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Retro-Fit Kit G7 8 inch Pedestal G7 Installation Guide		

Retro-Fit Kit G7 8 inch Pedestal Installation Guide

Kit Part Number:

Kit Part Numbers	Brief Description
RF00012-XX	G7 8 inch Pedestal Double Sided, Grey
RF00042-XX	G7 8 inch Pedestal Single Sided, Grey



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Release History

Version	Prepared by	Date	Change description
0	Azim Izad	10/7/2020	Draft
1	AFIQ	6/11/2020	Additional instruction on RP00012-01 & RP00042-01
2	Michael Doh	01-Dec-2020	Reviewed and added back in the correct existing information from the previous revisions that were missing.
3	Hasan	06-Dec-2020	Revised installation step
4	Hasan	07-Dec-2020	Add the disassembly procedure.
5	Hasan	18-Dec-2020	Add new picture and instruction.
6	Michael Doh	07-July-2021	Added MP1041 in list of parts.
7			



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1 Introduction

The documentation provides some basic guidelines for Retro-Fitting the G7 8-inch (G7-100 SDC-08) Outdoor Payment Terminal (OPT) system (Where the suffix -XX in the part numbers are any numbers or letters relating to optional configurations) in a Pedestal.

- G7 8 inch OPT system installation in Double Sided Pedestal, Grey
Kit part number: RF00012-XX
- G7 8 inch OPT system installation in Single Sided Pedestal, Grey
Kit part number: RF00042-XX

1.1 Tools Required

The following tools are required to Retro-Fit the G7 8 inch (G7-100 SDC-08) OPT system:

- Philips #2 screwdriver
- Flat 5mm screwdriver
- Side cutters
- Cable (zip) ties
- Needle nose pliers
- #8 Socket or Nut driver
- 1/4" Socket or Nut Driver
- 5/16" Socket or Nut Driver
- Wire stripper
- Crimping tool (suitable for 18 AWG wire)
- Terminal blocks, 12-22 AWG, 0.315" pitch (UL and cUL/CSA Listed)



WARNING

Do NOT use power tools if working on a fuel station forecourt.

Any spark could cause an explosion.

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1.2 Installation Kit Contents

G7 8-inch (OPT) system installation in Double Sided Pedestal, Grey (RF00012-XX):

Unpack the G7 8 inch (G7-100 SDC-08) Double Sided Pedestal, Grey Retro-Fit Kit (RF00012-XX) and check that all of the parts listed below are present.

	2 x RP00012-XX ASSEMBLY, PANEL DOOR, RFK, G7.
	2 x MP1041 Main Case, Pedestal, G7-8
	EK 0131, Cat-5e, Flexible, 2.5, Yellow.
	2 x EK0124 GVR Pump to Pump Adaptor, 1.0m
	1 x EK227, CABLE ASSY, MAINS, ENCORE 500S POWER TO PSU CABLE, ADAPTOR, 0.2m
	4 x MS0157, M6 x 20mm Hex Head Screw.
	8 x MW0061, M6 Flat washer.
	4 x MN0098, M6 Kep Nut.
	6 x MP1040, Hinge pin.

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G7 8 inch (OPT) system installation in Single Sided Pedestal, Grey (RF00042-XX):

Unpack the G7 8 inch (G7-100 SDC-08) Single Sided Pedestal, Grey Retro-Fit Kit (RF00042-XX) and check that all of the parts listed below are present.

	1 x RP00012-XX ASSEMBLY, PANEL DOOR, RFK, G7.
	1 x MP1041 Main Case, Pedestal, G7-8 (Box Assembly)
	EK 0131, Cat-5e, Flexible, 2.5, Yellow.
	1 x EK0124, GVR Pump to Pump Adaptor, 1.0m.
	1 x EK227, CABLE ASSY, MAINS, ENCORE 500S POWER TO PSU CABLE, ADAPTOR, 0.2m.
	4 x MS0157, M6 x 20mm Hex Head Screw.
	8 x MW0061, M6 Flat washer.
	4 x MN0098, M6 Kep Nut.
	3 x MP1040, Hinge pin.



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2 Safety & Compliance Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing G7 8 inch (G7-100 SDC-08) OPT system. Before proceeding, check the relevant hazard and safety information. Fire, explosion or electrical shock could occur and cause death or serious injury if these safe service procedures are not followed.

2.1 Preliminary Precautions

You are working in a potentially dangerous environment of flammable fuels, vapor, and high voltage. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

2.2 Emergency Total Electrical Shut-Off

Locate the forecourt emergency fuel shut-off valves and electrical isolation breakers. Understand how to use these, should they be required. Locate the switch or circuit breakers that shut-off all power to all fueling equipment and dispensing devices.

2.3 Total Electrical Shut-Off Before Access

Any procedure requiring access to electrical components or the electronics of a pump/dispenser requires total electrical shut-off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing the G7 8 inch (G7-100 SDC-08) OPT system.


2.4 Evacuation, Barricading and Shut-Off

Any procedures requiring accessing a pump/dispenser head requires the following three actions:

- An evacuation of all unauthorized persons and vehicles
- Using safety tape or cones as barricades to the effected units
- A total electrical shut-off of the affected unit(s)

2.5 Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with the equipment. If you do not understand a procedure, call an Invenco Authorized Service Centre or Invenco Service Officer. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

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2.6 Follow the Regulations

Regulations in OSHR (Occupational Safety and Health Regulations), national, state and local codes, including customer requirements must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties and may affect the safe use and operation of the equipment.

2.7 Replacement Parts

Use only genuine Invenco replacement parts and Retro-Fit Kits on your installation. Using parts other than genuine Invenco replacement parts could create a safety hazard and violate local regulations.

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3 Safety Symbols and Terminology



This safety alert symbol is used in this manual and on warning labels to alert you to a precaution which must be followed to prevent potential personal safety hazard. Obey safety directives that follow this symbol to avoid possible injury or death.

Signal Words

These signal words used in this manual and on warning labels tell you the seriousness of particular safety hazards. The precautions below must be followed to prevent death, injury or damage to the equipment:



DANGER: Alerts you to a hazard or unsafe practice which will result in death or serious injury.



WARNING: Alerts you to a hazard or unsafe practice that could result in death or serious injury.



CAUTION: Designates a hazard or unsafe practice which may result in minor injury, property or equipment damage.

Working With Fuels and Electrical Energy

3.1 Prevent Explosions and Fires

Fuels and their vapors may explode or burn if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause potentially explosive vapors in the vicinity of dispenser or island.

3.1.1 No Open Flames



Open flames from matches, lighters, welding torches or other sources are not permitted, as they can ignite fuels and their vapors.

3.1.2 No Sparks - No Smoking



Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapor. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuels and their vapors. After getting out of a vehicle, touch the metal of your vehicle to discharge any electrostatic charge before you approach the dispenser island.



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3.1.3 Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working with or around high voltages. This information is available from the First Aid training providers. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA Tag-out/Lockout procedures. If you are not familiar with this requirement, refer to information in the relevant manual and OSHA documentation.

3.1.4 Working with Electricity Safety

Ensure that you use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Ensure that grounding connections are properly made. Take care that sealing devices and compounds are in place. Ensure that you do not pinch wires when replacing covers. Follow OSHA Tag-out/Lockout requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while equipment is down.

For US: Follow all applicable requirements in NFPA 30, 30A and 70, and those of the Local Authority Having Jurisdiction for electrical wiring.

For Canada: Follow all applicable requirements in Canadian Electrical Code (CE Code), CSA C22.1.

3.1.5 Hazardous Materials


Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

3.1.6 In an Emergency

Compile the following information in case of emergency:

- Location of accident (e.g. address, front/back of building, etc).
- Nature of accident (e.g. possible heart attack, struck by a vehicle, burns, etc).
- Age of victim (e.g. baby, teenager, middle-age, elderly).
- Whether or not victim has received first aid (e.g. stopped bleeding by application of pressure etc).
- Whether or not victim has vomited (e.g. if swallowed or inhaled something etc).

