

## Introduction

### Purpose

This manual provides instructions for installing the Encore® Canopy Light Kit (M03225K001) for all Encore units (standard and S series).

### Table of Contents

Topic	Page
<a href="#">Introduction</a>	1
<a href="#">Important Safety Information</a>	3
<a href="#">Before You Begin</a>	5
<a href="#">Installing Encore Canopy Light Kit</a>	7

### Required Tools and Materials

Following tools and materials are required for the kit installation:

- Impact Tool with an M13 Socket
- M17 Socket
- Metal Punch
- Pliers (Channellock®)
- Hammer

### Parts List

Following table lists the parts included in the Encore Canopy Light Kit:

Item	Description	Part Number	Quantity
1	Assembly, Canopy Light, Encore	M08543A001	1
	• Bracket, Encore Canopy Light	M03205B003	1
	• Cable-tie	Q10178-01	2
	• Assembly, Canopy Light Nipple and Wire	R19101-G2	1
	• Elbow, Conduit 1/2 NPT 90	K42428	2
	• Nipple, Conduit 1/2x2-3/4	R11976-23	1
	• Conduit, Encore Canopy Light	M08543B001	1
	• Nut, Hexagonal Flanged Serrated Locking Face, 1/4"-20	Q11890-04	2
	• Nut, Conduit 1/2"	K89681	2
	• Power Line, Unilet®	K72943	1
	• Screw, Metric, Thread Forming, Hexagonal-head Washer and Pozidrive Pan-head, M8 X 18	M00417B009	1
	• U-bolt, 1/4"-20 X 1.5	K67996-02	1
	• Washer, Flat .875 X 1.62 X .056	N16599-59	2

Item	Description	Part Number	Quantity
2	Bracket, Canopy Light Conduit, Encore	M12630B001	1
3	Bracket, Canopy Light Conduit, Encore	M14407A001	1

Encore Canopy Light Kit contains three brackets to mount the canopy to the lower frame.

Refer to the following table to find the appropriate bracket based on the lower frame manufactured date:

Brackets	Lower Frames Released
M03205B003	Before August 2012
M12630B001	After September 2012
M14407A001	After June 2015

## Related Documents

Document Number	Title	GOLD <sup>SM</sup> Library
MDE-2530	Pump and Dispenser Installation Manual	Advantage <sup>®</sup> and Legacy <sup>®</sup> Models
MDE-2531	Pump and Dispenser Start-up/Service Manual	<ul style="list-style-type: none"><li>• Service Manual</li><li>• Pump and Dispenser Start-up</li></ul>
MDE-3802	Encore and Eclipse <sup>®</sup> Site Preparation Manual	<ul style="list-style-type: none"><li>• Encore and Eclipse</li><li>• Encore and Eclipse Installers</li><li>• Site Preparation</li></ul>
MDE-3804	Encore and 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>• Footprint and Elevation Library</li></ul>
PT-1936	Encore Series Pumps and Dispensers Illustrated Parts Manual	<ul style="list-style-type: none"><li>• Parts Manual</li><li>• Encore and Eclipse Installers</li><li>• Encore and Eclipse</li></ul>

## Abbreviations and Acronyms

Term	Description
D-Box	Distribution Box
ESD	Electrostatic Discharge
GOLD	Gilbarco <sup>®</sup> Online Documentation
J-Box	Junction Box
OSHA	Occupational Safety and Health Administration
STP	Submerged Turbine Pump

# 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).

**⚠ 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 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.

## 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.

## Before You Begin

Read and understand all safety information and test procedures found in *MDE-3804 Encore and Eclipse Start-up/Service Manual*.

### CAUTION



A properly grounded Electrostatic Discharge (ESD) wrist strap must be worn while servicing any electronic devices or components. Failure to use electrostatic precautions may damage electronic components and void warranty.

- 1 Inform the manager.
- 2 Match the parts received in the kit with “[Parts List](#)” on [page 1](#).

### WARNING

Failure to turn off the unit during the kit installation may cause injury or bodily harm from electrical shock. Ensure that all power to the unit is switched off before opening the door to the unit and during kit installation.

To prepare the site and dispenser for the installation, proceed as follows:

## Preparing Area



To prepare the area for assembling and attaching the light conduit, proceed as follows:

*Note: Read all instructions before beginning.*

- 1 Close and test all shear valves.
- 2 Follow all safety precautions, including the following:
  - Barricade the area.
  - Do not allow vehicles or unauthorized people in the work area.
  - Do not smoke or have open flames in the work area.
  - Do not use electric power tools in the work area.
  - Wear protective gear when handling sheet metal or disassembling hydraulics.

