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Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide		

# Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide

**Kit Part Number: RF00113-XX**

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## Release History

Version	Prepared by	Date	Change description
0	Shibani Joshi	27-September-2022	Based on the gasoline dispenser version (DCV-00453 R04)


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## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide

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## 1 Introduction

The documentation provides some basic guidelines for installing the G6-300 Outdoor Payment Terminal (OPT) system.

This Retro-Fit Kit can be installed into either Side A or Side B of a GVR Encore700S CNG dispenser.

- **For a double-sided installation, two of these Kits are required.**  
**However, only one InvencoLink and one PIB are required per dispenser.**

InvencoLink is optional and is not required if the dispenser has Ethernet cables in it. InvencoLink is only needed if there are no Ethernet cables in the dispenser.

**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.

### 1.1 Tools Required

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

- Gilbarco "CH 751" Key
- Gilbarco "GBCO" Key
- Philips #1 screwdriver
- Philips #2 screwdriver
- Flat 5mm screwdriver
- Side cutters
- Cable (zip) ties
- Pliers
- 1/4". 5/15" Socket or Nut Driver
- #6, #8 & #10 Hex 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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### 1.2 Installation Kit Contents

Unpack the G6-300 Encore 700S Retro-Fit Kit (RF00113-XX) and check that all of the parts listed below are present. .

RFK Hatch Panel with pre-installed  
G6-300 OPT (RP00113-XX):



PSU plate with cables (EZ0704):



1 x (MZ0116)  
Isolating Cover with captive screws  
ASSY, COVER & SCREWS, G6 HATCH,  
OVATION & ENCORE RFK, G6



2 x (MP0652) GASKET, PPU TO DOOR, ENCORE  
500S RFK, G6 & G7









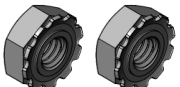
1 x (MP0651) Thin, Black Gasket GASKET, PPU,  
ENCORE 500S RFK, G6 & G7:



1 x (MP0653):Thick, Grey Gasket GASKET,  
BOTTOM EDGE, ENCORE 500S PANEL, G6  
HATCH, G6

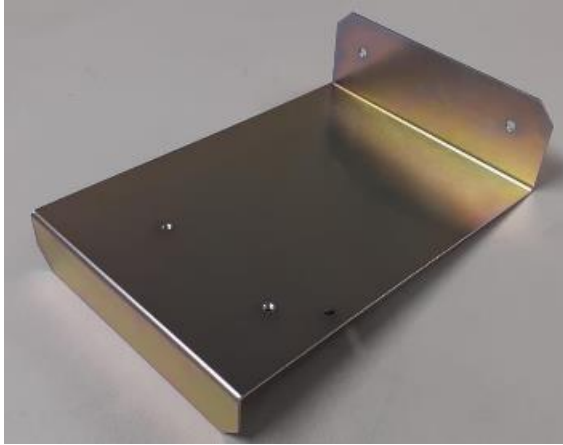


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1 x Fastener Kit (FK0007)		Cables:	
RFK INSTALLATION, ENCORE 500S/700S, G7			1 x EK0124 Gilbarco Pump to Pump Adaptor CABLE ASSY, MAINS, GVR PUMP TO PSU ADAPTOR, 1.0m
10	MS0101 SCREW, #6-20 x 1/2", HEX HEAD 1/4", SS410		
5	MS0149 SCREW #4-24 X 3/8", HI-LO THREAD, PAN HEAD, PHILIPS #1, SS410		1 x EK0139 Gilbarco E500S to InvencoLink CABLE ASSY, DATA, GVR ENCORE 500/S TO InvencoLink, 0.2m
6	MS0150 SCREW, SEMS, #6-20 X 3/8", TYPE B, HEX HEAD 1/4", SS410, WASHER 3/4"		
2	MN0029 NUT, SEMS, #8-32 UNC		
			1 x EK0131 CABLE ASSY, ETHERNET, CAT-5, FLEXIBLE, 2.5m, YELLOW
			1 x EK0227 Gilbarco Power to PSU Adaptor CABLE ASSY, MAINS, ENCORE 500S POWER TO PSU CABLE, ADAPTOR, 0.2m
			1 x EK0130 CABLE ASSY, EARTH, 8G FORK TO 6.35mm FASTON FEMALE, 14awg, 2.0m
1 x MF0046 FASTENER, CABLE CLIP, SELF ADHESIVE		1 x Fastener Kit (FK0063)	
		FASTENERS KIT, PSU ADAPTER PLATE, ENCORE 500S-700S, CNG PUMP	
1	MS0147 SCREW, SEMS, 6-32X5/16", PAN HEAD, PHILIPS #2, SS410, ZN, EXT WASHER		
2	MS0160 SCREW, SEMS, M4X10, PAN, PHILIPS #2, EXT STAR WASHER, SS410, ZN		
2	MN0029 NUT, K-LOCK, 8-32 UNC, 11/32" AF, ZINC PLATED		

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1 x MP1399, ADAPTER BRACKET, PSU,  
ENCORE 500S-700S, CNG PUMP

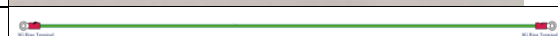


RF00100-XX (1 per dispenser)  
KIT, PIB Dual USB to CL, Encore 700S CNG

1 x (EZ0618) Pump Interface Board



EK0155 CABLE ASSY, EARTH, 8G RING TO  
8G RING, 16awg, 0.5m

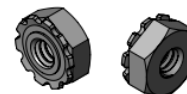


EK0207 USB cables

MS0147 SCREW, SEMS, 6-32X5/16"



MN0041 NUT, SEMS, #6-32 UNC, EXTERNAL  
STAR WASHER, SS304



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RF00033-XX (1 per dispenser) OPTIONAL  
InvencoLink Adaptor (DSP232):




Sundry Parts  
Comprising:

4

MS0143 6-32 x 1/4" machine screws



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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 OPT. 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, vapour, 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 fuelling 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 G6-300 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 affected 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 vapour. 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 US: 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).

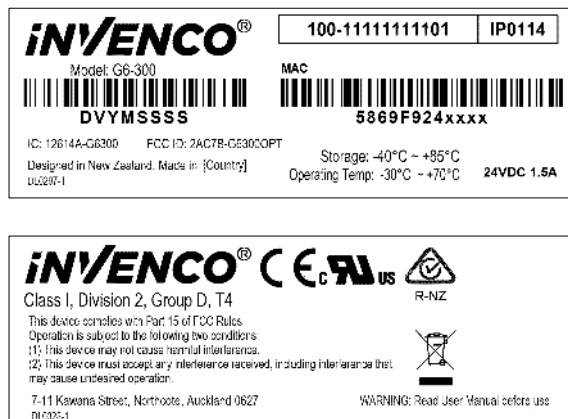
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**IMPORTANT:** Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

### 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 G6-300 has UL File Reference of E469526 and E480135 and carry labelling similar to this:



The Invenco Retro-Fit Kit has Met Labs File Reference of E115599.

## 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:

- CIM panel and attached components (Display, Keypad, etc)
- Card Reader and Plate
- CRIND Control Board & Mounting Bracket

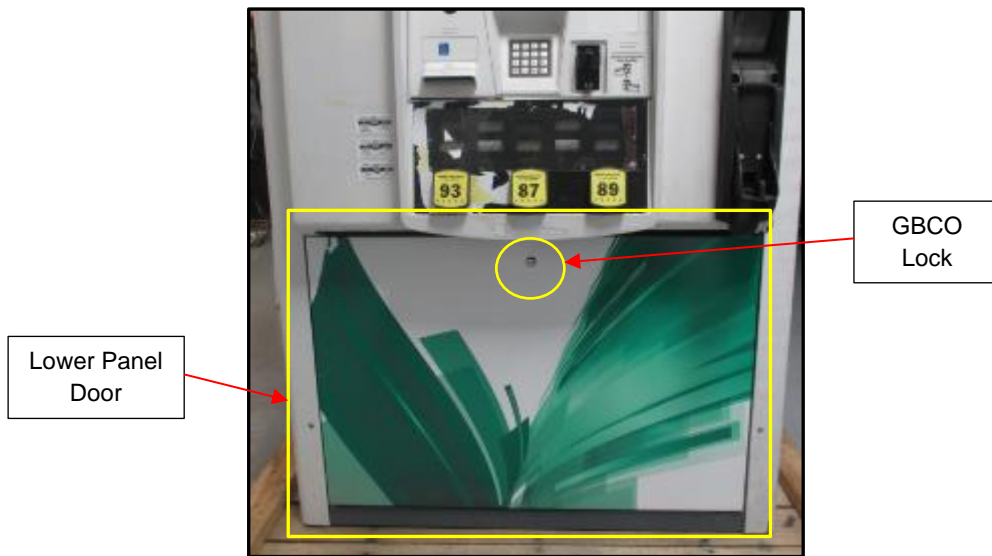
**Note:** Throughout this disassembly procedure there are many cable assemblies that will be unplugged and will not be reused. It is up to the discretion of the installer whether to remove these cables or position them inside of the dispenser cavity as to not cause obstruction.

**Note:** It may be necessary to unplug a cable assembly on various boards such as the totalizer board or Main Display to remove other CRIND related cable assemblies. Unplug these cables as necessary and re-plug them in immediately afterwards. It is recommended that the installer of this kit marks each unplugged cable after it is unplugged to make it is easier to identify them when it comes time for re-installation.

1. At the main disconnect panel, disconnect all power to the dispenser and the pump servicing the dispenser. Tag all disconnected breakers to prevent others from reconnecting power.
2. Identify the A Side of the dispenser.

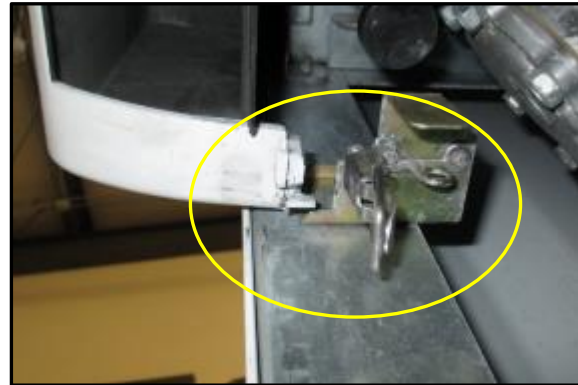
**Note:** For the purposes of this manual, Side A of the dispenser refers to the side with the weights & measures tag on the inside of the electronics cabinet. You may need to open both doors to determine which is Side A. See steps 3-5 below.

3. Unlock and remove the panel door with the "GBCO" key. Set it aside. Do not discard the lower door. It will be re-installed later during the installation procedure.

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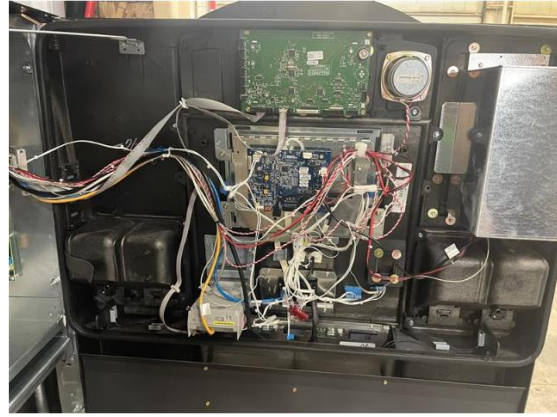
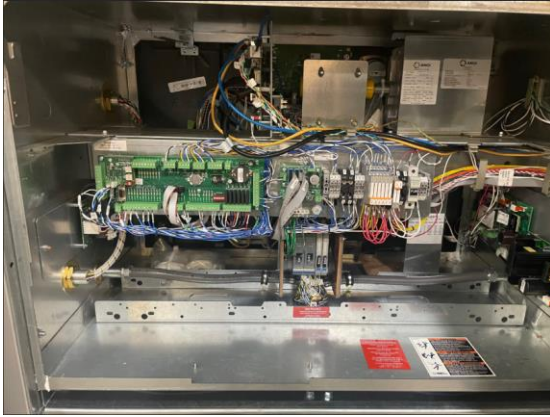
Location of Panel Door and Lock

4. Undo the lower door latch located underneath the left-hand side of the Main Dispenser Door.



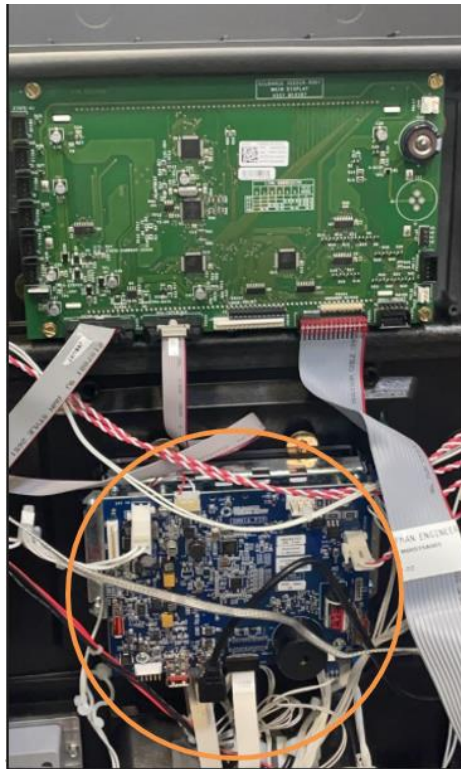
5. Unlock the main dispenser door lock located on the upper left-hand side of the Main Dispenser Door using the "CH 751" key. Open the door until it locks into its fully open position.



