



## Introduction

This manual provides instructions to install the Submersible Drive Relay Kit (M05816K00X) for the direct drive of submersible pumps, up to 3/4hp, 120v and up to 1-1/2hp, 240v (not required with external relay box).

## Intended Users

This manual is intended for Gasboy Authorized Service Contractors (ASCs).

## Single and Dual Relay Kits

<b>Kit No.</b>	<b>Description</b>
M05816K001	Single Submersible Drive Relay Kit
M05816K002	Dual Submersible Drive Relay Kit

## Required Reading

Before installing a kit, 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 Gasboy ASC to ensure warranty.*

## Required Tools

- # 2 Phillips® screwdriver
- # 1 Phillips screwdriver

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## Parts List

### Parts List for Single (M05816K001) and Dual (M05816K002) Atlas Submersible Drive Relay Kits

Description	Part Number	M05816K001	M05816K002
		Quantity	Quantity
Cable Assembly, Single Relay	M04956A004	1	-
Cable, Single Relay	M04659A004	1	-
Relay 120/240V 45W 3/4HP	Q11008-01	1	2
Cable Assembly, Dual Relay	M04956A005	-	1
Cable, Dual Relay	M04659A005	-	1
Screw, M4 X 8 Thread Forming	M00417B224	2	4
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# 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 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>	
 	<p>The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser.</p> <p>This means that even if you activate these stops, fuel may continue to flow uncontrolled.</p> <p>You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not only these cashier station "stops."</p>

### Total Electrical Shut-Off Before Access

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

### Evacuation, Barricading and Shut-Off

Any procedures requiring accessing the pump/dispenser or STPs requires the following three actions:



- An evacuation of all unauthorized persons and vehicles using safety tape, cones or barricades to the effected units
- A total electrical shut-off of that unit

## 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

There is applicable information in NFPA 30A; *Automotive and Marine Service Code*, NFPA 70; *National Electrical Code (NEC)*, OSHA regulations and federal, state, and local codes which 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 that follow 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 become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.

**No Open Flames**

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 fuels and their vapors. After getting 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. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working 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 tag out and lock out procedures. If you are not familiar with this requirement, refer to information in the service manual and OSHA documentation.

**Working With Electricity Safely**

Be sure to use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Be sure grounding connections are properly made. Make sure that sealing devices and compounds are in place. Be sure not to pinch wires when replacing covers. Follow OSHA Lock-Out and Tag-Out 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. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

**WARNING**

This area contains a chemical known to the State of California to cause cancer.

**WARNING**

This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**IMPORTANT:** Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

**Emergency First Aid**

**Informing 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. Reference Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

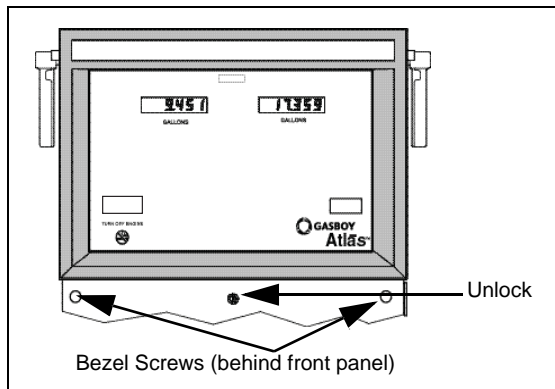
# Installing the Atlas Submersible Drive Relay Kit

## Preparing for the Installation

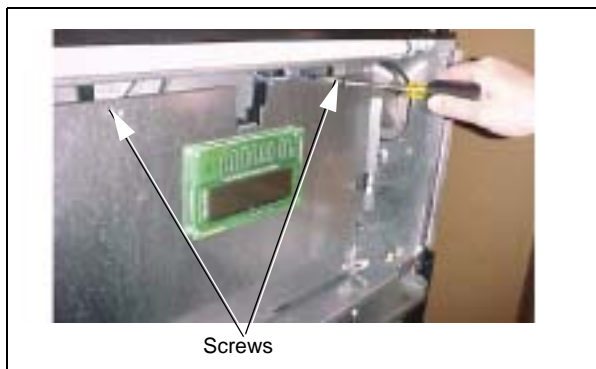
- 1 Request permission from the manager/owner to turn off the circuit breakers for MICRO, LIGHTS and FEED. Perform the lockout/tagout safety procedures.
- 2 Ensure that you have the proper kit for the model unit to be retrofitted.
- 3 Follow all applicable safety rules and procedures.

