



Document Number

DCV-00618

Date Released

Jan. 2022

Revision Number/Security level

R02 S2

Retrofit G6-300 + InvencoLink Wayne Helix 2 (US and Canada) Installation Guide

Retrofit G6-300 + InvencoLink Wayne Helix 2 (US and Canada) Installation Guide

Kit Part Numbers	Brief Description
RF00084-XX	G6-300 Wayne Helix Standard
RF00091-XX	G6-300 Wayne Helix Headless

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Release History

Version	Prepared by	Date	Change description
0	Shibani Joshi	28 Oct 2021	Initial release
1	Shibani Joshi	15 Nov 2021	Revisions based on UL comments
2	Shibani Joshi	23 Jan 2022	Changed the power supply P/N from EZ0632 to EZ0704 and Added alternative decal kit number.

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1. Introduction

The documentation provides some basic guidelines for installing the G6-300 Outdoor Payment Terminal (OPT) system in a Wayne Helix 2 Standard or Headless dispenser:

- G6-300 Outdoor Payment Terminal (OPT) system, Wayne Helix 2 Standard Dispenser:
Kit part number: RF00084-XX
- G6-300 Outdoor Payment Terminal (OPT) system, Wayne Helix 2 Headless Dispenser:
Kit part number: RF00091-XX

IMPORTANT NOTE: The installer must review the entire installation guide prior to starting any work on the dispenser. If the construction of the dispenser in the installation guide does not match the construction of the dispenser being retrofitted, then do not proceed with the installation and contact customer service.

As part of this check ensure that the dispenser has a call/stop button, and between two to five grade selector buttons, otherwise the installation cannot proceed

Also, an earlier revision of the above Retrofit kits may not have the InvencoLink DC power cable fitted on the PSU assembly. If this is the case, stop the installation and contact technical support to obtain the correct matching revision of the kit.

This Retro-Fit Kit can be installed into either Side A or Side B of a Wayne Helix 2 dispenser

- For a single-sided installation, or if this Kit will be installed into Side A (i.e., the first side installed) of a double-sided installation, it requires the pre-installation of UL Listed by Report Retrofit Kit Part Number RF00033-XX (InvencoLink Converter) before installation into the dispenser. The process is covered in §4.2.2 Prepare and Install the Helix Power Supply Assembly procedure of this instruction, by reference to the instructions in that Kit.
- For a double-sided installation, two of these Kits are required.

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1.1 Tools Required

The following tools are required to mount the G6-300 OPT:

- T7 Torx Key
- 3mm Allen Key
- Phillips head screwdriver
- Flat head screwdriver
- Helix dispenser key
- M3 hex drive or T-handle
- M5 hex drive or T-handle
- Small punch
- 10mm socket or nut driver
- Printer Door Key
- Flat scraping tool
- Isopropyl Alcohol (IPA)

**WARNING**

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

Any spark could cause an explosion.

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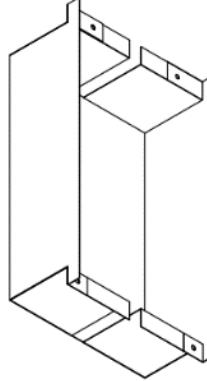
1.2 Installation Kit Contents

G6-300 Wayne Helix 2 Standard Outdoor Payment Terminal (OPT) system (RF00084-XX):

Unpack the G6-300 Wayne Helix 2 Standard Retro-Fit Kit (**RF00084-XX**) and check that all the parts listed below are present. Also refer to the pre-installation procedure (section 4.2.2.) relating to the communication method parts.

Retrofit Kit Contents		
Part Number	Description	Illustration
1 x RP00084-01	G6-300 Wayne Helix 2 Lower Panel Assembly	
1 x MZ0298 or MZ0299	G6-300 Wayne Helix 2 Upper Panel Assembly	
1 x EZ0704	Power Supply Plate Assembly	
1 x MP1275	POWER SUPPLY ADAPTER, HELIX 2	

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1 x MP1302	Insulation Cover for the PSU and mains board	
2 x MN0029	8-32 Nuts	
4 x MS0176	M4x10 Hex screws	
5 x MP1301	Push-to-start paddle replacement gasket	
1 x EK0131	Yellow Network CAT Cable	
1 x EK0126	CABLE, MAINS, Wayne Vista to PSU Adaptor, 1.0m Release	
1 x EK0203	CABLE, DATA WAYNE HELIX, 1.0M	
1 x IA0128 Blanking kit consisting of:		
3 x MP1201	Selector blanking gasket	

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3 x MP1202	Selector blanking plate	A black rectangular metal plate with a circular hole in the center and two small holes below it.	
6 x MW0058	Washer	A black metal washer.	
6 x MS0248	Screw M3X8mm	A silver Phillips head screw.	
1 x IA0125 decal label kit, consisting of:			
1 x DL0436 (or DL0440)	Display Label X2 Selector Window	Four black rectangular labels with white text and small windows. The top one says "HOLD FOR LIFTING". The second one says "TRUCK FOR LIFTING". The third one says "PUSH PULL LIFTING". The bottom one says "HANDLE FOR LIFTING".	
1 x DL0437 (or DL0441)	Display Label X3 Selector Window		
1 x DL0438 (or DL0442)	Display Label X4 Selector Window		
1 x DL0439 (or DL0443)	Display Label X5 Selector Window		

G6-300 Wayne Helix 2, Black Outdoor Payment Terminal (OPT) system (RF00091-XX):

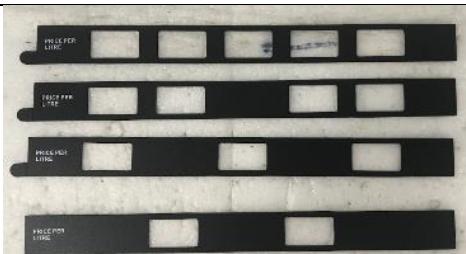
Unpack the G6-300 Wayne Helix 2 Headless Retro-Fit Kit (**RF00091-XX**) and check that all the parts listed below are present. Also refer to the pre-installation procedure (section 4.2.2.) relating to the communication method parts.

Retrofit Kit Contents		
Part Number	Description	Illustration
1 x RP00091-01	G6-300 Wayne Helix 2 Lower Panel Assembly	A black plastic panel with a keypad, display screen, and various ports.

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1 x EZ0704	Power Supply Plate Assembly	
1 x MP1275	POWER SUPPLY ADAPTER, HELIX 2	
1 x MP1302	Insulation Cover for the PSU and mains board	
2 x MN0029	8-32 Nuts	
5 x MP1301	Push-to-start paddle replacement gasket	
4 x MS0176	M4x10 Hex screws	
1 x EK0131	Yellow Network CAT Cable	
1 x EK0126	CABLE, MAINS, Wayne Vista to PSU Adaptor, 1.0m Release	

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1 x EK0203	CABLE, DATA WAYNE HELIX, 1.0M	
1 x IA0128 Blanking kit consisting of:		
3 x MP1201	Selector blanking gasket	
3 x MP1202	Selector blanking plate	
6 x MW0058	Washer	
6 x MS0248	Screw M3X8mm	
1 x IA0125 decal label kit, consisting of:		
1 x DL0436 (or DL0440)	Display Label X2 Selector Window	
1 x DL0437 (or DL0441)	Display Label X3 Selector Window	
1 x DL0438 (or DL0442)	Display Label X4 Selector Window	
1 x DL0439 (or DL0443)	Display Label X5 Selector Window	

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2. Safety & Compliance Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing the G6-300. 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 Invenco OPT.

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 retrofit kits on your installation. Using parts other than genuine Invenco replacement parts could create a safety hazard and violate local regulations.

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.

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3.1.1 No Open Flames



Open flames from matches, lighters, welding torches or other sources 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.

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 USA: 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).



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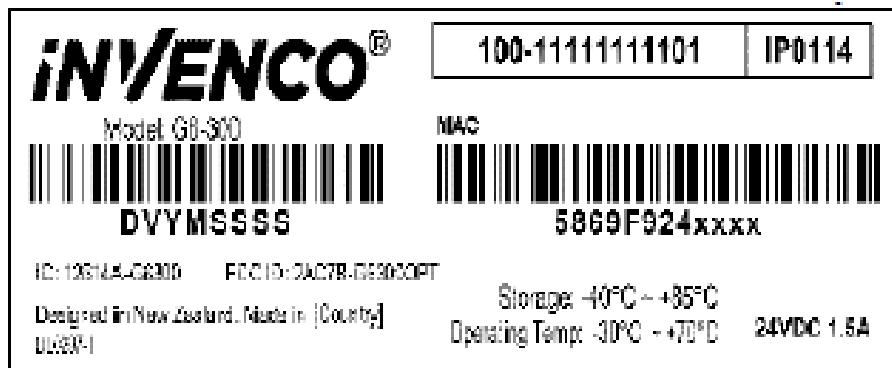
- Whether or not victim has received first aid (e.g., stopped bleeding by application of pressure etc.)
- Whether or not victim has vomited (e.g., if swallowed or inhaled something etc.)

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

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 G6-300 Modules have a UL File References of MH61528 and carry labels similar to this.



The Invenco Retro-Fit Kit has UL File Reference of MH61528.

3.1.8 Laser Warning

Some modules of the G6-300 OPT may incorporate a barcode reader. The barcode reader incorporates a laser aiming system. The Laser has a Class 2 output power to IEC 60825-1:2007 / ANSI Z136.1

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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 retrofit kit.
2. Remove power to Pump 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 various panel replacements. The panels will be removed from the door and replaced with pre-built panels with the OPT modules pre-fitted.

4.1 Disassembly Procedure

Before installation of the equipment can take place, the existing electronic payment assembly must be removed from the dispenser. This section covers the removal of these components including:

- Removal of reused components, e.g., panel
- Unused cables and wires from door components

Note: Throughout this disassembly procedure there are many cable assemblies that will be unplugged and will not be reused. It is up to the discretion of the installer whether to remove these cables or position them inside of the dispenser cavity. The loose cables need to be bundled and restrained using zip-ties or cable restraints. After the cables have been bundled, they must be placed in a location that will not cause obstruction, exposure, or hazard.

Note: It may be necessary to disconnect cable assemblies on various boards during this disassembly procedure to easily access other components. Disconnect these cables as necessary. It is recommended that the installer of this kit either re-connect these cables immediately afterwards or mark each disconnected cable before it is unplugged to make it easier to identify when it comes time for re-installation.

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4.1.1 OPEN THE WAYNE HELIX 2 Dispenser

1. Unlock the Helix 2 Dispenser. The lock is located on the bottom of the frame collar.



Headless pump

Standard pump

2. Place in the prop rod in the upper left corner of the frame collar.



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3. Locate the Torx key, unlock the lower bezel, and prop open.



Headless Pump



Standard Pump



Headless Pump



Standard Pump

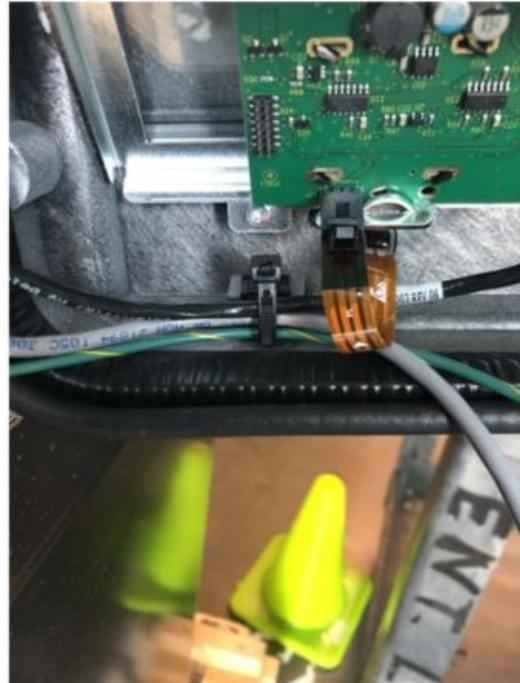
4. Repeat steps in OPEN THE WAYNE HELIX 2 (section 4.1.1) for the other side of the dispenser.