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Main Dispenser Door in fully opened position

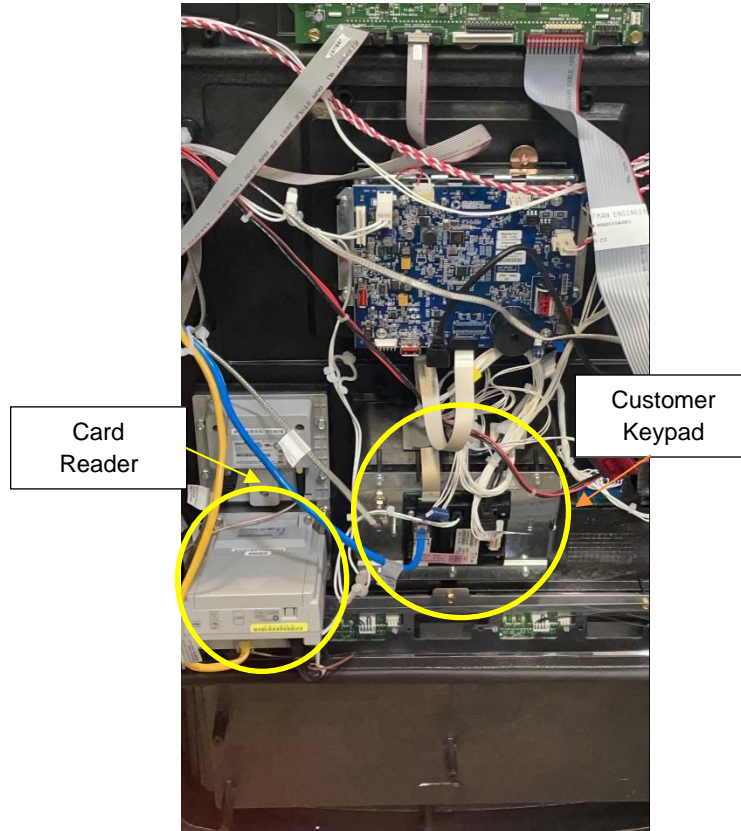
6. Unfasten the cable clips holding the Monochrome Display assembly cables and unplug the cables.



Location of Monochrome Display

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7. Unplug the Customer Keypad and Card Reader assembly cables.

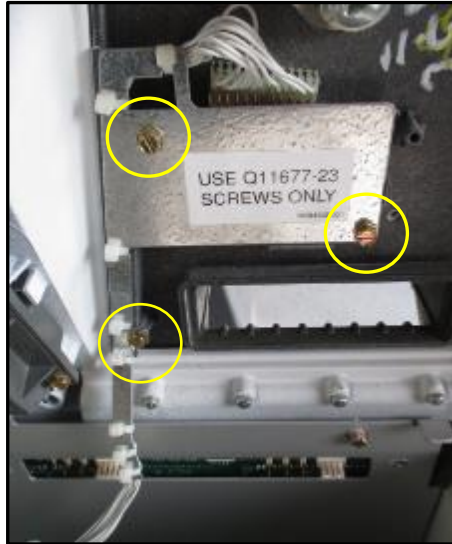


Encore 700S Location of Card Reader and Customer Keypad



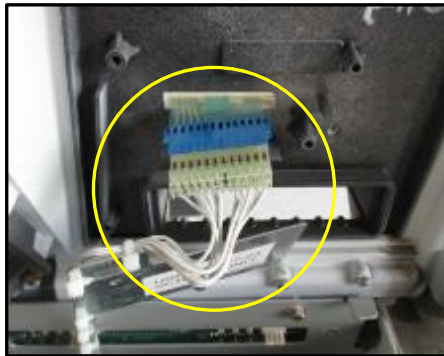
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8. Remove and discard the three ¼" screws that fasten the ADA keypad plate to the dispenser door (if present).



Location of ADA Keypad Plate screws

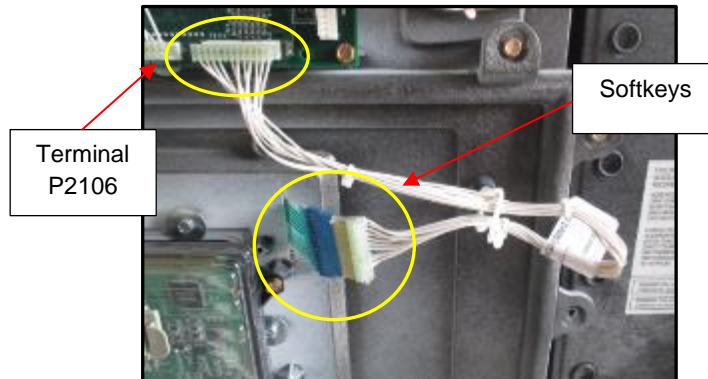
9. Unplug the ADA keypad (if present).



Location of ADA keypad cable assembly

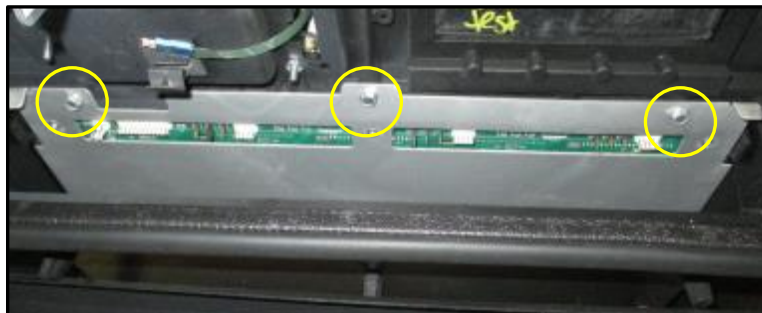
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10. Unplug the Softkey cable assembly from both the Softkeys and the Main Display at terminal position P2106 (If present).



Location of Softkey cable assembly

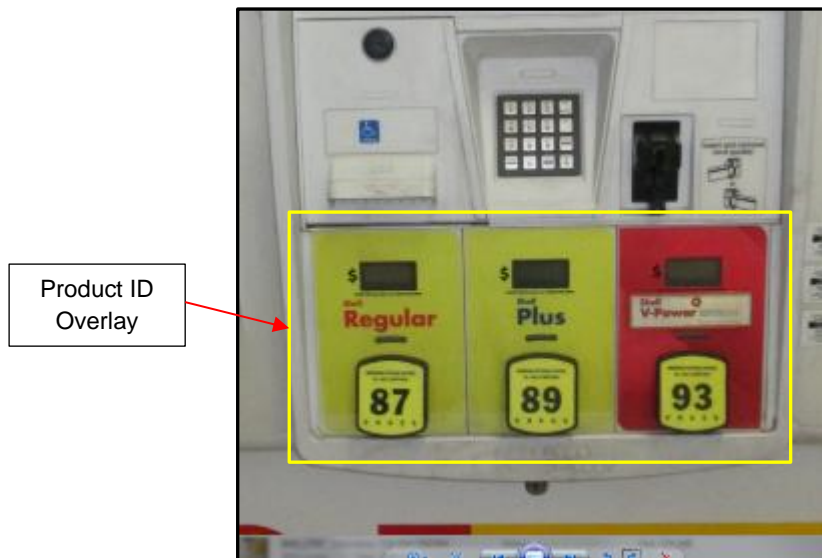
11. Remove and discard the three #6-3/8" sheet-metal screws that fasten the PPU assembly to the door.



Location of PPU Panel screws

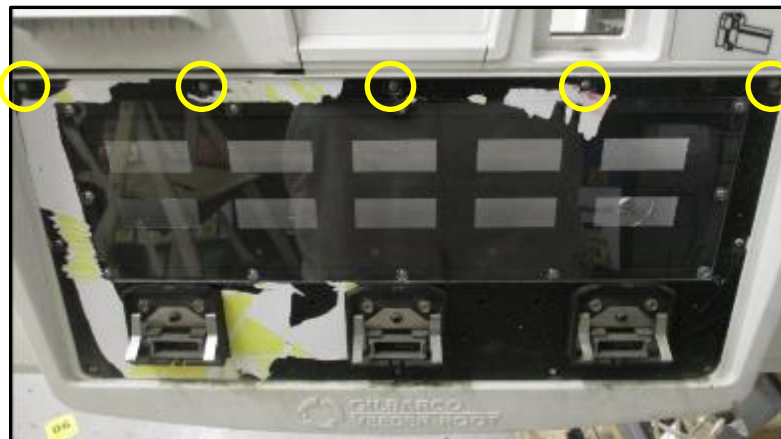
12. Either remove the Product ID Overlay to expose screws or cut small holes in the screw positions showed in the next step, to remove the screws instead.

**Note:** Removing the Product ID Overlay will render it unusable. A new overlay will need to be applied during the installation process.

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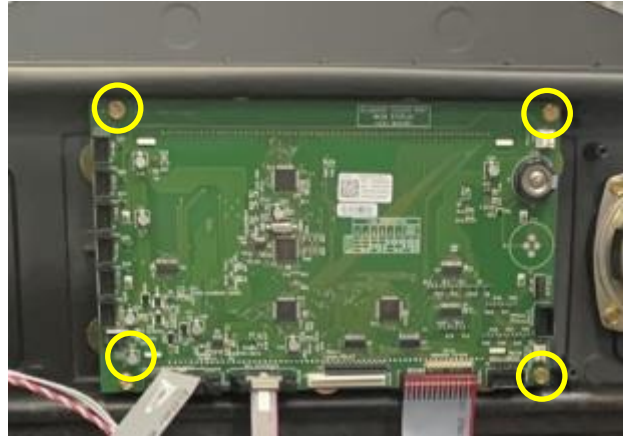
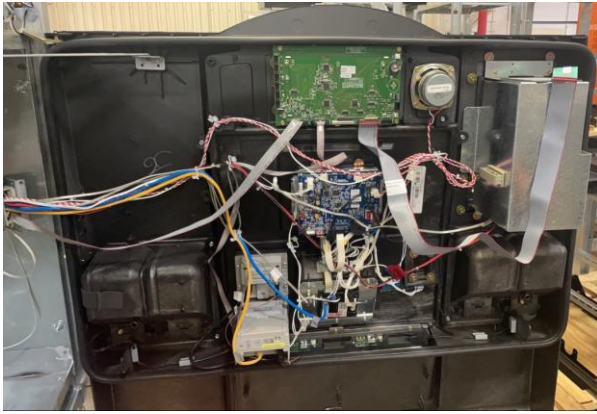
Location of Product ID Overlay

- 13.** Remove and discard the top five fastening screws on the Product ID Plexi-Bezel on the front of the Dispenser Door.



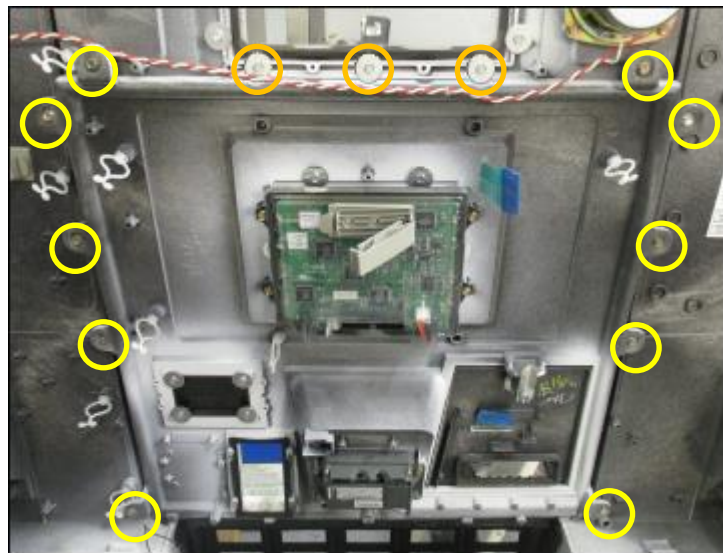
Location of fastening screws on Product ID Plexi-Bezel

- 14.** Remove the four 1/4" hex screws fastening the Main Display to the back side of the Dispenser Door. Save these screws for later re-use during installation. Carefully set the Main Display inside the electronics cavity out of the way. Use a soft anti-static cloth to protect the electronics and displays from damage. Undo any necessary cable restraints that may be present.

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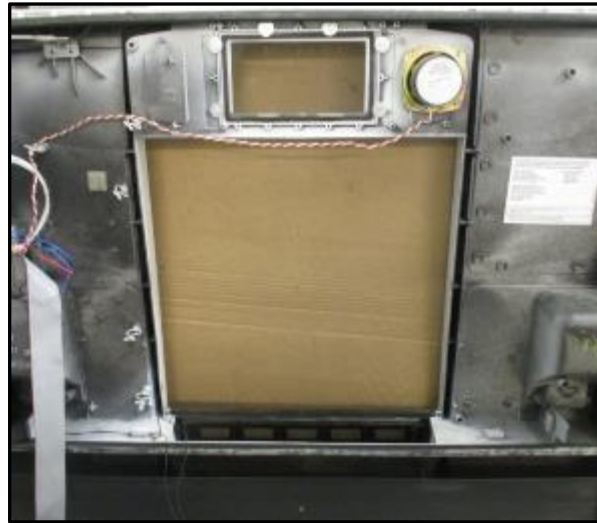
Location of Main Display screws

- 15.** Remove and discard the three #6 self-tapping screws and washers immediately below the CIM panel Display Window, and the 10 1/4" Hex screws fastening the CIM panel to the Dispenser Door.



