

# Installation

## Introduction

This manual provides installation, programming and operation instructions for the Programmable Pump Preset (PPP) Kit M01485K001. This kit is designed for use in Encore® 300 or Encore 500 dispensers. The materials in this kit cover a single-side installation.

## Required Reading

Before installing the kit, the installer must read, understand, and follow:

- This manual
- NFPA 30A, The Automotive and Marine Service Station Code
- NFPA 70, The National Electric Code
- Applicable federal, state and local codes and regulations

Failure to do so may adversely affect the safe use and operation of the equipment.

*Note: This kit must be installed by a Gilbarco Authorized Service Contractor (ASC) to insure warranty.*

## Related Documents

The following documents are related to the installation of the PPP Kit M01485K001.

<b>Document Number</b>	<b>Title</b>	<b>GOLD® Library</b>
MDE-2620C	Graphic Panel Application	Encore and Eclipse
MDE-3804	Encore and Eclipse® Series Start-Up/Service Manual	Encore and Eclipse
MDE-3860E	Programming Quick Reference Card (Encore 500)	Encore and Eclipse
MDE-3893	Encore/Eclipse Owners Manual	Encore and Eclipse
MDE-3985	Encore Installation Manual	Encore and Eclipse
MDE-4039	Encore 300 Programming Quick Reference Card	Encore and Eclipse

## Required Tools

The following tools are needed to install the PPP Kit M01485K001.

- Screwdriver, Flat Blade
- See tools list in MDE-2620C Graphic Panel Application for removing decals

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## Parts Lists

### Programmable Pump Preset Kit M01485K001

The following table lists the parts for the PPP Kit M01485K001. These parts are used for the Encore 300, Encore 500, and Eclipse dispensing units. Each kit contains parts for a single-side installation.

Description	Part Number	Quantity
Keypad, Customer Input	M00141B002	1
Cable, Programmable Pump Preset and 5 Button	M01686A001	1
Cable, Customer Keypad	M00715A001	1
ENC/ECL PPP Keypad Stand. Decal (Ordered Separately)	EU03001GXXX	0
Option Panel #2 Keypad Cutout (Ordered Separately)	EN07004GXXX	0

## Important Safety Information

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.

The first and most important information you must know is how to stop all fuel flow to the pump and island.

### Emergency Total Electrical Shut-Off

Locate the switch or circuit breakers that shut-off all power to all fueling equipment, dispensing devices, and submerged turbine pumps (STPs). These you must operate in the event of an emergency.

** 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 only these cashier station "stops."

### Total Electrical Shut-Off Before Access

Any procedure requiring access to electrical components or the electronics of the dispenser requires total electrical shut-off of that unit.

NFPA 30A, Section 4-1.2, published by the National Fire Protection Association, requires the installation of an easily accessible switch or circuit breaker to shut-off the power to all fueling equipment, dispensing devices and STPs in the event of an emergency. Know the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gilbarco equipment.

