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Retrofit G7 15 inch + InvencoLink Wayne Helix 2 (US) Headless Installation Guide

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Kit Part Numbers	Brief Description
RF00092-XX	G7 15 inch Wayne Helix 2 Headless, Black

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Release History

Version	Prepared by	Date	Change description
0	Shibani Joshi	20-Sep 2021	Initial release, based on the G7 12" install guides 497-0529910 B005-0000-2513 and 497-0529952
1	Shibani Joshi	15-Nov-21	Part number reference and step corrections based on UL comments
2	Shibani Joshi	25-Jan-2022	Changed the power supply P/N from EZ0429 to EZ0702
3	Shibani Joshi	04-Aug-2022	Revised content based on the alternative SCC module instead of the NFC and extension cable being fitted on the APC and SDC required for the SCC install.
4	Shibani Joshi	08-08-2022	UL Comments addressed

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Contents

1. Introduction

The documentation provides some basic guidelines for installing the G7 15 inch (G7-100 SDC- 15) Outdoor Payment Terminal (OPT) system:

- G7 15 inch (G7-100 SDC- 15) Outdoor Payment Terminal (OPT) system, Wayne Helix 2 Headless Dispenser:
  Kit part number: RF00092-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.

In particular, an earlier revision of the above Retrofit kit 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 Headless 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.**

1.1   Tools Required

The following tools are required to mount the G7 15 inch (G7-100 SDC-15) OPT:

- T7 Torx Key
- 3mm Allen Key
- Phillips head screw driver
- Flat head screw driver
- Helix dispenser key
- M3 hex drive or T-handle
- M5 hex drive or T-handle
- Small punch
- 10mm socket or nut driver

WARNING
Do NOT use power tools if working on a fuel station forecourt.
Any spark could cause an explosion.

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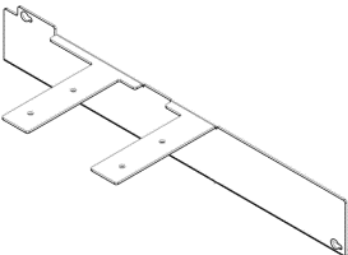
- Printer Door Key

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1.2   Installation Kit Contents

G7 15 inch Wayne Helix 2 Headless, Black Outdoor Payment Terminal (OPT) system (RF00092-XX):

G7 15 inch Wayne Helix 2 Headless, Black Retro-Fit Kit (**RF00092-XX**) and check that all of 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 EK0126	A 19 CABLE, MAINS, Wayne Vista to PSU Adaptor, 1.0m Release	
1 x EZ0702	G7 15 inch Wayne Helix 2 Headless Power Supply Assembly	
2 x MN0029	8-32 Nuts	
1 x EK0131	Yellow Network CAT Cable	
1 x MP1275	POWER SUPPLY ADAPTER, HELIX 2	

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1 x RP00092-XX	G7 15 inch Wayne Helix 2 Headless Upper Base Assembly	
1 x RP00097-XX	G7 15 inch Wayne Helix 2 Headless lower Base Assembly. (Note: the NFC or the SCC contactless card reader module may be fitted. The ADA module is optional)	
MP1268	Gasket O-Ring #10	
5 x EZ0770	Gas Selector Paddle Assembly	
1 x MZ0311	Price Display Glass-Gasket Assembly	
1 x EK0203	CABLE, DATA WAYNE HELIX, 1.0M	
1 x EZ0807	Printer Assembly	

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1 x MP1315	Printer Wall Support	
2 x MN0119	NUT - SELF LOCKING, M6	
2 x MS0148	SCREW, M3X10, PAN HEAD, SEMS, PHILIPS, 18-8SS, NYLON PATCH	

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2. Safety & Compliance Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing the G7 15 inch (G7-100 SDC-15). 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.

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

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.)

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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 G7 15 inch (G7-100 SDC-15) 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 G7 15 inch (G7-100 SDC-15) 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 in order to more 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.

4.1.1 OPEN THE WAYNE HELIX 2

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

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

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

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

4.1.2 Remove Wayne panels 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.

   a. Cable restraint (zip tie) as applicable.

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b.   Call button

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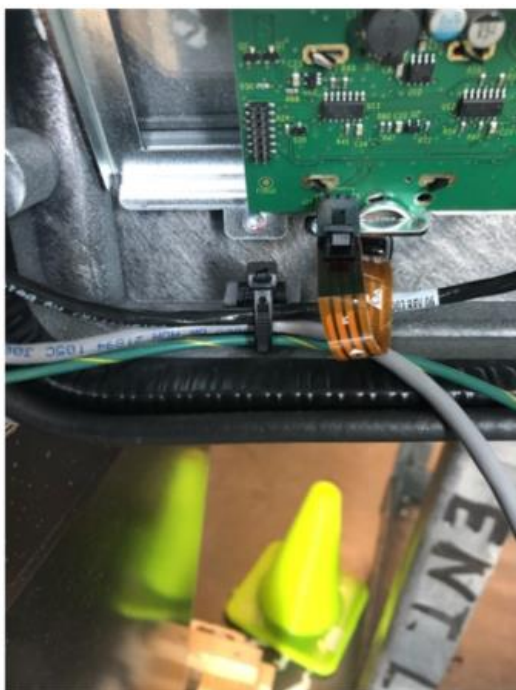
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c. Ethernet

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

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

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3. Lift lower bezel to disconnect it from the hinge.
   Note: Bezel should be lifted out of the hinge with the bezel prop still attached.

4. 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.
5. Repeat the previous steps on the other side of the dispenser to remove the other lower bezel.
6. 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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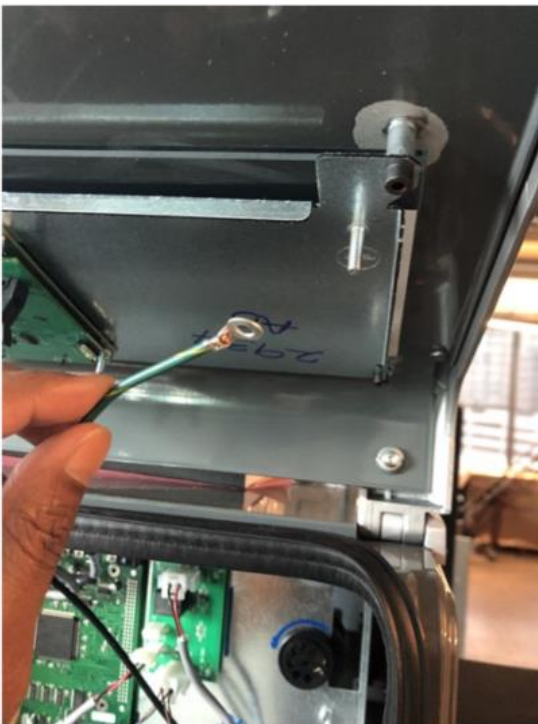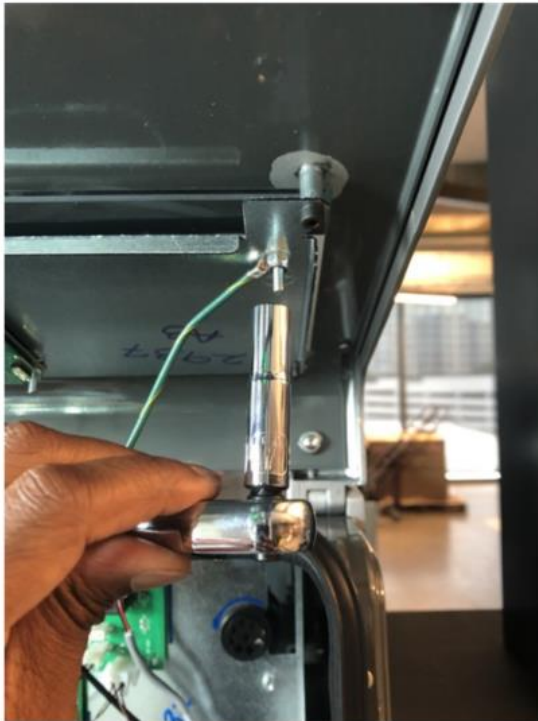
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7. Remove all connections to the customer display and note the connection locations.
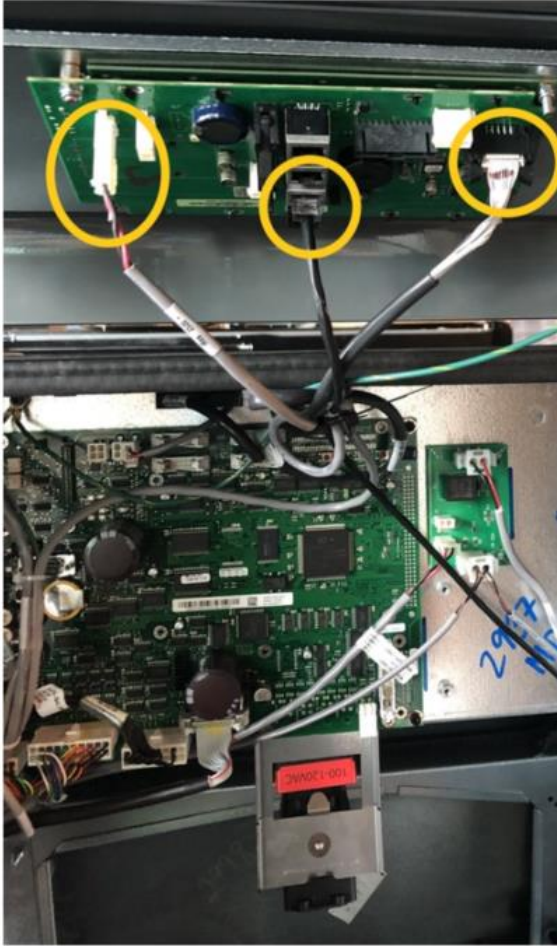
8. Remove the sheet metal top bezel panel from upper collar frame by removing 8 (4 per side) T-20 screws. Retain screws for re installation.