Location of CIM Panel screws

- 16.** Remove the CIM Panel along with any remaining attached components. These can be discarded. They will not be reinstalled.

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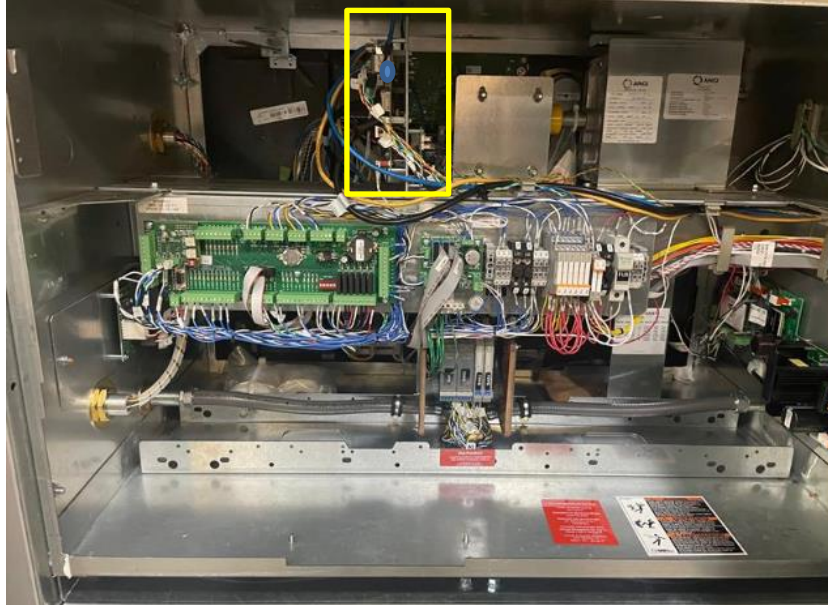
Dispenser Door after CIM removal



CIM Panel with components after removal

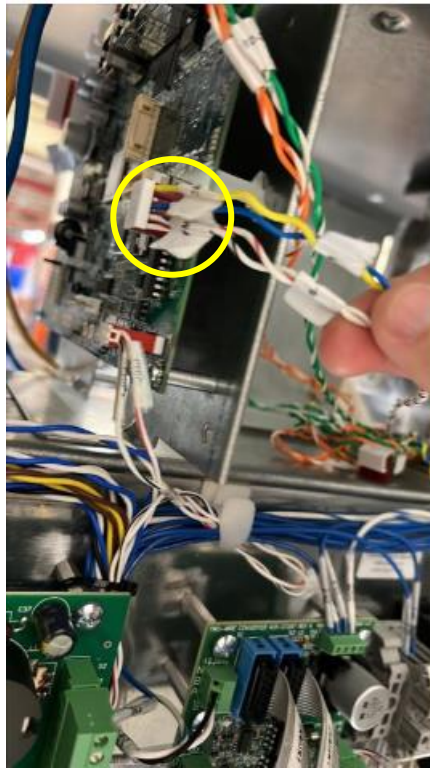
- 17. For a double-sided installation, repeat steps 1-16 for Side-B (if present).**
- 18.** Identify the CRIND Control Node located on the upper electronics rail inside of the electronics cavity,



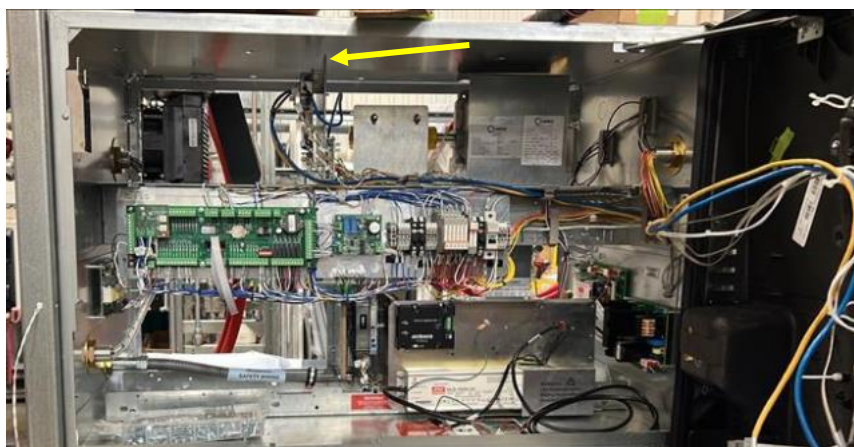
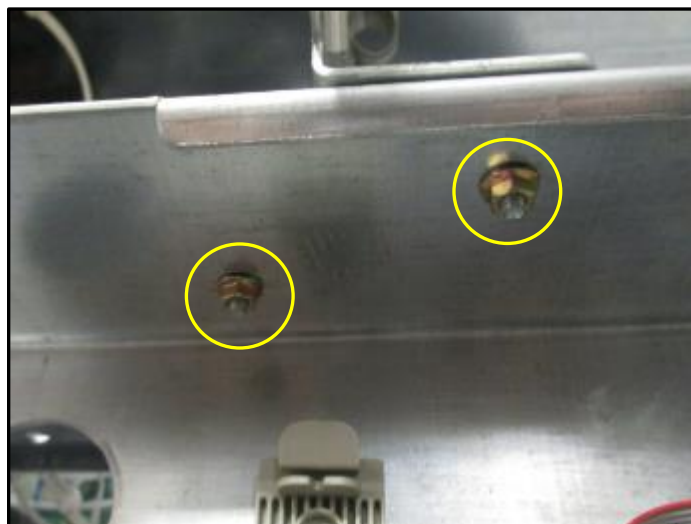
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Location of CRIND Control Node and CPU Board

19. Unplug the communications cable connector from the CRIND Control Node. Mark this cable for later use during RFK installation for the PIB and InvencoLink connections.

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- 20.** Unplug every remaining cable attached to the CRIND Control Node.
- 21.** Remove the CRIND Control Node and discard. It will not be re-installed.
- 22.** Remove and discard the three 9/32" nuts that are fastening the CRIND Control Bracket to the upper electronics rail in the electronics cavity.

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Location of CRIND Control Bracket nuts


- 23.** Remove the CRIND Control Bracket from the dispenser. It can be discarded. It will not be re-installed.



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CRIND Control Bracket after removal

- 24.** The disassembly process is complete. The dispenser is now ready for the Installation procedure to begin.

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## 4.2 Pre-Installation Procedure

### 4.2.1 Install the InvencoLink Converter

When this Retro-Fit Kit is being installed on Side A (i.e. the first side) of the dispenser, a communications method **MUST** first be installed.

**Note:** The Invenco Link is NOT required if the dispenser has Ethernet cables are present. Check the set of cables routed into the dispenser from the cable conduit to confirm if the Ethernet cables are present.

If the Ethernet cables are present, then skip this section as the InvencoLink Converter is not required. And proceed to section §4.2.2 Pump Interface Board Procedure.

If the Ethernet cables are not present, and the InvencoLink converter needs to be installed, then follow the procedure outlined in the rest of this section.

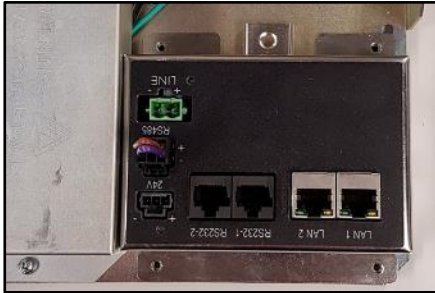
For Side B (i.e. the second side), you **MUST** have Side A (i.e. the first side) already installed, and you may then proceed to §4.3 Installation Procedure.

For Side A (i.e. the first side), select the PSU Plate Assembly from this Retro-Fit Kit package (EZ0704) and apply the communications method selected from the table above, following the installation instructions below:

1. Select the PSU Plate Assembly (EZ0704)



2. Take the DSP232 InvencoLink converter and place it as shown onto the PSU Plate, ensuring that it is aligned with the four holes in the Plate:

**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

3. Take the four MS0143 Screws from the InvencoLink converter Retro-Fit Kit package and insert them into the four holes on the InvencoLink converter:



4. Tighten all four screws carefully to secure the terminal cover and InvencoLink converter in place. You may need to jiggle the parts a little to get a nice alignment.
5. From the PSU plate assembly, identify the EK0122 DC cable for connection to the InvencoLink.

**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

6. Insert the black connector on the EK0122 DC cable into the 1x3-way “24V” socket on the top of the InvencoLink converter.



7. The installation of the InvencoLink converter is now complete.

#### 4.2.2 Install the Pump Interface Board (PIB) EZ0618

When this Retro-Fit Kit is being installed on Side A (i.e. the first side) of the dispenser, a Pump Control method will first be installed for the OPT.

Follow the procedure outlined in the rest of this section:

1. Take the PSU assembly (EZ0704) which may or may not have the pre-installed InvencoLink above

## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide



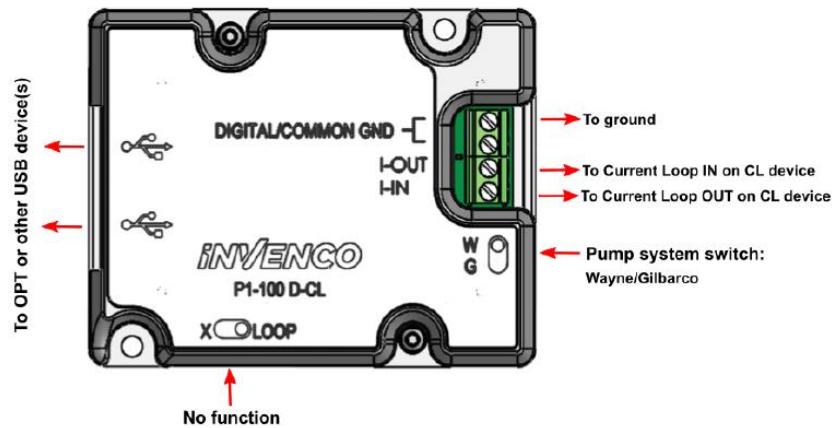
PSU Assembly with the InvencoLink



PSU Assembly without the InvencoLink

- Insert the two USB cables (EK0207) into the USB Connectors on the left hand side of the Pump Interface Board EZ0618.

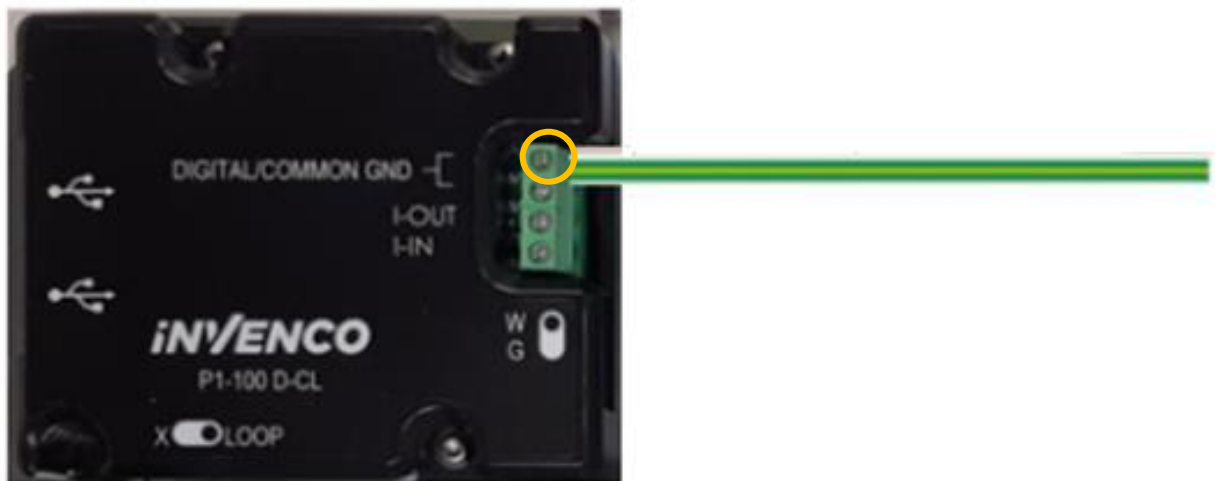
# Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide



- Set the Pump system switch to G for the Encore pumps
- Locate the Ground Cable (EK0155) and cut off one of the ends



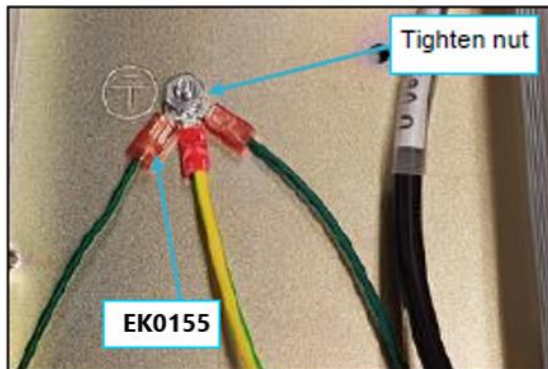
- Strip the wire and connect this end to the ground terminal on the PIB



