

Introduction

This manual provides instructions for installing the Advantage® and Encore® Pulser Security Kits.

This manual is written for Gilbarco® Authorized Service Contractors (ASCs) and Customer Service Contractor (CSCs). It is recommended that only Gilbarco certified ASCs or CSCs install this kit. This kit contains the following:

- Encore Pulser and Meter Security MPD 2GR or Blender X+0 Kit
- Encore Door Latch Security Kit
- Advantage Pulser and Meter Security MPD 2GR or Blender X+0 Kit
- Encore Pulser and Meter Security MPD 3GR or Blender X+1 Kit
- Advantage Pulser and Meter Security MPD 3GR or Blender X+1 Kit
- Encore Pulser and Pulser Shaft Security MPD 2GR or Blender X+0 Kit
- Encore Pulser and Pulser Shaft Security MPD 3GR or Blender X+1 Kit

Required Reading

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

- This manual
- National Fire Protection Agency (NFPA 70)
- The National Electric Code (NEC)
- Applicable federal, state, and local codes and regulations
- MDE-3804 Encore and Eclipse Series Start-up and Service Manual - Safety Instructions
- MDE-2540 The Advantage Legacy and MPD Series Owners Manual

Failure to do so may adversely affect the safe use and operation of the equipment.

Related Documents

The following documents provide important safety information regarding all service and installation activities. Always use the latest version of these manuals.

Document Number	Title	GOLD Library
MDE-2540	The Advantage, Legacy and MPD Series Owner's Manual	Advantage and legacy models
MDE-3804	Encore and Eclipse® Series Start-Up and Service Manual	Encore and Eclipse

Required Parts

The following tables list the part(s) required for the Advantage and Encore Kits.

Note: On some occasions, all of the kits listed below may not be required for the installation.

M06294K001 Encore Pulser and Meter Security MPD 2GR or Blender X+0 Kit

Note: This kit is to be used only for units with a proportional valve, built after 04/24/03.

Description	Part Number	Quantity Per Unit
Encore Pulser Cover	M06254A001	4
Encore Meter Shaft Cover	M07123A001	4
Encore Meter Shaft Cover Base	M07123B002	4
Hex Flange HD, M8 X 16MM	M00415B009	8
Screw, Security Head 1/4-20	Q13625-03	24
Tool, Security Screw	Q13625-102	1

M06294K002 Encore Door Latch Security Kit

Description	Part Number	Quantity Per Unit
Support Latch, Encore S	M05736B001	2
Assy, Door Latch & Bracket	M06295A001	2
Screws, Hex Flange HD M6 X 12	M00415B005	2
Nut, Hex Flange M6	M00414B002	2
Screw, Pan Head	Q11270-56	2
Nut, 8-32 Zinc Plated	K67365	2

M06294K003 Advantage Pulser and Meter Security MPD 2GR or Blender X+0 Kit

Description	Part Number	Quantity Per Unit
Advantage Pulser Cover Base	M06341A001	4
Advantage Pulser Cover	M06341B002	4
Advantage Meter Shaft Cover	M06379A001	4
Advantage Meter Shaft Cover Base	M06379B002	4
Security Head 1/4-20 X 1/2	Q13625-03	28
Nut, 1/4-20	Q11890-04	8
Tool, Security Screw	Q13625-102	1

M06294K004 Encore Pulser and Meter Security MPD 3GR or Blender X+1 Kit

Note: This kit is to be used only for units with a proportional valve, built after 04/24/03.

Description	Part Number	Quantity Per Unit
Encore Pulser Cover	M06254A001	6
Encore Meter Shaft Cover	M07123A001	6
Encore Meter Shaft Cover Base	M07123B002	6
Hex Flange HD, M8 X 16MM	M00415B009	12
Screw, Security Head 1/4-20	Q13625-03	36
Tool, Security Screw	Q13625-102	1

M06294K005 Advantage Pulser and Meter Security MPD 3GR or Blender X+1 Kit

Description	Part Number	Quantity Per Unit
Advantage Pulser Cover Base	M06341A001	6
Advantage Pulser Cover	M06341B002	6
Advantage Meter Shaft Cover	M06379A001	6
Advantage Meter Shaft Cover Base	M06379B002	6
Security Head 1/4-20 X 1/2	Q13625-03	42
Nut, 1/4-20	Q11890-04	12
Tool, Security Screw	Q13625-102	1

M06294K006 Encore Pulser and Pulser Shaft Security MPD 2GR or Blender X+0 Kit

Note: This kit is to be used only for units with a digital valve, built prior to 04/24/03.