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9. Disengage and stow upper bezel prop.
10. Pull the Upper Bezel away from the dispenser.
11. Set upper Bezel aside.
12. Repeat steps in Remove Wayne panels from Dispenser (section 4.1.2) for the opposite side of the dispenser.

4.1.3 Uninstall components from Wayne upper bezel and transfer components to G7 15 inch Wayne Helix 2 Headless Upper Base Assembly (RP00092-XX)

1. Remove sales volume/printed circuit board from the original panel with a socket or nut driver by removing 4 (2 per side) 9/32 nuts. Spacer(s) under the sales volume display and screws need to be retained and transferred.

Note: Sales volume display/printed circuit board (pictured below) is one assembly. The Printed Circuit Board side is facing the installer and the sales volume display screen is facing the table in the photo below. The screws and spacer needs to be transferred to the new bezel.

a. Removing sales volume display from old panel.

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2. Install sales volume display and spacer to the G7 15 inch Wayne Helix 2 Headless Upper Base Assembly (RP00092-XX) by installing 4 (2 per side) 9/32 nuts.
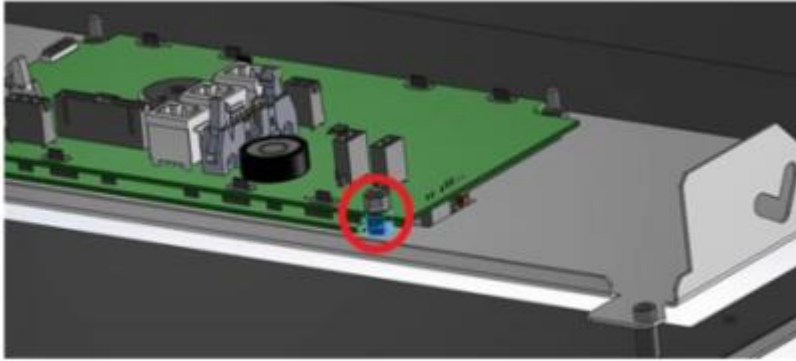
Spacer

a. Sales volume display installed on new panel.

3. Repeat steps in Uninstall components from Wayne upper bezel and transfer components to G7 15 inch Wayne Helix 2 Headless Upper Base Assembly (RP00092-XX (section 4.1.3) for the opposite side of the dispenser.

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4.1.4 Uninstall components from Wayne lower bezel and transfer components to G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX)

Note: It is recommended to perform this portion of the procedure in tandem with installing the components to the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-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.
   a. Remove Visor by removing the top four 3mm hex screws as shown in figure below. Retain screws for installation.
      Note: The top 4 hex screws also secure the top portion of the UPD bracket assembly to the lower bezel door.

Visor attached.

   Warning: Power tools like drills cannot be used near the pump dispensers. Power tools cannot be used in a hazardous location within a dispenser site. Remove the visor/hood to a safe location prior to drilling or use pneumatic tools.

   b. Drill a 1/4 inch diameter hole in the visor at approximately 4 and 3/4 inches from the left edge and 1/2 inch from the bottom edge of the visor. This hole will serve the purpose of an anchor point for a cable strain relief zip tie later in this procedure.

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    c.   Clean burrs and sharp edges from holes.

    d.   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.

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

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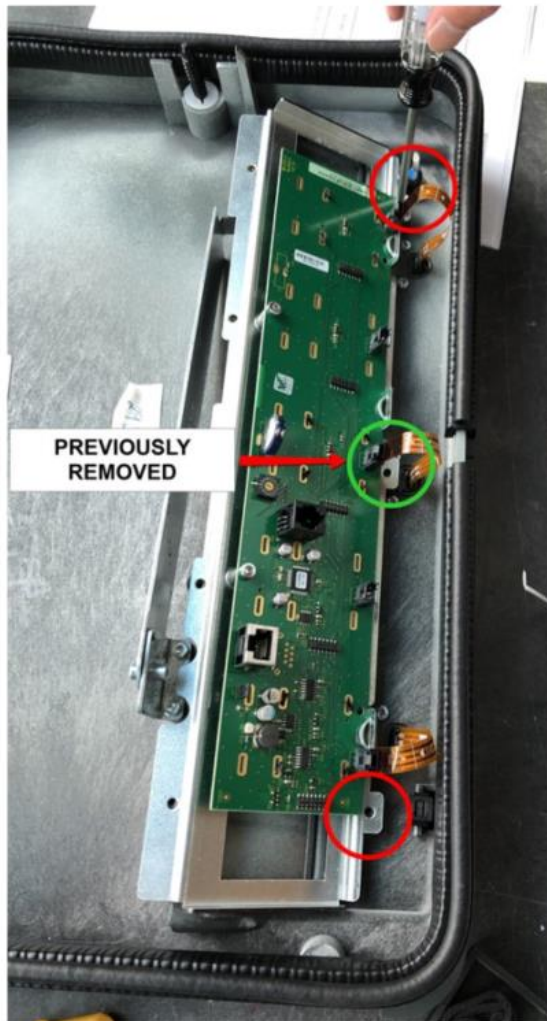
Visor removed

e. Gently Lift the UPD bracket assembly away from the lower bezel.

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⚠️**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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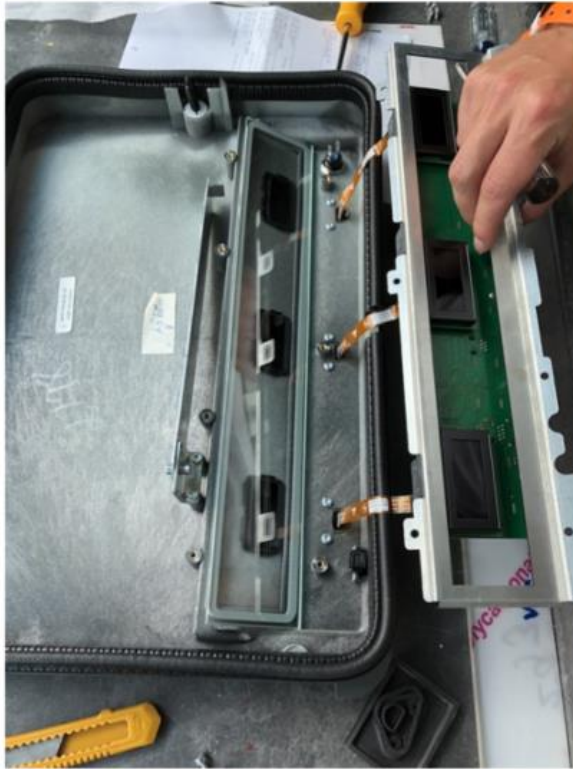
    f.   Disconnect push-to-start button connectors (3)

Note: Quantity of Gas Selector Paddle Assembly can vary based on configuration/customer order.

g. Remove and discard push-to-start buttons by removing 2 T-20 screws from each of the paddles. Quantity of paddles (as much as Qty. 5) and their connections may vary depending on customer configuration order. Retain screws for installation of new Gas Selector Paddle Assembly onto the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX).