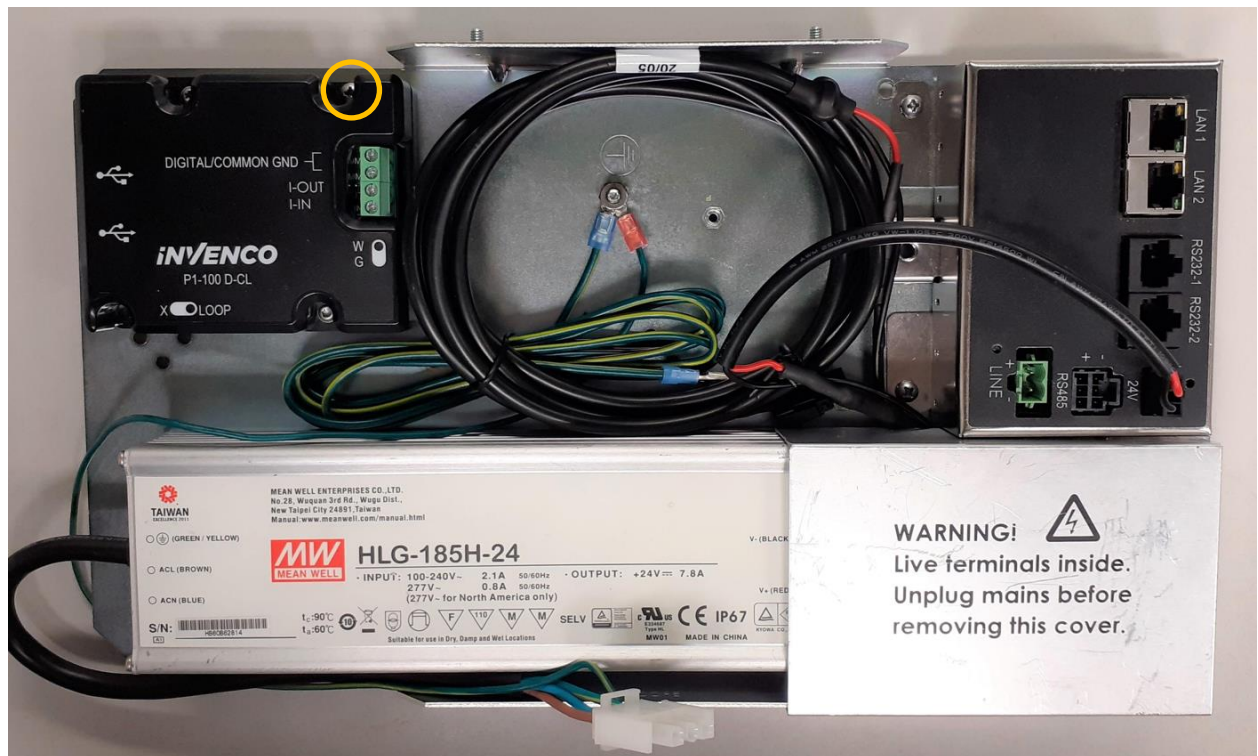
- Connect the other end (which has the O-ring) to the PSU ground stud by unscrewing the nut and re-doing it after placing the O-ring over the stud)



## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide



7. Peel off the backing to the VHB tape on the back and align with the screw hole and apply
8. Take one MS0147 Screw from the Pump Interface Board Retro-Fit Kit package and insert it into the top right hole on the Pump Interface Board EZ0618.



PSU Plate Assembly + PIB + InvencoLink

## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide



PSU Plate Assembly + PIB

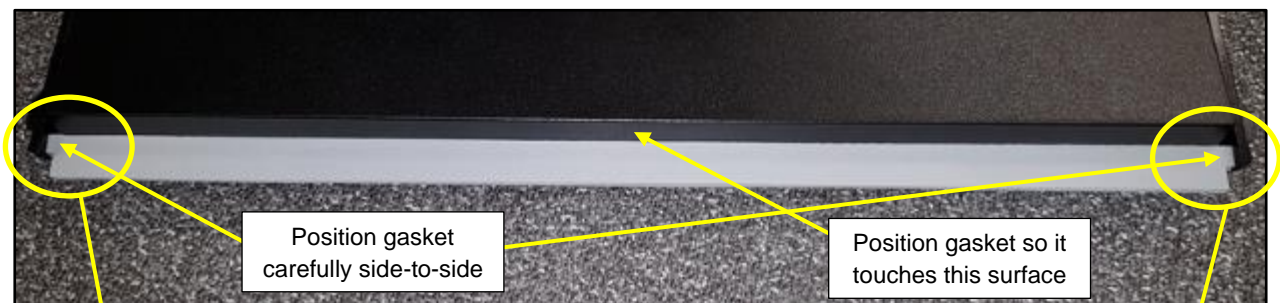
9. Tighten the screw carefully with an MN0041 nut on the back. to secure the terminal cover and Pump Interface Board in place.
10. The installation of the Pump Interface Board EZ0618 is now complete. Discard the packaging for the Pump Interface Board.

### 4.2.3 Gasket Installation

The RP00034-XX RFK panel needs to have a gasket installed before it can be placed into the dispenser.

1. Place the RP00034-XX panel face-up on a clean, soft surface.
  2. Locate the MP0653 gasket (it's the pale grey one about 1/8" thick).
  3. Peel the backing paper from MP0653 to expose the adhesive.
  4. Line up the gasket along the bottom edge of RP00034-XX as shown, taking care that the edge of the gasket is touching the surface, before pressing the gasket onto RP00034-XX.
- If you are gentle, you can reposition the gasket before pressing it down properly.




**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**


5. Then fold the gasket over the bottom edge of RP00034-XX and press it down to form ensure it's in full contact.



6. Once the gasket has been installed, take care when handling RP00034-XX not to damage the new gasket as it's very soft.

Once the InvencoLink and PIB have been installed onto the PSU Plate Assembly, and the gasket has been installed on RP00034-XX, proceed to §4.3 Installation Procedure.

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## 4.3 Installation Procedure

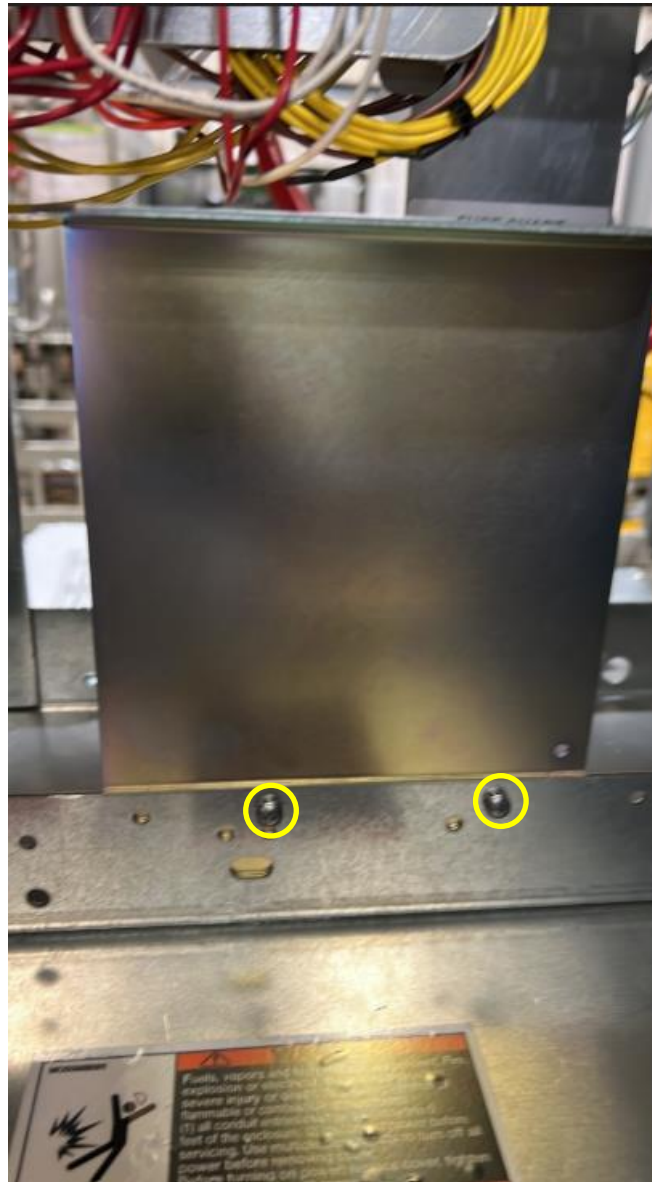
This section follows from the Disassembly procedure above, and assumes the pump is still open. References to “left-hand” and “right-hand” are as viewed into the pump on the Side you’re working on.

1. **Install the EZ0704 PSU Plate assembly.** For Side A this is the PSU Plate Assembly that has just had the PIB installed. It may or may not have the InvencoLink converter installed.

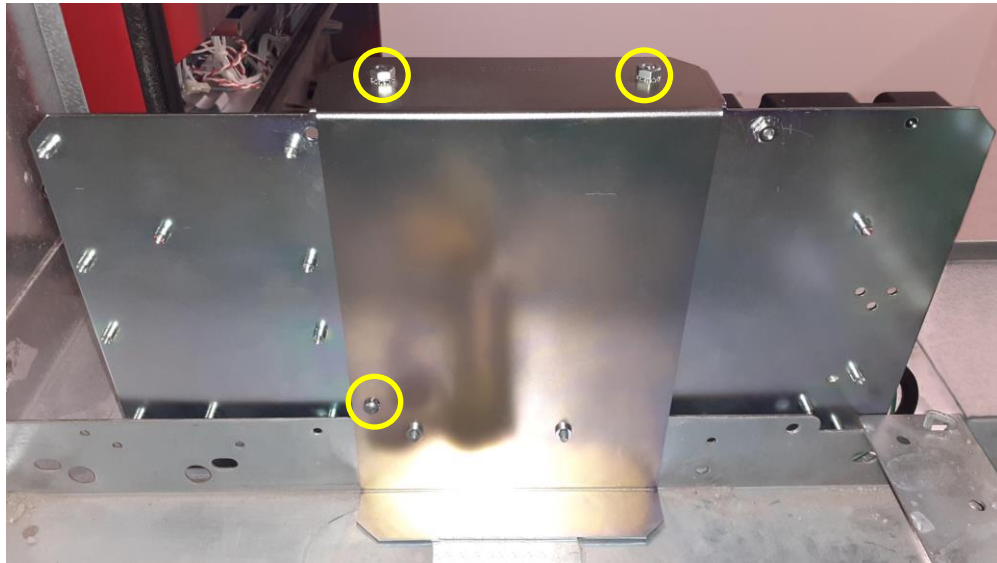


A representative photo with both, the InvencoLink and the PIB installed

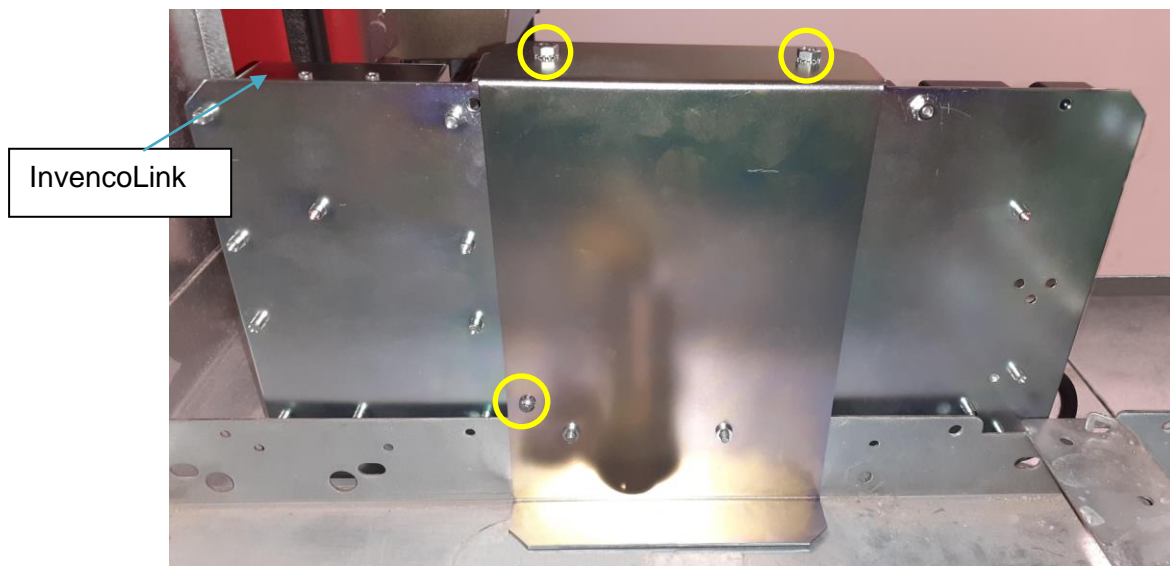
- a. Place the adapter bracket MP1399 inside the dispenser and secure it with two MS0160 screws in the front

**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

- b. Hang the PSU plate assembly from the bracket and secure it with two MN0029 nuts at the top.
- c. Attach 1 x MS0147 screw to the back of the PSU plate assembly to clamp it to the Encore chassis