Description	Part Number	Quantity Per Unit
Encore Pulser Cover	M06254A001	4
Cover, Pulser Shaft	M06428A001	4
Cover, Pulser	M06428B002	4
Screw, Security Head 1/4-20	Q13625-03	16
Tool, Security Screw	Q13625-102	1

M06294K007 Encore Pulser and Pulser Shaft Security MPD 3GR or Blender X+1 Kit

Note: This kit is to be used only for units with a digital valve, built prior to 04/24/03.

Description	Part Number	Quantity Per Unit
Encore Pulser Cover	M06254A001	6
Cover, Pulser Shaft	M06428A001	6
Cover Pulser	M06428B002	6
Screw, Security Head 1/4-20	Q13625-03	24
Tool, Security Screw	Q13625-102	1

Required Tools

The following tools may be required to complete the Advantage and Encore Pulser Security Kits installation:

- Clean cloth or rag
- Flat screw driver
- Phillips® Head screwdriver
- Socket set
- #8 drill bit
- Security Screw Tool (see parts list)

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.

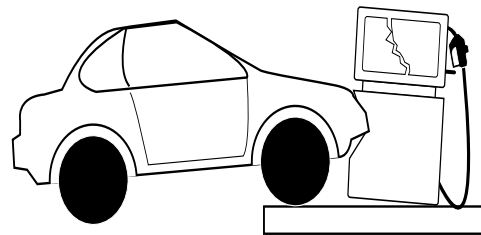
Lockout/Tagout

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.

Hazards and Actions

 WARNING	
	Spilled fuels, accidents involving pumps/dispensers, or uncontrolled fuel flow create a serious hazard.
	Fire or explosion may result, causing serious injury or death. Follow established emergency procedures.

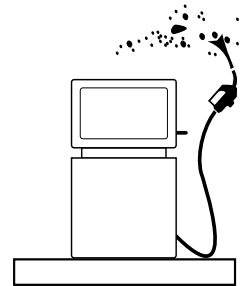
The following actions are recommended regarding these hazards:



Collision of a Vehicle with Unit



Fire at Island



Fuel Spill

- Do not go near a fuel spill or allow anyone else in the area.
- Use station EMERGENCY CUTOFF immediately. Turn off all system circuit breakers to the island(s).
- Do not use console E-STOP, ALL STOP and PUMP STOP to shut off power. These keys do not remove AC power and do not always stop product flow.
- Take precautions to avoid igniting fuel. Do not allow starting of vehicles in the area. Do not allow open flames, smoking or power tools in the area.
- Do not expose yourself to hazardous conditions such as fire, spilled fuel or exposed wiring.
- Call emergency numbers.

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Encore, Advantage Pulser and Meter Security Installation Processes

Before you begin, read and understand all safety information found in the “[Required Reading](#)” on [page 1](#) of this manual.

Encore Pulser and Meter Security Installation Instructions

This section provides information regarding the installation of the Encore Pulser and Meter Security Kits (M06294K001, M06294K004, M06294K006 and M06294K007).

Note: Ensure that you have the proper kit (parts) for the model dispenser to be retrofitted. This kit may contain parts that fit several valve types.

To install the Encore Pulser and Meter Security Kit, proceed as follows:

- 1** Request permission from the manager/owner to remove power from the unit and then remove power using the correct procedures. Observe the Lockout/Tagout safety procedures.
- 2** Unlock and remove the bottom panels and open the top doors from both sides of the unit. Place the bottom panels in a safe place to prevent damage or scratches.
- 3** Access the pulser area of the Encore unit and position the Pulser Security Cover in the location shown.

Note: The Encore Pulser Security Cover cannot be used with M05839B001 and M05840B001.

