

Introduction

Purpose

This document provides instructions to install the following Junction Box Kits:

- M01483K006 in Encore® 300 dispensers
- M01483K007 in Encore 500 dispensers

Note: The M01483K006 and M01483K007 Junction Box Kits cannot be installed in Encore 300/500 pumping units.

Junction Box Kits are typically used when the existing station wiring is adapted to an Encore unit. New sites can use either junction boxes or the ground-up conduit.

Table of Contents

Topic	Page
Introduction	1
Important Safety Information	3
Installing the Junction Box Retrofit Kit	5

Required Reading

Before installing the equipment, 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) or Customer Specified Contractor (CSC) to ensure warranty.

Required Tools

The following tools are required to install the kit:

- Two pairs of Channel Lock Pliers
- Lineman's Pliers
- Metric Nut Driver Set
- Standard Ratchet Set
- Flat and Phillips® Head Screwdrivers
- Standard Socket Wrench Set
- Wire Strippers

Parts List

The following table provides the parts list for the M01483K00X Retrofit Kit for Encore 300 and Encore 500 dispensers.

Item	Description	Part Number	Quantity	
			M01483K006	M01483K007
1	Assembly, Encore J-Box	M02137A001	1	-
2	Assembly, Encore J-Box	M02137A003	-	1
3	Cover, Junction Box (Mach)	W02814-10	1	1
4	Screw Hex Hd Cap Finished	K43625	14	14
5	Screw, Metric M8 X 18	M00417B009	2	2
6	Conn Wire Nut 74B Yellow	K44293	-	3
7	Nut, Metric M8 Serrated	M00414B003	1	1
8	Decal, Warning, Junction Box	R20309	1	1
9	Conn Wire Nut 72B Blue	K81105-20	-	10
10	Encore 300 Field Wiring Diagram	FE-364	1	-
11	Encore 500 Field Wiring Diagram	FE-363	-	1
12	Encore Junction Box Retrofit Kit M01483K00X Installation Instructions	MDE-4084	1	1

Related Documents

Document Number	Title	GOLDLibrary
FE-364	Encore 300 Field Engineering Diagram	Encore and Eclipse®
MDE-3804	Encore and Eclipse Start-up/Service Manual	Encore and Eclipse
MDE-3985	Encore Installation Manual	Encore and Eclipse
PT-1936	Encore Illustrated Parts Manual	Parts Manual

Abbreviations and Acronyms

Term	Description
CIM™	Customer Interface Module
CRIND®	Card Reader IN Dispenser

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.

Emergency Total Electrical Shut-Off

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

WARNING



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

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

Total Electrical Shut-Off Before Access

Any procedure that requires access to electrical components or the electronics of the dispenser requires total electrical shut off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gilbarco equipment.

Evacuating, Barricading and Shutting Off

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



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

Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call a Gilbarco Authorized Service Contractor or call the Gilbarco Support 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

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 Hazard Association (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.

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.

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 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.

WARNING



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

WARNING



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

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 the Junction Box Retrofit Kit

Perform the following procedure to install a Junction Box Retrofit Kit M01483K00X in Encore 300 and 500 dispensers.

Notes: 1) These installation procedures are usually used for Encore 300 and 500 series fueling units when adapting a new unit to an existing island with old/existing wiring. If this procedure is performed during initial installation, power to the island should be locked out and tagged. Follow the procedures for power removal and dynamic testing provided in MDE-3985 Encore Installation Manual.

2) This kit can be installed (less additional wiring) before or after the unit is installed to the foundation.

Electrostatic Discharge Precautions

To place yourself at a neutral static-free potential, proceed as follows:

- 1 Touch an unpainted metal surface.

- 2  Use a wrist strap connected to a grounded metal frame or chassis.

Preparing for Installation

Before you begin, read and understand all safety information found in MDE-3804 Encore and Eclipse Series Start-up and Service Manual - Safety Instructions.

To prepare for installation, proceed as follows:

Note: The following procedure can be used for installing the kit while the unit is on or off the island.