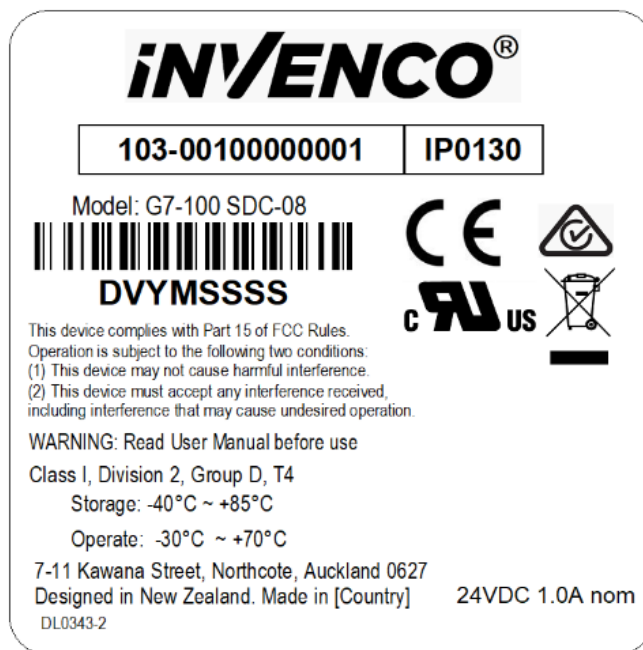
IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

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3.1.7 Approvals

Invenco develops and maintains its hardware and software products using industry-standard quality processes, and is audited by various bodies.

The Invenco G7 8 inch (G7-100 SDC-08) Modules have UL File References of E469526 and E480135 and carries labelling similar to this:



3.2 Computer Programs and Documentation

All Invenco Group Ltd. computer programs (including software on discs and within memory chips) and documentation are copyrighted by, and shall remain the property of, Invenco Group Ltd. Such computer programs and documents may also contain trade secret information. The duplication, disclosure, modification, or unauthorized use of computer programs or documentation is strictly prohibited, unless otherwise licensed by Invenco Group Ltd.



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4 Installation Guide

1. Please ensure all safety procedures are followed per requirement by the customer before installing the Retro-Fit Kit.
2. Remove power to Dispenser and follow the OSHA Lock-out/Tag-out procedures.



WARNING

Failure to turn off the unit during installation of the kit may cause injury or bodily harm from electrical shock. Ensure that all power to the unit is switched off before opening the door of the unit and during kit installation.

3. This installation will require an access door replacement. The access door will be removed from the dispenser's main door and replaced with another access door with the OPT pre-fitted.

4.1 Disassembly Procedure

Before starting the installation of the new equipment, the existing electronic payment device must be removed from the stand. This section required installer to remove the existing main case including:

- All the Cable from the existing OPT except the power cable and Connection cable.
- All the electronic device component that located inside the existing pedestal Head.

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1. At the main disconnect panel, disconnect all power to the pedestal and dispenser. Tag all disconnected breakers to prevent others from reconnecting power.
2. Take out the existing top cover for the pedestal by removing the locking screw that located on the bottom side of the part. (Fig 2.1a, b, c)

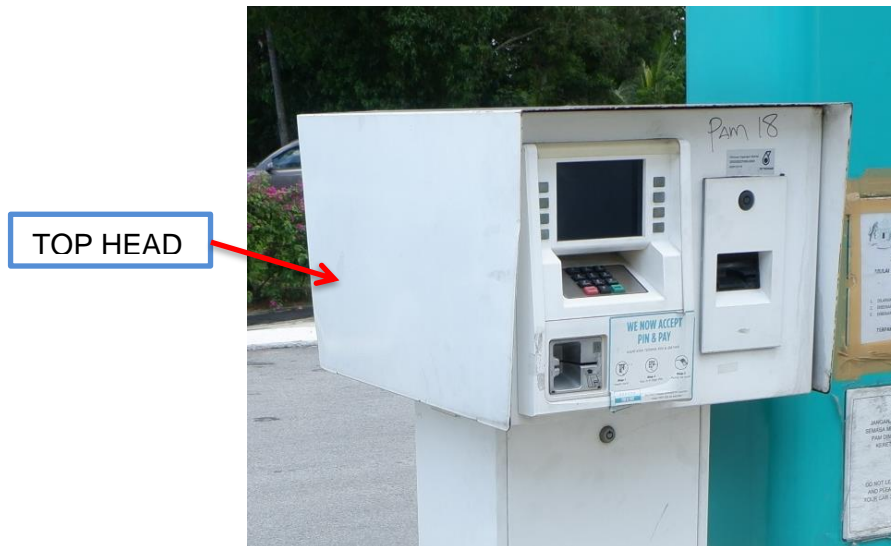


Fig 2.1a – Remove the top cover.



Fig 2.1b – Remove the M3 screw on the highlighted area shows by using a wrench.

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Fig 2.1c – Top Cover already remove.

3. Open the stand door and start dismantle the cable that connect to existing OPT. (Fig 2.2a, b, c, d, e)
 - a. Open the panel door by using their standard key. (Depend on OPT manufacture)



Fig 2.2a – Top Cover already remove.

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- b. Dismantle the power cable from the OPT and Stand. Use a screwdriver with Philip head (depend on the screw head type) to untighten the screw on the Connection terminal. Connection terminal will be use again in assembly procedure.

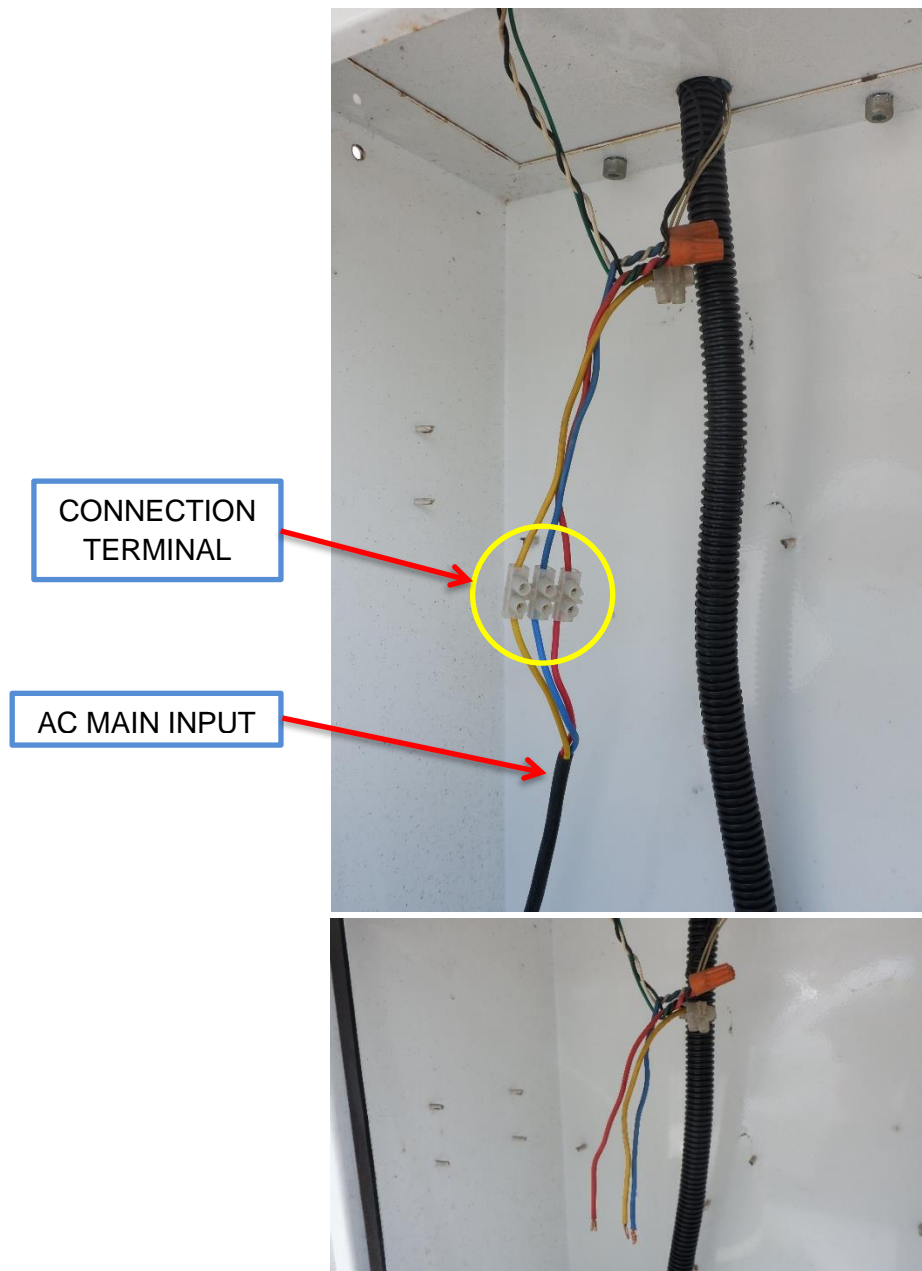


Fig 2.2b – Dismantle the power cable by untighten the connector terminal.

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- c. Unplug the Cat5-e cable from the existing OPT that located inside the main case and remove temporary the cable from main case. This Cat5-e cable is type “Y”. This cable will be use again during the installation procedure.