Figure 1: Encore Pulser Security Cover Installation (Pulsers used between 09/16/02 - 01/29/06) - Option 1

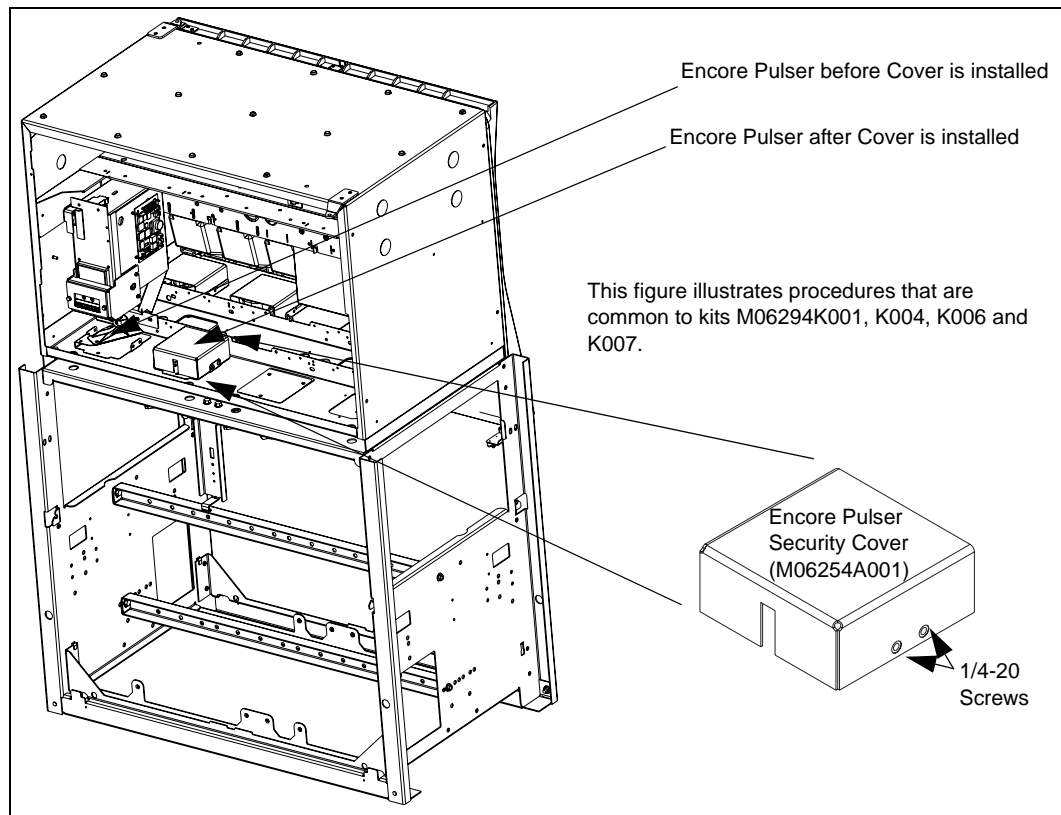
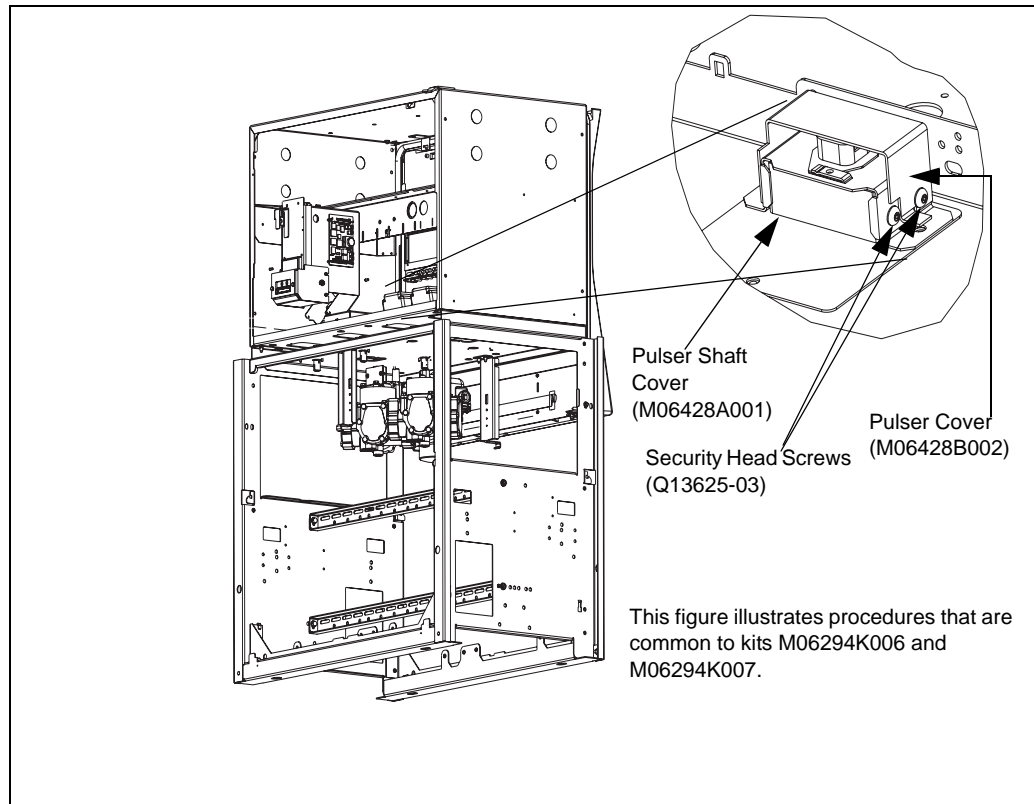