Note: Paddle position for installation in the same position on theG7 15 inch Wayne Helix 2 Headless lower Base Assembly . (RP00097-XX).

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h. Remove and discard UPD glass.

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i. Remove and retain door stay assembly by removing two T-20 screws. Retain screws and door stay assembly for re-installation.

j. Remove UPD window trim (quantity may vary depending on customer configuration/order) by gently prying with fingernails and retain for reinstallation.

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k. 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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l.   Remove the Call and/or stop button as applicable and retain for re-installation.
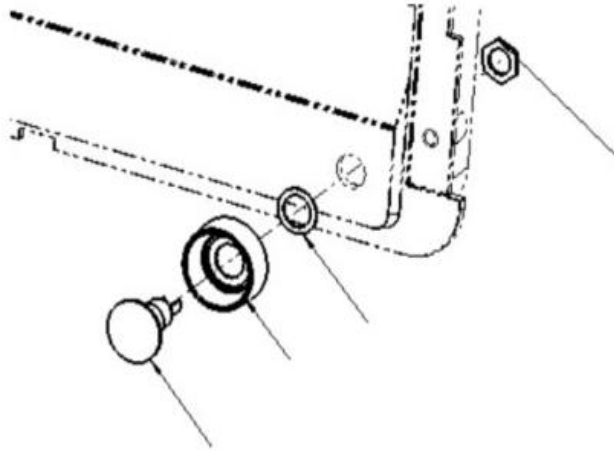
2.   Install previously removed components on the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX) in reverse order of how they were removed.

⚠ **Warning: Power tools like drills cannot be used near the pump dispensers. Power tools cannot be used in a hazardous location within a dispenser site. Remove the lower bezel to a safe location prior to drilling or use pneumatic tools.**

a.   If a call and/or stop button configuration is applicable, drill a hole with a 17mm diameter drill bit (The hole position will have a mark pre etched/dimpled onto the inside of the lower bezel).

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    b.   Clean burrs and sharp edges from holes.

    c.   Install Call/Stop button in accordance with picture below.
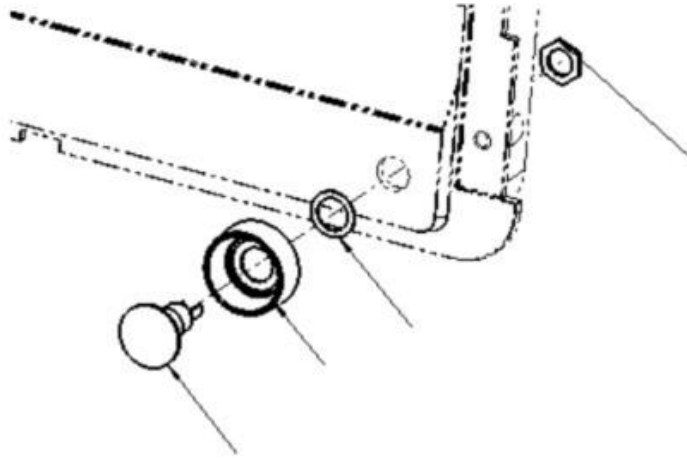
    d.   Install O-ring (MP1268) onto the lower bezel screw.

    e.   Install the lower bezel screw (with O-ring installed) by using the Torx Key and screwing in from the front while threading the plastic lock washer on the back.
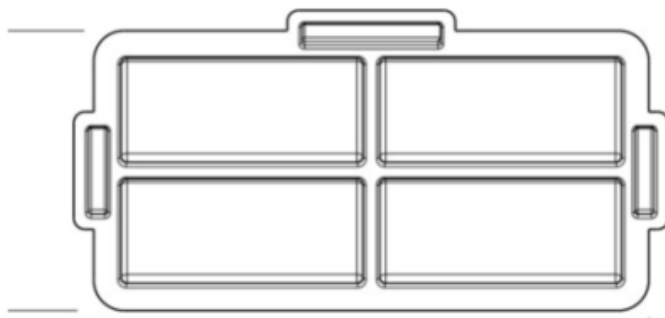

Note: 5 UPD window blanks will be affixed/included on the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX) with tape as a default out of box configuration. Discard unneeded blanks as applicable and remove any tape from the blanks to be installed.

    f.   Remove the tape that secures the UPD blanks to the G7 15 inch Wayne Helix 2 Headless lower Base Assembly.

    g.   With bezel face down, install UPD window trim.

Note: UPD Window trim and UPD window blank configuration may vary depending on UPD display configuration based on customer order.
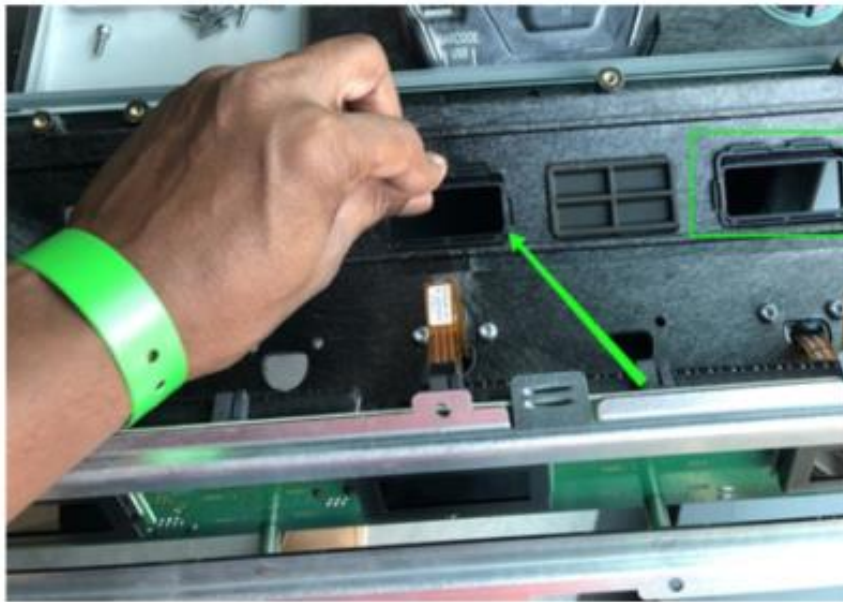
Note: UPD window trim is installed with the tabs pointing in the upward direction.

Note: If the UPD blanks happen to fall out while handling the lower bezel, the UPD window blank is installed with the tabs pointing in the upward direction.

Note: UPD window blank appearance may slightly differ than what is shown below.

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Installing UPD window trim

h. Install previously retained lower bezel rear door stay assembly using 2 previously retained T-20 screws.

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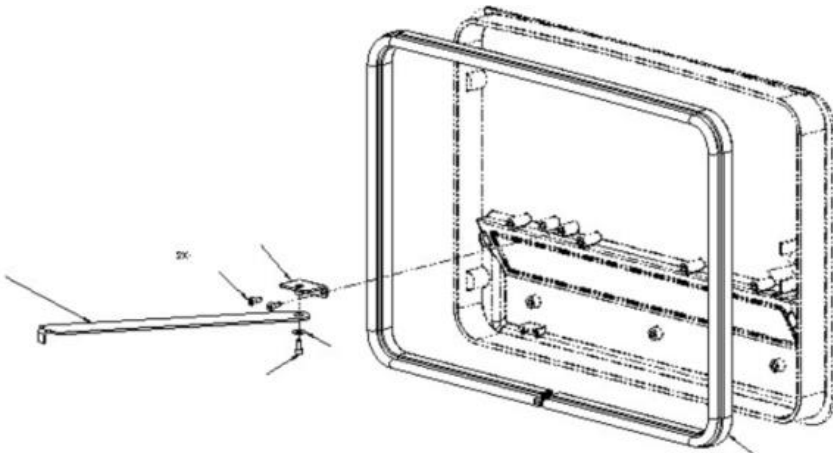
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i.   Install new UPD glass (MZ0311).

Note: Be sure UPD Glass Gasket is properly seated and that the glass is clean. Gasket should be facing the ridge on the lower bezel door.

j.   Remove number of applicable paddle blanks from the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX) by removing 2 Phillips head screws from each applicable paddle blank. Store Phillips head screws for re-installation as applicable. See example of assembly stack-up below.