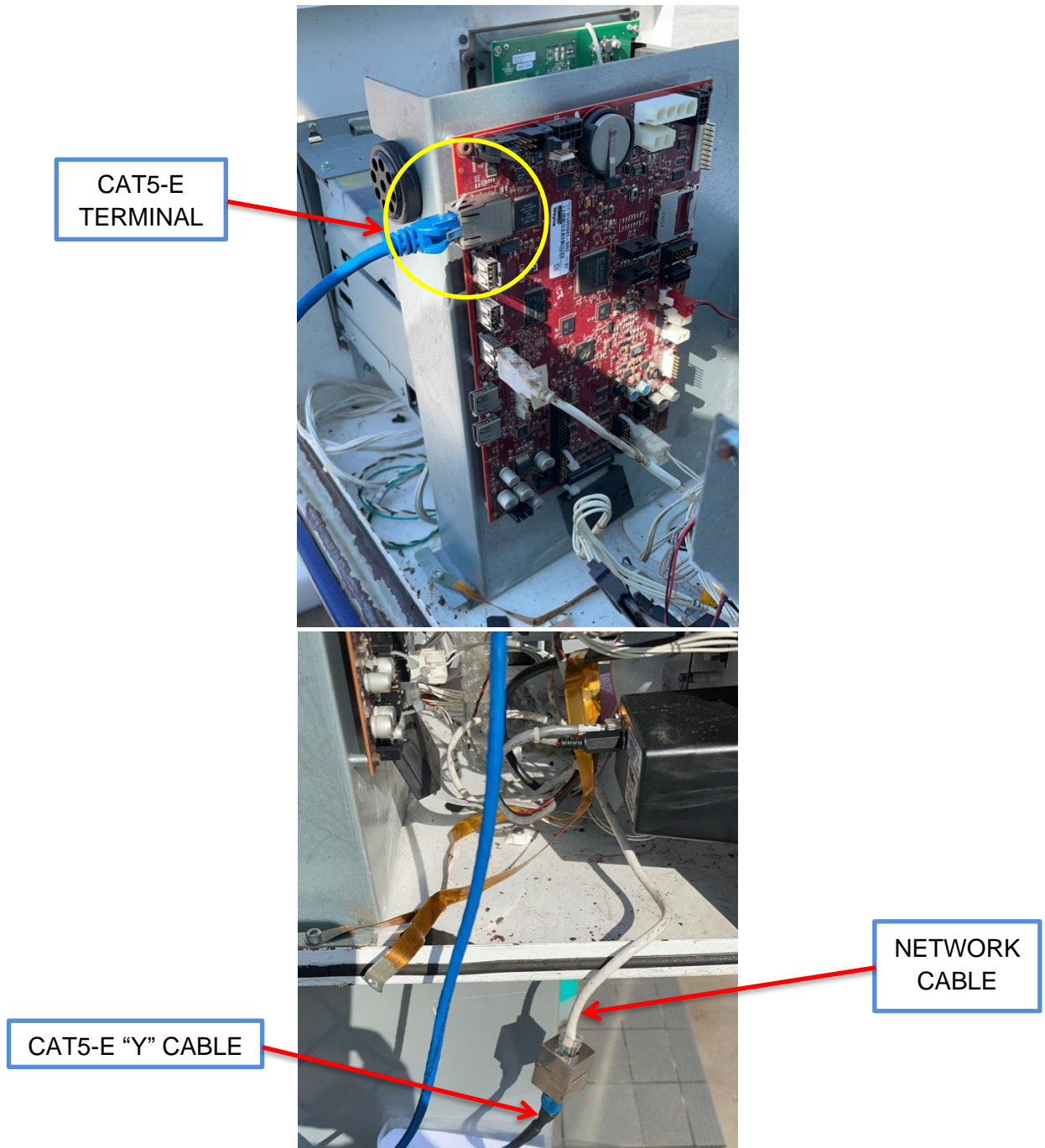
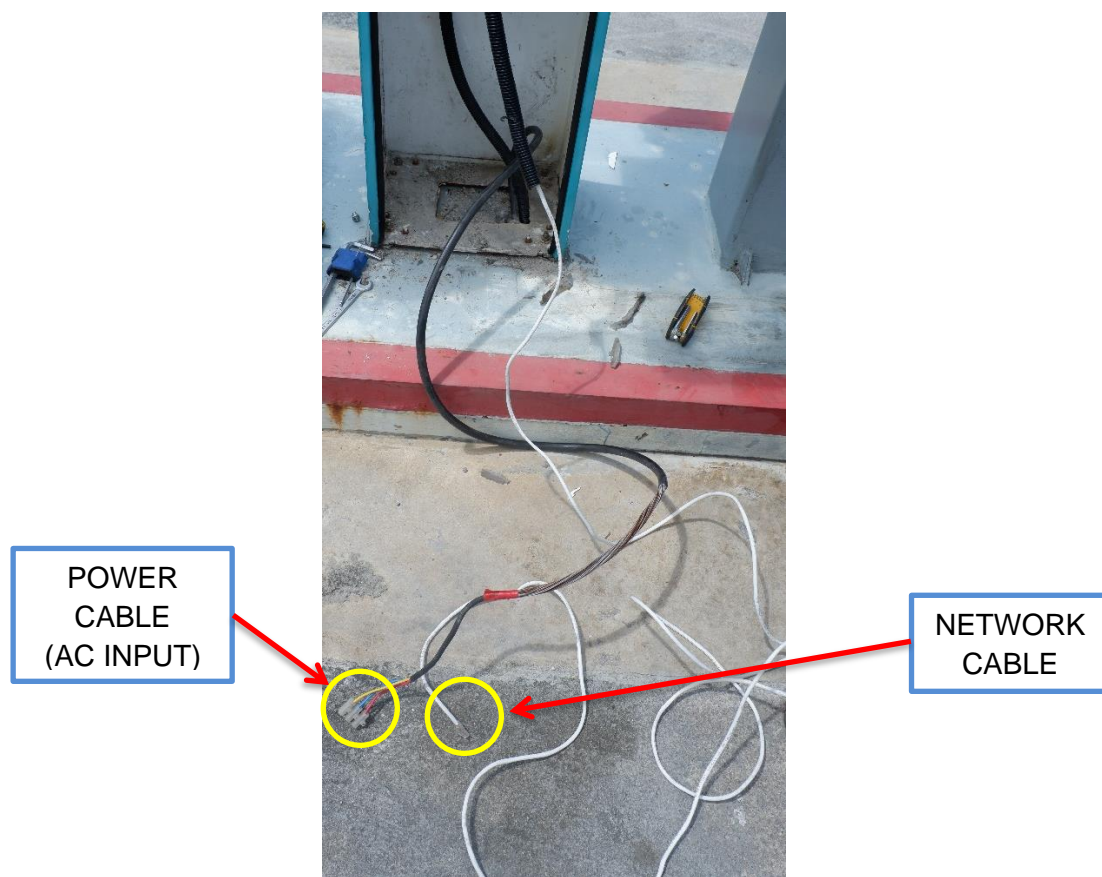


Fig 2.2c – Dismantle the Cat5-e “Y” cable and Network cable.

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**Fig 2.2d - Remove temporary network cable
And power cable (AC main input) from the stand.**



**Fig 2.2e - Remove temporary the Cat5-e "Y" cable. This cable will
Be reuse during the installation process.**

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4. After finish dismantle all the cable that connect the main case with stand, continue with untighten the screw that connecting the stand and main case. By removing this screw, the main case is no longer attach to stand. This process required more than one man power because someone need to hold the main case from collapse. (Fig 2.3)

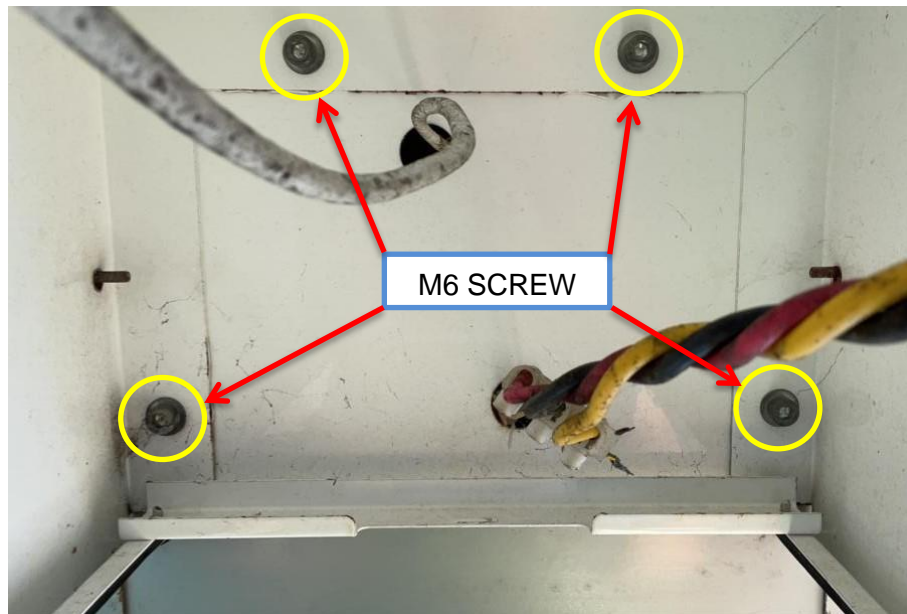


Fig 2.3 – Use a socket Hex bit wrench to untighten the screw.

