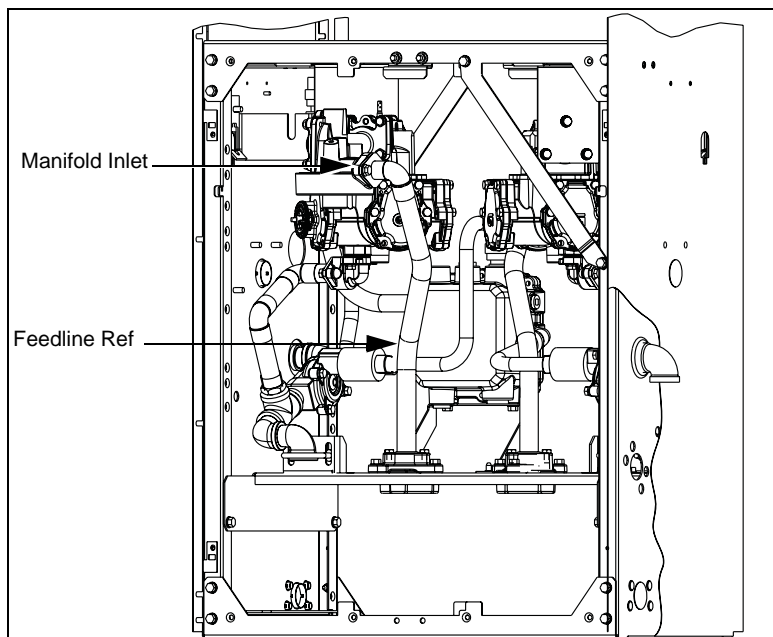


Introduction

This document provides instructions for installing the Atlas™ Hi-Flow Satellite Piping Conversion Kits M06391K001 through K004.

Kit Number	Description
M06391K001	Kit, Atlas Hi-Flow w/Sat Conversion, Single Grade 1 110V
M06391K002	Kit, Atlas Hi-Flow w/Sat Conversion, Dual Grade 1 and Grade 2 110V
M06391K003	Kit, Atlas Hi-Flow w/Sat Conversion, Single Grade 1 220V
M06391K004	Kit, Atlas Hi-Flow w/Sat Conversion, Dual Grade 1 and Grade 2 220V

Figure 1: Atlas Hi-Flow with Satellite Piping Assembly



Intended Users

The intended users of this document are Authorized Service Contractors (ASCs).

Related Documents

The following document contains related information and may be helpful when using this document:

Document Number	Document Name	GOLD Library
MDE-4331	Atlas Installation Manual	Gasboy Commercial & Retail Pumps

Required Tools

- 1-3/4 inch diameter hole cutter
- Metric socket wrench set
- 2 Pipe wrenches or 1 wrench and vise
- Silicone grease

Note: Ensure that you have c

Parts List

The M06391K001, K002, K003 and K004 kits contain the following parts:

Description	Part Number	M06391K001 Quantity	M06391K002 Quantity	M06391K003 Quantity	M06391K004 Quantity
Discharge line assembly	M05677A001	1	2	1	2
O-Ring 1-1/4X1-1/2X1/8	Q10068-09	3	6	3	6
Screw, metric M8 X 16 length	M00415B009	2	4	2	4
Elbow ST 1 X 90 MI	K02321-20	3	6	3	6
Tee pipe 1X1X1	K12630	1	2	1	2
Nipple 1 X 2	R11495-51	1	2	1	2
Nipple 1X1-1/2	R11495-20	1	2	1	2
Grommet discharge-1" pipe	028960	1	2	1	2
Elbow-1" X 90 (paint)	024895	1	2	1	2
Bracket piping support	M05690B001	1	2	1	2
U-Bolt, metric, M8	M00703B002	1	2	1	2
Nut, metric M8 serrated	M00414B003	2	4	2	4
Screw, metric M8 X 18 length	M00417B009	2	4	2	4
Solenoid valve 110 V	067034	1	2	-	-
Solenoid valve 220 V	067036	-	-	1	2
Conduit valve Grade 2	M05680B001	-	1	-	1
Conduit valve Grade 1	M05681B001	1	1	1	1
O-Ring 862 X.103 X.103	N16891-32	1	2	1	2
Fitting discharge	M04624B040	1	2	1	2
O-Ring 1-5/8X1-7/8X1/8	Q10068-14	1	2	1	2
Filter manifold	M04607B005	1	2	1	2
O-Ring 1-1/8X1-3/8X1/8	Q10068-07	1	2	1	2
Strainer insert high capacity	R19457	1	2	1	2
Plug pipe 3/4 square socket	K57624	1	-	1	-