## Preparing Dispenser

Following electrical and machine tasks must be completed to ensure conservation of information, and worker and property safety.

- 1 Record all electronic and mechanical totals. Isolate the unit at the Distribution Box (D-Box).
- 2 Remove AC power.
  - Turn off all power to unit including unit lights.
  - Turn off associated Submerged Turbine Pump (STP) power.
  - Turn off power to all dispensers on the same isolation relay (if used).
  - Use system circuit breakers.
  - Multiple disconnects may be required.
- 3 Follow OSHA lockout/tagout procedures as described in *MDE-3804 Encore and Eclipse Series Start-up/Service Manual*.
- 4 Place the nozzle in an approved container and squeeze the lever to release pressure with the nozzle hook in the OFF position. Some pressure may remain in the unit piping.

# Installing Encore Canopy Light Kit

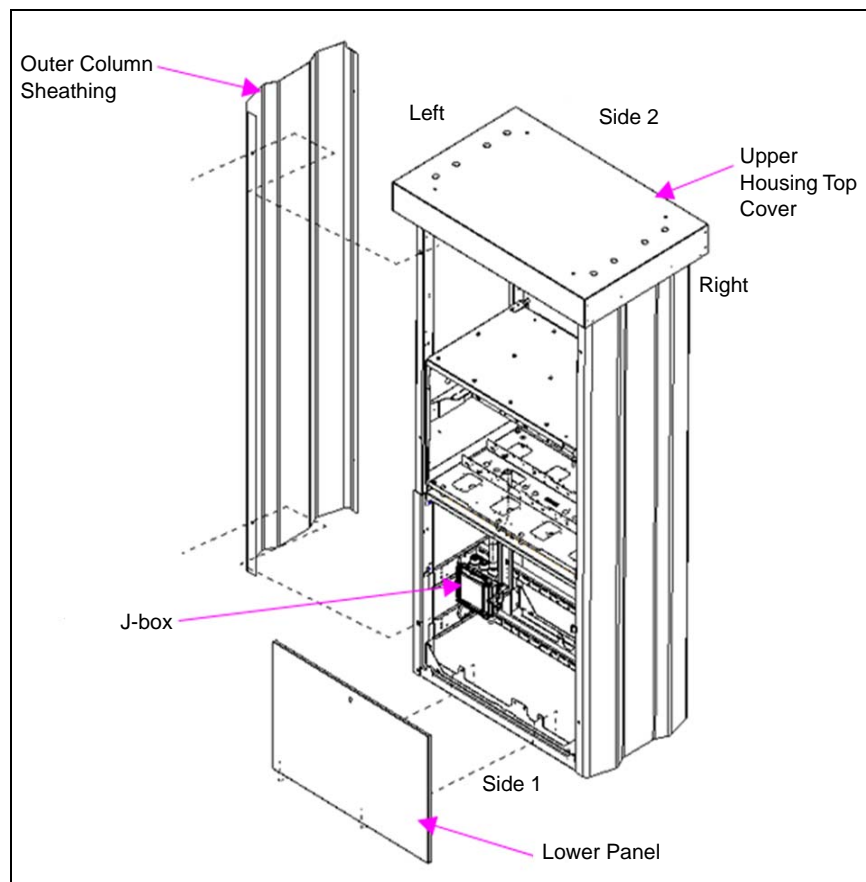
To install the Encore Canopy Light Kit, proceed as follows:

## Removing Sheathing

To remove the sheathing and covers, proceed as follows:

- 1 Open and remove the lower panel locking access door on the front of the unit on side 1 (see [Figure 1](#)) where the front of the Junction-box (J-box) is visible.
- 2 Remove the outer column sheathing on the left side. Retain the mounting hardware for reinstallation.

**Figure 1: Removing External/Cosmetic Sheet Metal from Encore Unit**



- 3 Place all the external/cosmetic sheet metal that has been removed in a safe place to prevent damage during the kit installation.