5. Final step, remove the main case from the stand. This process required two man power because of safety purpose. Now stand is ready to be mounted with the new main case. Before proceed to install the new OPT main case, please clean the surface using a cleaning solvent. (Fig 2.4)



Fig 2.4 – Remove the existing OPT main case and clean the contact surface.

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4.2 Installation Procedure

This section follows from the disassembly process.

1. Installer needs to determine the correct mounting hole configuration of the existing pedestal stand to fit with the RF00012-XX or RF00042-XX pedestal assembly before they mounted the RFK to the stand. (Fig 2.5a, b, c, d.)

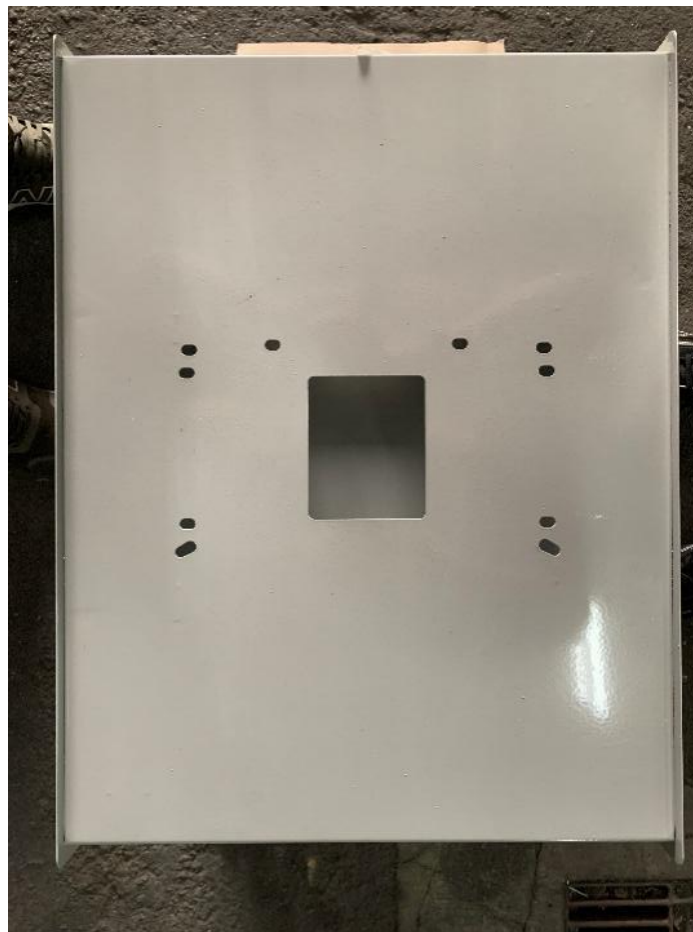
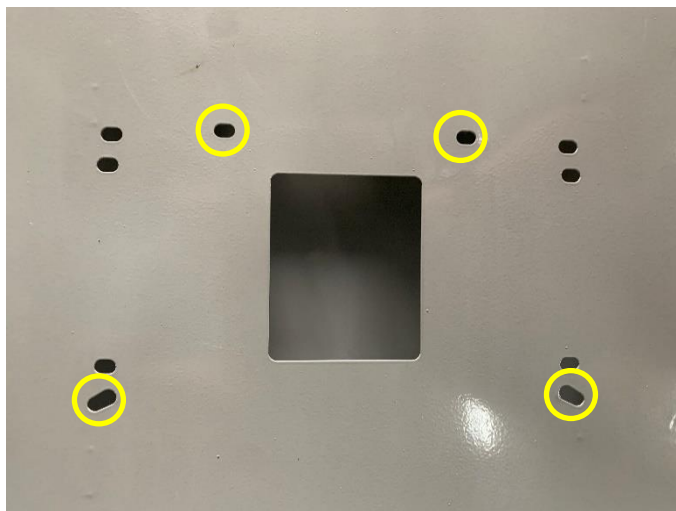
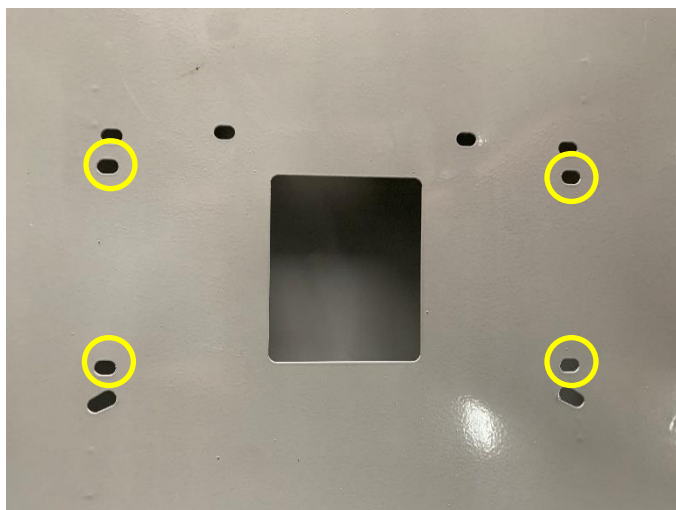


Fig 2.5a – Bottom view for the RF00012-XX or RF00042-XX

Retro-Fit Kit G7 8 inch Pedestal G7 Installation Guide**Fig 2.5b – Type A (Wayne)****Fig 2.5c – Type B (Gilbarco)**

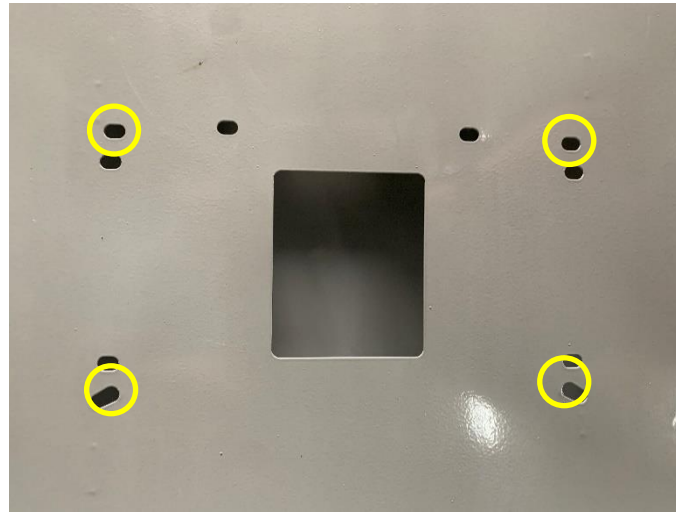
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Fig 2.5d – Type C (Gilbarco)

2. Mount the RF00012-XX or RF00042-XX Pedestal Assembly to the existing pedestal stand. This process required two main power in term of the safety issue.
 - a) Mount the RF00012-XX on the top of pedestal stand. Align with the correct set the holes on the underside of the RF00012-XX or RF00042-XX pedestal assembly (Fig 2.6a).