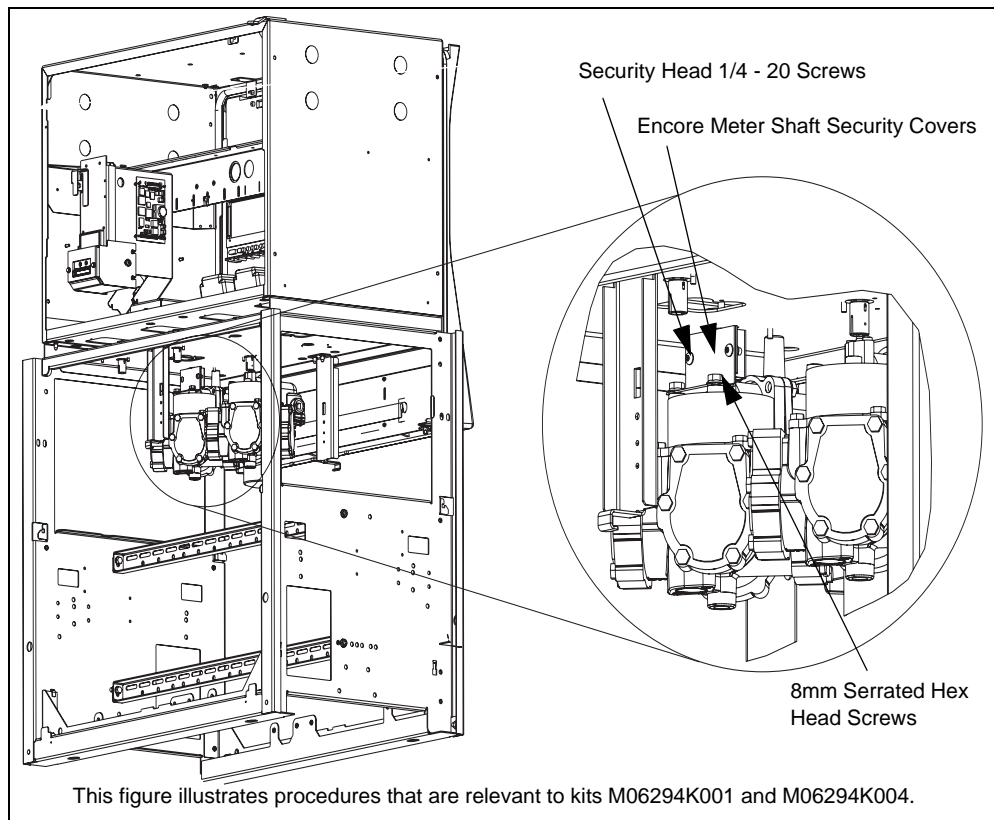
Figure 2: Encore Pulser Security Cover Installation [Pulsers prior to 09/16/02 - M00786B001 (Oak Grigsby)] - Option 2



