

Encore® Options Keypad, Call Button & Eclipse® Pump Stop Button Retrofit Kits Installation Manual December 2004

Introduction

Purpose

The purpose of this manual is to provide installation instructions for the following kits:

- Encore® Customer Interface Module (CIM) Door Options Keypad Retrofit Kit M01478K001
- Encore Electronic Call Button Retrofit Kit M03059K001
- Eclipse[®] Pump Stop Button Retrofit Kit M03176K001.

Retrofit kit M01478K001 covers parts for Push To Stop and Push To Start button installation, wiring, and programming in the Encore 300 and 500 dispensers. Retrofit kit M03059K001 covers parts for Call Button installation, wiring, and programming in the Encore 300 and 500 dispensers. Retrofit kit M03176K001 covers parts for Pump Stop Button installation, wiring, and programming in the Eclipse dispenser.

Note: Electronic Call Button Retrofit kit M03059K001 does not support Encore dispensers manufactured before April 2002.

Required Reading

Before installing these kits, 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: These kits must be installed by a Gilbarco Authorized Service Contractor (ASC) to insure warranty.

Related Documents

The following documents are related to the installation of Retrofit Kits M01478K001, M03059K001, and M03176K001.

Document Number	Title	GOLD [®] Library
MDE-2562	CRIND Service Manual	CRIND [®] and TRIND [®]
MDE-2620	Graphic Panel Application for The Advantage Series, Encore, and Eclipse	Encore and Eclipse
MDE-3970	Speaker Retrofit Kit Manual	Encore and Eclipse
MDE-3804	Encore and Eclipse Series Start-Up/Service Manual	Encore and Eclipse
MDE-3860	Programming Quick Reference Card	Encore and Eclipse
MDE-3893	Encore/Eclipse Owners Manual	Encore and Eclipse
PT-1936	Encore Illustrated Parts Manual	Parts Manual
PT-1938	Eclipse Illustrated Parts Manual	Parts Manual

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Required Tools

The following tools are required in order to install the retrofit kits:

- Allen® wrench set, American standard
- nut drivers, American standard
- nut drivers, metric
- Cloth (or rag)
- Isopropyl Alcohol (part# END-1082)
- putty knife
- screwdrivers, flat head
- static guard wrist strap

Parts Lists

M01478K001 Retrofit Kit Parts List

The following table provides parts list information for Encore CIM Door Options Keypad Retrofit Kit M01478K001. Two kits will be needed for dual-sided units.

Description	Part Number	Quantity
Keypad, Miscellaneous Options	M01109B003	1
Cable, PTS/Stop	M01201A002	1
Cable PUSH TO START/Pump Stop	M01201A003	1
Cable, Pump Stop/Push-To Start	M01963A002	1
Assembly, Calibration Switch Cable	R19527-G1	1
Panel, Encore Option Panel 1 Standard (Note1)	EN06006GXXX	1
Notes: 1. CIM Door Graphics are an order entry item.		

M03059K001 Retrofit Kit Parts List

The following table provides parts list information for Encore Electronic Call Button Retrofit Kit M03059K001. Two kits will be needed for dual-sided units.

Description	Part Number	Quantity
Keypad, Miscellaneous Options	M01109B003	1
Cable, Call Interface Cable	M02802A001	1
Tie, Cable	Q10178-01	1
CABLE CALL INTERFACE POWER	M04687A001	1
Cable, Keypad To Call	M02803A001	1
Cable, Call Button	M01233A002	1
*PCA, Call Interface	M04528A001	1
Screw, Self Tapping Hex HD 6-20X	Q11677-24	2
Support, Circuit Board Locking	Q10651 02	2
Clamp, Flat Cable Mount	M01102B002	1
Panel, Encore Option Panel 1 Standard (Note1)	EN06006GXXX	1
Notes: 1. CIM Door Graphics are an order entry item.		

Note: Units built after 11/04 connect cable M04687A001 to M04585A001.

M03176K001 Retrofit Kit Parts List

The following table provides parts list information for Eclipse Pump Stop Button Retrofit Kit M03176K001. Two kits will be needed for dual-sided units.