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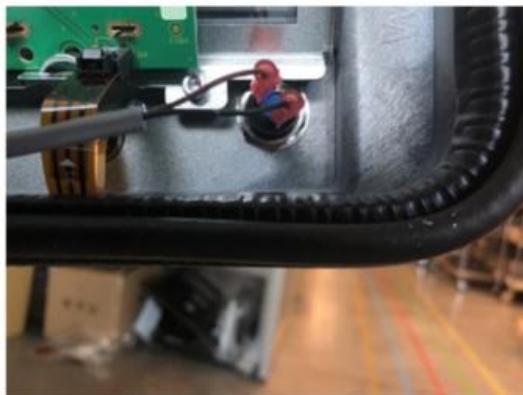
4.1.2 Remove Wayne Lower panel from Dispenser

Note: All connections below will be reused. Label/mark for subsequent re-installation.

1. Disconnect cables and/or cable restraints running from interior of lower electrical cabinet to the lower bezel.
 1. Cable restraint (zip tie) as applicable.



2. Call button



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3. Ethernet



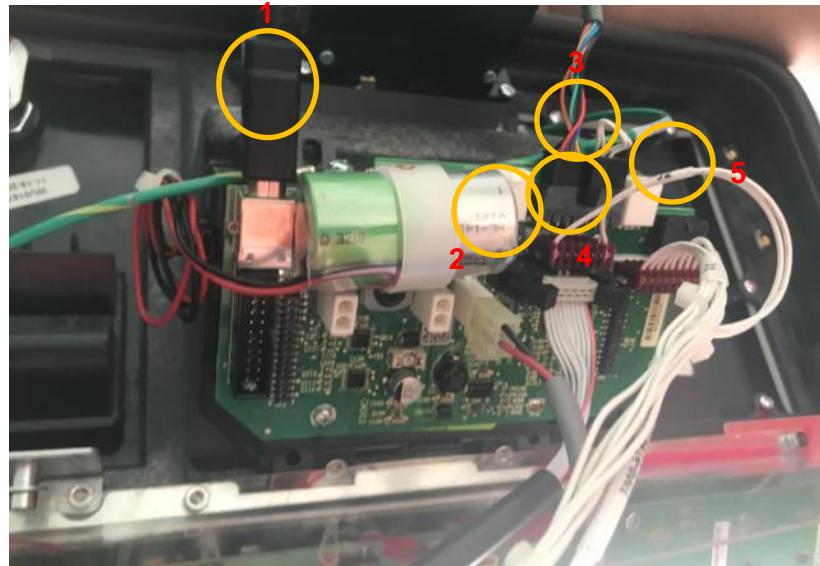
4. Remove M4 screw that secures the ground ring terminal to the bottom center hole using M3 Hex tool and discard the screw. Mark/Label Ground cable for subsequent installation.



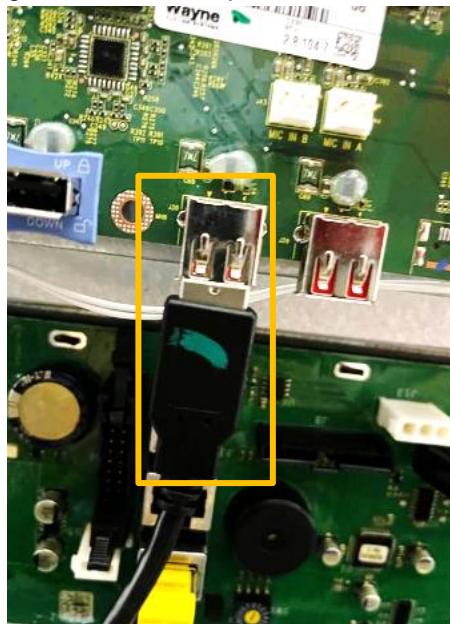
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5. **NOTE: This step only applies to installation in the Wayne Helix 2 Standard dispenser.**

Disconnect the below circled cables from the Wayne keypad module. Trace the other end of the cables and follow the below steps:

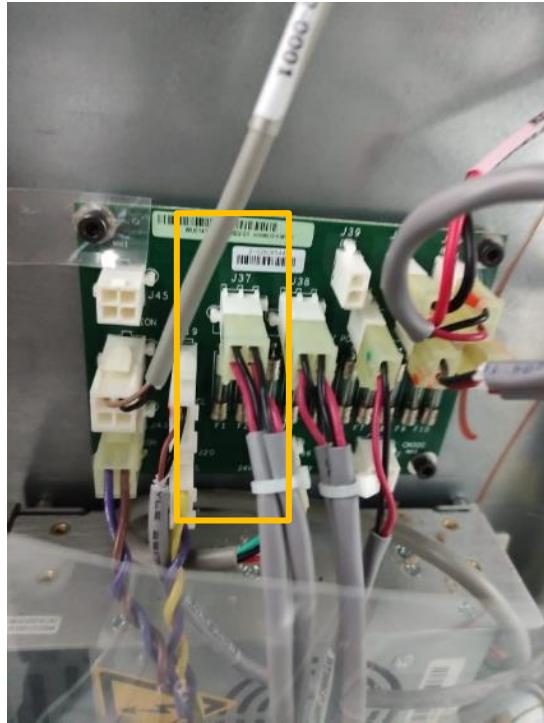


Cable 1: Remove the cable from the Wayne keypad module. The other end of cable 1 goes to the Touch panel board which will be removed later.

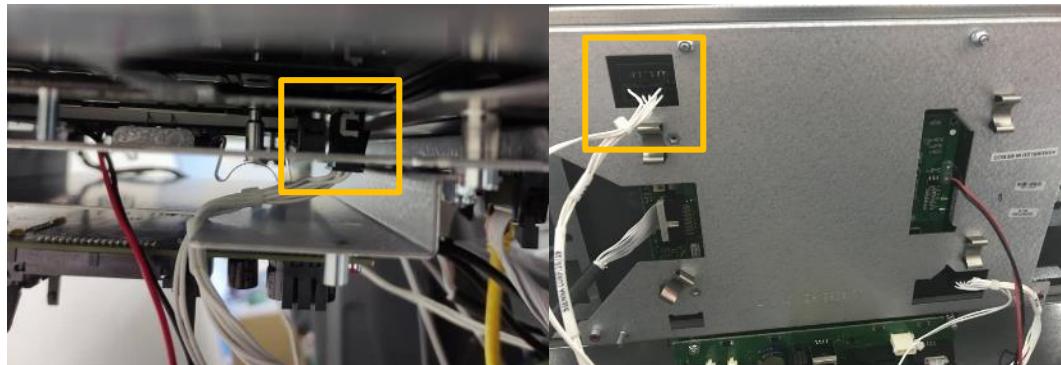


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Cable 2: Remove the cable from the Wayne keypad module. Trace and remove other end which is connected to the Power Supply board. (this will also unplug the power cable to the printer which will also be removed later).

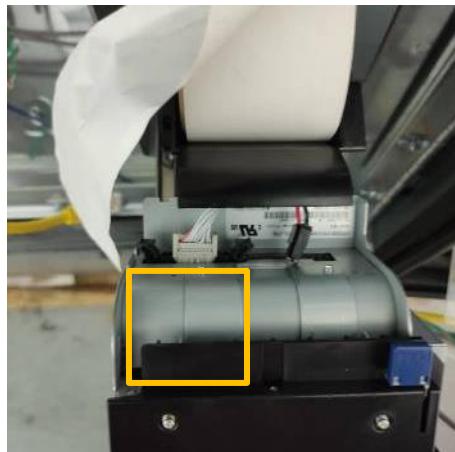


Cable 3: Remove the cable from the Wayne keypad module. The other end of cable 3 goes to the Touch panel board which will be removed later.

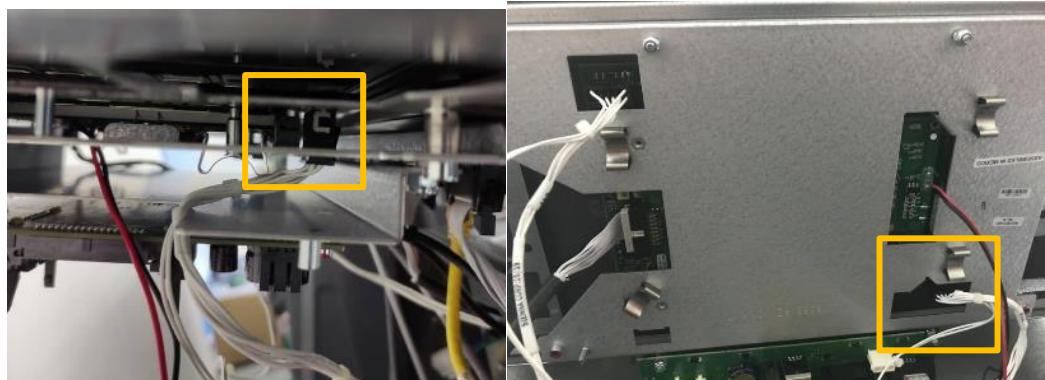


Cable 4: Remove the cable from the Wayne keypad module. The other end of cable 4 goes to the Printer which will be removed later.

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Cable 5: Remove the cable from the Wayne keypad module. The other end of cable 5 goes to the Touch panel board which will be removed later.



Note: Cables 1,3 and 5 will be pulled out along with the upper panel and cable 4 will be removed with the Printer assembly during later steps.

- 6. NOTE: This step only applies to installation in the Wayne Helix 2 Standard dispenser.**
Loosen the M4 Hex screw and disconnect the earth cable from the dispenser. Tighten the screw back on.

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2. From outside of the dispenser, Loosen M6 Screw using M5 Hex Tool for the Lower Bezel outside hinge. Do not completely remove screws.



Headless pump



Standard pump

3. Lift lower bezel to disconnect it from the hinge.

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Headless pump



Standard pump

The bezel should be lifted out of the hinge with the bezel prop still attached.

The bezel prop can then be disengaged from the bracket by lowering the bezel and lifting the prop out of the bracket. Set lower bezel aside (the prop can be discarded).

4. Repeat the previous steps on the other side of the dispenser to remove the other lower bezel.

4.1.3 Remove Wayne Upper panel from the Helix 2 Standard Dispenser

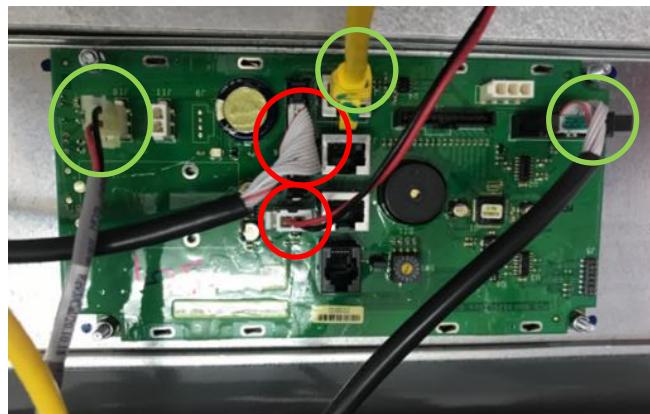
NOTE: This section only applies to the Helix 2 Standard dispenser (RF00084-XX installation)

1. Both Upper Bezels should be open and both Lower Bezels removed. At the top of the Electrical Enclosure, remove the ground ring terminal using a 7mm socket. Retain nut for re-installation. Mark Ring terminal for later reconnection.

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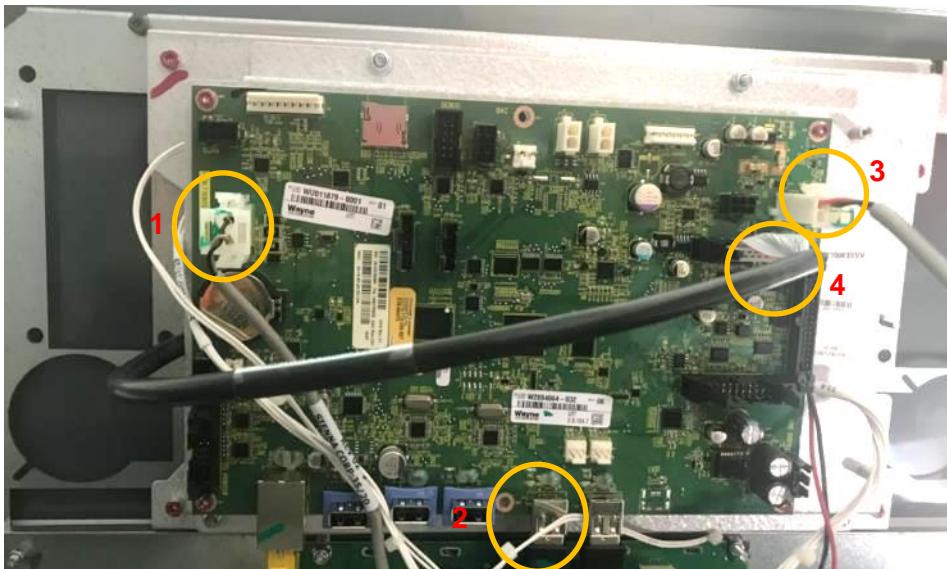


2. Remove all connections to the customer display and note the connection locations marked by green circles below that needs to be reconnected later.