### Evacuation, Barricading and Shut-Off

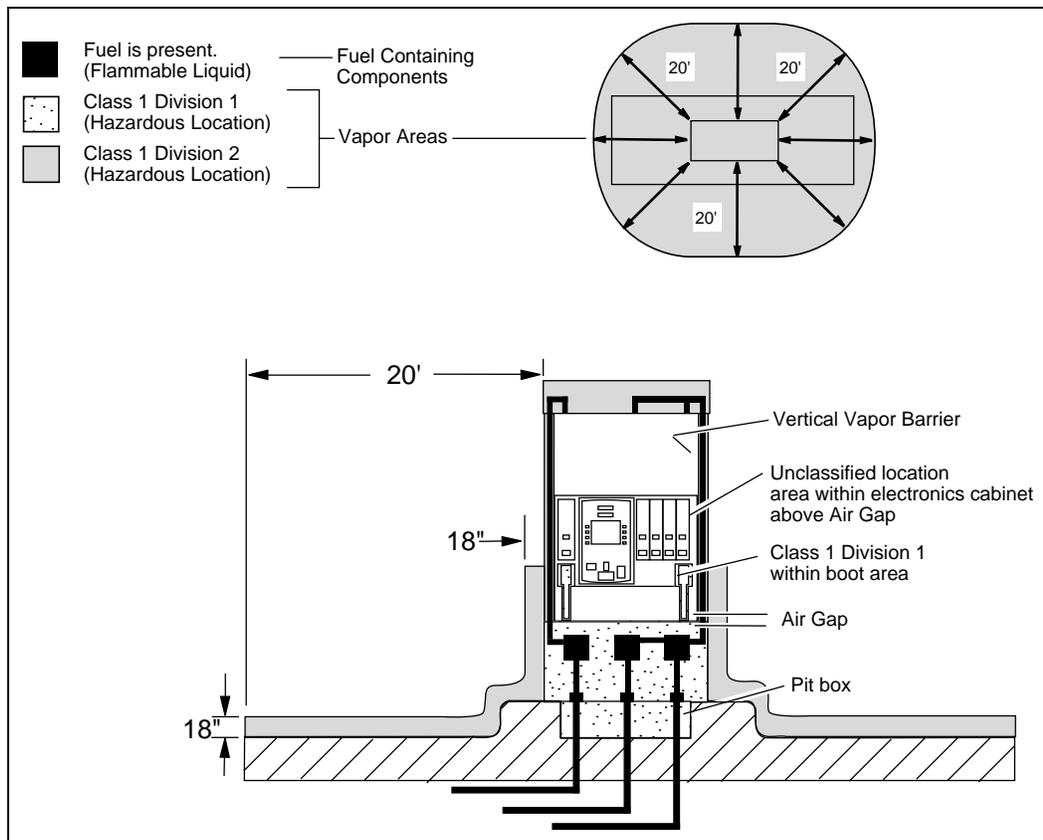
Any procedures requiring accessing the pump/dispenser or STPs requires the following three actions:

-  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 that unit

### Classifying Hazardous Locations

Any activity that can cause an explosion (e.g., smoking, drilling, etc.) must be done well outside the vapor area.

The following diagrams are based on NFPA 30A, section 6 and NFPA 70, section 514.



## 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 a Gilbarco Authorized Service Contractor or call the Gilbarco Call Center at 1-800-800-7498. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

## Follow the Regulations

There is applicable information in: NFPA 30A: *Automotive and Marine Service Code*; NFPA 70: *National Electrical Code (NEC)*; OSHA regulations; and federal, state, and local codes which 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.

## 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 that follow must be followed to prevent death, injury or damage to the equipment.

#### DANGER

This signal word is used to alert you to a hazard or unsafe practice which **will** result in **death or serious injury**.

#### WARNING

This alerts you to a hazard or unsafe practice that **could** result in **death or serious injury**.

#### CAUTION

This signal word designates a hazard or unsafe practice which **may** result in **minor injury**.

#### CAUTION

When used by itself, CAUTION designates a hazard or unsafe practice which may result in **property or equipment damage**.

## Prevent Explosions and Fires

Fuels and their vapors will become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.

### No Open Flames



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 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.

## Informing Emergency Personnel

Compile the following information for emergency personnel:

- Location of accident (e.g. address, front/back of building, etc.)
- Nature of accident (e.g. possible heart attack, run over by car, 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 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.

## Other Useful Safety Information

This subsection provides additional safety information.

### OSHA Lock-Out and Tag-Out Requirements

OSHA Standard 29 CFR 1910-147 Control of Hazardous Energy Sources (Lock-Out/Tag-Out) covers ways to avoid personal injury because power was turned on or fuel pressure was applied **unexpectedly** while servicing equipment. The rule requires:

- (1) Turning off equipment power and fuel under pressure.
- (2) Use of a locking device (breaker, valve, etc.) or label device with a warning tag.

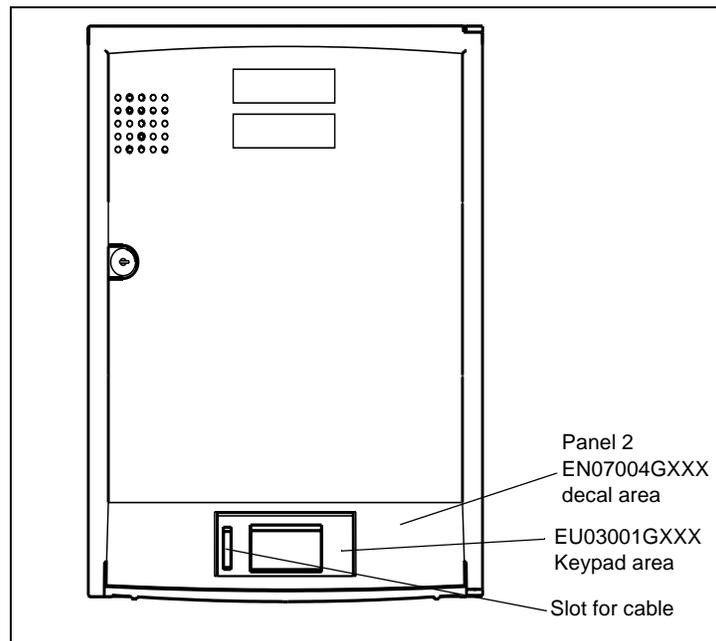
Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

