

## Introduction

### Purpose

This manual provides instructions for installing the Side Conduit Entry Hardware Kit (M07838K001) for Encore® and Encore S series dispensers.

The Side Conduit Entry Hardware Kit provides necessary fittings to run electric conduits through the side column to prevent dispenser sump penetration. Use of this kit can potentially reduce cost of installation as well as eliminate potential leak points for dispenser containment pans.

This manual is intended for Gilbarco®-Authorized Service Contractors (ASCs) and Customer Specified Contractors (CSCs). To ensure valid warranty, this kit must be installed by a certified Gilbarco CSC, ASC, or licensed electrician.

Each kit provides the necessary parts [less connecting conduit and potting compound and Underwriters' Laboratories (UL®) listed capped bushing] for running one conduit through the side of the pump/dispenser electronics cabinet. Sites that have more than one conduit to each dispenser will require more kits per dispenser.

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### Required Reading

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

- This manual.
- National Fire Protection Agency (NFPA) 30A, The Automotive and Marine Service Station Code.
- NFPA 70®, The National Electric Code (NEC®).
- Applicable federal, state, and local codes and regulations.

## Required Materials

Use the following approved sealing compounds for the installation of the Side Conduit Entry Hardware Kit:

- Hartline Rockite Potting Material or
- Chico A Sealing Compound

## Parts List

The following table lists the parts included in this kit:

Item	Description	Part Number	Quantity
1	Conduit Elbow 1-inch X 90° Female	K87869	1
2	Conduit Nut, 1-inch - UL	N23655-01	2
3	Washer	068446	2
4	Conduit, 1-inch Straight	M00662B001	1
5	Potting Disc	R20219-03	4

## Related Documents

Document Number	Title	GOLD <sup>SM</sup> Library
FE-363	Field Wiring Diagram for Encore 500 (M07555 Power Supply Only)	<ul style="list-style-type: none"><li>• Encore and Eclipse® Installers</li><li>• Encore and Eclipse Field Wiring Diagram</li></ul>
MDE-3802	Encore and Eclipse Site Preparation Manual	<ul style="list-style-type: none"><li>• Encore and Eclipse Site Preparation</li><li>• Encore and Eclipse Installers</li><li>• Site Preparation</li></ul>
MDE-3804	Encore/Eclipse Start-up/Service Manual	<ul style="list-style-type: none"><li>• Encore and Eclipse</li><li>• Service Manual</li></ul>
MDE-3985	Encore Installation Manual	<ul style="list-style-type: none"><li>• Encore and Eclipse</li><li>• Encore and Eclipse Installers</li><li>• Footprints and Elevations</li></ul>

## Abbreviations and Acronyms

Term	Description
ASC	Authorized Service Contractor
CSC	Customer Specified Contractor
GOLD	Gilbarco Online Documentation
NEC	National Electrical Code
NFPA	National Fire Protection Association
UL	Underwriters' Laboratories

# 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).

	<b>WARNING</b>
	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.

## 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 lines.

## Important Safety Information

### 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

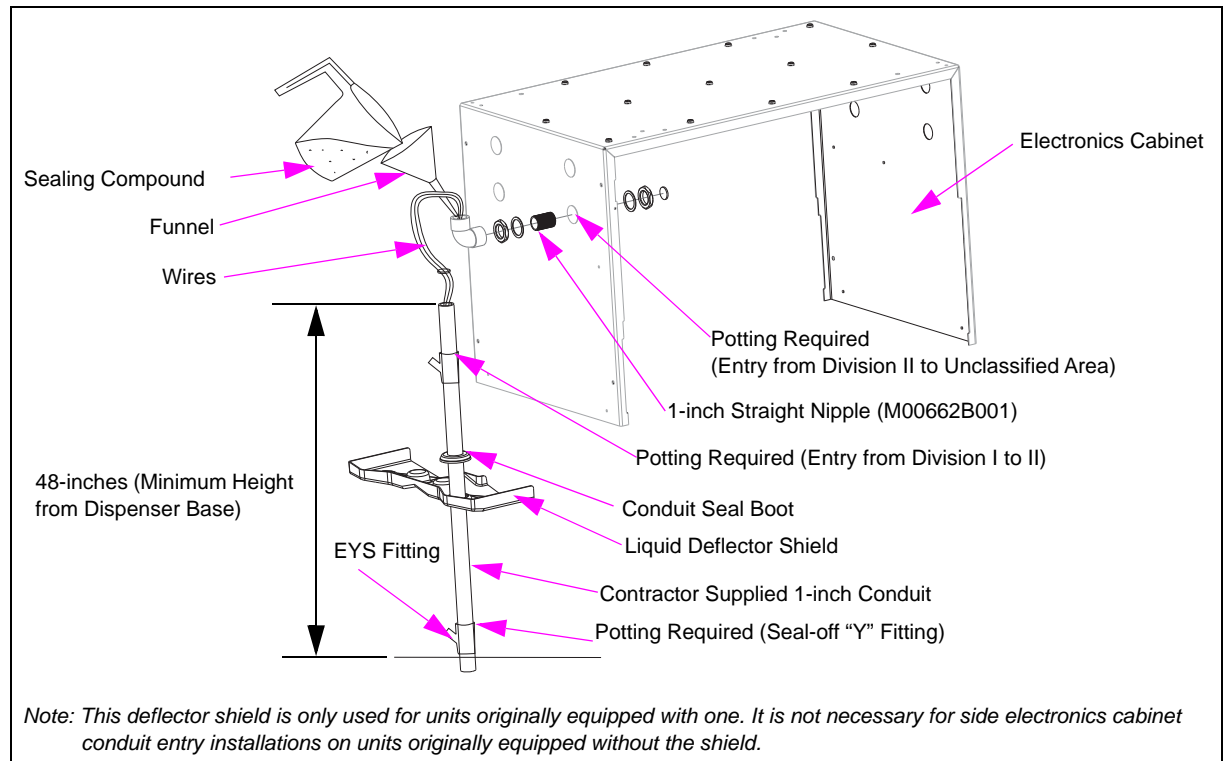
Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical, or other energy, 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.