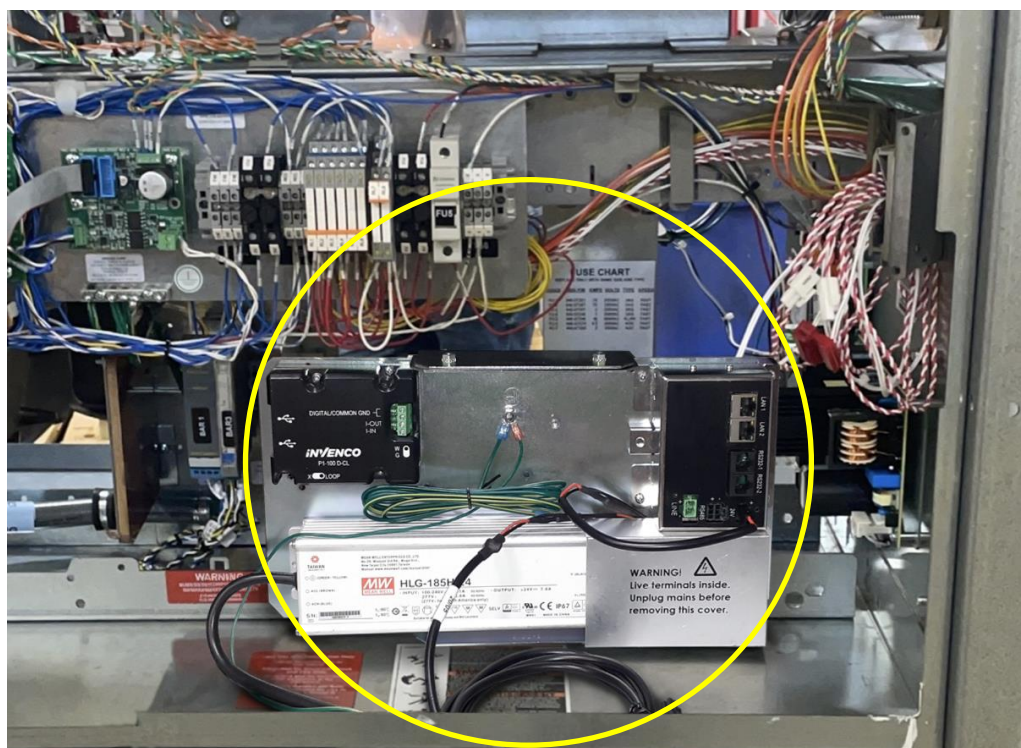
**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

2x MN0029 Nuts on top + 1x MS0147 Screw from back (No InvencoLink)

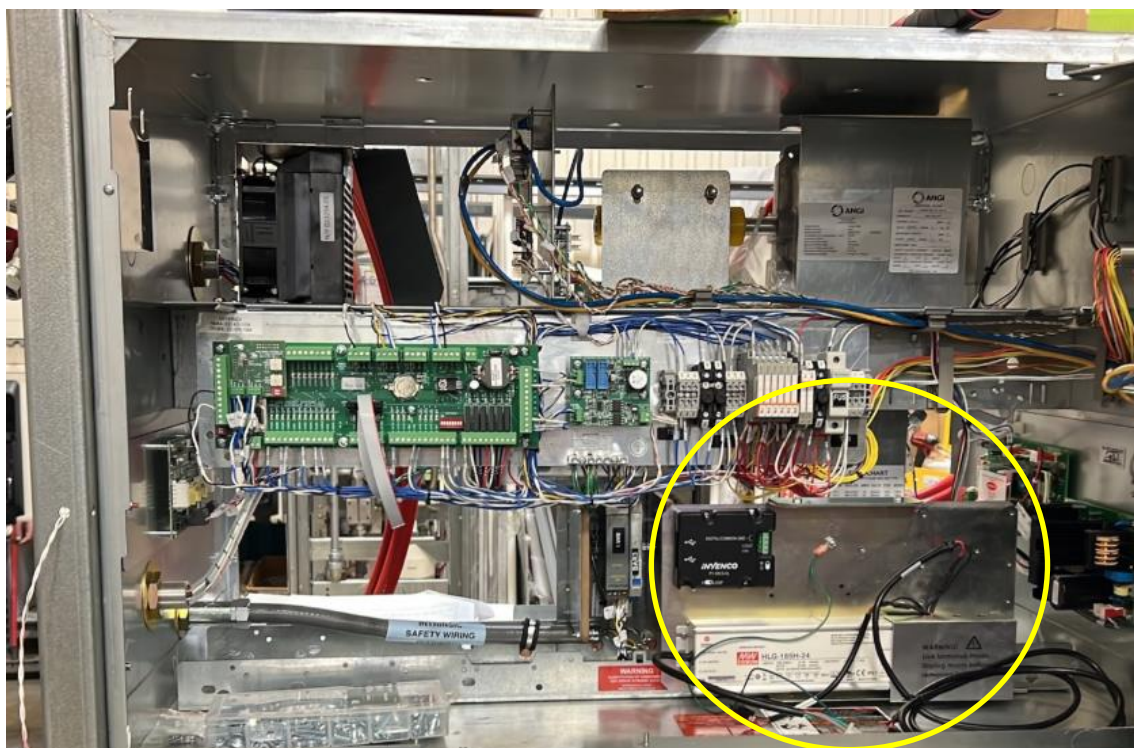


2x MN0029 Nuts on top + 1x MS0147 Screw from back + InvencoLink



**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

Chevron CNG Encore 700S with EZ0704 + PIB + InvencoLink +MP1399



**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

Chevron CNG Encore 700S with EZ0704 + PIB + MP1399

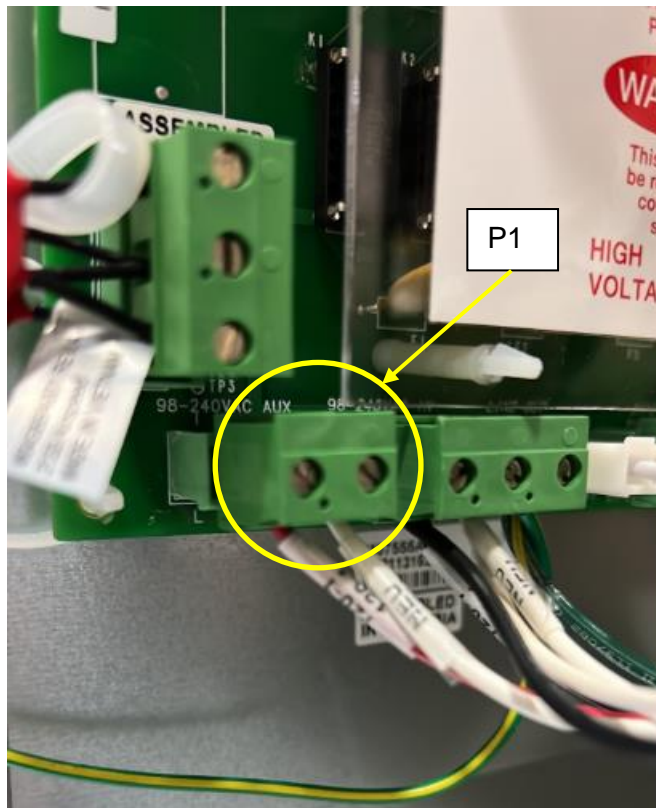
2. Pump adaptor installation:

**For a single sided installation on side A of the dispenser:**

Cable EK0227 has:

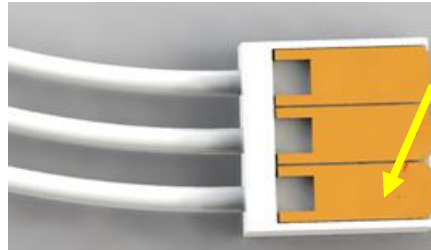
- Two wires with cut insulation at one end for connection to the existing connector plugged in the mains aux (P1)
- Single large white connector at the other end for connection to the PSU.
- Two three-way splice blocks to provide continuity for all required connections
- A green/yellow wire attached to a ring terminal for Ground connection

- a. Locate the connector plugged in at the mains aux (P1) on the dispenser power supply board

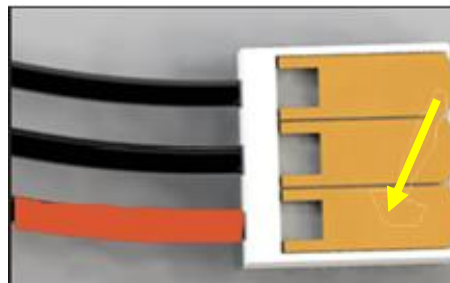
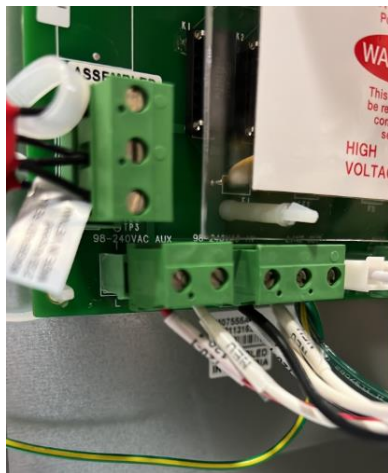


- b. Unscrew the WHITE wire from the P1 connector above and place it into the unused terminal of the splice-block terminal with the other white wires. Lift the orange spring-loaded lever on the splice-block terminal to insert and secure the wire in place.

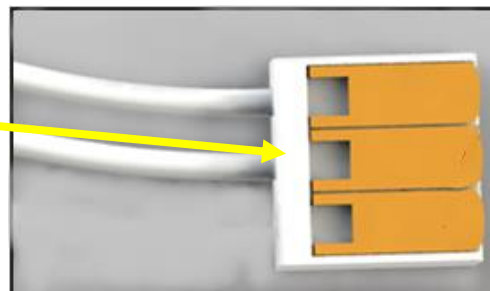
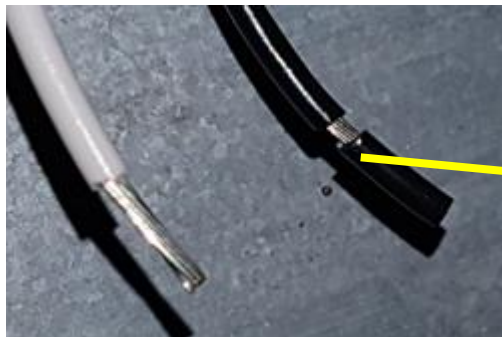


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- c. Unscrew the RED wire from the P1 connector above and place it into the unused terminal of the splice-block terminal with the other black wires. Lift the orange spring-loaded lever on the splice-block terminal to insert and secure the wire in place

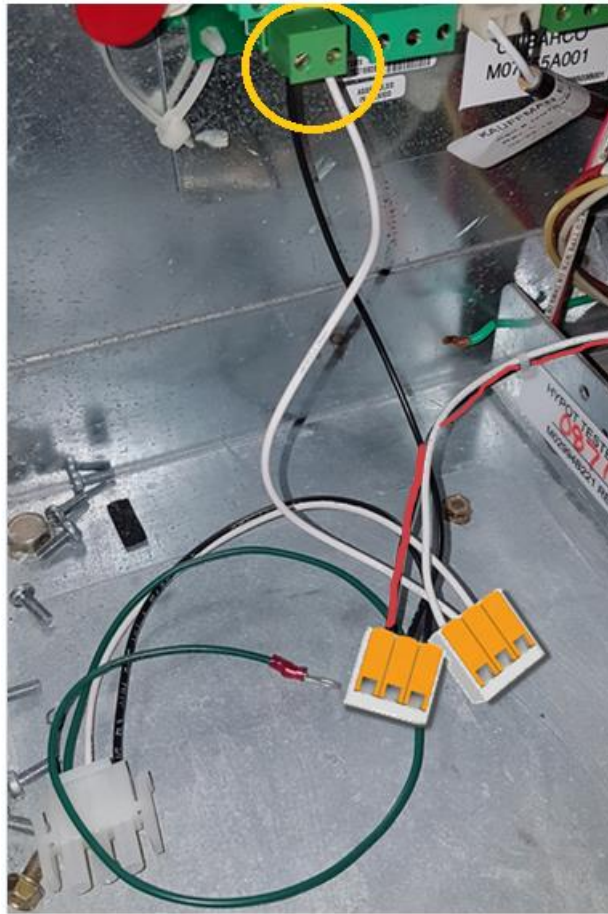


- d. Follow to the end of the cable coming out from the terminal shown in the photo below and remove the cut insulation end from the WHITE and Black wires at one end of EK0227.



- e. Screw the above wire ends into the P1 connector from step b above. Black wire to the left and WHITE wire to the right side.