Note: If you are using the kits M06294K006 or M06294K007, the pulser security cover shown in [Figure 2](#) may be installed. Installing this involves attaching the Pulser Shaft Cover (M06428A001) using the four Security Head 1/4-20 screws (Q13625-03), the special security screw tool, aligning and attaching the Pulser Cover (M06428B002) over the Pulser Shaft Cover.

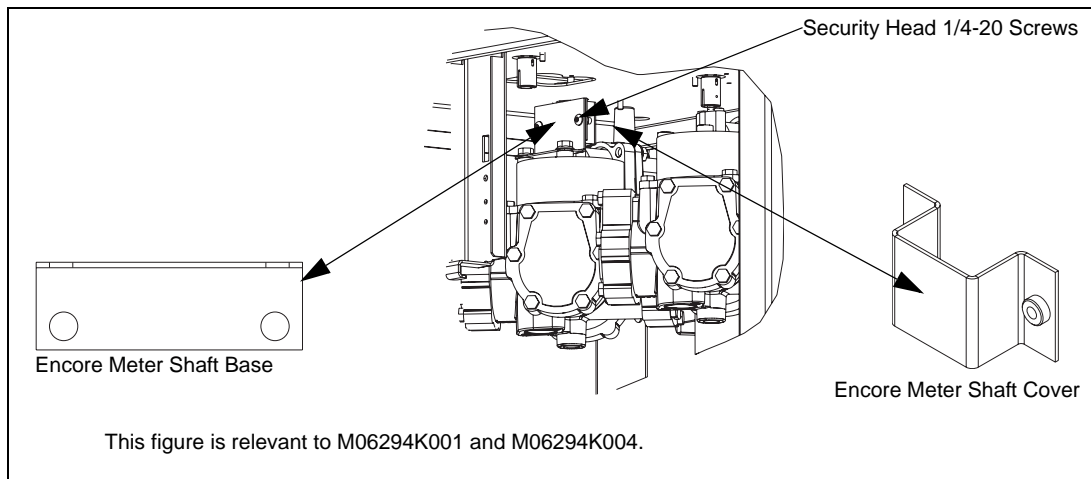
- 4 Attach the Pulser Cover with four Security Head 1/4-20 screws using the special security screw tool.
- 5 For units with proportional valves, access the meter area and at the location where the pulser shaft exits the meter, install the Encore Meter Shaft Cover Base aligning the 8.5 mm holes with those on the top of the meter as shown, using 8 mm Serrated Hex Head Screws. See [Figure 3](#) on page 12.

Figure 3: Encore Meter Shaft Cover Installation (Units with Proportional Valves)



- 6 Attach the Meter Shaft Cover assembly to the Encore Meter Shaft Cover Base as shown, using the Security Head 1/4-20 screws provided in this kit. See [Figure 4](#).