Description	Part Number	M06391K001 Quantity	M06391K002 Quantity	M06391K003 Quantity	M06391K004 Quantity
Reducers bush faced 3/4x1/2	K49827	-	1	-	1
Elbow, conduit 1/2X90 M & F	K42448	1	2	1	2
Union conduit M&F 1/2	Q10016-04	1	2	1	2
Plug cap plastic	Q10554-21	1	2	1	2
Atlas Hi-Flow Conversion Kits Installation Instructions	MDE-4514	1	1	1	1

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).

⚠ 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 only these cashier station "stops."

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 - This signal word is used to alert you to a hazard to unsafe practice which will result in death or serious injury



WARNING - This alerts you to a hazard or unsafe practice that could result in death or serious injury.



CAUTION with Alert symbol - This signal word designates a hazard or unsafe practice which may result in minor injury.

CAUTION without Alert symbol - When used by itself, CAUTION 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 for 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 Atlas Hi-Flow Satellite Conversion Kits M06391K001, K002, K003 and K004

To install Atlas Hi-flow with the Satellite conversion kit, proceed as follows:

Preparing for the Installation

CAUTION

Bleed pressure prior to disassembly and wear proper eye protection.

- 1 Close and test shear valves. Run the unit to bleed off pressure and drain the fuel into an approved container.
- 2 Request permission from the manager/owner to remove power from the unit and then remove power using normal procedures. Perform the lockout/tagout safety procedures.
- 3 Ensure that you have the proper kit for the model dispenser to be retrofitted.
- 4 Follow all applicable safety rules and procedures.

Installing the Conversion Kits (M0639K00X)

Removing the Existing Solenoid Valve and Discharge Line



- 1 Remove the exterior discharge fitting and any grommet. Residual pressure may exist. Wear eye protection.



- 2 Remove and retain the two screws holding the discharge casting to the bottom of the meter. Remove the discharge casting and the attached discharge piping. Collect fuel in an approved container, clean up any spills and dispose properly.

- 3 Disconnect the solenoid valve wiring in the junction box. Mark the connections in the junction box for all wires connected to the solenoid valve, so that the valve replacement can easily be connected to the correct wires.

- 4 Disconnect the feedline from the solenoid valve/filter manifold on the meter. Disconnect the valve conduit union.



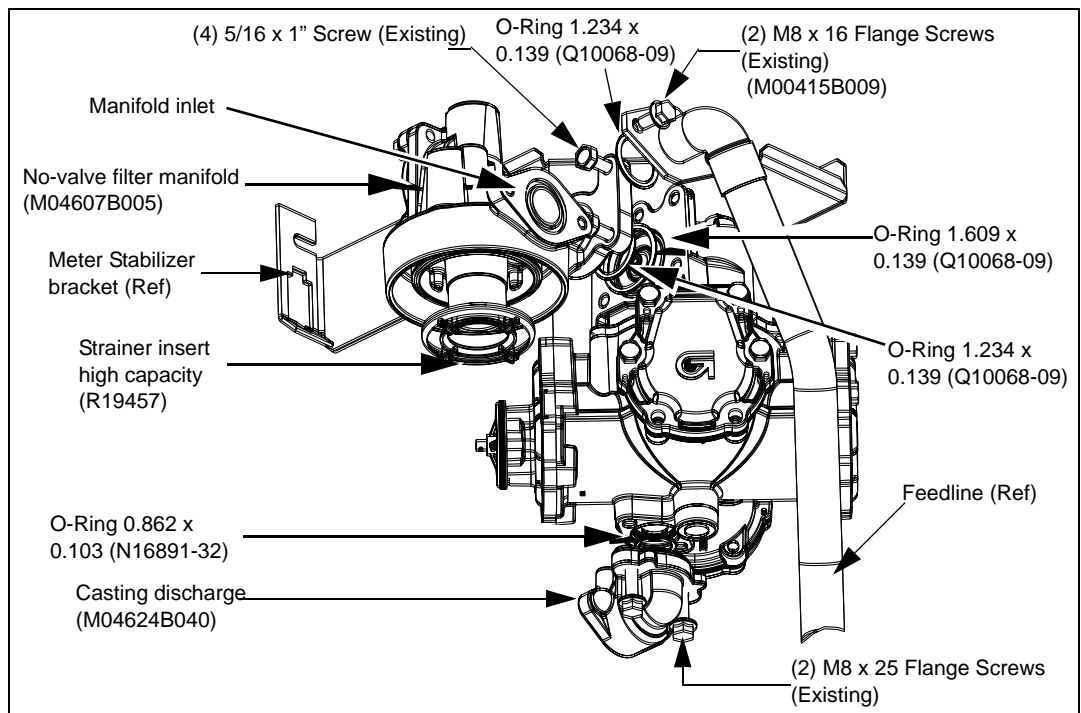
- 5 Loosen but do not remove the nut holding the meter stabilizer bracket to the frame so that the bracket can be maneuvered to permit removal of the valve/filter manifold. Remove the solenoid valve/filter manifold from the meter and pull the coil wires through the conduit. Retain the mounting hardware.