- 1 Remove all power from the unit and the CRIND device.
- 2 Open the Customer Interface Module (CIM) door, using the key provided for the unit.
- 3 Disengage the main door latches and open the main door.
- 4 Remove the lower panel from Side 1 (Side A) and temporarily store in a location where it will not be damaged.
- 5 Perform steps 2 through 4 for Side 2 (Side B) of the unit.

Installing the Kit

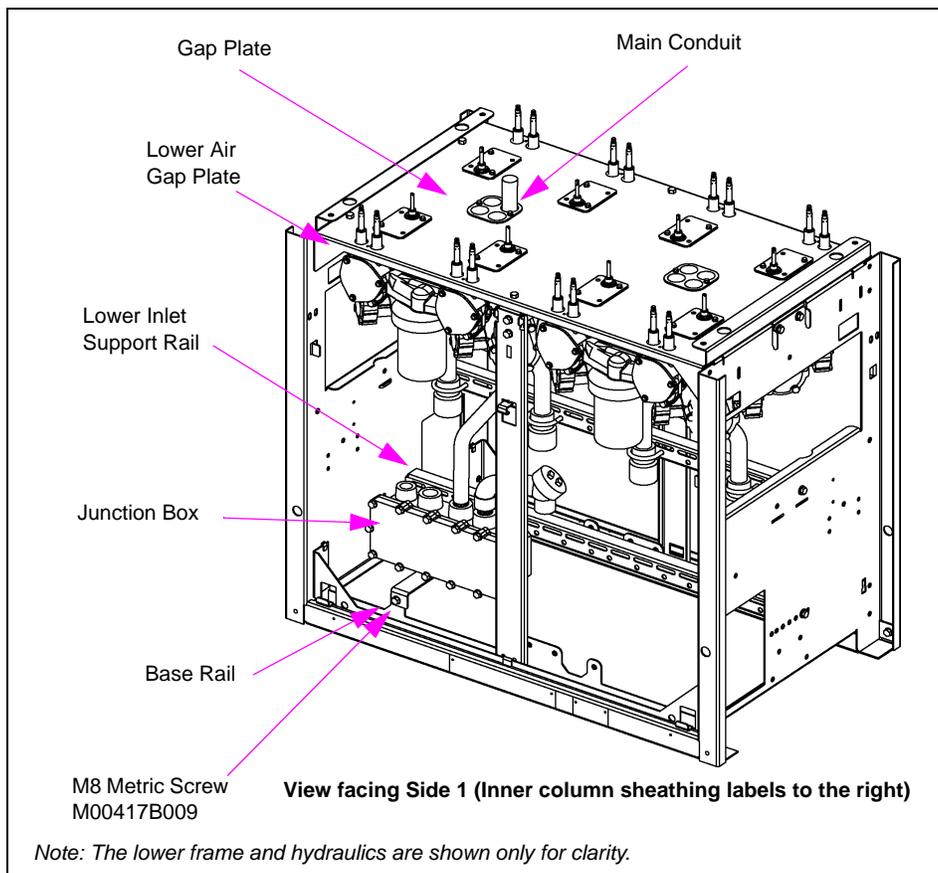
To install the Junction Box Retrofit Kit M01483K00X on Encore 300 and 500 dispensers, proceed as follows:

Note: If the unit is being retrofitted to an existing island footprint, the inlet pipes to the rail attachment and the lower inlet piping support rail may require repositioning. If the junction box bracket becomes an obstacle to repositioning, the back part of the junction box bracket should be removed or bent out of the way. A “breakaway” feature has been designed into the bracket that allows this type of repositioning. Include a bracket to secure the junction box to the frame, when possible.

- 1 Remove the knockout from both the upper and lower air gap plates, where the conduit passes through (refer to [Figure 1](#)).

Note: Remove the plate from the left when facing Side 1 (Side A) of the dispenser, where the column labels are to the right.