Description	Part Numbers	Quantity
Cable, PTS/CALL1/CALL2/PSTOP	M01215A001	1

Description	Part Numbers	Quantity
Keypad, 4 Button Membrane	M02027B001	1
Cable Mount, Adhesive Releasable	Q13558-04	1
Overlay, Graphic	EC05004G008	1

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:



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.

\Lambda DANGER

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

\land WARNING

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

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.

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.

Use Electrostatic Discharge Precautions

Place yourself at a neutral static-free potential by doing the following:

- **1** Touch an unpainted metal surface.
- 2 Use a wrist strap connected to a grounded metal frame or chassis.
- **3** Make sure all power has been removed from unit and the CRIND device.

Encore CIM Door Options Keypad Retrofit Kit M01478K001 Installation

Preparing for Installation of the Encore CIM Door Options Keypad

- 1 Read all instructions and observe all safety precautions during kit installation.
- 2 Remove power to the units using the main breakers. Refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual for details on removing system power.
- **3** Open the CIM Door (Figure 1) using the key. Perform this step on both sides of the dispenser.
- **4** Disengage the main door latches (Figure 1) and open the main door (Figure 1). Perform this step on both sides of the dispenser.



Figure 1: Example of Encore Unit With CIM Door Opened

Attaching the Options Keypad to the Encore CIM Door

1 Remove the Top Graphics Panel (Figure 2) from the front of the CIM Door.



Figure 2: Example of CIM Door Front View

2 From the rear of the CIM Door (Figure 3), remove the tape that covers the door Cover Opening (Figure 3), insert a flat-tip screwdriver into Cover Opening (Figure 3), and remove the Option Keypad Blanking Panel (Figure 2).

Figure 3: Example of CIM Door Rear View



- **3** Remove any residual adhesive from where the Top Graphics Panel and Option Keypad Blanking Panel were removed using Isopropyl Alcohol and a clean cloth.
- **4** Obtain the Keypad (Figure 4) from the kit, and from the front of the CIM Door, position the keypad pigtail wire connectors (Figure 4) through the CIM Door cover opening (Figure 3).



Figure 4: M01109B003 Miscellaneous Options Keypad

- **5** Remove the adhesive backing from the keypad and carefully position the keypad onto the CIM Door.
- **6** Obtain the new Top Panel Graphics, remove the adhesive backing, and carefully align and apply the graphics to the front of the CIM Door.
- 7 Repeat steps 1 through 7 for side 2 of the unit.

Encore 300 Keypad Installation Inside the Dispenser

For Encore 500 refer to "Encore 500 Keypad Installation Inside the Dispenser" on page 16. For details on cabling refer to "Encore 300 Cable Block Diagrams" on page 31. For system cabling refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual.

Push To Stop Button Only

- **1** Obtain Pump Stop/Push-To-Start Cable M01963A002 (Figure 5) from the kit and connect:
 - jack J902A (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 1
 - jack J902B (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 2
 - GRXA and GRXB are not connected for stop only.

Figure 5: M01963A002 Pump Stop/Push-To-Start Cable



2 Locate Pump Controller PCA M01598A001 (Figure 6) and disconnect Encore Main Interface Cable M01650A001 from plug P204 (Figure 6) on the PCA.



Figure 6: Pump Controller PCA M01598A001

- **3** Obtain the R19527-G1 Calibration Switch Cable Assembly (Figure 7) from the kit and connect as follows:
 - plug P802 (Figure 7) to jack J802 (Figure 5) on cable M01963A002
 - jack J204 (Figure 7) to plug P204 (Figure 6) on Pump Controller PCA M01598A001
 - plug P204A (Figure 7) to jack J204 on main interface cable M01650A001

Figure 7: R19527-G1 Calibration Switch Cable Assembly



4 Properly route and dress the newly installed cabling such that door obstruction and cable pinching does not occur.

Push To Start Button Only

- **1** Obtain the M01963A002 cable (Figure 5) from the kit and connect as follows:
 - jack J902A (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 1
 - jack J902B (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 2
 - Note: It's not important which GRX connection is made for the following connections.
 - jack GRXA (Figure 5) to plug GR1, GR2, or GR3 on M01650A001 Encore Main Interface Cable for Side 1
 - jack GRXB (Figure 5) to plug GR1, GR2, or GR3 on M01650A001 Encore Main Interface Cable for Side 2
- **2** Properly route and dress the newly installed cabling such that door obstruction and cable pinching does not occur.