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Note: 5 Paddle blanks will be affixed/included on the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-0XXas a default out of box configuration. Discard tape, unneeded blanks and screws as applicable and install real paddles in place (this will be accomplished in the next step). Number of paddles/blanks may vary depending on customer/pump configuration.

Note: See Installation Components section to order more Gas selector (Push-To-Start Buttons) as required.

k.   Install new Gas Selector Paddle Assembly (EZ0770) by routing the ribbon cable through the "D shaped" opening in the new lower bezel.

Note: Be sure to not to 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 Gas Selector Paddle Assembly in relation to the "D-Shaped" hole in the Lower bezel.

Note: Care must be taken to ensure that the Gas Selector Paddle Assembly is fully seated against the bezel.

l.   Secure the Gas Selector Paddle Assembly by installing 2 previously retained Phillips head screws on the inside of the lower bezel door. Do not strip the screws by over tightening.

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m. Acquire previously retained UPD bracket assembly and connect push-to-start button connectors to it.

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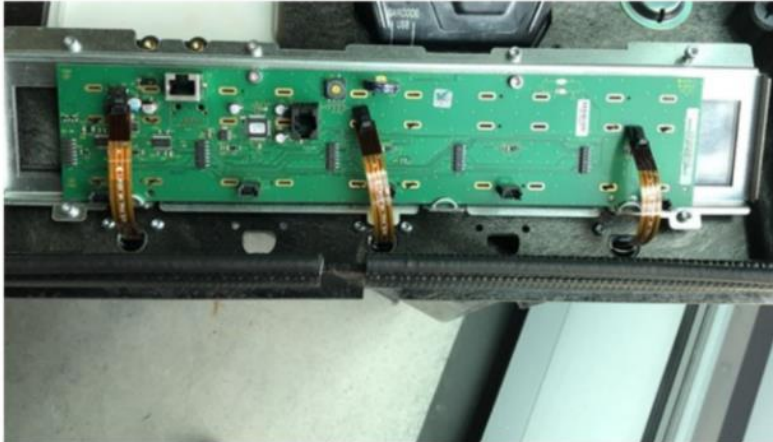
iNVENCO®

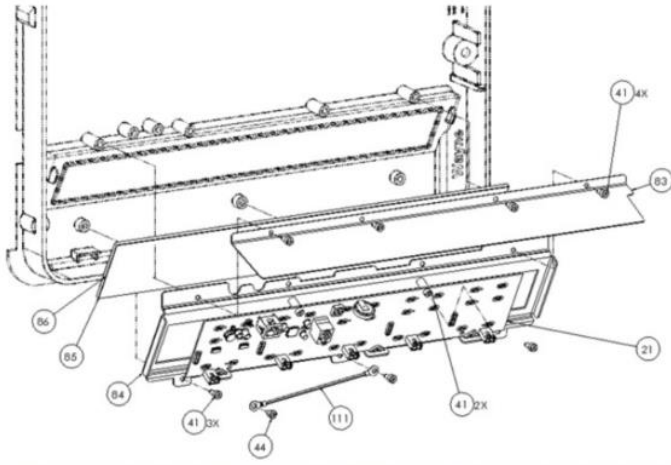**Retrofit G7 15 inch + InvencoLink Wayne Helix 2 (US) Headless Installation Guide**
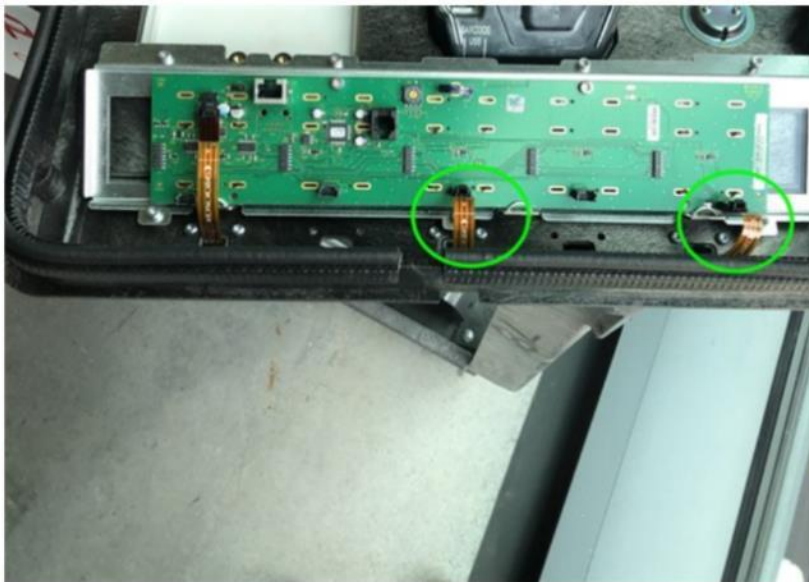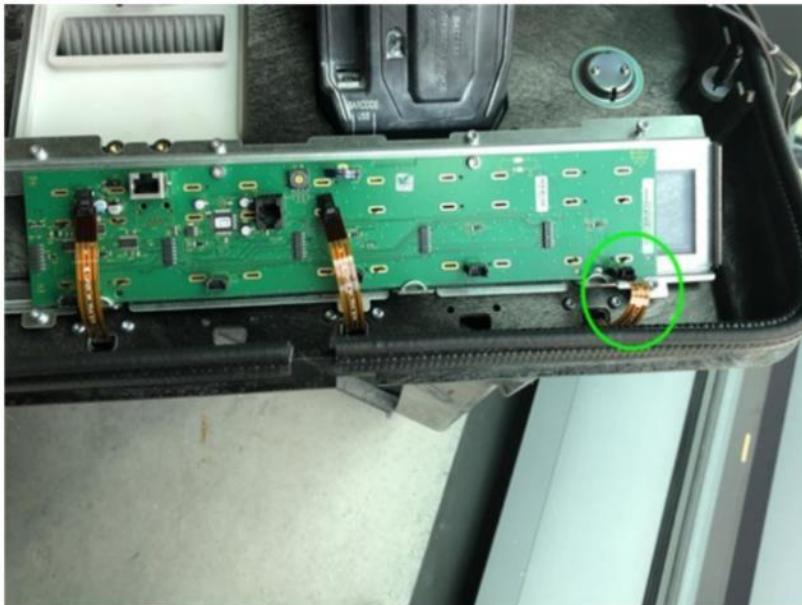
n. Install UPD bracket assembly and visor by attaching 6 remaining 3mm hex screws.

Note: Be sure to leave the bottom Center Screw for installation of ground ring terminal when attaching to the dispenser frame.

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o. Transfer 5MM hex from the lower bezel outside hinge location of the old panel to the G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX) finger tight only do not fully torque.
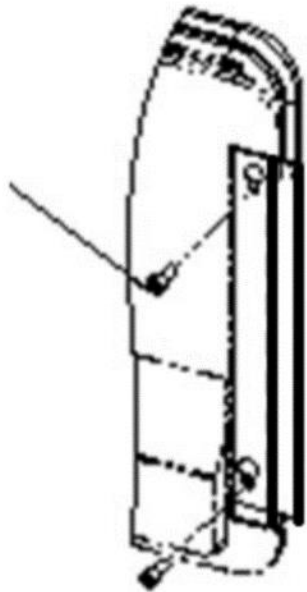
3. Repeat steps in Uninstall components from Wayne lower bezel and transfer components to G7 15 inch Wayne Helix 2 Headless lower Base Assembly (RP00097-XX) (section 4.1.4) for the opposite side of the dispenser.
4. Proceed to the installation procedure.

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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 and Lower Base Assembly panels into the Wayne Helix 2.0 dispenser

1. Install the sheet metal top bezel panel to upper collar frame by installing previously retained 8 (4per side) T-20 screws.