Mounting the No-Valve Filter Manifold and Meter Discharge Fitting

See [Figure 2](#).

- 1 Insert the filter strainer (R19457) into the no-valve filter manifold (M04607B005) from the kit. Push the strainer fully into the cavity so that it does not interfere with the filter boss threads.
- 2 Ensure that the meter check valve is still in place in the meter inlet, and grease the O-Rings and insert them into the grooves in the meter inlet and in the no-valve filter manifold discharge flange. Attach the flange to the meter inlet and replace the two screws on the right. Reposition the meter stabilizer bracket to the back side of the manifold flange and replace the two screws on the left. Tighten all four screws. Tighten the meter stabilizer bracket nut against the frame.

Figure 2: No-Valve Filter Manifold and Meter Discharge Fitting



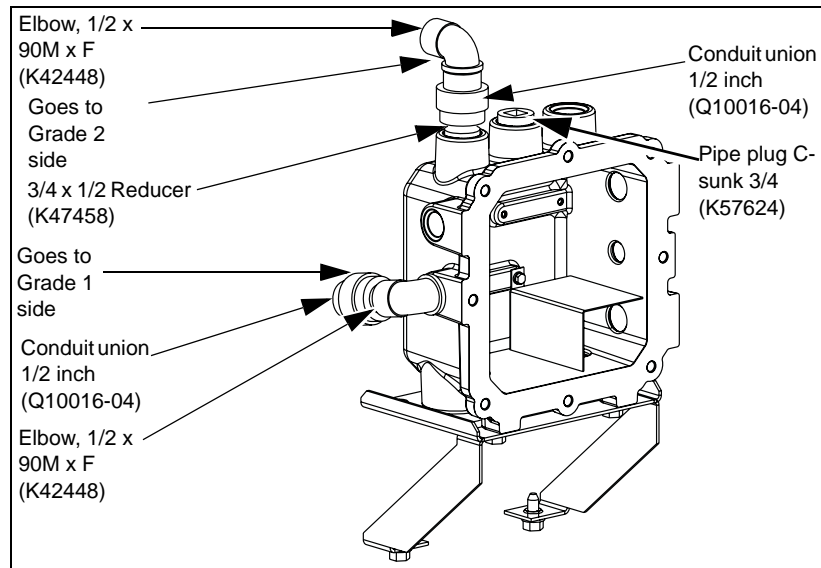
- 3 Insert the feedline O-Ring into the manifold inlet and lightly grease to retain and attach the feedline. Insert and tighten the two screws.
- 4 Lightly grease the meter discharge O-Ring and insert it into the groove in the meter discharge. Ensure that the O-Ring is fully seated in the groove and is not offset by the O-Ring retainer tabs in the meter discharge.
- 5 Attach the meter discharge casting to the meter discharge and insert the two screws and tighten them.

Modifying the Junction Box

See [Figure 3](#).

- 1 Remove all conduits and fittings associated with the old solenoid valves.
- 2 Add the new fittings.