Push To Start and Push To Stop Button

- **1** Obtain the M01963A002 Pump Stop/Push-To-Start Cable (Figure 5) from the kit and connect as follows:
 - jack J902A (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 1
 - jack J902B (Figure 5) to plug P902B (Figure 4) on the M01109B003 Keypad for Side 2

Note: It's not important which GRX connection is made for the following connections.

- jack GRXA (Figure 5) to plug GR1, GR2, or GR3 on M01650A001 Encore Main Interface Cable for Side 1
- jack GRXB (Figure 5) to plug GR1, GR2, or GR3 on M01650A001 Encore Main Interface Cable for Side 2
- **2** Locate Pump Controller PCA M01598A001 (Figure 6) and disconnect Encore Main Interface Cable M01650A001 from plug P204 (Figure 6) on the PCA.
- **3** Obtain the R19527-G1 Calibration Switch Cable Assembly (Figure 7) from the kit and connect as follows:
 - plug P802 (Figure 7) to jack J802 (Figure 5) on cable M01963A002
 - jack J204 (Figure 7) to plug P204 (Figure 6) on Pump Controller PCA M01598A001
 - plug P204A (Figure 7) to jack J204 on main interface cable M01650A001
- **4** Properly route and dress the newly installed cabling such that door obstruction and cable pinching does not occur.

Encore 500 Keypad Installation Inside the Dispenser

For Encore 300 refer to "Encore 300 Keypad Installation Inside the Dispenser" on page 12. For details on cabling refer to "Encore 500 Cable Block Diagram M00284" on page 34. For system cabling refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual.

Push To Stop Button Only (For Units Built Before 11/04)

1 Obtain the M01201A002 PTS/Call/Stop Cable (Figure 8) from the kit and connect the PSTOP/ PSTART connector (Figure 8) to P902B (Figure 4) on Miscellaneous Options Keypad M01109B003.

Figure 8: M01201A002 PTS/Stop Cable



- **2** Locate the Door Node PCA (Figure 10) and insert jack J2111 (Figure 8) of PTS/Stop Cable M01201A002 into plug P2111 (Figure 10) on the Door Node PCA.
- **3** Properly route and dress the newly installed cabling such that door opens and closes freely. Ensure that the cabling is not stressed and pinching does not occur.

Push To Start Button Only

- 1 Obtain the M01201A002 PTS/Call/Stop Cable (Figure 8) from the kit and connect the PSTOP/ PSTART connector (Figure 8) to P902B (Figure 4) on Miscellaneous Options Keypad M01109B003.
- **2** Locate the Door Node PCA (Figure 10) and insert jack J2113 (Figure 8) of PTS/Stop Cable M01201A002 into plug P2113 (Figure 10) on the Door Node PCA.
- **3** Properly route and dress the newly installed cabling such that door opens and closes freely. Ensure that the cabling is not stressed and pinching does not occur.

Push To Stop Button Only (Production Units Built After 11/04)

1 Obtain the M01201A003 PTS/Call/Stop Cable (Figure 9) from the kit and connect the PSTOP/ PSTART connector (Figure 8) to P902B (Figure 4) on Miscellaneous Options Keypad M01109B003.





- **2** Locate the Door Node PCA (Figure 10) and insert jack J2111 (Figure 8) of PTS/Stop Cable M01201A002 into plug P2111 (Figure 10) on the Door Node PCA.
- **3** Properly route and dress the newly installed cabling such that door opens and closes freely. Ensure that the cabling is not stressed and pinching does not occur.