# Installing Side Conduit Entry Hardware Kit

To install the Side Conduit Entry Hardware Kit, proceed as follows:

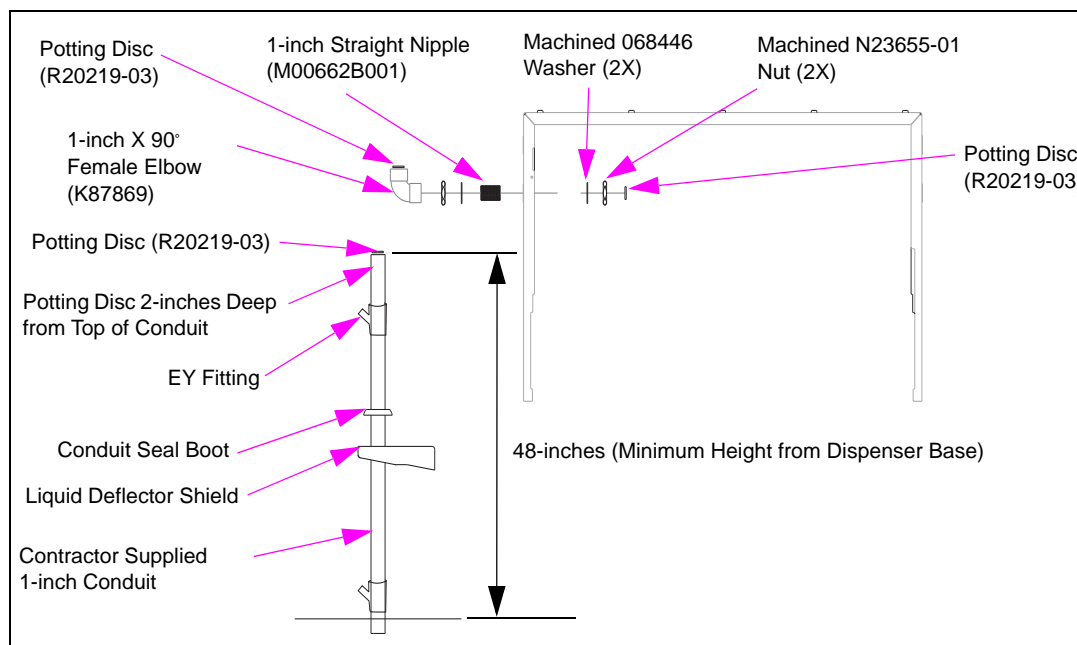
- 1 Install 1-inch Straight Conduit (supplied by contractor) in column. The minimum height of conduit from the dispenser base must be 48-inches (see [Figure 1](#)).
- 2 Install EYS fitting according to the manufacturer's instructions.

**Figure 1: Conduit Routing Through Side Column into Electronics Cabinet**



- 3 Remove knockout from the side of electronics enclosure, and install Conduit Elbow 1-inch X 90° Female (K87869), M00662B001 nipple, machined 068446 Washers, and N23655-01 Nuts (see [Figure 2](#)).

**Figure 2: Conduits and Potting Discs**



- 4 Run wires into the overhead piping.
- 5 Install the wire spacer in nipple.
- 6 Pot the 1-inch X 90° Female Elbow from potting disc to potting disc.
- 7 Install the potting dam.
- 8 Seal EYS fitting according to the manufacturer's instructions.
- 9 Mix Hartline Rockite potting material according to the manufacturer's instructions.
- 10 Pour the sealing material into the EYS fitting according to the manufacturer's instructions and allow the material to harden and set.

Installing Side Conduit Entry Hardware Kit is now complete.

- Notes:*
- 1) *Conduit seal boots and liquid deflector shield are not used on all dispensers.*
  - 2) *Use UL listed metallic conduit capped bushing for wire protection.*
  - 3) *For additional information, refer to “Electrical Related Items” and “Reference Information” sections in MDE-3985 Encore Installation Manual.*
  - 4) *Potting compound and fiber dam material to allow potting of conduit in accordance with Class I, Division II locations as specified in the NEC.*
  - 5) *On dispensers without factory installed J-box, run conduits for the following:*
    - a Power and two-wire communications.*
    - b Speakers and call buttons (if required).*
    - c SMART Connect™ (if required) through the side column into the electronics cabinet (see [Figure 1](#) on [page 5](#)).*

It is mandatory that the wiring be potted as shown in [Figure 1](#) on [page 5](#) where it enters the electronic cabinet and that hardware used be as described. 1-inch knockout connectors are provided for ingress into the electronics cabinet.

For additional information, refer to the following:

- *FE-363 Field Wiring Diagram for Encore 500 (M07555 Power Supply Only)*
- *MDE-3802 Encore and Eclipse Site Preparation Manual*
- *MDE-3804 Encore/Eclipse Start-up/Service Manual*

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