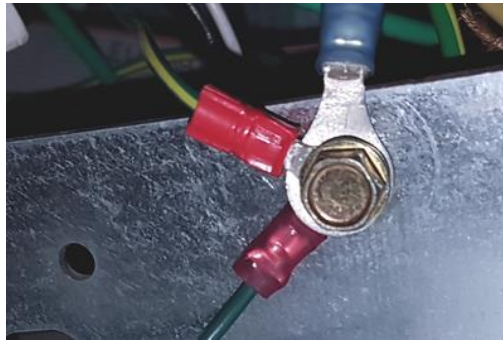


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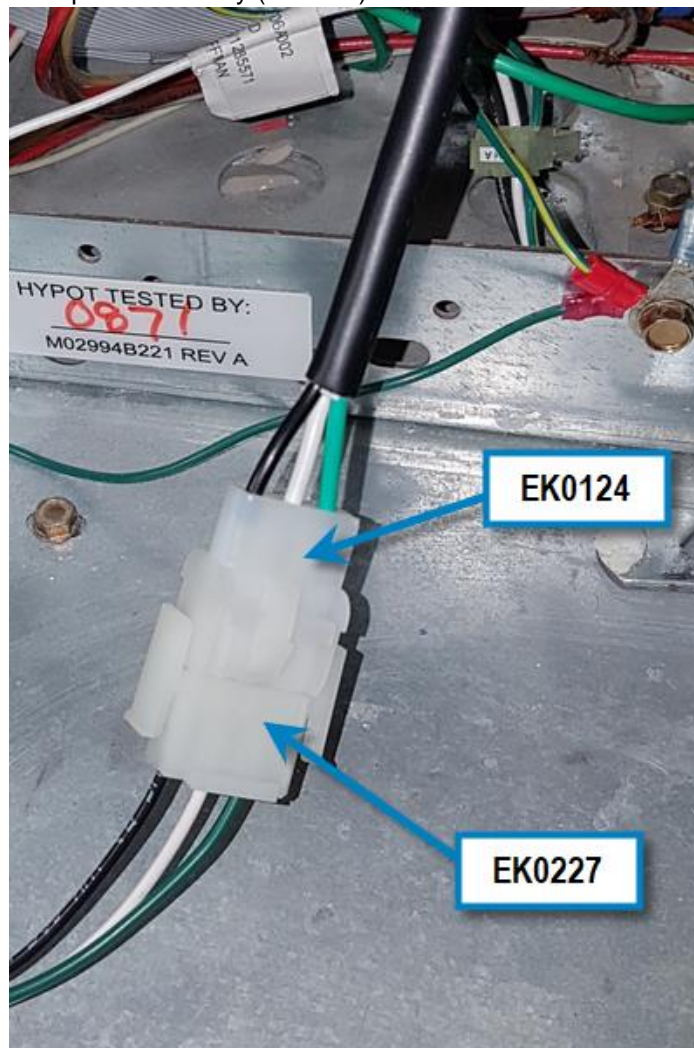
- f. Identify the nearest ground connection location on the dispenser chassis and undo the #8 or #10 hex bolt with the existing ground connections.



- g. Place the ring terminal under the existing terminals, reinsert and tighten the hex bolt

**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

- h. Take EK0124 from the parts kit, and connect the single-connector end into the white connector of EK0227. Connect the other end EK0124 to the AC power connector on the PSU plate assembly (EZ0704).

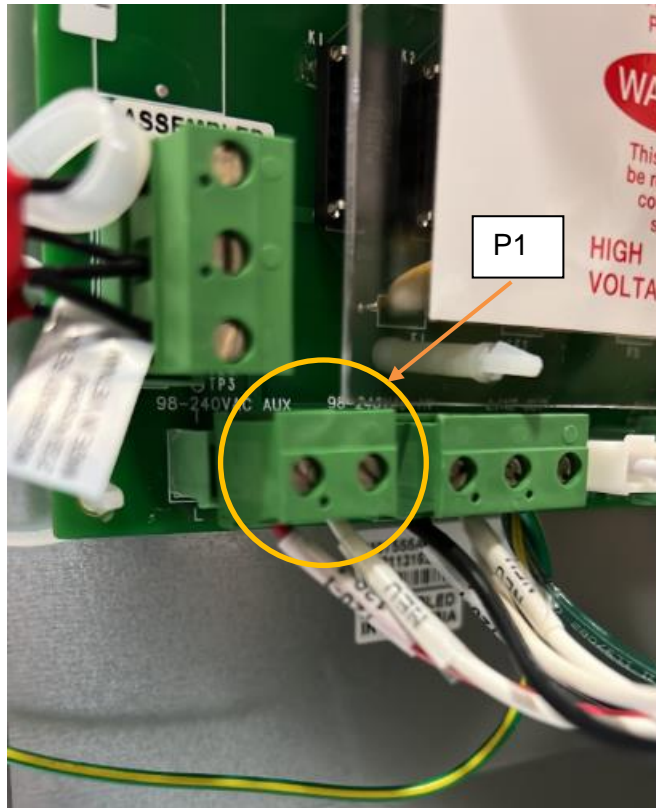


**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

**For a double sided installation:**

**On side A of the pump:**

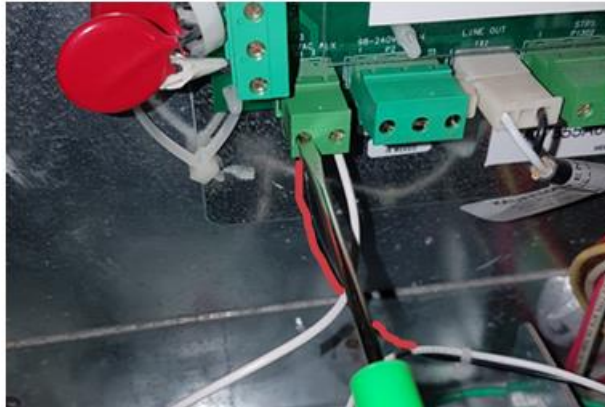
- a. Identify the connector plugged in at the mains aux (P1) on the dispenser power supply board



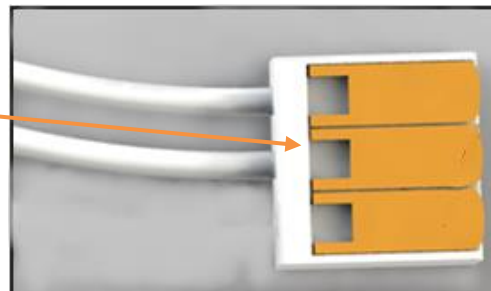
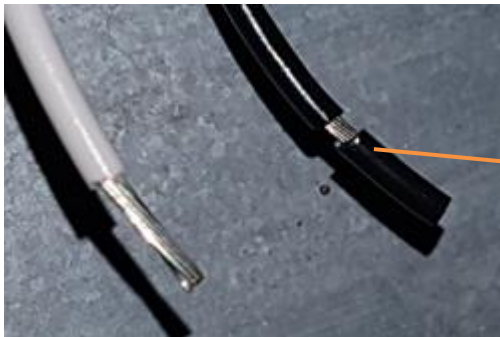
- b. Unscrew the WHITE wire from the P1 connector above and label it, keep it aside for later reconnection.



- c. Unscrew the RED wire from the P1 connector above and label it, keep it aside for later reconnection

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- d. Follow to the end of the cable coming from the terminal shown in the photo below and remove the cut insulation end from the WHITE and Black wires at one end of EK0227.



- e. Screw the above wire ends on to the P1 connector from step b above. Black wire to the left and WHITE wire to the right side.



**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide****On side B of the pump:**

- a. Identify EK0227 from the second kit for Side B
- b. Trace the white cable from the 2<sup>nd</sup> terminal of the splice-block with other white cable and connect it to the free third terminal of the splice-block with other white cables on Side A
- c. Similarly, trace the black cable from the 2<sup>nd</sup> terminal of the splice-block with other black cable and connect it to the free third terminal of the splice-block with other black cable on Side A
- d. Connect the white wire that was removed and labelled (from the P1 connector) in step b above and connect it with the free terminal of the splice-block with other white cables on Side B
- e. Similarly, connect the red wire that was removed and labelled (from the P1 connector) in step c above and connect it with the free terminal of the splice-block with other black cables on Side B

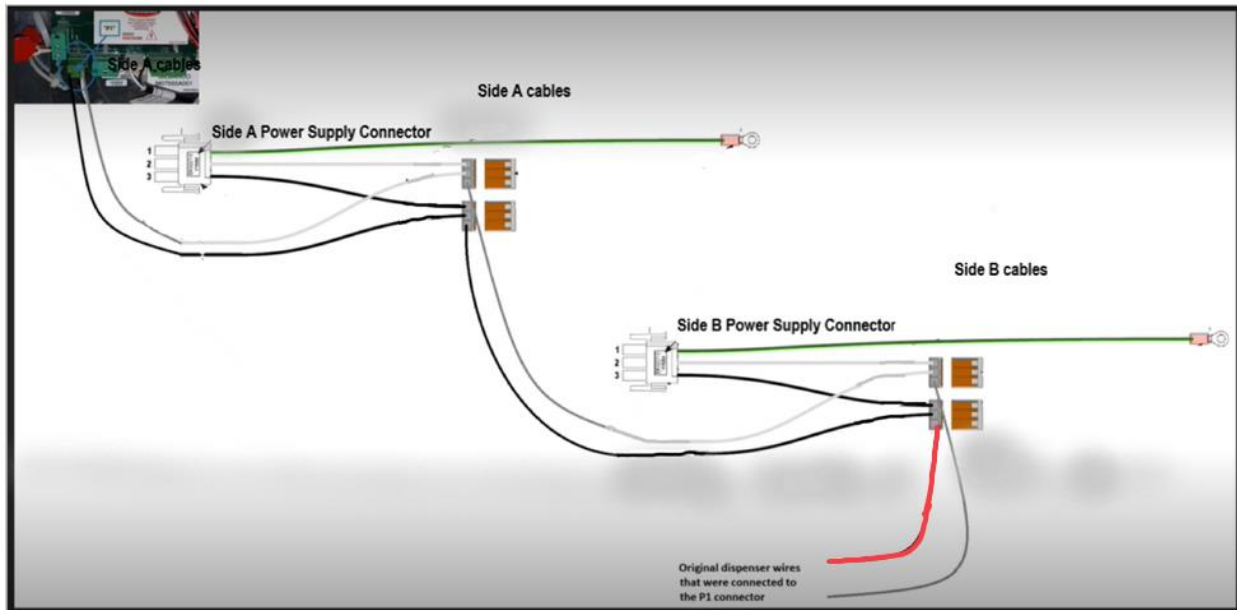
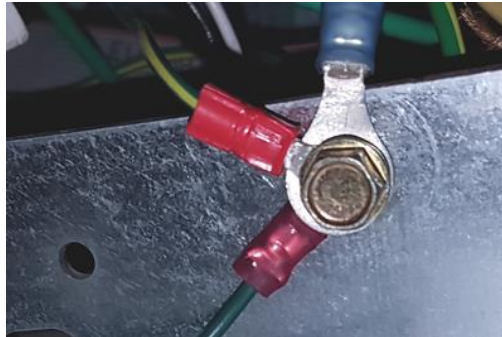
**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

Image showing overall connections for a double sided pump

- f. Identify the nearest ground connection location on the dispenser chassis and undo the #8 or #10 hex bolt with the existing ground connections.



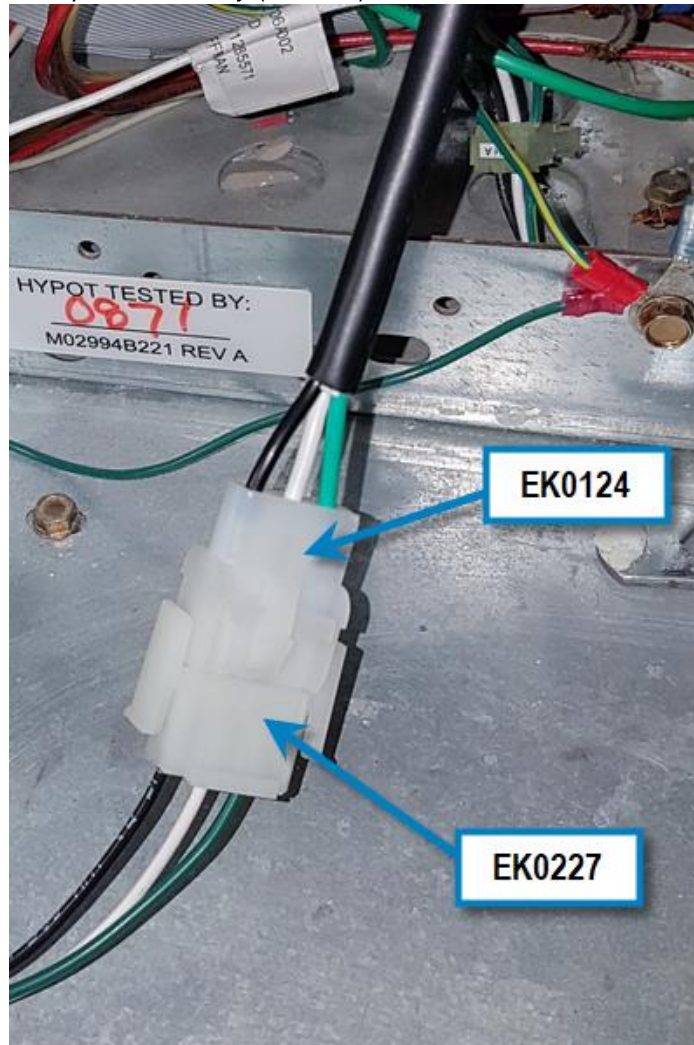
- g. Place the ring terminal under the existing terminals, reinsert and tighten the hex bolt





**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

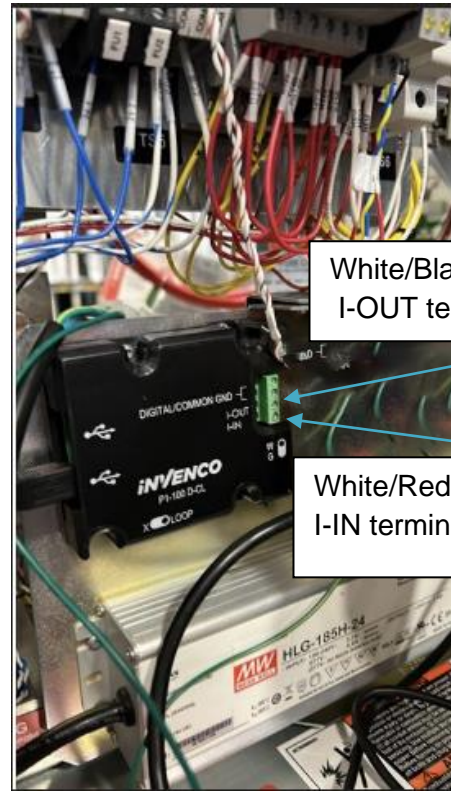
- h. Take EK0124 from the parts kit, and connect the single-connector end into the white connector of EK0227. Connect the other end EK0124 to the AC power connector on the PSU plate assembly (EZ0704).