Figure 4: Encore Meter Shaft Security Cover and Base



The Advantage Pulser and Meter Security Installation Instructions

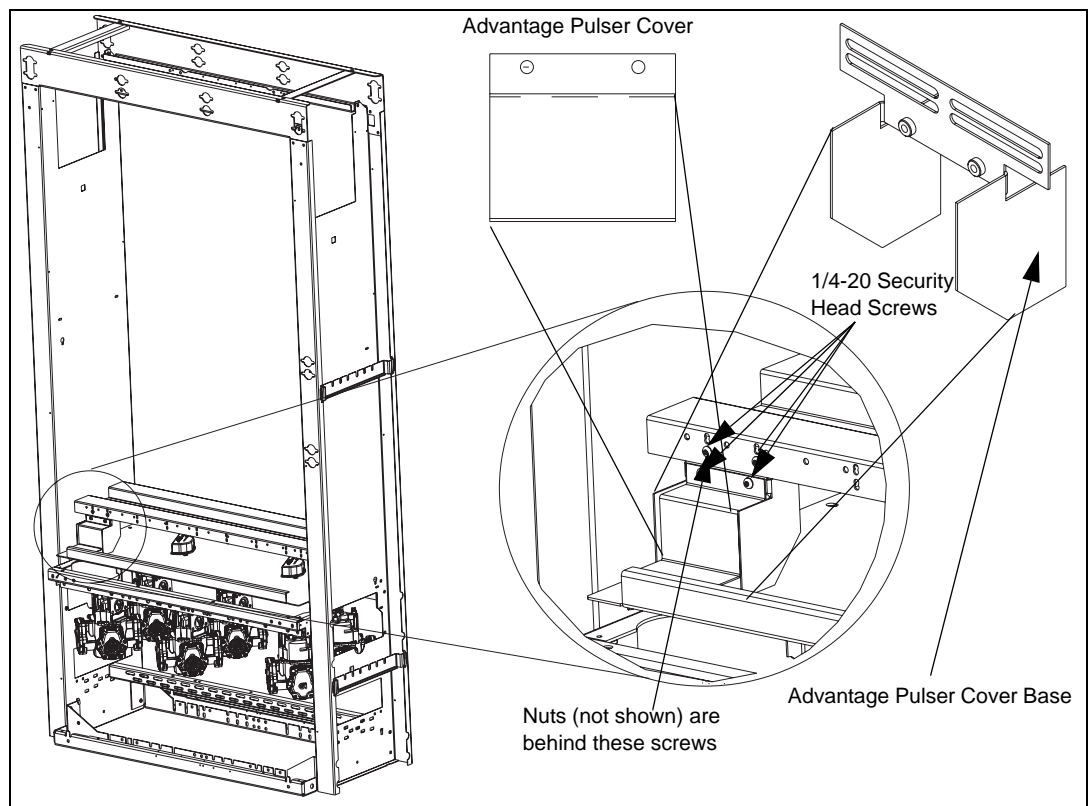
This section provides information regarding the installation of the Advantage Pulser and Meter Security Kit (M06294K003 and M06294K005).

Note: Ensure that you have the proper kit (parts) for the model dispenser to be retrofitted. This kit contains parts that fit several pulser types.

To install the Advantage Pulser and Meter Security Kit, proceed as follows:

- 1 Request permission from the manager/owner to remove power from the unit and then remove power using normal procedures. Observe the Lockout/Tagout safety procedures.
- 2 Unlock, remove bottom panels, and open the top doors from both sides of the unit. Place the doors in a safe place to prevent damage or scratches.
- 3 Access the pulser area of the Advantage unit and install the Advantage Pulser Cover Base as shown, using two 1/4-20 Security Head Screws, two 1/4-20 nuts, and Security Screw Tool listed in the “Required Parts” on page 2. See Figure 5.