Push To Start Button Only

- 1 Obtain the M01201A003 PTS/Call/Stop Cable (Figure 9) from the kit and connect the PSTOP/ PSTART connector to P902 (Figure 4) on Miscellaneous Options Keypad M01109B003 or M01735B001 depending on which option is used.
- **2** Properly route and dress the newly installed cabling such that door opens and closes freely. Ensure that the cabling is not stressed and pinching does not occur.



Figure 10: Examples of Door Node 3 PCA Connections

Push To Stop and Push to Start Buttons

- 1 Obtain the M01201A002 PTS/Call/Stop Cable (Figure 8) from the kit and connect the PSTOP/ PSTART connector (Figure 10) to P902B (Figure 4) on Miscellaneous Options Keypad M01109B003.
- **2** Locate the Door Node PCA (Figure 10) and make the following connections from the M01201A002 PTS/Call/Stop Cable:
 - jack J2113 (Figure 8) to plug P2113 (Figure 10) on the Door Node PCA
 - jack J2111 (Figure 8) to plug P2111 (Figure 10) on the Door Node PCA.
- **3** Properly route and dress the newly installed cabling such that door opens and closes freely. Ensure that the cabling is not stressed and pinching does not occur.

Activating the Encore 300 Option Keypad Buttons

Encore 300 Stop Button

The Encore 300 Pump Stop Button is activate when power is restored. Proceed to "Completing Encore Options Keypad Installation" on page 21

Encore 300 Start Button

- 1 Locate jump jack JP1 (Figure 6) on the Pump Controller PCA. Insert a jumper into jack JP1.
- **2** The Encore 300 Start Button will be activated when power is restored. Proceed to "Completing Encore Options Keypad Installation" on page 21.

Activating the Encore 500 Option Keypad Buttons

Accessing the Manager's Keypad

Programing the unit will require using the Manager's Keypad (Figure 11) once the options keypad has been installed. The Manager's Keypad is located in back of the CIM door and is attached (by magnet) to the CIM Door Security Barrier. The Push To Stop and Push To Start options must be programmed or these options will not work.

Figure 11: Encore Manager's Keypad



Programming the Encore 500 Unit

Follow these steps to program the unit for Stop and Start Button operation.

- 1 Restore power to the dispenser(s) using the system circuit breakers.
- 2 On the manager's keypad, press F1. Flashing 8's appear on the main display.
- 3 Enter the unit's 4-digit, Level 4, Personal Identification Number (PIN) Code.
- 4 Press ENTER. One of the following appears in the main display window:
 - 0000 (flashing)—the PIN code is correct.
 - 8888 (flashing)—the PIN code is *not* correct.

5 If the PIN code was entered correctly, enter the Selected Installed Options Command Code 91. Command Code 91 is self-configuring and allows a user to install optional equipment in the dispenser. Function codes under this command are used to enable/disable dispenser options. By DEFAULT, all options are not installed. Entry into Command Code 91 by DEFAULT will show Function Code 1.

Layout and digit position meaning for this programming feature as displayed on the "money and volume display" is shown on Figure 12.

\$	9	1		Function Code
V				Option Flag
PPU				

Figure 12: Money and Volume Display

The table below provides a description of the function codes and the options that are relative to the installation of the Start and Stop Buttons.

Note: Entry into Command Code 91 by default will show Function Code 1.

Function Code	Function Code Description	Option Codes
2	Push To Start	1 = Not Installed* 2 = Installed
5	Set Push To Stop	1 = Not Installed* 2 = Installed
Notes: An * indica	tes the default setting.	

- 6 This step is for Push To Start, if no Push To Start go to step 10. At the Manager's Keypad, press 2 to enter Function Code 2.
- 7 Press ENTER on the Manager's Keypad to have the Function Code 2, Push To Start, accepted.
- 8 Press 2 on the Manager's Keypad to select Option Code 2 to install the Start Button, then press ENTER to have the Option Code 2 install code accepted.
- **9** At the Manager's Keypad, press **5** to enter Function Code 5.
- 10 Press ENTER on the Manager's Keypad to have Function Code 5, Set Push To Stop, accepted.
- 11 Press 2 on the Manager's Keypad to select Option Code 2 to install the Stop Button, then press ENTER to have the Option Code 2 install code accepted.
- **12** Press F2 on the Manager's Keypad to exit programming.