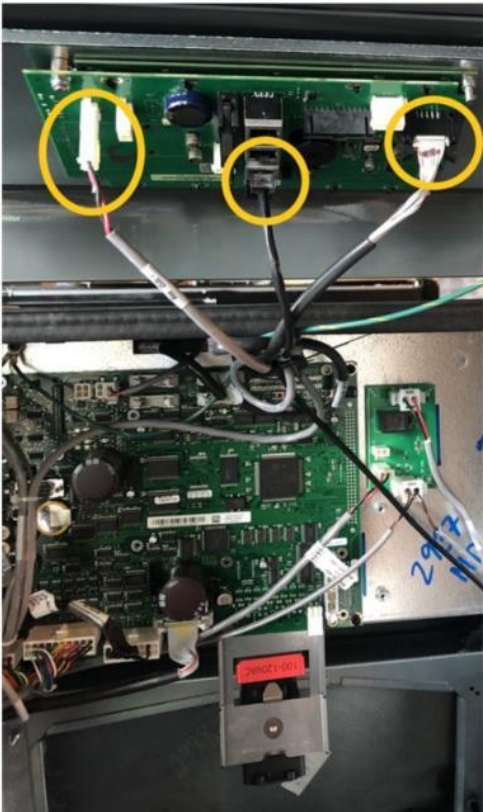|	Document Number	DCV-00616
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2. Install all connections to the customer display.

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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.
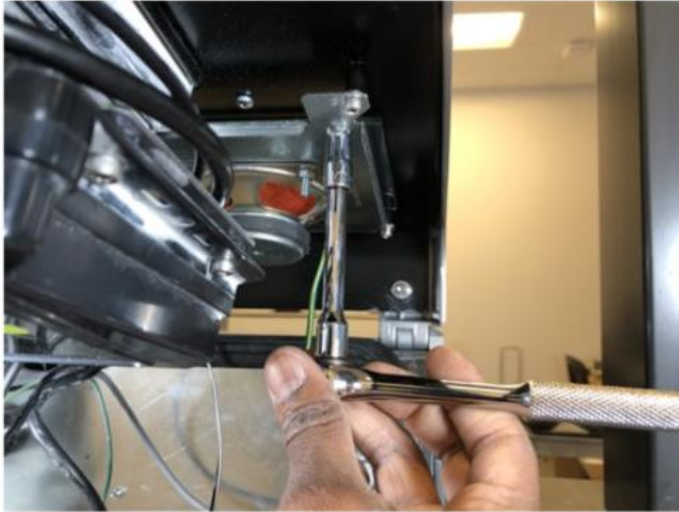
4. Acquire and Engage the previously stowed Upper Bezel Prop Rod (located on the left side of pump cavity) to hold upper bezel in place while work on the lower bezel is being accomplished.
5. Locate the door stay assembly bracket on the right side of the dispenser. The door stay arm (pictured below) will already be removed at this stage of the installation.

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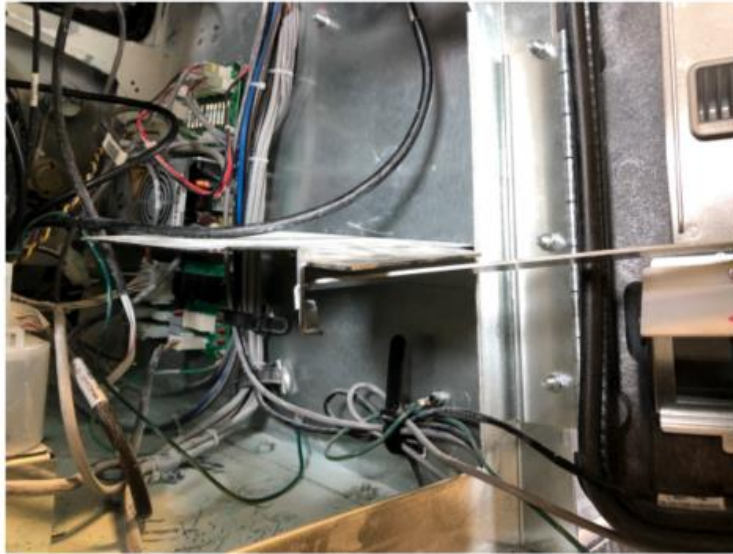
6. Remove and retain the 2 nyloc nuts beneath the door stay assembly bracket using a 10mm socket or nut driver. The door stay arm (pictured below) will already be removed at this stage of the installation.

7. Remove and discard the door stay assembly bracket paying attention to the door stay arm as applicable.

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8. Acquire the Helix printer assembly EZ0807, Printer Wall Support Bracket MP1315, and attachment screws MS0148 .

9. Assemble Printer wall support bracket MP1315 on top of helix printer assembly EZ0807 as shown below.

10. Place the printer and wall support assembly into Right side of the dispenser as shown below. Hold the printer back on its rails while installing to the dispenser. Be careful not to pinch wires upon reinstallation.

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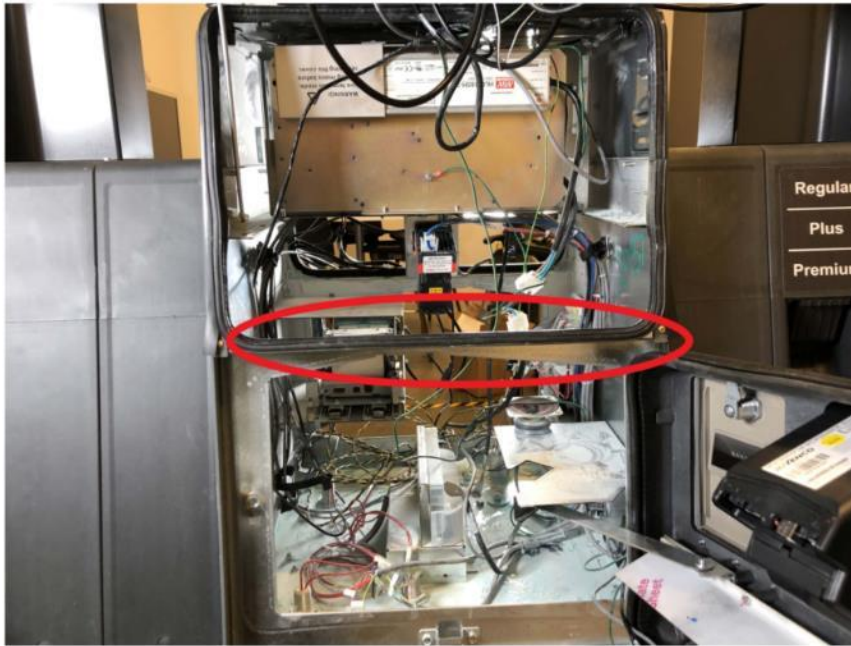**Retrofit G7 15 inch + InvencoLink Wayne Helix 2 (US) Headless Installation Guide**

11. Fasten the printer and wall support assembly onto the Right side of the dispenser with 2 previously retained 10mm nuts and 2 provided MN0119nuts using a 10mm socket or nut driver.

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

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12. Connect the Printer Power Cable EK0117 and the Printer USB cable EK0157 (which are pre-fitted to the SDC) to the printer. (The SDC is the display module on the upper panel assembly)