Figure 1: Front View of Unit with Lower Panel and CO Module Removed



- 2 Route the main conduit and junction box assembly and wires of the junction box assembly from the hydraulic area through the holes in the lower and upper air gap plates into the electronic cabinet.
- 3 Mount the junction box bracket on the base rail, using an M8 Screw M00417B009 and a size 13 metric nut driver.
- 4 Mount the junction box bracket on the lower inlet piping support rail, using an M8 Metric Screw M00417B009, M8 Metric Nut M00414B003, and a size 13 metric nut driver.

Wiring the Junction Box Retrofit Kit

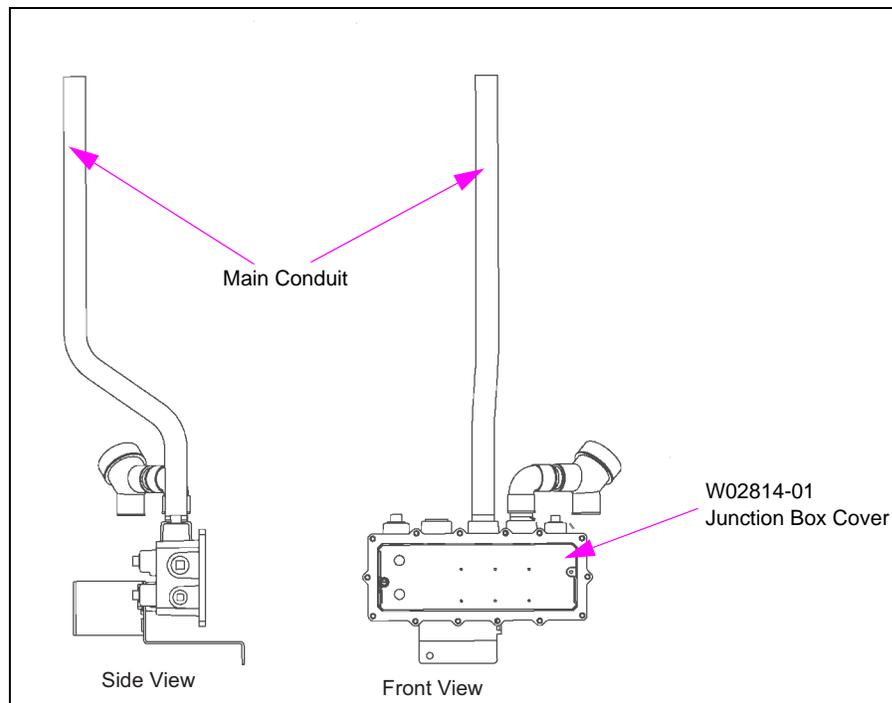
To wire a Junction Box Retrofit Kit to Encore 300 and 500 dispensers, proceed as follows:

- 1 Wire the Junction Box by following instructions outlined in MDE-3985 Encore Installation Manual and the appropriate field wiring diagram (FE-364 Encore 300 Field Engineering Diagram, sheets 1 and 2, and FE-363 Encore 500 Field Engineering Diagram).
- 2 Mount the Junction Box Cover W02814-01 to the Junction Box and Conduit Assembly M02137A001 and secure the cover using hex-head bolts K43625. When attaching the 14 hex-head bolts, loosely mount a bolt into each of the four corners first, then mount the remaining 10 bolts. Tighten evenly.

WARNING

To maintain the explosion proof rating of this box, all 14 bolts must be used and no gaskets added between the cover and body of the box.

Figure 2: Junction Box and Conduit Assembly with Cover



Completing Installation for the Encore Units

To complete the installation of the Junction Box Retrofit Kit, proceed as follows:

- 1 Close and secure the main door and CIM door on Side A and Side B of the unit.
- 2 Reinstall the lower panels of the unit and lock the panels with the key.
- 3 Restore power to the unit.

CRIND®, Encore®, Eclipse®, and Gilbarco® are registered trademarks of Gilbarco Inc. CIM™ is a trademark of Gilbarco Inc. Phillips® is a registered trademark of the Phillips Screw Co.