## Attaching Light Conduit Assemblies

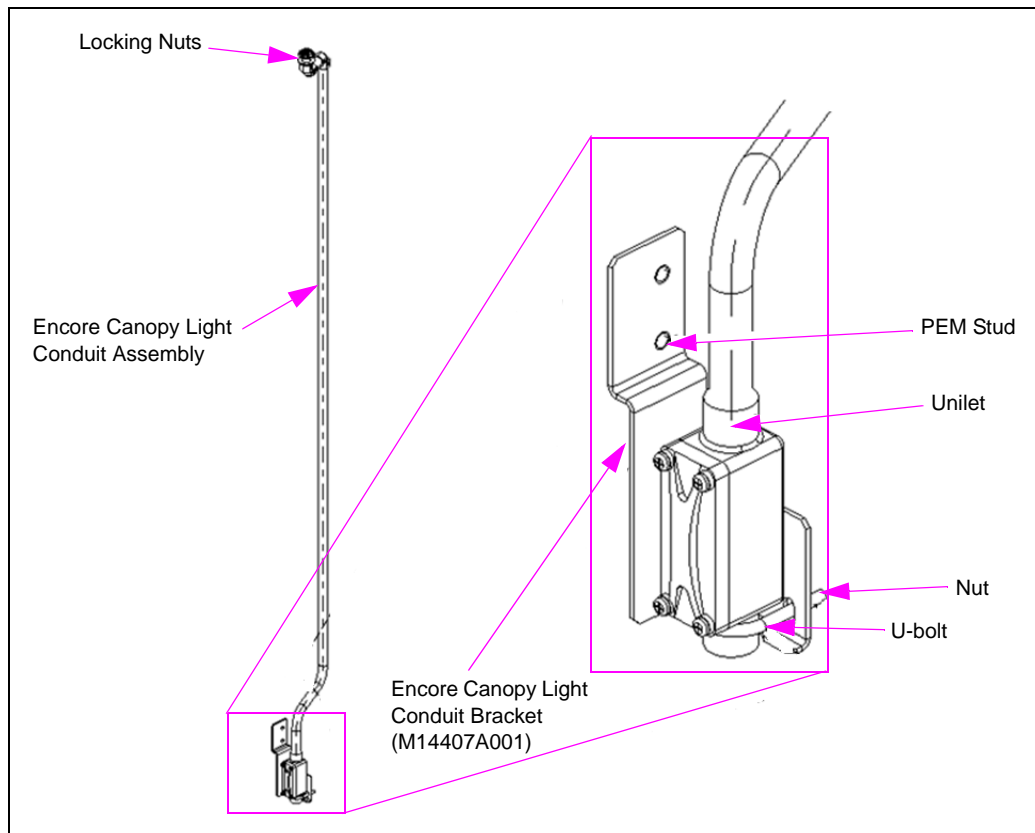
The light conduit assemblies are made up of following components:

- Conduit that contains the wiring
- Unilet and bracket

To mount and connect light conduit assemblies, proceed as follows:

- 1 Attach the bracket to the channel using the Encore canopy light bracket and PEM® stud as shown in [Figure 2](#).

