Retrofit G6-300 + InvencoLink Wayne Vista 3V (US) Installation Guide

Kit Part Number: RF00019-XX

Release History

Version	Prepared by	Date	Change description
0	Michael Doh	05-Dec-2019	Based on the G6 US version (DCV-00402). Initial version to be approved by UL
1	Michael Doh	09-Dec-2019	Corrected typing errors
2	Michael Doh	26-Mar-20	Updated kit part and sub-assembly numbers, removed cables kit, corrected ethernet cable part number
3	Michael Doh	27-Mar-20	Changed PSU plate mounting screws from MS0154 to MS0262

Contents

1 Introduction

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

This Retro-Fit Kit can be installed into either Side A or Side B of a Wayne Vista 3V 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 Pre-Installation 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 G6-300 OPT:

- Torx T25 security screwdriver
- Short Philips #1 screwdriver
- Philips #1 screwdriver with >5” shaft
- Flat 5mm screwdriver
- Small adjustable spanner
- Side cutters
- Cable (zip) ties
- Pliers
- ¼” Socket or Nut Driver
- 3mm Hex Key
- 3” wide jaw Vice Grips
- Standard Vice Grips
- 7/32” Socket or Nut Driver
- Flat File
- Disposable drop cloths (eg large kitchen cloths)
- Magnets
- Neodymium magnets
- Small plastic bag
- Nail polish
- Hacksaw

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

1.2 Installation Kit Contents

Unpack the G6-300 Vista 3V Retro-Fit Kit (RF00019-XX) and check that all of the parts listed below are present. Also refer to the pre-installation procedure (section 4.2.1) relating to the communication method parts.

G6-300 OPT, Mounted on RFK Door (RP00019-XX):

PSU plate with cables (EZ0631):

Sheet metal insulating cover assembly (MZ0147)
Hacksaw guide decal (DL0296):

Cables

Comprising:

	EK0137	Ovation Pump to PSU Adaptor, 1.0m
	EK0127	Wayne Pump to InvencoLink, 1.0m
	EK0131	Cat-5e, Flexible, 2.5m, YELLOW

Fastener Kit (FK0013):

Comprising:

4	MS0262 #8-32 x 3/8” SEMS screws
3	MS0145 8g x 3/8” hex-head screws
1	MF0046 Self-Adhesive, locking cable clip

2 Safety & Compliance Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing 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 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.

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.

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.

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

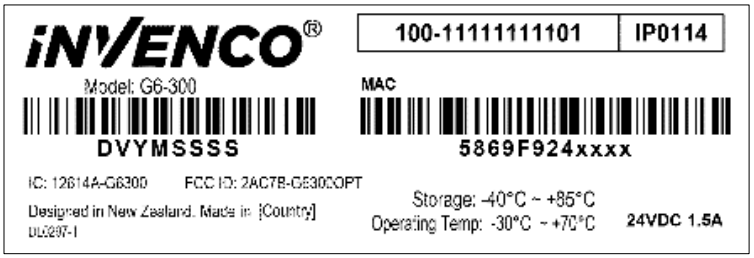
Compile the following information in case of emergency:

- 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).

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 OPT has UL File References of E469526 and E480135 and carries labels similar to these:



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

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.

4 Disassembly Procedure

PRECAUTION:

- Please ensure all safety procedures are followed per requirement by the customer before installing the retrofit kit.
- 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.

- This installation will require a panel replacement. The panel will be removed from the door and replaced with a pre-built panel with the OPT pre-fitted.

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:

- The Wayne Graphic Display Assembly
- The Printer
- The Printer Bracket
- The Water Catch Tray
- The Q-CAT Board (or the dual CAT board)
- Various Cable Assemblies

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 Side A of the dispenser.

Note: *For the purposes of this manual, Side A of the dispenser refers to the side with the manufacturer's label/Serial Number Plate.*

3. Identify whether the pump is a "Wide Frame" or "Narrow Frame" version from the pictures below – some steps below vary depending which version you have:
   Use a Wayne Security Key to unscrew the two security bolts at the top left and top right of the electronics head bezel. (Fig. 4.3)

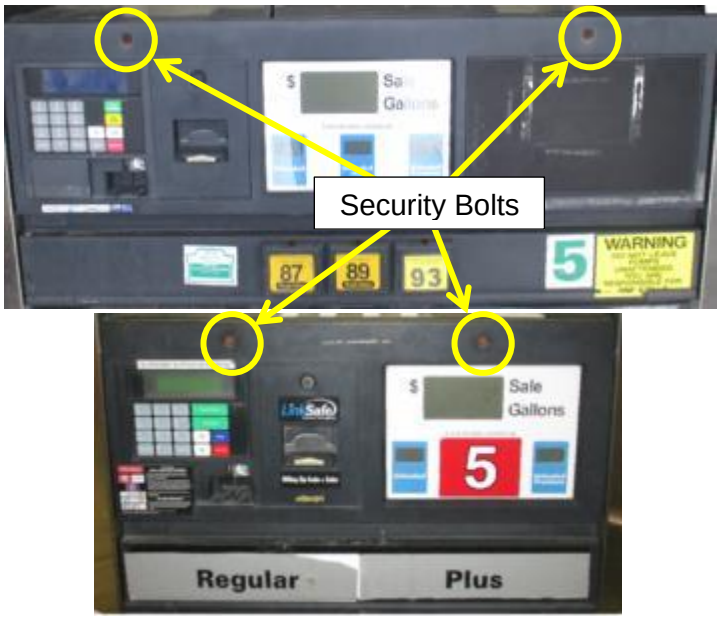


Fig. 4.3 – Wide Frame (top) - Side A of Electronics Bezel - Narrow Frame (bottom)

4. Lower the electronics head bezel by pulling the top forward until it fully rests on the suspension cables.

5. Locate the Graphic Display Assembly or Single Line Display (Fig 4.5):

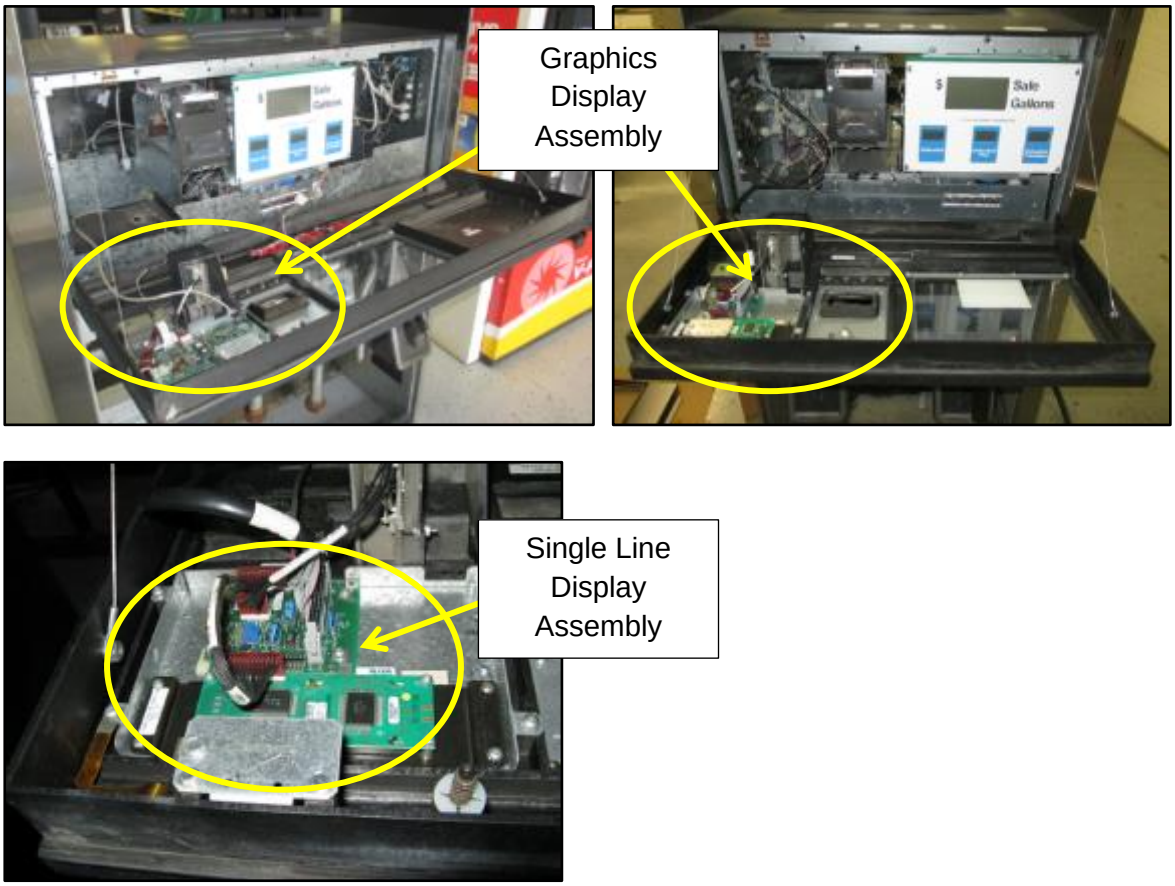


Fig. 4.5 – Electronics Bezel in fully lowered position

6. For the Graphic Display Assembly:
Unplug the 8-pin display cable and the two-wire ribbon cable that are connected to the Graphic Display Assembly (Fig 4.6):

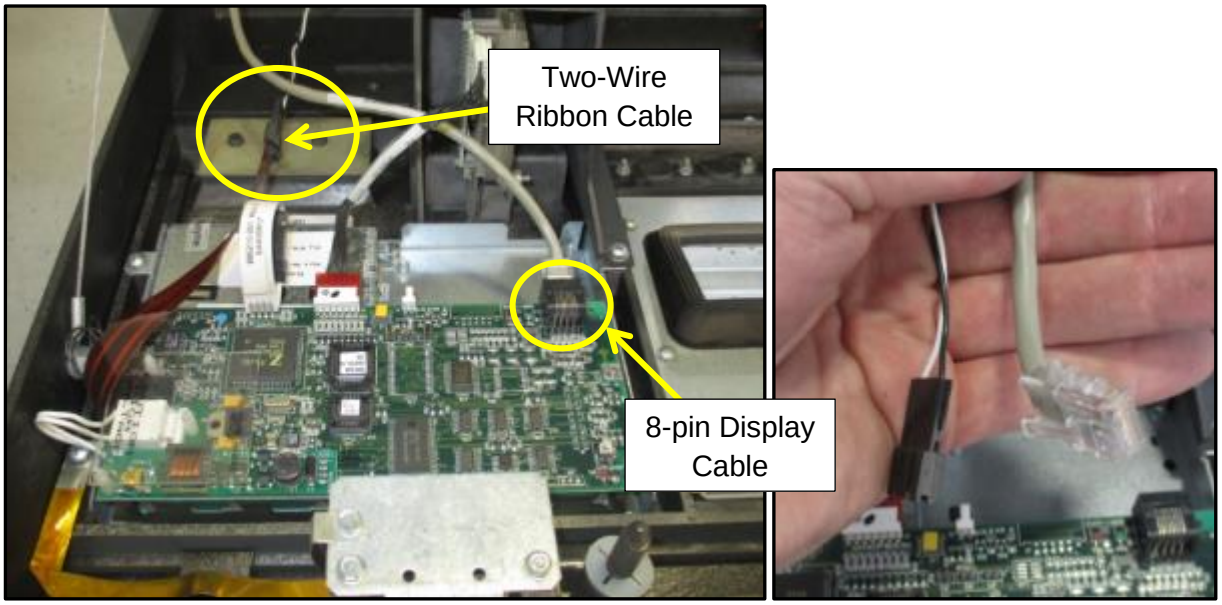


Fig. 4.6 – Location of both Graphics Display cables that will need unplugged

7. For the Single Line Display:
Unplug the 40-pin display cable and the two-wire grey cable that are connected to the Single Line Display Assembly (Fig 4.7):

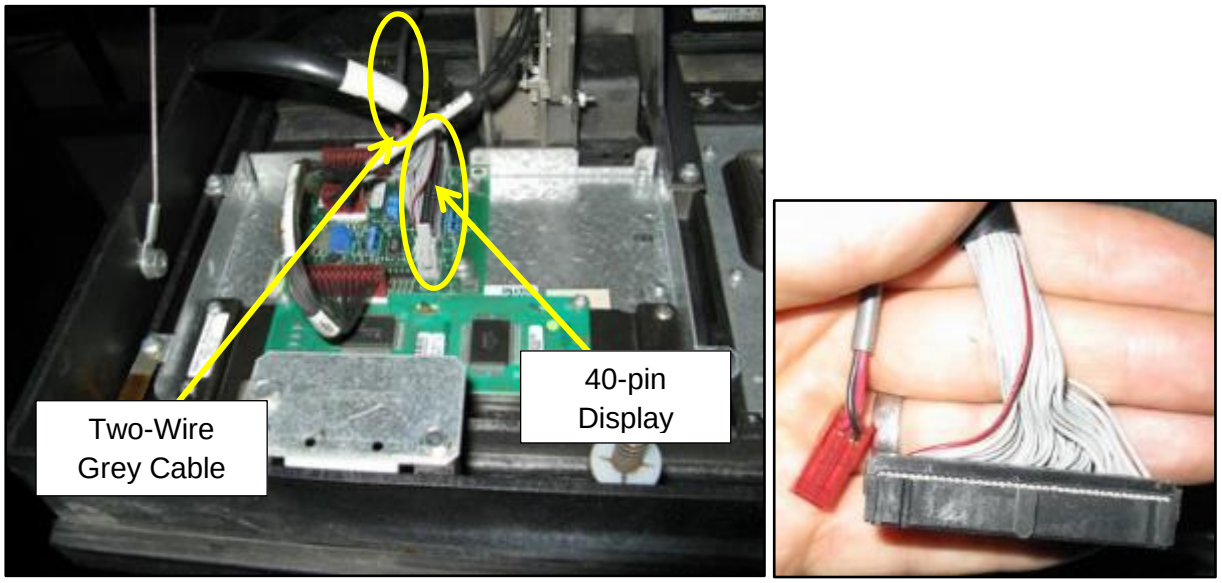


Fig 4.7 – Location of both Single Line Display cables that will need unplugged

The remaining cables are attached to peripheral components that will be removed along with the Display Assembly later in the disassembly process.

8. For the Graphic Display Assembly:
Locate and remove the (3) ¼" head mounting screws located along the bottom of the Graphic Display Assembly. (Fig 4.8a)

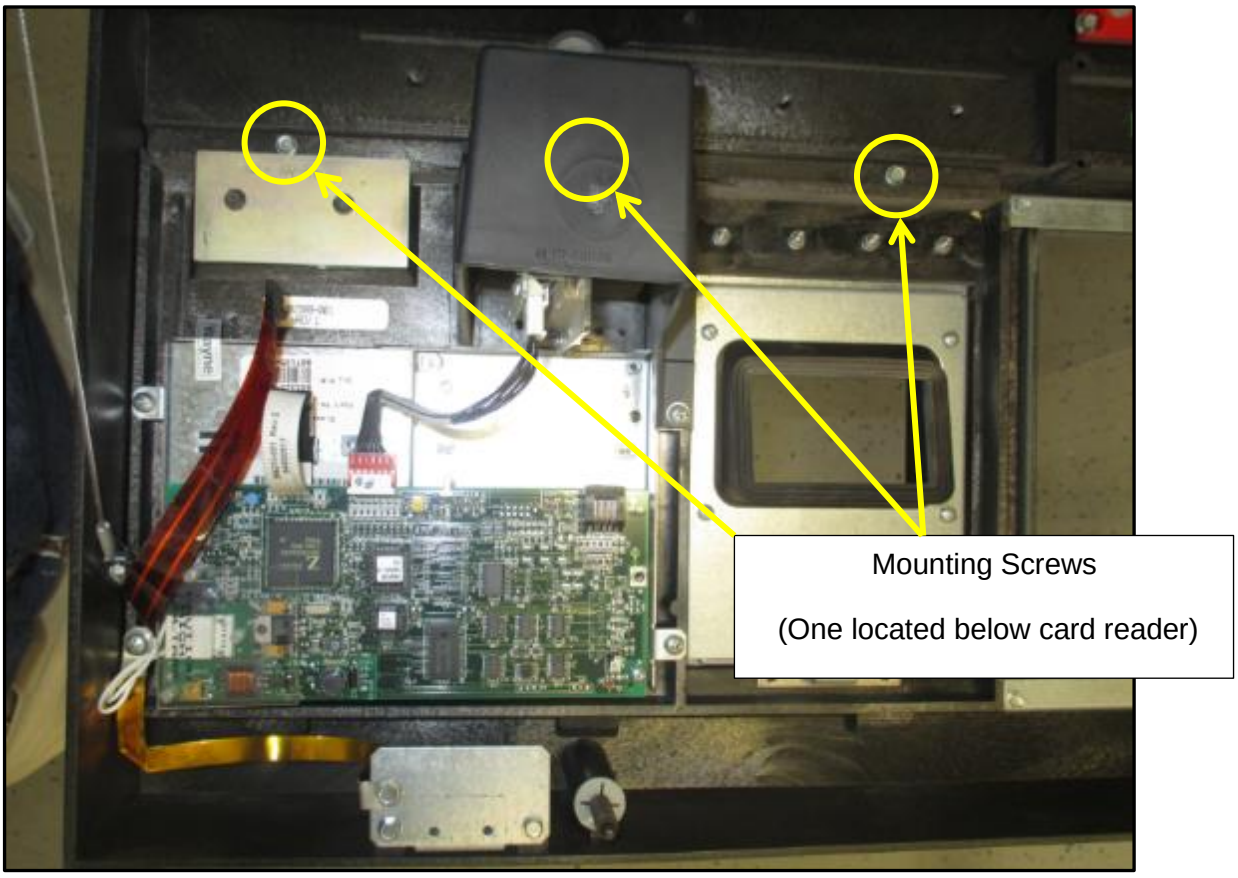


Fig. 4.8a – Location of the 3 screws that need removal

Note: *There may be a variant design for the Card Reader Rain Catcher. The process for removing the Graphic Display Assembly is identical to the one in Step 8, with the exception that the rain catch has TWO screws fastening it instead of ONE. However, only one of these screws will need to be removed. A 5" long screwdriver will be needed to reach the screw. Use Fig 4.8b as a visual guide.*

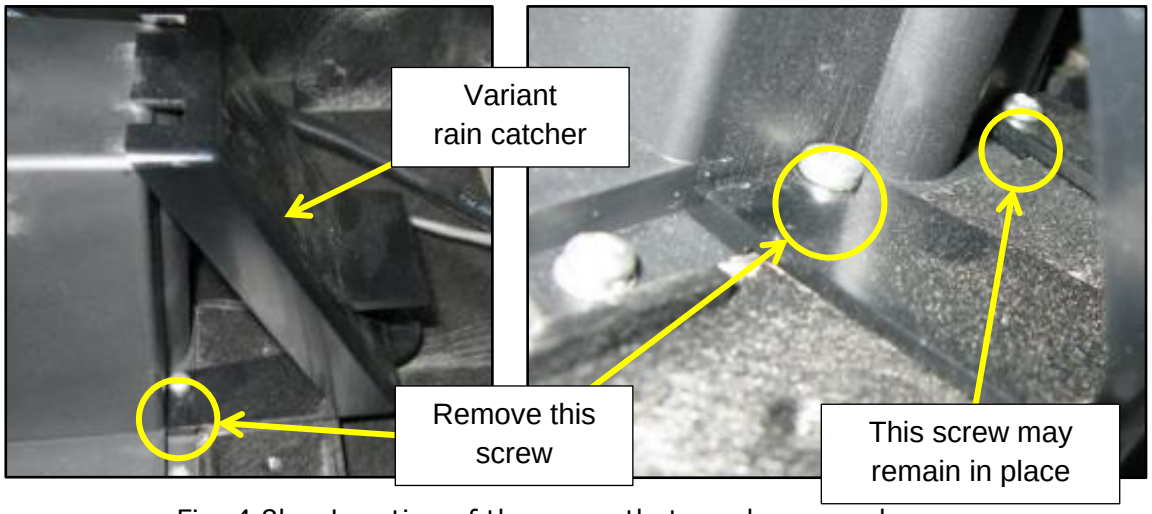


Fig. 4.8b – Location of the screw that needs removal

9. Remove the ¼" head ground strap screw from the earth plate on the dispenser door. Retain the screw for later use:

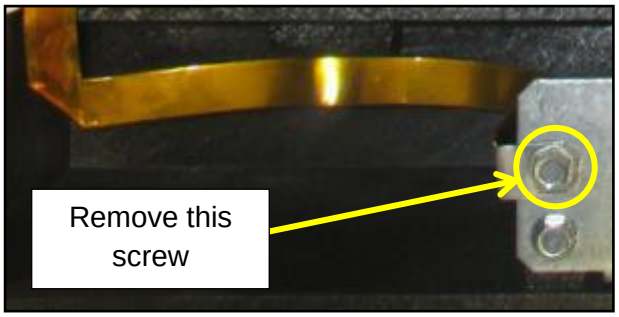


Fig. 4.9 – Location of the ground strap screw

10. Remove the Display Assembly from the electronics head bezel by lifting the bottom of it up and out. Set the assembly aside to be discarded. (Fig 4.10b)

Note: *For Narrow Frame Dispensers, you may need to remove one of the Totalizer Window screws in order to make clearance when removing the Display Assembly. Remove this screw and retain it. It will be re-installed later during the Installation Procedure. (Fig 4.10a)*

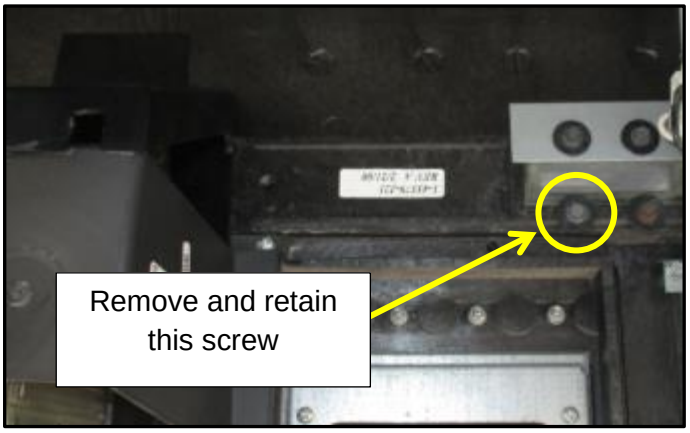


Fig. 4.10a – Remove Totalizer Window Screw (Narrow Frame only)

Fig. 4.10b – Grab the card reader and remove the assembly

11. Remove the Q-CAT boards or Dual CAT board if present.

11.1 Q-CAT boards

a) Identify and locate the Q-CAT boards. It is fitted on the right-hand side wall per each side. If not present, follow procedures for removing the Dual CAT board instead (step 11.2).

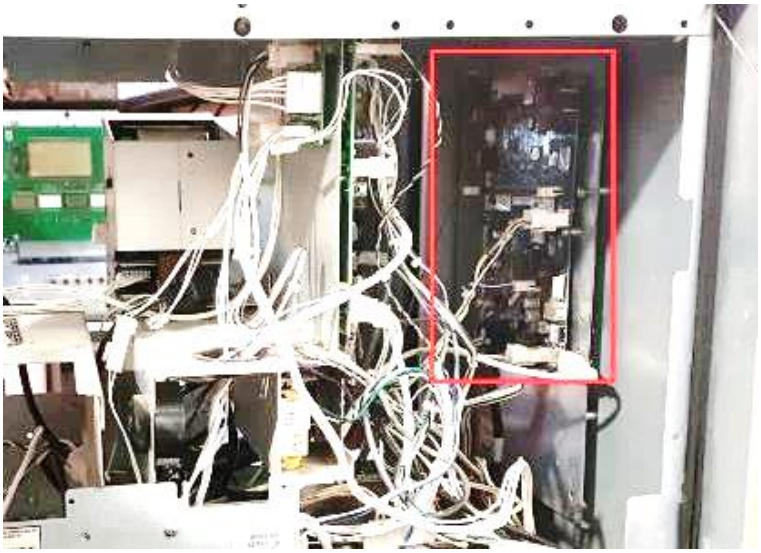
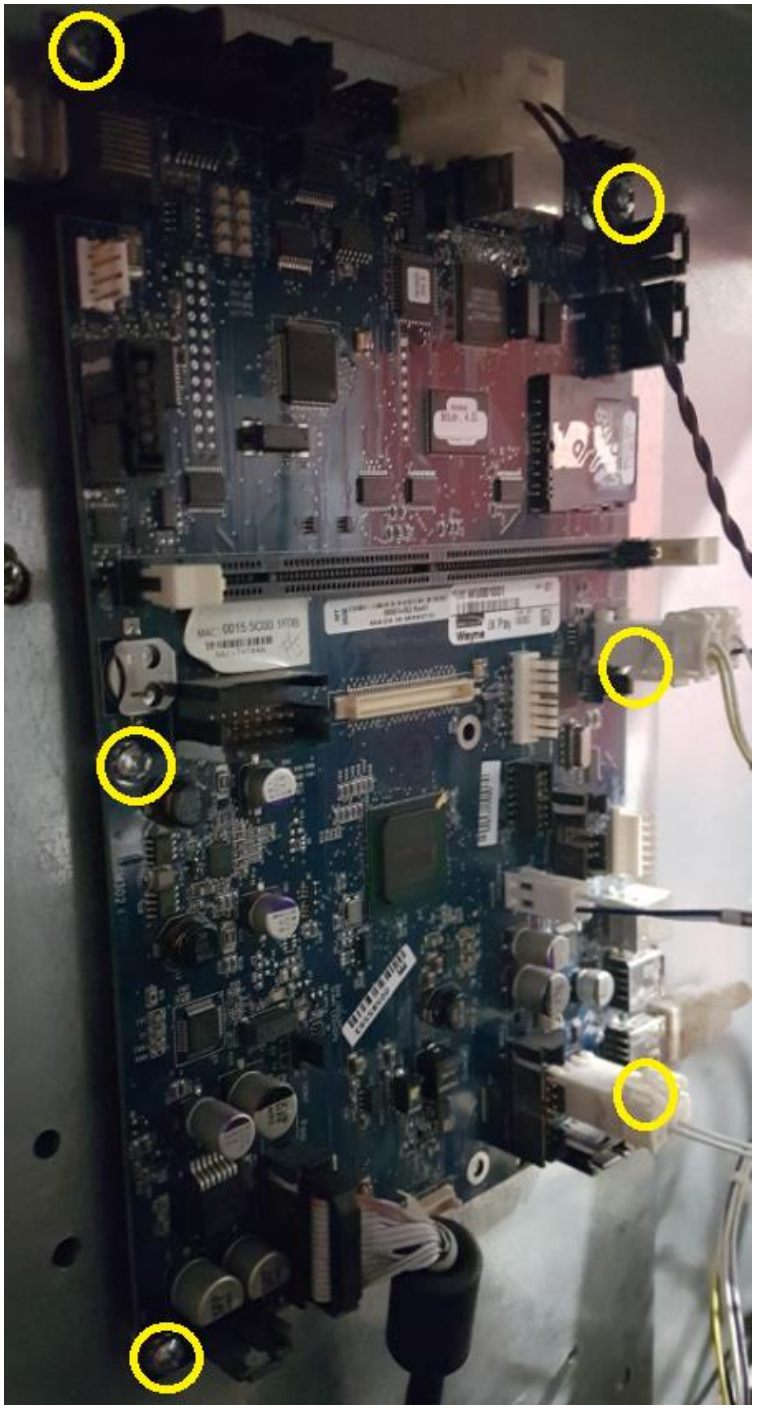


Fig. 4.11.1a – Location of the Q-CAT board

b) Disconnect any cables connected to the Q-CAT Board. The Purple/Brown cable is used for communications. It must be marked and retained for later use.

Fig. 4.11.1b – Location of the Q-CAT board

c) This board is attached by 6 Philips head screws. Undo the screws and remove and discard the Board.



d) Fig. 4.11.1c – Remove the screws

11.2 Dual CAT board

a) Identify and locate the Dual CAT board. It is fitted on the printer mounting bracket.

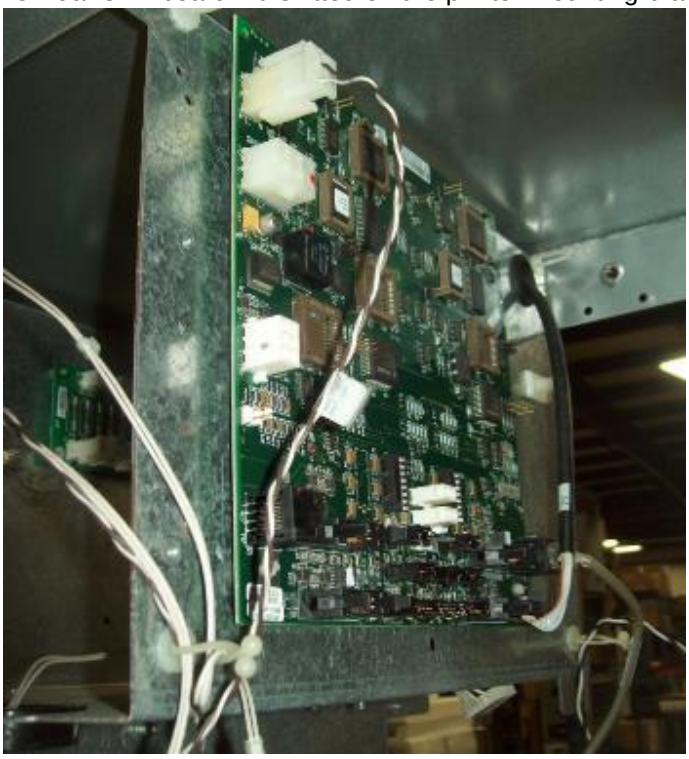


Fig. 4.11.2a – Location of the Dual-CAT board

b) Disconnect any cables connected to the dual-CAT Board. The Purple/Brown cable is used for communications. It must be marked and retained for later use.

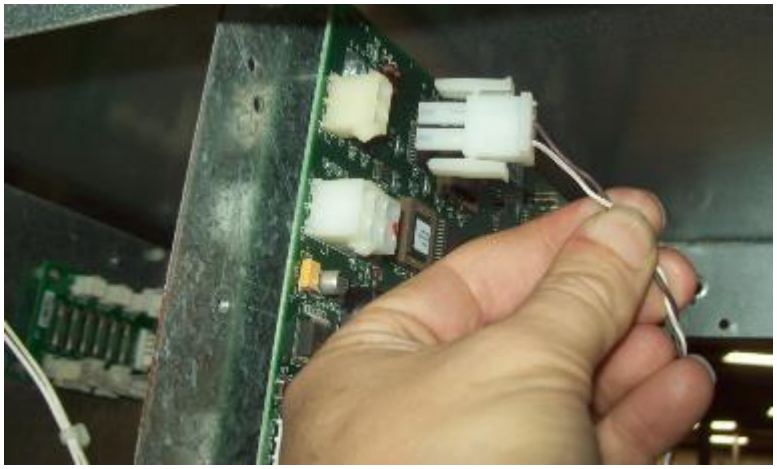


Fig. 4.11.2b – Disconnect and retain the purple/brown cable

c) This board is attached using screws and snap fits. Undo any screws and detach the snap fits, remove and discard the Board.

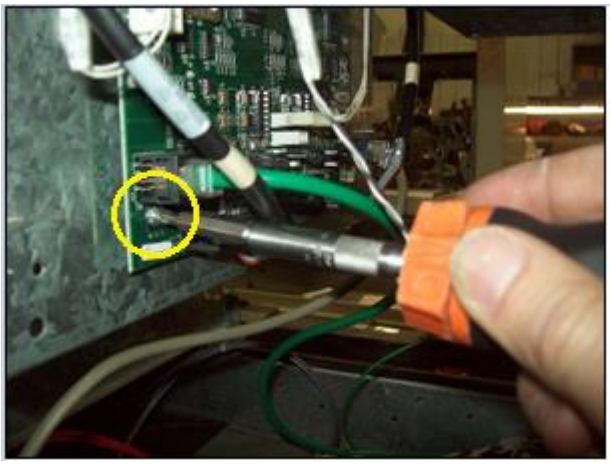


Fig. 4.11.2c – Remove screws and snap fits

12. Printer and Bracket Removal.

There are several different printer variants that may have been fitted. Identify the correct variant and follow the procedures in the correct section.

Determine the correct dispenser variant:

Fig 4.12a - Narrow Body Dispenser.

Fig 4.12b - Wide Body Dispenser

Determine the correct printer variant:

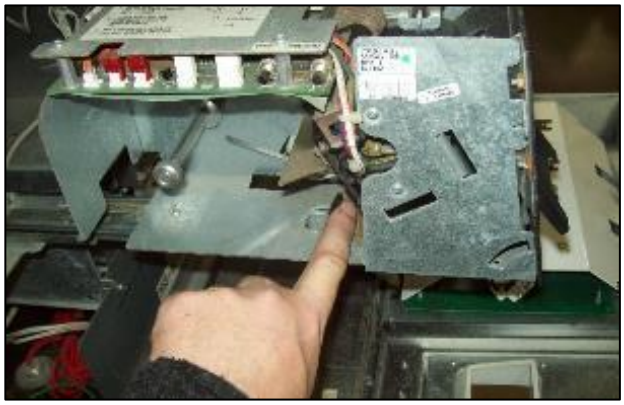


Fig 4.12c – 883543 Printer

Fig 4.12d – RO2 Printer. Fig 4.12e – DW10 / DW15

For Narrow Body Dispensers:

For 883543 Printer in Narrow Body Dispenser, go to section **12.1**

For RO2 or DW10 / DW15 Printer in Narrow Body Dispenser, go to **12.2**

For Wide Body Dispensers:

For 883543 Printer in Wide Body Dispenser, go to **12.3**

For RO2 or DW10 / DW15 Printer in Wide Body Dispenser, go to **12.4**

12.1. 883543 Printer Removal (Narrow Body).

a) Pull the printer all the way forward and disconnect the cables (Fig 4.12.1a).
b) Push locking tab upwards to disconnect the printer from the drawer slide, pull printer forwards and remove for disposal (Fig 4.12.1b).

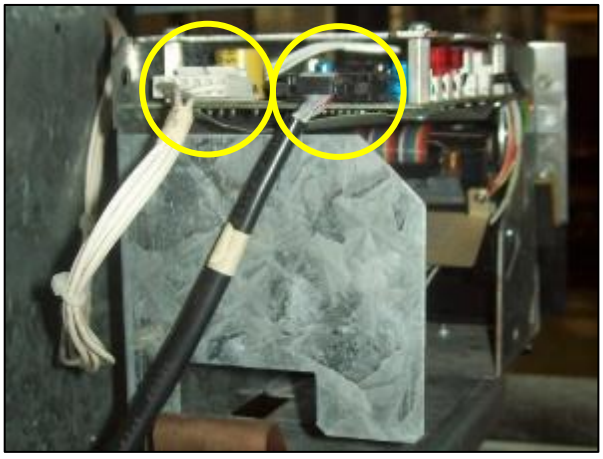


Fig 4.12.1a – Disconnect Cables.

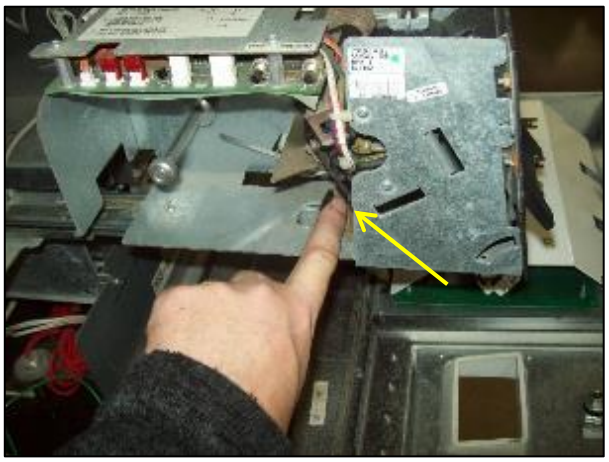


Fig 4.12.1b – Disconnect Printer from Slide Rail.

c) Remove screws (X3) and Drawer Slide and discard. Push back the spring at the back to reveal the rear screw and position the drawer slider to reveal the front and middle screws.

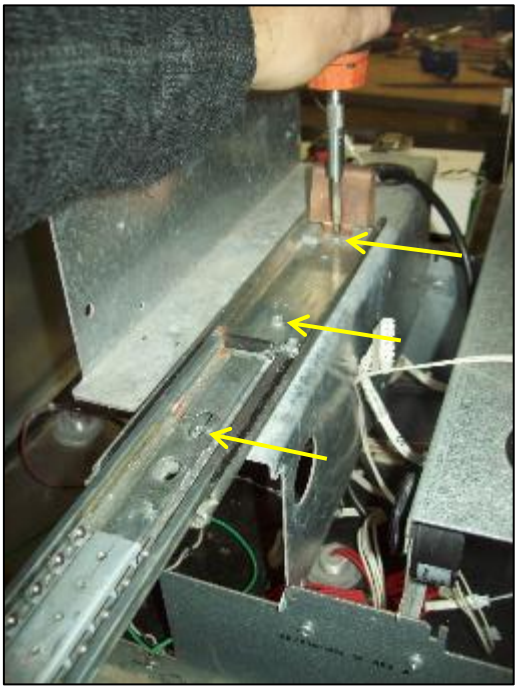


Fig 4.12.1c – Drawer Slide Removal.

d) Mark the area of the edge of the bracket to be cut away

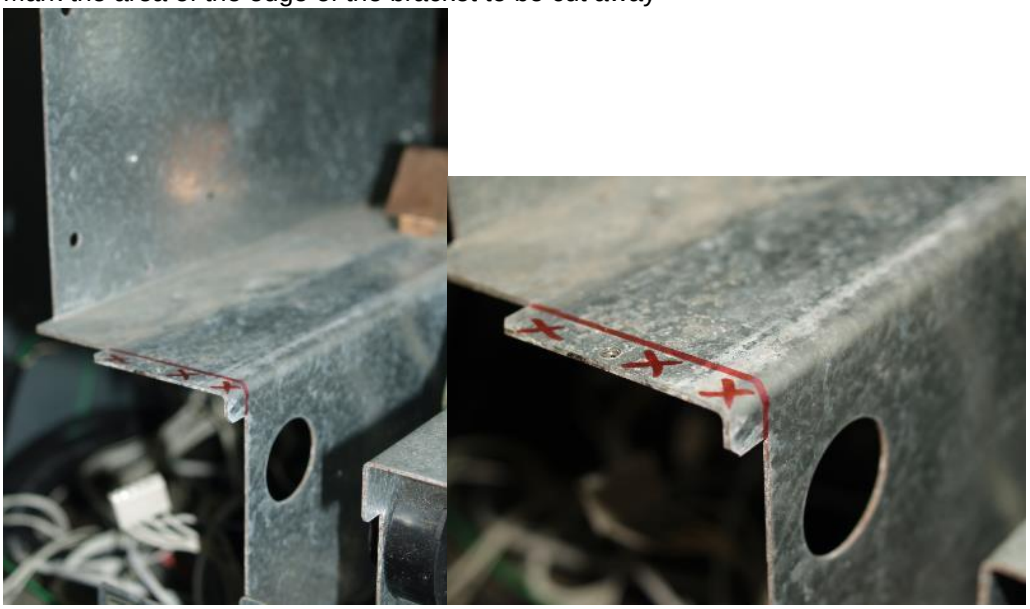


Fig 4.12.1d – Mark the area to cut away.

e) Place the disposable drop cloths over the vicinity of where the cuts will be made. Use the magnets to secure the drop cloths in place so they will not move.

Fig 4.12.1e – Place the disposable drop cloth.

f) Use the hacksaw to cut along the marked area

Fig 4.12.1f – Make the hacksaw cut

g) Use the flat file to remove any sharp edges from the hacksaw cut.

Fig 4.12.1g – File off sharp edges onto the drop cloths

h) Remove the magnets. Carefully fold up and dispose of the drop cloths with the metal filings held captive inside the folded cloth.

i) Use Neodymium magnets inside a plastic bag to sweep over the area to pick up any excess metal filings. Once picked up, turn the bag inside out and dispose of the metal filings separately.

j) Use nail polish to coat over the cut edges to prevent possible corrosion.

12.2. RO2 or DW10 / DW15 Printer Removal (Narrow Body).

a) Push the Printer back against the spring to allow the Side Clip to be disengaged out of the Printer body.
b) Once unclipped, pull the Printer forwards and off the Mounting Bracket and lay face down on the Dispenser Door.
c) Disconnect the Printer cables and remove the Printer for disposal.

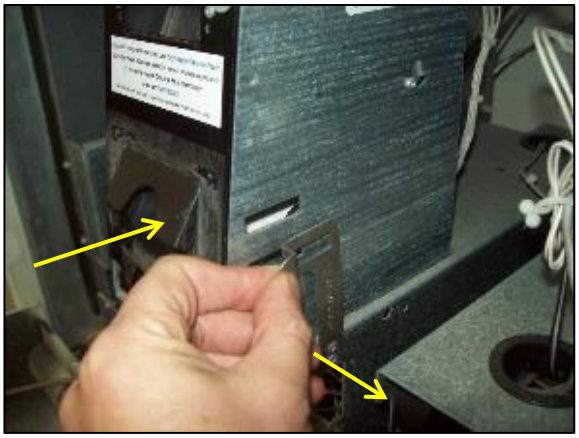


Fig 4.12.2a – Disengage the Side Clip.

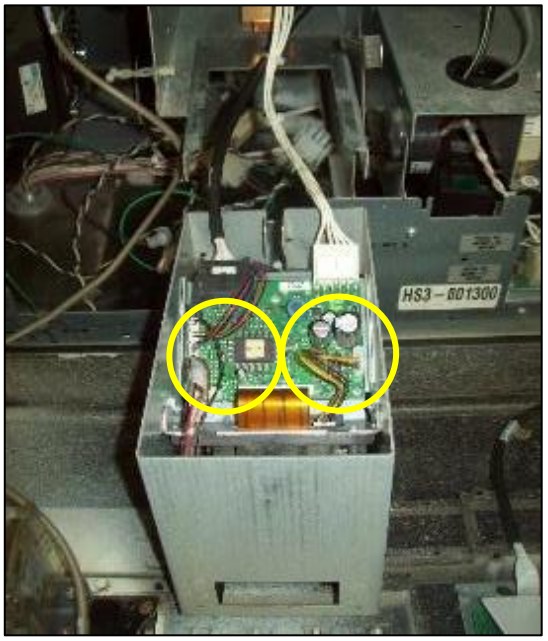


Fig 4.12.2b – Disconnect Printer Cables.

d) Snap off the front left tab on the Printer mount bracket using Pliers or Vice Grips.

Fig 4.12.2c – Use Pliers or Vice Grips.

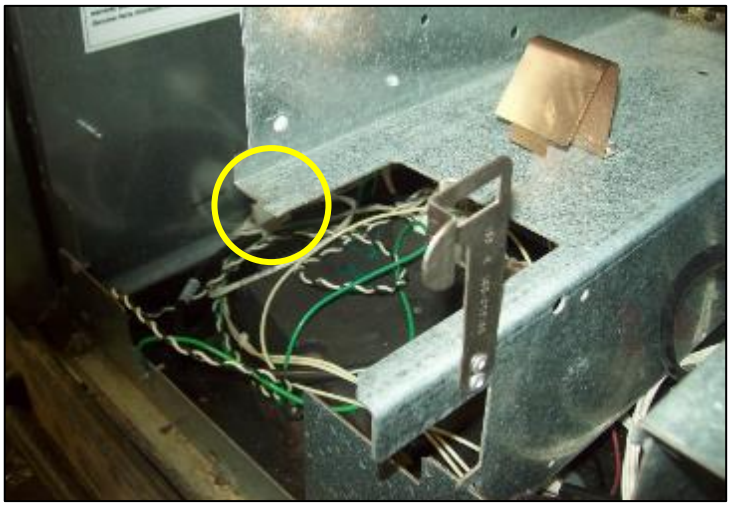


Fig 4.12.2d – Tab snapped off.

e) Use nail polish to coat over the snapped off edge to prevent possible corrosion.

Note: *The below steps(f) (g) and (q) are only applicable for installing on side B.*

f) If you are installing on Side B of the dispenser, temporarily detach the Computer Board from the bracket. The Computer Board is held on with screws and three snap fits. Retain the screws as the Computer Board will be reinstated later.

Fig 4.12.2e – Temporarily detach the Computer Board.

g) Disconnect cables as required to allow the Computer Board to be laid down out of the way inside the cabinet. Take a note of where these cables were connected as these will be reinstated later. Cut any cable ties as required.

Typical set of connections on the Computer Board are as follows. Remove those required to lay the Computer Board to the side and re-make the same connections again:

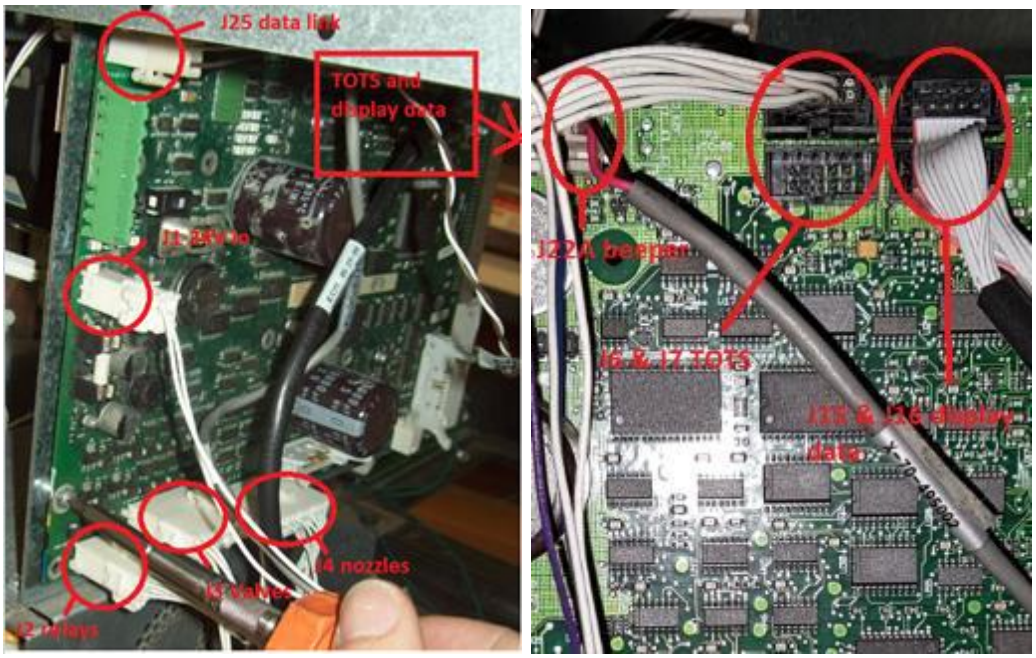


Fig 4.12.2f – Disconnect cables on the Computer Board

h) Apply Decal DL0296 to the outside face of the Printer bracket. This is used as a cutting and folding guide. Align the front edge of the decal to the front edge of the bracket and the bottom edge to the bottom.

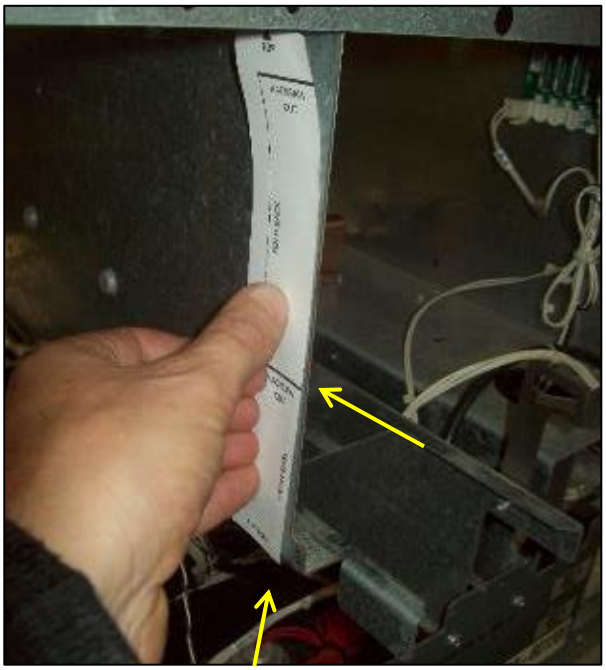


Fig 4.12.2g – Align Cutting Guide Decal.

i) Place the disposable drop cloths over any cables, connectors or boards in the vicinity of where the cuts will be made. On Side B, take care to ensure no parts of the Computer Board are visible. Use the magnets to secure the drop cloths in place so they will not move.

j) Use the hacksaw to cut along the lines indicated.

Fig 4.12.2i – Make two hacksaw cuts where indicated on the decal.

k) Use the 3” Wide Jaw Vice Grips to make the initial first fold. Bend the tab back as far as possible. It may be easier to pull the Vice Grips from the other side of the dispenser to complete the return bend.

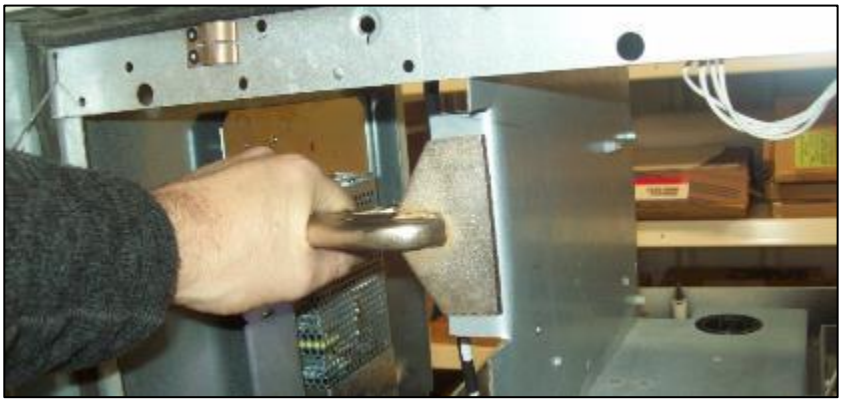


Fig 4.12.2j – Initial bend using 3” Wide Jaw Vice Grips.

l) Progressively flatten this bend using the Standard Vice Grips. Work your way up and down the bend until it is flattened back on itself as much as possible.

Fig 4.12.2k – Crimp bend flat using Standard Vice Grips.

m) Use the flat file to remove any sharp edges from the hacksaw cut.

Fig 4.12.2l – File off sharp edges onto drop cloth.

n) Remove the magnets. Carefully fold up and dispose of the drop cloths with the metal filings held captive inside the folded cloth.

o) Use Neodymium magnets inside a plastic bag to sweep over the area to pick up any excess metal filings. Once picked up, turn the bag inside out and dispose of the metal filings separately.

p) Use nail polish to coat over the cut edges to prevent possible corrosion.

q) If you are installing on Side B, reinstate the Computer Board and cables. Replace any cable ties that were cut.

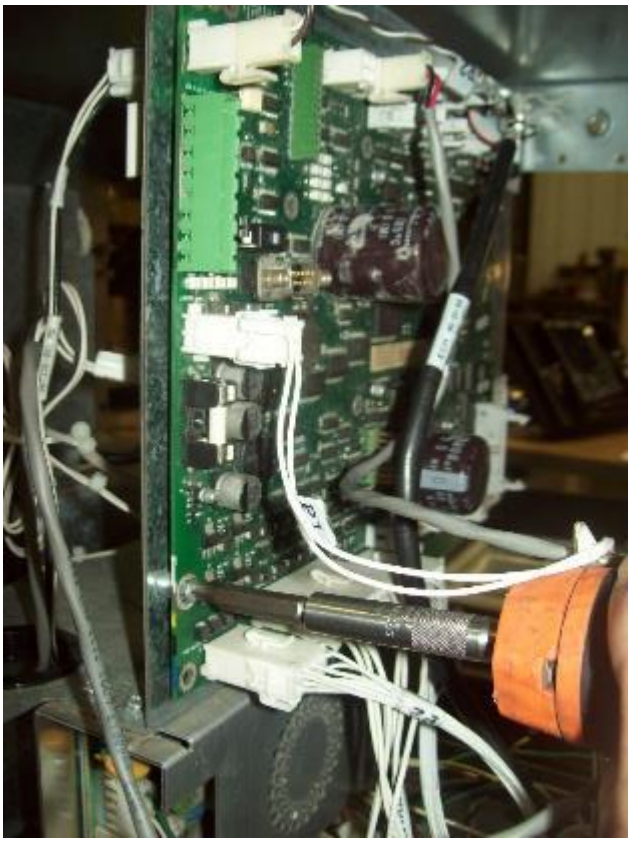


Fig 4.12.2n – Reinstate Computer Board and associated cables.

12.3. Printer Removal for Wide Body Dispensers.

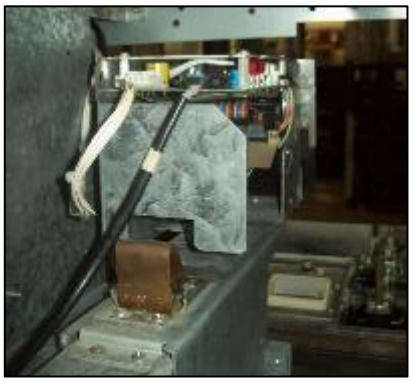


Fig 4.12.3a - 883543 Printer.

Fig 4.12.3b - RO2 Printer.

Fig 4.12.3c - DW10 / DW15 Printer.

12.3. 883543 Printer Removal (Wide Body).

a) Pull the printer all the way forward and disconnect the cables (Fig 4.12.3a).
b) Push locking tab upwards to disconnect the printer from the drawer slide, pull printer forwards and remove for disposal (Fig 4.12.3b).

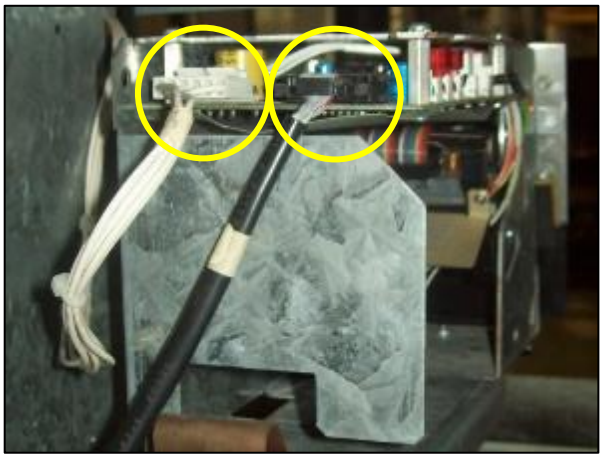


Fig 4.12.3a – Disconnect Cables.

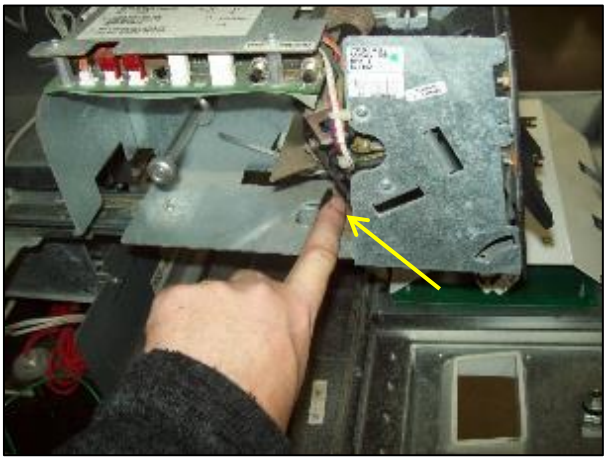


Fig 4.12.3b – Disconnect Printer from Slide Rail.

c) Unscrew Printer Slide Rail Bracket (three screws) and discard.

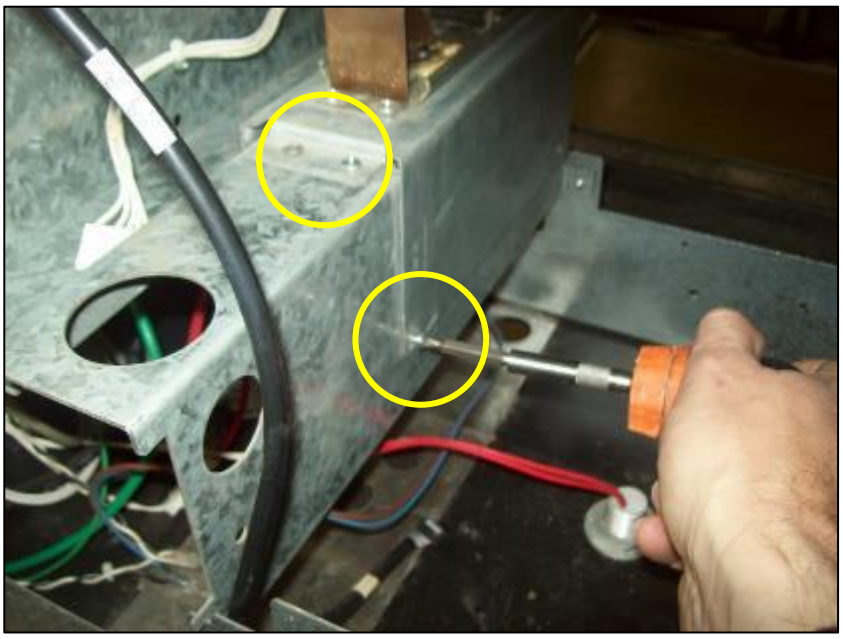


Fig 4.12.3c – Unscrew Printer Slide Rail Bracket and discard.

d) Using Side Cutters, remove both tabs off the Sheet Metal Insulating Cover (MZ0147). This cover will be installed later.

Fig 4.12.3d – Cut off both tabs and discard.

12.4. RO2 or DW10 / DW15 Printer Removal. (Wide Body).

a) Push the Printer back against the spring to allow the Side Clip to be disengaged out of the Printer body.
b) Once unclipped, pull the Printer forwards and off the Mounting Bracket and lay face down on the Dispenser Door.
c) Disconnect the Printer cables and remove the Printer for disposal.

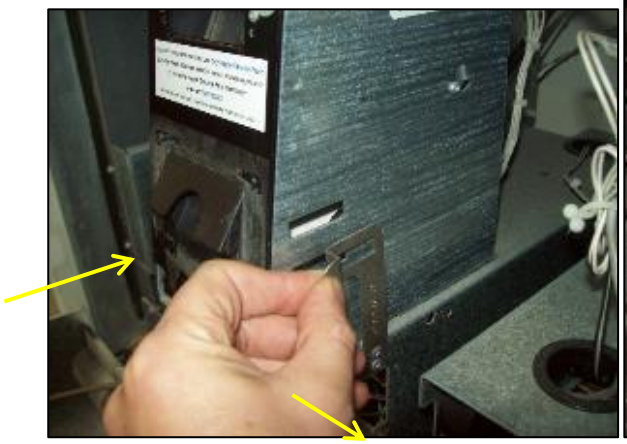


Fig 4.12.4a – Disengage the Side Clip.

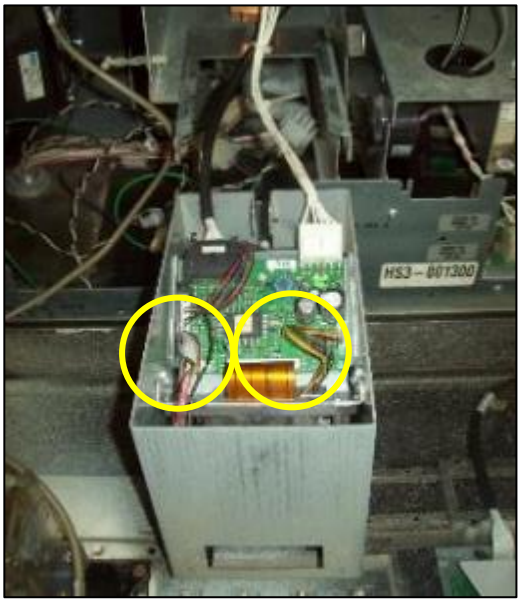


Fig 4.12.4c – Disconnect Printer Cables.

d) Using Vice Grips bend both protruding parts of the Printer Bracket to the right by 90˚

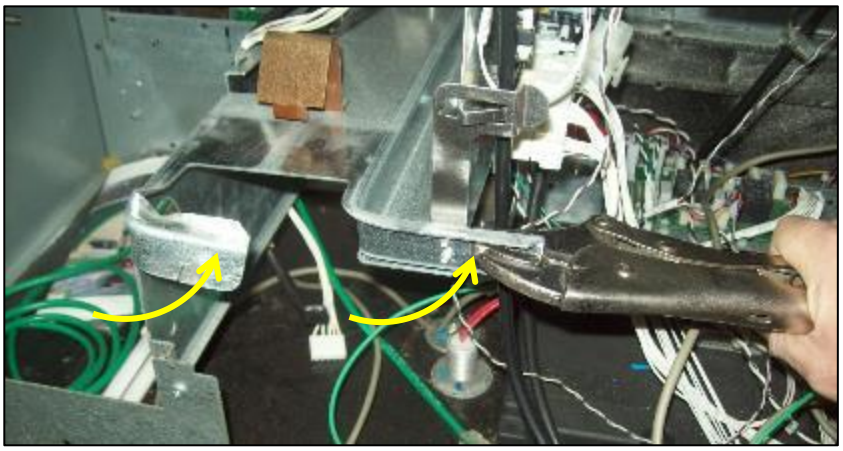


Fig 4.12.4d – Use Vice Grips to bend protrusions sideways to the right.

e) Using Side Cutters, remove the bottom tab off the Sheet Metal Insulating Cover (MZ0147). This cover will be installed later.

Fig 4.12.4e– Cut off bottom tab and discard.

13. Heater Relocation.

Note:
This step only applies if a heater is installed in the narrow dispenser, located at the lower side part of the compartment. Otherwise skip to step 14.
Check if a heater is installed at the lower side part of the compartment:

Fig 4.13 – Lower side part vs. Upper location

a) Disconnect the Heater from the power distribution board.

Fig 4.13a – Disconnect power cable.

b) Determine if the Large Heater or Small Heater is installed (see Fig 4.13b and Fig 4.13c). If a Large Heater is installed go to Step **13.1**. If a Small Heater is installed go to Step **13.2.**

Fig 4.13b – Large Heater.

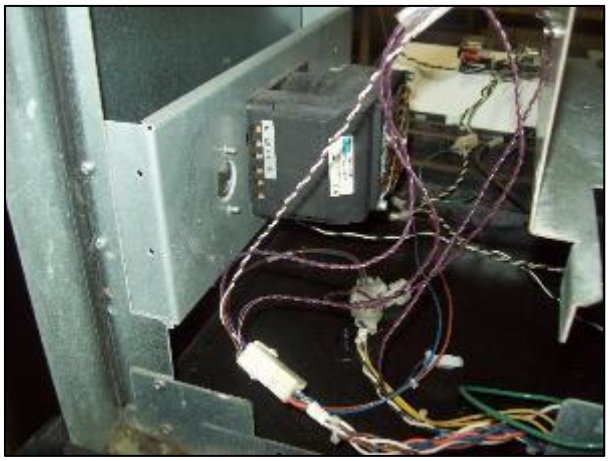


Fig 4.13c – Small Heater.

13.1. Large Heater Relocation:

a) Remove the Mounting Screws (four screws) and retain two of them to relocate the Heater. Discard the other two.

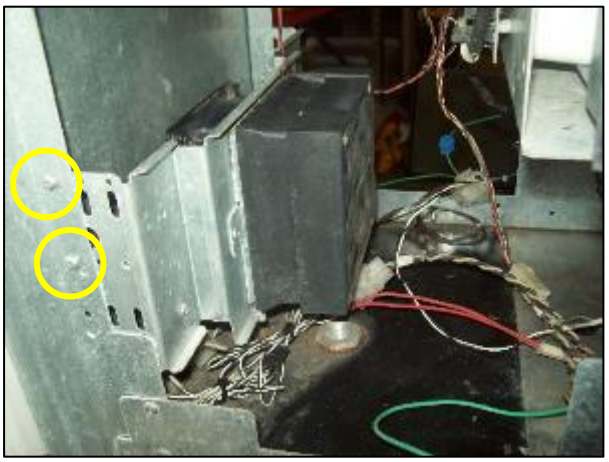


Fig 4.13.1a – Remove Screws Side A.

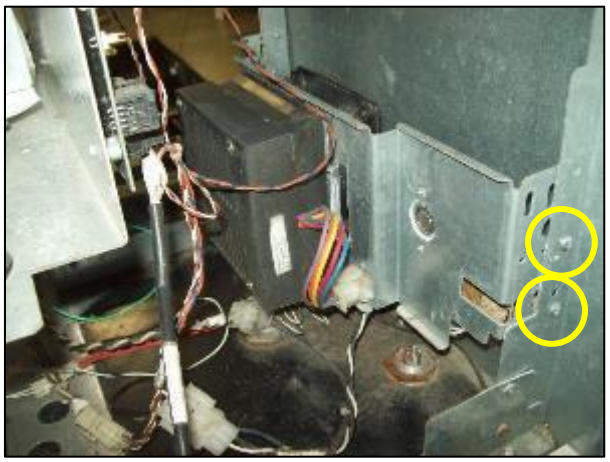


Fig 4.13.1b – Remove Screws Side B.

b) Relocate the Heater to the top center of the Dispenser, attach the two screws where shown in Fig 4.13.1c and Fig 4.13.1d below.

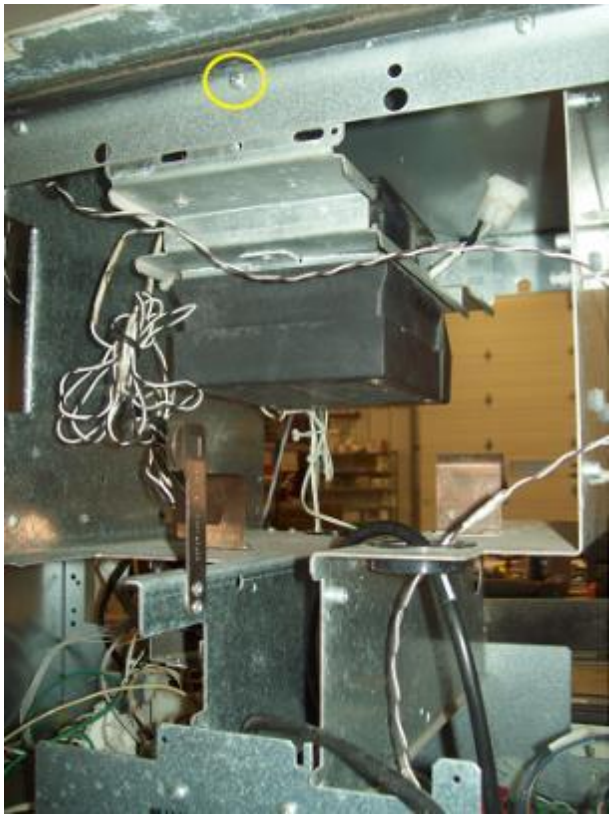


Fig 4.13.1c – Screw Location Side A.

Fig 4.13.1d – Screw Location Side B.

c) Reconnect the Power Cable.

Fig 4.13.1e – Reconnect the Power Cable.

13.2. Small Heater Relocation:

a) Remove the Mounting Screws (four screws) and retain two of them to relocate the Heater. Discard the other two.

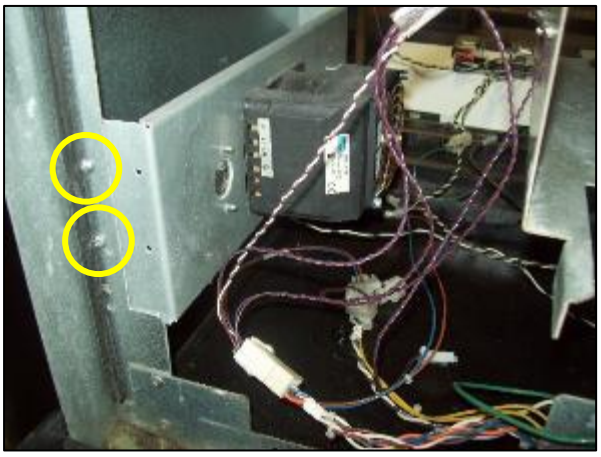


Fig 4.13.2a – Remove Screws Side A.

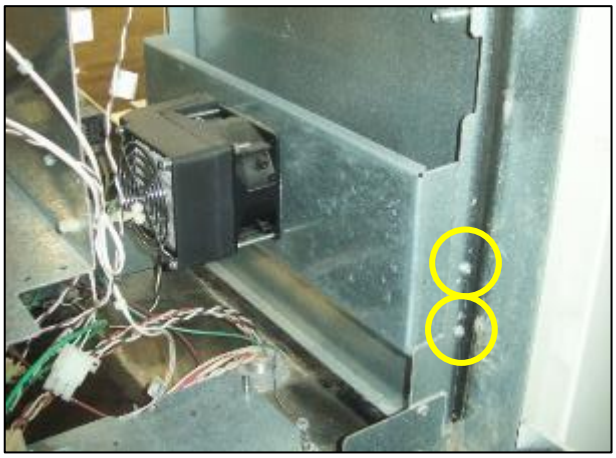


Fig 4.13.2b – Remove Screws Side B.

b) Rotate the Heater 180 ˚around (Side A becomes Side B) and relocate the Heater at the top center of the Dispenser, attach the two screws where shown in Fig 4.13.2c and Fig 4.13.2d below.

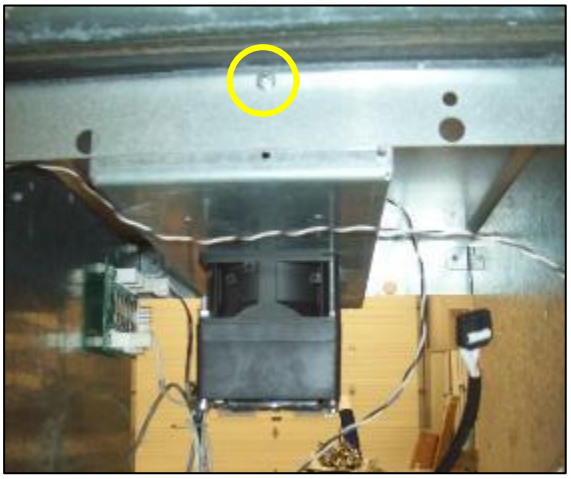


Fig 4.13.2c – Screw Location Side A.

Fig 4.13.2d – Screw Location Side B.

c) Reconnect the Power Cable.

Fig 4.13.2e – Reconnect Power Cable.

14. Loosen the two Philips retaining screws under the water catch tray (if installed):

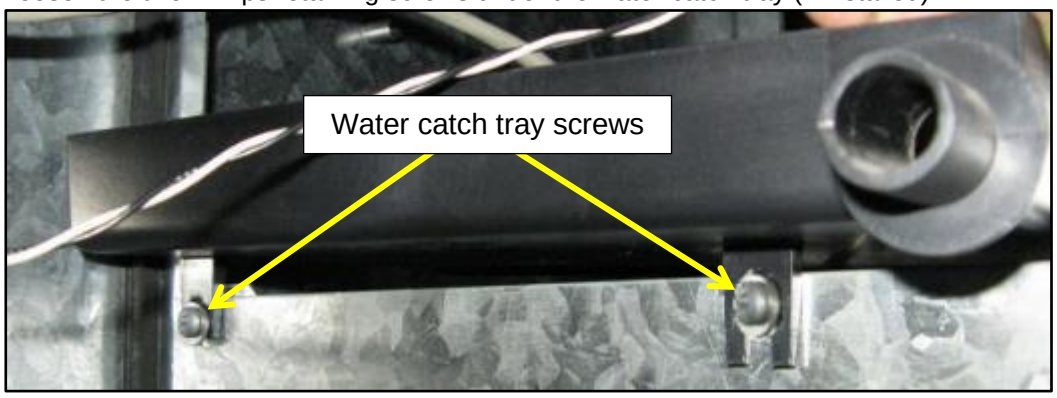


Fig. 4.14a – Loosen water catch tray screws

then remove the water catch tray by lifting it up and out of the electronics cabinet. Set it aside to be discarded. (Fig 4.14b)

Fig. 4.14b – Removal of water catch tray

15. If the dispenser is two-sided, repeat steps 5-14 for Side B of the dispenser. Otherwise continue.

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

5 Pre-Installation Procedure

This Retro-Fit Kit does not include a communications method for the OPT. 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.

The approved communications methods are listed below.

UL Report Number	Kit Part Number	Retro-Fit Kit Description
MH61528	RF00033-XX	InvencoLink DSP232

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 §6 Installation Procedure.

For Side A (i.e. the first side), select the PSU Plate Assembly from this Retro-Fit Kit package and apply the communications method selected from the table above, following the installation instructions supplied with that Kit (DCV-00465).
Once the communications method has been installed onto the PSU Plate Assembly, proceed to §6 Installation Procedure.

6 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 pre-assembled EZ0631 PSU Plate Assembly into the pump, in the cavity behind where the left-hand Display & Printer modules were. For Side A this is the PSU Plate Assembly that has just had the InvencoLink converter installed:
    a. Place the plate up against the standoffs on the left side of the cavity.
    b. Secure the plate in place using four MS0262 #8-32 3/8” screws and a Philips head screwdriver.

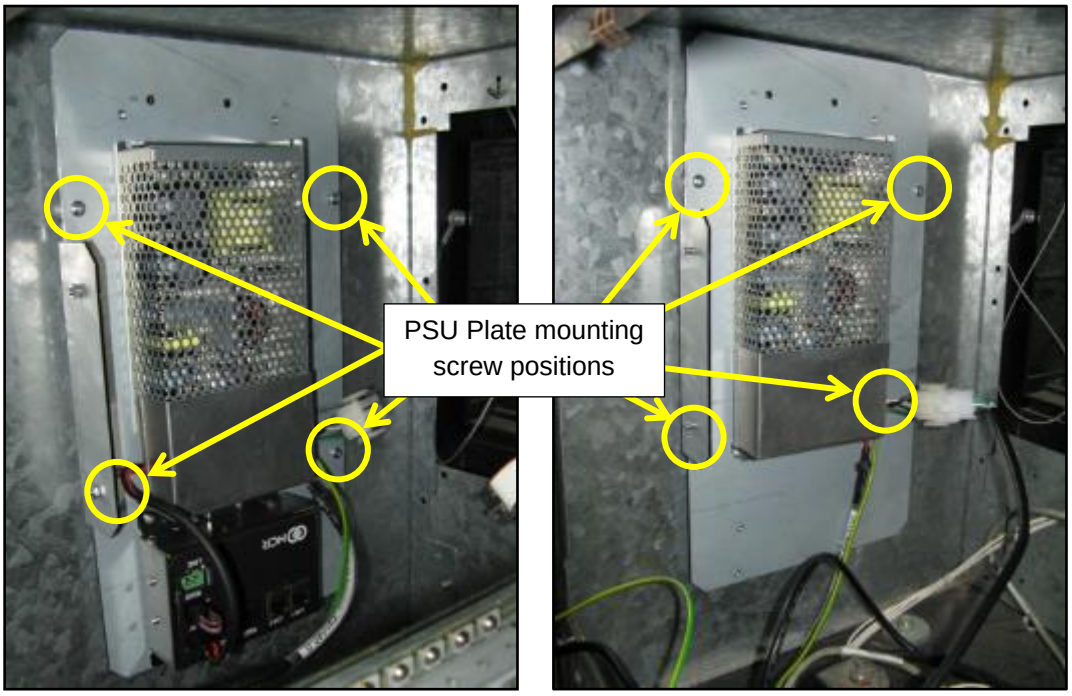


Fig. 6.1 – Side A – PSU Plate installation position – Side B

2. Plug the patch cables into the InvencoLink converter sockets:
    a. For Side A the converter will be on the plate you have just installed.
        i. Plug the EK0131 YELLOW cable into the LAN-1 socket.

    b. For Side B the converter will be on the plate on the other side of the dispenser and you should run the two cables under any central electronics.
        i. Plug the EK0131 YELLOW cable into the LAN-2 socket.

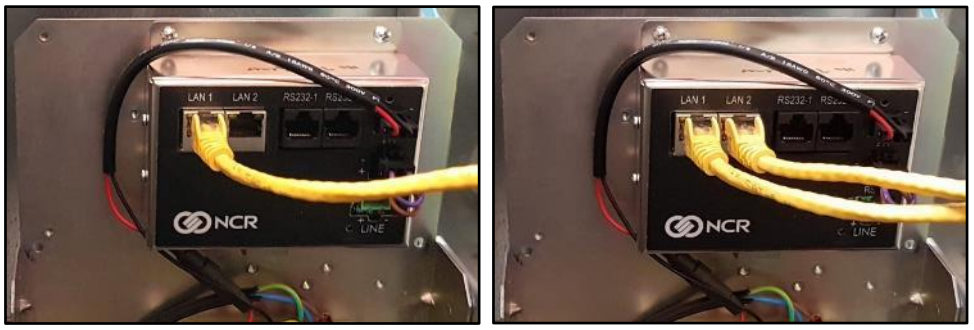


Fig. 6.2 – Side A – Patch Cable installation – Side B

3. Temporarily coil the loose ends of the four cables (Black low-voltage DC, Green/Yellow Earth and Yellow patch) in the bottom of the pump cabinet. (Fig 6.3)

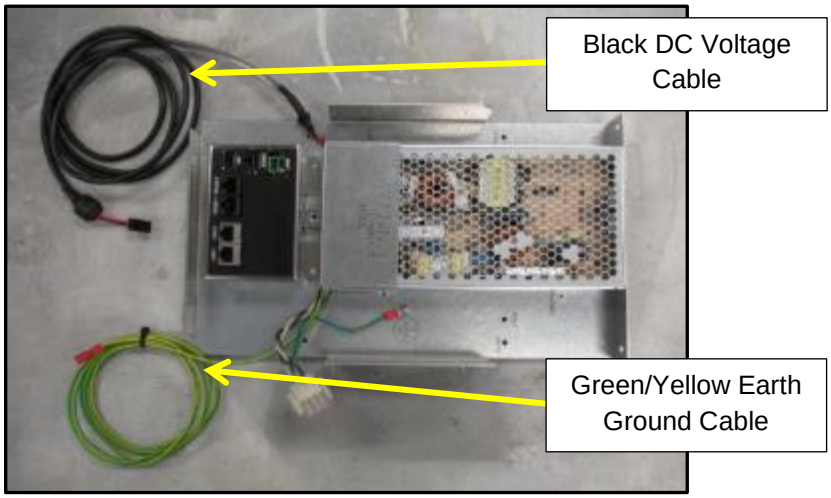


Fig. 6.3 – Identifying Earth Ground and DC Cables

4. Unlock the RP00019-XX RFK door and open the frame thru 180°. Pass the RFK door upwards through the opening in the pump door. Note the orientation of the OPT:

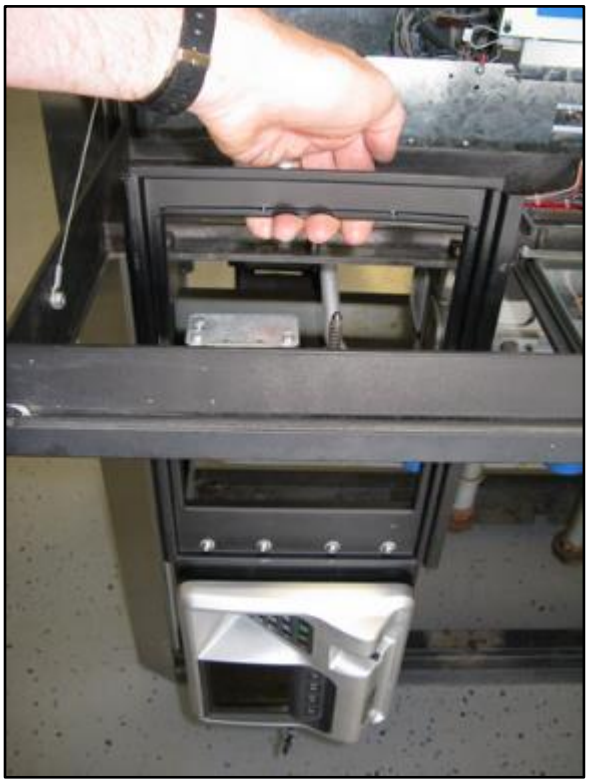


Fig. 6.4 – Bringing the frame through the opening

5. Turn the RFK door thru 90° and, while holding the OPT, gently manipulate the RFK frame into a flatter position over the opening, ensuring the three screw-holes are positioned at the ‘bottom’, i.e., closest to the pump door hinge:

Fig. 6.5 – Midway through seating the frame

6. Wiggle the RFK frame under the three lugs at the 'top', taking care moving it past the pump door retainer cable fastening (bolt on the left in the above photo). Note that the thickness of the sealing gasket will make the frame tend to sit quite high:

Fig. 6.6a – Frame partially seated

Fig. 6.6b – Close-up of a lug

7. Wiggle the RFK frame carefully to move it under the frame of the glass window:

Fig. 6.7 – Close-up of the window frame

8. Then carefully work the rest of the RFK frame into the pump door opening:

and press it down to seat it fully:

Fig. 6.8 – Seating the frame

9. Close the RFK door and lock it closed to prevent it swinging during the rest of the installation process.

10. There will be an earth cable on the RFK door frame. Attach the grounding cable to the dispenser door earth plate using the existing screw (that was remove and retained in disassembly step 9). Take care to route the wire around the earth plate, then tighten the screw.

Fig. 6.10 – Attach grounding cable.

11. Temporarily detach the grounding nut from the Retrofit Kit. Retain the nut.

Fig. 6.11 – Temporarily detach grounding nut.

12. Place the Insulating Cover Shield MZ0147 adjacent to the OPT as shown and draw through the cables from the InvencoLink and PSU plate with cables (EZ0631) through the slot on the right hand side of the Cover.

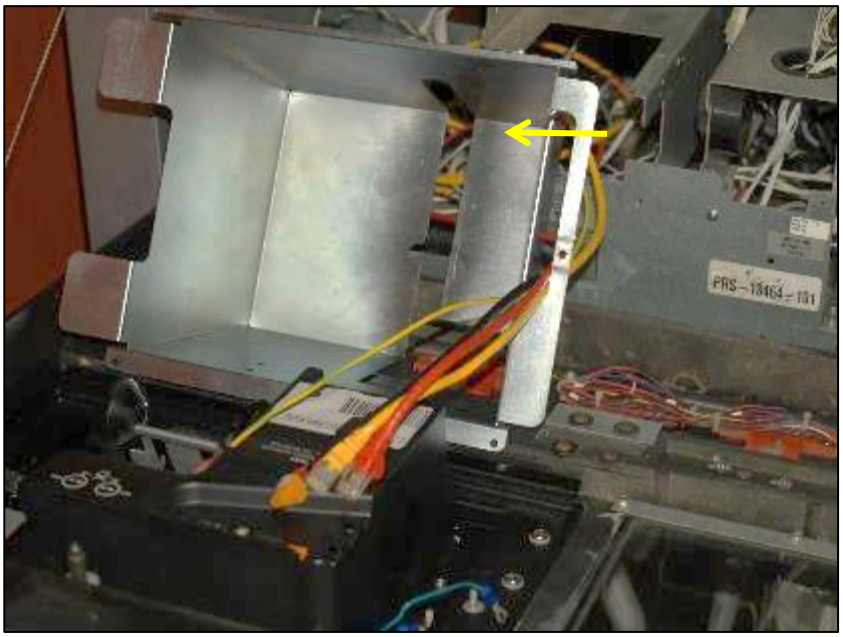


Fig. 6.13 – Draw cables through the slot on the right hand side of the Cover.

CAUTION:

Excess cabling must be organized as to not cause obstruction when opening and closing the dispenser doors. Failure to properly restrain the wire assemblies may result in pinching and damaging them. IT IS THE RESPONSIBILITY AND THE DISCRETION OF THE INSTALLER TO PROVIDE AND INSTALL ANY CABLE RESTRAINTS THAT MAY BE NECESSARY TO FACILITATE THESE GUIDELINES.

13. Connect the cables to the back of the OPT:
    a. Plugthe low-voltage DC cable into the OPT:

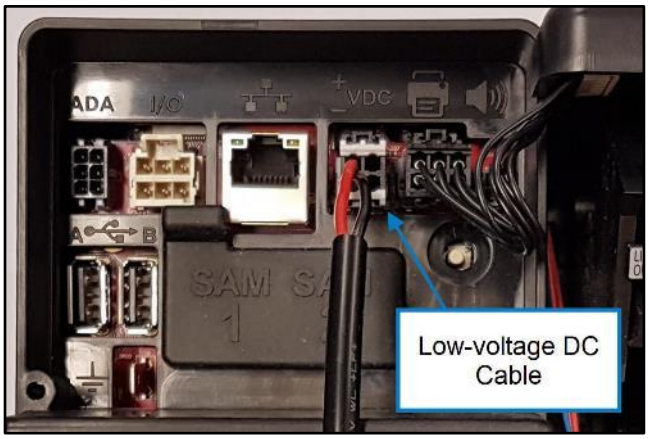


Fig. 6.13a – Low-voltage DC Cable connection

b. Connect the EK0131 YELLOW patch cable into the correct sockets on the OPT. The port numbers on the InvencoLink for the cable (e.g. LAN-1) must match the side you're working on (e.g. Side A):

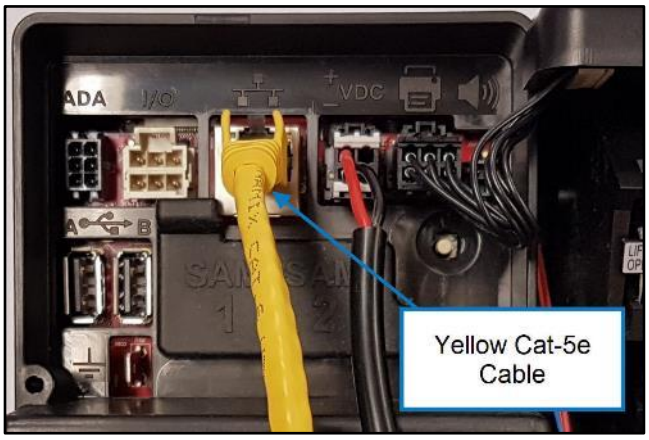


Fig. 6.13b – Patch Cable connection

c. Connect the Green/Yellow Earth cable from the Power Supply Assembly to the tab on the OPT:

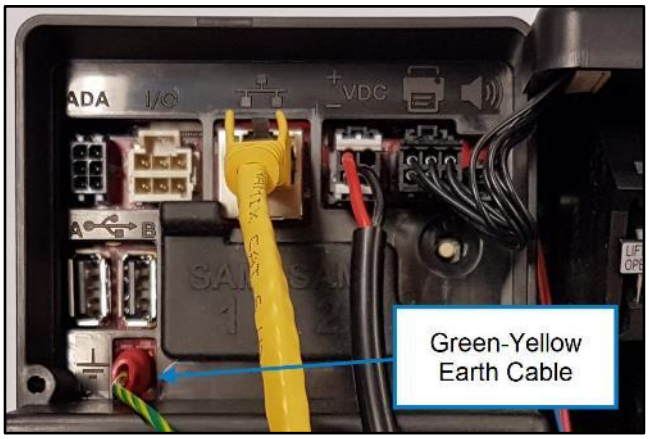


Fig. 6.13c – Plug in earth cable

14. Bundle the connected cables with a cable tie as shown.

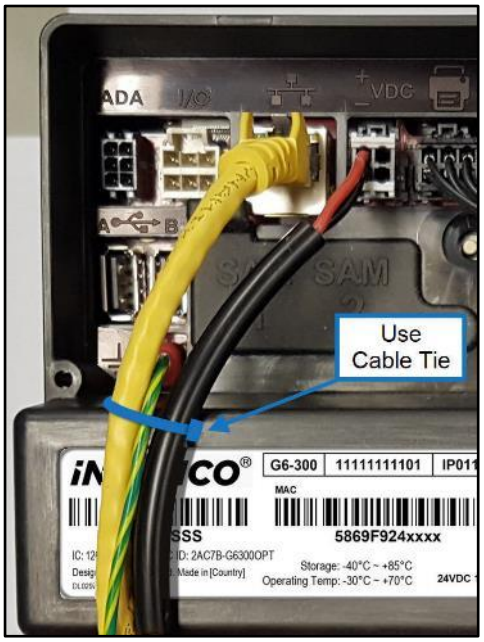


Fig. 6.14 – Bundle connected cables with a cable tie.

15. Place Insulation Cover over top of the OPT. Re-attach the grounding cables with the previously removed nut. Ensure the cover is placed under the three tabs at the top of the dispenser door.

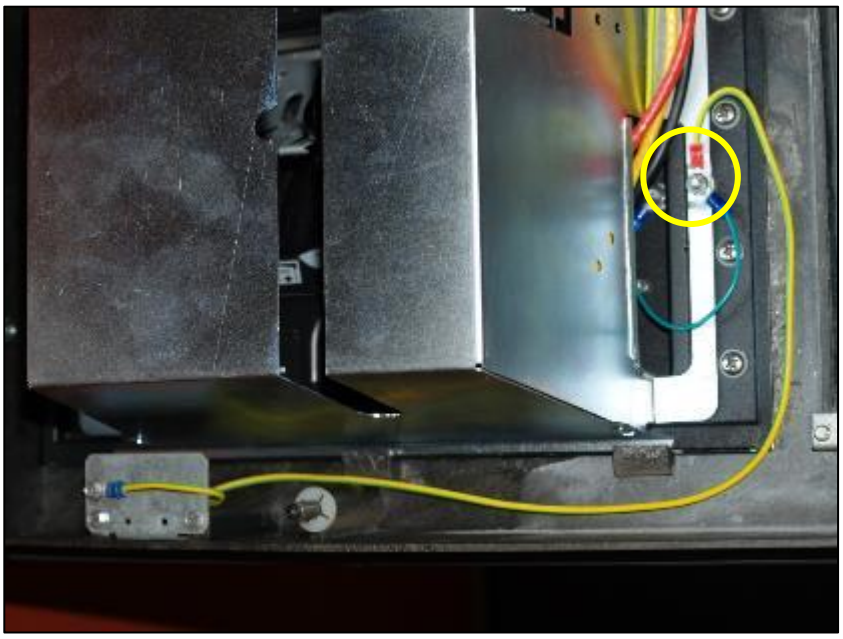


Fig. 6.15 – Reattach grounding cables with nut.

16. Screw the RFK frame and the Insulating Cover Shield to the pump door using three MS0145 #8 3/8" sheet-metal hex-head screws and a ¼" nut driver. You may have to press down on the RFK frame to squeeze up the gasket before you can start the screws:

Note: DO NOT use the old screws from the pump door – they are too long.

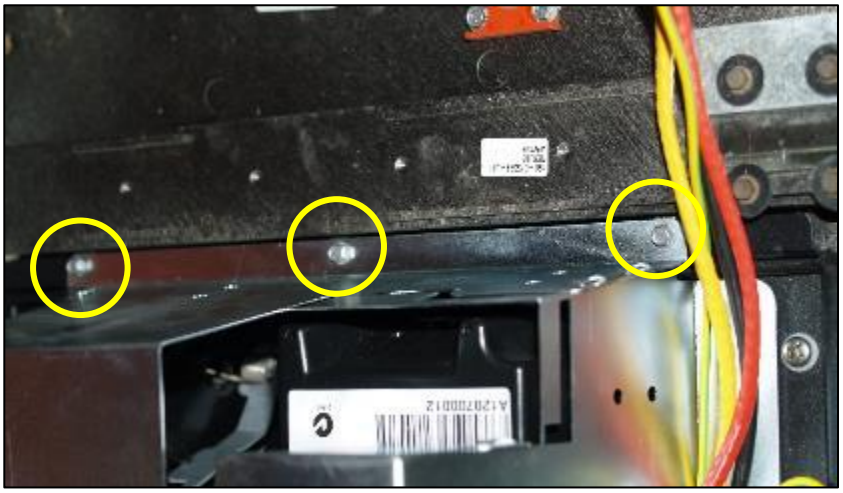


Fig. 6.16 – Frame and Cover screwed down

17. For Narrow Frame Dispensers; re-install the Totalizer Window screw that was removed in Step 10 of the Disassembly Procedure. (Fig 4.10a)

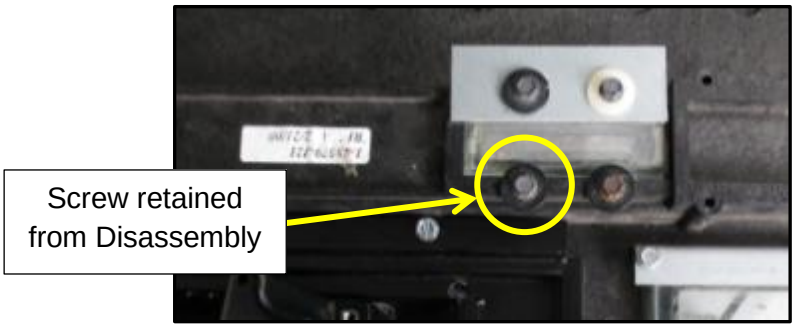


Fig. 6.17 – Re-installing Totalizer Window Screw

18. Re-open the RFK door and allow the OPT to hang down freely.

Fig. 6.18 Unlock the RFK and allow the OPT to hang freely.

19. With the OPT hanging freely, cable tie the bundle of cables to the side of the Insulating Shield Cover as shown, through the holes provided. Before finally tightening the cable tie, check that there is enough length of cable to allow the RFK door to be fully opened without placing undue strain on the cables or the connectors.

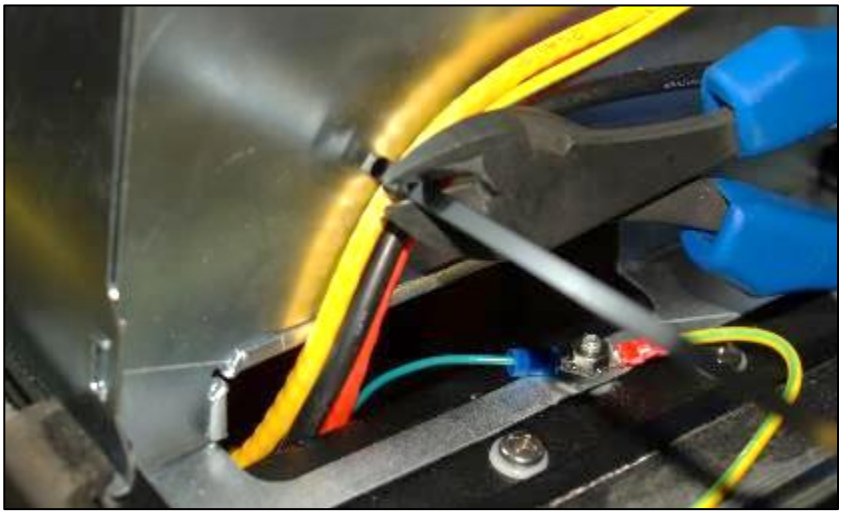


Fig 6.19 – Cable tie cable bundle to Insulating Cover.

20. Route the cable bundle around the corner of the Insulating Cover Shield using cable ties as shown through the holes provided. Ensure the bend radius and cable ties keep the cable bundle clear of the sheet metal edges on the corner of the Cover.

Fig. 6.20a – Keep cables clear of corner.

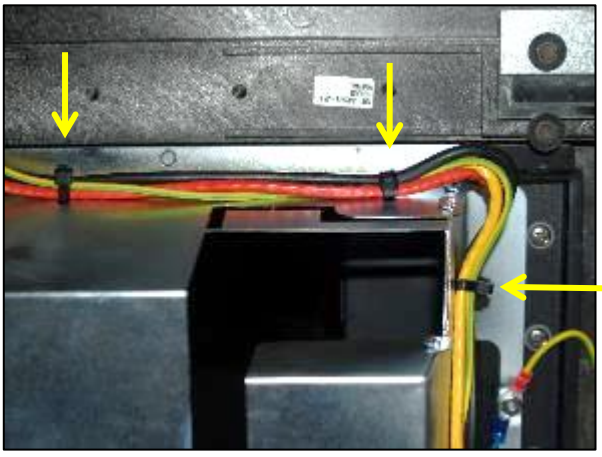


Fig 6.20b – Use cable tie holes provided.

21. The EK0137 AC Mains cable has double-connectors at one end and a single connector at the other end. Plug the single-connector end into the mains connection on the EZ0631 PSU Plate assembly.

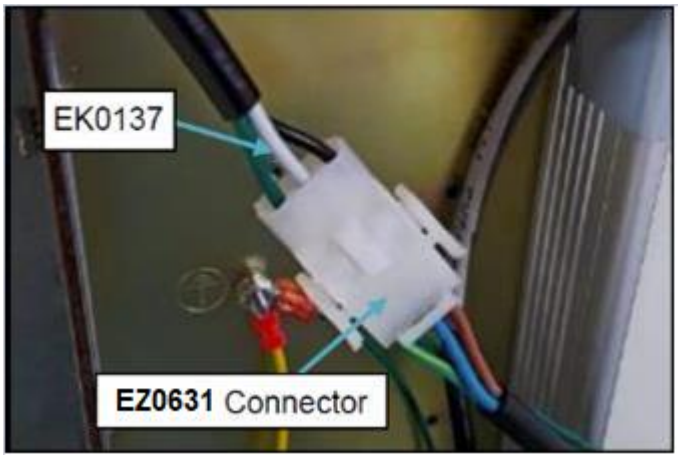


Fig. 6.21 – Plug single end of EZ0137 to EZ0631 PSU Plate assembly

22. From Side A, unplug the mains connector from the relay board, which is located at the bottom of the electrical enclosure (both narrow and wide bodies.) This is the same as the distribution board from step 13 (a) of the disassembly.
    - If doing Side A, that plug belongs to the pump.
    - If doing Side B, that plug belongs to Side A.
    Regardless, unplug it.

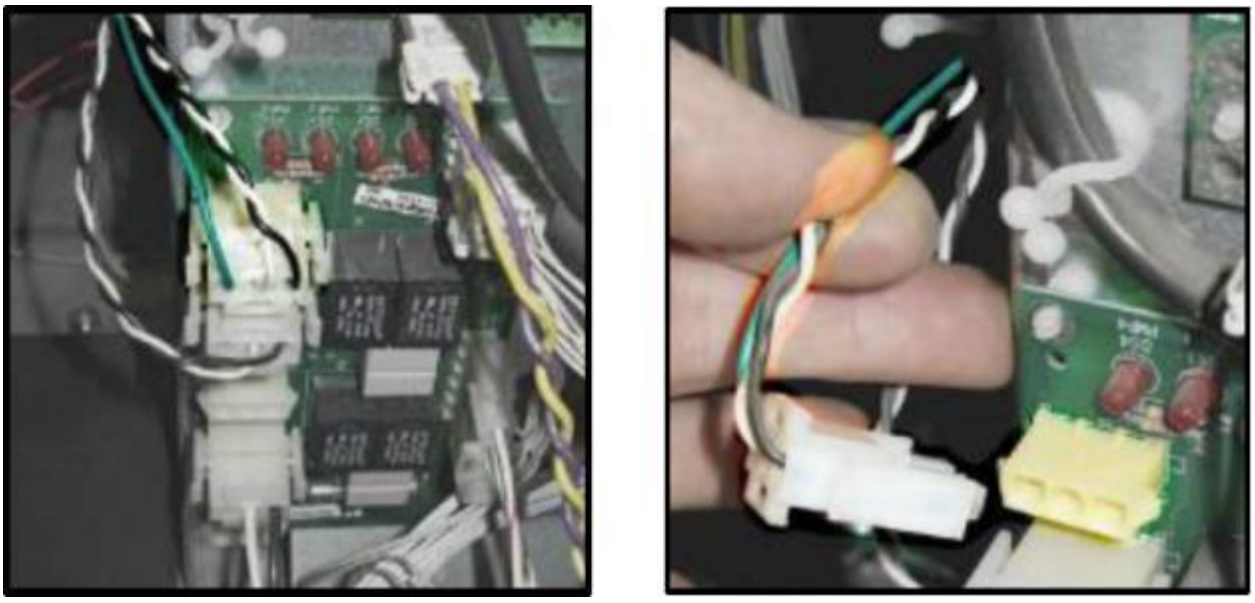


Fig. 6.22 – Unplug the mains connector from the relay board

23. Connect the Plug on the double-connector end of the EK0137 AC Mains cable into the Socket on the pump's relay board:

Fig. 6.25 –Plug the double connector end of the EK0137 to the relay board

24. Connect the Plug removed in Step 22 into the Socket on the double-connector end of the EK0137 AC Mains cable:

Fig. 6.26 – Connect the Plug removed in Step 22 to EK0137

Note: *For a double-sided installation, you will finish with a daisy-chain of two cables between the pump's mains connector and the relay board.*

25. Repeat Steps 1 and 3-24 for Side B.

26. **For Side A only**:
    a. Connect female end of the EK0127 two-wire communication cable into the pump's communication loom (the connector marked in disassembly Step 11):

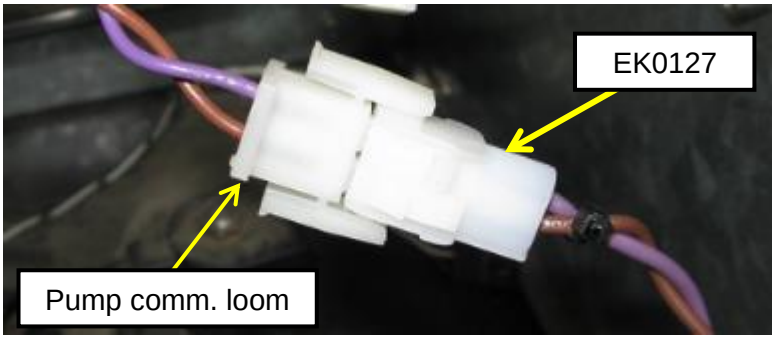


Fig. 6.26a – Two-Wire Cable connected to Pump Loom

    b. Route the EK0127 cable through the bottom of the pump cabinet to the EZ0631 PSU Plate Assembly that contains the InvencoLink converter, and plug the other end of the cable into the LINE port on the InvencoLink converter:

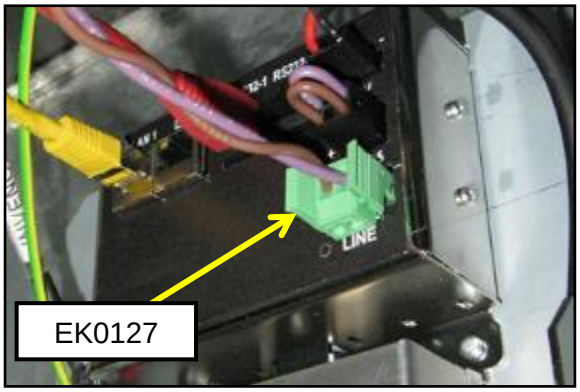


Fig. 6.26b – Two-Wire Cable connected to InvencoLink

27. Gather all loose wires (on both sides if necessary), neatly wrap them together with cable-ties and secure to the chassis.
28. Carefully close each Side pump door, making sure the no cables are pinched, and both the bolts on each door are properly fastened using the special Wayne Security Key.

6.1 Wiring Completion

When all the cables have been installed, use cable ties to provide strain relief. The rear of the G6-300 OPT has plastic loops close to the connectors that are intended to assist with this.
Also ensure that all cables are tidy and cannot become snagged or pinched when the door of the cabinet is opened and closed.

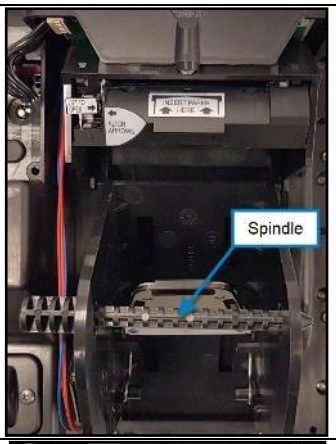
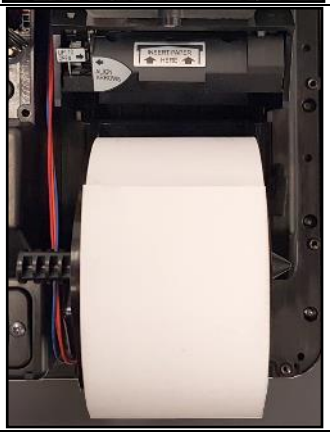
WARNING – Local regulations may also require that the installation is electrically tested and certified BEFORE switch-on.

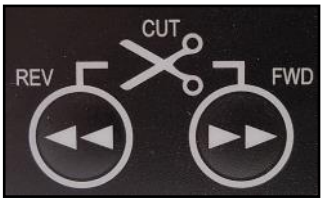
7 First Power-Up

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:

The following steps describe the paper loading procedure:

Step	Description	Photo reference
1.	Ensure the paper roll has a neat cut edge.	
2.	Remove spindle from the paper holder position. Note orientation of the spindle (handle to left)	
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. **Note**: *Insert until the printer grips and feeds automatically.*	

5.	The photo shows the paper loaded correctly.	
6.	Paper-feed buttons are located on the top of the terminal. Press either button  to move the paper forward or back. Press both buttons together to cut the paper.	
7.	Use the paper-feed buttons to advance the paper through the terminal until it appears at the paper exit chute. Cut the paper using both paper-feed buttons, then remove the cut length from the chute.