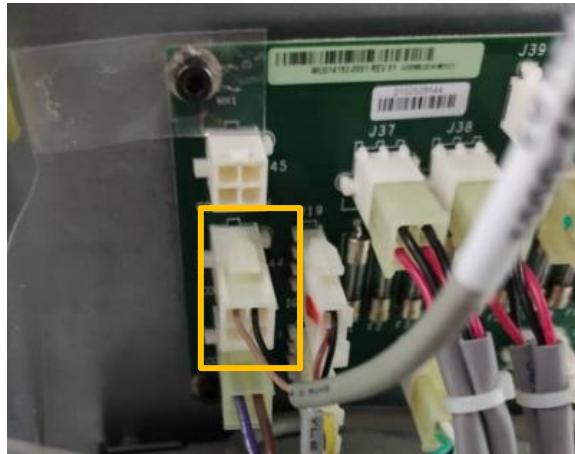


3. Remove and discard the below cables (circled) from the Wayne CPU board

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Cable 1: Remove the cable from the board. Remove the other end of cable 1 that goes to the TJ44 connector on the fuse board. Remove this end and discard the cable.

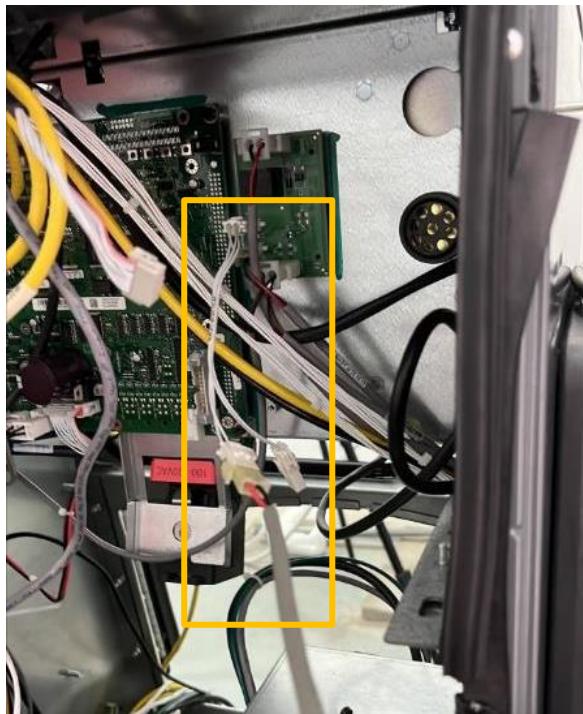


Cable 2: Remove the cable from the board and discard (the other end which is connected to the keypad is already loose at this stage).

Cable 3: Remove the cable from the board. The other end of cable is connected to the J1 connector at the back of the pump.

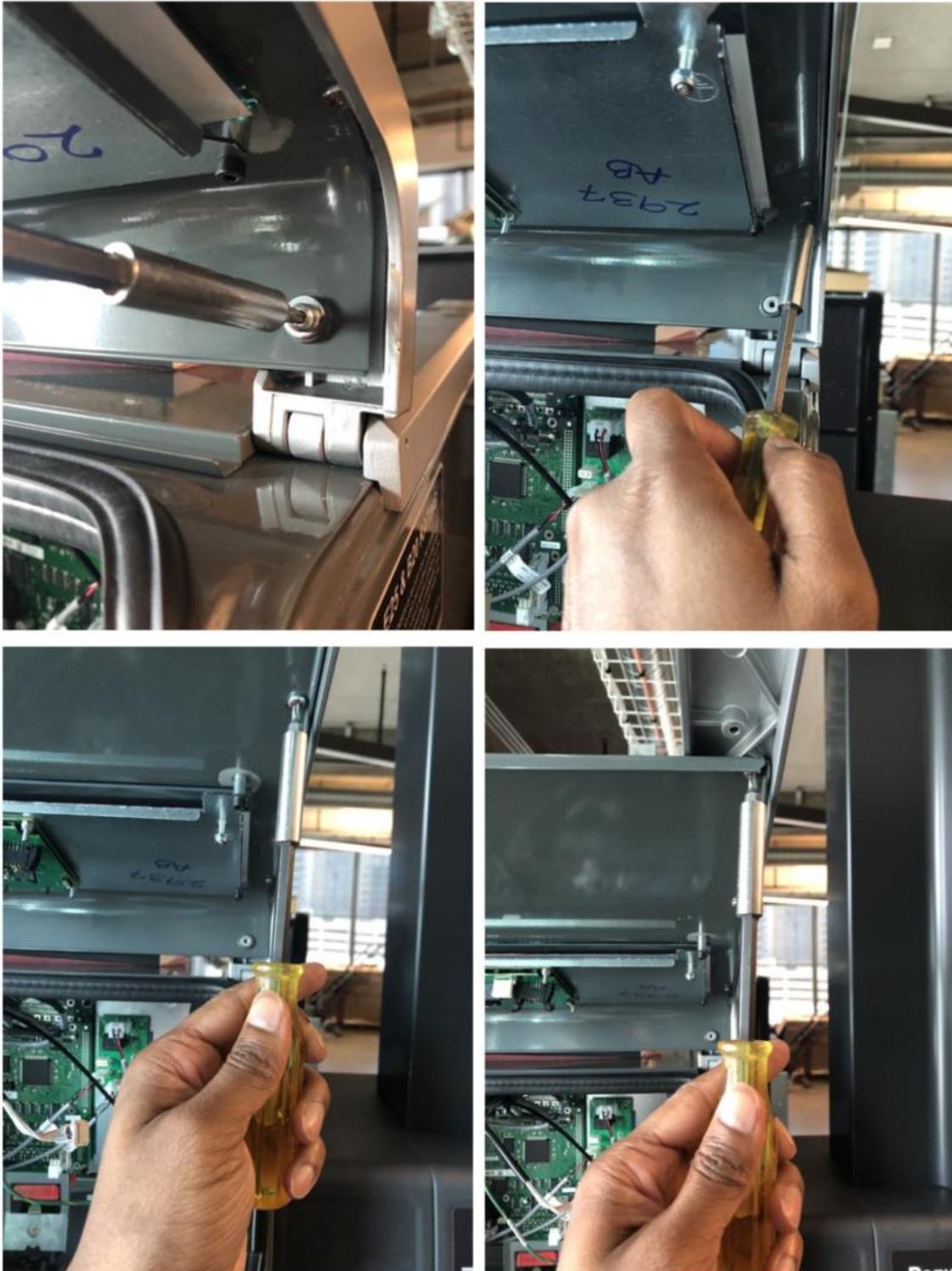
Note: When disconnecting from Side A, both the cables for Side A and B will be removed. Therefore, when working on Side B, this cable will be removed already.

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Cable 4: Remove the Ribbon cable from the board. This is connected to the touch display and will be removed later.

4. Remove the sheet metal top bezel panel from upper collar frame by removing 8 (4 per side) T-20 screws (including 2 washers). Retain screws for re installation and note the position of the washers.

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5. Disengage and stow the upper bezel prop.

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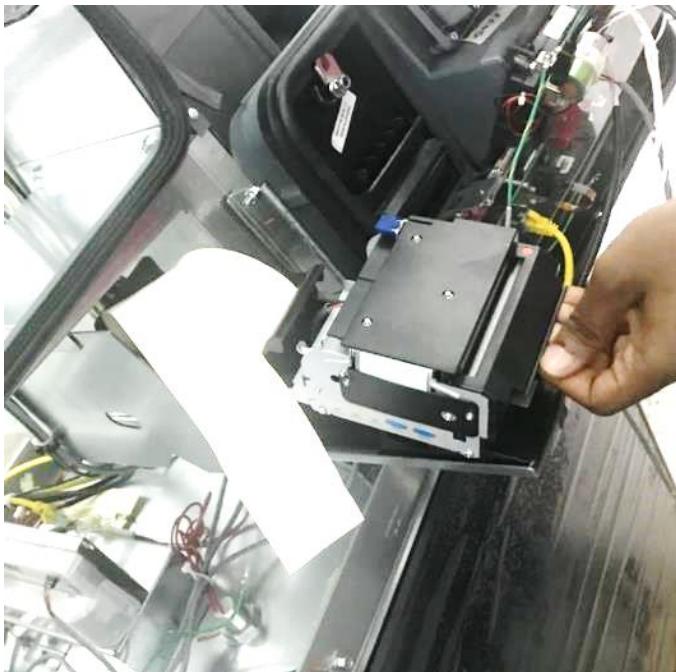
6. Pull the Upper Bezel away from the dispenser.



7. Set upper Bezel aside.

8. Pull out the printer

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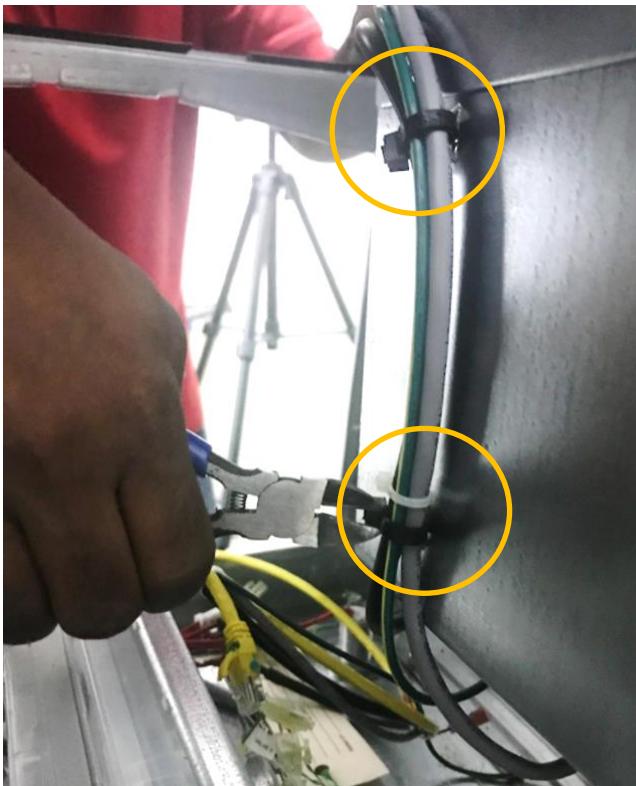


9. Remove the two cables, red and black DC and the Ribbon cable, attached to the printer. The cables are already unplugged at the other end, discard these cables. (refer to section 4.1.2, step 1.5)

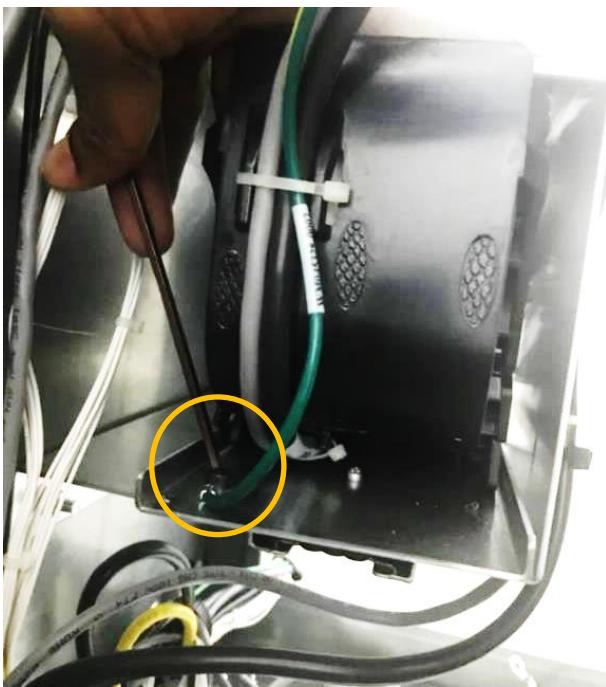


10. Cut the cable ties tied to the printer bracket

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11. Unscrew the M4 Hex screw, remove and discard the earth cable from the back of the printer