Power Cable EK0117
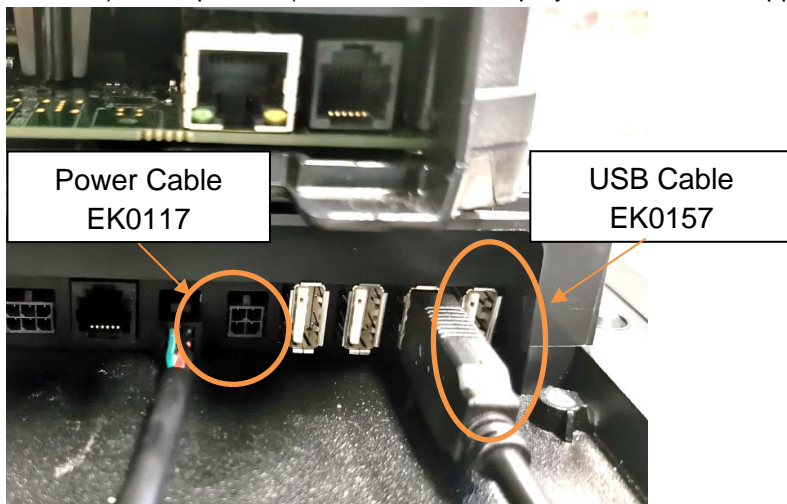
USB Cable EK0157

Cables pre-fitted to the SDC

USB Cable EK0157

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Power Cable
EK0117
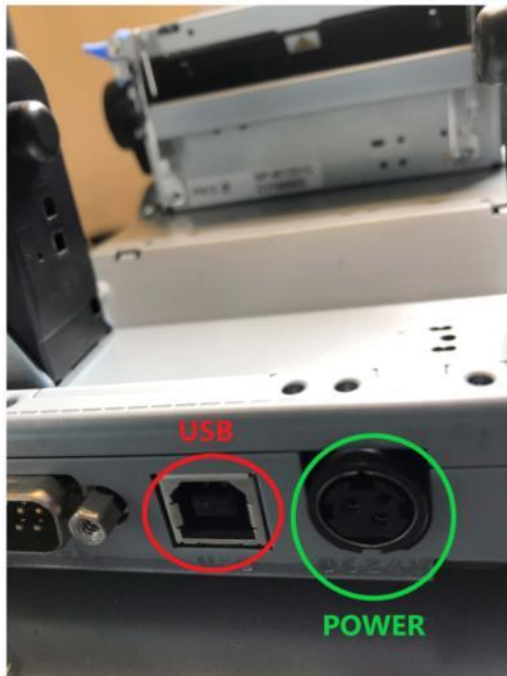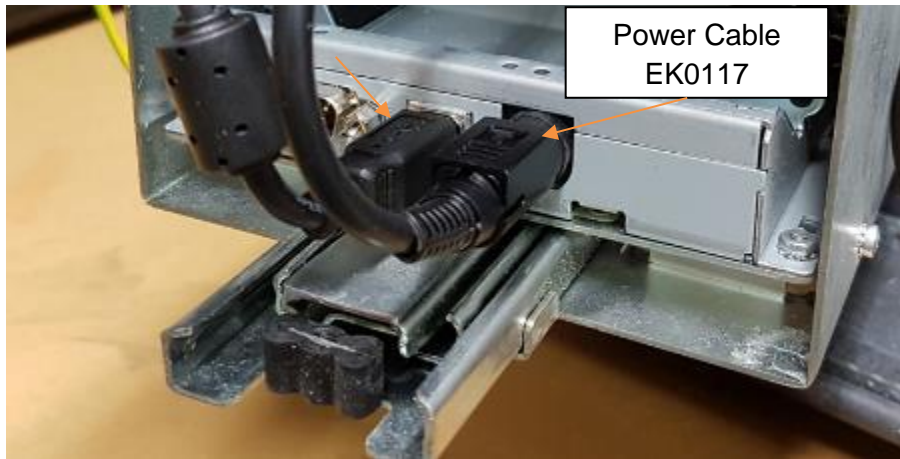
Note: The lower bezel door assembly will have to be positioned lower than the final resting place of the door in order to accomplish the next step and will need to be raised to the final resting position.

13. Place lower bezel Prop Rod in receptacle prior to hanging lower bezel door on Dispenser.

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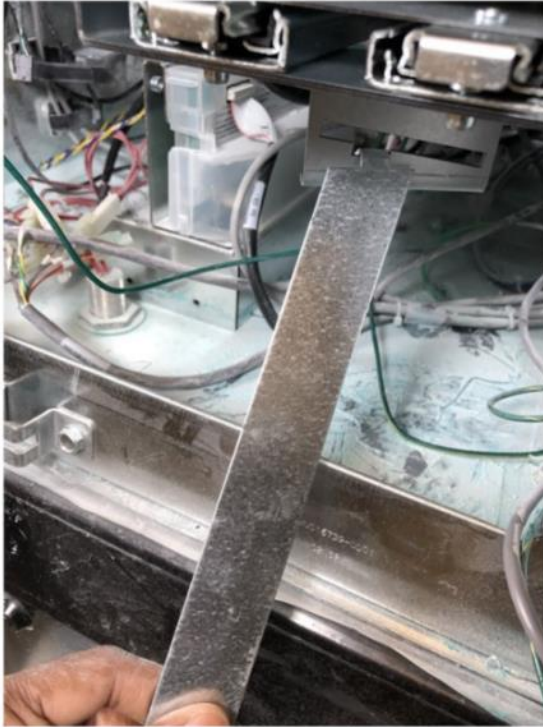
14. Connect the lower bezel outside hinge by hanging it through the eye bolt holes in the hinge.
15. From outside of the Dispenser, tighten M6 Screw using M5 Hex Tool for the Lower Bezel outside hinge.
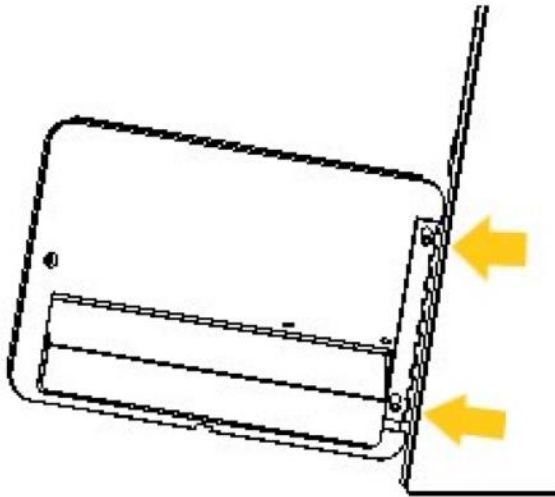
16. Attach previously labeled ground to bottom center hole in the UPD bracket on lower bezel by Installing previously retained M4 screw using M3 Hex tool.

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17. Attach Call/Stop button cables.
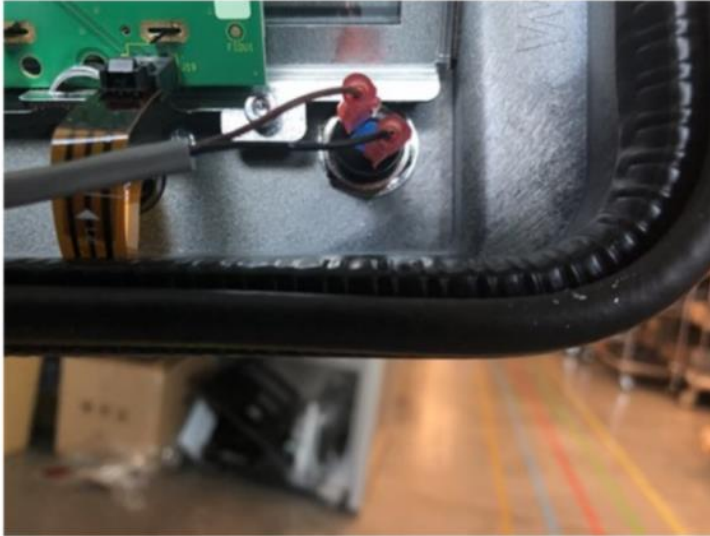
18. Attach Ethernet Cable.

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

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4.2.2 Prepare and install the Wayne Helix 2.0 Power Supply Assembly

1. Attach both G7 15 inch Wayne Helix 2 Headless Power Supply Assemblies (PSU) (EZ0702) 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.

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

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Bracket with the "OVATION" wing of the universal power supply bracket (PSU Panel) facing upwards.
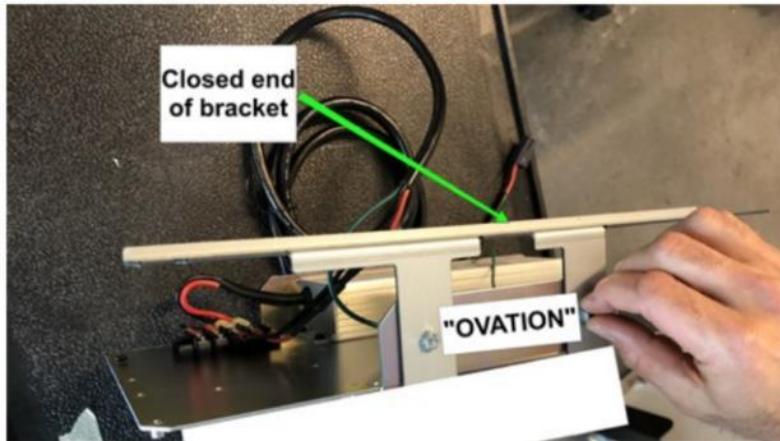
2. Install the Helix PSU Assembly with the Dispenser InvencoLink facing the installer on the B side of the dispenser (side opposite the pump controller board).

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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.

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.