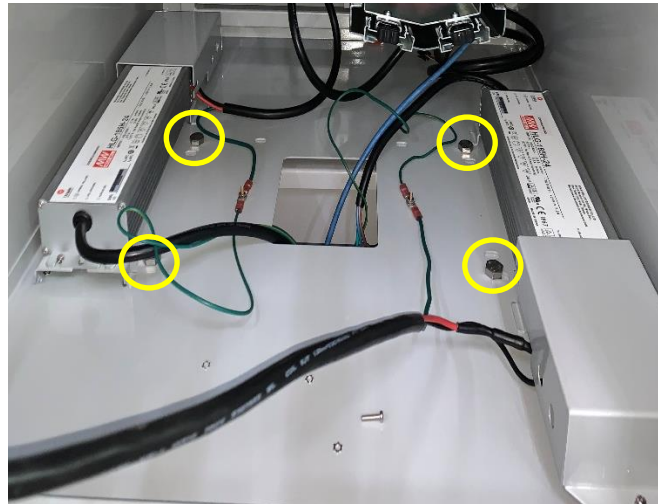


Fig 2.6a – Type C (Gilbarco)

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- b) Fasten the four Hex Head Plain, M6-20mm screws (MS0157) over the M6 Flat Washers (MW0061) to secure the pedestal assembly to the stand. (Fig 2.6b)

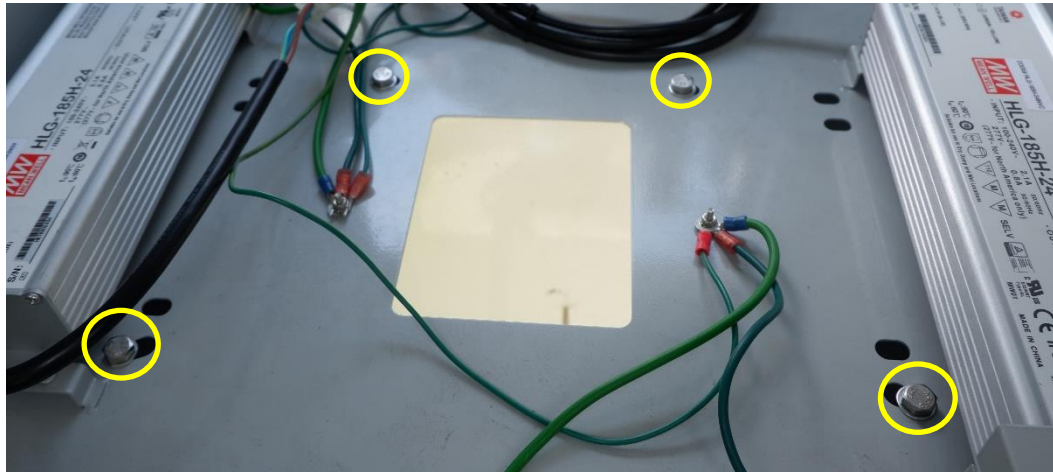
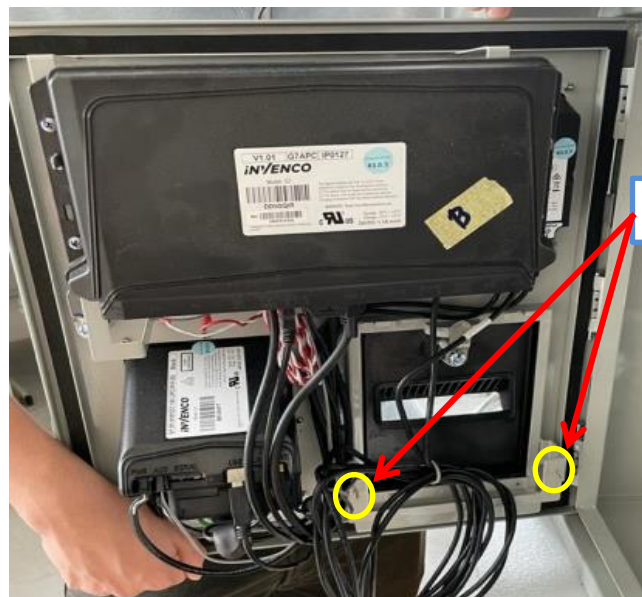


Fig 2.6b – M6 – 20mm Hex screw and Flat washer.

3. Remove the existing printer set (MZ0173) for temporary by untighten the x2 M3 Kept Nut (MN0039). This process will help installer to assemble the hinge pin (MP1040) with easier. (Fig 2.7)



MN0039 (M4 KEP NUT)

Fig 2.7 – Remove x2 M4 KEP Nut.

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4. Attached RP00012-XX or RP00042-XX to the Main Case (MP1041) by used hinge pin (MP1040) and MP1039 (Hinge) to lock it at 3 location as shown in figure 2.8a.

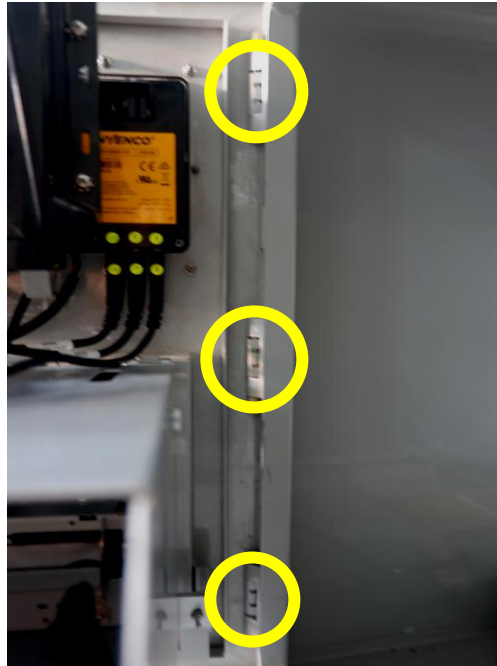


Fig 2.8a- Location MP1039 (Hinge).

- a) Insert the hinge pin (MP1040) from the middle point and bottom point. These two pins need to be insert from top to bottom. Used long nose plier and place on top or the pin, and other plier to knock and push it down. If the hole aligns correctly it quite easy to push in. (Fig 2.8b)



Fig 2.8b – Use a Long nose plier to hold and knock the pin.

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- b) Last pin is the top one. We need to insert the pin from the bottom area. Same method by using long nose plier and push in from bottom to the top. (Fig 2.8c)



Fig 2.8c – Insert the pin from the bottom to the top.

- c) Once all pins done, put on the cap at the end of the pin. (Fig 2.8d)

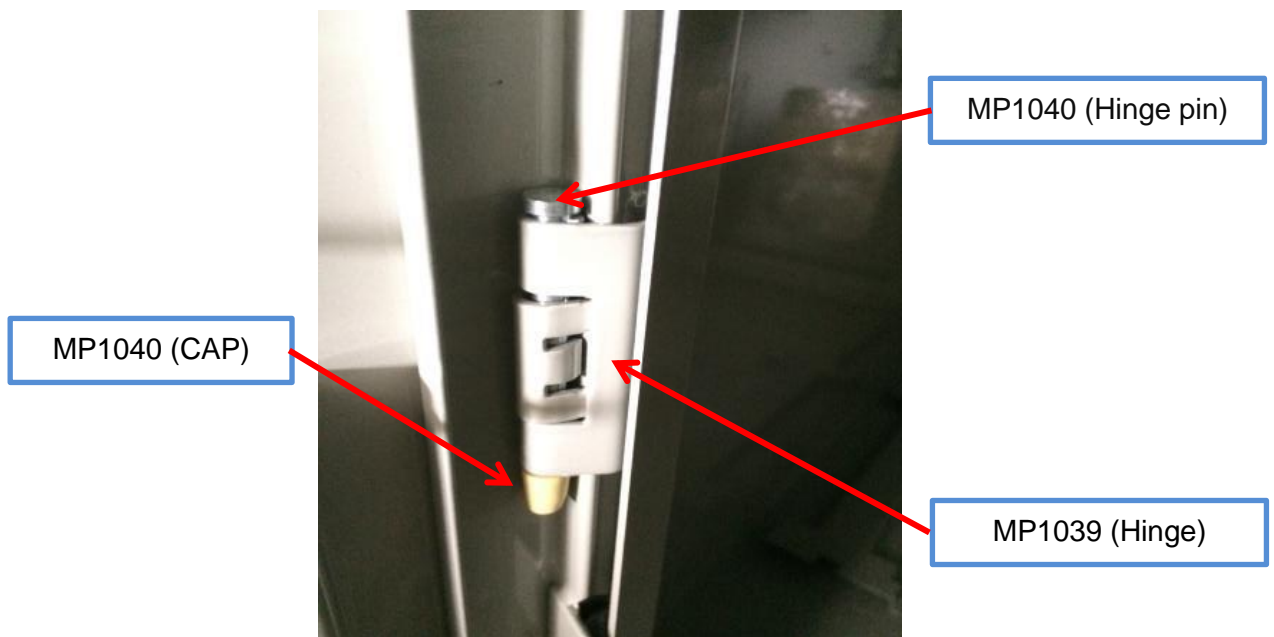


Fig 2.8d – Attach the cap to prevent the pin from lost.

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- d) Assemble Printer set (MZ0173) that already remove on previous step (Fig 2.7). (Fig 2.8e)



Fig 2.8e – Assemble the printer set after temporary remove.