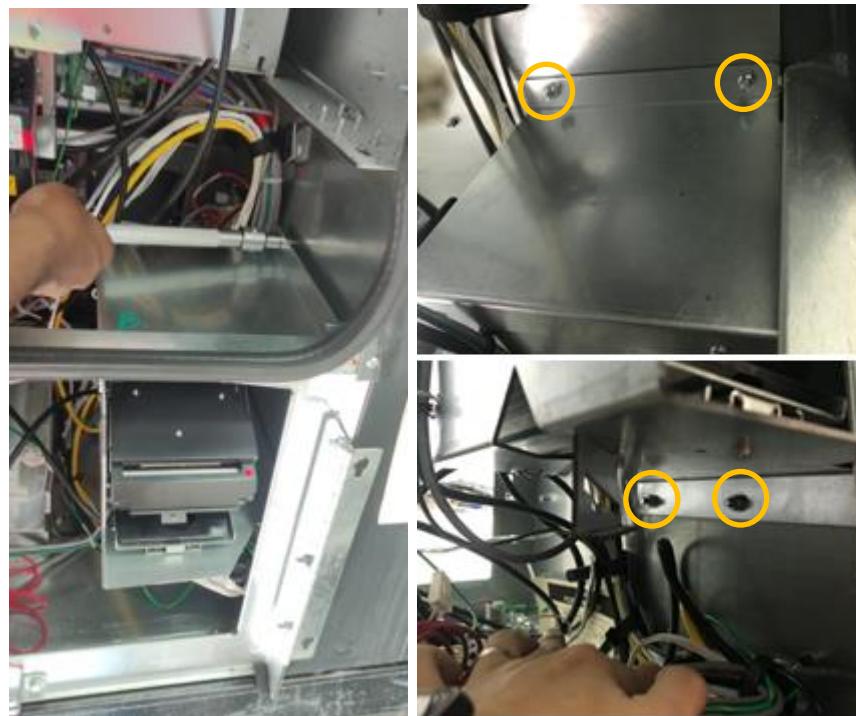


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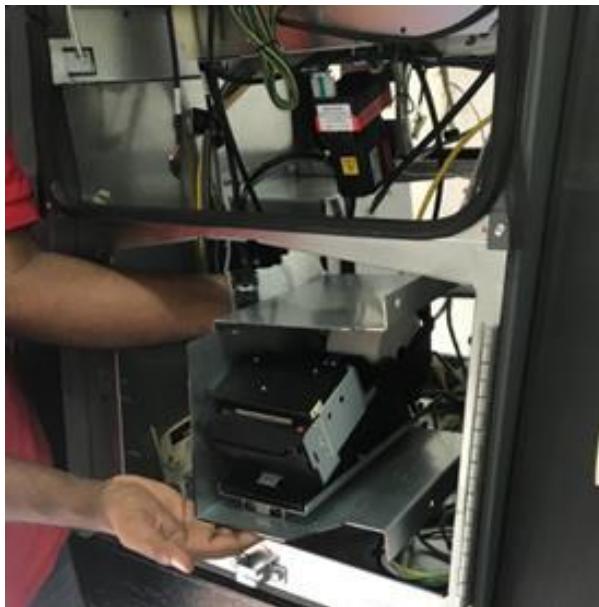
12. Trace the printer earth cable to the other end that is screwed in the dispenser. Loosen the M4 Hex screw and disconnect the earth cable from the dispenser. Tighten the screw back on.



13. Remove the 4 x nuts 10mm (2 each on top and bottom) and move the printer and the metal bracket assembly sideways and remove from the dispenser.



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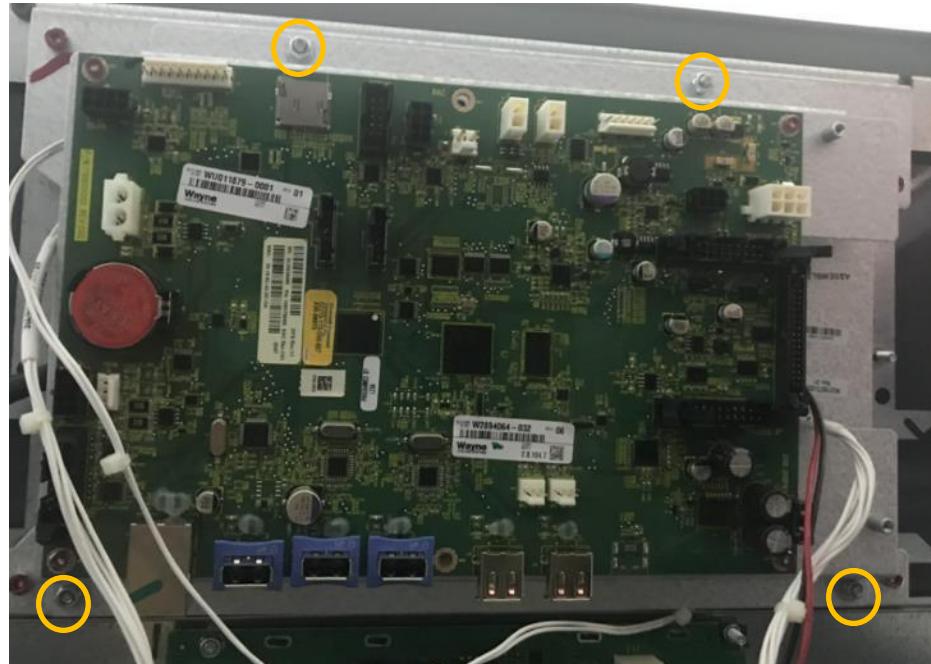


14. Repeat steps in Remove Wayne Upper panel from Helix 2 Standard Dispenser (section 4.1.3) for the opposite side of the dispenser.

4.1.4 Uninstall components from Wayne upper bezel and transfer components to G6-300 Wayne Helix 2 Standard Upper Base Assembly (MZ0298 or MZ0299)

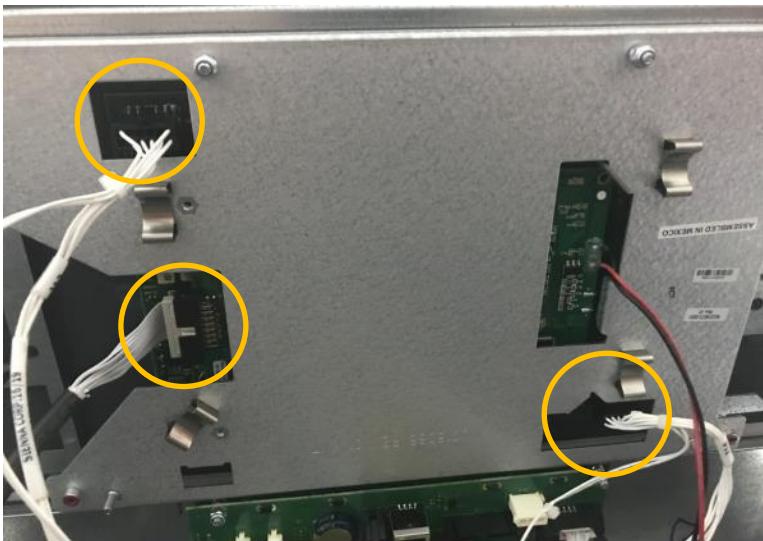
NOTE: This section only applies to the Helix 2 Standard dispenser (RF00084-XX installation)

1. Remove the Wayne CPU board along with the metal bracket by removing the 4 x M4 Hex nuts using the 7mm socket to expose more cables on the Touch Display. The Wayne CPU board along with the metal bracket can be discarded.

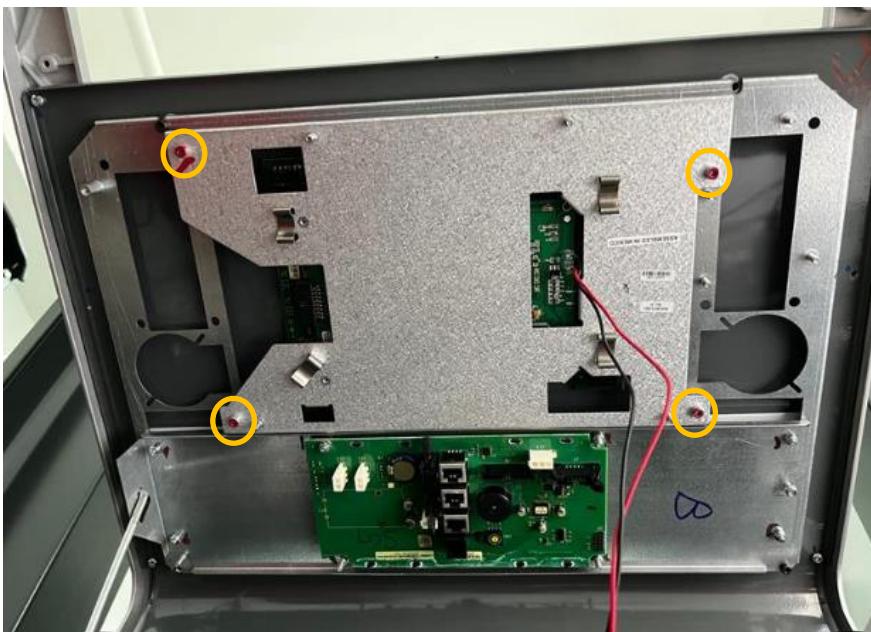
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2. Remove and discard the below cables (these were already unplugged at the other end in earlier steps)

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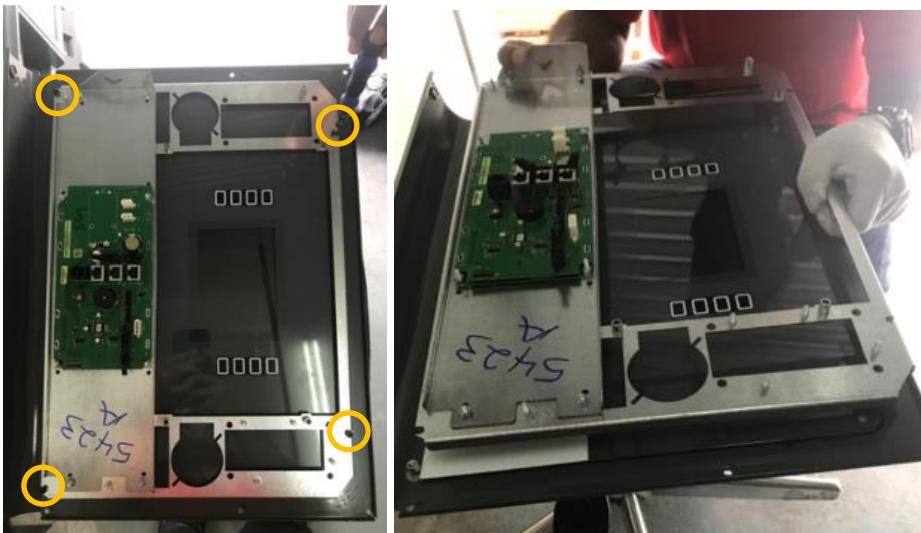


3. Remove the Wayne Touch Display and Bracket by unscrewing the 4 x M4 Hex screws. This can be discarded.



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4. Remove the remaining Bracket Assembly by removing the four black M4 Hex screws. Retain these screws for installing in the new panel in the next step.



5. Assemble the remaining Bracket Assembly (that was removed in the above step) in the G6-300 Wayne Helix 2 Standard Upper Panel Assembly (MZ0298 or MZ0299) using the retained screws from the above step.





Document Number

DCV-00618

Date Released

Jan. 2022

Revision Number/Security level

R02 S2

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4.1.5 Uninstall components from Wayne lower bezel and transfer components to G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX)

Note: It is recommended to perform this portion of the procedure in tandem with installing the components to the G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX) portion. Performing the procedure this way will ensure that parts do not get lost and/or damaged as they are immediately transferred to the new panels.

1. Remove all parts from both sides of the lower bezel and retain screws for re installation.
 1. Remove Visor by removing the top four 3mm hex screws as shown in figure below. The visor and screws can be discarded.
Note: The top 4 hex screws also secure the top portion of the UPD bracket assembly to the lower bezel door.



Visor attached.