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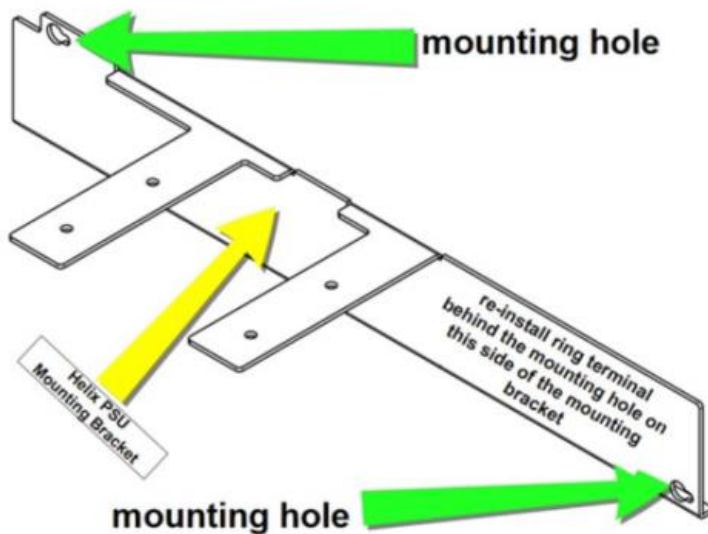
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3. Connect Helix Power Adapter Cables (EK0126) to the Main AC power in line in the lower dispenser electronic cavity.
    a. On Side A of the dispenser, identify the main AC power in line connected to the main Power Distribution board in the lower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

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b. Disconnect the main AC line.

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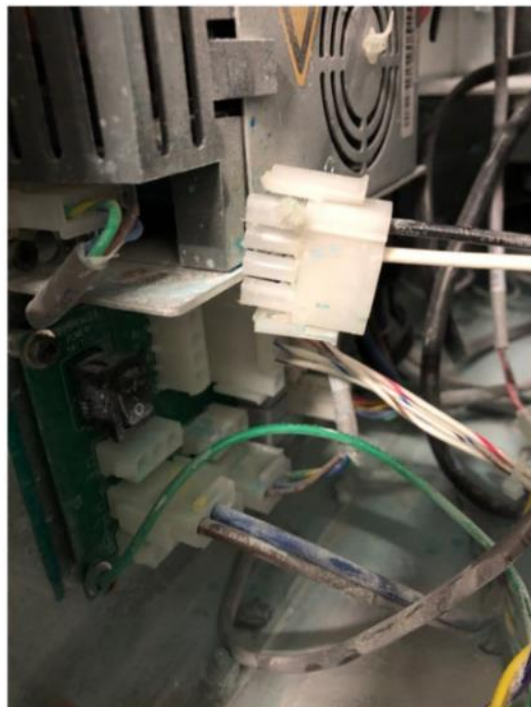
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c. Acquire the Helix power adapter cable. Plug in the pigtail end of the cable to the main AC line.

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

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

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

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4.2.3 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).
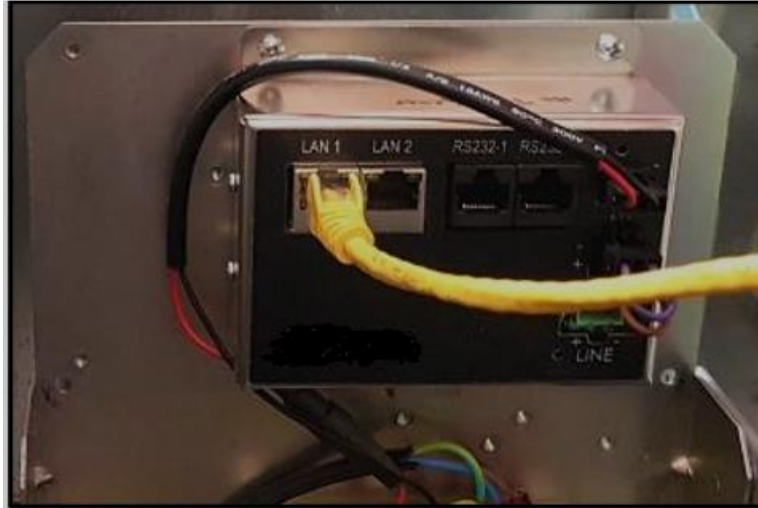

2. Plug in the green connector to the Dispenser InvencoLink.

3. Install the CAT network cables, 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.
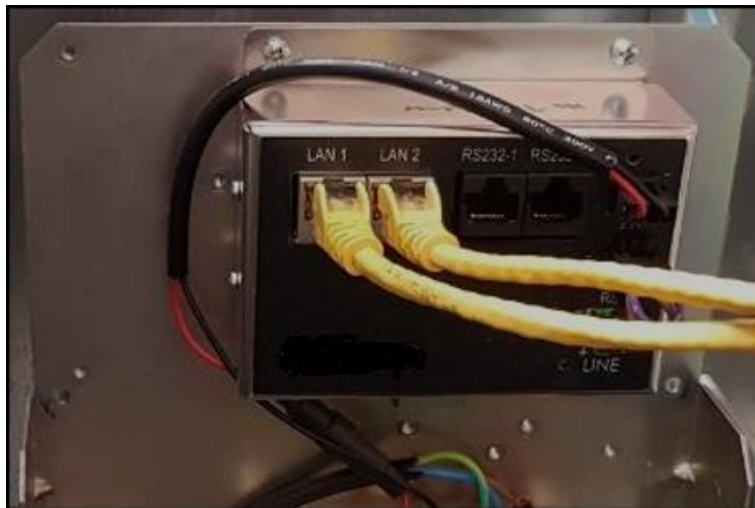
4. Install the power cable and network cables, to the G7 15 inch Wayne Helix 2 Headless panel components.
   a. Plug in the power cable (preinstalled on the PSU) and the Yellow LAN Cable to the G7 15 inch Wayne Helix 2 Headless APC module. If doing a double sided installation, repeat this step for side B of the dispenser.

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4.2.4 Install the G7 15 inch Wayne Helix 2 Headless Components

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

1. Locate and verify the following connections On the back of the G7 15 inch Wayne Helix 2 Headless Display Screen. Each cable location is labeled below. Mark the USB cables for the Bar Code Scanner and UPC comm respectively to ensure the correct cable connections.

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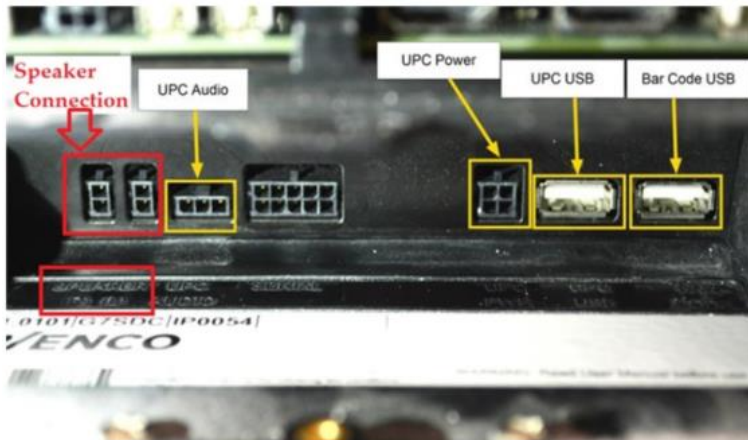
2. Wire up the G7 15 inch Wayne Helix 2 Headless Components.
    a. Plug in the Bar Code USB, previously marked, from the G7 15 inch Wayne Helix 2 Headless Display Screen to the G7 15 inch Wayne Helix 2 Headless Key Pad.

    b. Plug in the G7 15 inch Wayne Helix 2 Headless UPC USB Cable, previously marked, from the G7 15 inch Wayne Helix 2 Headless Screen to key pad.

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c. Plug in the key pad (UPC) power and (UPC) audio cable from the G7 15 inch Wayne Helix 2 Headless Display Screen to the key pad.
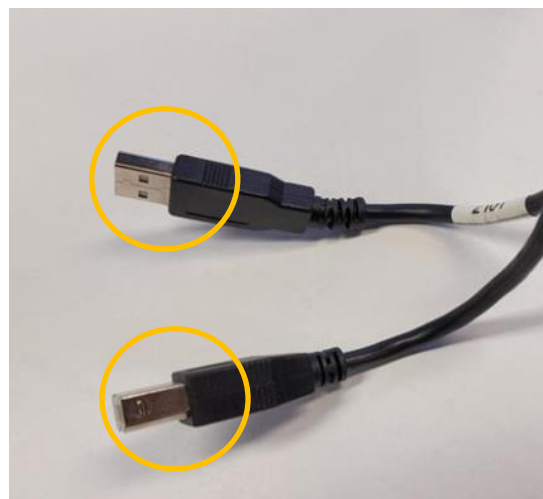

d. **This step is applicable when SCC is installed:**
   Plug in the SCC USB cables to the free end of the extension cables that are already connected to the APC and the SDC.