Completing Encore Options Keypad Installation

- 1 Inform station personnel of operating procedures and purpose of Options Keypad.
- **2** Return power to the unit.
- **3** Close and secure all doors.
- 4 Install the CIM Door graphics.
- **5** Clean up the work site, removing all materials to be discarded and all tools.

Encore Electronic Call Button Retrofit Kit M03059K001 Installation

Preparing for Installation of the Encore Electronic Call Button

Note: Encore Electronic Call Button Retrofit Kit M03059K001 requires speakers to be installed either inside or outside the dispenser. Refer to MDE-3970 Speaker Retrofit Kit Manual for details on speaker installation.

- 1 Read all instructions and observe all safety precautions during kit installation.
- 2 Remove power to the units using the main breakers. Refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual for details on removing system power.
- **3** Open the CIM Door (Figure 13) using the key. Perform this step on both sides of the dispenser.
- **4** Disengage the main door latches (Figure 13) and open the main door (Figure 13). Perform this step on both sides of the dispenser.



Figure 13: Example of Encore Unit With CIM Door Opened

Encore 300 Call Button Installation

Refer to "Encore 500 Call Button Installation" on page 28 for details on Encore 500 Call Button installation. Refer to the "Encore 300 Cable Block Diagrams" on page 31 for details on cable connections. For system cabling refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual.

- 1 From the rear of the CIM Door, locate the 2 (two) circuit board support mounting holes (Figure 14) on the left side of the Back Display Bezel (Figure 14).
 - Note: Display Bezels will vary based upon the type of display used in the dispenser. Figure 14 is used to illustrate where the M04528A001 Call Interface Printed Circuit Assembly (PCA) will be installed.



Figure 14: M02164B001 Back Display Bezel View From the Rear of the CIM Door

- **2** Use the following criteria to determine the type of fasteners that will be used to secure the M04528A001 Call Interface PCA:
 - If the dispenser contains a Monochrome Display, use the two (2) Q11677-24 Self Tapping Screws
 - If the dispenser contains Single Line CRIND produced before January 2003, use the two (2) Q10651-02 Circuit Board Supports
 - If the dispenser contains Single Line CRIND produced after January 2003, no screws or circuit board supports will be required.
- 3 Obtain the two (2) Q10651-02 Circuit Board Supports and two (2) Q11677-24 Self Tapping Screws from the kit. Check the PCA mounting holes (Figure 14) in the bezel to determine whether or not the supports or self-tapping screws will be needed to secure the PCA to the bezel. If using circuit board supports, insert the supports and proceed to step 4. If screws are used proceed to step 5. If no supports or screws are needed, secure the PCA to the bezel using the orientation shown on Figure 15 and proceed to step 6.

- **4** Position the PCA onto the supports using the top and bottom orientation shown on Figure 15 and proceed to step 6.
- 5 Position the PCA onto the bezel using the top and bottom orientation shown on Figure 15, and secure the PCA to the bezel using the two (2) Q116770-24 Self Tapping Screws.
- 6 Locate LCD Main Display PCA M01515 (Figure 16) and unplug Jack J2115 of Encore 300 Main Interface Cable M01650A001.



Figure 15: M04528A002 Call Interface PCA





- **7** Obtain Call Interface Cable M02802A001 (Figure 17) from the kit and connect the cable as follows:
 - Insert Jack J101 (Figure 17) into Plug P101 (Figure 15) on Call Interface PCA M04528
 - Insert Jack J2115 (Figure 17) into Plug P2115 (Figure 16) on LCD Main Display M01515
 - Insert Plug P2115A (Figure 17) into Jack J2115 on Encore 300 Main Interface Cable M01650A001.





- **8** Obtain Keypad To Call Cable M02803A001 (Figure 18) from the kit and connect the cable as follows:
 - Insert Jack J902C (Figure 18) into Plug P902C (Figure 15) on Call Interface PCA M04528A001.
 - Insert Jack J902 (Figure 18) into Plug P902B (Figure 4) on Options Key M01109B003.