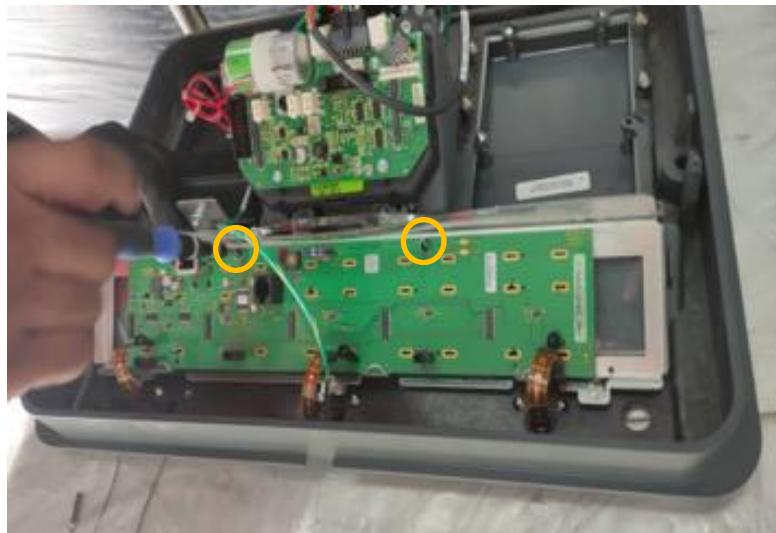
2. Disconnect push-to-start button connectors (2-5).

Note: Quantity of push to start buttons can vary based on configuration/customer order.



3. Remove the two screws holding the UPD PCB onto the metal frame and remove the UPD PCB from the panel. Retain the two screws and the PCB for later installation.

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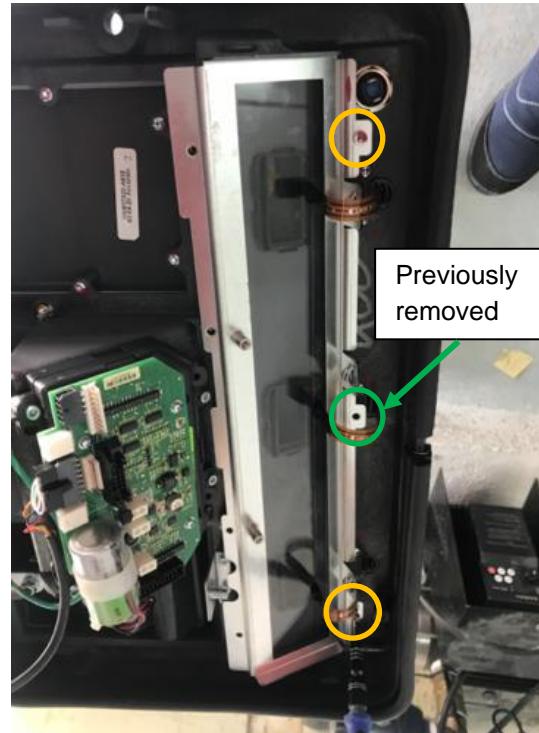


4. Remove the 2 remaining 3mm hex screws as shown in figure below. This will release the UPD bracket assembly from the lower bezel door. Retain screws for installation.

⚠ Caution: Be sure to handle the push-to-start buttons and ribbon/cables with extra care.

Note: Bottom center screw already removed in a previous step.

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5. Gently lift the UPD bracket away from the lower bezel. This bracket can be discarded.



⚠ Caution: Be sure to handle the push-to-start buttons and ribbon/cables with extra care.

⚠ Caution: Be sure to not kink the ribbon cable on the back of the switch assembly.

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6. Remove the push-to-start buttons by removing 2 T-20 screws from each of the paddles. Quantity of the paddles (Qty. 2 - 5) and their connections may vary depending on customer configuration order. Retain the paddles and screws for later installation. Note paddle position for installation in the same position on the new G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX).



7. Remove and discard UPD glass.

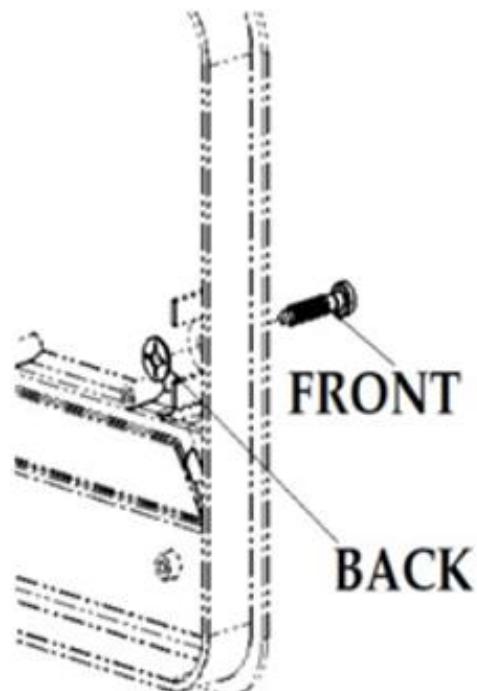


8. Remove UPD window trim (quantity may vary 2 -5 depending on customer configuration/order) by gently prying with fingernails and retain for re-installation.

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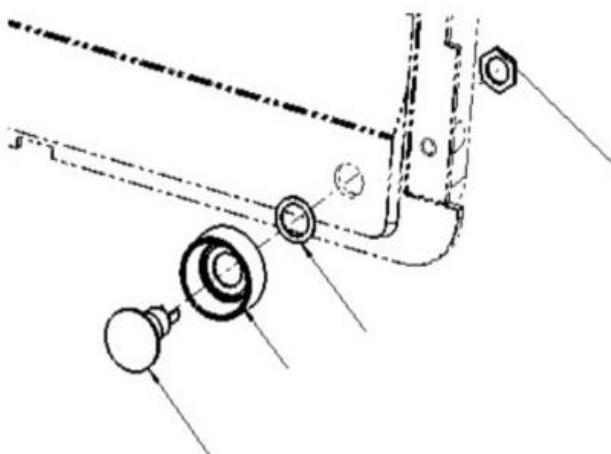


9. Remove lower bezel screw by using a flat edge object on the back/inside of the bezel and the Torx key used to open the lower bezel door on the front/outside of the bezel. Retain both components for re-installation.



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10. Remove the Call and/or stop button and retain for re-installation.

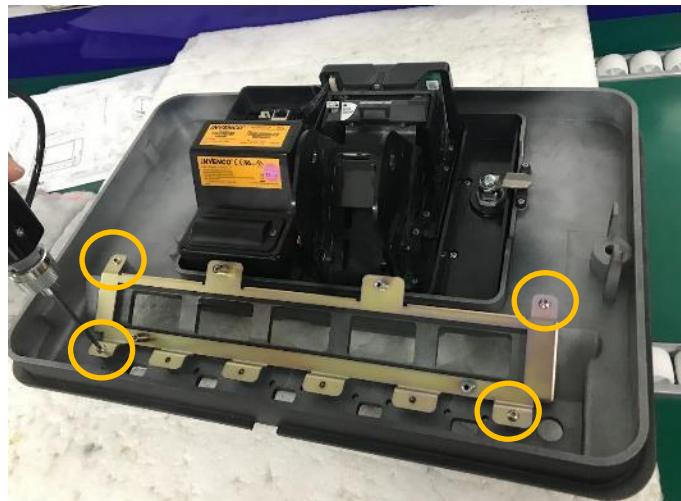


11. Remove and retain the 2 x Hinge screws using the M5 Hex tool.

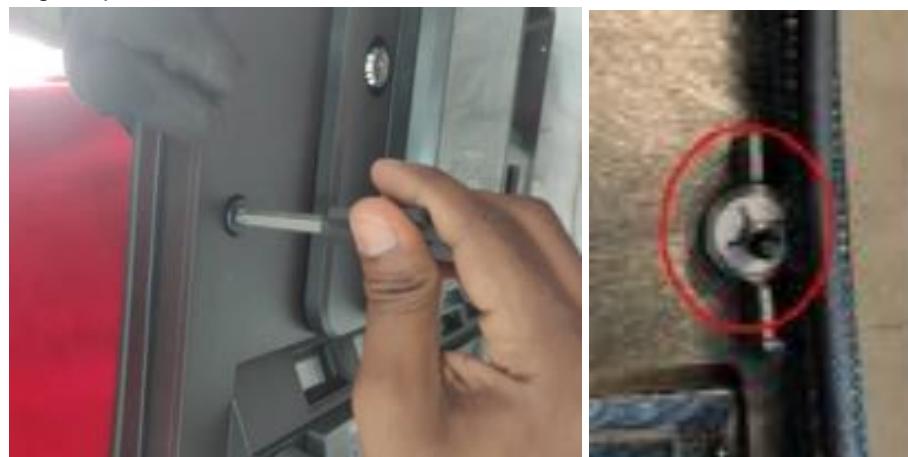


12. Lay the G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX) on its back and temporarily remove the metal bracket (4pcs of screw, M4 button head) and the glass cover using the Allen key sized 2.5mm. Retain all removed parts for later install.

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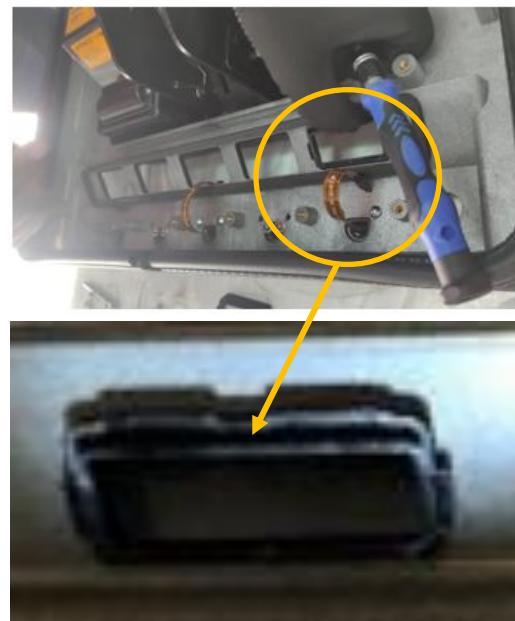
13. Install the lower bezel screw by using the Torx Key and screwing in from the front while threading the plastic lock washer on the back.



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14. Install the UPD window trims that were removed from the Wayne panel in earlier step 8 of this section. Ensure they are fitted in the same positions as they were in the Wayne panel.

Note: UPD window trim is installed with the tabs pointing in the upward direction.



15. Spray IPA on the existing gasket on the push-to-start button paddles (that were previously removed in step 6) to soften the adhesive.



16. Peel off the existing gasket and clean the surface completely (ensure no residue remains), using a flat scraper if required. Take care not to damage the nearby parts, such as the ribbon

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cable). Use more IPA if required. Wait for the surface to dry completely before applying the replacement gasket.



17. Peel off the release liner from MP1301 replacement gasket.



18. Apply and stick the adhesive side of MP1301 replacement gasket to each of the paddles.

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19. Using flat surface object such as metal ruler to apply pressure to the gasket on all corners.



20. Install the push-to-start button paddles on the panel assembly by routing the ribbon cable through the "D shaped" opening in the new lower bezel. Ensure they are fitted in the same positions as they were in the Wayne panel.

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Note: Be sure to not handle the ribbon cable roughly and also do not kink the ribbon cable between the back of the Push-To- Start Button assembly and the lower bezel door.

Note: This is a keyed hole, so be sure to note the orientation of the Push-To- Start Button(s) in relation to the "D-Shaped" hole in the Lower bezel.

Note: Care must be taken to ensure that the Push-To- Start Button(s) is fully seated against the bezel.

21. Secure the push-to-start buttons by installing 2 previously retained 2 x T-20 screws on the inside of the lower bezel door. Do not strip the screws by over tightening.



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22. Fill in any push-to-start button blank position(s) by installing the blanking plate assemblies. Place the Selector blanking gasket (MP1201) on the Selector blanking plate (MP1202).

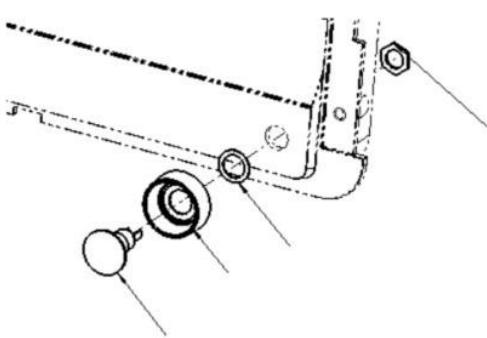


23. Using the M3x8mm screws MS0248 (2pcs) and the washers MW0058 (2pcs) per each required blanking plate assembly, attach to the G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX).

Note: Ensure the gasket remains in the correct position as it is fitted in.



24. Install Call/Stop button in accordance with pictures below.



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25. Fit the metal bracket and the glass cover that were removed in earlier step 12 of this section.



26. Screw the metal bracket with the glass cover in place with MS0176 (4pcs removed in earlier step 12 of this section and 4pcs from the kit). All eight screws are the same so can be used in any position.