# Programmable Pump Preset Kit Installation

## Preparing Customer Interface Door for Installation (Encore 300 and 500 Units)

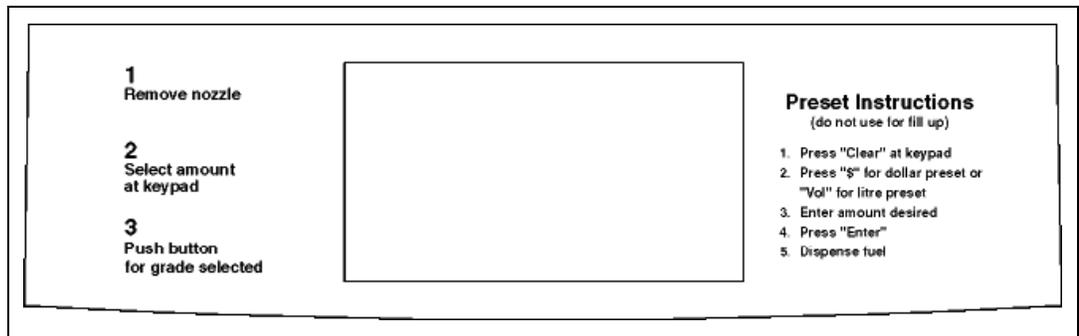
- 1 Read all instructions before beginning installation and observe all safety precautions during installation.
- 2 Make sure that all power has been removed from the installation area. Refer to MDE-3893 Encore/Eclipse Owners Manual for details on removing system power.
- 3 If there is a filler plate in the keypad area on the door (Figure 1), remove the plate by pushing the flat blade screwdriver through the slot for cable from the back of the CIM door.
- 4 At the front of the Customer Interface Module (CIM), remove the Panel 2 decal located across the lower section of the module as shown in Figure 1 (this includes the CRIND keypad location). Follow the procedures provided in MDE-2620C Graphic Panel Application for decal removal.

**Figure 1: CIM Door Front View**



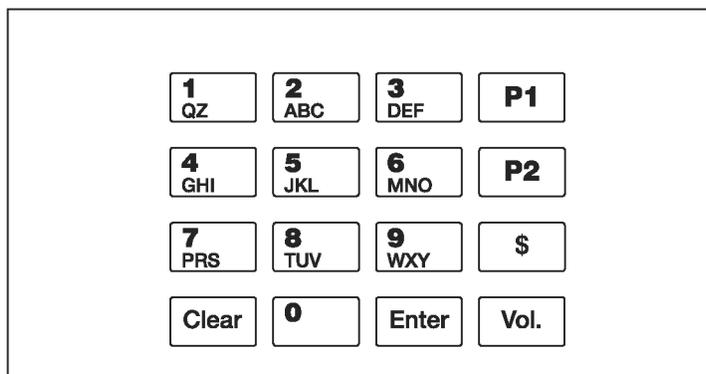
- 5 Following procedures in MDE-2620C Graphic Panel Application, apply the EN07004GXXX decal to the CIM Panel 2. The decal is not supplied with the M01485K001 Kit. See Figure 2 for an example of EN07004GXXX decal.