Figure 5: Advantage Pulser Security Cover Assembly

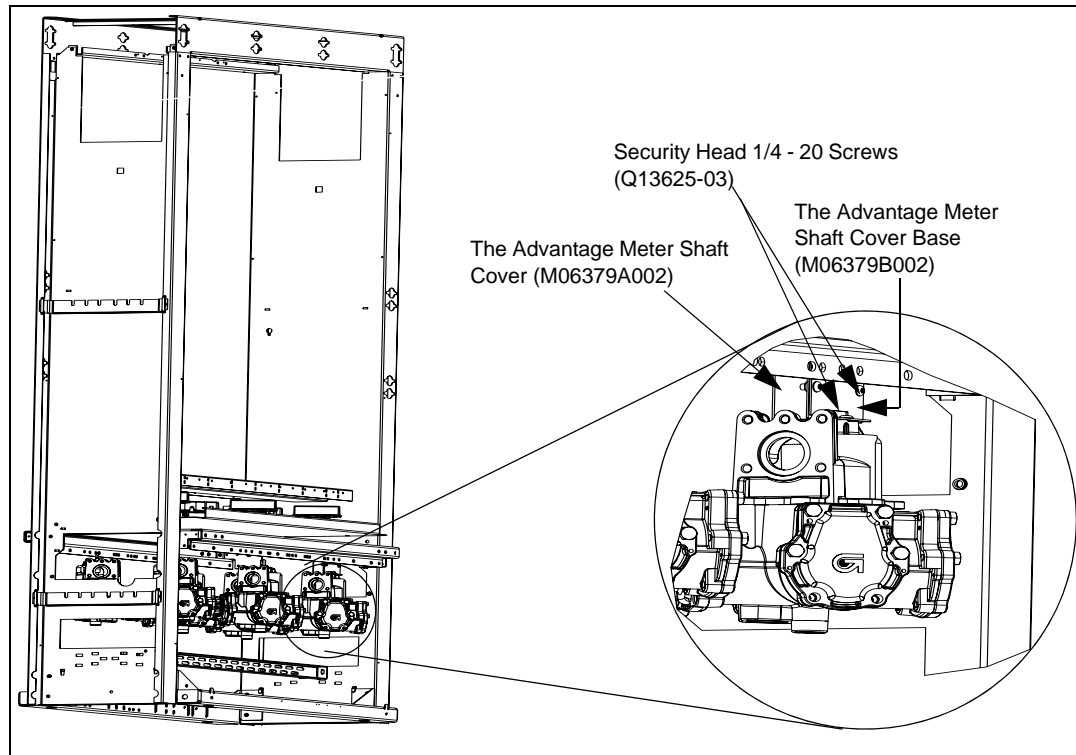


- 4 Attach the Pulser Cover with the two Security Head 1/4-20 screws using the security screw tool.

- 5 Access the meter area and at the location where the pulser shaft exits the meter, install the Advantage Meter Shaft Cover Base aligning the holes with those on the top of the meter as shown, using the Security Head 1/4-20 screw. See [Figure 6](#).

Note: Remove the side sheathing if accessing the pulser area is difficult.

Figure 6: Advantage Meter Shaft Cover Installation



- 6 Install the Meter Shaft Base on top of the meter using the 1/4-20 security screw.
- 7 Attach the Meter Shaft Cover assembly to the Advantage Meter Shaft Cover Base as shown, using the Security Head 1/4-20 screws provided in this kit.

Door Latch Security Kit

This section provides information regarding the installation of the Door Latch Security Kit (M06294K002).

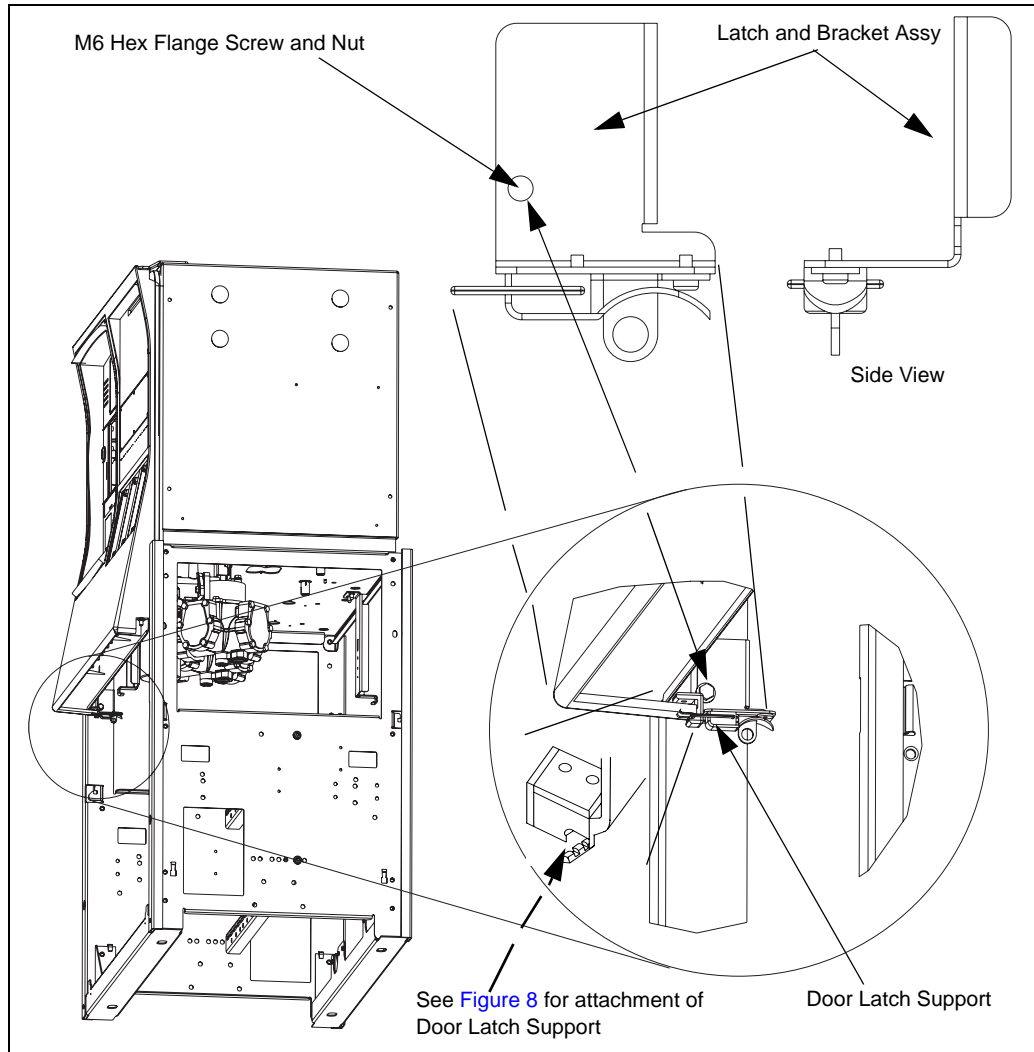
Note: Ensure that you have the proper kit (parts) for the model dispenser to be retrofitted.