**Figure 2: Mounting Unilet**

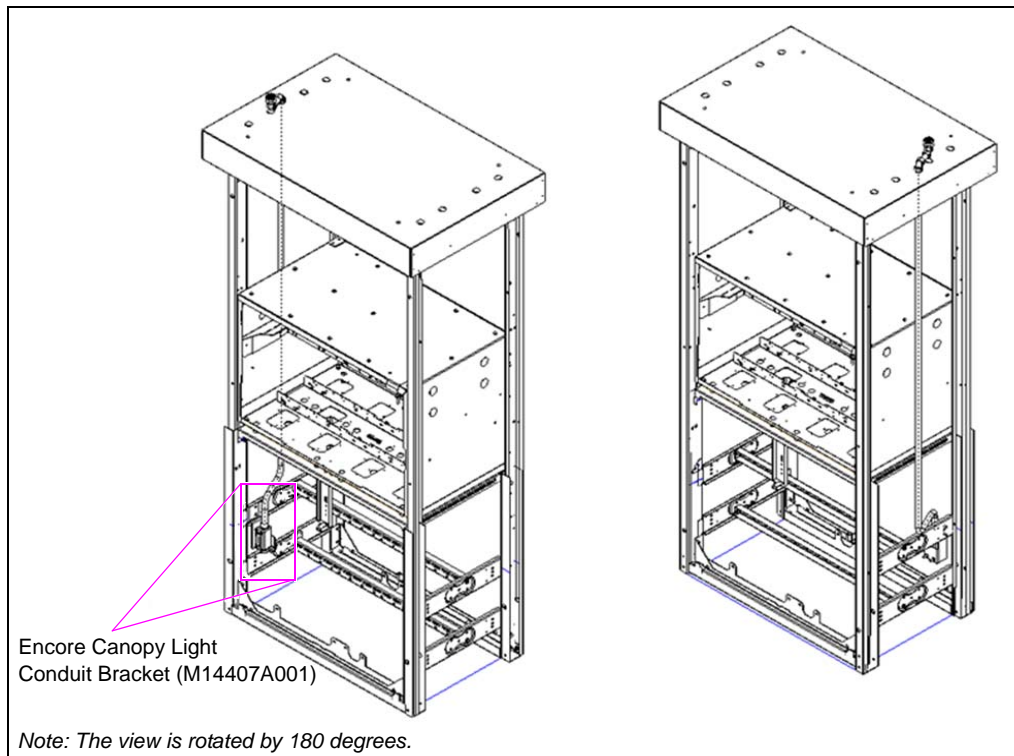


- 2 Attach the Unilet to the bracket using a 1/4-20 X 1.5 U-bolt and 1/4-20 hexagonal flanged nut.
- 3 Assemble the 1/2 X 90 Short Conduit M X F Elbow (K42448) to the Unilet top opening.
- 4 Assemble large conduit to Unilet prior to installation of the unit.



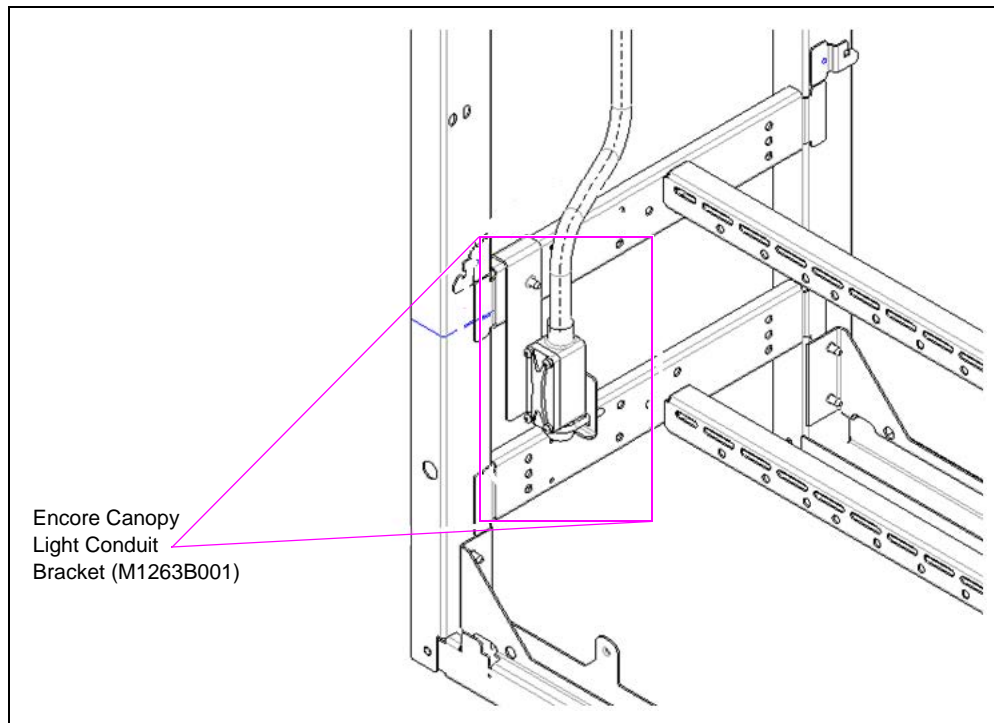
- 5 Ensure that the cover has been removed from the Unilet.

