

Purpose

This manual provides instructions on how to install Call Button Kit K96636-01 for Encore™ dispenser. Call button provides dispenser with a customer-activated call or "help" button.

Refer to Encore Installation Manual MDE-3985 for specifications and detail for providing and instruction and location for installing customer supplied conduit and fittings.

Note: Call button kit may be installed in conjunction with Speaker Kit M01491K001.

Audience

This manual is written for Gilbarco Authorized Service Contractors (ASC's). It is recommended that this kit be installed by a Gilbarco ASC to insure warranty.

Required Reading

Before installing the equipment, 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 read, understand and follow applicable codes, regulations and procedures may adversely affect the safe use and operation of the equipment.

Related Documents

Refer to the following manuals for additional information:

Document		
Number	Document Title	GOLD(SM) Library
FE-340	Encore 500 Field Wiring Diagram	Encore and Eclipse®
FE-342	Encore 300 Field Wiring Diagram	Encore and Eclipse
MDE-2620	Graphics Panel Installation	The Advantage® and legacy models
MDE-3802	Encore and Eclipse Series Site Preparation	Site Prep
MDE-3804	Encore and Eclipse Start-Up/Service Manual	Encore and Eclipse
MDE-3970	Speaker Retrofit Kit	Encore and Eclipse
MDE-3985	Encore Installation Manual	Encore and Eclipse

Recommended Tools and Supplies

The following tools and supplies are recommended for this installation:

- drill with 7/8 inch bit or hole saw
- fine rounded file or deburring tool
- marking pen
- measuring tape
- plastic sheeting or cloth to cover electronics while drilling
- isopropyl alcohol (those with a higher percentage of alcohol work best)
- · lint free rags
- roll masking tape
- screwdrivers, standard and Phillips®
- standard U.S. open-end wrench set
- wire cutter/stripper

Parts List

The following table lists parts in the K96636-01 kit. Order one kit per unit side.

Note: Call button kit may be installed in conjunction with Speaker kit M01491A001. Order Speaker kit separately.

Description	Part Number	Quantity		
button, call	Q13453-08	1		
cable, call button	M01233A001	1		
graphics panel	EN06005GXXX	see Note		
switch, call button	Q13453-06	1		
template, CIM door	M01223B001	1		
Note: Graphics panel EN06005GXXX is an order entry item.				

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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

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.

$oldsymbol{\Delta}$ 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.

Prevent Electrical Shock and Sparks

Dispensing devices use high voltage. A potential shock hazard exists when working on or around a dispensing device.

Follow OSHA lock-out and tag-out procedures.

Always turn OFF power to the dispensing device and associated submerged turbine pumps (STPs) when servicing or making electrical wiring connections. Multiple disconnects may be required.

↑ 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."

Close Junction Boxes Tightly

Spilled or leaking fuels in the vicinity of electrical junction boxes can be hazardous if boxes are not properly closed. Replace all bolts and tighten junction box cover before turning on AC power. Do not use gaskets on junction box covers.

Field Wiring

Poorly wired pumps or dispensers could cause a fire, explosion or electrical shock. Place all power and lighting wires in threaded, rigid metal conduits. Plug all unused junction box holes. Never use knockout boxes or flexible conduit. Tighten all threaded connections and covers. Do not use gaskets with junction box covers. Do not disturb sealing compound around wires at junction box entrances. Use factory method of routing wires. Use tie wraps to keep unruly wires away from pinch point and hinges. Tuck wires into enclosure before closing doors, bezels, junction boxes, covers and breaker panels. Follow wiring recommendations in installation or service manuals.

Proper Grounding is Required

Proper grounding is required for safe operation. See installation manual and applicable NEC, NFPA and local electrical codes for requirements.

Avoid Pinched Wires

Pinched or cut wires (cables) may damage components. Exposed wires could create sparks and electrical shorts when applying power.

Hydraulic Pressure Releases and Fuel Leakage

Working on hydraulic systems can result in leakage of fuel that may also be under pressure.

Turn off all circuit breakers for unit being worked on, all dispensers using the same grades of fuel, and all associated STPs.

Do not allow unauthorized or untrained individuals to service hydraulic equipment.

Shear valves, required by NFPA 30A, are intended to shut-off the flow of fuel at the dispenser base (hydraulics area) during vehicle impact or fires. A single-poppet shear valve prevents fuel from flowing from the underground tank. A double-poppet shear valve prevents fuel from flowing from the underground tank and from the dispenser.