Figure 3: Modifying the Junction Box

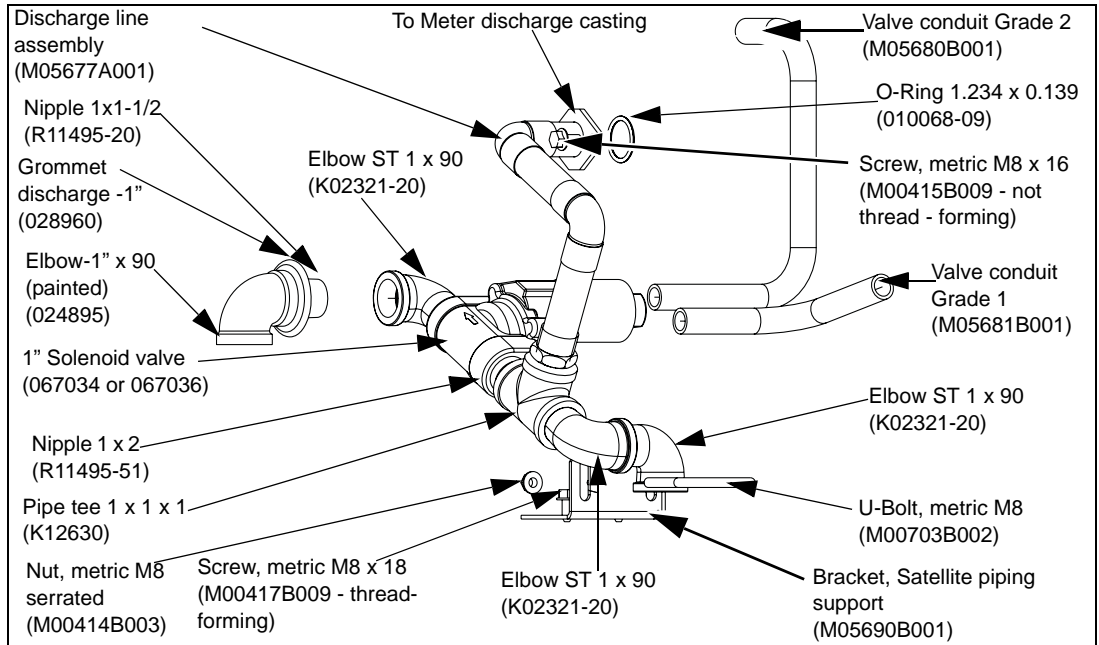


Discharge Line Assembly

See [Figure 4](#).

Note: In this assembly, you will assemble all parts in [Figure 4](#) except the 1 x 1-1/2 Nipple, Discharge Grommet and Painted elbow.

Figure 4: Discharge Line Assembly



- Assemble the following parts as shown in [Figure 4](#) using pipe sealant on the male threads:
 - 1 inch Solenoid valve
 - Nipple 1x2
 - Pipe tee 1x1x1
 - Elbow ST 1x90
 - Discharge line assembly

CAUTION

Use a pipe sealant approved for use with fuels. **DO NOT USE TEFLON TAPE.**

- Depending on whether you are assembling the discharge for Grade 1 or Grade 2, route solenoid coil wires through the appropriate conduit (refer to [Figure 4](#)). Grade 1 is on the left when facing the junction box.
- Lightly grease the O-Ring and insert it into the groove on the meter discharge casting (refer to [Figure 2 on page 7](#)). Attach the flange on the copper tube assembly ([Figure 4](#)) to the meter discharge flange and insert two M8 x 16 screws and tighten them.

CAUTION

Ensure that you select the M00415B009 screws, not the M00417B009 thread formers or the threads will be damaged.

- 4 Route the valve coil wires into the junction box. Attach the conduit to the fitting in the junction box and tighten them.
- 5 Check discharge piping alignment and adjust as needed. Attach the satellite piping support bracket ([Figure 4](#)) to the dispenser inlet support plate, insert and tighten the two M8 thread forming screws.
- 6 Insert the U-bolt ([Figure 4](#)) around the pipe elbow and through the slots on the support bracket. Attach two nuts and tighten all fasteners.
- 7 Stuff a clean rag into the elbow on the top end of the discharge line and proceed to “[Modifying the Side Sheathing for the Discharge](#)” on [page 10](#).