Figure 2: Example of EN07004GXXX Decal



- 6 At the CIM door, insert the key and open the CIM door.
- 7 Note that there may be yellow tape over the slot directly behind the keypad area. Remove the yellow tape to allow for the connector to be accessible when the keypad is mounted.
- 8 At the lower center of the CIM door in the keypad area, remove the insert from the door. This can be done by inserting a screwdriver from the inside the CIM through the slot behind the insert and dislodging it. The area is now clear to mount the keypad.
- 9 In the M01485K001 Kit, locate the M00141B002 Customer Input Keypad.
- 10 Ensure that the mounting surface for the keypad on the front of the CIM door is clean and dry.
- 11 Condition the keypad for installation by removing the protective covering on the back of the keypad exposing the self-sticking adhesive and being careful not to touch the adhesive area.
- 12 Position the keypad on the CIM door ensuring that the connector on the keypad is positioned through the slot (Figure 1) in the CIM door provided for the cable. Press the keypad firmly in place on the CIM door making sure that the keypad is secured with the adhesive.
- 13 Locate the EU03001GXXX decal (Figure 3) for the face of the keypad. The decal is not supplied with the M01485K001 Kit.

Figure 3: EU03001GXXX Programmable Pump Preset Keypad Decal



- 14 Following procedures in MDE-2620C Graphic Panel Application, apply the decal to the face of the PPP Keypad.
- 15 To complete the installation, go to “Completing the Installation for Encore 300 Unit” on page 9 or “Completing Installation for the Encore 500 Unit” on page 13.

## Completing the Installation for Encore 300 Unit

- 1 Locate the M01686A001 Cable in the M01485K001 Kit.
- 2 Connect the J902 jack on the cable to the P902 plug on the keypad (through the slot at the back of the CIM door).
- 3 Disengage the main door latches and open the main door.
- 4 Route the cable as shown in Figure 4 and through the grommet in the main door.
  - If the dispenser is 3 + 0 or less, connect the J139 jack on the cable to the P139 (A or B) plug on the M01598A001 PCA (Figure 5). This PCA is located inside the dispenser behind the main door. Selecting P139A or P139B depends on whether you are installing the keypad on side A or side B of the dispenser.
  - If the dispenser is greater than 3 + 0, connect the J139 jack on the cable to the P239 (A or B) plug on the M01564A001 PCA (Figure 6). This PCA is located on the base electronics beside the hydraulic interface board. Selecting P139A or P139B depends on whether you are installing the keypad on side A or side B of the dispenser.
- 5 Close and latch the main door. Close and lock the CIM door.
- 6 Program the PPP following the procedures in “Activating the Encore 300 Unit” on page 12.