Protect Your Eyes

Spraying fuel from residual pressure in lines can cause serious eye injuries. Always wear eye protection. Gasoline spilled in eyes may cause burns to eye tissue. Rinse eyes with water for approximately 15 minutes. Seek medical advice immediately. It is not necessary to wear eye protection unless performing hydraulic service.

React Quickly to Fuel Spills, Fires or Vehicle Impact

Follow these steps in the event of a fuel spill, fire, or vehicle impact.

1 Use station EMERGENCY TOTAL ELECTRICAL SHUT-OFF immediately. Turn off all system circuit breakers to the island.

⚠ 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."

2 Call emergency numbers for fires, vehicle impact or any significant spills.

3 Use safety tape, cones or barricades to block the work area. Do not go near fuel spill or allow anyone else in the area.

- Take precautions to avoid igniting fuel. Do not allow starting of vehicles in the area and immediately stop use of open flames, smoking or power tools in the area.
- **5** Provide emergency and first aid assistance.

$oldsymbol{\Delta}$ WARNING

If any gasoline has been inhaled, seek emergency help immediately.

Inhaled gasoline may cause unconsciousness and burns to lips, mouth and lungs.

△WARNING

Gasoline spilled on skin may cause burns.

Wash area thoroughly with clean water.

Seek medical advice immediately.

6 Use approved and safe procedures to clean up all spills with a "fuel or gasoline absorbent" material approved by your local regulatory agencies. (Dispose of fuel and hazardous absorbent material promptly and according to the requirements of the fire department, local EPA, and federal, state or local resources.)

Emergency and First Aid Information

Refer to phone book for emergency phone numbers. If needed, follow first aid instructions as outlined in American Red Cross Standard First Aid manuals.

⚠ WARNING



Gasoline 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



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.

Keep airway open.

Seek medical advice immediately.

Gasoline Vapor Inhalation

⚠ WARNING



Gasoline In Eyes

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

⚠ WARNING



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

Warning Labels

Several types of warning labels appear on Gilbarco products to inform and remind users of important safety information. Read, understand and follow these warnings.

Sample Warning Label

The following labels are typical of those you may find on Gilbarco's products:

////Warning////	//Misé en/garde//	///Ádvertencjá///
Electrical shock hazard Each electrical component within this unit may have its own circuit breaker or disconnect switch. Before servicing, turn off all circuit breakers and switches associated with this unit.	Danger de décharge Électrique Chaque composant Électrique au sein de cet Élémen son propre disjancteur ou interrupteur pour couper l'Électricité. Avant loul service d'entrelien, couper tous les disjancteurs et les interrupteurs contrôlant cet Élément.	Peligro de shock eléctrico Codo capponente eléctrico en esto unidad puede tener su propio interruptor de circuito o interruptor para desconector. Antes de darte mantenimiento, opaque todos los interuptores asociados con esta unidad.
Load Table 115VAC 240VAC Includes all options 14.00 AMPS 7.00 AMPS (Less Motor) Upper lights 3.00 AMPS 1.50 AMPS (Includes all options) Example 1.50 AMPS 1.50 AMPS 1.50 AMPS (Includes all options)	La Table Des Charges 115VAC 240VAC Toutes options incluses 14,00 AMPS 7.00 AMPS (Sans Moteur) Lumières du hout 3.00 AMPS 1.50 AMPS (pour les modèles Ectiose EG. EL. EN	Table De Consumo 115VAC 240VAC Incluye todas las opciones (Menos Motor) Luces superiores (solamente para Eclipse models (EG, EL, RN)
Motor Load Table (F.L. AMPS) 115VAC 230VAC 380VAC 3.74 MP 50MZ 1 PH 12.5 AMPS 6.5 AMPS 3.74 MP 50MZ 1 PH 13.0 AMPS 6.5 AMPS 3.74 MP 50MZ 3 PH 3.4 AMPS 2.3 AMPS	seulement) La Table Des Charges Du Moteur (F.L. APS) 115VAC 230VAC 380VAC 3/4 HP 50HZ 1 PH 12.5 AMPS 6.5 AMPS 3/4 HP 50HZ 1 PH 13.0 AMPS 6.5 AMPS 3/4 HP 50HZ 3 PH 3.4 AMPS 2.3 AMPS	Table De Consumo De Motores (F.L. APS) 115/AC 230VAC 380VAC 3/4 HP 50HZ 1 PH 12.5 AMPS 6.5 AMPS 3/4 HP 50HZ 3 PH 13.0 AMPS 6.5 AMPS 2.3 AMPS 2.3 AMPS 2.3 AMPS 2.3 AMPS

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working with or around high voltages. This information is available from the 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 tag out and lock out procedures discussed later in this section.