**Figure 3: Assembled Kit with M14407A001 Bracket**

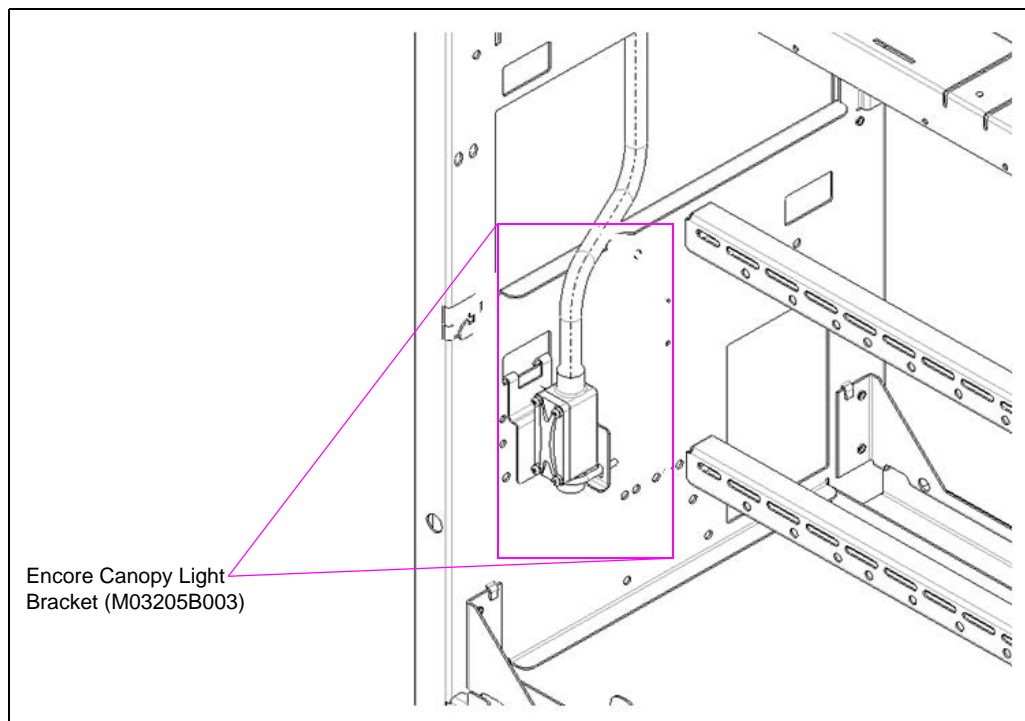


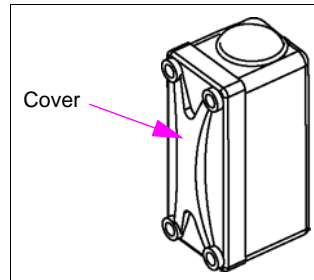
*Note: All conduit assemblies are placed in the same place in the unit regardless of lower frame type.*

**Figure 4: Assembled Kit with M12630B001 Bracket**

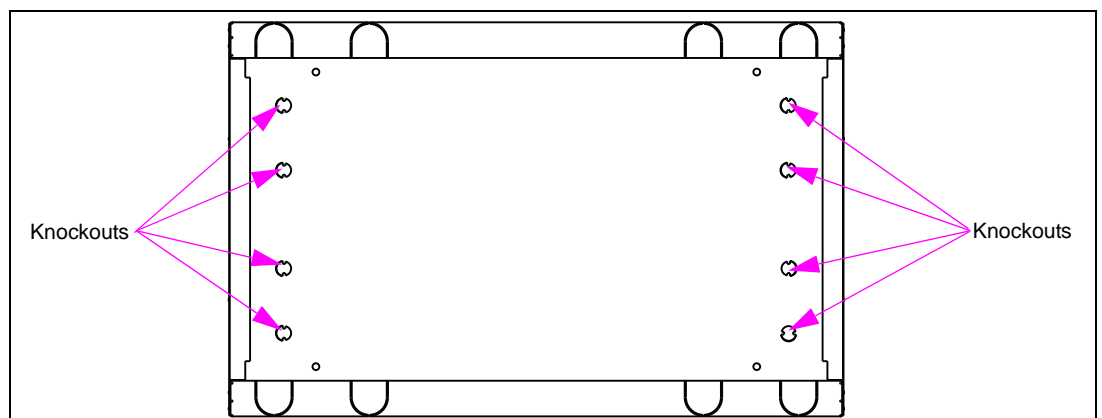


**Figure 5: Assembled Kit with M03205B003 Bracket**



**Figure 6: Unilet**

- 6 Position the Encore canopy light conduit assembly (see [Figure 2](#) on [page 8](#)) so that the male threaded end is pointing down toward the already mounted Unilet inlet.  
*Note: At this point, the Encore canopy light conduit assembly should already be wired.*
- 7 Insert the wires from the end of the conduit through the outside of the dispenser into the top of the Unilet and outside of the Unilet (cover removed), pulling the wires out until all the slack is taken up.
- 8 After the slack wire has been removed between the Encore canopy light conduit and the Unilet, attach the conduit to the Unilet using the expansion union. Tighten the expansion union.
- 9 Attach the conduit to the sides of the channel with the two tie-wraps provided in the kit. Leave these loosely attached until after connecting the upper end to the housing.
- 10 Using the hammer and metal punch, remove the knockouts (see [Figure 7](#)) in the upper housing top cover of the dispenser.

**Figure 7: Location of Knockouts**

- 11 Carefully insert the wires and then the other end of the conduit into the hole. Tighten the locking nuts that secure the conduit to the cover of the dispenser.  
*Note: Electrical connections will be made by a licensed electrician and light tested for correct operation upon powering up the dispensers.*
- 12 Reinstall the sheathing on the unit.
- 13 After the electrician has completed the electrical connections, the dispensers can be returned to an operational condition and the lights tested for correct operation according to the start-up processes outlined in *MDE-3985 Encore Installation Manual*.

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