- e) Connect the grounding cable to the position provided in the main case and lock the cable by using M3 KEP Nut (MN0039). (Fig 2.8f)

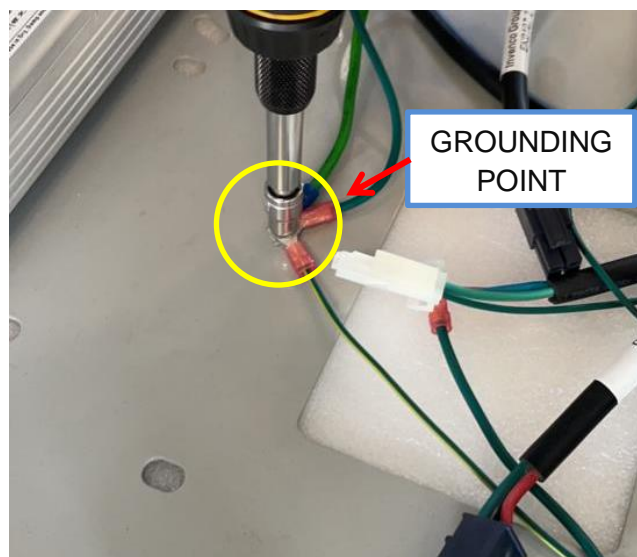


Fig 2.8f – Connect grounding cable to the provided position.

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5. Cable EK0124 has three connectors at one end and a single connector at the other end. EK0124 is supplied with a “dummy plug” for safety in some installations (see figure 2.9a). Unplug and discard the female dummy plug from the three-connector end of EK0124.

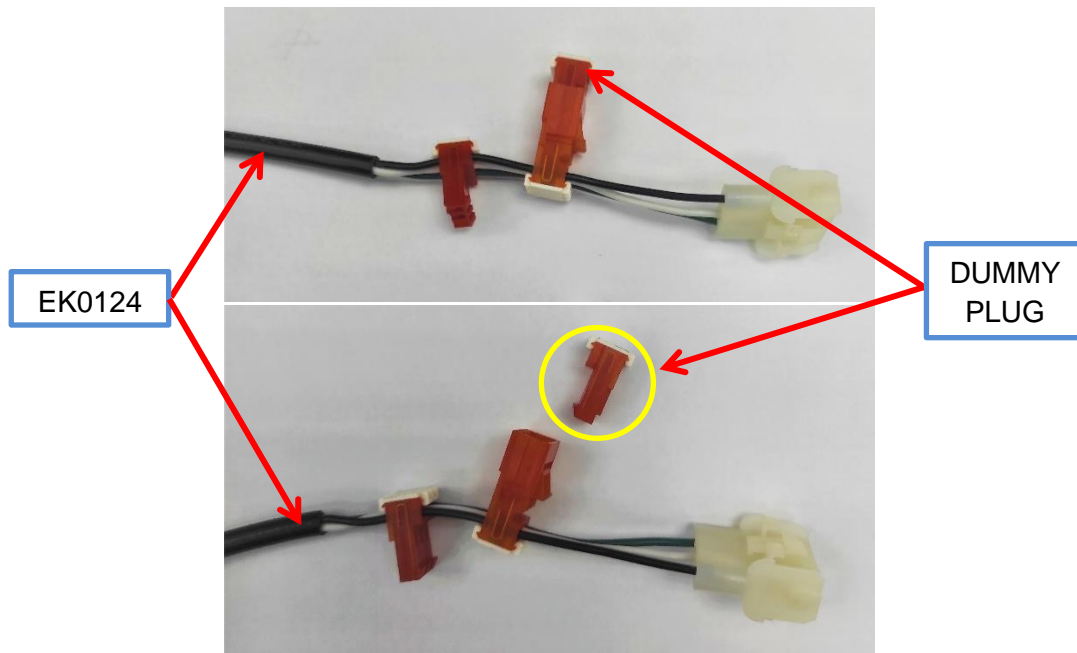


Fig 2.9a– Dummy plugs in EK0124 cable

- a. For single sided pedestal (RF00042), there only have on EK0124 cable. No need to remove the “dummy plug”. Proceed to connect EK0124 with EK0227 by plug in the socket. (Figure 2.9b).

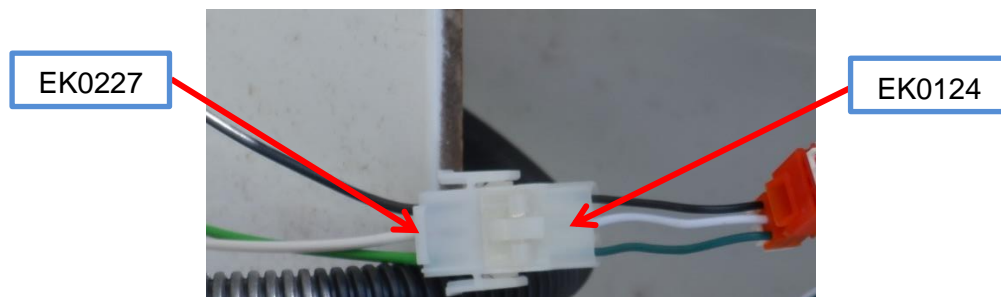


Fig 2.9b– Plug In the male and female socket.

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- b. For double sided pedestal (RF00012), there have 2 EK0124 cable, Side A & B. Remove "dummy plug" from side B and plug the exposed male orange connector to the orange female connector on EK0124 cable Side A. (Figure 2.9c, d, e)

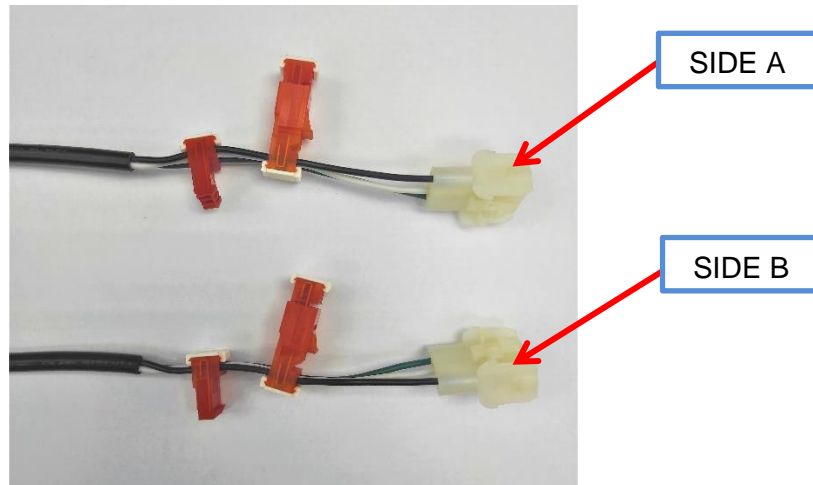


Fig 2.9c– Select for Side A & side B.

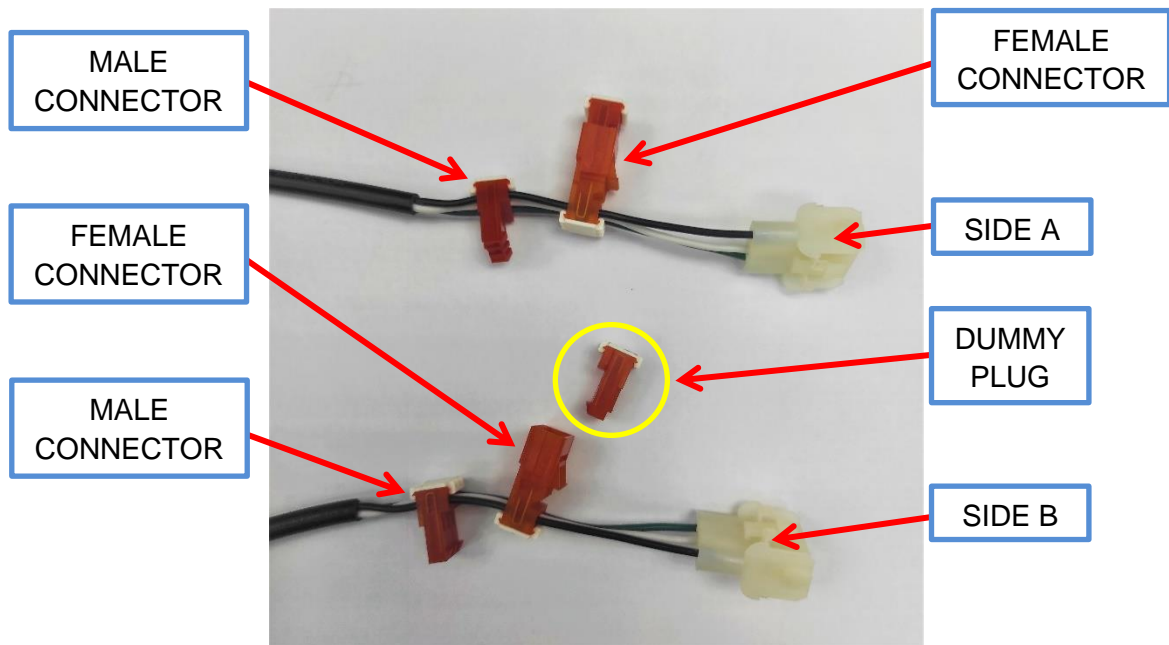


Fig 2.9d– Remove dummy plug from Side B Female connector.