Figure 4: Encore 300 Unit With CIM Door Opened

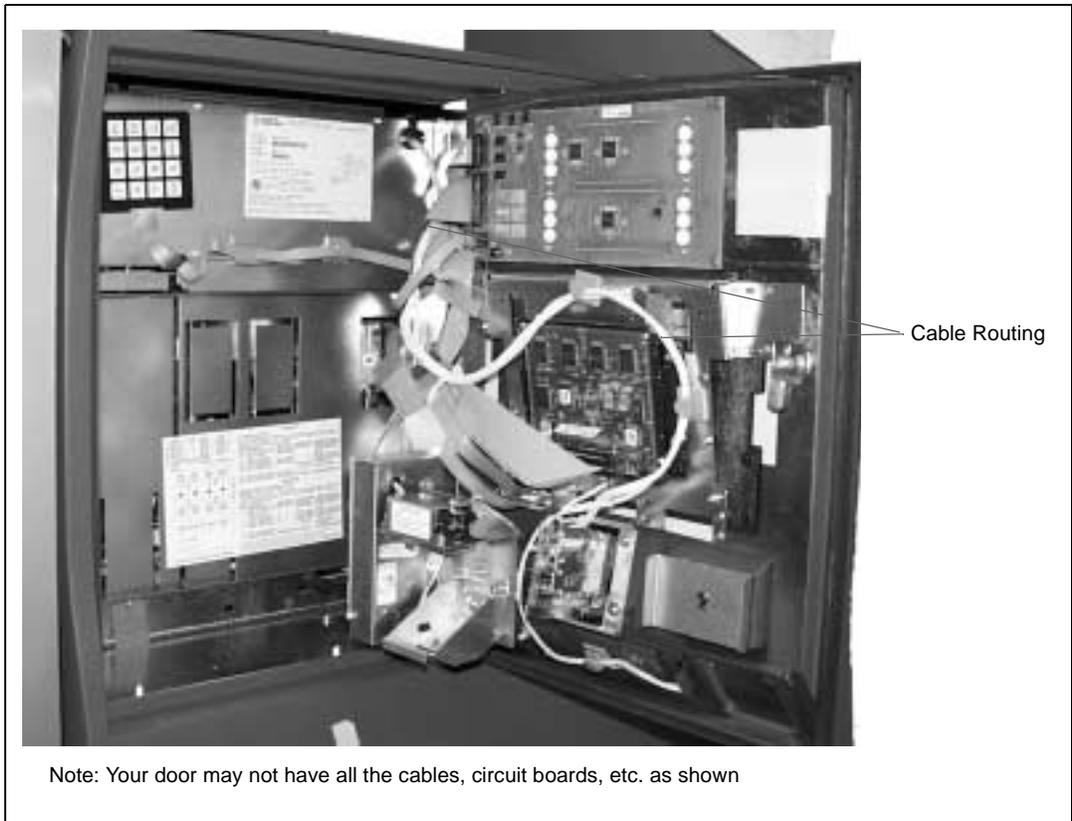


Figure 5: The M01598A001 Printed Circuit Assembly

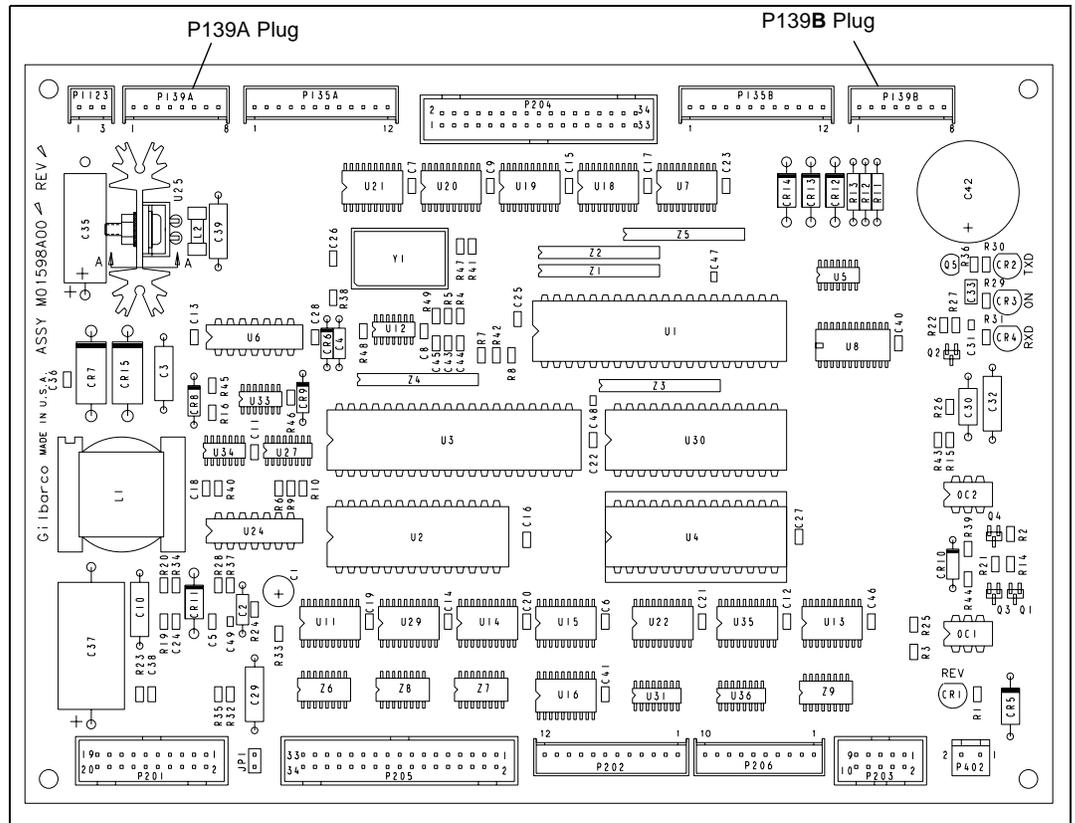
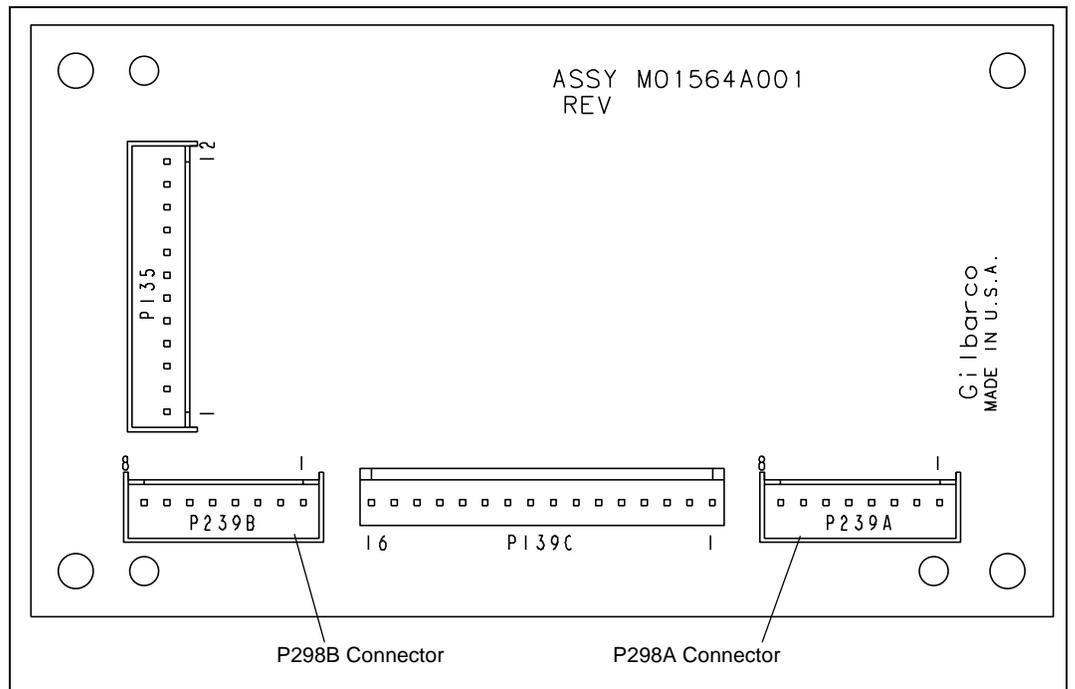