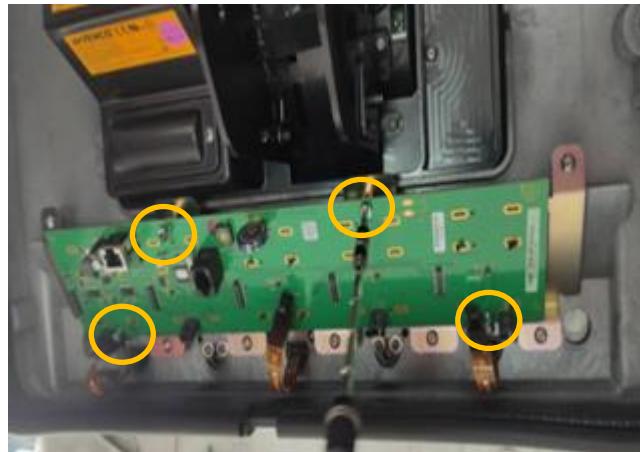


27. Acquire the previously retained UPD PCB (from earlier step 3 of this section) and connect push-to-start button connectors to it.



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28. Install UPC PCB by attaching the 4 pcs screws (2 pcs from earlier step 3 and 2 pcs from step 4 of this section) and fix to the G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX).



29. Transfer 5MM hex from the lower bezel outside hinge location of the old Wayne panel to the G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX) finger tight only do not fully torque.



30. Repeat steps in Uninstall components from Wayne lower bezel and transfer components to G6-300 Wayne Helix 2 lower Base Assembly (RP00084-XX or RP00091-XX) (section 4.1.4) for the opposite side of the dispenser.

31. Proceed to the installation procedure.

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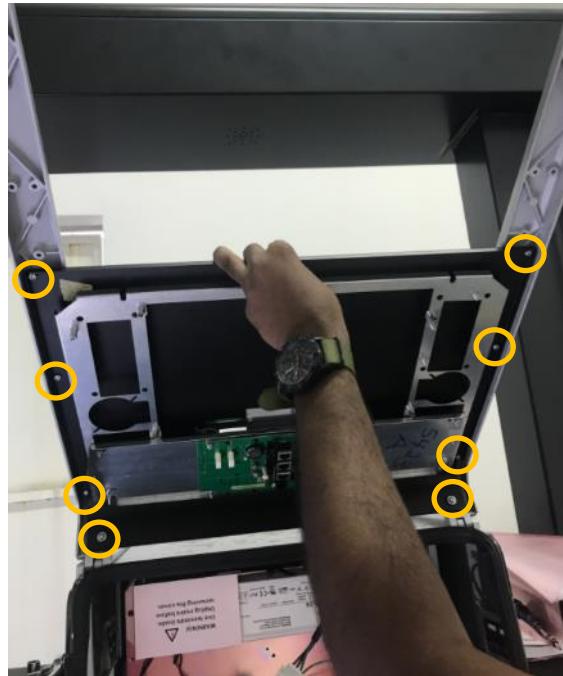
4.2 Installation Procedure

This section follows from the Disassembly procedure above, and assumes the pump is still open.

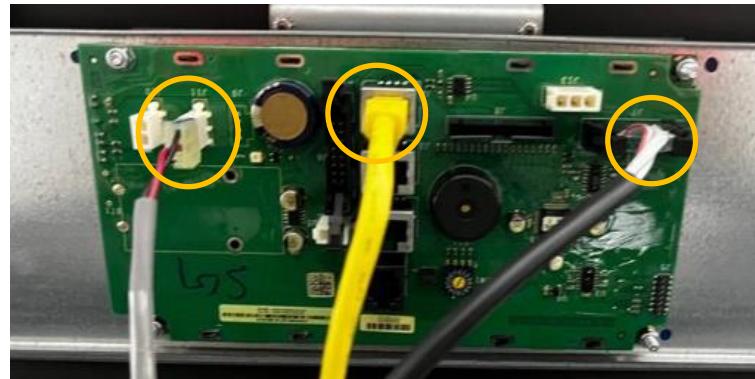
4.2.1 Install the populated Upper Base Assembly panel into the Wayne Helix 2.0 Standard dispenser

NOTE: This section only applies to the Helix 2 Standard dispenser (RF00084-XX installation)

1. Install the sheet metal top bezel Panel Assembly (MZ0298 or MZ0299) to upper collar frame by installing previously retained 8 (4 per side) T-20 screws (including 2 washers).



2. Install the connections to the customer display (removed and retained in section 4.1.3, step 2).



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3. At the top of the Electrical Enclosure, install the ground ring terminal using previously retained nut and a 7mm socket.



4. Acquire and engage the previously stowed Upper Bezel Prop Rod (located on the left side of pump cavity) to hold upper bezel in place while work on the lower bezel is being accomplished.



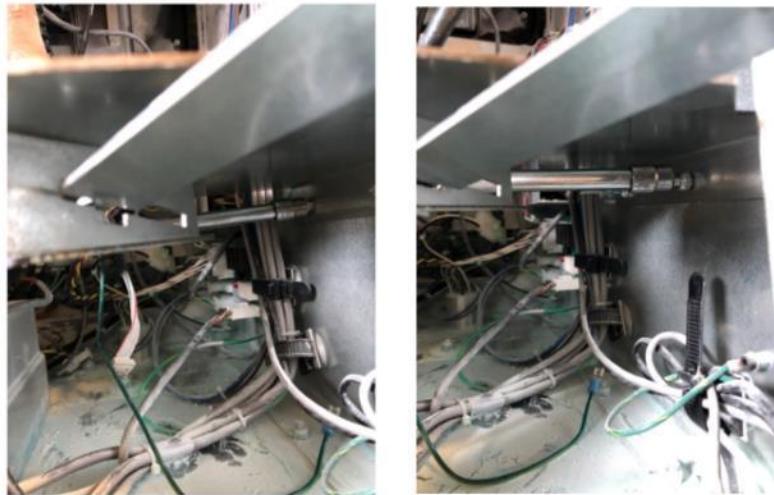
5. Repeat steps in section Install the populated Upper Base Assembly panels into the Wayne Helix 2.0 Standard dispenser (section 4.2.1) on the other side of the dispenser.

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4.2.2 Install the populated Lower Base Assembly panels into the Wayne Helix 2.0 dispenser

6. **This step only applies to the Helix 2 Headless dispenser (RF00091-XX installation)**

Remove and discard the 2 nylon nuts beneath the door prop bracket using a 10mm socket or nut driver. The door prop (pictured below) will already be removed at this stage of the installation.



7. **This step only applies to the Helix 2 Headless dispenser (RF00091-XX installation)**

Remove and discard the door prop bracket.



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8. Bring the panel assembly to the dispenser and position it to be mounted on the hinge. From outside of the Dispenser, tighten M6 Screw using 5mm Hex Tool for the Lower Bezel outside hinge.



9. Attach previously labeled ground to bottom center hole in the UPD bracket on lower bezel by loosening the previously fitted screw using 2.5mm Hex tool.



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10. Attach Call/Stop button cables.



11. Attach the Ethernet Cable.



12. Repeat steps in section Install the populated Lower Base Assembly panels into the Wayne Helix 2.0 dispenser (section 4.2.2) on the other side of the dispenser.

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4.2.3 Prepare and install the Wayne Helix 2.0 Power Supply Assembly



1. Attach both G6-300 Wayne Helix 2 Power Supply Assemblies (PSU) (EZ0704) to the Helix PSU Mounting Bracket (MP1275) using the provided nuts (MN0029) as shown in the pictures below.

Note: If doing a single sided installation follow sub-step a-b ONLY and follow the rest of the instructions afterward.

Note: The PSU(s) are pre-installed beneath the "ENCORE" labeled wing of the universal power supply bracket (PSU Panel).

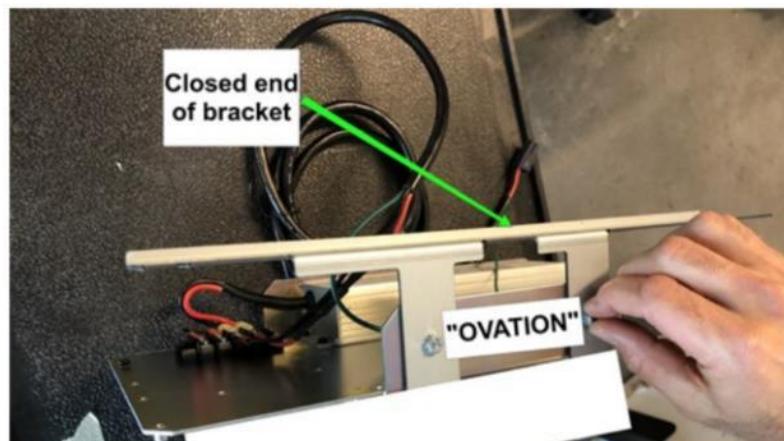
- a. Install the Dispenser InvencoLink to one PSU Panel. This assembly will now become the Side B PSU. Follow the InvencoLink Installation Instructions (DCV-00465). Acquire the InvencoLink Retrofit Kit, UL Listed by Report Retrofit kit part number RF00033-XX.
- b. Install the InvencoLink PSU assembly on the Open end of Helix PSU Mounting Bracket (MP1275) using the provided nuts (MN0029). This PSU will be oriented on the Helix PSU Mounting Bracket with the "ENCORE" wing of the universal power supply bracket (PSU Panel) facing upwards.



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- c. Install the non-InvencoLink PSU assembly on the Closed end of Helix PSU Mounting Bracket (MP1275) using the provided nuts (MN0029). This PSU will be oriented on the Helix PSU Mounting Bracket with the "OVATION" wing of the universal power supply bracket (PSU Panel) facing upwards.



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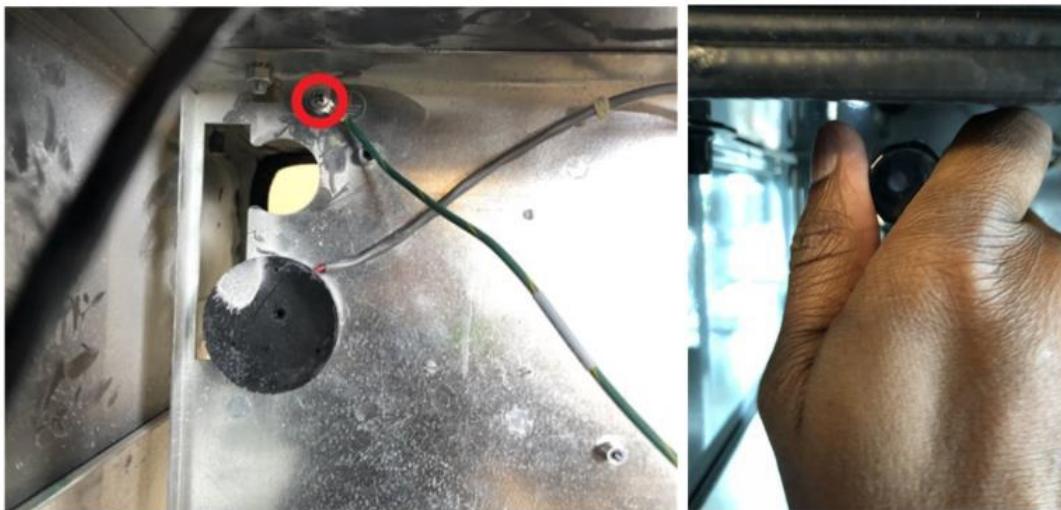
2. Install the Helix PSU Assembly with the Dispenser InvencoLink facing the installer on the B side of the dispenser (side opposite the pump controller board).

Note: Identify Side A of the dispenser by checking the location of the main power distribution board. On Side A of the dispenser, the main Power Distribution board is in the lower left side of the dispenser



- a. On the B side of the dispenser, Remove the ground screw located in the upper left hand of the upper cavity of the dispenser as shown and retain screw for reinstallation.