To install the Door Latch Security Kit, proceed as follows:

- 1 Request permission from the manager/owner to remove power from the unit and then remove power using the normal procedures. Observe the Lockout/Tagout safety procedures.

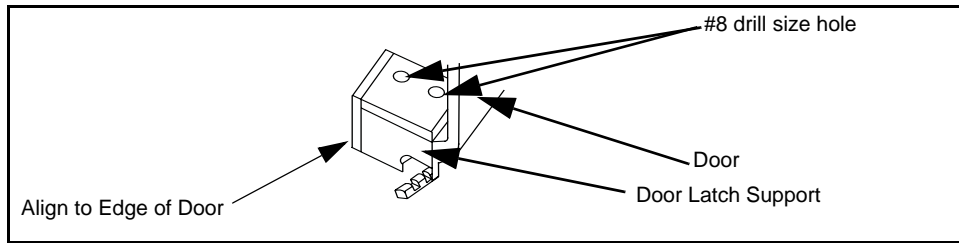
- 2 Using the proper key for the unit, unlock bezel, open the doors, and then remove lower panels from both sides of the unit. Place the lower panels in a safe place to prevent damage or scratches.
- 3 Access the door locking area of the unit and install the Door Latch Security Kit as shown below using the hardware listed in the “[Required Parts](#)” on page 2 (Door Latch Security Kit). See [Figure 7](#).

Figure 7: Door Latch Security Kit





- 4 Attach the latch bracket assembly using the M6 hex flange head screw and nut to the frame, as shown above.
- 5 Loosely attach the door latch support (M05736B001) to the bezel door. See [Figure 7](#).
- 6 Align the edge of the door latch support to the edge of the door. See [Figure 8 on page 16](#).

Figure 8: Door Latch Support



- 7 Using the #8 drill bit and the hole in the door latch support as a guide, mark and drill a hole through the door.

 WARNING	
	Use only a hand or air-operated drill. DO NOT use an electric drill. Flammable fuel or explosive vapor may be present in the area.

- 8 Insert the 8-32 pan head screw from the bottom of the door and attach the 8-32 nut to the top and tighten.

Completing the Installation

To conclude the retrofit process, proceed as follows:

- 1 Once the installation is complete, proceed as follows:
 - Remount lowers panels and doors on both sides.
 - Secure doors with the keys and locks.
 - Secure the lower panels.
- 2 Inform the management/owner that the unit can be returned to service.

This completes the retrofit process.

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