9 Obtain Call Button Cable M01233A002 from the kit and insert Jack J102 (Figure 19) into Plug P102 (Figure 15) on Call Interface PCA M04528A001. Run the "Field Wiring" end of the cable to the back of the dispenser. Refer to Figure 20 through Figure 23 for an illustration of the M01233A002 cable run.

Figure 19: M01233A002 Call Button Cable





Figure 20: Rear View of Encore CIM Door With Call Button Cabling

Figure 21: Rear View of Encore Main Door With M01233A002 Call Button Cable Run





Figure 22: Encore Top Electronics Shelf with M01233A002 Call Button Cable Run

Figure 23: Encore Bottom Electronics Shelf with M01233A002 Call Button Cable Run



Encore 500 Call Button Installation

Refer to the "Encore 500 Cable Block Diagram M00284" on page 34 for details on cable connections. Refer to "Encore 300 Call Button Installation" on page 23 for Encore 300 installation. For system cabling refer to MDE-3804 Encore and Eclipse Series Start-Up/ Service Manual.

- 1 Refer to "Preparing for Installation of the Encore Electronic Call Button" on page 22 for procedures to open the door.
- From the rear of the CIM Door, locate the 2 (two) circuit board support mounting holes (Figure 14) on the left side of the Back Display Bezel (Figure 14).
 Note: Figure 14 on page 23, is used to illustrate where the Q10651-02 Circuit Board Supports and M04528A001 Call Interface Printed Circuit Assembly (PCA) will be installed.

Display Bezels will vary based upon the type of display used in the dispenser.

- **3** Use the following criteria to determine the type of fasteners that will be used to secure the
 - M04528A001 Call Interface PCA:
 - If the dispenser contains a Monochrome Display, use the two (2) Q11677-24 Self Tapping Screws
 - If the dispenser contains Single Line CRIND produced before January 2003, use the two (2) Q10651-02 Circuit Board Supports
 - If the dispenser contains Single Line CRIND produced after January 2003, no screws or circuit board supports will be required.
- 4 Obtain the two (2) Q10651-02 Circuit Board Supports and two (2) Q11677-24 Self Tapping Screws from the kit. Check the PCA mounting holes (Figure 14 on page 23) in the bezel to determine whether or not the supports or self-tapping screws are needed to secure the PCA to the bezel. If circuit board supports, insert the supports and proceed to step 5, otherwise go to step 6.
- **5** Position the PCA onto the supports using the top and bottom orientation shown on Figure 15 on page 24, and proceed to step 7.
- 6 Position the PCA onto the bezel using the top and bottom orientation shown on Figure 15 on page 24, and secure the PCA to the bezel using the two (2) Q116770-24 Self Tapping Screws.
- 7 Locate the Door Node PCA (Figure 10 on page 18) and unplug Jack J2115 of Main Display Backlight Power Cable M00614A005 (Figure 24).

Figure 24: M00614A005 Main Display Backlight Power Cable



- **8** For units built before 11/2004, obtain Call Interface Cable M02802A001 (Figure 25) from the kit and connect the cable as follows:
 - Insert Jack J101 (Figure 25) into Plug P101 (Figure 15 on page 24) on Call Interface PCA M02325.
 - Insert Jack J2115 (Figure 25) into Plug P2115 (Figure 10 on page 18) on Door Node PCA
 - Insert Plug P2115A (Figure 25) into Jack J2115 (Figure 24) on Main Display Backlight Power Cable M00614A005.
- **9** For units built before 11/04, obtain Keypad To Call Cable M02803A001 (Figure 18 on page 25) from the kit and connect the cable as follows:
 - Insert Jack J902C (Figure 18) into Plug P902C (Figure 15) on Call Interface PCA M02325A001.
 - Insert Jack J902 (Figure 18) into Plug P902B (Figure 4) on Options Key M01109B003.

Figure 25: M02802A001 Call Interface Cable



- **10** After 11/2004 obtain Call Interface Cable M04687A001 (Figure 26) from the kit and connect the cable as follows:
 - Insert Jack J101 (Figure 26) into Plug P101 (Figure 15 on page 24) on Call Interface PCA M04528.
 - Insert Jack (P5) (Figure 26) into Plug (J5) on Door Node PCA cable M04585A001.
 - Insert Plug (J5) (Figure 26) into Jack on Display Monochrome Graphic.
- **11** After 11/2004 obtain Keypad To Call Cable M02803A001 (Figure 18 on page 25) from the kit and connect the cable as follows:
 - Insert Jack J902C (Figure 18) into Plug P902D (Figure 15) on Call Interface PCA M04528A001.
 - Insert Jack J902 (Figure 18) into Plug Start/Call/Stop Key pad M01735B001.



Figure 26: M04687A001 Call Interface Power Cable (after 11/04)

- **12** Obtain the Call Button Cable M01233A002 (Figure 19) from the kit and insert Jack J102 into Plug P102 (Figure 15) on Call Interface PCA M04528A001.
- **13** Obtain Call Interface Cable M04687A002 from the kit and insert Jack J102 (Figure 19) into Plug P102 (Figure 15) on Call Interface PCA M045284528A001. Run the "Field Wiring" end of the cable to the back of the dispenser. Refer to Figure 20 through Figure 23 for an illustration of the M01233A002 cable run.
- **14** Properly route and dress the newly installed cabling such that door obstruction and cable pinching does not occur.

Activating the Encore Electronic Call Button

The Encore Electronic Call Button is activated when power is restored to the dispenser.

Completing Encore Electronic Call Button Installation

1 Provide conduit connection from auxiliary junction box to separate conduit stub (connection hardware and stub furnished by installing contractor) on foundation. Connect to auxiliary junction box.

Note: Installer's procedures and materials for connection between auxiliary junction box and stub must comply with NFPA 70, The National Electric Code. Call Button wiring must <u>not</u> share the same conduit as the dispenser power wiring.

- Connect external speaker wires (furnished by installer) to internal speaker wires and call button wires in auxiliary junction box based on requirements of third-party intercom system. Note: Third-party intercom system must be equipped to intercept and interpret call signal through communications (two-wire) loop. Call button circuit is normally open.
- **3** Turn third party intercom system on, and test call button and speaker to ensure proper operation and installation. Pressing call button should produce an audible beep or other signal.
- 4 Inform station personnel of operating procedures and purpose of call button.
- **5** Return power to the unit.
- 6 Close and secure all doors.

- 7 Install the CIM Door graphics.
- 8 Clean up the work site, removing all materials to be discarded and all tools.

Encore 300 Cable Block Diagrams





PUMP STOP/PUSH-TO-START OPTION



Encore 300 Cable Block Diagram M01622 Sheet 2 of 3



Encore 300 Cable Block Diagram M01622 Sheet 3 of 3

Encore 500 Cable Block Diagram M00284







Encore 500 Cable Block Diagram M04455

Eclipse Pump Stop Button Retrofit Kit M03176K001 Installation

Installing the Eclipse Pump Stop Button

For details on cabling refer to "Eclipse Cable Block Diagram M00626" on page 42. For system cabling refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual.

- 1 Remove power from the dispenser(s) using the system circuit breakers.
- **2** Go to side 1 of the unit and open the Oven Door (Figure 27) on the Customer Interface Module (CIM) Door using the key (Figure 27) provided with the dispenser.



Figure 27: Eclipse CIM Door

- 3 Open the CIM Door by pushing down on the Slide Latch (Figure 28) located inside the unit.
- 4 From inside the Oven Door (Figure 29), remove the piece of tape that covers the cable hole (Figure 29) where the keypad is to be installed.

- **5** Use a screwdriver, or similar tool, and remove the Graphics Overlay that covers the keypad installation location (Figure 29).
- 6 Remove any residual adhesive using a clean cloth and isopropyl. Refer to MDE-2620 Graphic Panel Application for The Advantage Series, Encore, and Eclipse Manual for details for removing and installing graphics.

Figure 28: Slide Latch Location



Figure 29: Eclipse Oven Door M01352



7 Obtain Four Button Membrane Keypad M02027B001 (Figure 30) from the kit and route the keypad flextail cable (Figure 30) through the keypad cable hole (Figure 29).



Figure 30: Four Button Membrane Keypad M02027

- **8** Remove the adhesive backing (Figure 30) from the keypad, then carefully position and attach the keypad to the Oven Door (Figure 29).
- **9** Obtain cable M01215A001 (Figure 31) from the kit and attach the keypad connector (Figure 31) end of the cable to the flextail cable connector (Figure 30) on the keypad. Refer to the "Eclipse Cable Block Diagram M00626" on page 42 for cabling details.

Figure 31: PTS/CALL1/CALL2/PSTOP Cable M01215A001



10 Route the cable along the inside of the Oven Door and through the cable grommet (Figure 32) on the CIM Door Security Barrier.



Figure 32: Front View of Unit with Oven Door Opened

- **11** From the rear of the CIM Door, route the cable up along the left side of the door towards the Door Node PCA (Figure 10: Examples of Door Node 3 PCA Connections on page 18).
- **12** Insert jack J2111 (Figure 31) of the M01215A001 cable into plug P2111 (Figure 10: Examples of Door Node 3 PCA Connections on page 18) on the Door Node PCA.
- **13** Check the cable routing to ensure that no cable pinching or stressing will occur when the CIM and Over Doors are opened or closed. Secure the cable to the unit using Cable Clamp Q13558-04 found in the kit.
- **14** Repeat these steps if installing a keypad for side 2.

Activating the Eclipse Pump Stop Button

Perform the following procedures to program the unit. The Push To Stop option must be programmed or the option will not work.

Accessing the Manager's Keypad

Programing the unit will require using the Manager's Keypad (Figure 33) once the four button keypad has been installed. The Manager's Keypad is located in back of the CIM door (Figure 32) and is attached (by magnet) to the CIM Door Security Barrier.

The following diagram shows a manager's keypad.

Figure 33: Eclipse Managers Keypad



Programming Eclipse Unit

Follow these steps to program the unit for Stop Button operation.

- **1** Restore power to the dispenser(s) using the system circuit breakers.
- 2 On the manager's keypad, press F1. Flashing 8's appear on the main display.
- **3** Enter the unit's 4-digit, Level 4, Personal Identification Number (PIN) Code.
- **4** Press ENTER. One of the following appears in the main display window:
 - 0000 (flashing)—the PIN code is correct.
 - 8888 (flashing)—the PIN code is not correct.
- 5 If the PIN code was entered correctly, enter the Selected Installed Options Command Code 91. Command Code 91 is self-configuring and allows a user install optional equipment in the dispenser. Function codes under this command are used to enable/disable dispenser options. By DEFAULT, all options are not installed. Entry into Command Code 91 by DEFAULT will show Function Code 1.

Layout and digit position meaning for this programming feature as displayed on the "money display" is shown on Figure 34.

\$	9	1		l C	-unction Code
V				C F	Dption Flag
PPU					

Figure 34: Money and Volume Display

The table below provides a description of the function codes and the options that are relative to the installation on the Stop Button.

Note: Entry into Command Code 91 by default will show Function Code 1.

Function Code	Function Code Description	Option Codes
5	Set Push To Stop	1 = Not Installed* 2 = Installed
Notes: An * indicat	es the default setting.	

- 6 At the Manager's Keypad, press 5 to enter Function Code 5.
- 7 Press ENTER on the Manager's Keypad to have Function Code 5, Set Push To Stop, accepted.
- 8 Press 2 on the Manager's Keypad to select Option Code 2 to install the Stop Button, then press **ENTER** to have the Option Code 2 install code accepted.
- **9** Press F2 on the Manager's Keypad to exit programming.

Completing Eclipse Pump Stop Button Installation

Perform the following procedures to complete installation.

- 1 Verify that all newly installed cable is properly dressed and do not obstruct main door and CIM Door closure.
- **2** Close and secure all doors.
- 3 Carefully align and install the CIM Door graphics (EC05004G008).
- **4** Test the Pump Stop Button for proper function.
- 5 Clean up the work site, removing all materials to be discarded and all tools.

Eclipse Cable Block Diagram M00626



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