240V. Otherwise, the system could be damaged.

2. Environmental Conditions
 • Place your KS-M220/KS-M221 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 KS-M220/KS-M221 when it's been left outdoors in a cold winter day.
 • Bear in mind that the operating ambient temperature is from 5°C ~ 35°C (41°F ~ 95°F).
 • Avoid moving the system rapidly from a hot place to a cold place and vice versa because condensation may come from inside of the system.
 • Placing KS-M220/KS-M221 in strong vigrations may cause hard disk failure.
 • Don't place the system close to any radio-active device in case of signal interference.

3. Handling
 • Avoid putting heavy objects on top of the system.

 • Do not turn the system upside down. This may cause the hard drive to mal-function.
 • 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 dry 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 with a dry cloth.
 • If dust has been accumulated on the outside, remove it by using a special made vacuum cleaner for computers.

CAUTION! 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! 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. Please handle LCD and Touchscreen with extra care as they are easily breakable.