## Installing the Atlas Submersible Drive Relay Kits

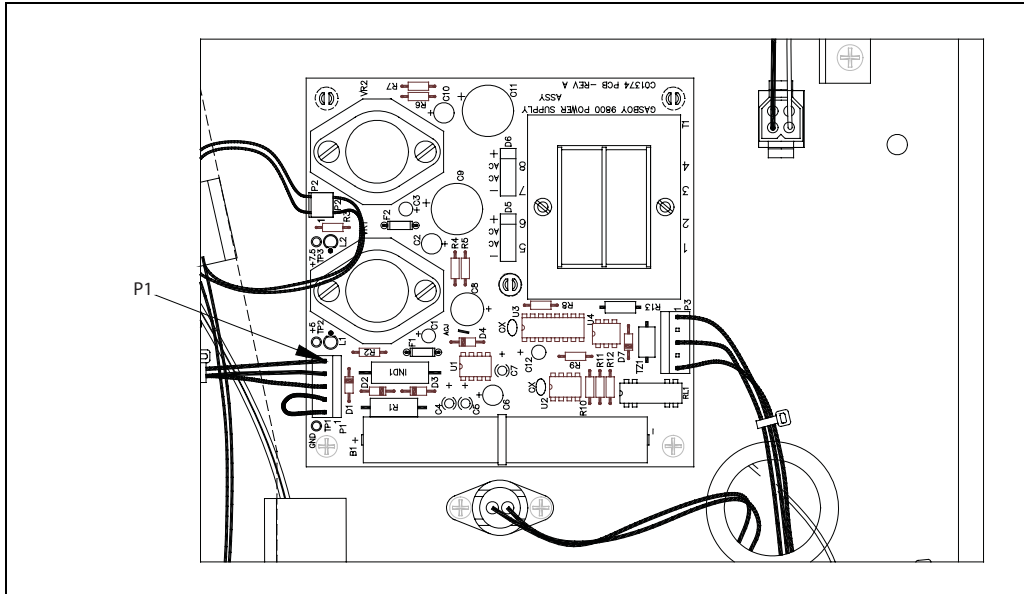
- 1 Unlock and remove the front panel.



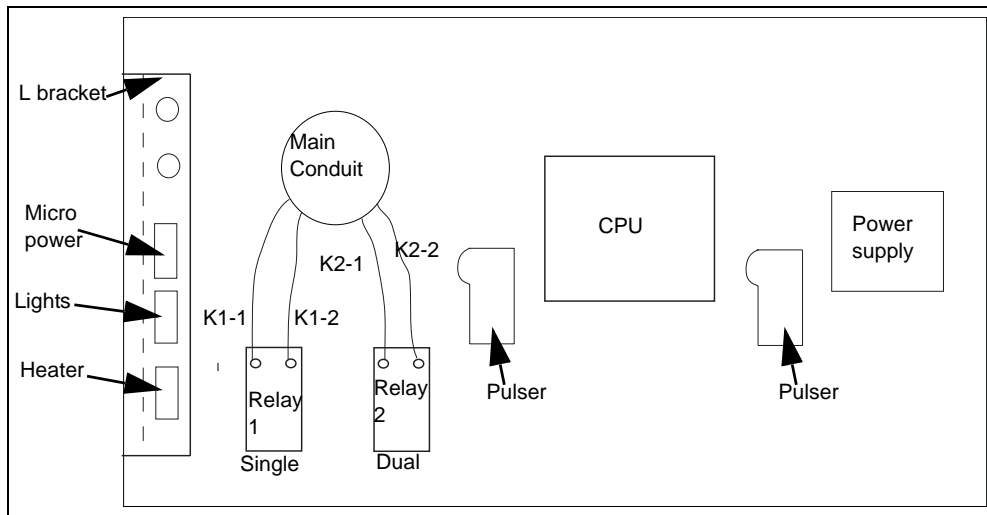
- 2 Remove the two screws securing the bezel assembly and remove the assembly.
- 3 Remove the two screws securing the display panel and pivot display panel down. The unit will swing forward and down after screws are removed.



- 4 Pull the connector off P1 on the power supply. After a few seconds, reconnect P1.



- 5 Attach the relay module to the platform base using M4 screws.



*Note: Single dispensers will use only relay 1, whereas twins will use both relays (1 and 2).*

- 6 Attach the relay cable to P7 of the display CPU board.
- 7 Locate the 14 gauge red and blue wires coming from the AC conduit under the platform (marked K1-1 and K1-2 respectively). Dual dispensers will also use the 14-gauge orange and black wires (marked K2-1 and K2-2 respectively).
- 8 Attach the red wire to screw terminal #1 and the blue wire to screw terminal #2 of relay #1. Attach the orange wire to screw terminal #1 and the black wire to screw terminal #2 of relay #2.
- 9 Complete the wiring between the breaker panel, pump and AC J-Box as shown in FE357B Atlas Pump Retail/Commercial Field Wiring Diagram.

## Completing the Installation

- 1 Reassemble the pump (fasten the display panel in place, install and secure the bezel assembly, and install and lock the front panel).
- 2 Inform the manager/owner that the circuit breakers for MICRO, LIGHTS and FEED will be turned on and then turn them on.
- 3 Remove the lockout/tagout and return to normal operation.

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