



Introduction

Purpose

This manual provides instructions to install the Lamp Kit (M06227K00X) on the following Atlas® pumps/dispensers:

- Models 8700K/9100K (Mechanical) - M06227K001 Kit
- Models 8800K/9800K (Electronic) - M06227K002 Kit

Required Reading

Before installing the kit, review and follow:

- National Fire Protection Association (NFPA) 30A and the Automotive and Marine Service Station Code.
- NFPA 70® and The National Electrical Code (NEC®).
- Applicable federal, state, and local codes and regulations.

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

Note: These kits must be installed by a Gasboy® Authorized Service Contractor (ASC) to ensure warranty.

Table of Contents

Topic	Page
Introduction	1
Important Safety Information	4
Before You Begin	6
Preparing for Installation	6
Installing Lamp Kit (M06227K00X)	7
Completing Installation	13

Required Tools and Materials

Following tools and materials are required to install the Lamp Kit:

- Open-end Wrench Set
- Phillips® and Flat-blade Screwdrivers
- Pair of Pliers
- Wire Cutter/Stripper

Parts List

M06227K001 Lamp Kit for Atlas 8700K and 9100K Pumps/Dispensers

Following table lists the parts included in the M06227K001 Kit:

Item	Description	Part Number	Quantity
1	Conduit Assembly	021433	1
2	Bushing Assembly	K49827	1
3	Expansion Union	N16289-20	1
4	Driver, Light Emitting Diode (LED) Constant Current	M13929B001	1
5	Light Strip, LED	M13924A001	2
6	Screw, Metric M5 X 8	M00417B020	2
7	Wire Nut	K81105-02	6
8	Tie-wrap	Q10178-02	6
9	Tie-wrap, Black	Q10178-10	4
10	Bracket, LED Driver Mounting	M13930A001	1
11	Nut, Metric Hexagonal (KEPS), M4 X 0.7	Q12885-05	2
12	Mounting Button, Nylon	Q13701-04	4
13	Cable, LED Driver Output Extension	M13980A001	1
14	Cable, LED Strip Interconnect	M13981A001	1
15	Cable Mount, Adhesive	Q13558-04	4

M06227K002 Lamp Kit for Atlas 8800K and 9800K Pumps/Dispensers

Following table lists the parts included in the M06227K002 Kit:

Item	Description	Part Number	Quantity
1	Driver, LED Constant Current	M13929B001	1
2	Light Strip, LED	M13924A001	2
3	Screw, Metric M5 X 8	M00417B020	2
4	Wire Nut	K81105-02	6
5	Tie-wrap	Q10178-02	6
6	Tie-wrap, Black	Q10178-10	4
7	Bracket, LED Driver Mounting	M13930A001	1
8	Nut, Metric Hexagonal (KEPS), M4 X 0.7	Q12885-05	2
9	Mounting Button, Nylon	Q13701-04	4
10	Cable, LED Driver AC Power Extension	M13928A001	1
11	Cable, LED Driver Output Extension	M13980A001	1
12	Cable, LED Strip Interconnect	M13981A001	1
13	Cable Mount, Adhesive	Q13558-04	4

Related Documents

Document Number	Title	GOLDSM Library
MDE-4331	Atlas Fuel Systems Installation Manual	Gasboy Atlas Pumps/Dispensers

Abbreviations and Acronyms

Term	Description
ASC	Authorized Service Contractor
ESD	Electrostatic Discharge
GOLD	Gilbarco [®] Online Documentation
J-box	Junction Box
LED	Light Emitting Diode
NEC	National Electrical Code
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration

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 Gasboy 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 Gasboy Authorized Service Contractor or call the Gasboy Service Center at 1-800-444-5529. 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 Gasboy replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gasboy 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.

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 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

CAUTION



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

Installing the Lamp Kit (M06227K00X) involves AC wiring to the pump/dispenser.

Before you begin, review and ensure that all wiring and conduit requirements listed in *MDE-4331 Atlas Fuel Systems Installation Manual* are followed.

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

- 1 Ensure that all power has been removed from the unit as listed in “[Important Safety Information](#)” on [page 4](#).
- 2 Ensure that the unit is barricaded to prevent customer access as listed in “[Important Safety Information](#)” on [page 4](#).
- 3 Match the parts received in the kit with “[Parts List](#)” on [page 2](#), for the model pump/dispenser to be retrofitted.



WARNING

Failure to turn off the unit during the installation of the kit 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 installation of the kit.

Preparing for Installation

To prepare for the installation, proceed as follows:

- 1 Unlock and remove the front panel.
- 2 Remove the two screws located over the tabs of the bezel assembly. Lift the bezel assembly upward and out to remove.

Note: Save the screws for reassembly of the unit after installation is complete.

If retrofitting an electronic model (8800K or 9800K), loosen and remove the two screws located on the left and right display panel brackets and pivot the display panels down.

Note: Save the screws for reassembly of the unit after installation is complete.

- 3 If the kit is replacing an existing fluorescent light kit, carefully remove the existing fluorescent tubes, ballast, and lamp holders.

Installing Lamp Kit (M06227K00X)

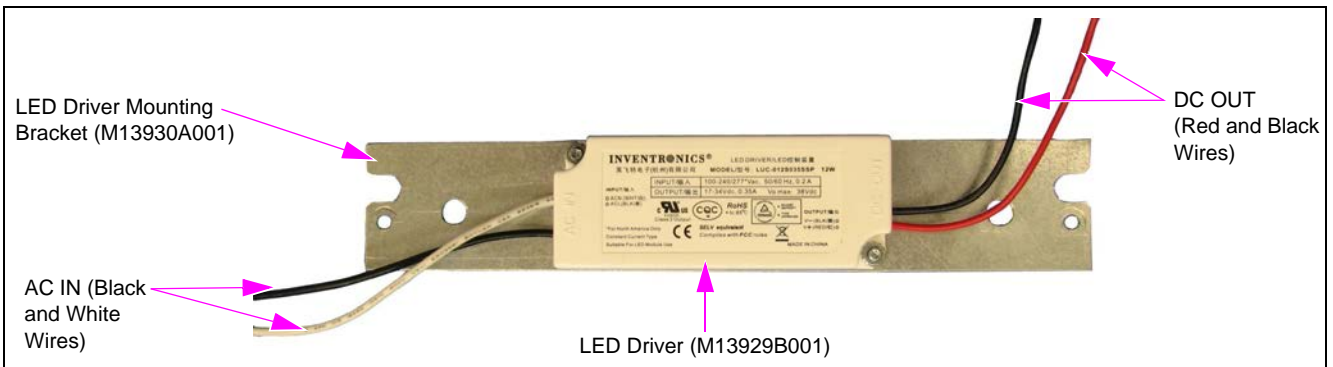
To install the Lamp Kit, proceed as follows:

Installing LED Driver and LED Light Strips

To install the LED Driver (M13929B001) and LED Light Strips (M13924A001), proceed as follows:

- 1 Locate the LED driver, LED Driver Mounting Bracket (M13930A001), and the two Metric Hexagonal (KEPS) M4 X 0.7 Nuts (Q12885-05) supplied in the kit. Attach the LED driver to the mounting bracket using the metric hexagonal (KEPS) M4 X 0.7 nuts as shown in [Figure 1](#).

Figure 1: Attaching LED Driver to LED Driver Mounting Bracket

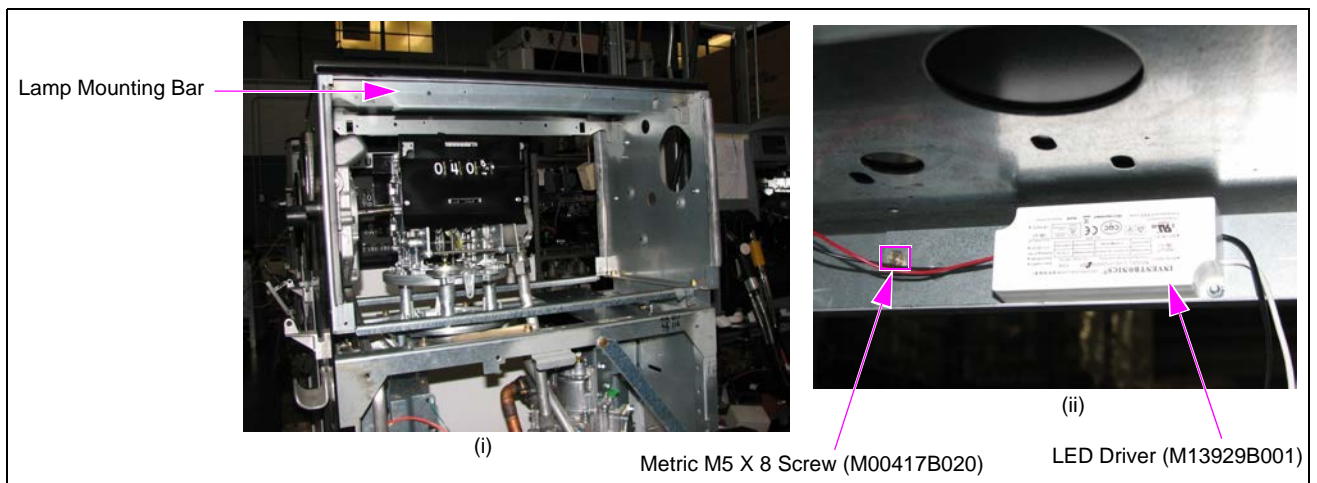


If the kit is being installed into an electronic pump/dispenser (8800K/9800K), locate the LED driver AC Power Extension Cable (M13928A001) and two Wire Nuts (K81105-02). Matching the wire colors, attach the cable to AC IN wires (black and white) on the LED driver using the two wire nuts.

- 2 Using the two Metric M5 X 8 Screws (M00417B020) from the kit, mount the LED driver/bracket assembly on the middle of the back of the lamp mounting bar. Position the assembly so the black and white power wires extend from the right end after the assembly is mounted.

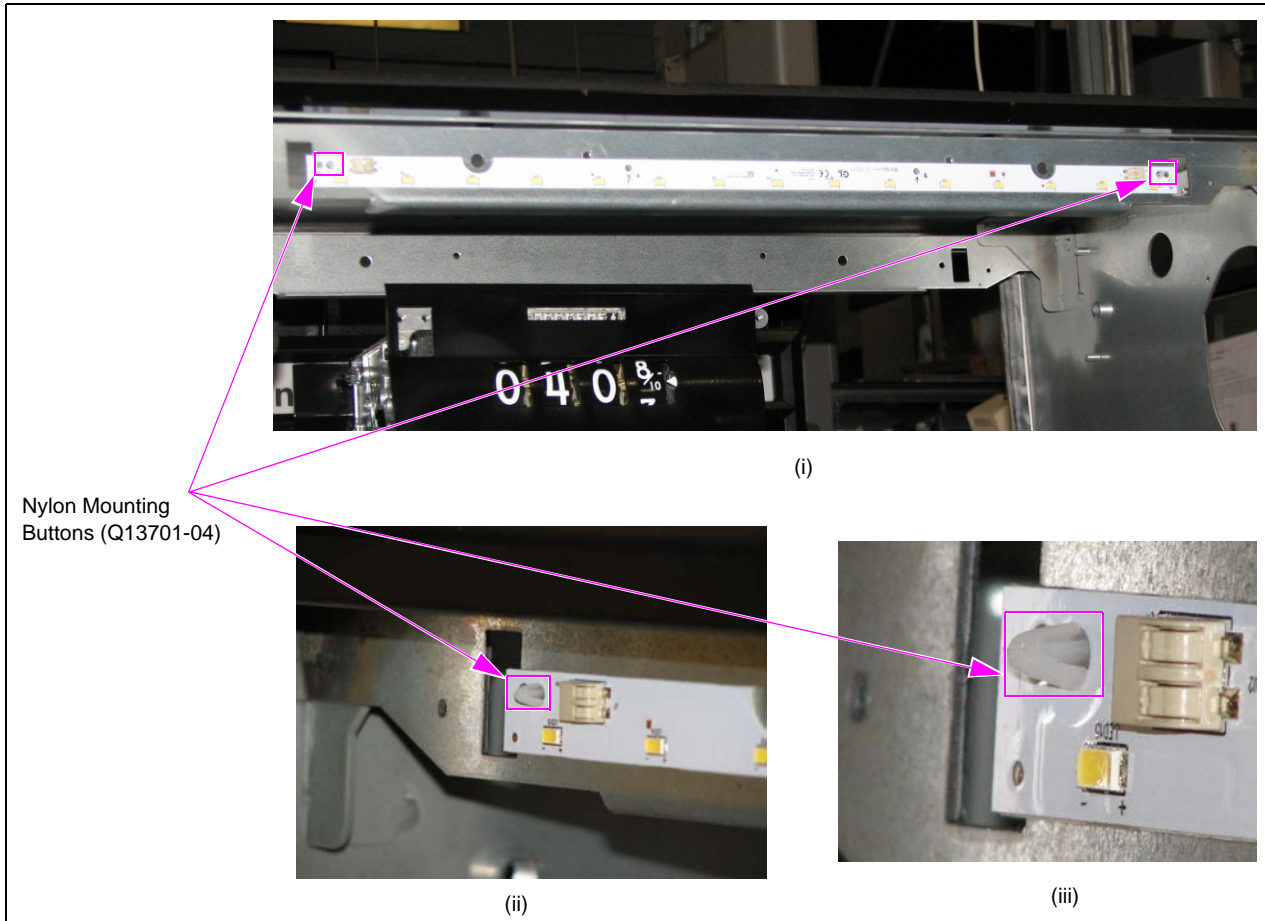
Note: [Figure 2](#) shows a mechanical register. Mounting of LED driver and the LED light strips is the same for both mechanical and electronic register units.

Figure 2: Lamp Mounting Bar (Shown with LED Driver/Bracket Assembly Already Mounted)



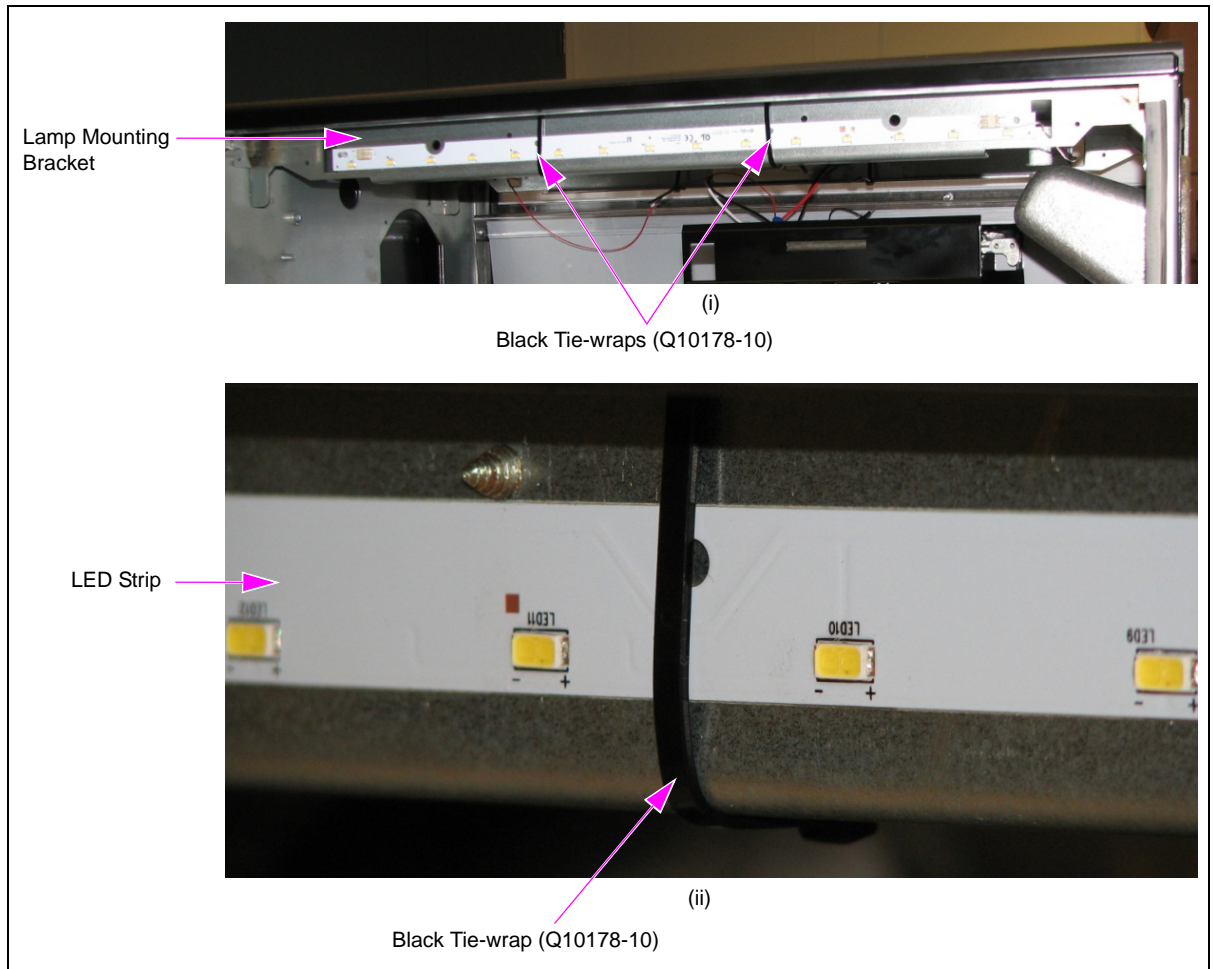
- Using the two Nylon Mounting Buttons (Q13701-04), mount the LED light strip on the front side of the lamp mounting bracket, as shown in Figure 3 (LEDs on the lower side). The mounting button must be inserted from the back side of the lamp mounting bracket, and goes through the LED light strip using the mounting holes close to the J1/J2 connector. Holding the LED strip, push the mounting button into place until it clicks and the strip is fastened securely.

Figure 3: Inserting Nylon Mounting Buttons



- 4 Using the two Tie-wraps [(Q10178-10) about 8 inches long] per side, secure the strip against the lamp mounting bracket. Position the tie-wraps about a third of the way from the ends over the mounting holes in the LED strip as shown in [Figure 4](#). Wrap the tie-wrap around the lamp mounting bracket and LED strip and pull the tie-wraps tight.

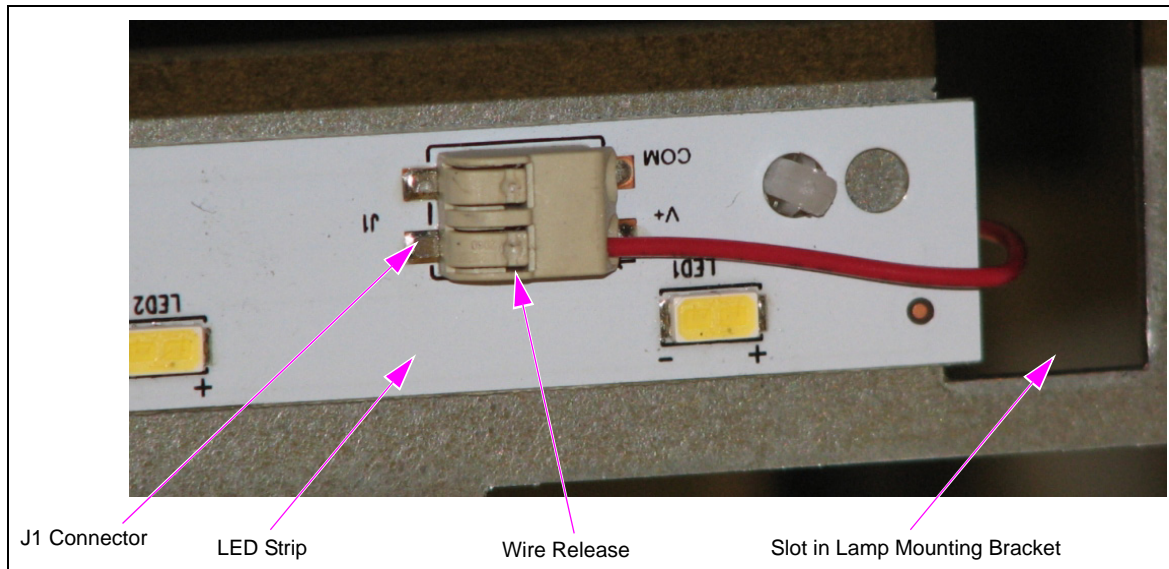
Figure 4: Positioning Tie-wraps



- 5 If mounting two LED light strips, repeat steps 3 on [page 8](#) to 4 for the second strip on the opposite side of the unit.
- 6 Connect the LED Driver Output Extension Cable [M13980A001 (red and black wires)] to the red and black wires on the DC OUT end of the LED driver assembly using the two wire nuts. Ensure to match the wire colors.
- 7 Connect the other end of the red wire to the closest LED strip J1 connector routing the wire through the slot in the lamp mounting bracket and over the edge of the LED strip as shown in [Figure 5](#) on [page 10](#).

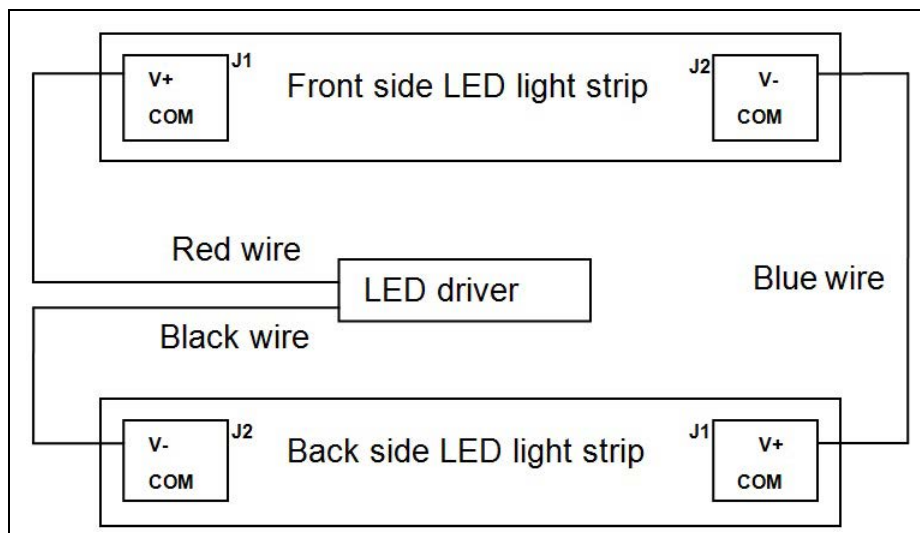
- 8 Insert the red wire into the **V+** input and push the wire into the input firmly until it stops.
Note: If you need to remove the wire, press down on the wire release and pull the wire out.

Figure 5: Inserting Red Wire into V+ Input



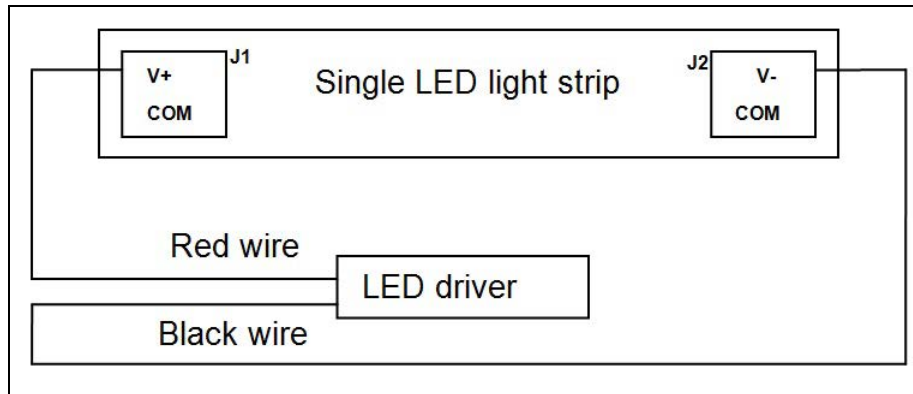
- 9 Connect the black wire to the back side of LED strip J2 connector, routing the wire through the slot in the lamp mounting bracket and over the edge of the LED strip. Insert the end of the black wire into the **V-** input.
- 10 Connect the front side LED strip to the back side LED strip using the LED Strip Interconnect Cable [M13981A001 (blue wire)]. Insert one end of the wire into the **V-** input of the J2 connector on the front side LED strip, routing it through the slots in the lamp mounting brackets, and over the edge of the LED strips. Insert the other end into the **V+** input of the J1 connector on the back side of the LED strip.

Figure 6: LED Strip Wiring - Two Strips



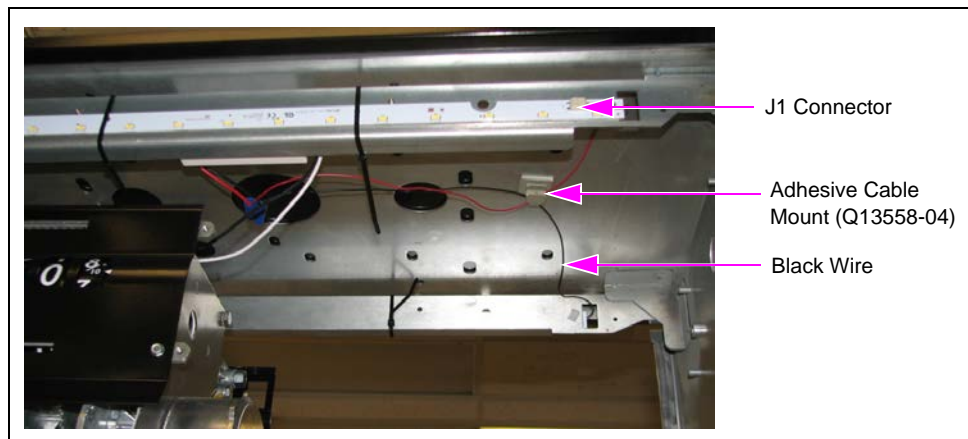
- 11 If only one LED strip is being installed, the black wire from the LED driver connects to the V- input on the J2 connect of the LED strip.

Figure 7: LED Strip Wiring - Single Strip



- 12 Using the Adhesive Cable Mounts (Q13558-04), secure the installed wiring up and out of the way.

Figure 8: Securing the Wiring



For electronic models (8800K/9800K), connect the AC power extension cable P403 connector to the J403 connector of the pump/dispenser main AC conduit assembly.

For mechanical models (8700K/9100K), connect the AC power wires (black and white) from the LED driver to the AC power from the reset assembly (units that have resets fitted for the light option) or the Retrofit Conduit (021433) supplied with the kit. Secure wire connections with wire nuts. For installing the retrofit conduit, refer to [“Installing Retrofit Conduit \(Mechanical Models Only\)”](#) on page 12.

Installing the LED driver and LED light strip is now complete.

If installing the kit in an electronic unit, proceed to [“Completing Installation”](#) on page 13.

Installing Retrofit Conduit (Mechanical Models Only)

To install the Retrofit Conduit (021433) in mechanical models, proceed as follows:

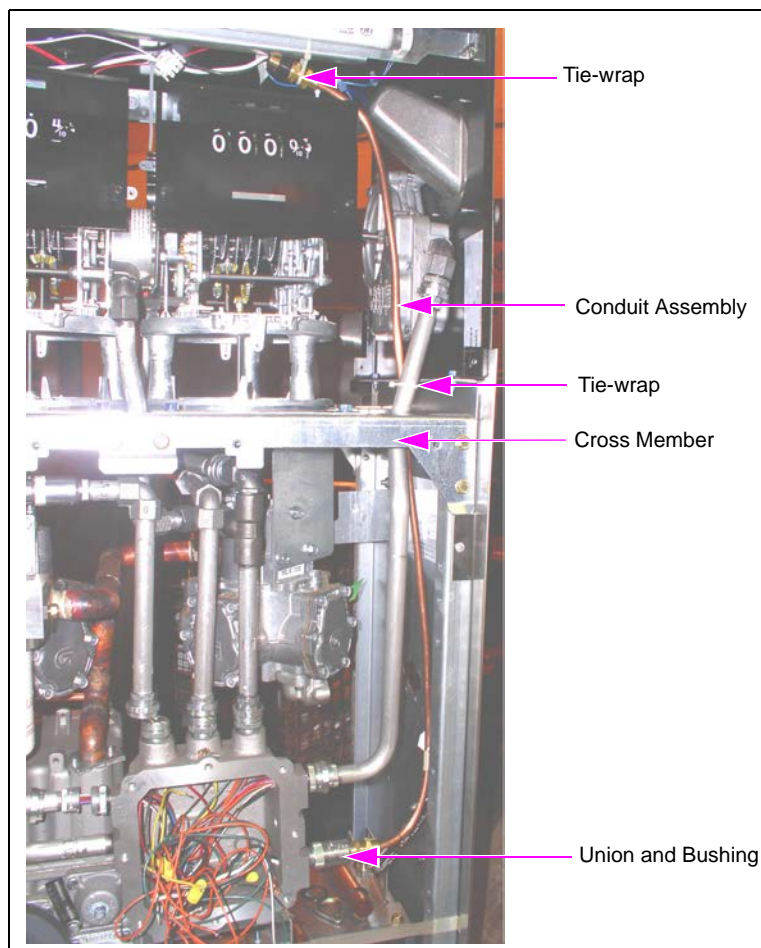
- 1 At the AC Junction Box (J-box), remove the bolts securing the J-box cover and remove the cover.
Note: Save the bolts for reassembly of the unit after the installation is complete.
- 2 Locate the Conduit Assembly (021433), Bushing Assembly (K49827), and the Expansion Union (N16289-20).
- 3 Mount the union to one end of the conduit assembly.
- 4 Mount the bushing assembly in an available opening in the J-box to accommodate the conduit assembly.

CAUTION

Be very careful when bending and shaping the conduit assembly. The tubing is very easily deformed and may kink if bent in too short a radius.

- 5 Install the conduit assembly in the unit by placing the end with the mounted union into the unit above the cross member and feeding down toward the J-box. The tubing must be carefully bent and shaped to allow the union to fit into the bushing mounted to the J-box.

Figure 9: Installing Conduit Assembly



- 6 Connect the union to the bushing on the J-box.
- 7 At the top of the conduit, bend and shape the conduit to accommodate connecting to the black and white wires extending from the AC IN side of the LED driver assembly.
- 8 Using the tie-wraps, secure the conduit to the unit to prevent movement. For typical tie-wrap placement, see [Figure 9](#) on [page 12](#).
- 9 Once the wiring in the J-box is complete, remount the J-box cover and secure with the bolts saved.

Installing the retrofit conduit (mechanical models) is now complete.

Completing Installation

To complete the installation, proceed as follows:

- 1 Complete the wiring to the LIGHT FEED and LIGHT NEUTRAL in the AC J-box. For more information, refer to *MDE-4331 Atlas Fuel Systems Installation Manual* and Atlas wiring diagrams.
- 2 On the electronic model units, secure the display panel in the upright position.
- 3 Attach the bezel. Ensure the bezel is seated properly to ensure a watertight seal.
- 4 Attach and lock the front panel.
- 5 Turn on all the circuit breakers supplying power to the unit.

WARNING

Avoid looking directly at the LEDs when lit. Ensure bezels are in place with brand panel graphics installed before lighting LED strips.

Installing the Lamp Kit in Atlas pumps/dispensers 8700K/9100K (mechanical) and 8800K/9800K (electronic) is now complete.

Atlas® and Gasboy® are registered trademarks of Gasboy International. Gilbarco® is a registered trademark of Gilbarco Inc. GOLDSM is a service mark of Gilbarco Inc. NEC® and NFPA 70® are registered trademarks of the National Fire Protection Association. Phillips® is a registered trademark of Phillips Screw Company.



GASBOY

© 2014 GASBOY

7300 West Friendly Avenue · Post Office Box 22087
Greensboro, North Carolina 27420

Phone (336) 547-5000 · <http://www.gasboy.com>. Printed in the U.S.A..

MDE-4512A Lamp Kit (M06227K00X) Installation Instructions for Atlas® 8700K/9100K and 8800K/9800K · June 2014