Contacting Emergency Personnel

Keep the following emergency phone numbers at hand.

Ambulance:	
Fire:	
Police:	
Poison Control Center:	

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.

Breakaways

Required by NFPA 30A, breakaways are emergency devices designed to retain liquid on both sides of the breakaway point installed on each hose. Refer to manufacturer's instructions for proper installation.

Collection of Fuel in Approved Containers

NFPA 30A, Section 2, requires use of approved containers to collect, transport, and dispose of fuel. Containers must be specifically designed and labeled for handling hazardous fuels.

Read Material Safety Data Sheets (MSDS)

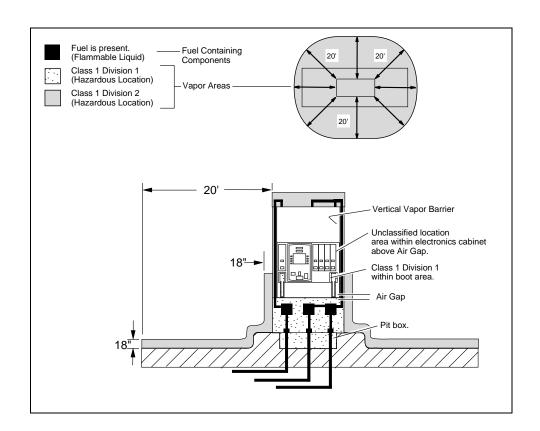
Before working with any chemicals or fuels in and around a dispensing facility, read the MSDS pertaining to those chemicals as prescribed in the Occupational Safety and Health Administration Standard, 29 CFR 1910.1200. Refer to the supplier's literature.

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.

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.



Installation

Before You Begin

1 Read all instructions before beginning.

- **2** Follow all safety precautions.
 - Barricade area.
 - Do not allow vehicles or unauthorized people in work area.
 - Do not smoke or have open flames in work area.
 - Do not use power tools in work area.
 - Wear protective gear while performing this procedure.
- 3 Record all electronic and mechanical totals.
- Turn off all power to unit, unit lights and STP power.
 - Use system circuit breakers.
 - Multiple disconnects may be required.

Preparing Encore Units for Call Button Installation



NOTICE

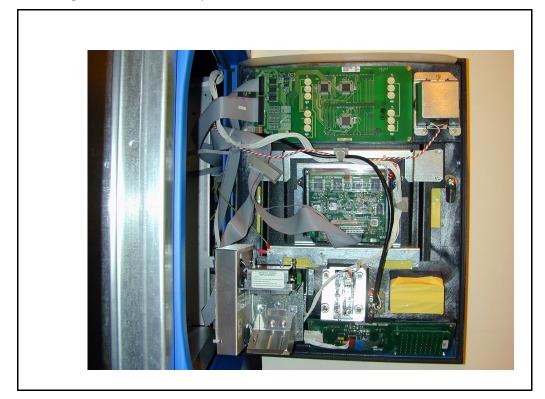
Conduit for call button wiring must be installed in accordance with all instructions regarding conduit as presented in MDE-3802 Encore and Eclipse Series Site Manual, MDE-3985 Encore Installation Manual and this manual.

Call button circuits must be wired N.E.C. Class 2. Refer to section 'Wiring' in MDE-3802 Site Prep. All requirements for speaker wiring apply also to call button wiring, and all general procedures and requirements for wiring apply.

Perform the following steps in preparation of call button installation.

- 1 Open CIM door.
- **2** Open main door. (See Figure 1)

Figure 1: Main Door Open



3 Disconnect all wiring from CIM door along with attaching hardware.

Note: Hardware can be described as any type of fastener such as bolts, screws, nuts, washers, etc... that attaches main parts to main assembly.

Note: Position and routing of all wiring so you will be able to reconnect parts and cables and re-route wires identically. Save all mounting hardware and fasteners.