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SCC Module

SCC USB Cables

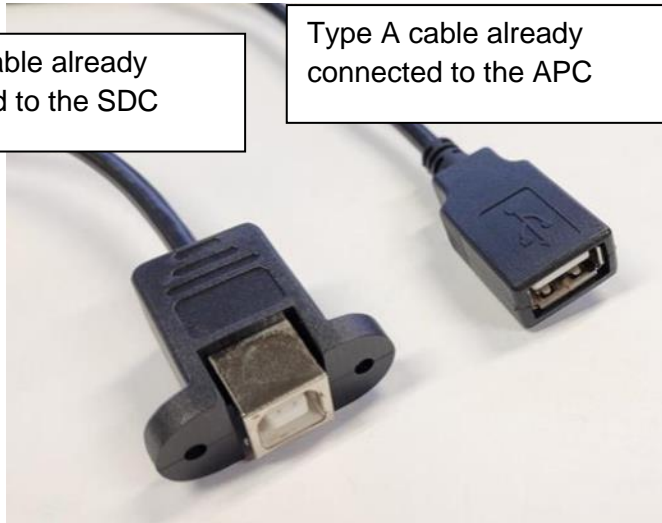|	Document Number	DCV-00616
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Type B cable already connected to the SDC

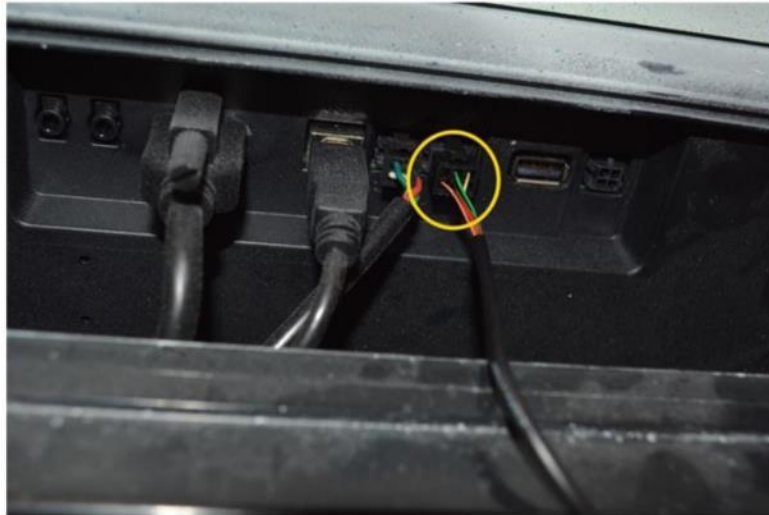Type A cable already connected to the APC

Extension cables already connected to the APC and the SDC

e. Plug the optional ADA keypad into the G7 15 inch Wayne Helix 2 Headless Display Screen at the ADA connection as required.

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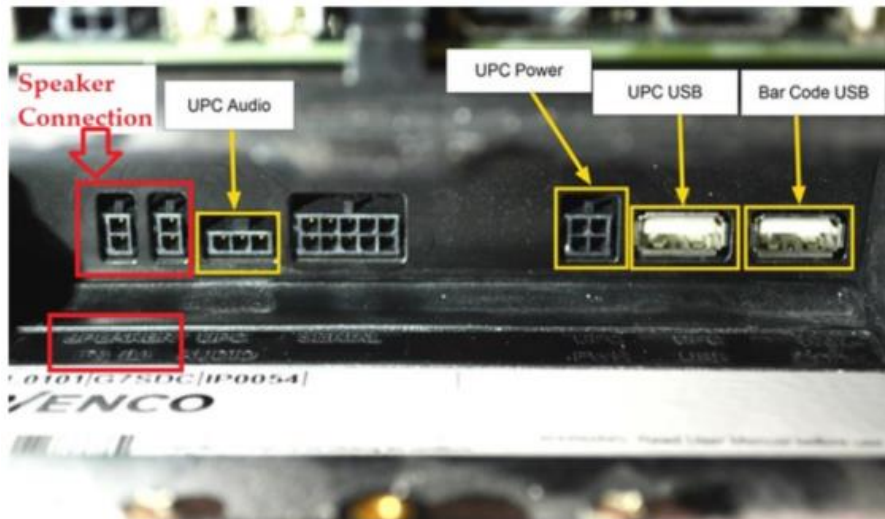**Note:** There will be one 2-wire audio cable connected to the multimedia audio speaker (this speaker is attached to the upper bezel sales volume display bracket as pictured below) with the other end (2 pin connecter) left unconnected.
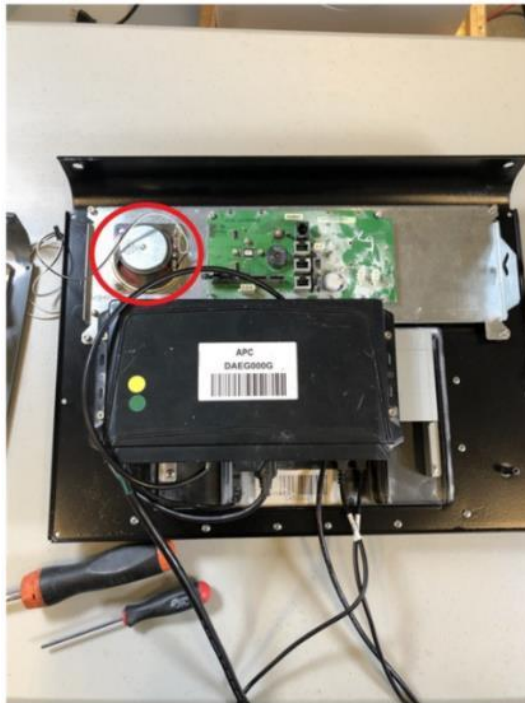
3. Viewed from the inside of the Pump Door, connect the 2 pin connector to back of the G7 15 inch Wayne Helix 2 Headless display marked (L) or (R) as shown in red in the picture below.
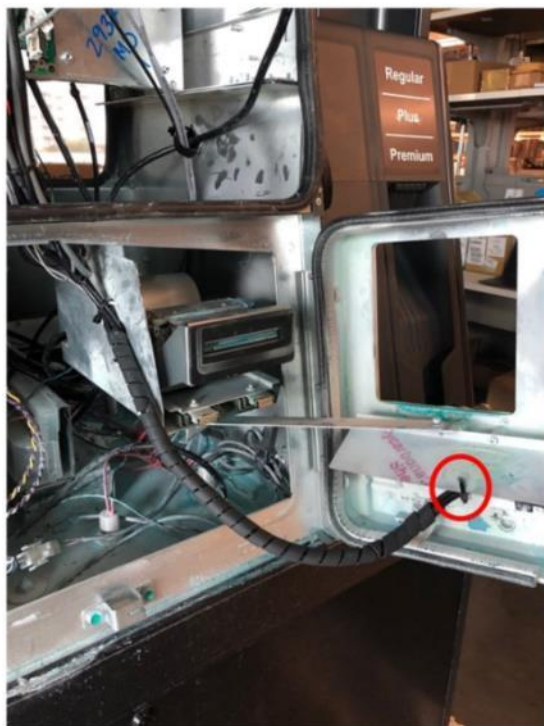
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4. Use cable ties to tidy up the installation. Excessive lengths should be bundled and tied so they stay inside the pump cabinet frame.
5. Attach Cable ties as shown below and be sure to connect the spiral wrapped cable bundle to the previously drilled hole in the visor with a zip-tie or cable tie.

Note: The anti chafing Spiral wrap will be wrapped around the applicable cables out of the box and will not be an individual installable part.

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

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7. For a double-sided installation (i.e., for Side B), please repeat steps in Install the G7 15 inch Wayne Helix 2 Headless Components (section 4.2.4).
8. 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.
    c. Lock the Helix. The lock is located on the bottom of the frame collar.
9. Repeat 8a-8c on the opposite side of the dispenser as applicable if doing a double sided installation.

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10. Return Power to the pumps

! **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 G7 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: