



**GILBARCO**  
**VEEDER-ROOT**

**MDE-5359A**

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## **FlexPay™ IV CRIND®(with Omnia) Retrofit Kit Installation Instructions for Encore® 500 S**



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## SECTION 1 - INTRODUCTION

### Purpose

1

This manual provides instructions to install a 5.7-inch or 10.4-inch Color Screen FlexPay™ IV CRIND® Secure Payment Outdoor Terminal [(SPOT) M7] Retrofit Kit in an Encore® 500 S pump/dispenser (with or without CRIND). The FlexPay IV CRIND provides a secure payment platform that is EMV®-certified and Payment Card Industry PIN Entry Device (PCI-PED)-certified. The entire Encore S door is replaced in this installation to accommodate the Enhanced Customer Interface Module (E-CIM™) module.

### Intended Users

This manual is intended for Gilbarco®-trained and certified Authorized Service Contractors (ASCs).

### Required Tools

- Phillips® and Flat-blade Screwdrivers
- 1/4-inch Socket Set (Nut Driver)
- 7- and 8-mm Socket (Nut Driver or Socket Set)
- T15 Torx Drive
- Diagonal Cutters
- Needle Nose Pliers
- 1/4-inch Hexagonal-head Security Screwdriver

### Configured Kits - Parts List

FlexPay IV CRIND (with Omnia) Retrofit Kits are configured based on the serial number of the pump/dispenser (unit) for which they are intended. Therefore, the parts list will vary for each configured kit and unit/option type. For additional parts details, refer to the Bill of Materials (BOM) in the kit, your distributor, or contact Gilbarco Customer Service. For more information, you can also refer to *PT-1937 Encore 300, Encore 500/500 S, Encore 550, Encore 700 S, Eclipse® Recommended Spare Parts Manual*.

A common FlexPay IV CRIND (with Omnia) Retrofit Kit will include the following parts:

- Applause™ Media System, Omnia assembly
- E-CIM door with Omnia Peripheral Interface PCB (PIP) assembly
- T-rail assembly with Omnia assembly
- Universal Serial Bus (USB) Printer assembly (for non-CRIND units only)

## SECTION 1 - INTRODUCTION

### 1 Configured Kit Optional Components

The following parts are potential configured kit optional components:

- UX400 Contactless
- Cabinet Heater (optional for both 5.7- and 10.4-inch displays)
- 2D Imager
- Intercom
- Keypad Heater Kit (power supply and cable harness)

For a complete parts list of the configured kit, refer to the build ticket that is provided with the kit.

*Note: Printers will be needed for non-CRIND units.*

## Critical Components

*Note: Some of the parts listed below are optional. For complete parts list, see the packing list.*

The following parts are critical components for FlexPay IV:

Location	Description	Part #	Notes
E-CIM	Contactless Card Reader, VeriFone® UX400	M14331A001	
	10.4" Softkeys	M10206B00X	1 = Right, 2 = Left
	5.7" Softkeys	M01254A003	
	Printed Circuit Assembly (PCA) Intercom Interface	M09751A002	
	PCA, Call Interface	M04528A001	
	Card Reader, VeriFone UX300	M14330A001	
	5.7" Color Display	M10369B001 M10369B003	Ampire
	10.4" Color Display	M14004B003	Kyocera® Previous part number M14004A00X
	PCA, Omnia (PIP)	M15649A00X	A001 = 5.7", A002 = 10.4"
	Assembly, Universal Payment Module (UPM)	M13888AXXX	"XXX" varies based on the customer requirement
	Imager, 2D	M16110B001	Previous part number M14055B001
Mounted on Main Door	Cable, Wire and Speaker	M09259A001	

## SECTION 1 - INTRODUCTION

1

Location	Description	Part #	Notes
Omnia Assembly	Omnia board	M16181A002	
	DCM (Dispenser Communication Module) 3	M15724A001	
	Phoenix Supply*	M04161B001	
	Fuse Board	M05748A001	
Mounted on Printer Door	Americans with Disabilities Act (ADA) Keypad	M12287B001	
Mounted in Main Electronics Area (Opposite Main Power Supply)	Intercom PCA with Call Interface	M14595A001	
On T-rail	Heater/Fan Assembly	M07333A001	
<i>*Note: Remote management functionality requires M07555A004 Encore Power Supply Assembly. Refer to MDE-5349 Insite360™ Encore Power Supply Retrofit Kit Installation Instructions for specific instructions.</i>			

## SECTION 1 - INTRODUCTION

# 1

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## SECTION 2 - IMPORTANT SAFETY INFORMATION

### Important Safety Information

- Notes:** 1) *Save this Important Safety Information section in a readily accessible location.*
- 2) *Although DEF is non-flammable, Diesel is flammable. Therefore, for DEF cabinets that are attached to Diesel dispensers, follow all the notes in this section that pertain to flammable fuels.*

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury, if these safe service procedures are not followed.

#### Preliminary Precautions

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

#### Emergency Total Electrical Shut-Off

The first and most important information you must know is how to stop all fuel flow to the pump/dispenser and island. Locate the switch or circuit breakers that shut off all power to all fueling equipment, dispensing devices, and Submerged Turbine Pumps (STPs).

#### WARNING



The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you activate these stops, fuel may continue to flow uncontrolled.



You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not the console's ALL STOP and PUMP STOP or similar keys.

#### Total Electrical Shut-Off Before Access

Any procedure that requires access to electrical components or the electronics of the 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 Gilbarco equipment.

#### Evacuating, Barricading and Shutting Off

Any procedure that requires access to the pump/dispenser or STPs requires the following actions:



- An evacuation of all unauthorized persons and vehicles from the work area
- Use of safety tape, cones or barricades at the affected unit(s)
- A total electrical shut-off of the affected unit(s)

#### Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call the Gilbarco Technical Assistance Center (TAC) at 1-800-743-7501. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

#### Follow the Regulations

Applicable information is available in National Fire Protection Association (NFPA) 30A; *Code for Motor Fuel Dispensing Facilities and Repair Garages*, NFPA 70; *National Electrical Code (NEC)*, Occupational Safety and Health Administration (OSHA) regulations and federal, state, and local codes. All these regulations 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 or affect the safe use and operation of the equipment.

#### Replacement Parts

Use only genuine Gilbarco replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gilbarco replacement parts could create a safety hazard and violate local regulations.

#### Federal Communications Commission (FCC) Warning

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

#### Safety Symbols and Warning Words

This section provides important information about warning symbols and boxes.

##### Alert Symbol



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 hazards. 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** with Alert symbol: Designates a hazard or unsafe practice which may result in minor injury.

**CAUTION** without Alert symbol: Designates a hazard or unsafe practice which may result in property or equipment damage.

## SECTION 2 - IMPORTANT SAFETY INFORMATION

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### Working With Fuels and Electrical Energy

#### Prevent Explosions and Fires

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

DEF is non-flammable. Therefore, explosion and fire safety warnings do not apply to DEF fluid lines.

#### No Open Fire



Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

#### No Sparks - No Smoking



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

#### Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work with or around high voltages. This information is available from the American Red Cross. 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 Lockout/Tagout procedures. If you are not familiar with this requirement, refer to this information in the service manual and OSHA documentation.

#### Working With Electricity Safely

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 Lockout/Tagout requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

#### Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

#### WARNING

The pump/dispenser contains a chemical known to the State of California to cause cancer.

#### WARNING

The pump/dispenser contains a chemical known to the State of California to cause birth defects or other reproductive harm.

### In an Emergency

#### Inform Emergency Personnel

Compile the following information and inform emergency personnel:

- Location of accident (for example, address, front/back of building, and so on)
- Nature of accident (for example, possible heart attack, run over by car, burns, and so on)
- Age of victim (for example, baby, teenager, middle-age, elderly)
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on)
- Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on).

#### WARNING



Gasoline/DEF ingested may cause unconsciousness and burns to internal organs. Do not induce vomiting. Keep airway open. Oxygen may be needed at scene. Seek medical advice immediately.

#### WARNING

DEF generates ammonia gas at higher temperatures. When opening enclosed panels, allow the unit to air out to avoid breathing vapors. If respiratory difficulties develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.

#### WARNING



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs. Keep airway open. Seek medical advice immediately.

#### WARNING



Gasoline/DEF spilled in eyes may cause burns to eye tissue. Irrigate eyes with water for approximately 15 minutes. Seek medical advice immediately.

#### WARNING



Gasoline/DEF spilled on skin may cause burns. Wash area thoroughly with clear water. Seek medical advice immediately.

#### WARNING

DEF is mildly corrosive. Avoid contact with eyes, skin, and clothing. Ensure that eyewash stations and safety showers are close to the work location. Seek medical advice/recommended treatment if DEF spills into eyes.

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

#### Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical, or other energy, but does not cover electrical hazards. Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

## SECTION 3 - REMOVING COMPONENTS

### Before You Begin

#### CAUTION



A properly grounded Electrostatic Discharge (ESD) wrist strap must be worn while servicing any electronic devices or components. Failure to use electrostatic precautions may damage electronic components and void warranty.

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To prepare the site and unit for the installation:

- 1 Perform an inventory of the parts list provided. Ensure that there is no damage to the parts and that all the parts are accounted for based on the BOM shipped with the kit. Ensure that you carry the recommended spare parts to the installation site.

*Note: Retain all parts (including cables, nuts, bolts, screws, and so on) that are removed. These are required in case the unit must be reverted to the original as a fallback mitigation.*



- 2 Read all the safety information found in *MDE-3804 Encore and Eclipse Start-up/Service Manual* and “Important Safety Information” on [page 5](#). Perform a Job Safety Analysis (JSA) before beginning the installation.

- 3 Inform the manager.

- 4 Barricade the unit to be worked on.

- 5 Check the current state of the unit:

- a Verify that the printer firmware is version 3.00 or later by removing and refeeding paper to the printer while it is still powered.

*Note: If the software is not V3.00 or later, go to the extranet for the printer software.*

- b Verify site and dispenser operation.

- c Perform a fueling transaction, including printing a receipt.

- d Check Applause for idle and busy media (if applicable). Verify video and audio.

- e Verify all unit options are functional (for example, intercom).

- f If applicable, ensure that Insite360 Encore is connected and operational, including a contract in place.

- g If the site is running Insite360 Encore or Applause Media System, access the Onboard Web application and record the configurations.

- h For Insite360 Encore, de-register the SSoM. After Omnia is installed, Insite360 Encore will be registered.

- i Update the Pump Control Node (PCN) software to 3.3.19 or later.

- 6 Remove power to the unit at the breaker panel. Follow OSHA lockout/tagout procedures.

- 7 Isolate the two-wire connection to the unit.



#### WARNING

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

## SECTION 3 - REMOVING COMPONENTS

### Encore 500 S

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#### IMPORTANT INFORMATION



Ensure that the unit is functional. Check with the manager for any existing operational issues. If the unit has any special features, such as TRIND®, barcode scanner, and so on, verify proper operation before removal. Print a system health report to verify printer and CRIND functions. For more information, refer to *MDE-5221 FlexPay IV Start-up Manual*.

### Pump Handle Boot Switch(es) and Totalizers

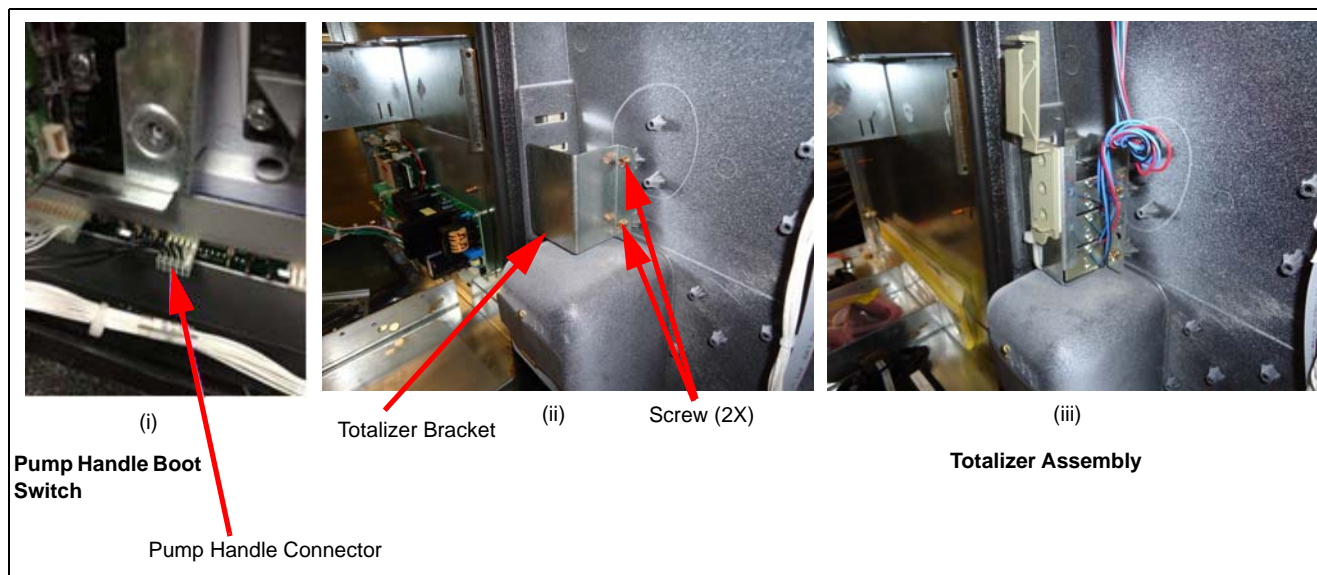
To remove the pump handle boot switch(es) and totalizers:

*Note: Ensure that all the cables going to the door from the Computer Display (CD) module are disconnected before attempting to remove the door.*

- 1 Remove the pump handle boot switch(es), and then remove the totalizers [assembly (two screws)]. If no totalizers, remove the bracket that is used for cable routing at the door. These will be reinstalled on the new door.

*Note: Retain the boot switches and totalizers, and brackets (assembly) and screws for the new door.*

**Figure 1: Pump Handle Boot Switch and Totalizers**



- 2 Remove the grade select buttons and their bases from the front of the main door for reuse on the new E-CIM door. Retain all hardware for reuse.

*Note: Be careful not to dislodge the magnets.*



## SECTION 3 - REMOVING COMPONENTS

### Door Node

*Note: Retain the door node and screws for reuse.*

To remove the door node:

- 1 Remove the Cable Assembly (M06115A001 or M06115A002) that carries data and power from the door node to the Price per Unit (PPU) board. These cables can be discarded.

*Note: A new M06115A003 Cable is provided in the kit and is already connected to the door.*

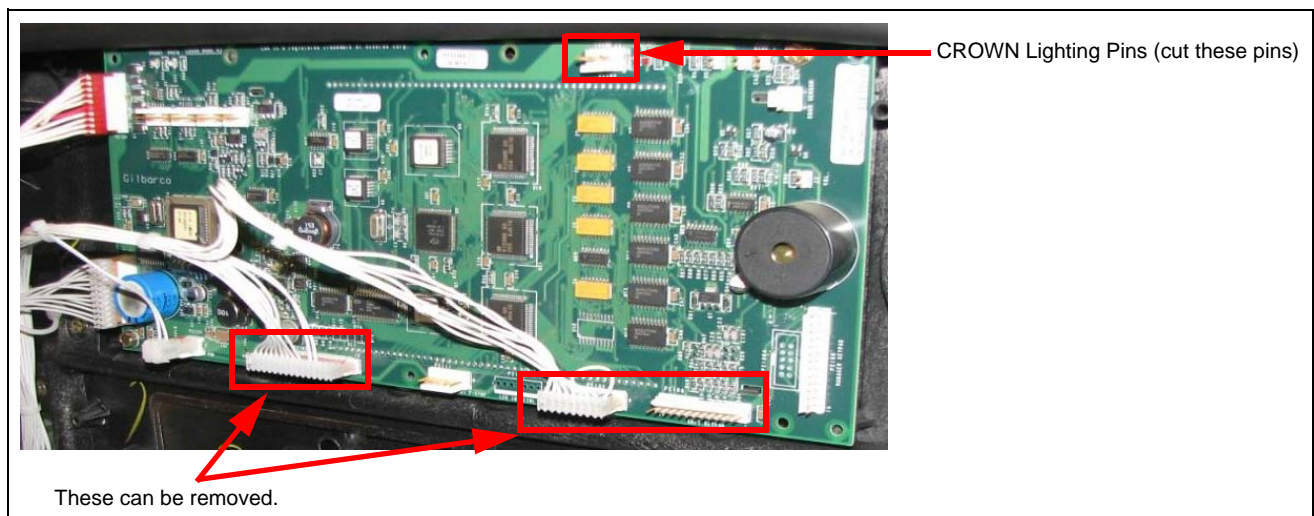
- 2 Remove all the cables from the door node before removing the door node.

#### IMPORTANT INFORMATION

If the door node has CROWN lighting pins, remove the CROWN lighting pins from the door node using diagonal cutters as close to the board as possible (see [Figure 2](#)). Eye protection must be used while clipping the CROWN lighting pins.

For every door, inspect the door node. Ensure that there are no CROWN lighting pins at the connector (associated with door node 3). If CROWN lighting pins/connector are present on the door node (see [Figure 2](#)), carefully remove and discard the pins. It is important to have them removed. There is a potential for damaging the door node if these pins are not removed.

**Figure 2: Removing Door Node**



## SECTION 3 - REMOVING COMPONENTS

- 3 Remove the door node by removing the four screws that secure it. Retain the screws and door node for reuse.

*Notes: 1) Be sure to place the door node on the correct side of the unit when re-installing on the new door.*

*2) Before you remove the main door, ensure all cables going to the door have been disconnected.*

- 4 Remove any peripheral options, such as call button board, that will be reused from the door.

*Note: Not all CRIND options are directly transferrable to the FlexPay IV CRIND platform. The options that are not transferrable will be provided in the kit.*

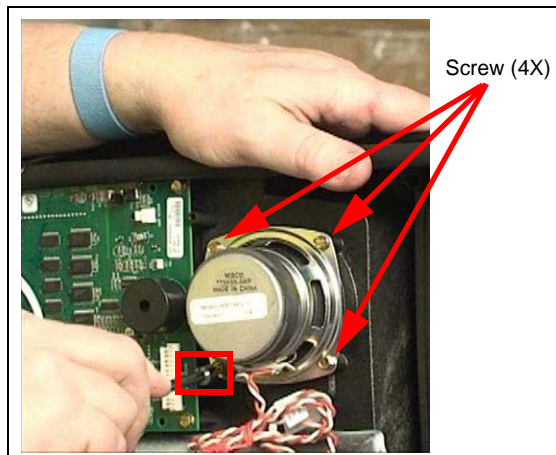
### Speaker

*Note: Speaker may not be required for all installations. For example, Applause Media System applications will require a speaker with a connector installed.*

If the speaker must be replaced, remove the speaker at this time.

To remove the speaker, disconnect speaker wires and remove the four screws holding the speaker and take it out.

**Figure 3: Removing Speaker**



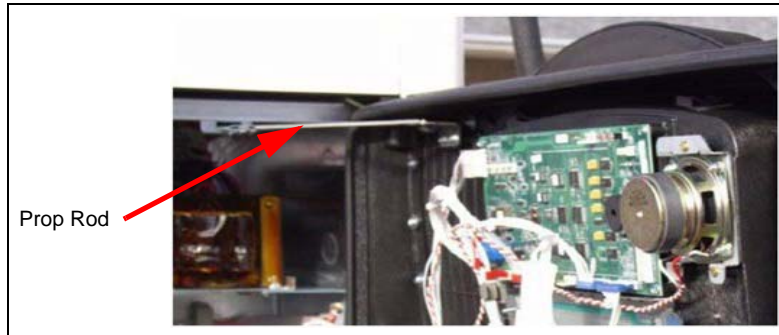
## SECTION 3 - REMOVING COMPONENTS

### Prop Rod

To remove the prop rod, lift it upwards and then pull it out of its housing slot (see [Figure 4](#)).

*Note: Retain the prop rod for reuse.*

**Figure 4: Removing Prop Rod**



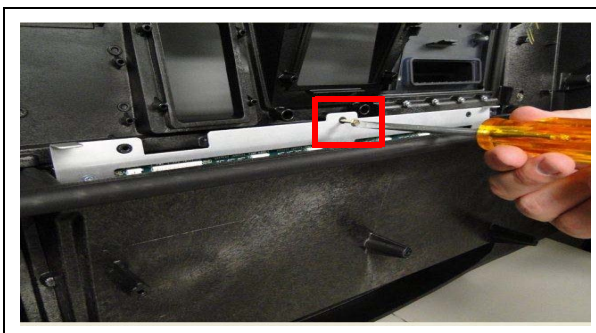
3

### PPU Board

To remove the PPU board:

- 1 Remove the card reader first, to allow the PPU board to be removed.
- 2 Remove the following cables from the PPU board:
  - PPU backlight power (J2202)
  - PPU data (J2201)
  - Pump-handle cable
- 3 Remove and discard the three screws that secure the PPU board (see [Figure 5](#)).  
*Note: The new door requires a 1/4-inch screw that is provided in the kit.*
- 4 Open the printer door to remove the PPU board.  
*Note: Retain the PPU board for reuse.*

**Figure 5: Removing 1 of 3 Screws of PPU Board**



- 5 Carefully lift the PPU board out of the tray and place it in a safe place for reinstall.

## SECTION 3 - REMOVING COMPONENTS

### Door

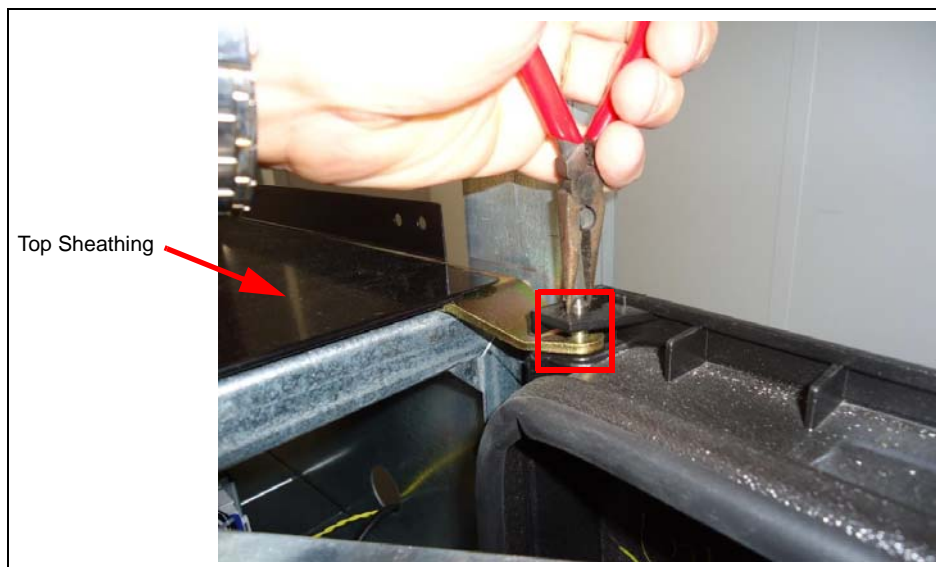
To remove the existing door from the unit:

*Note: Ensure that all the cables going to the door from the CD module are disconnected before removing the door.*

- 1 After all the components that will be reused are removed from the door, remove the existing door from the unit (see [Figure 6](#)).

*Note: After you completely open both the doors, the top sheathing must slide over enough to access and remove the pin. If not, you may have to remove the inner sheathing so that you can slide the top cover and access the pin.*

**Figure 6: Removing Pin from Door**



- 2 Remove the pin at the upper door hinge. Ensure that you hold the door steadily with one hand while removing the pin.  
*Note: Use both hands to remove the door. Otherwise, the door may fall off the unit and get damaged.*
- 3 After you remove the pin, lift the door from the lower mounting hinge and move to a safe location.  
*Note: Retain all the parts in case you must revert to the original equipment for any reason.*
- 4 Repeat door removal for the other side.



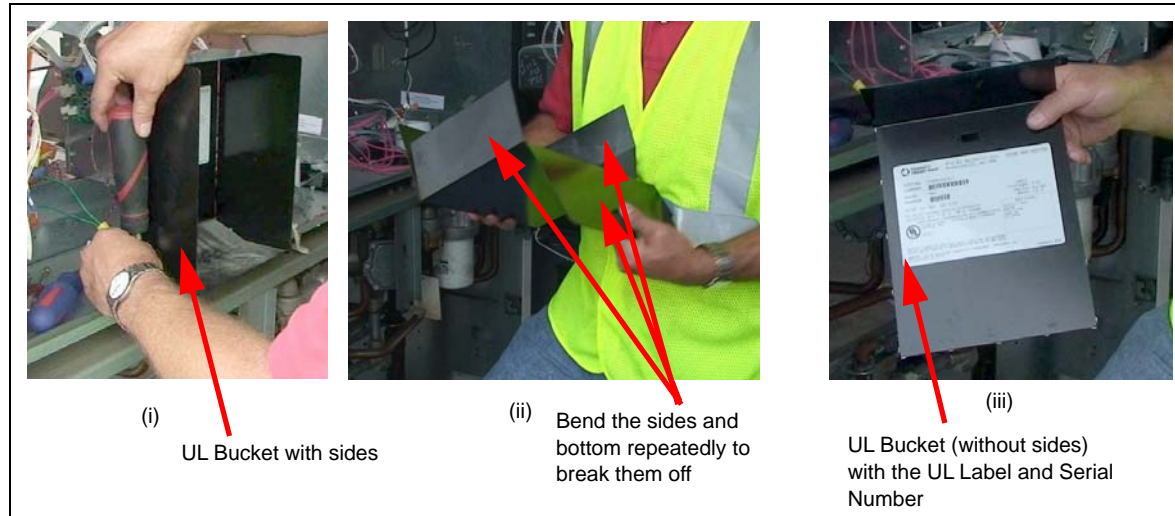
## SECTION 3 - REMOVING COMPONENTS

### UL® Buckets

Remove the Underwriters Laboratories (UL) buckets (one on each side) to allow room to install the mailbox style printer assemblies. Retain the UL bucket with the UL label and serial number, and one Self-tapping Screw (M00417B101), and then attach it inside the unit.

*Note: The sides of the UL bucket must be removed before placing it in the unit. To remove the sides and bottom, bend them repeatedly to break them off [see Figure 7 (ii) and Figure 7 (iii)].*

**Figure 7: Removing UL Bucket**

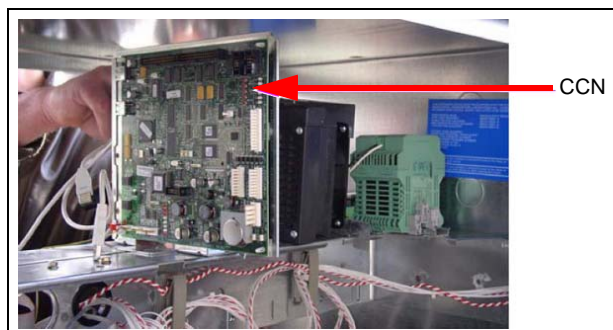


### CCN Assembly

To remove the CRIND Control Node (CCN) assembly:

- 1 Disconnect all the cables from the CCN.

**Figure 8: Removing CCN Assembly**



- 2 Remove the CCN assembly from the T-rail by removing the three nuts located at the bottom of the mounting bracket.

*Note: Retain the nuts for mounting the Omnia assembly.*

## SECTION 3 - REMOVING COMPONENTS

### HIP 2/DCM2.X

To remove the Hub Interface PCB (HIP) 2/DCM2.X bracket:

- 1 Disconnect all the cables from the HIP 2/DCM2.X (see [Figure 9](#)).

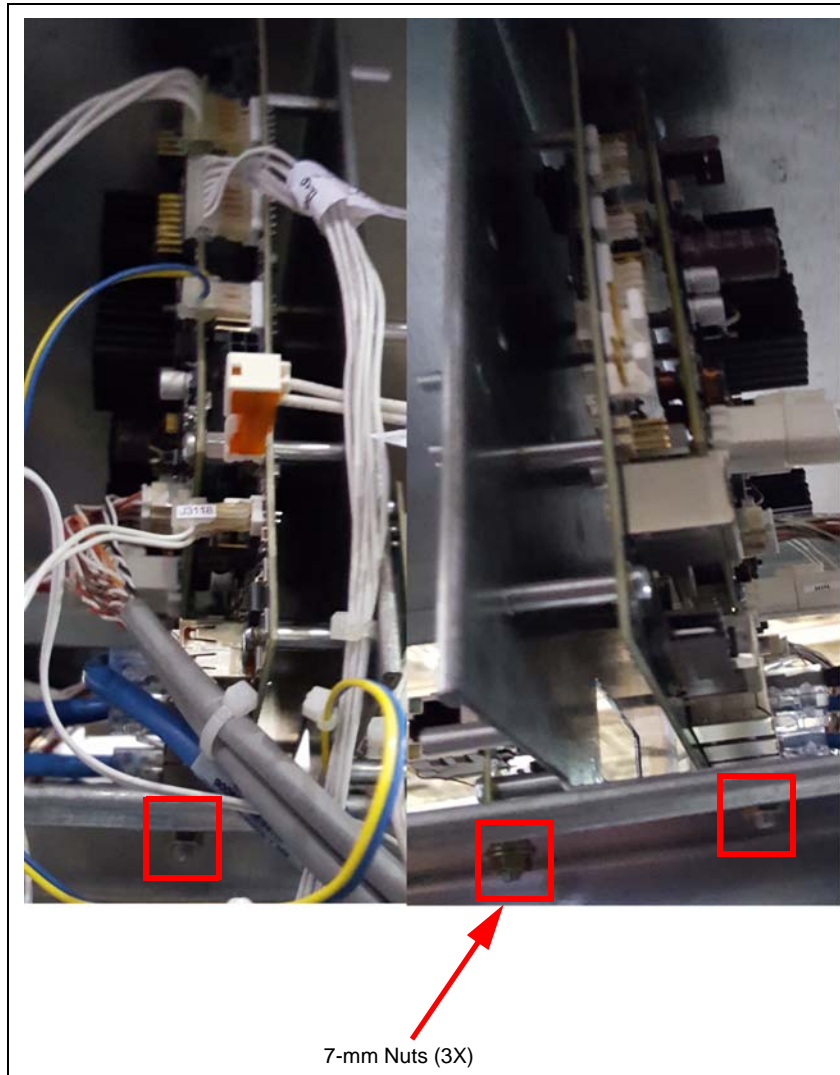
**Figure 9: Disconnecting Cables**



## SECTION 3 - REMOVING COMPONENTS

- 2 Remove the HIP2/DCM2.X bracket located on the T-rail by taking off the three 7-mm nuts as shown in [Figure 10](#). Retain the nuts for reuse.

**Figure 10: Removing Nuts**



## SECTION 3 - REMOVING COMPONENTS

### 3

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## SECTION 4 - INSTALLATION

# FlexPay IV CRIND Retrofit Kit

## E-CIM Door Installation

To install the E-CIM Door:

- 1 Install the new retrofit door onto the unit by reversing steps 2 and 3 on page 12.
- 2 Insert the lower portion of the door in the lower hinge and then place the pin in the upper hinge (see Figure 2 on page 9).

After the door is in place, install all the following parts removed previously:

- Door node

*Note: Ensure that the correct door node is put on the correct side and ensure that the CROWN lighting pins have been removed (if applicable).*

- PPU board

*Notes: 1) Card reader must be removed before reinstalling the PPU board. See “IMPORTANT INFORMATION”.*

*2) Use the 1/4-inch screws provided in the kit. DO NOT use the screws taken out previously from the PPU board.*

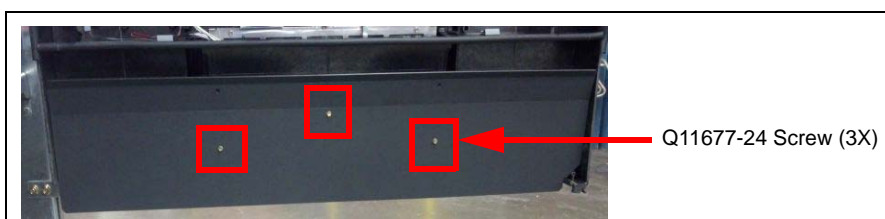
### IMPORTANT INFORMATION

You will have to remove the UX300 card reader from the new door before reinstalling the PPU board. Reinstall the UX300 once the PPU board has been installed. Failure to use the new 1/4-inch screws provided in the kit will damage the door.

- Totalizer assembly or totalizer bracket
  - Pump-handle switches
  - Grade select bases and buttons
- Note: Carefully place the grade buttons in their correct location.*
- Transfer any other options that may have been removed to the new door or add any CRIND options included in the kit.
  - Attach the Air Gap Panel (M07900B001) to the bottom of the new door using the three Q11677-24 Screws provided in the kit.

*Note: These items show up in the packing list as PKM07900A001.*

**Figure 1: Air Gap Panel (M07900B001)**



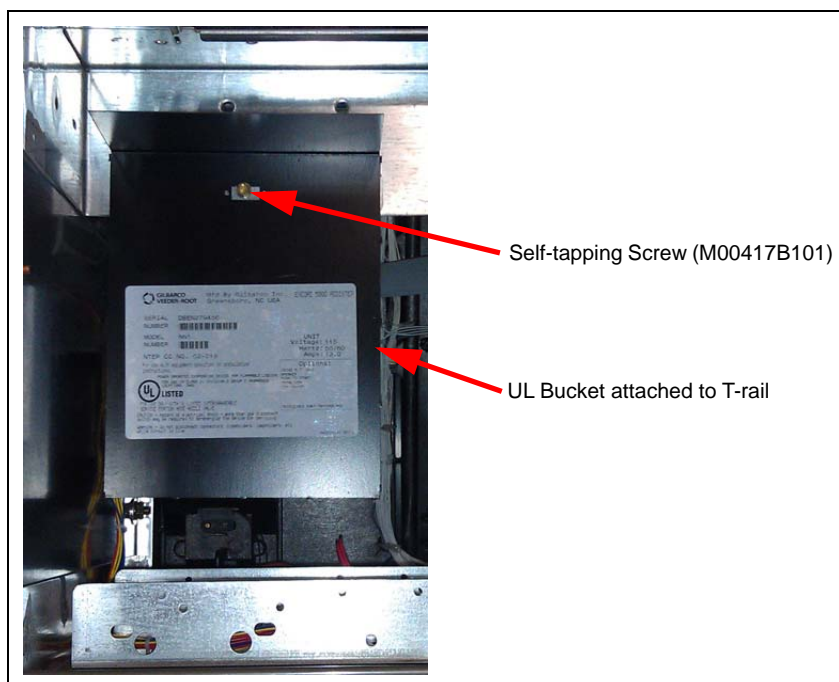
## SECTION 4 - INSTALLATION

### UL Bucket

Attach the UL bucket to the T-rail using a self-tapping screw (retained earlier) to a safe place inside the unit, as shown in [Figure 2](#).

*Note: The UL bucket must be placed inside the electronics cabinet because it contains the UL serial number.*

**Figure 2: Attaching UL Bucket to T-rail**





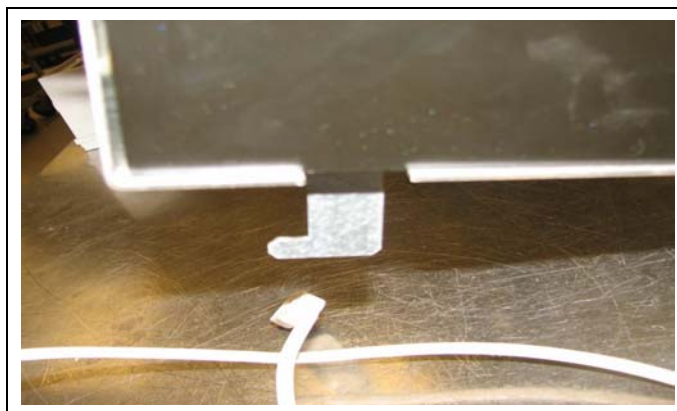
## SECTION 4 - INSTALLATION

### Mailbox Printer

To install the mailbox printer:

- 1 Ensure that the tab on the back side of the mailbox printer is inserted into the U-channel before inserting the four mounting screws [see [Figure 3](#) and [Figure 4 \(i\)](#) on [page 19](#)].

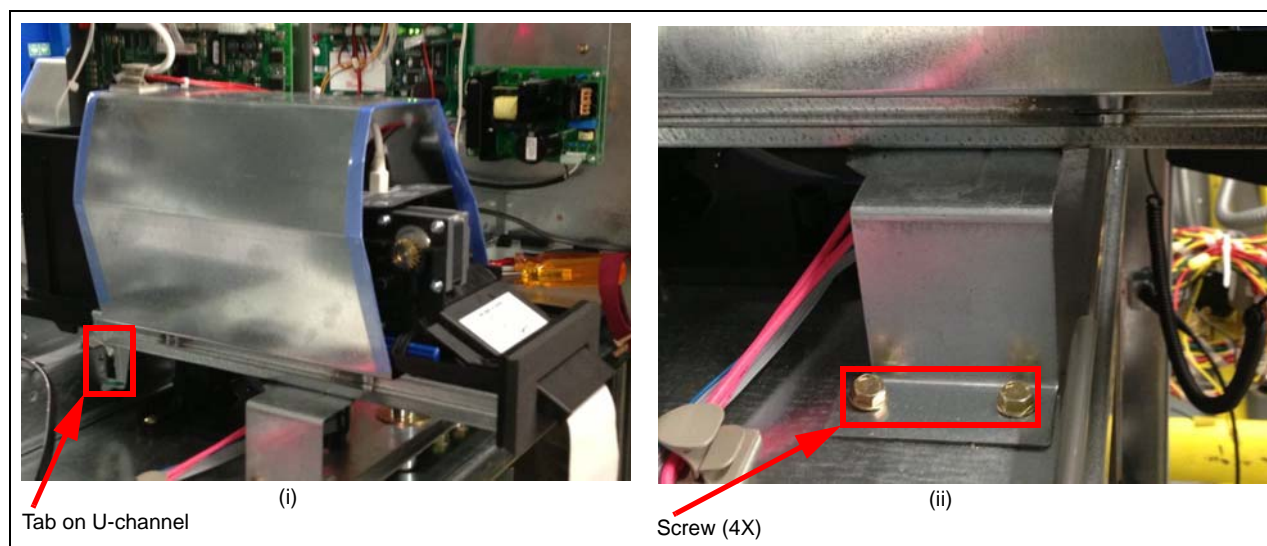
**Figure 3: Tab on Back Side of Printer**



- 2 Install the new mailbox printer assembly to the unit air gap sheet-metal plate at the bottom of the CD module using the four 8-mm screws [see [Figure 4 \(ii\)](#)].

*Note: Mailbox printer must be mounted in the same location where the UL bucket was removed.*

**Figure 4: Mailbox Printer**



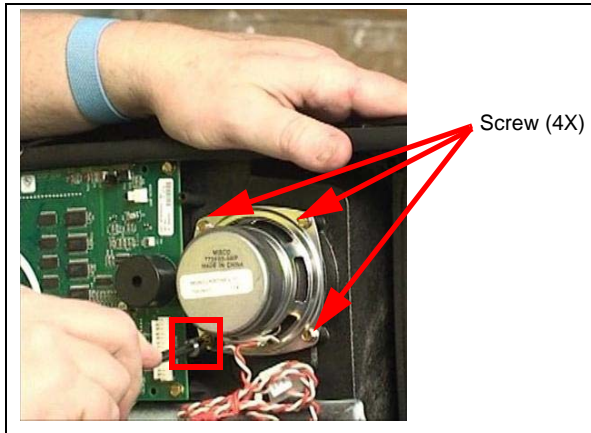
## SECTION 4 - INSTALLATION

### Speaker

If applicable, reinstall the speaker, reconnect speaker wires, and reinsert the four screws holding the speaker that were removed in the “Speaker” section on [page 10](#).

*Note: If Applause Media System is installed, speaker wires are connected to the Omnia PIP, or through the intercom board to the Omnia PIP, if so equipped.*

**Figure 5: Removing Speaker**



*Note: For some peripherals, new components may be shipped with the kit depending on the types of options installed. After installing the Omnia assembly, refer to “[Intercom PCA with Call Interface \(M14595A001\)](#)” on [page 30](#), if the unit has an intercom.*

For peripheral options, refer to “[Appendix B: Peripheral Options](#)” on [page 44](#).

For cable block diagrams, refer to “[Appendix C: System Block Diagram](#)” on [page 46](#).



## SECTION 4 - INSTALLATION

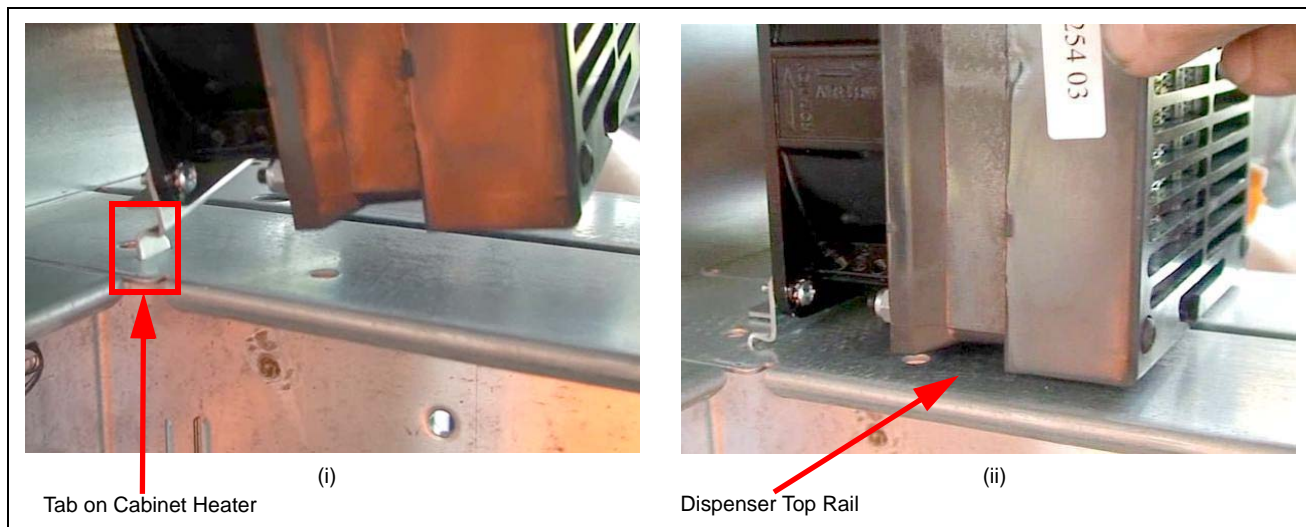
### Cabinet Heater (Optional for 10.4 and 5.7)

To install the cabinet heater, proceed as follows:

- 1 Insert the tab on the heater onto the top rail in the dispenser (see [Figure 6](#)).
- 2 To secure the heater, place a nut on the other side of the stud and tighten it.

For more information, refer to *MDE-4609 Heater/Fan Kit (M07333K00X) Installation Guide for Encore 300/The Advantage® Series [with FlexPay EMV (Canada Only)] and Encore S/Encore 500 Units*.  
*Note: This manual is included in the kits that have a heater.*

**Figure 6: Installing Cabinet Heater**



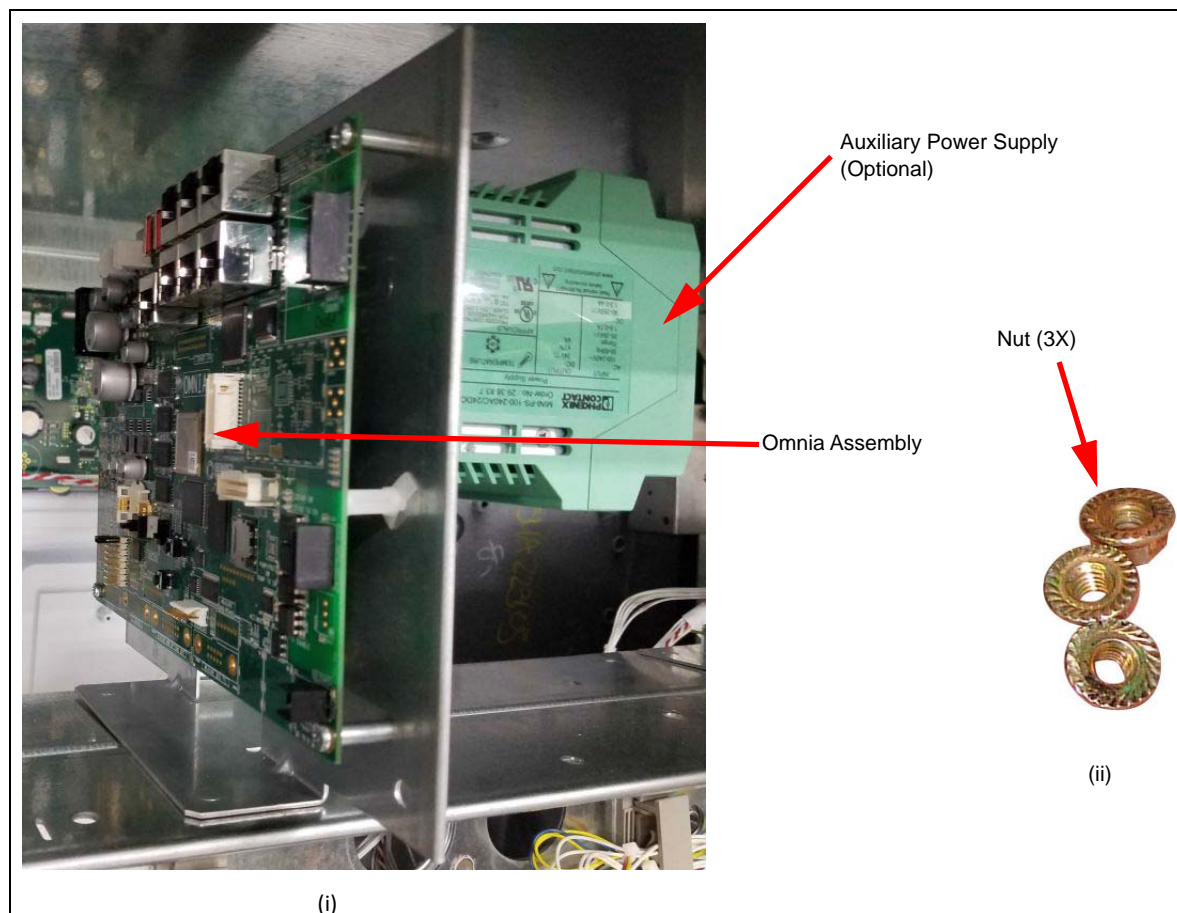
## SECTION 4 - INSTALLATION

### Omnia Assembly

Mount the Omnia assembly on the T-rail using the three 7-mm nuts removed earlier or provided in the kit as shown in [Figure 7](#).

*Note: Use the same holes as the CCN/HIP/HIP2 or similar assembly removed earlier.*

**Figure 7: Installing Omnia Assembly**



*Note: Verify that P6001 of the Omnia board is on the same side as the Weights and Measures (W&M) switch.*

## SECTION 4 - INSTALLATION

### Omnia Assembly with Auxiliary Power Supply (10.4-inch Display)

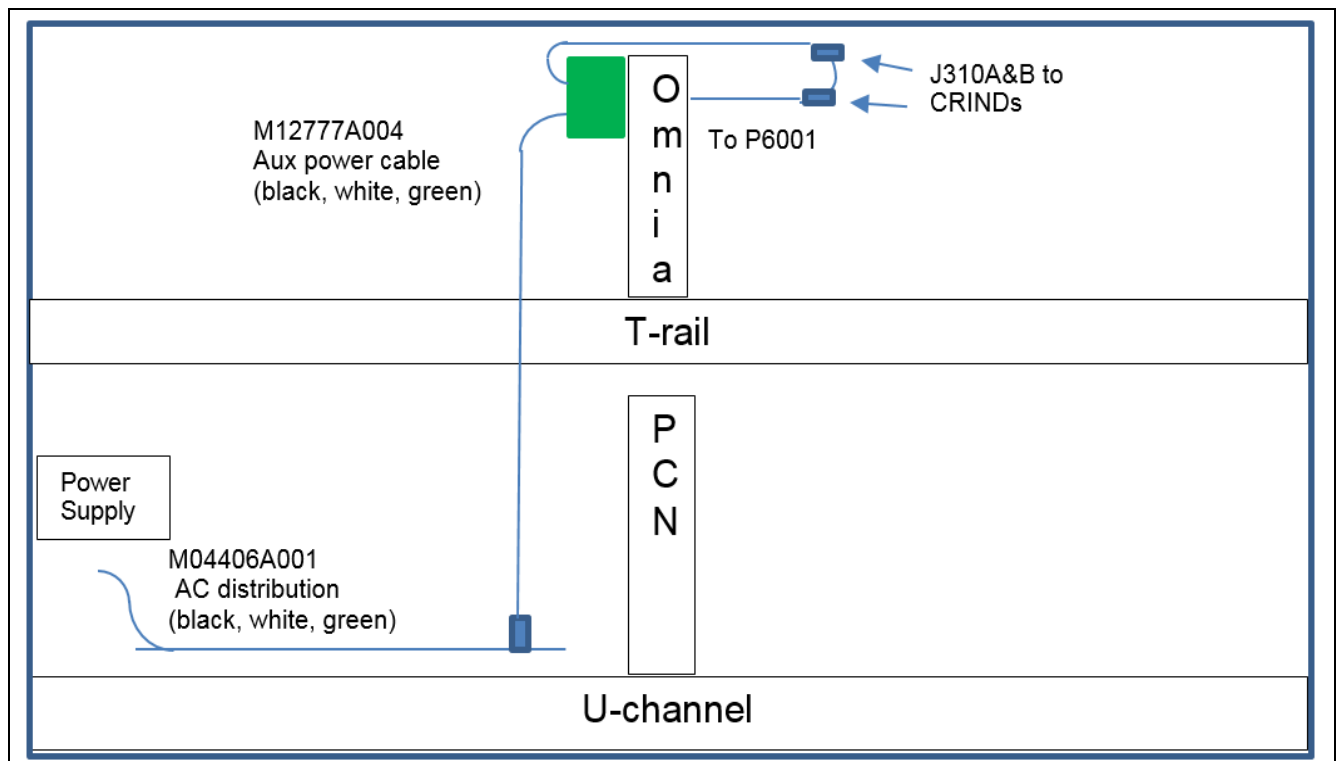
*Note: Insite360 Encore requires M07555A004 Encore Power Supply Assembly. Refer to MDE-5349 Insite360 Encore Power Supply Retrofit Kit Installation Instructions for specific instructions.*

To connect the cables:

*Note: Ensure that the AC cables are not bundled with any non-AC cables.*

- 1 Connect J104 of the M12777A004 Cable to the M04406A001 AC Distribution Cable in the U-channel.
- 2 Connect P301A/B of the M14340 Cable side A to J301A of the M12777A004 Cable.
- 3 Connect P301A/B of the M14340 Cable side B to J301B of the M12777A004 Cable.

**Figure 8: Omnia Assembly with Auxiliary Power Supply**



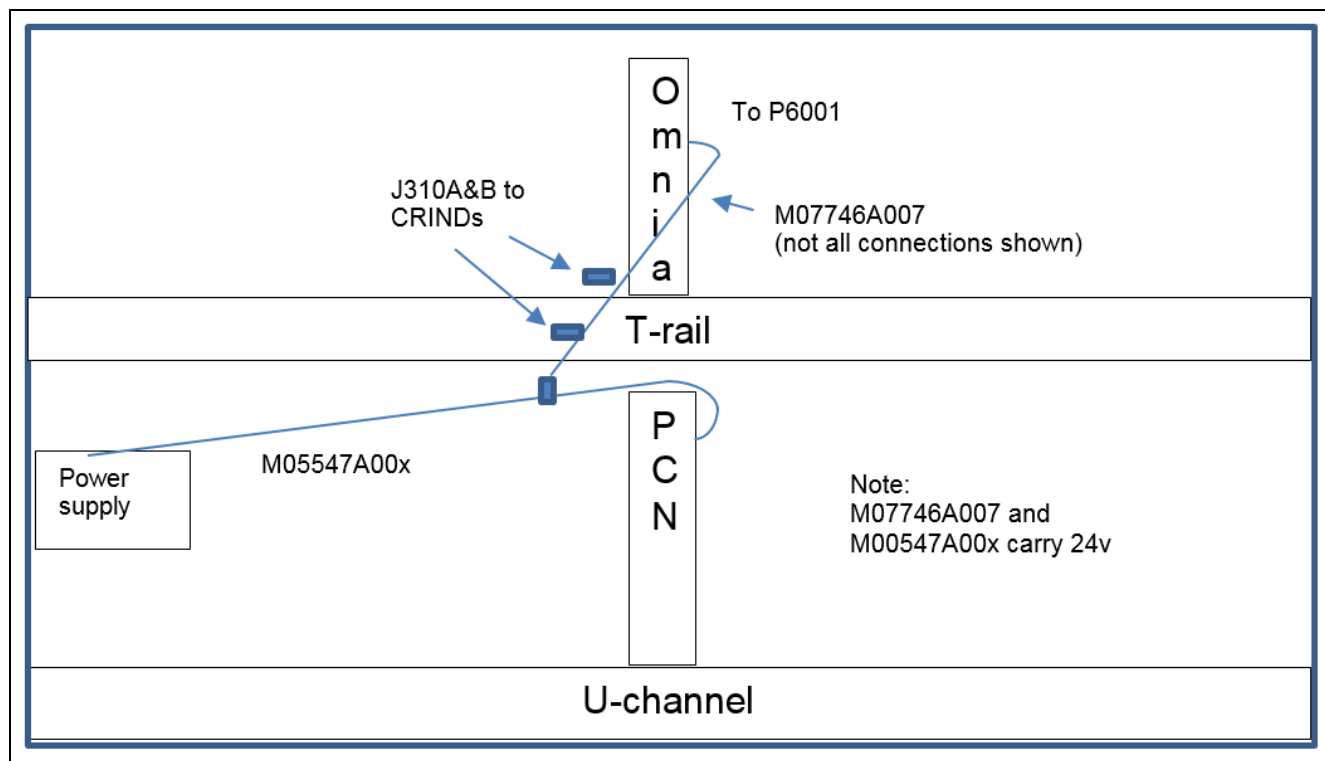
## SECTION 4 - INSTALLATION

### Omnia Assembly Without Auxiliary Power Supply (5.7-inch Display)

To connect the cables:

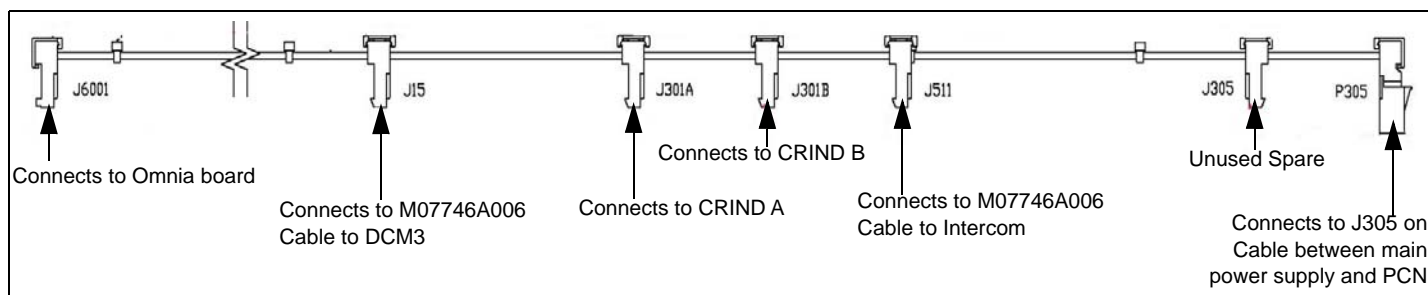
*Note: Ensure that the AC cables are not bundled with any non-AC cables.*

**Figure 9: Omnia Assembly without Auxiliary Power Supply**



- 1 Connect P305 of the M07973A007 Cable to J305 of the M05547A00X Cable coming from the power supply.

**Figure 10: Cable Connection**



*Note: If the unit's existing M05547A00X Power Cable does not contain a three-position J305, the kit contains a replacement M05547A00X Cable to install (which does contain a three-position J305 connector).*

- 2 Connect P301A/B of the M14340 Cable side A to J301A of the M07973A007 Cable.

## SECTION 4 - INSTALLATION

- 3 Connect P301A/B of the M14340 Cable side B to J301B of the M07973A007 Cable.

### IMPORTANT INFORMATION

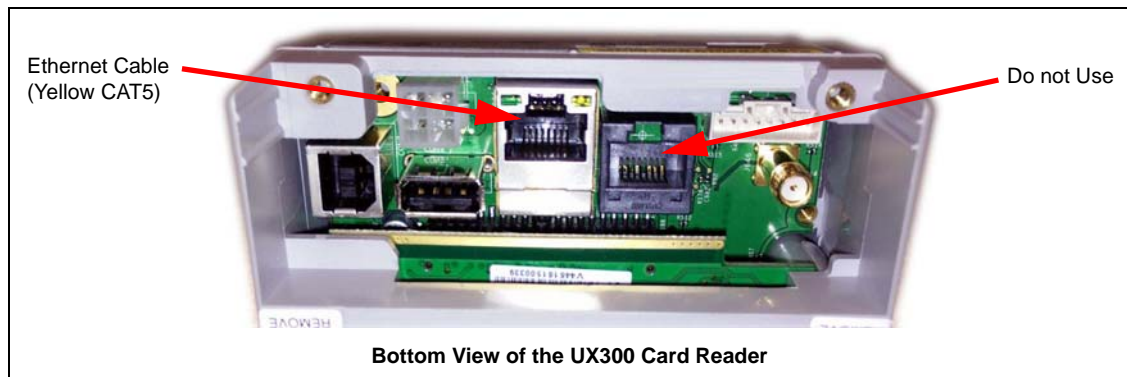


Cable routing is critical. It is very important to route and dress the cables properly. Exercise care in routing the cables, keeping in mind that the door(s) opens and closes for service. The cables must be dressed neatly. Ensure that there is no interference after the cables are connected and routed. Ensure that the ESD ground straps can be bundled together, but need to be well separated from data and power cables. Note that they should be fastened to the U-channel with separate bolts.

4

- 4 Connect the Ethernet® cable to the card reader. The yellow CAT5 cable in the kit matches the yellow connector on the Omnia PCB (for dedicated side).

**Figure 11: Connecting Ethernet Cable to the UX300 Card Reader**



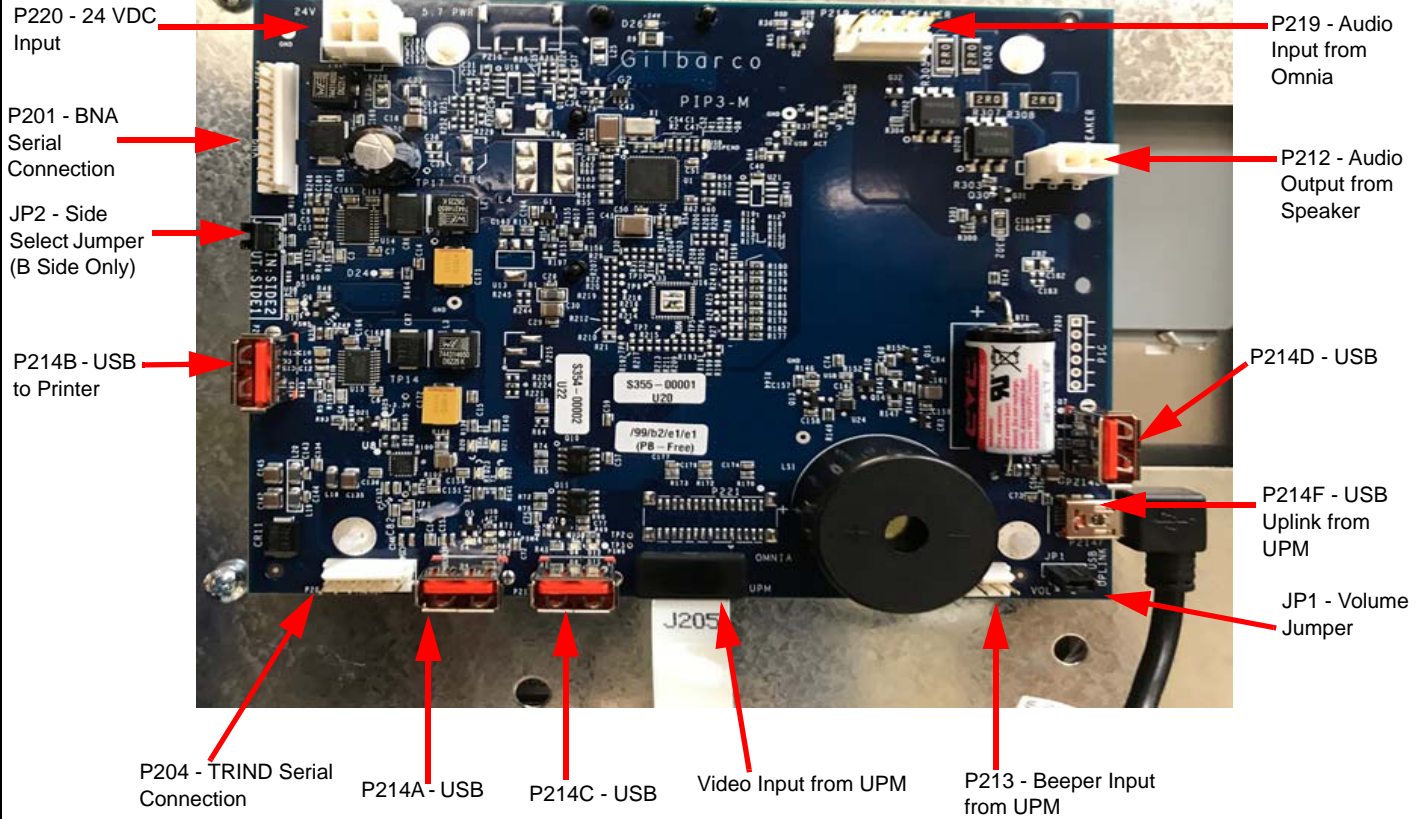
## SECTION 4 - INSTALLATION

5 Connect the USB cable from the printer to Omnia PIP, using the port on the left side.

*Note: Ensure that the USB printer cable is seated.*

**Figure 12: Omnia PIP (M15649A002) Connections**

4



**Omnia PIP [M15649A002 (Front View)]**

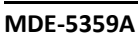
*Note: Install a jumper on JP2 when Omnia PIP is located on side B of the dispenser.*



### Figure 13: Omnia Without Intercom

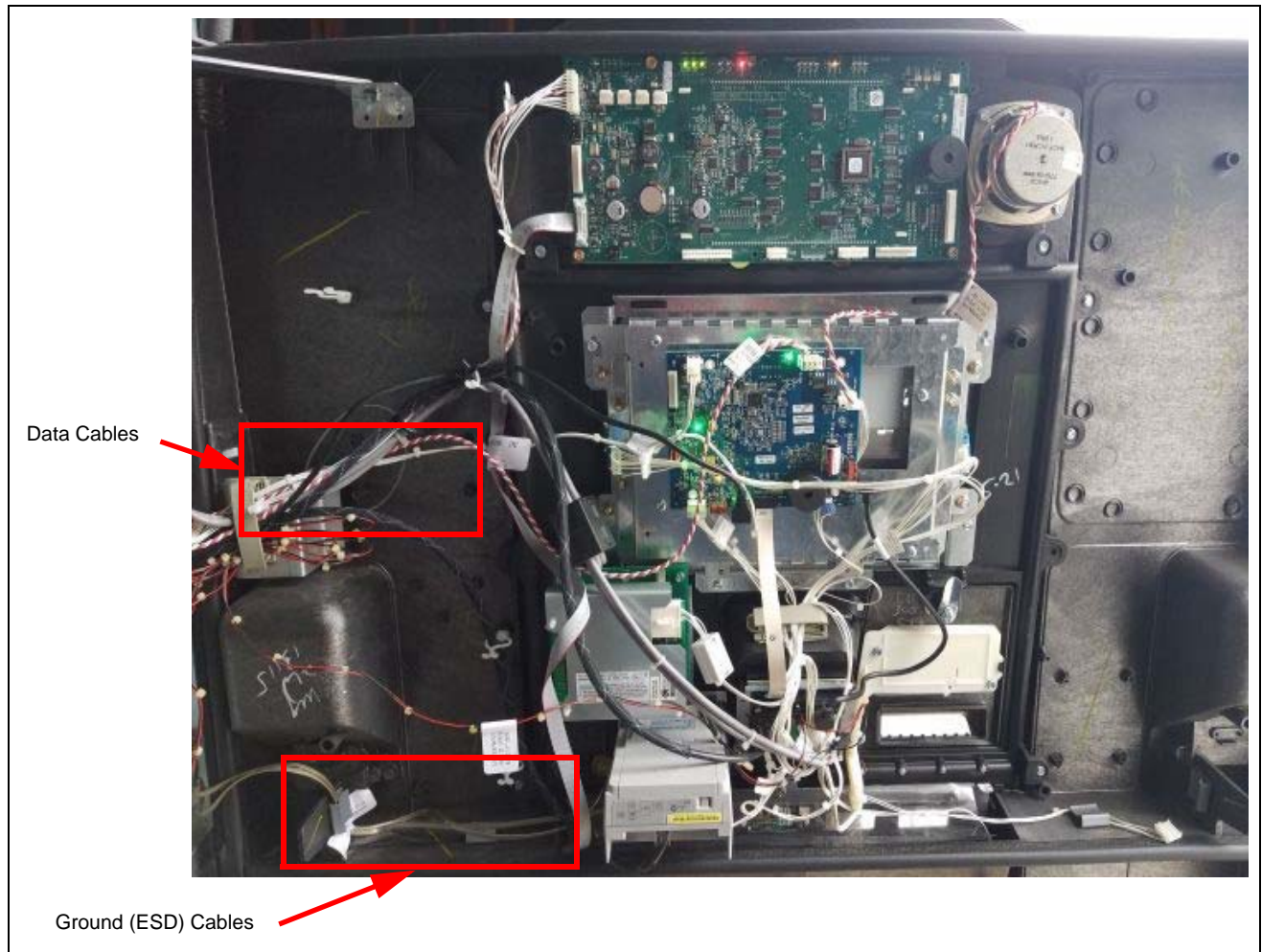


**Figure 14: Ground Wire Connected to Chassis**



## SECTION 4 - INSTALLATION

Figure 15: Separating Ground Cables from Data and Power Cables



- 8 Connect P902C to call button board (if installed).

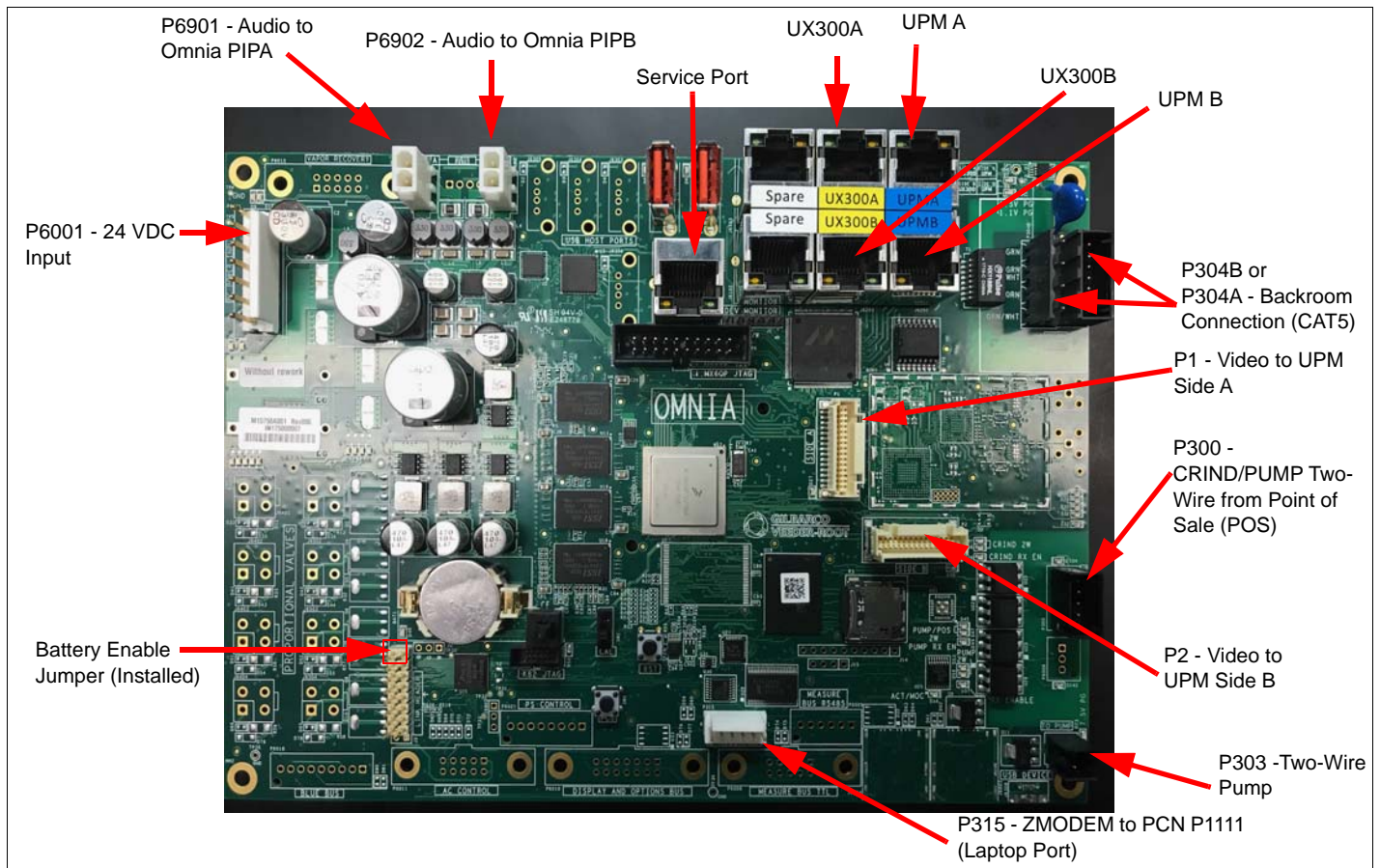
*Note: If Applause Media System is installed, there will be a new audio cable from Omnia PIP and a video cable from Omnia to UPM. Audio Cable (M14425A002) goes from P419L to Omnia PIP P219. Video Cable (M14338A00X) goes from Omnia P1 for Side A UPM and Omnia P2 for Side B UPM to UPM P6.*



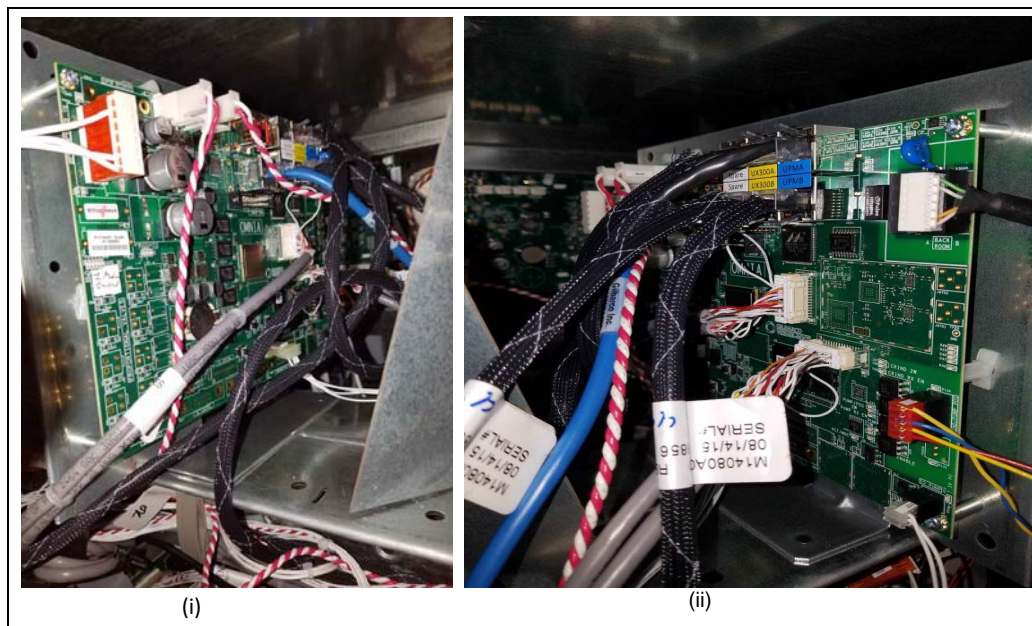
## SECTION 4 - INSTALLATION

9 Connect all the applicable cables to the Omnia assembly as shown in [Figure 16](#).

**Figure 16: Omnia Board Connections**



**Figure 17: Connecting Cables**



## SECTION 4 - INSTALLATION

- 10** Connect the Ethernet cable from each UPM to the Omnia board.

*Note: These ports are dedicated. The UPMs and UX300 Card Readers must be connected to the correct ports.*

Figure 11 on [page 25](#) shows the labels on the Omnia board.

**Figure 18: Omnia RJ-45 CAT5 connections for UPMs and UX300s (+ Spares)**

Spare	UX300A	UPMA
Spare	UX300B	UPMB

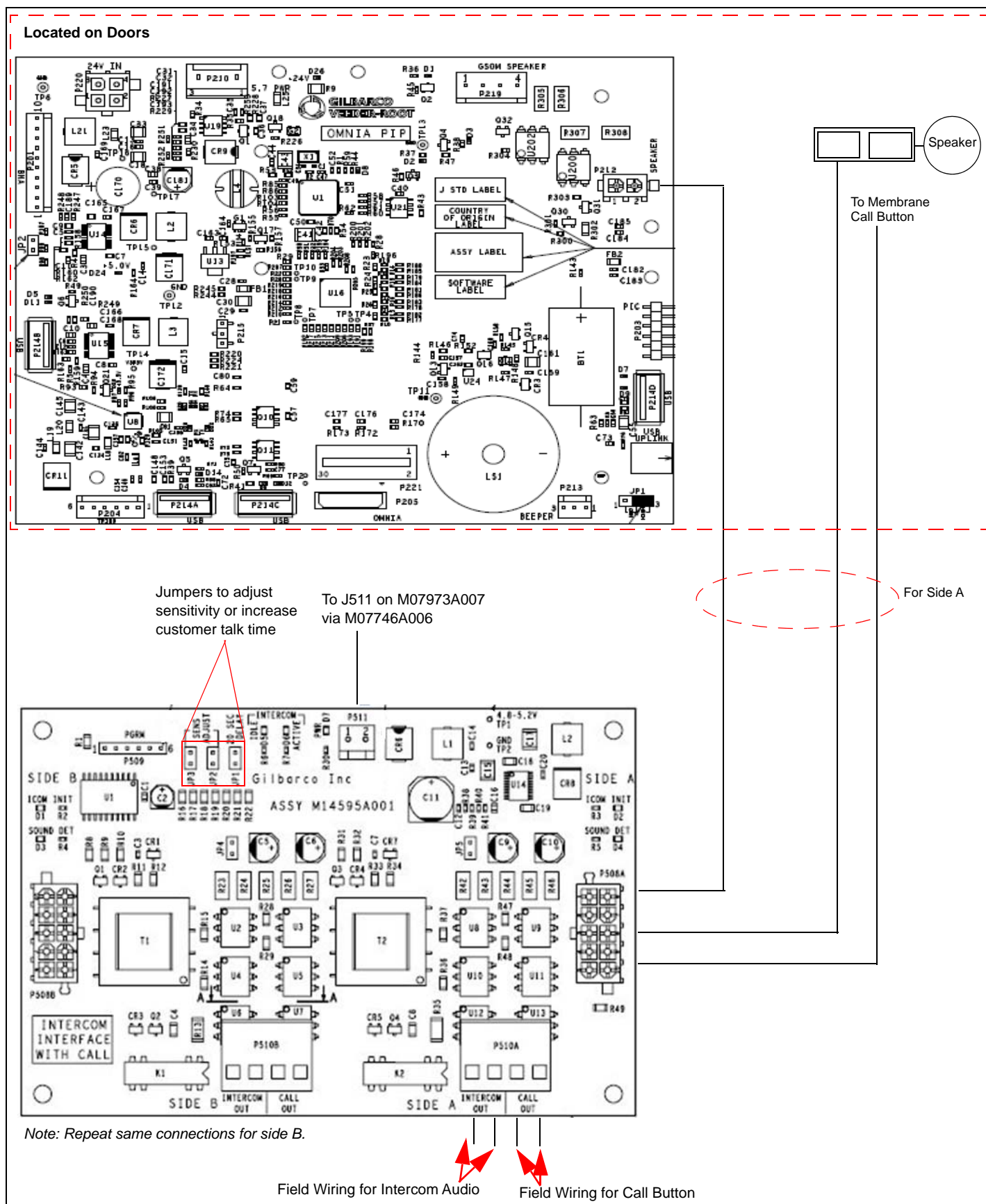
## Intercom PCA with Call Interface (M14595A001)

To install M14595A001 Intercom Board, proceed as follows:

- 1 Mount plate with the M14595A001 Intercom Board on the wall opposite to the dispenser power supply.  
*Note: P506 will be toward the side A of the dispenser.*
- 2 Disconnect the speaker from P504 on the Omnia PIP.
- 3 Connect M14762A001 Cable to P506A on the M14595A001 Intercom Board. Make the other three connections as shown in [Figure 19](#) on [page 31](#).
- 4 Repeat the connections for side B, using M14762A002 Cable.
- 5 Connect M14763A001 Power Cable to P511 on the M14595A001 Intercom Board.
- 6 Make field wiring connections to P510A and P510B.
- 7 Note the jumpers that can be used to adjust sensitivity or customer talk time. (Typically, it is not necessary to add jumpers.)

## SECTION 4 - INSTALLATION

Figure 19: Connections between Omnia PIP PCA (M15649A00X) and M14595A001 Intercom Board



## SECTION 4 - INSTALLATION

### Forecourt Wiring

Depending on the dispenser type and whether or not it has factory-installed conduit, there are different specifications in the current loop wiring.

If the kit includes DCM3, refer to information about merged and non-merged high speed connections (see [“Appendix C: System Block Diagram”](#) on [page 46](#)).

## 4

### Considerations

- P300 has the red/yellow and blue/yellow current loop inputs for both the pump and the CRIND.
- P303 is the current loop output to the pump. It must be used even in the Generic CRIND mode.

#### For Passport (MOC)

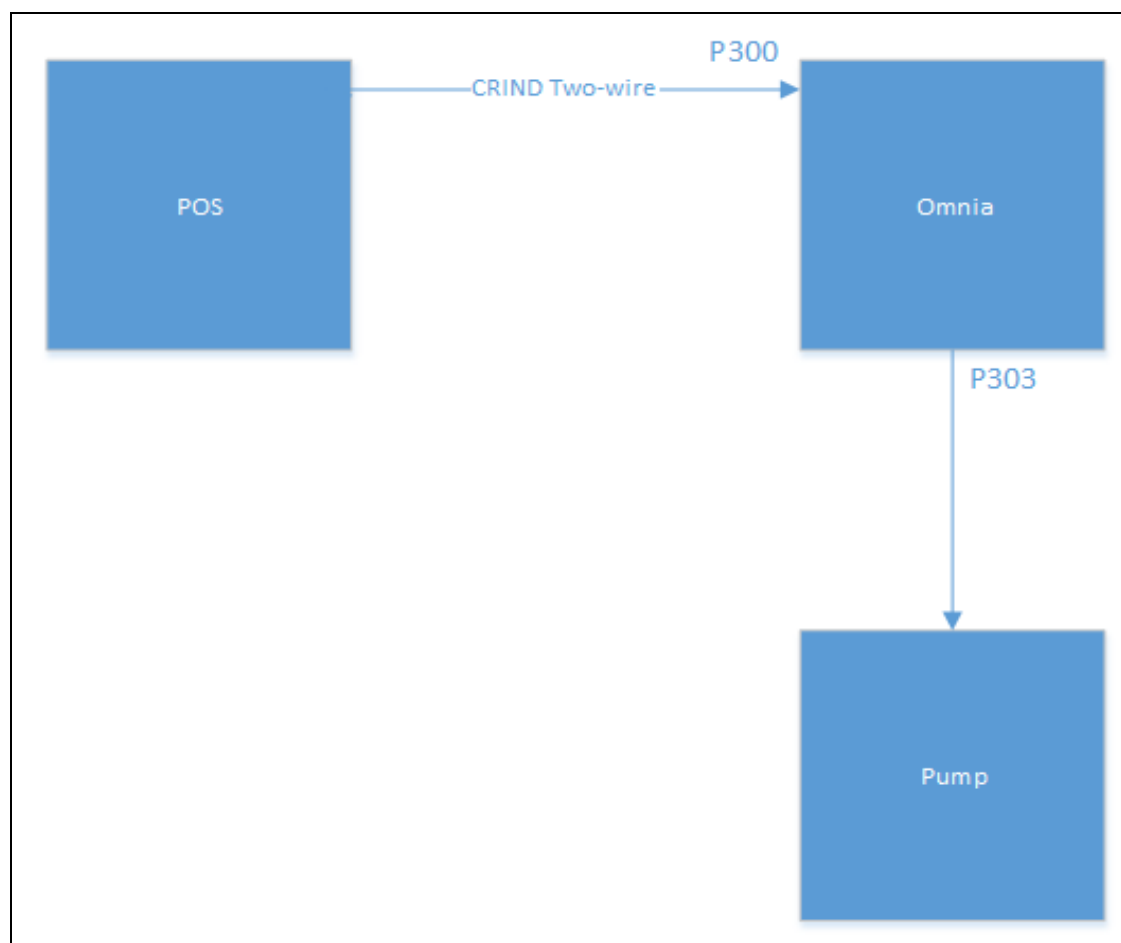
- CRIND two-wire must be on the blue/yellow wires.
- The pump two-wire input must be connected to P303.

To set up the Omnia board for Passport wiring:

- 1 Remove the two-wire cables from the conduit that are attached to A9 and A19, as applicable (see [Figure 20](#) on [page 33](#)).
- 2 Connect the blue wire to CRIND A9 (see [Figure 20](#) on [page 33](#)).
- 3 Connect the mated yellow wire to CRIND A19.
- 4 Connect the J300 connector on the M02993A005 to P300 of the Omnia board.
- 5 Connect J403 of the M00491A001 Cable to P303 on the Omnia board.
- 6 Connect the other end of the M00491A001 cable to the P1109 on the PCN.

## SECTION 4 - INSTALLATION

Figure 20: Two-Wire Connection (MOC)



4

### For Generic CRIND

- CRIND two-wire must be connected to the blue/yellow wires. Pump two-wire must be connected to the red/yellow wires.
- The pump two-wire input is driven by P303.

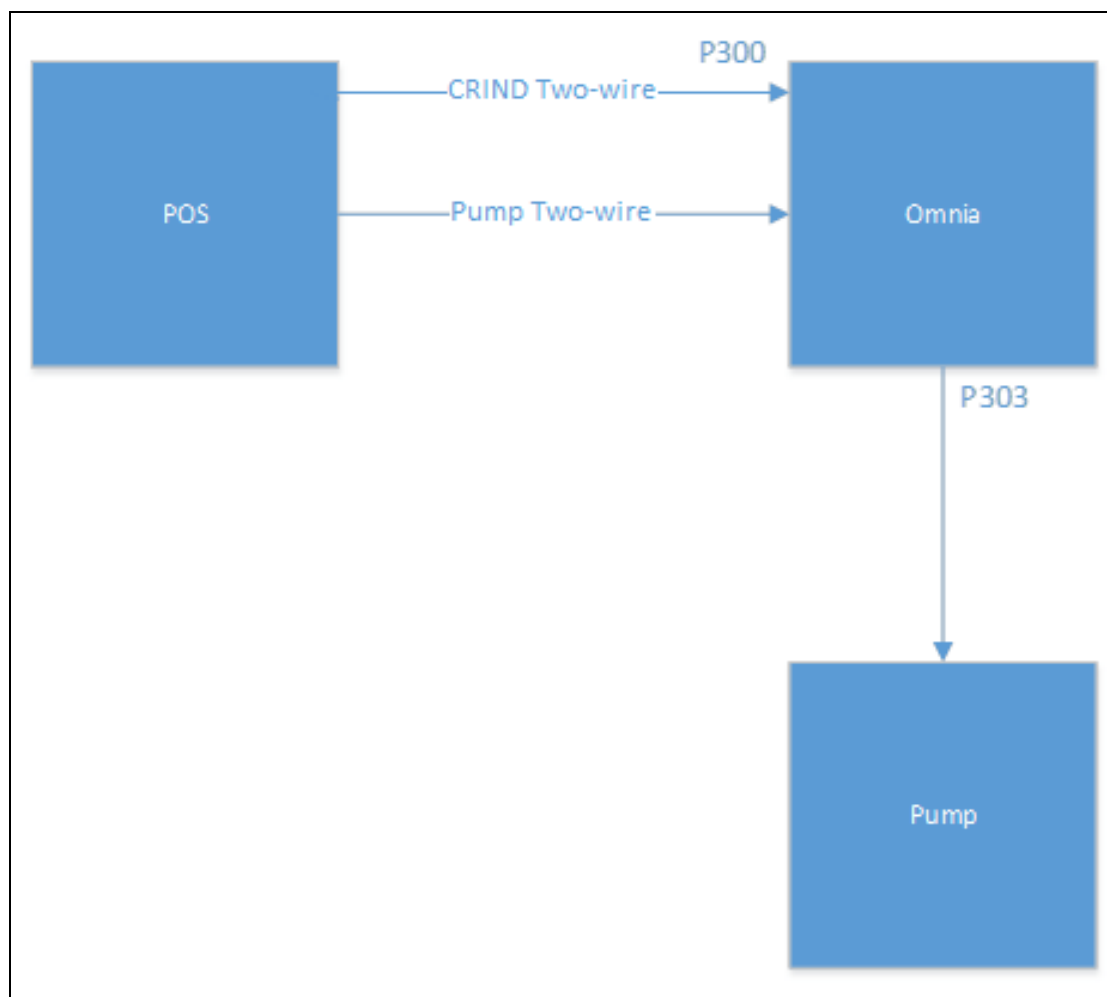
To connect the Omnia board with the PCN and conduit:

- 1 Remove the J1109 connector of the pump two-wire from the PCN.
- 2 Remove the two-wire cables from the conduit that are attached to A9, A19, B9, and B19 (see [Figure 21](#) on [page 34](#)).

## SECTION 4 - INSTALLATION

- 3 Connect the wires labeled 'CRIND' and pump of the M02993A005 Cable to the two-wire cables coming out of the conduit. Connect the colored wires as follows:
  - a Connect the red wire to pump A9 (see [Figure 21](#)).
  - b Connect the mated yellow wire to pump A19 and CRIND B19.
  - c Connect the blue wire to CRIND B9.

**Figure 21: Two-Wire Connection (Generic)**






## SECTION 4 - INSTALLATION

### Completing Installation

To complete installation:

- 1 Inspect all the connections and cable routing before applying power.

IMPORTANT INFORMATION	
	<p>Cable routing is critical. It is very important to route and dress the cables properly. Exercise care in routing the cables, keeping in mind that the door(s) opens and closes for service. The cables must be dressed neatly. Ensure that there is no interference after the cables are connected and routed. After making all cable connections, close the main door and open the printer door. Pull the sliding printer tray and ensure that there is no cable interference.</p>

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- 2 Apply power to the unit with the two-wire still in the isolated position [this will prevent any premature POS downloading].
- 3 Ensure that the printer(s) have paper.
- 4 Update the CRIND software to the latest version that supports Omnia.
- 5 Program the FlexPay IV CRIND using startup instructions in *MDE-5221 FlexPay IV CRIND Start-up Manual*.
- 6 Configure Omnia in the Maintenance Menu. For instructions on how to configure Omnia from the Maintenance Menu in the CRIND, refer to *MDE-5369 FlexPay IV with Omnia Start-Up and Service Manual*.
- 7 To set up Omnia with Applause and Insite360 Remote Management, refer to *MDE-5369 FlexPay IV with Omnia Start-Up and Service Manual*.

### Registering Kits with Gilbarco Warranty

To register the kits with Gilbarco Warranty:

- 1 After the kits are successfully installed, register kits through web commissioning within 30 days.
- 2 Provide the correct model and serial numbers. The kit model number is EPK M7 E-CIM.  
*Note: Registering the kits ensures that proper warranty is applied.*

## SECTION 4 - INSTALLATION

### 4

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## SECTION 5 - REFERENCE INFORMATION

### Related Documents

Document No.	Title
MDE-3804	Encore and Eclipse Start-up/Service Manual
MDE-4366	USB Printer Maintenance Guide
MDE-4609	Heater/Fan Kit (M07333K00X) Installation Guide for Encore 300/The Advantage Series [with FlexPay EMV (Canada Only)] and Encore S/Encore 500 Units
MDE-4699	Applause Media System Installation, Service, and Parts Manual
MDE-4736	FlexPay EPP Heater Kit (M08631K001) and Card Reader Heater Installation Instructions
MDE-4902	Encore 700 S Start-up and Service Manual
MDE-4917	FlexPay Connect Distribution Box Installation Manual
MDE-5221	FlexPay IV CRIND Start-up Manual
MDE-5223	FlexPay IV CRIND Service/Troubleshooting Manual
MDE-5227	M7 Maintenance Tool User Guide
MDE-5314	Insite360 Encore Remote Management Installation, Start-up, and Service Manual
MDE-5349	Insite360 Encore Power Supply Retrofit Kit Installation Instructions
MDE-5369	FlexPay IV with Omnia Start-Up and Service Manual
PT-1936	Encore Series Pumps and Dispensers Illustrated Parts Manual
PT-1937	Encore 300, Encore 500/500 S, Encore 550, Encore 700 S, Eclipse Recommended Spare Parts Manual

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### Abbreviations and Acronyms

Term	Description
ADA	Americans with Disabilities Act
AFP	Auxiliary Feature Processor
ASC	Authorized Service Contractor
BRCM	Back Room Communication Module
CCN	CRIND Control Node
CD	Computer Display
CRIND	Card Reader in Dispenser
DCM	Dispenser Communication Module
E-CIM	Enhanced Customer Interface Module
EMV	Europay®, MasterCard®, and Visa®
EPP	Encrypting PIN Pad
ESD	Electrostatic Discharge
FCC	Federal Communications Commission
HIP	Hub Interface PCB
I/O	Input/Output
JSA	Job Safety Analysis
MOC	Major Oil Company
MTA	Mass Terminal Assembly
OLC	Over Legacy Cable
OSHA	Occupational Safety and Health Administration

SECTION 5 - REFERENCE INFORMATION

Term	Description
PCB	Printed Circuit Board
PCI	Payment Card Industry
PCI-PED	Payment Card Industry PIN Entry Device
PCN	Pump Control Node
PIP	Peripheral Interface PCB
POS	Point of Sale
PPU	Price per Unit
SPOT	Secure Payment Outdoor Terminal
TRIND	Transmitter/Receiver in Dispenser
UL	Underwriters Laboratories
UPM	Universal Payment Module
USB	Universal Serial Bus
W&M	Weights and Measures

## SECTION 6 - APPENDICES

# Appendix A: PCB, Connections, and LED Information

## Omnia Board Connections

Connector	Port Number	Function	From	To
7-pin Mass Terminal Assembly (MTA)	P6001	Power IN	P6001	Power input
2-pin plug	P6901	Audio out to Omnia PIPA	P6901	Omnia PIP: P219
2-pin plug	P6902	Audio out to Omnia PIPB	P6902	Omnia PIP: P219
25-pin high density	P1	Video out to UPM A	P1	UPM-P6
25pin high density	P2	Video out to UPM B	P2	UPM-P6
5-pin MTA	P300	Two-wire connection to POS	P300	Conduit/POS
2-pin MTA	P303	Two-wire to pump	P303	Pump-P1109
6-pin MTA	P315	ZMODEM	P315	Pump control node P1111
7-pin MTA	P304A	Backroom connection/ DCM3	P304A	DCM3-J17
4-pin plug	P304B	Backroom connection	P304B	Conduit

*Note: Verify P6001 of the Omnia board is on the same side as the W&M switch.*

For more information, refer to [“Appendix C: System Block Diagram”](#) on [page 46](#).

## Omnia PIP Connections

The following table lists the connections on the Omnia PIP:

Connector	Port Number	Function	From	To
10-pin MTA	P201	Cash Acceptor	P201	BNA
6-pin MTA	P204	TRIND	P204	TRIND J182
3-pin Plug	P213	BEEP Connector	P213	UPM P2
4-pin Plug	P220	24 VDC IN	P220	Power Supply Cable (M14340)
Mini Universal Serial Bus (USB)	USB UPLINK	USB IN	USB UPLINK	UPM P4
USB	P214A	USB Out	P214A	USB Expand
USB	P214B	USB Out	P214B	USB Expand
USB	P214C	USB Out	P214C	USB Expand
USB	P214D	USB Out	P214D	USB Expand
4-pin MTA	P219	Speaker Input from Omnia	P219	P6901A and P6901B
2-pin Mat-n-Lok	P211	Audio to Left Speaker	P211	Left Speaker
25-pin	P205	Video Input from UPM	P205	UPM P5
20-pin	P206	LVDS Data to 10.4"	P206	10.4"
33-pin	P207	Video Data to 5.7"	P207	5.7"
2-pin	P215	Up/Down for 5.7"	P215	DNP
10-pin	P208	10.4" Backlight	P208	10.4" Backlight
3-pin	P210	5.7" Backlight	P210	5.7" Backlight Leads

## SECTION 6 - APPENDICES

### Omnia Assembly Jumper

The following table lists the status and functions of jumpers:

Jumper	Description
<b>Omnia Board</b>	
J3	Jumper ON = Battery connected Jumper OFF = Battery disconnected
<b>Omnia PIP</b>	
JP2	Jumper ON = Side B Jumper OFF = Side A

### Omnia PIP LEDs

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Reference Designator	Color	Function	Behavior
D1	Green	USB link	ON: U8 connected to USB Hub
D4			ON: USB device plugged into P214A OFF: No USB device connected
D5			ON: USB device plugged into P214B OFF: No USB device connected
D6			ON: USB device plugged into P214C OFF: No USB device connected
D7			ON: USB device plugged into P214D OFF: No USB device connected
D9	Red	USB over current	ON: Over current fault detected on P214D OFF: Normal operation
D11			ON: Over current fault detected on P214B OFF: Normal operation
D12			ON: Over current fault detected on P214C OFF: Normal operation
D14			ON: Over current fault detected on P214A OFF: Normal operation
D20			ON: UPM TX to BNA OFF: UPM is not communicating with BNA
D21	Yellow	Serial communication	ON: BNA TX to UPM OFF: BNA is not communicating with UPM
D22			ON: UPM TX to TRIND OFF: UPM is not communicating with TRIND
D23			ON: TRIND TX to UPM OFF: TRIND is not communicating with UPM
D24		Power good	ON: 5 VDC power is good OFF: 5 VDC power fault or board not powered
D25			ON: 3.3 VDC power is good OFF: 3.3 VDC power fault or board not powered
D26			ON: 24 VDC power is good OFF: 24 VDC power fault or board not powered

*Note: Install a jumper on JP2 when Omnia PIP is located on Side B of the dispenser.*

## SECTION 6 - APPENDICES

### Omnia LEDs

Reference Designator	Color	Function	Behavior
D7	Green	1.5V power good LED	ON: 1.5 V power is good OFF: 1.5 V power is not good
D8		1.1V power good LED	ON: 1.1 V power is good OFF: 1.1 V power is not good
D17		1.8V power good LED	ON: 1.8 V power is good OFF: 1.8 V power is not good
D18		1.35V power good LED	ON: 1.35 V power is good OFF: 1.35 V power is not good
D22		Power Input LED	ON: Omnia PCB has 24 VDC from power supply OFF: Omnia PCB does not have 24 VDC from power supply
D23		5V USB power good LED	ON: USB power is good OFF: USB power is not good or the regulator is not enabled.
D24		5V power good LED	ON: 5 V power is good OFF: 5 V power is not good
D25		5VPS power good LED	ON: 5 VPS power is good OFF: 5 VPS power is not good
D26		3.3V power good LED	ON: 3.3 V power is good OFF: 3.3 V power is not good
D37	Yellow	CRIND 2W RX	Blinking: Data received from POS
D38		CRIND 2W TX	Blinking: Data sent to POS
D39	Green	CRIND TX Enable	ON: TX enable line is active. Omnia will successfully communicate to the POS OFF: Omnia will not send messages to the POS
D45	Yellow	Pump (POS) 2W RX	Blinking: Data received from POS
D47		Pump (POS) 2W TX	Blinking: Data sent to POS
D49	Green	Pump (POS) TX Enable	ON: TX enable line is active. Omnia will successfully communicate to the POS OFF: Omnia will not send messages to the POS
D53	Yellow	Pump 2W RX	Blinking: Data received from pump
D56		Pump 2W TX	Blinking: Data sent to pump
D57	Green	Pump TX Enable	ON: TX enable line is active. Omnia will successfully communicate to the pump OFF: Omnia will not send messages to the pump
D58	Green	Active Mode LED	ON: Omnia configured correctly. OFF: Omnia not properly configured
D73	Yellow	7.5 V power good LED	ON: 7.5 V power is good OFF: 7.5 V power is not good or is not enabled by Omnia

SECTION 6 - APPENDICES

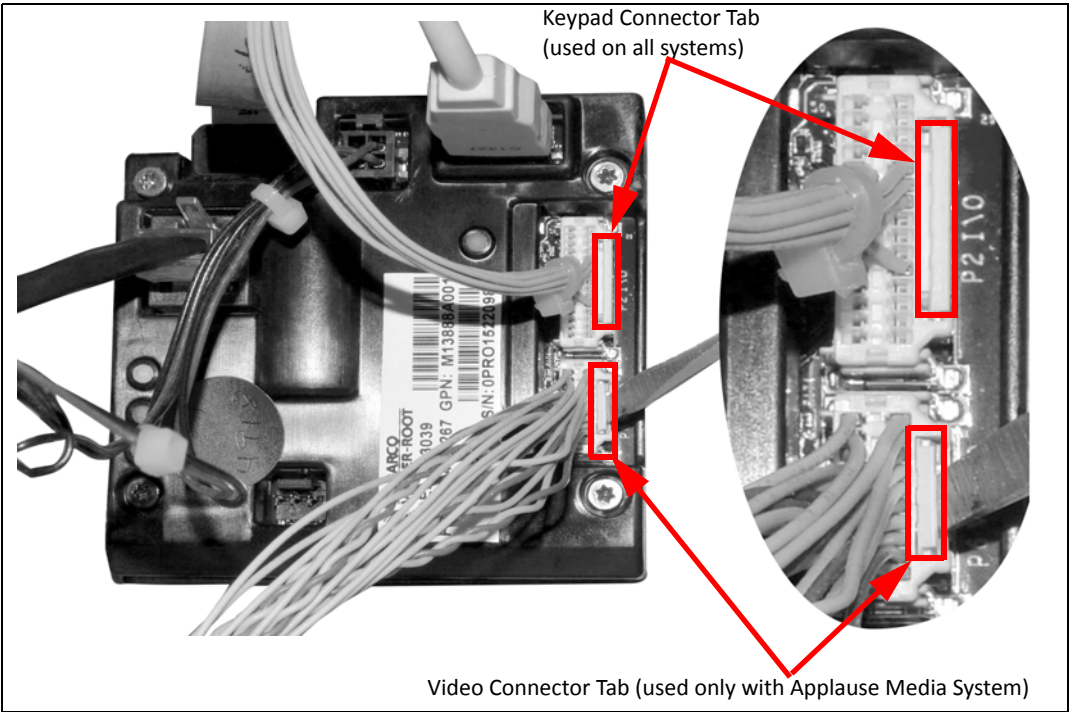
UPM Board Connections

CAUTION

**Keypad Connector Tab**

Some of the connectors have a tab on the side that must be pressed prior to removing the connector. You must depress and hold the tab on the side of the UPM softkey connector if you want to remove it. If you do not press the tab, the wire might be pulled out from the connector.

Figure 1: Keypad and Video Connector Tabs



The following table lists the connections on the UPM:

Port Number	To	Function
P1	24 V Power into UPM	UPM power (and keypad heater power, if equipped)
P2	Omnia PIP - (P213), softkeys, door node (P2111), door switch (192), ADA, call	Input/Output (I/O) to multiple CRIND functions: <ul style="list-style-type: none"><li>• Softkeys</li><li>• ADA</li><li>• Door switch</li><li>• Beeper</li></ul>
P3	Omnia Blue UPM	Ethernet to the Omnia board
P4	Omnia PIP - USB uplink	USB uplink to the Omnia PIP
P5	Omnia PIP - P205	Video out
P6	Omnia - P406 Applause Media System video input	Video input from the Omnia

## SECTION 6 - APPENDICES

The following table lists the peripherals for the cables:

Part Number	Port Number	Function
M03184A00X	P201	Cash Acceptor
R20773-GX	P204	TRIND
M09267A00X	P213	BEEP Connector
M09794A00X	P220	24 VDC Power In
M14337A001	P1	UPM Heater Cable



## SECTION 6 - APPENDICES

### Appendix B: Peripheral Options

#### Installing Cabinet Heater for 10.4-inch Display

*Note: The cabinet heater is optional for both 5.7- and 10.4-inch displays.*

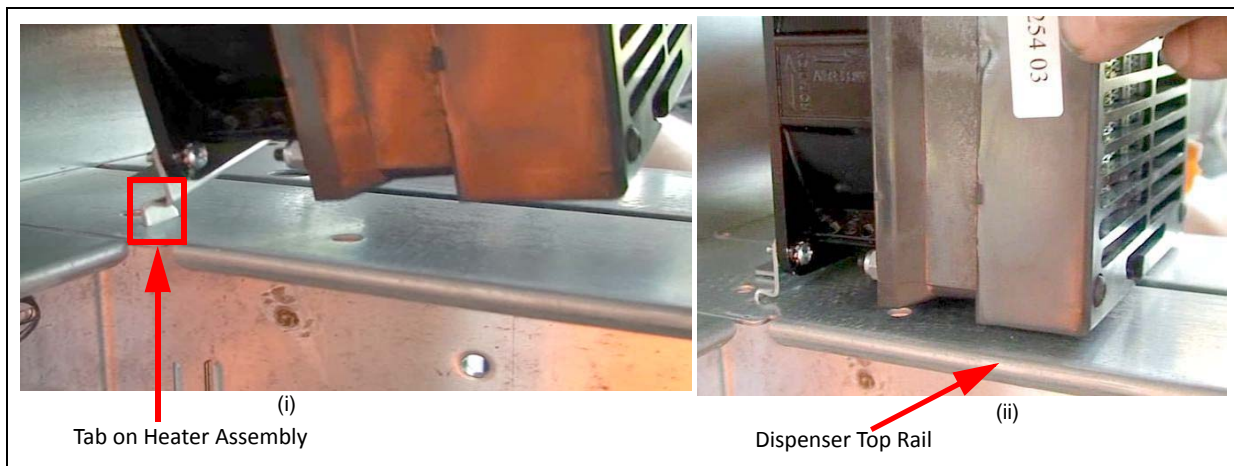
To install the cabinet heater:

- 1 Insert the tab on the heater onto the top rail in the unit (see [Figure 2](#)).
- 2 To secure the heater, put a nut on the other side of the stud and tighten it.

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For more information, refer to *MDE-4609 Heater/Fan Kit (M07333K00X) Installation Guide for Encore 300/The Advantage Series [with FlexPay EMV (Canada Only)] and Encore S/Encore 500 Units*.  
*Note: This manual is included in the kits that have a heater.*

**Figure 2: Installing Cabinet Heater**



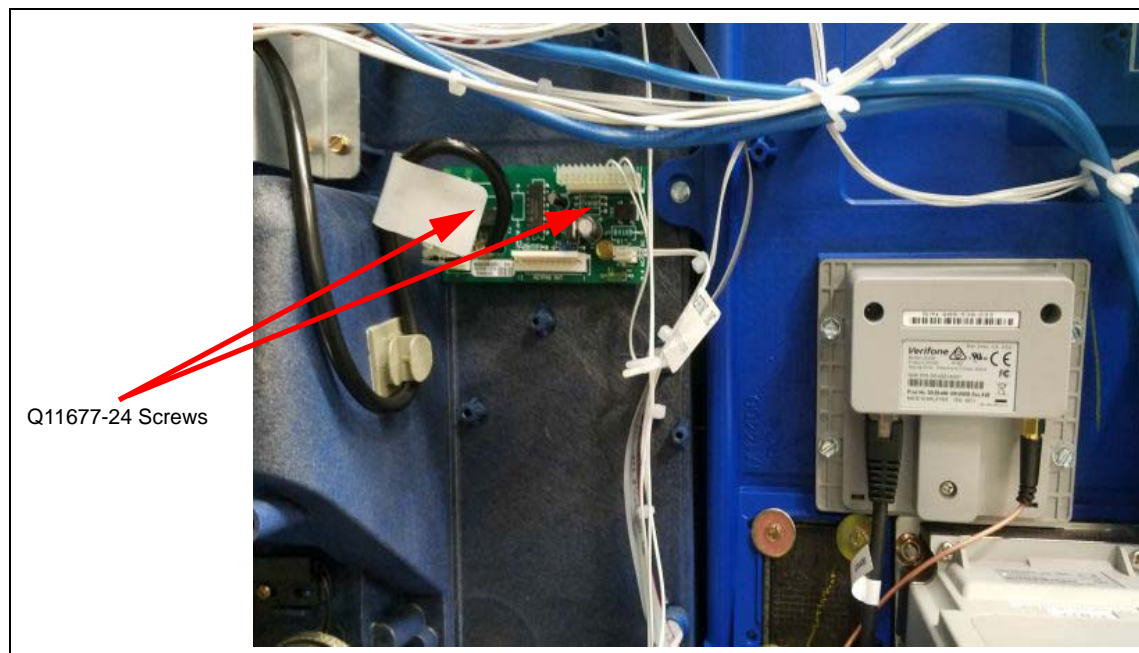
*Note: If a UPM Keypad Heater Power Supply Assembly (M07953A006) is ordered, there is a separate “heater cable harness” that intercepts the normal UPM power harness to also supply power to the UPM heater. For more information, refer to MDE-4736 FlexPay EPP Heater Kit (M08631K001) and Card Reader Heater Installation Instructions.*

## SECTION 6 - APPENDICES

### Call Button

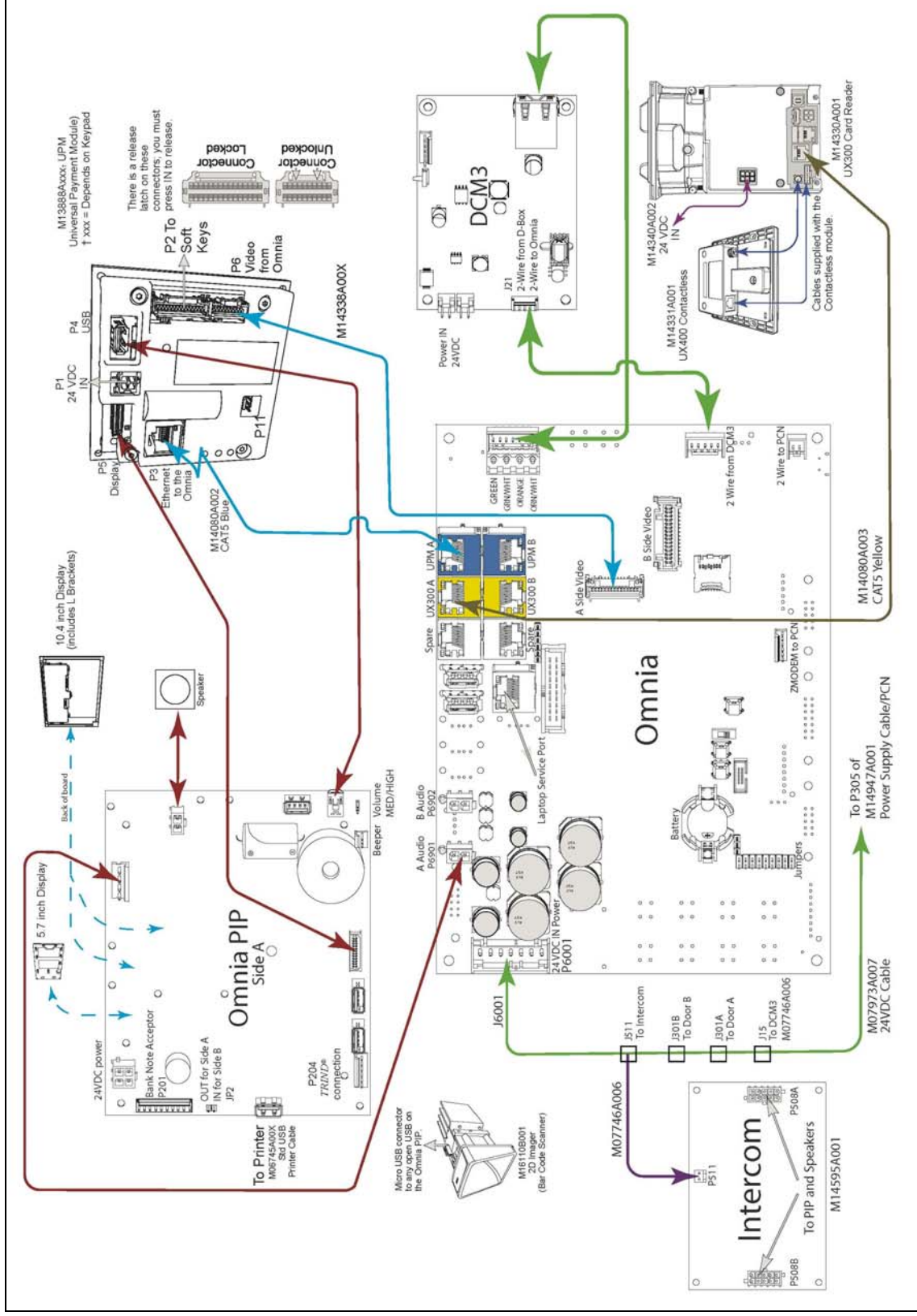
If it is necessary to relocate the call button board, locate the two mount points on the main door bezel and mount the call button board using two Q11677-24 screws as shown in the following figure.

**Figure 3: Call Button Board**



## Appendix C: System Block Diagram

Figure 4: Cable Block Diagram for FlexPay IV CRIND

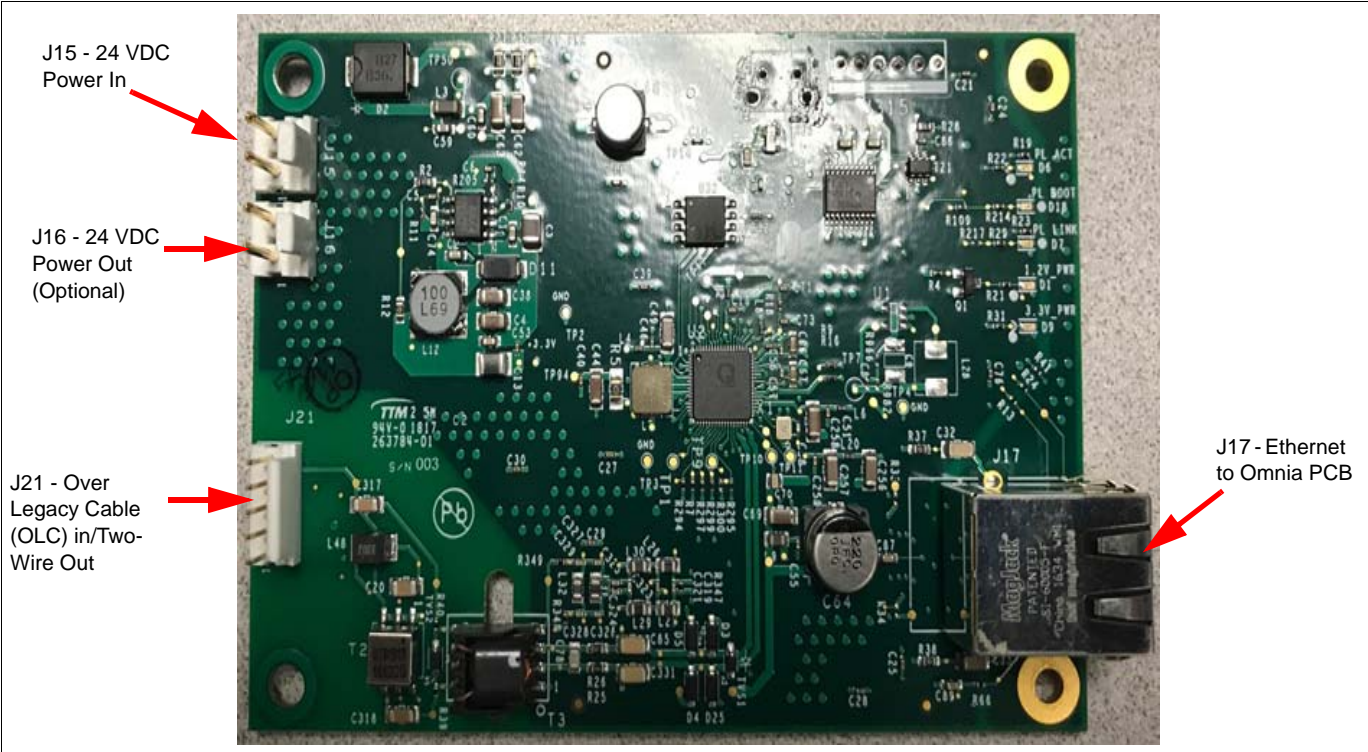


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## Appendix D: DCM3 Assembly (M15724A001)

The DCM3 is used when high-speed communication is required across the forecourt. The DCM3 is only used with the Back Room Communication Module (BRCM)2.x. Connect the cables to the DCM3 assembly as shown in [Figure 5](#). Refer to *MDE-5265 BRCM2.x Installation and Upgrade Instructions* for BRCM2.x connection details.

**Figure 5: DCM3 Connections**



6

**Connection Table (M15724A001)**

Connector	Port Number	Function	From	To
RJ-45	J17	Ethernet	J21	Omnia P304
5-pin MTA	J21	OLC/two-wire	Conduit/J21	Omnia P300
2-pin MTA	J15	Power IN		DCM3
2-pin MTA	J16	Power Out	N/A	N/A-no current use



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### LEDs

Reference Designator	Color	Function	Behavior
D1	Green	1.2 V Power Good	ON: 1.2 VDC ON OFF: 1.2 VDC fault or board not powered
D9		3.3 V Power Good	ON: 3.3 VDC ON OFF: 3.3 VDC fault or board not powered
D8		24 V Power Good	ON: 24 VDC ON OFF: 24 VDC fault or board not powered
D6		High Speed ACT	Blink: TX/RX data OFF: No link present
D7		High Speed Link	ON: Successful connection to BRCM2.x OFF: No link to BRCM2.x

### DCM3 Two-Wire Connections

These instructions detail how to perform two-wire connections when a DCM3 is used in the system. The DCM3 is required when a BRCM2.x is used to provide high-speed communication across the forecourt. The BRCM2.x when used with the DCM3 supports the following two modes:

- The option of merging the high speed data onto the same conductors used for current loop.
- The option of not merging high-speed data onto the same conductors used for current loop. This setup requires additional wire pairs brought out to each dispenser.

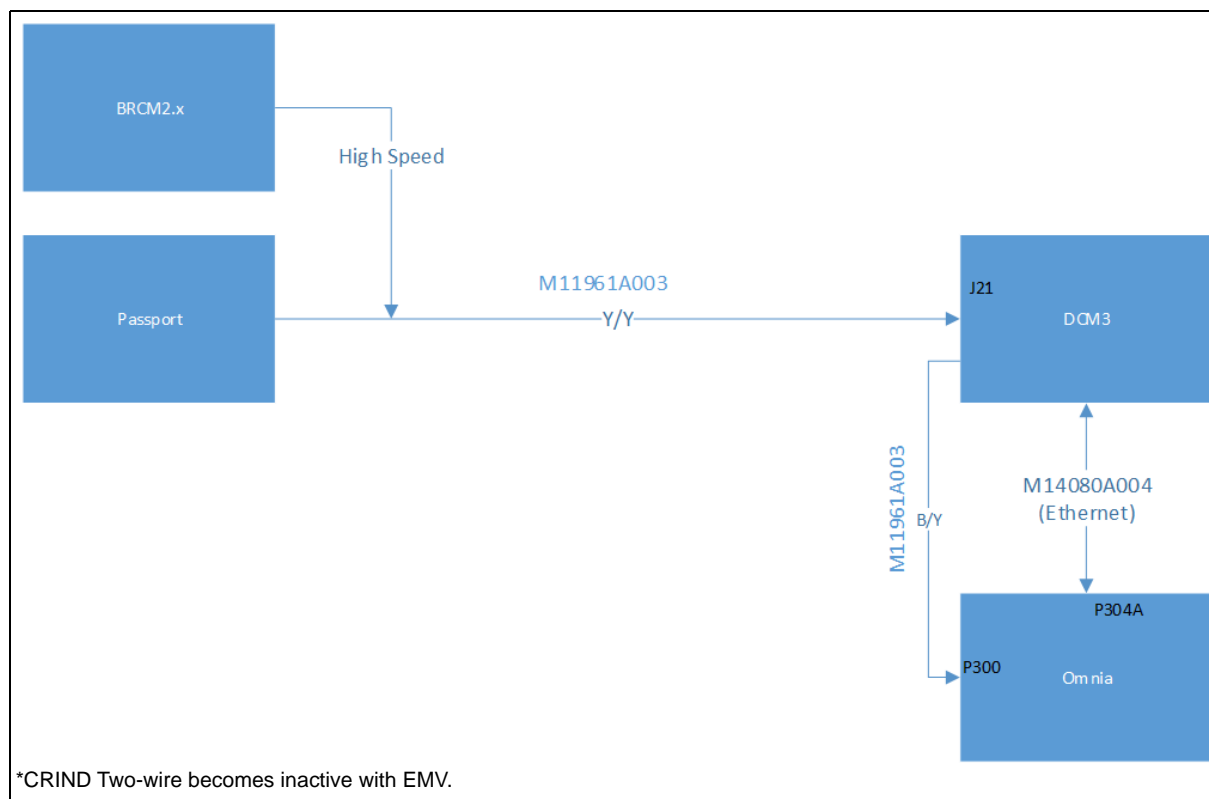
#### DCM3 Two-Wire Connection (Merged)

Refer to [Figure 6](#) on [page 49](#) for conduit connections to the Omnia assembly:

- 1 Connect P21 of the M11961A003 cable to J21 of the DCM3.
- 2 Connect J300 of the M11961A003 cable to P300 of the Omnia.
- 3 Connect the Y/Y pair of the M11961A003 to the B/Y pair of wires coming from the conduit.

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Figure 6: MOC (Merged), Pre-EMV\*



## SECTION 6 - APPENDICES

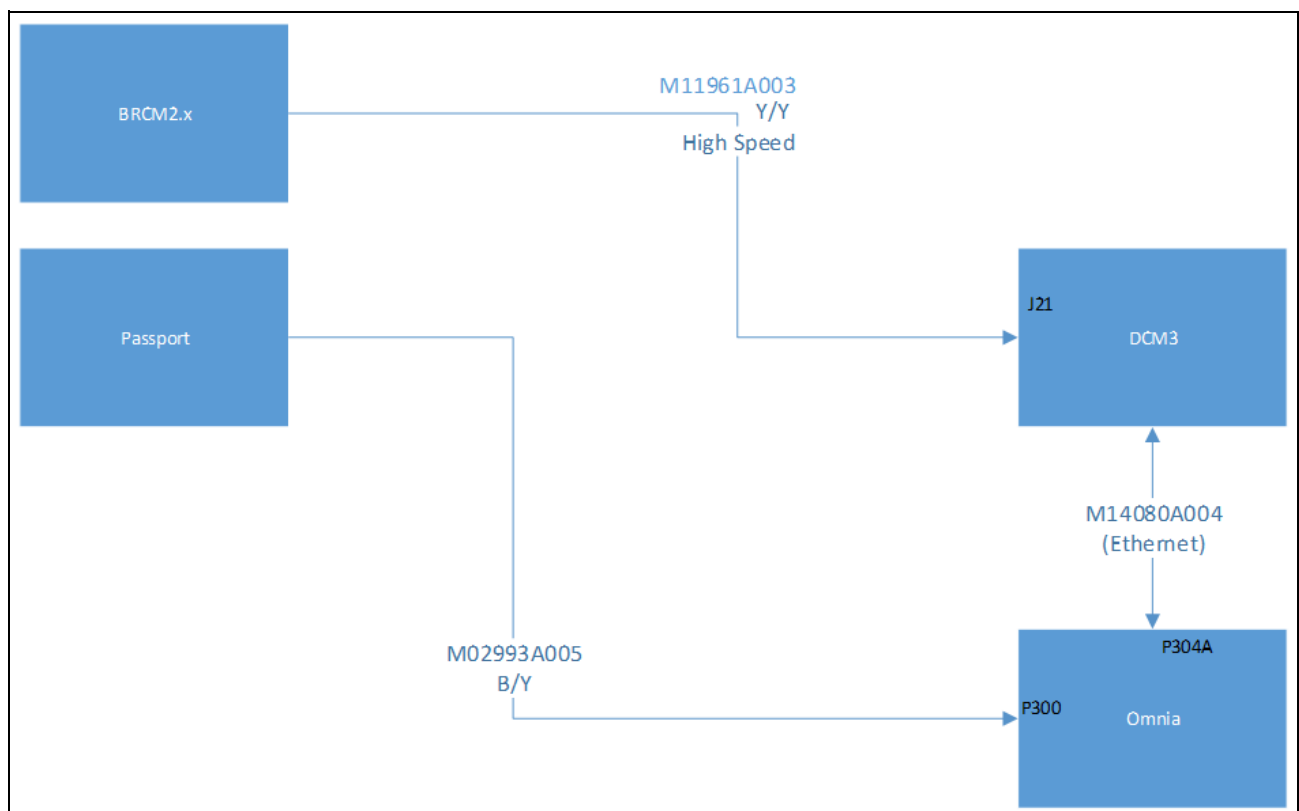
### DCM3 Two-Wire Connection (Non-Merged)

Refer to [Figure 7](#) for conduit connections to the Omnia assembly:

*Note: High speed data and POS communications must be on separate conductors.*

- 1 Connect P21 of the M11961A003 cable to J21 of the DCM3.
- 2 Connect the Y/Y pair of the M11961A003 to the designated wires coming out of the conduit.
- 3 Connect J300 of the M02993A005 cable to P300 of the Omnia.
- 4 Connect the B/Y pair of the M02993A005 to the B/Y pair coming from the conduit.

**Figure 7: MOC (Non-Merged)**





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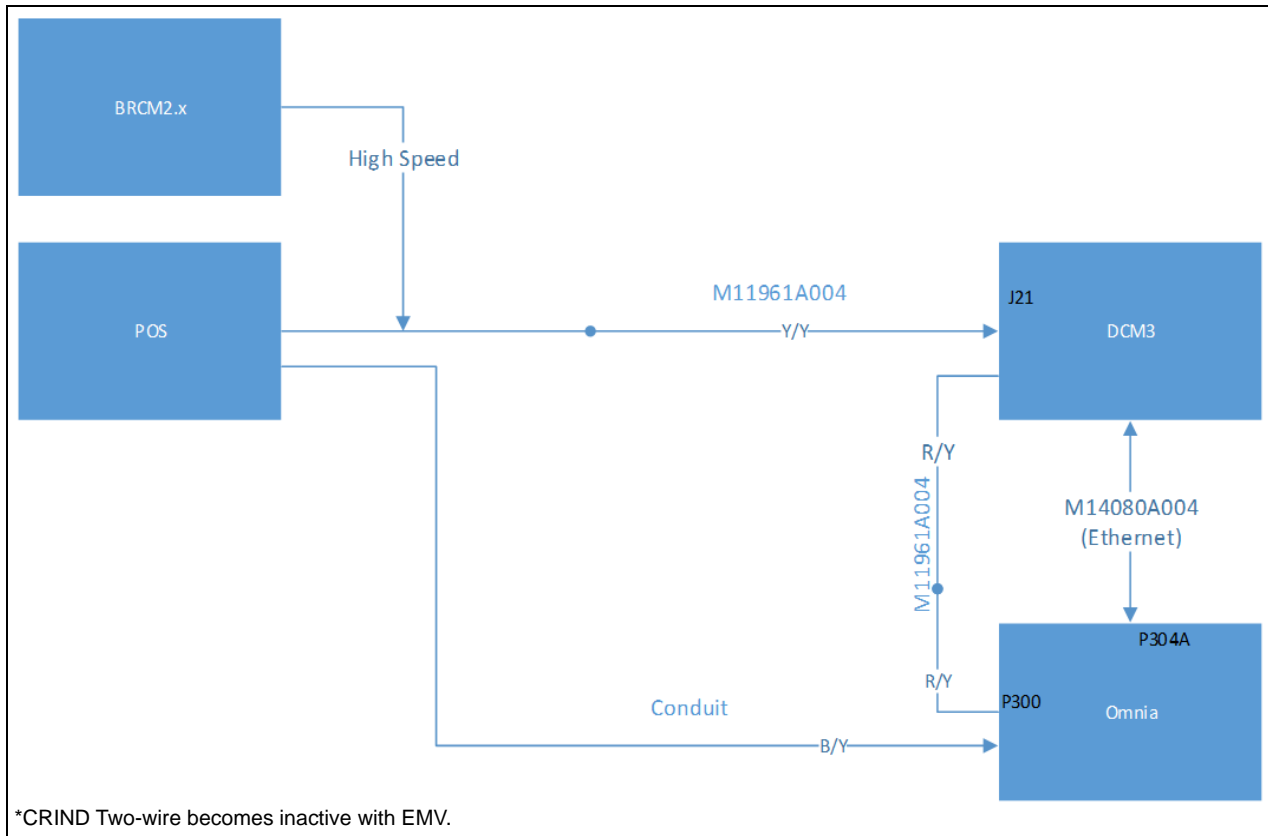
### Generic (Merged)

The Omnia board supports high speed communication via the BRCM2.x. When connection to a BRCM2.x is required, the kit will ship with a DCM3 (M15724A001) attached to the Omnia bracket assembly. See the following wiring instructions.

Refer to [Figure 8](#) for conduit connections to the Omnia assembly:

- 1 Connect P21 of the M11961A004 cable to J21 of the DCM3.
- 2 Connect the Y/Y pair of the M11961A004 to the R/Y pair of wires coming from the conduit.
- 3 Connect the B/Y pair of M11961A004 to the B/Y pair coming from the conduit.
- 4 Connect J300 of the M11961A004 cable to P300 of the Omnia.

**Figure 8: Generic (Merged), Pre-EMV\***



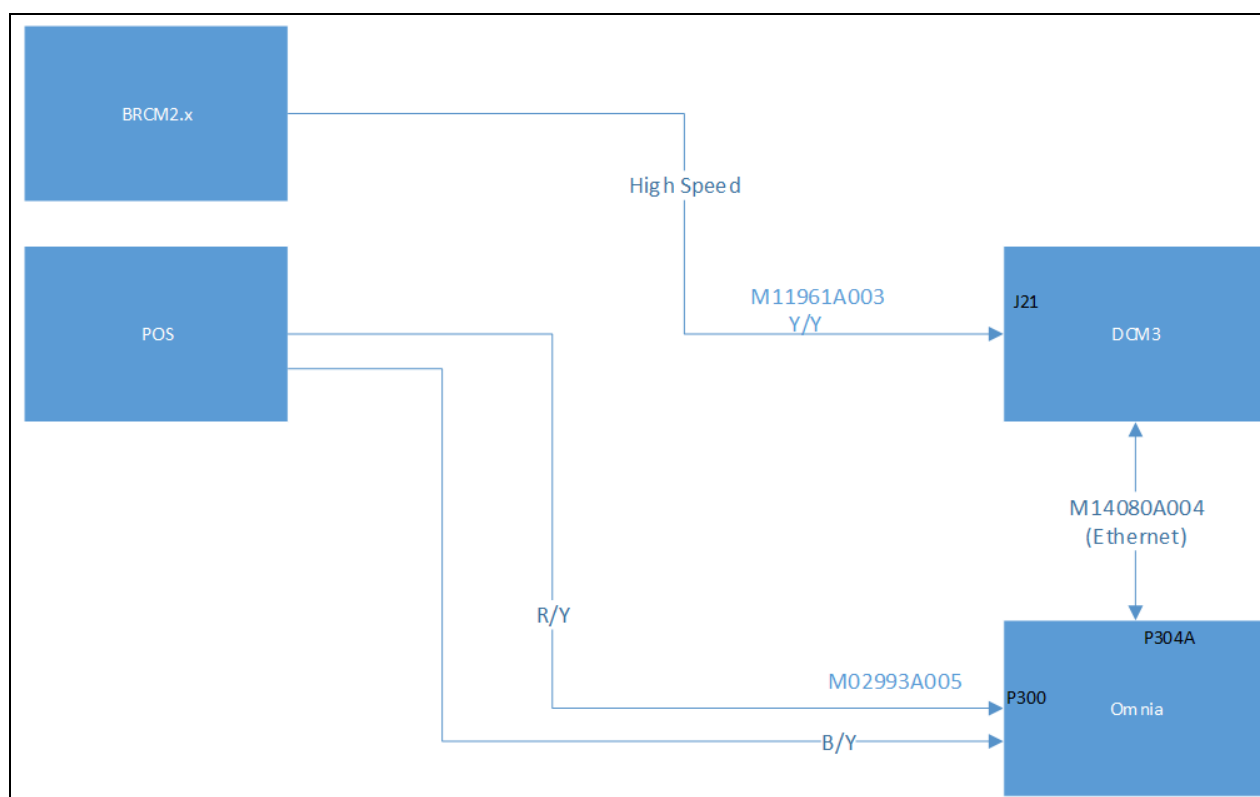
## SECTION 6 - APPENDICES

### Generic (Non-Merged)

Refer to [Figure 9](#) for conduit connections to the Omnia assembly:

- 1 Connect P21 of the M11961A004 cable to J21 of the DCM3.
- 2 Connect the Y/Y pair of the M11961A004 to the designated wires coming the conduit.
- 3 Connect J300 of the M02993A005 cable to P300 of the Omnia.
- 4 Connect the B/Y pair of M02993A005 to the B/Y pair of wires coming from the conduit.
- 5 Connect the R/Y pair of the M02993A005 to the R/Y pair coming from the conduit.

**Figure 9: Generic (Non-Merged)**



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