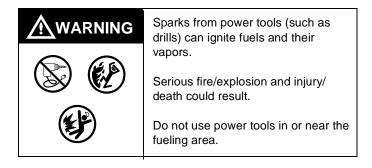
- 4 On top and center of main door, remove two screws holding bracket for CIM door and save.
- **5** Remove CIM door from unit by removing bracket and door pin. Save all for reassembly. *Note: Be careful to place CIM door on surface prepared for it that will not allow door to be damaged or door surface scraped.*

Installing Conduit and Wiring

Install conduit and wiring according to all requirements outlined in MDE-3985 Encore Installation Manual, including mandatory potting of conduit stub entering electronics cabinet.

Note: Junction box is not required. However, if customer supplied junction box is used specification and installation must comply with all requirements outlined in MDE-3802 Encore and Eclipse Series Site Preparation and MDE-3985 Encore Installation Manual for junction box use.

Drilling Hole for Call Button



Perform the following steps in order to drill hole for call button.

- 1 Remove option panel graphics and clean off adhesive using isopropyl alcohol and lint free rags. (See Figure 2)
- 2 Mark placement of call button hole by placing kit template (M01223B001) on CIM door as shown below. Masking tape may be used to secure template to CIM door for drilling.
- **3** Use plastic sheeting or cloth and masking tape to cover all electronics components on door before drilling.

CAUTION Residue from drilling may damage electronic components

4 Away from fuel island, drill a 7/8 inch diameter hole in the location provided on template. Drill from front side to protect graphic material overlay.

Place upper left corner of template here

Option Panel Graphics

M01223B001
template

138 mm

Figure 2: Call Button Location

5 Remove any burrs around hole with rounded file or deburring tool.

Installing Switch and Button

Perform the following steps to install the switch and button.

1 Hold contact base (Q13453-06) on back of CIM door and align with drilled hole. (See Figure 3)

Push button
Q13453-08

Contact base
Q13453-06

From CIM
Door (Front)

Screw

Screw

Figure 3: Call Button and Switch Install

- 2 Insert push button (Q13453-08) from front of CIM door by aligning tabs with slots in base (Q13453-06).
- **3** Turn push button 45 degrees clockwise to lock button to base.
- **4** Tighten two screws on base to secure push button and base assembly to CIM door. *Note: Do not overtighten screws.*
- **5** Attach contact block to base with center screw if not already installed.

Reinstalling CIM Door

Perform the following steps to reinstall CIM door.

- 1 Remove covering material from electronic components on CIM door.
- 2 Return CIM door to unit and reverse removal procedures to replace pin and install door on unit.

Placing Decals

Install order entry graphics panel EN06005GXXX. Refer to manual MDE-2620 Graphics Panel Installation for detailed instructions. (See Figure 4)

Figure 4: Call Decal and Button

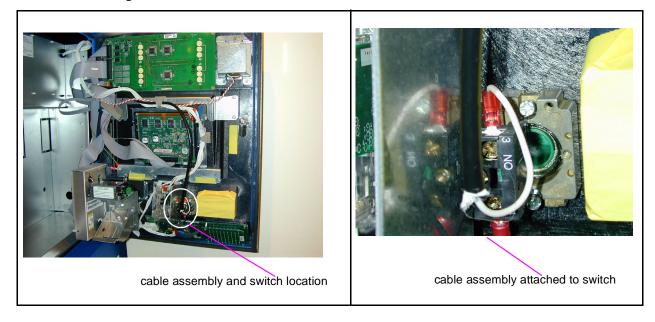


Connecting Cables

Perform the following steps to connect cables.

1 Attach wire terminals A and B from cable assembly (M01233A001) to switch terminals on each side of the switch base assembly. (See Figure 5)

Figure 5: Cable Connections



- **2** Using listed wire nuts, connect stripped lead ends of cable to installer provided wires in electronics cabinet. Refer to FE-340, Encore Field Wiring diagram.
- **3** Utilize existing cable clamps to secure cable assembly (M01233A001) to CIM door. *Note: Be sure that CIM door opens and closes without pulling, stressing or pinching wires.*
- **4** Reconnect all cables and electronic components on CIM door that were previously disconnected.

Completing Installation

The call button **does not** require programming.

- 1 Turn third-party call button system on and test call button operation and installation.
- 2 Return power to the units.

Trademarks

Eclipse® is a registered trademark of Gilbarco Inc.

Encore™ is a non-registered trademark of Gilbarco Inc.

The Advantage® is a registered trademark of Gilbarco Inc.

Phillips® is a registered trademark of Phillips Screw Company.

NEC® is a registered trademark of Natural Fire Prevention Association, Inc.