3. **For the PIB:** Find the communication cable connector disconnected in step 19 of the disassembly process.

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4. **For the PIB:** Identify the two white cables, cut them off, strip them and connect them to the PIB terminals

**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

White/Black wire goes to the I-OUT terminal

White/Red wire goes to the I-IN terminal



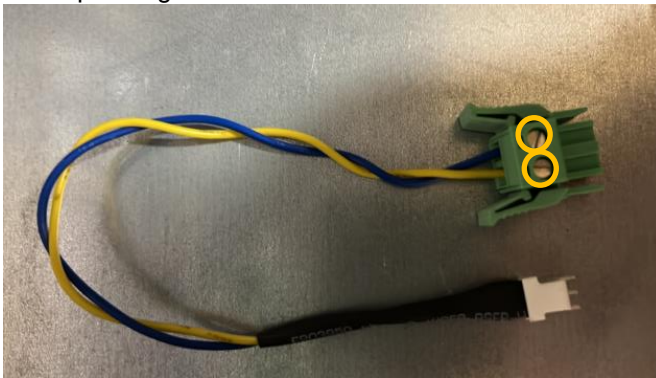
- The White/Black wire connects to the PIB I-OUT terminal of the PIB
- The White/Red wire connects to the PIB I-IN terminal of the PIB

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5. **For the InvencoLink:** Identify the blue and the yellow cables, cut them off and strip them.

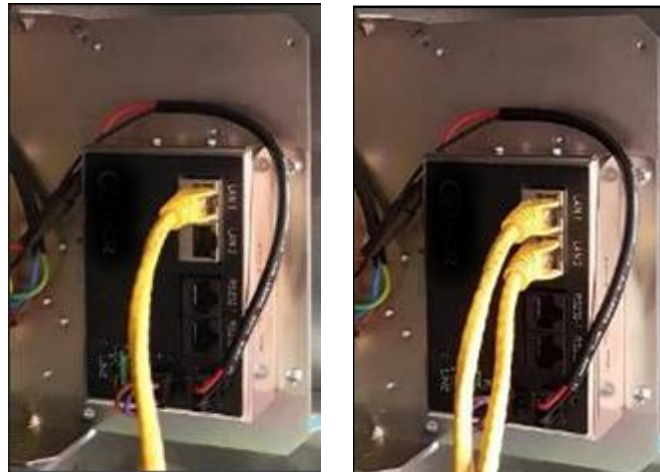


6. **For the InvencoLink:** Find the InvencoLink adapter cable EK0139 from the Retro fit kit and unscrew the two screws to remove the connecting cables. Note the color of the wires to the corresponding terminals for the connection in the next step.

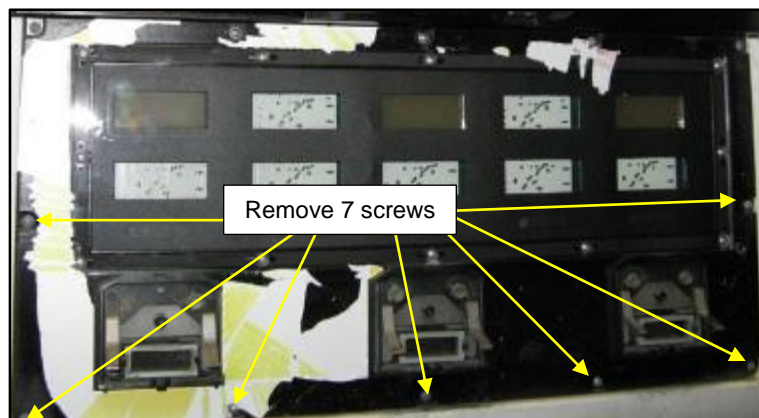


7. **For the InvencoLink:** Discard the cables and plug in the stripped yellow and blue cables from step 5 above, taking care to connect the same color polarity as per the previous step.
8. **For the InvencoLink:** Plug the EK0131 YELLOW patch cable into the LAN-1 socket on the InvencoLink converter. If doing Side B, also plug the cable into the LAN-2 socket.



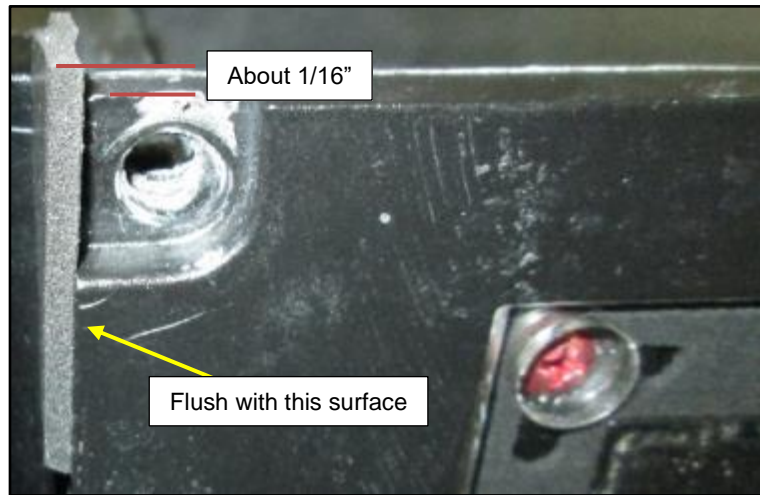
**Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide**

9. Unscrew the entire PPU panel by removing seven screws as shown. Keep the screws, they will be used to re-fit the PPU panel:



10. Ease the top of the PPU panel forwards out of the dispenser door about an inch or so.  
11. Remove the backing paper from each of the two MP0652 gaskets and apply them on to each side of the top of the PPU panel as shown (only one side is shown):



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12. Gently flex the center top of the PPU panel forward, so that the two top corners can be eased back into place in the dispenser door without rubbing or otherwise damaging the gaskets just installed. The gaskets will become slightly compressed when you release the flex on the panel.
13. Reinstall and tighten the seven screws removed in step 9.
14. From inside the dispenser door, apply an MP0651 gasket across the top of the PPU panel as shown:



Note that the long part of the gasket goes on the back of the PPU panel, and the shorter part goes across the top of the PPU panel, between the vertical edges of the dispenser door opening.

15. Acquire pre-assembled RP00113-XX RFK Hatch Panel containing the G6-300 OPT.

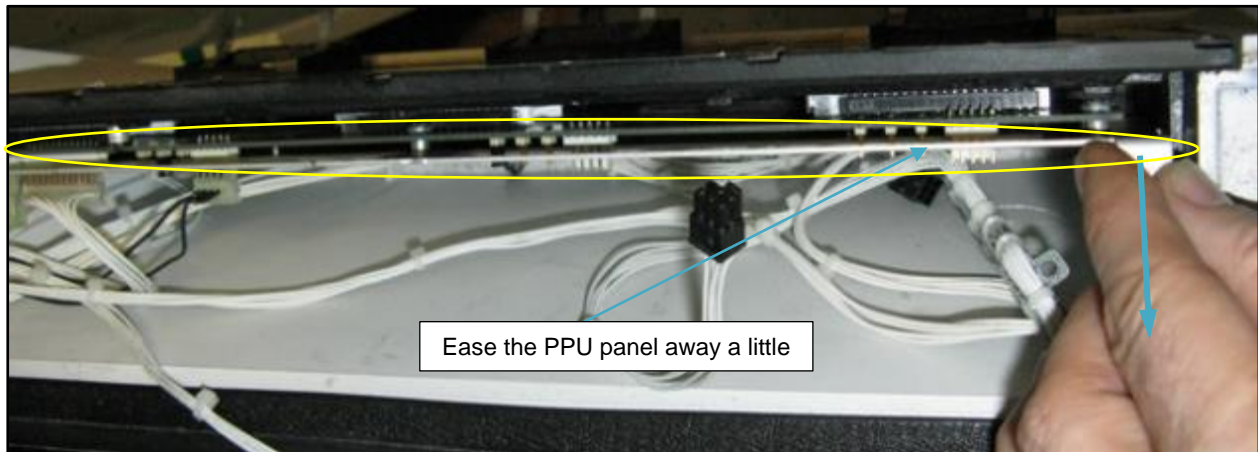


**To avoid damaging the pump door plastic in the following steps where screws are being placed into the Encore700S pump door, it is very important to start each**

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**screw by hand, ensuring you use the existing thread.**  
**DO NOT USE any type of powered tool to tighten the screws.**

16. Ease the PPU circuit board back a little to enable the lower edge of the RFK Hatch Panel RP00113-XX to sit properly:



17. Have a couple of MS0101 hex-headed screws, and the nut driver handy.  
Hold the top edge of the RFK Hatch Panel RP00113-XX, and carefully place the bottom edge of the RFK Hatch Panel into the opening in the Encore 700S pump door from inside.



18. Ease the RFK Hatch Panel RP00113-XX gently into the gap until it is vertical against the screw bushes on the Encore 700S pump door. Take care not to rip or rub the soft foam gasket along the bottom edge of the RFK Hatch Panel. Also, be careful not to pinch any wires.

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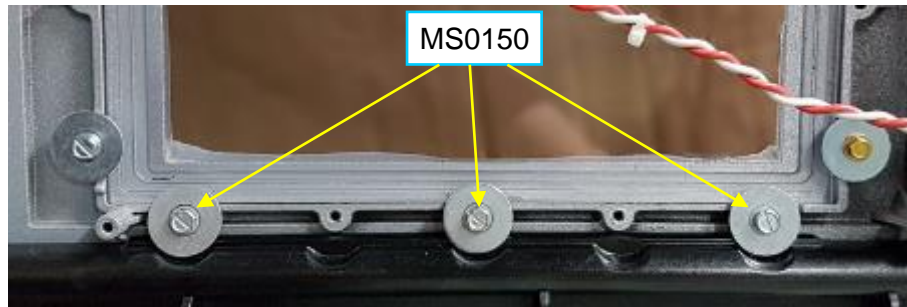
19. Insert the two MS0101 screws ready from Step 17 into bushes on either side of the RFK Hatch Panel RP00113-XX. If there any bushes stripped or split or otherwise unusable discontinue the retro-fit process and contact technical support for advice.  
Tighten the screws with a 1/4" nut driver.



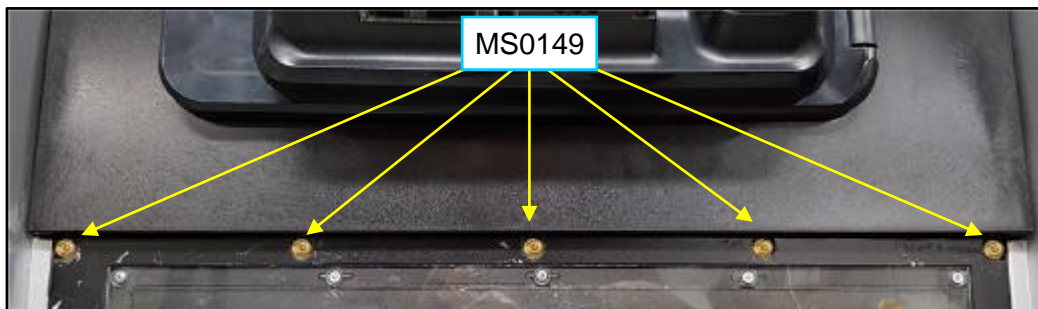


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20. Place the remaining eight MS0101 screws into the other bushes around the RFK Hatch Panel RP00113-XX. If there any bushes stripped or split or otherwise unusable discontinue the retro-fit process and contact technical support for advice.  
Tighten all screws with a 1/4" nut driver.
21. Place three MS0150 #6-20 X 3/8", washer-headed screws in the three locations underneath the CIM display window. Tighten the screws using a 1/4" nut driver:



22. Through the front of the pump door insert and tighten five MS0149 Philips screws along the top edge of the PPU panel.

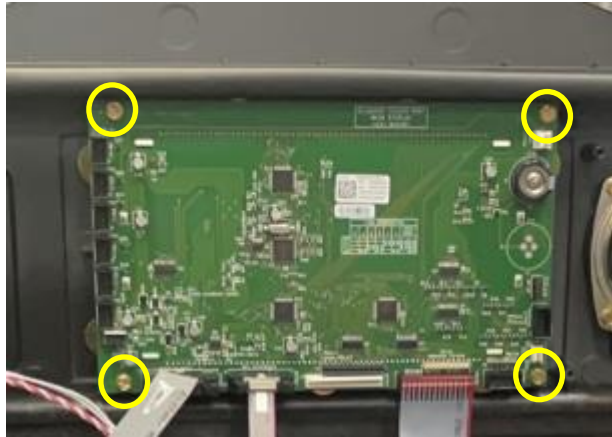


23. Press the PPU circuit board gently back into place against the Encore 700S pump door, then insert three MS0150 hex-headed screws. Tighten the screws with a 1/4" nut driver.



## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide

24. Take the Main Display from inside the Encore 700S cabinet and place it back onto the pump door in the correct position. Insert the four ¼"-headed screws from Disassembly Step 14 in the corner holes of the Main Display board. Tighten the screws with a ¼" nut driver.



25. Gather the following cables:
- a. EK0131 Yellow patch cable
  - b. Black DC and green/yellow ground cable pre-installed on EZ0704 PSU Plate Assembly
  - c. USB cable from the PIB
26. Route the three cables from Step 25 along underneath the electronics shelf to the right-hand side of the pump cabinet, then out along the right-hand side of the cabinet.





## Retrofit G6-300 GVR Encore 700S CNG Dispenser Installation Guide

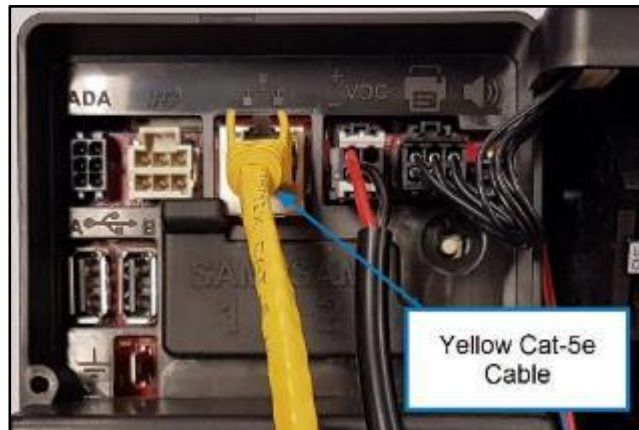
27. Identify one of the USB cables plugged in the PIB. Trace the other end of one of the cables and plug into a spare USB port on the G6-300 SDC. It can be any of the 2 USB ports. (Each of the two USB cables will need to be plugged into Side A and Side B).



28. Take the three cable ends routed in Step 24 and connect them to the G6-300 OPT:
- Plug the Black low-voltage DC cable from the EZ0704 PSU plate, into the OPT:




- If the InvencoLink has been installed:** Connect the EK0131 Yellow Cat-5e Cable cable into the correct sockets on the OPT. The port numbers on the InvencoLink for each cable (e.g. LAN-1) must match the side you're working on (e.g. Side A).

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- c. **If InvencoLink has not been installed:** Plug the Ethernet cables that is already present in the dispenser and plug them into the Ethernet socket in the OPT
- d. Clip the green ground cable from the EZ0704 PSU plate onto the ¼" tab on the OPT:



29. Gather the YELLOW, BLACK, GREEN/YELLOW and the PIB USB cables from the above steps into a cable-tie on the upper left rear (as viewed from its rear) of the G6-300 OPT:

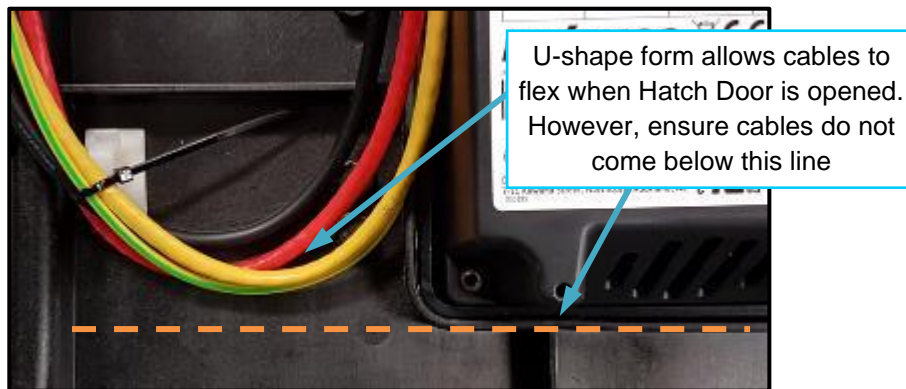
	Document Number	DCV-00650
	Date Released	27 Sep. 2022
	Revision Number/Security level	R00 S2
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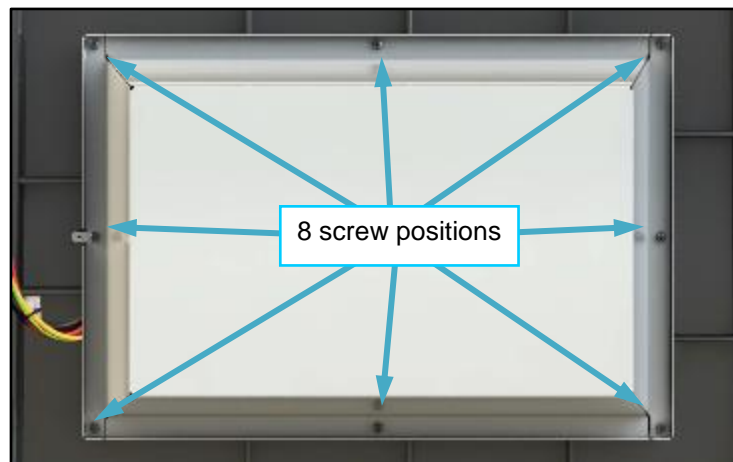
30. Place an MF0046 cable clip beneath the rib on the RFK Hatch Panel RP00113-XX as shown:



31. Further gather the cables and secure them to the cable clip using a cable-tie, taking care to form a U-shape as shown:

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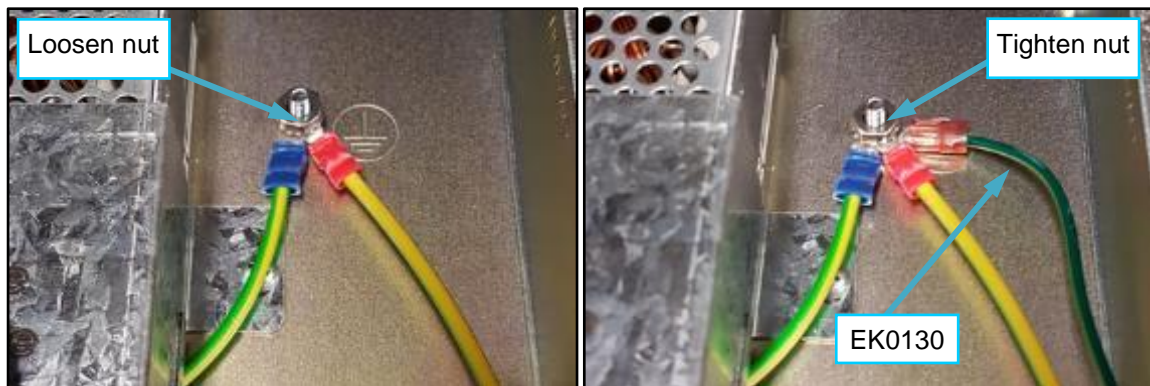
32. Draw any excess cable length back towards the pump door hinge, and re-secure them with the cable clip (shown in the photo in Step 26) located there.
33. Install the MZ0116 Isolating Cover over the rear of the G6-300 OPT, onto the RFK Hatch Door.
  - a. Place the cover with the ground tab to the left over the G6-300 OPT, ensuring that no cables are snagged.
  - b. MZ0116 has captive screws for attachment. Insert and tighten the eight captive screws into the Stand-Offs on the RFK Hatch Door:



- c. Plug an EK0130 Grounding Cable onto the tab on the left of the Isolating Cover:

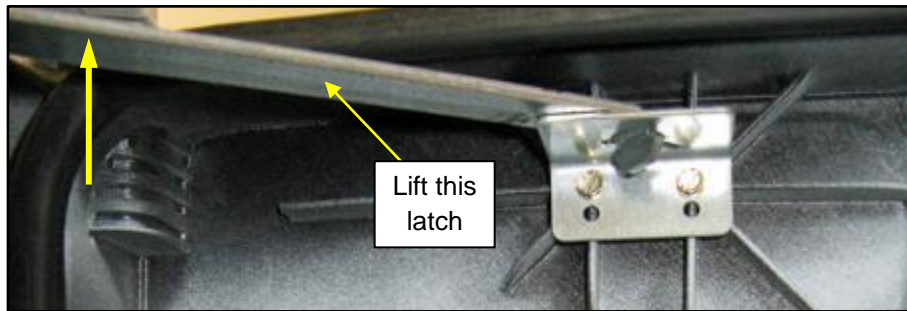
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- d. Gather EK0130 into the loom of cables established in Step 24.
- e. Loosen the nut on the earth stud on the EZ0704 PSU Plate assembly, and secure the unconnected end of EK0130 under the nut. Re-tighten the nut, and ensure all the earth connections are secure:

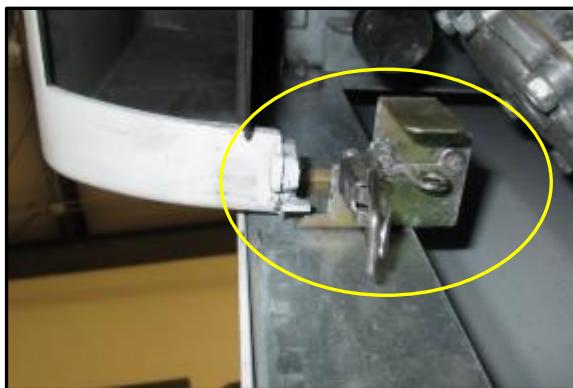


- f. Gather any excess wire of EK0130 and tidy it into the loom.
- 34. Apply the new Product ID overlay on the Product ID Plexi-Bezel in the same position it was removed from or made screw holes into in step 12 and 13 of the Disassembly procedure.
  - 35. Tidy up any loose wiring, using cable ties to secure the wires.
  - 36. For a double-sided installation, repeat steps 1-2 and 9-35.
  - 37. Close up the dispenser. For each open Side:
    - a. Lift the Encore 700S Pump Door open-latch to release the door:

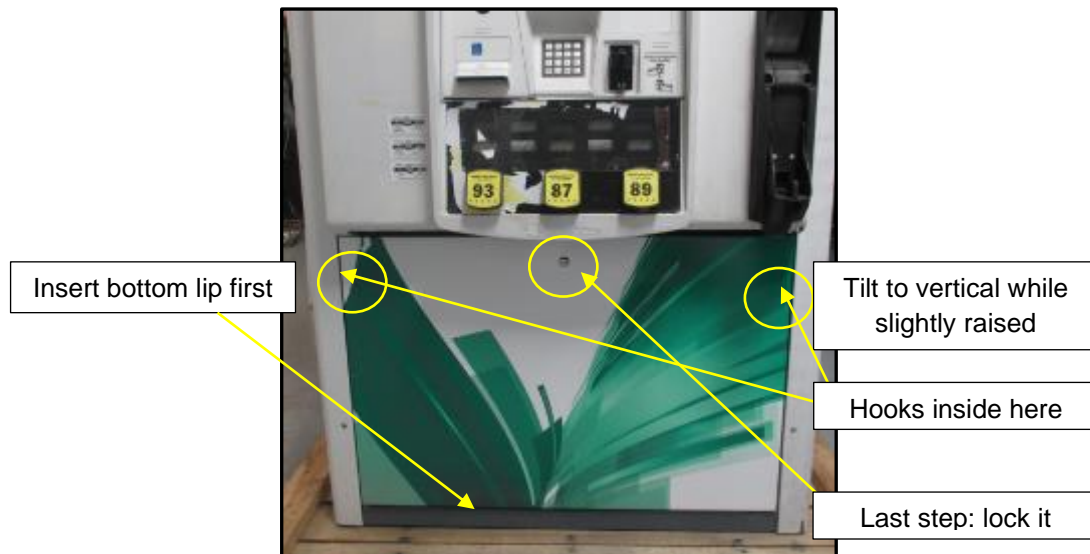


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- b. Then close the Pump Door carefully, ensuring no cables are pinched. If cables will be pinched, re-open the Pump Door and secure and/or re-arrange the cables securely. Then continue closing the door.
- c. Lock the top and re-latch the bottom of the door.



38. Reinstall the panel below the door and lock it.
- d. Tilt the top of the panel outwards and insert its bottom lip first.
  - e. Bring the panel close to vertical, then lift it slightly till it slips over the upper hooks.
  - f. The press the panel closed and allow it to drop a little into place.
  - g. Finally, lock the panel with the "GBCO" key.

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39. The installation procedure is now complete.

#### 4.3.1 Wiring Completion

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



**WARNING – Local regulations may also require that the installation is 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 (Note: reported Firmware version may vary):



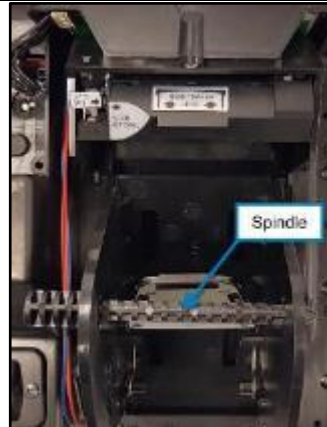


If the terminal is successful in connecting to the LAN, it will display the following screen and the rest of the start-up sequence will continue:



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The following steps describe the paper loading procedure.

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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)	
3.	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.	
4.	Insert the cut edge of the paper into the slot as shown by the label. <b>Note:</b> Insert until the printer grips and feeds automatically.	



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5.	<p>The photo shows the paper loaded correctly.</p>	
6.	<p>Paper-feed buttons are located on the top of the terminal.</p>  <p>Press either button to move the paper forward or back.</p> <p>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.</p> <p>Cut the paper using both paper-feed buttons, then remove the cut length from the chute.</p>	