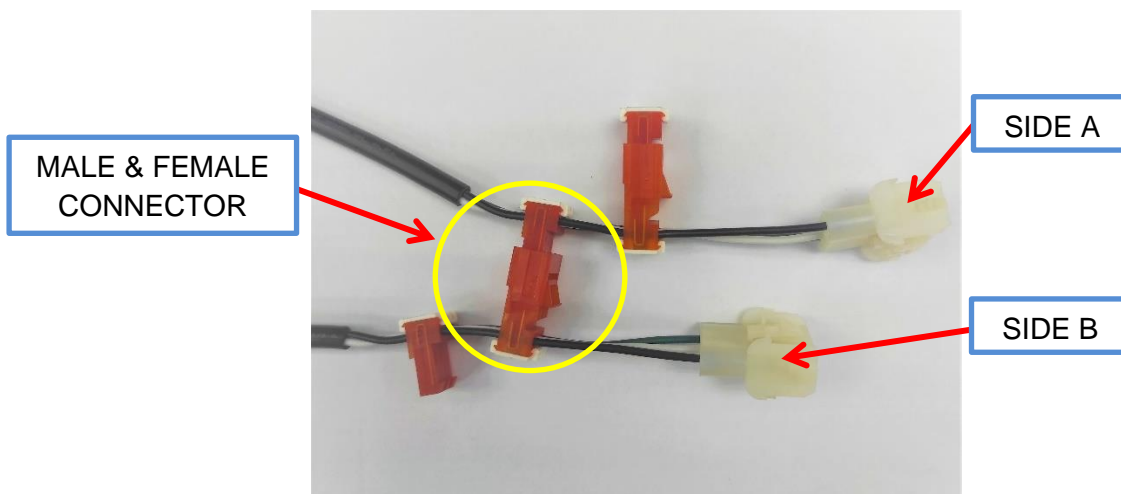
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Fig 2.9e– Connect the male connector from Side A to female connector on side B.

6. Connect EK0124 cable with EK0227 by plug in the male and female connector socket together. (Fig 3).

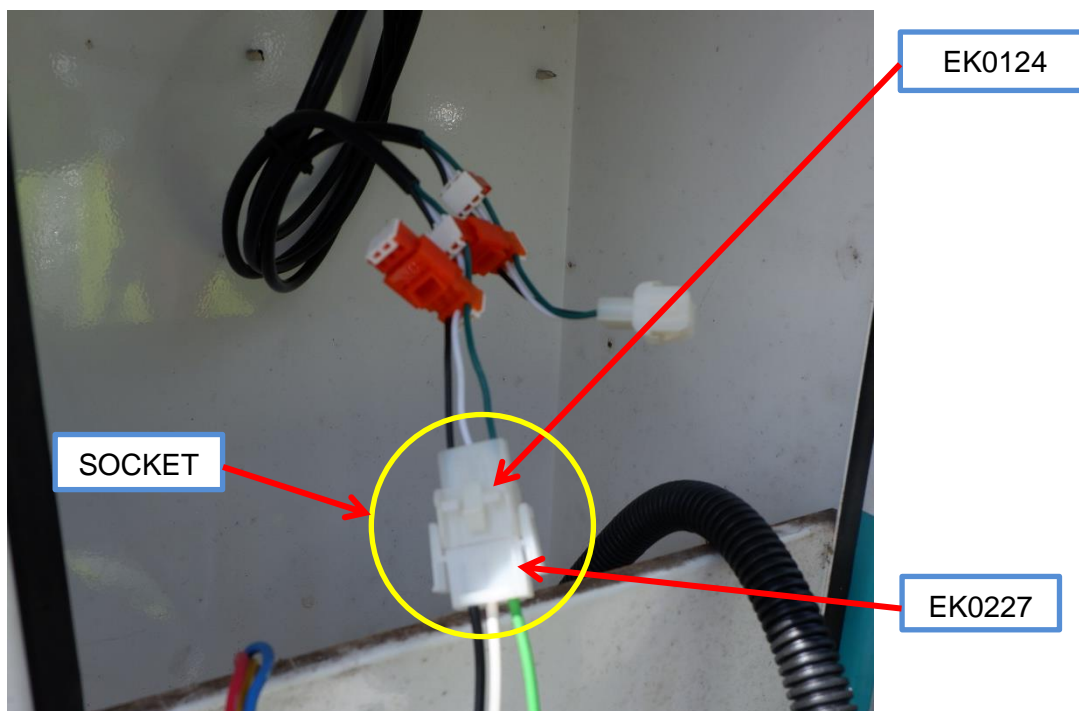


Fig 3 – Joint the 3-point connector terminal.

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7. Connect EK0227 cable with existing 3-core power cable (AC main input) by using cable connector terminal. (Fig 3.1)

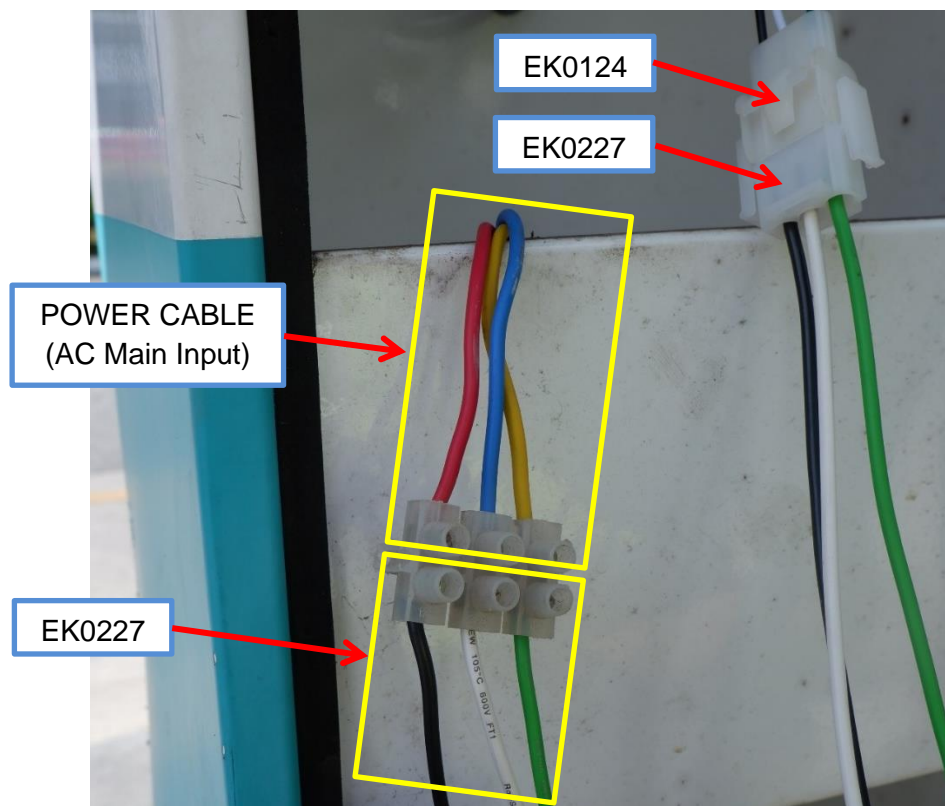
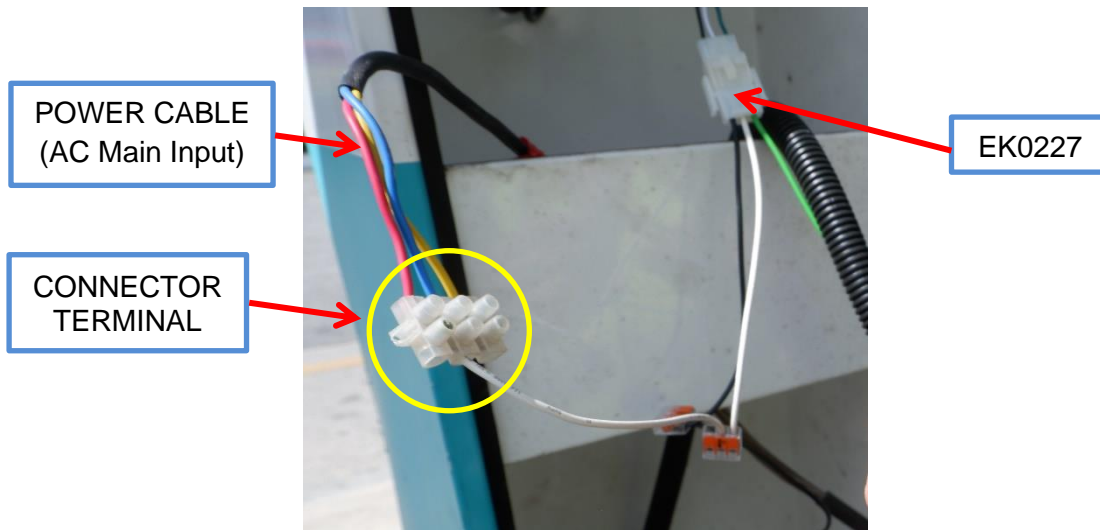


Fig 3.1 – Joint the 3-point connector terminal.

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8. Connect the Cat-5e “Y” cable that already remove temporary in fig 2.2e with the network cable.
 - a. Tidy up the Cat-5e cable and place it inside the pedestal main case. (Fig 3.2)

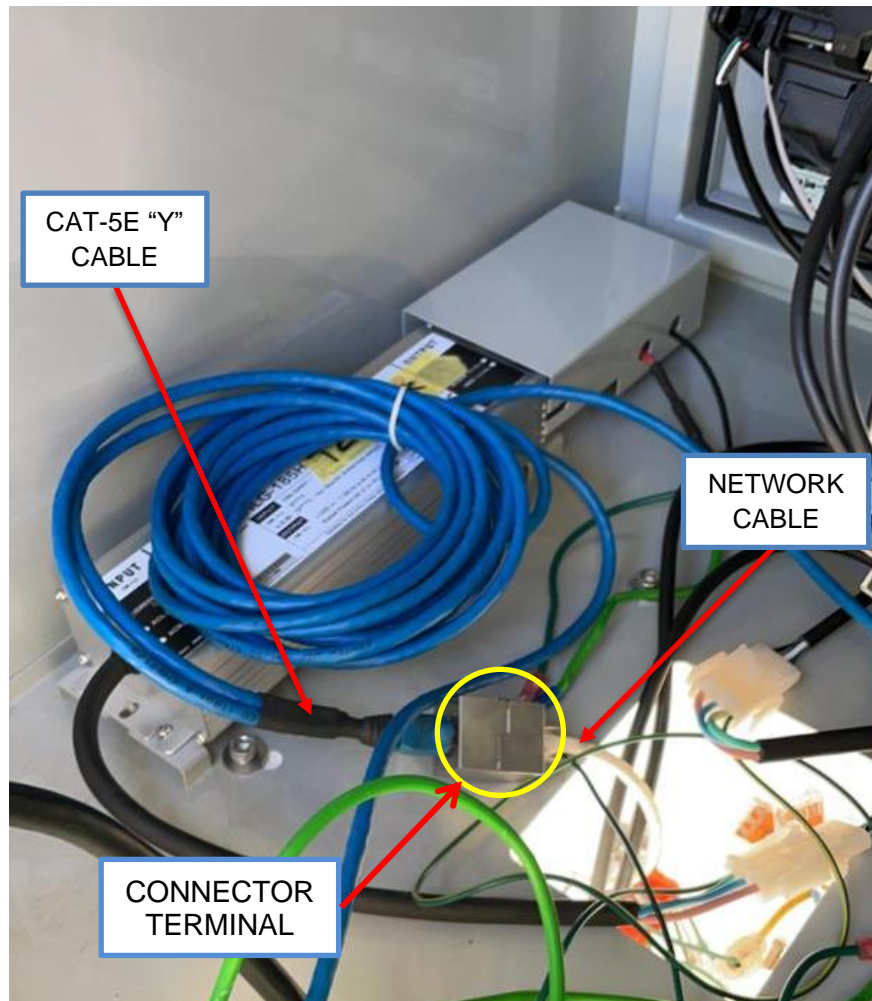


Fig 3.2 – Plug in the Network cable and Cat-5e “Y” cable to connector.

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- b. Connect the Cat-5e “Y” cable to the IP0127 (APC) ethernet port. (Fig 3.3)

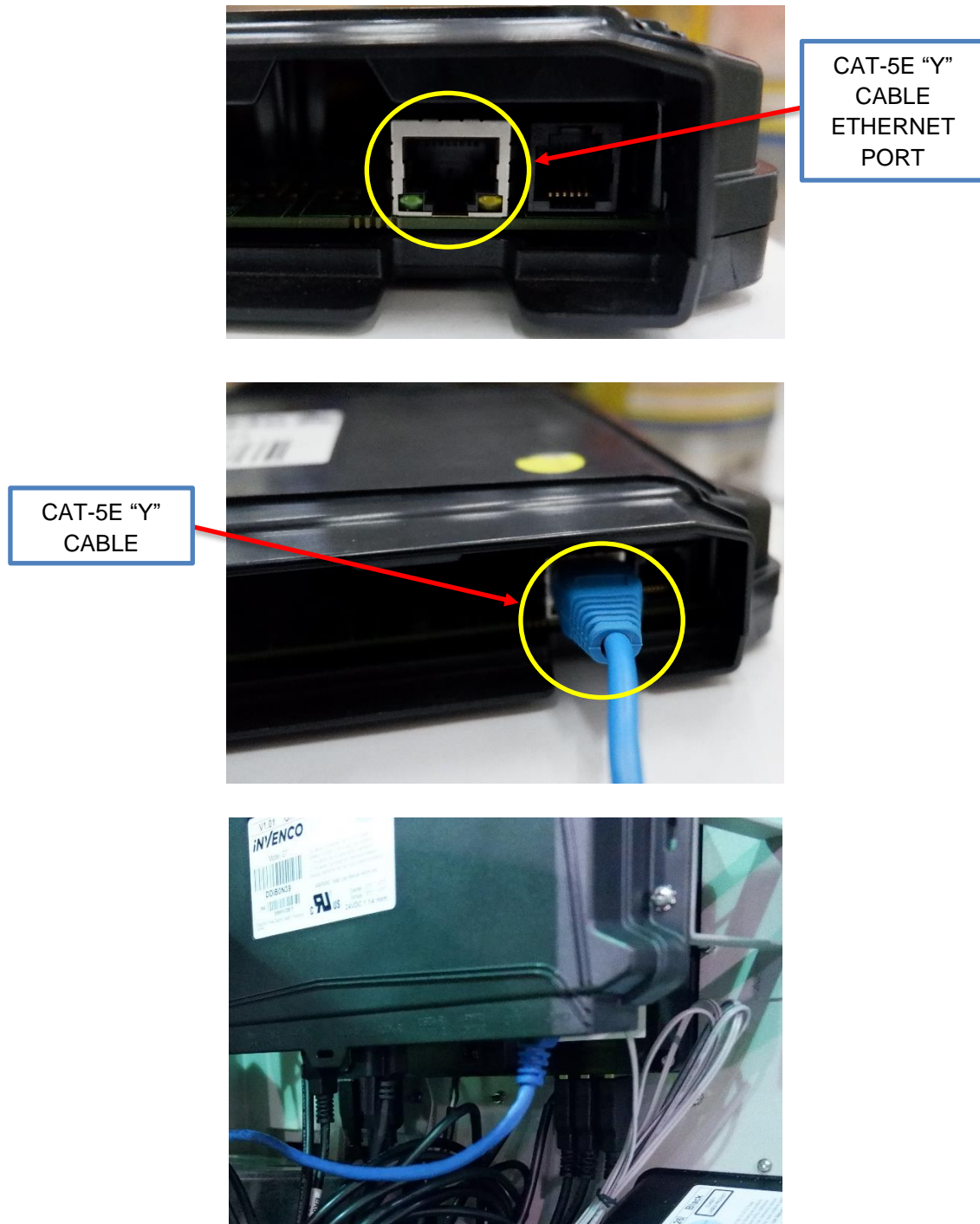



Fig 3.3 – Connecting the Cat-5e “Y” cable.

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9. Close both MP1046 carefully (take care that the RF00012-XX or RF00042-XX Retro-Fit Kit Door assembly does not swing excessively).
10. Close the RF00012-XX or RF00042-XX Retro-Fit Kit Door assembly gently. Please ensure no cables are pinched or snagged. If any cables pinched, re-arrange them before continuing.
11. When the door is fully shut, lock it using the provided "751" key. (Fig 3.4)



Fig 3.4 – Completed OPT installation for Pedestal.