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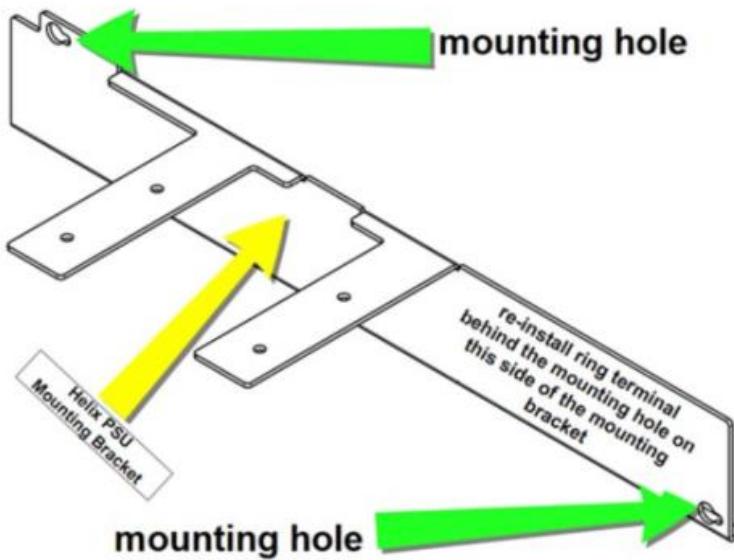
- b. On the B side of the dispenser, Remove the screw located in the middle upper right hand of the upper cavity of the dispenser. retain screw for re-installation.



- c. Using the previously removed screws (2) Install the Helix PSU Assembly with the Dispenser InvencoLink facing out towards the installer on the B side of the dispenser (side opposite the pump controller board) relocate the ground ring terminal at the screw location on the right as shown below.

Note: An 8 inch or longer screwdriver may be needed to install both screws. Bracket will have a keyhole in it for ease of installation. 2 man lift and positioning may be required.

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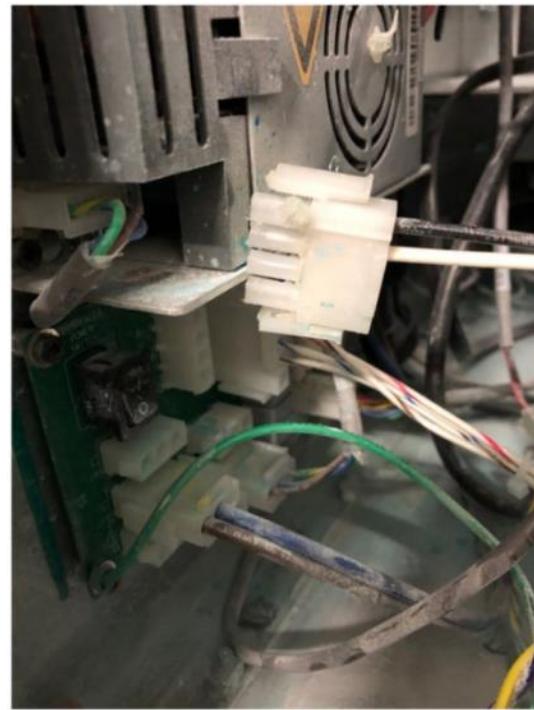


3. Connect Helix Power Adapter Cables (EK0126) to the Main AC power in line in the lower dispenser electronic cavity.
 - a. On Side A of the dispenser, identify the main AC power in line connected to the main Power Distribution board in the lower left side of the dispenser.

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- b. Disconnect the main AC line.



- c. Acquire the Helix power adapter cable. Plug in the pigtail end of the cable to the main AC line.

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- d. Connect the second Helix power adapter cable (for double sided installation) to the other pigtail end of the first connected cable as applicable.



- e. Connect the free pigtail end of the Helix power adapter cable to the Main Power Distribution Board connection previously disconnected.

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- f. Connect the preinstalled PSU power cables to the previously connected Helix power adapter cables.



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4.2.4 Install Helix 2.0 Comm Cables

1. Plug the Helix Pump Comm Adapter Cable (EK0203) four pin connector to the comm pass through on the comm board (J 45).

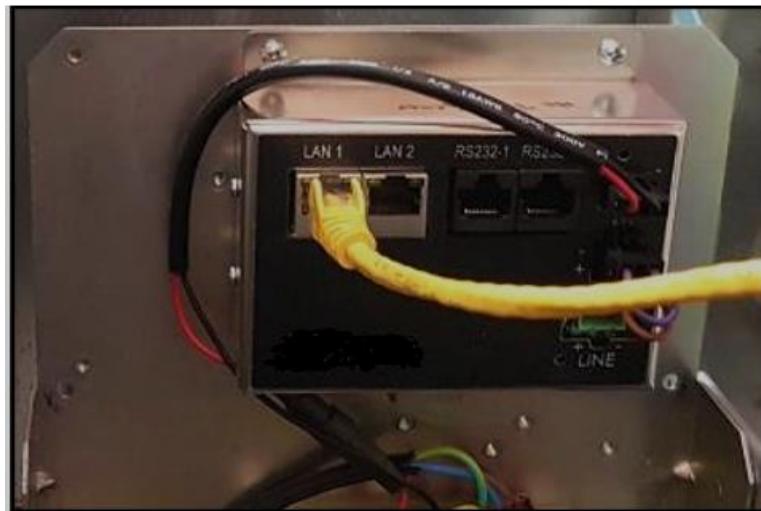


2. Plug in the green connector to the Dispenser InvencoLink.

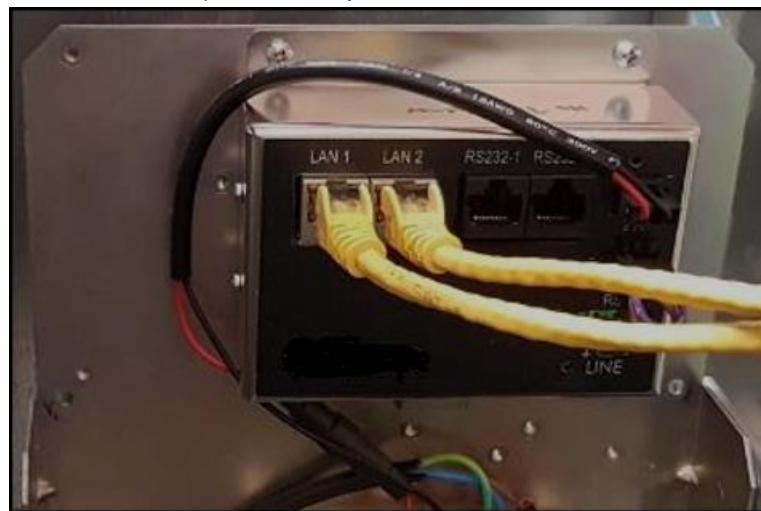


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3. Install the CAT network cable, Yellow for LAN (EK0131) to the Dispenser InvencoLink.
 - a. Connect the Side A connection in the LAN 1(Yellow) connection. Route the Side A connections over the opposite side to the communications board installed on Side A.



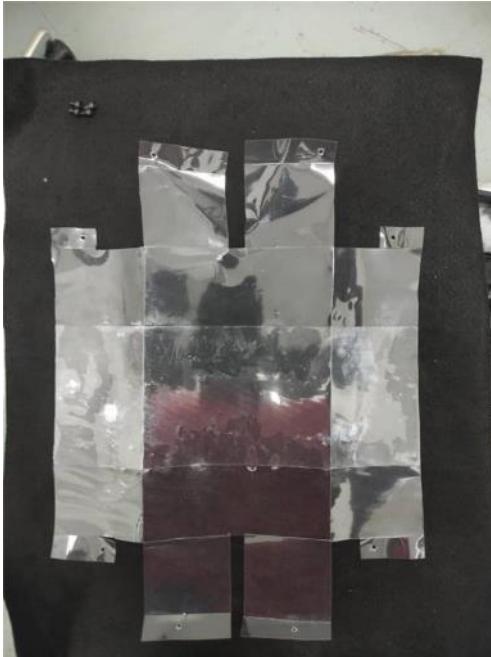
- b. Connect the Side B connection in the LAN 2(Yellow) connection. Allow the B side network cables to fall into the B side dispenser cavity.



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4.2.5 Install the cover insulation for the live parts in the dispenser

1. Obtain the insulation cover for the PSU and the Main Power Distribution Board (MP1302).

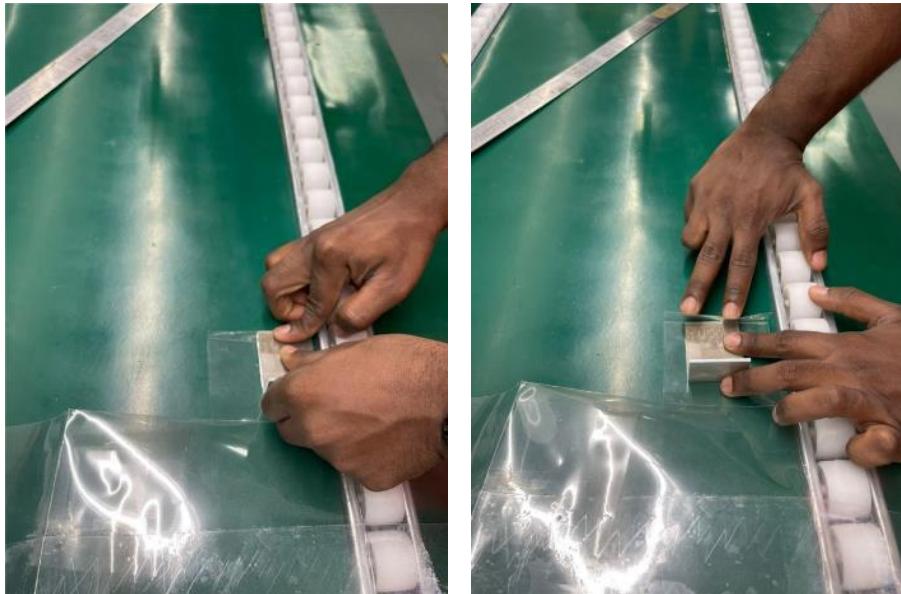


2. The insulation cover has pre-folded lines. Follow these lines in the same direction to fold. The cover is symmetrical so you can begin folding from any side.

In the below images a metal bracket has been used to show the folds more clearly. However, the insulation cover can be folded in place with hands only.



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3. Fold to form the final shape.
4. Align and overlap the corners of the cover.
5. Loosen and temporarily remove the 4 X M4 Hex screws on the upper part of the top board and the lower part of the lower board.

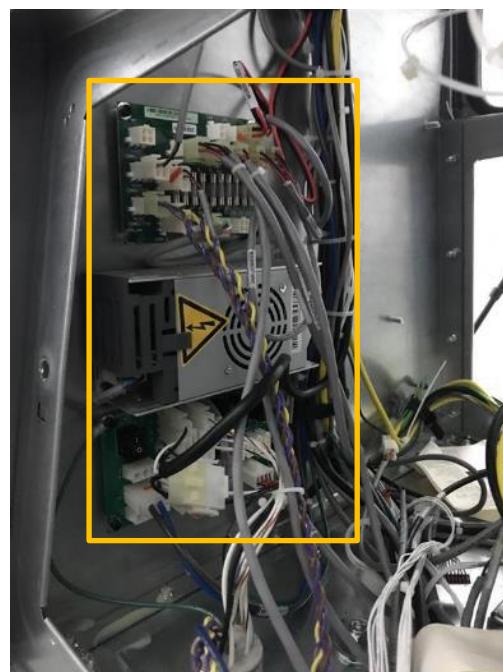


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6. Fit the 4 corner holes of the insulation cover to hold shape.



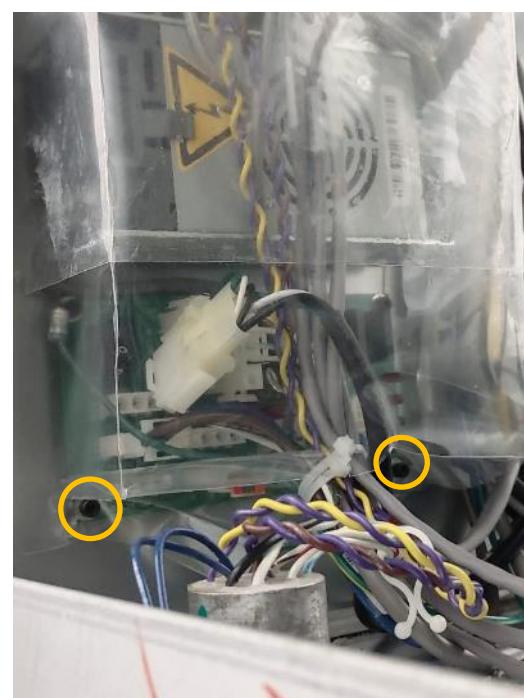
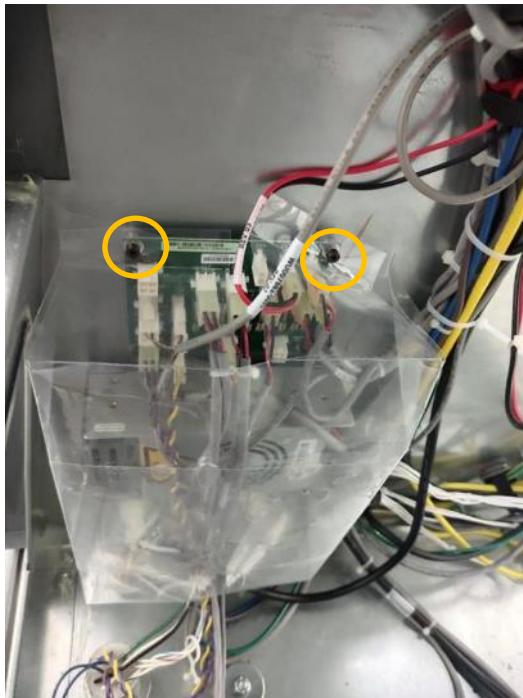
7. Wrap the insulation cover around the PSU and the Main Power Distribution Board.