Modifying the Side Sheathing for the Discharge

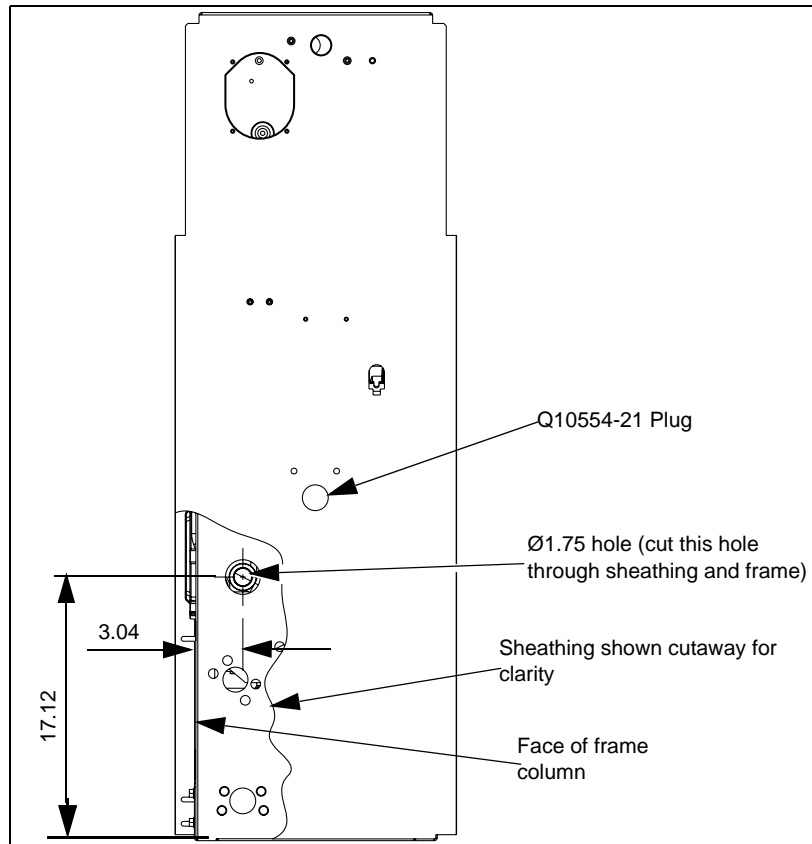
See [Figure 5](#) on [page 11](#).

WARNING

The use of power tools or any means to cut the sheathing hole (step [3](#)) with flammable fuels or vapors present is hazardous and can result in fire or explosion causing serious injury or death.

Remove the sheathing from the unit and transport to a safe distance from potentially hazardous locations to cut the sheathing hole.

- 1 Mark the location of the discharge elbow on the side sheathing as shown in [Figure 5](#) on [page 11](#). Check the dimensions against the location of the discharge elbow in the assembly to ensure that the marked location is correct. Adjust the mark, if necessary.
- 2 Remove the sheathing from the unit.

Figure 5: Frame Modification (Dimensions are in inches)

- 3 Using a 1-3/4 inch diameter cutter, cut a hole through the sheathing so the discharge can protrude through when completed. Deburr the hole on the sheathing.
- 4 Reassemble the sheathing to the unit.
- 5 Assemble the black painted elbow (Figure 4 on page 9) and the 1 x 1-1/2 inch nipple. Insert the grommet (Figure 4 on page 9) over the nipple. The elbow should point down.
- 6 Remove the rag from the elbow in the discharge assembly. Insert the nipple from the assembly made in step 5 through the hole cut in the frame and screw it into the discharge elbow on the assembly. Tighten the nipple. Use UL approved sealant suitable for use with the fuel involved.

Note: If a Grade 2 exists, repeat all the steps from “Removing the Existing Solenoid Valve and Discharge Line” on page 6 till step 6 in this procedure.

- 7 Rewire the solenoid valves in the junction box.
- 8 Connect the satellite piping to the elbow on the lower end of the assembly.
- 9 Insert Q10554-21 (1-3/4 inches diameter) plastic plug into the hole where the previous discharge exited the unit.

Completing the Installation

- 1 Replace the junction box cover.
- 2 If the unit is modified on the island, inform the manager/owner that power will be restored to the unit and then restore power using normal procedures. Purge the unit of air.
- 3 Check for leaks.
- 4 Release the emergency shutoff valve.
- 5 Remove the lockout/tagout and return to normal operation.



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