Figure 6: The M01564A001 Printed Circuit Assembly

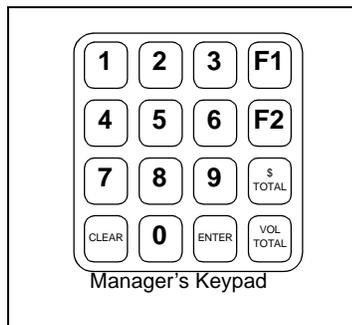


## Activating the Encore 300 Unit

### Accessing the Manager's Keypad

The unit must be programmed using the manager's keypad (Figure 7) once the PPP keypad has been installed. The manager's keypad is located on the back side of the CIM door and is attached (by magnet) to the CIM Door Security Barrier.

**Figure 7: Encore Manager's Keypad**



### Programming the Encore 300 Unit

Follow these steps to program the unit for PPP operation.

- 1 Restore power to the dispenser(s) using the system circuit breakers.
- 2 On the manager's keypad, enter the four digit Security Code Entry (default is 2222) for Level 1 and then press **ENTER**.
- 3 Press **10** (for Level 2 command code), enter 4-digit ID (default is 1503) and then press **ENTER**.
- 4 Press **20** (for the function code) and then press **ENTER**.
- 5 Press either **0** or **1** for the preset value and then press **ENTER**.
  - 0 = Value times 1 (for entering fractions of a unit)
  - 1 = Value times 10 (for entering whole units)
- 6 Press **F2** on the manager's keypad to exit programming and return to normal operation.

## Completing Installation for the Encore 500 Unit

- 1 Locate the M00715A001 Cable in the M01485K001 Kit.
- 2 Connect the J902 jack on the cable to the P902 plug on the keypad (at the slot at the back of the CIM door).
- 3 Route the cable as shown in Figure 8 and connect the J2107 jack on the cable to the P2107 plug on the M01785A001 Assembly (Figure 9).
- 4 Close and lock the CIM door.
- 5 Program the PPP following the procedures in “Activation for Encore 500 Unit” on page 15.

**Figure 8: Encore 500 Unit With CIM Door Open**

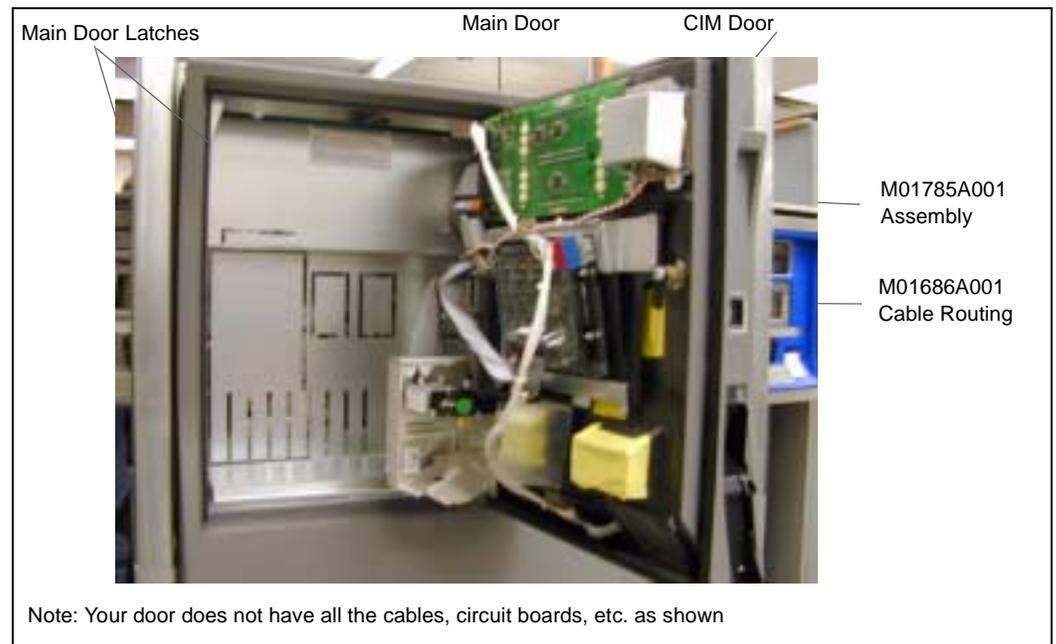
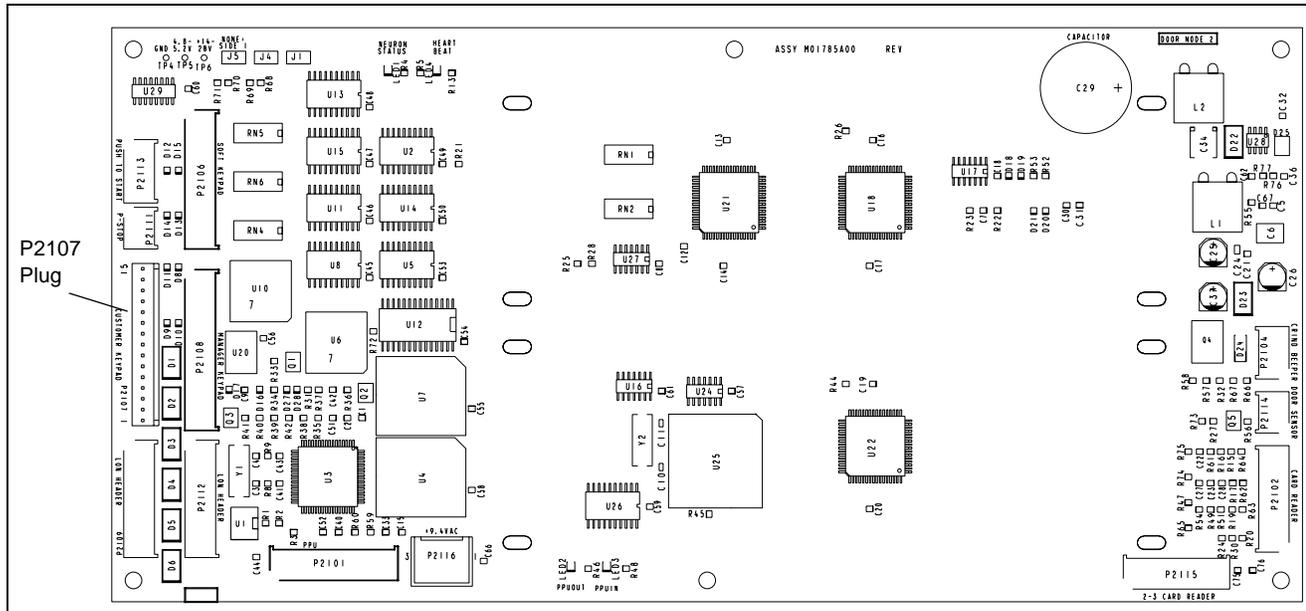


Figure 9: The M01785A001 Assembly

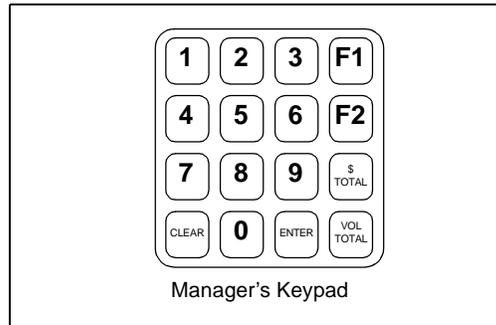


## Activation for Encore 500 Unit

### Accessing the Manager's Keypad

Programming the unit must be performed using the manager's keypad (Figure 10) once the PPP keypad has been installed. The manager's keypad is located on the back side of the CIM door and is attached (by magnet) to the CIM Door Security Barrier.

**Figure 10: Encore Manager's Keypad**



### Programming the Encore 500 Unit

Follow these steps to program the unit for PPP operation.

- 1 Restore power to the dispenser(s) using the system circuit breakers.
- 2 On the manager's keypad, enter 222 for the Security Code Entry for Level 1.
- 3 Press **F1** and then press **ENTER**.
- 4 One of the following appears in the main display window:
  - 0000 (flashing)—the Security Code is correct.
  - 8888 (flashing)—the Security Code is *not* correct.
- 5 Enter the **Command Code 91** and press **ENTER**.
- 6 Enter one of the following depending on type keypad being installed:
  - 2 - for 5-button preset keypad
  - 3 - for incremental keypad
  - 4 - for programmable preset keypad
- 7 If the PIN code was entered correctly, enter the Selected Installed Options **Command Code 22** and press **ENTER**.
- 8 Press **3** and then press **ENTER** on the manager's keypad. This selects Preset Code 3 to install the PPP.
- 9 Press **3** and then press **ENTER** to select Function Code to set PPP to ON or OFF.
- 10 Press **1** and then press **ENTER** to set the Preset Type to ON.
- 11 Press **F2** on the manager's keypad to exit programming.

## Operation

The Programmable Pump Preset option allows the customer or operator to enter a predetermined value amount or predetermined volume amount into the dispenser prior to dispensing fuel. The customer or operator preset uses a keyboard and display assembly for the selection.

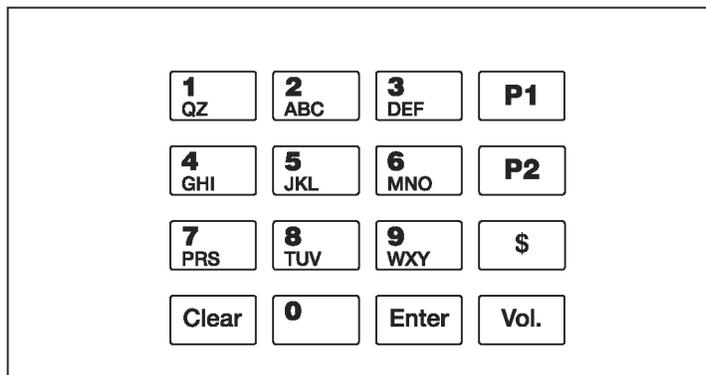
The preset selection is made as follows:

- 1 Make selection for payment type.
- 2 Lift the hose and filler nozzle and place nozzle in vehicle filler tube.
- 3 Lift the operating handle on the dispenser (not the filler nozzle).
- 4 At the keypad (shown in Figure 11), press either \$ key to enter a value amount or Vol. for volume amount.
- 5 Enter either the preset \$ amount or the Vol. amount desired into the keypad. The selected amount appears on the display.

*Note: If you make an error during the entry, press Clear and repeat steps 4 and 5.*

- 6 After authorization is received, the fuel may be dispensed into the vehicle tank. The dispenser will automatically stop dispensing at the preset value.
- 7 Return filler nozzle to the dispenser.

**Figure 11: Typical Programmable Pump Preset Keypad**



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