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8. Tighten the 4 screws back in place, from where they were removed originally, on the upper part of the top board and the lower part of the lower board.



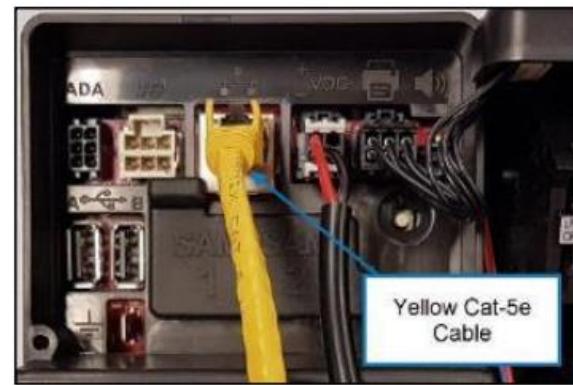
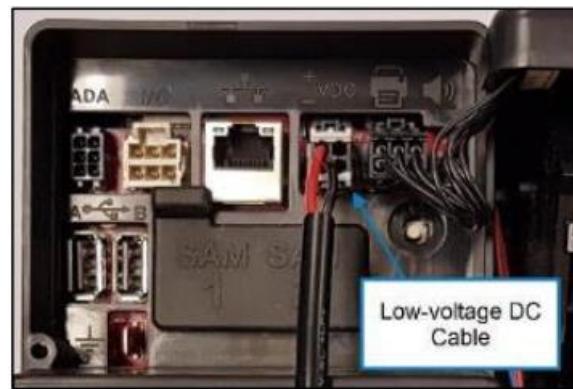
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4.2.6 Connecting the G6-300 cables

Note: Ensure all cabling is routed behind center frame of pump cavity to ensure wiring does not interfere with weather seal.



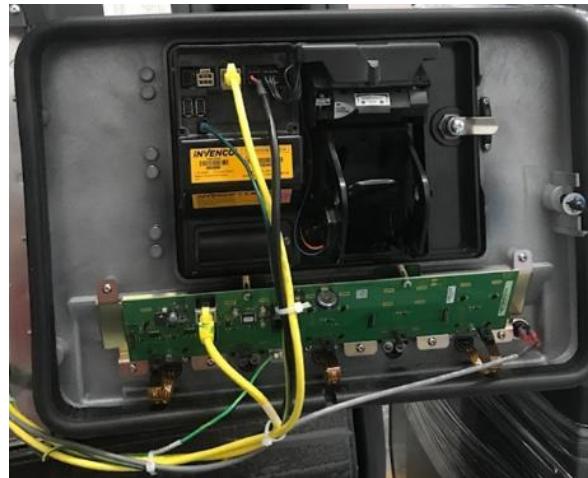
1. Plug in the Low-voltage DC power cable (pre-installed on the PSU assembly), yellow Cat-5e network cable and the Green/Yellow earth cable to the G6-300. If doing a double sided installation, repeat this step for side B of the dispenser.



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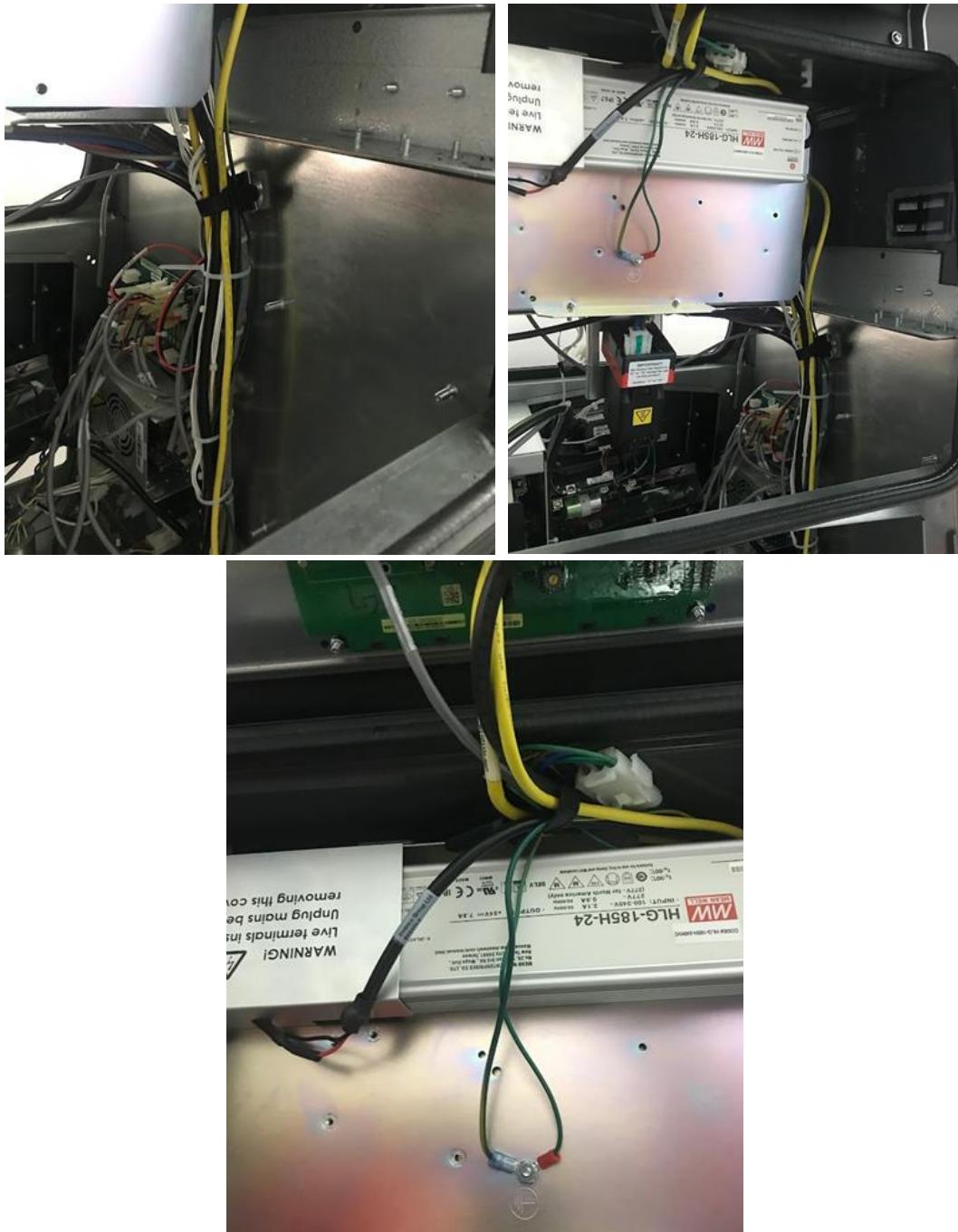


2. Use cable ties to tidy up the installation. Excessive lengths should be bundled and tied so they stay inside the pump cabinet frame.



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3. Route all cabling away from sharp edges and gaskets.



4. For a double-sided installation (i.e., for Side B), please repeat steps in Connecting the G6-300 Cables (section 4.2.6).

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4.2.7 Closing the dispenser and applying the decal label

1. Close the Wayne Helix 2.0 Dispenser.

Ensure that all cables are tidy and cannot become snagged or pinched when the door of the cabinet is opened and closed.

- a. Disengage the lower bezel prop, close the lower bezel door and Locate Torx key, lock lower bezel.

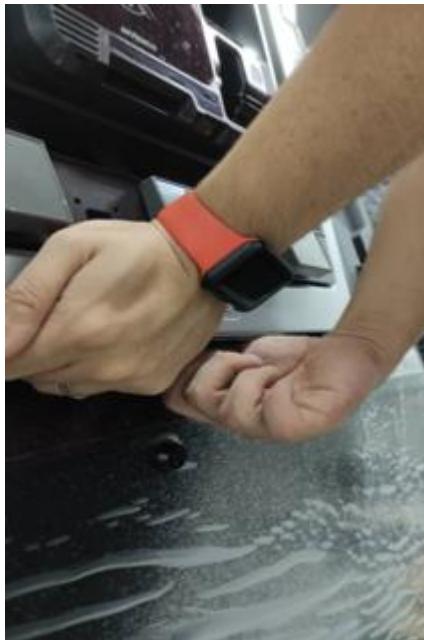


- b. Disengage the prop rod in the upper left corner of the upper frame collar and lower the upper bezel.

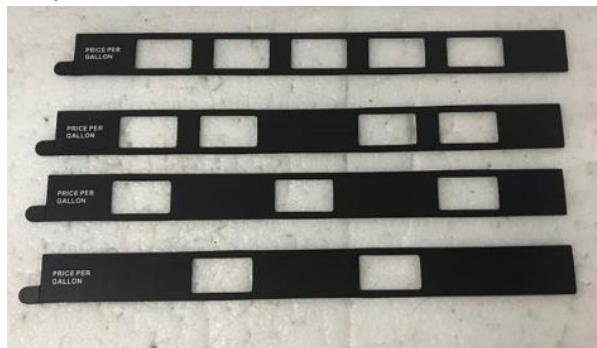


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- c. Lock the Helix. The lock is located on the bottom of the frame collar.



2. Depending on the number of push-to-start buttons on the pump, choose the appropriate decal label and stick to the panel.



Number of push-to-start buttons	Part Numbers (APAC)	Part Numbers (US)
2	DL0436	DL0440
3	DL0437	DL0441
4	DL0438	DL0442
5	DL0439	DL0443

- a. Use IPA to clean the surface of the Lower Panel.
b. Peel off the release liner from the decal label.

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- c. Apply the decal label on to the panel. Ensure it is orientated correctly.



- d. Using a flat scraper ensure the decal is applied evenly.
3. For a double-sided installation (i.e., for Side B), please repeat steps 1 and 2 above.
4. Return Power to the pumps.



Document Number

DCV-00618

Date Released

Jan. 2022

Revision Number/Security level

R02 S2

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WARNING – Local regulations may also require that the installation be electrically tested and certified BEFORE switch-on.



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5. First Power-Up

Once the installation is complete and the wiring is certified (if necessary), power may be applied. The G6-300 OPT takes a couple of minutes to complete its start-up phase, during which several information screens will be presented. The terminal will display the following screen whilst attempting to connect to the LAN. This screen will persist until a connection can be made:



If the terminal is successful in connecting to the LAN it will display the following screen and the rest of the start-up sequence will continue:



The following steps describe the paper loading procedure.

Step	Description	Photo reference
1.	Ensure the paper roll has a neat cut edge.	
2.	Remove spindle from the paper holder position. Note orientation of the spindle (handle to left)	A photograph showing the internal mechanism of the paper holder. A blue arrow points to a metal spindle labeled "Spindle".

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3.	<p>Insert roll in place – the paper tension flap is spring-loaded so you will need to apply some pressure. Insert the spindle through the middle of the roll to hold in place.</p>	
4.	<p>Insert the cut edge of the paper into the slot as shown by the label. Note: Insert until the printer grips and feeds automatically.</p>	
5.	<p>The photo shows the paper loaded correctly.</p>	
6.	<p>Paper-feed buttons are located on the top of the terminal.  Press either button to move the paper forward or back. Press both buttons together to cut the paper.</p>	
7.	<p>Use the paper-feed buttons to advance the paper through the terminal until it appears at the paper exit chute. Cut the paper using both paper-feed buttons, then remove the cut length from the chute.</p>	