



## **Series 9120Q Compact Commercial Pumps**

# **Installation/Operation Manual**

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Part number: 035092

**March 2004**

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**GASBOY INTERNATIONAL LLC  
LANSDALE, PA**

**INSTALLERS - IMPORTANT**

**In addition to installation information, this manual contains warnings, safeguards and procedures on the use and care of the Series 9120Q pumps. Please leave this manual with the pump owner after the installation is complete.**

# IMPORTANT WARNINGS AND SAFEGUARDS

**Gasoline and petroleum products are flammable. To avoid injury or death to persons or damage to equipment or property, follow these listed warnings and other warnings and precautions outlined in this manual when installing, using, or working around this equipment. Check with GASBOY Technical Services for compatibility of liquids with pump materials.**

## **TURN OFF AND LOCK OUT ALL POWER TO PUMP BEFORE PERFORMING SERVICE, MAINTENANCE OR IN THE EVENT OF A FUEL SPILL.**

All products must be installed by a qualified installer and used in conformance with all building, fire, and environmental codes and other safety requirements applicable to its installation and use, including, but not limited to, NFPA 30, NFPA 30A, NFPA 395 & NFPA 70. A qualified installer is familiar with fuel systems installations under the above stated building, fire, and environmental codes and other safety requirements for the particular type of installation.

This product is only part of a fuel dispensing system and additional equipment and accessories, such as, but not limited to, breakaway connectors, shear valves, pressure regulators, flow limiters, and other safety devices may be necessary to meet the applicable codes.

For maximum safety, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system. Instructions regarding proper operation of the equipment along with the appropriate safety warnings should be posted in plain view at the fuel island.

Before performing service or maintenance (including changing of fuel filters or strainers) or in the event of a fuel spill, turn off and lock out all power to the system. In battery-powered pumps, disconnect power source. In submersible pump applications, turn off and lock out power at the master panel and close any impact valves to the submersible pump and any other dispensers which use that submersible pump. AC power can feed back into a shut-off dispenser when dispensers share a common submersible pump or starter relay. Also block islands so no vehicles can pull up to the dispenser when the dispenser is being worked on.

**DO NOT** use Teflon tape for any pipe threads in the product.

**DO NOT** use consumer pumps for pumping fuel or additives into aircraft.

**DO NOT** use commercial pumps for direct fueling of aircraft without filters and separators necessary to ensure product purity.

**DO NOT** use where sanitary design is required (for food products for human consumption) or with water-based liquids.

**DO NOT** smoke near the pump or when using the pump.

**DO NOT** use near open flame or electrical equipment which may ignite fumes.

**DO NOT** permit the dispensing of gasoline or other petroleum products into a vehicle with its motor running.

**DO NOT** permit the dispensing of gasoline or other petroleum products into unapproved containers or into approved containers in or on vehicles including trucks. All containers must be filled on the ground to prevent static discharge. Always use Approved and Listed hoses and nozzles with electric pumps and dispensers.

**DO NOT** block open the nozzle in any manner. Nozzles shall conform to UL and NFPA code requirements for attended or unattended service.

**DO** ensure that the pump is equipped with proper filters based on the product being dispensed and its intended use.

**DO** wear safety goggles and protective clothes when dispensing any liquid which may be potentially harmful or hazardous.

**DO** keep all parts of body and loose clothing clear of belts, pulleys, and other exposed moving parts at all times.

**DO** require washing and changing of clothes if fuel is spilled on a person or his/her clothing. Keep away from open flames, sparks, or people smoking.

**DO** provide a receptacle for catching product from pump/meter when servicing.

**DO** clean up product spills on the driveway. Turn off and lock out all power prior to cleanup.

**DO** insure pump is properly grounded.

**DO** insure hose is compatible with fluid being dispensed.

**DO** inspect hose, nozzle, and pump on a regular basis for wear, damage, or other conditions which may create a safety or environmental hazard.

**DO** make sure all pipe threads are properly cut and the inside reamed to remove burrs. Use UL classified gasoline-resisting compound on all joints of gasoline handling piping. Sealing compound must also be resistant to Gasohol (Ethanol and Methanol). Use gasoline-resistant pipe compound on male threads only; pipe compound used on female threads can be squeezed into the supply line where it can enter the product stream and become lodged in the pump or meter.

**DO** ensure that junction box covers are in place and properly tightened. Mating surfaces between the box and cover must be free of dirt, nicks, and scratches. All unused entries into the junction box must be properly plugged



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# 1. Introduction

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## Purpose

The GASBOY Series 9120Q Compact Commercial Pumps Installation/Operation Manual is provided to assist the installer in installing and operating the unit. This manual should be supplied to the electrician prior to the installation of conduit and wiring to ensure the unit is installed properly. Faulty installations are the major cause of unit malfunctions. The unit must be installed and operated as described in this manual to ensure the reliability and proper operation of the Series 9120Q unit. In addition to installation information, this manual contains warnings, safeguards and procedures on the use and care of the Series 9120Q pumps. Be sure to leave this manual with the pump owner after the installation is complete.



**Customers and installers having any questions pertaining to the installation should contact their GASBOY distributor.**

## General Description

The GASBOY Series 9120Q pump units are UL-listed. They are available in standard speed (up to 15 GPM), Model 9122Q, or in high speed (up to 22 GPM), Model 9123Q. The delivery rate varies depending upon installation conditions and added accessories.

*NOTE: NFPA regulations do not allow tank-mounted pumps to be used for the resale of fuel.*

Models 9122Q and 9123Q offer four wheel mechanical interlock registers. Mechanical pump registers show the total volume for a delivery up to 999.9 gallons.

Other features and specifications of the Series 9120Q pumps are:

- Discharge elbows.
- A twelve foot length of hose.
- A working voltage of 115/230VAC, 60 Hz.
- Mechanical volume totalizer.
- A switch detect and optional pulser outputs which allow monitoring of the register's operation when it is connected to an automated fuel management system.
- Four piston, positive displacement meter
- Belt-driven, positive displacement rotary vane pump with an 80 mesh (300 micron) strainer and integral air-separation.
- The height of the cabinet is 22-1/8". The other dimensions may be found on the base layout.
- The standard cabinet finish is top, sides, and bezel painted black while the front and back panels are painted white.
- Available options and accessories for the GASBOY Series 9120Q include Interchangeable Automatic Nozzles, Pulsers, Special Lengths of Hose, Filters, Vapor Recovery System, and Front and Back Pump Panels painted to the color specified by the customer.





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## 2. Installation

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### Installation Precautions

All installations must conform with all building/fire codes, all Federal, State, and Local codes, National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.

Plan your installation carefully. A pump cannot be expected to work satisfactorily unless the underground installation is correct. Dispensing troubles, which seem to be pump-related, are frequently traced to faulty installation. Review the following list of installation **DO's** and **DON'T's** to avoid potential problems:

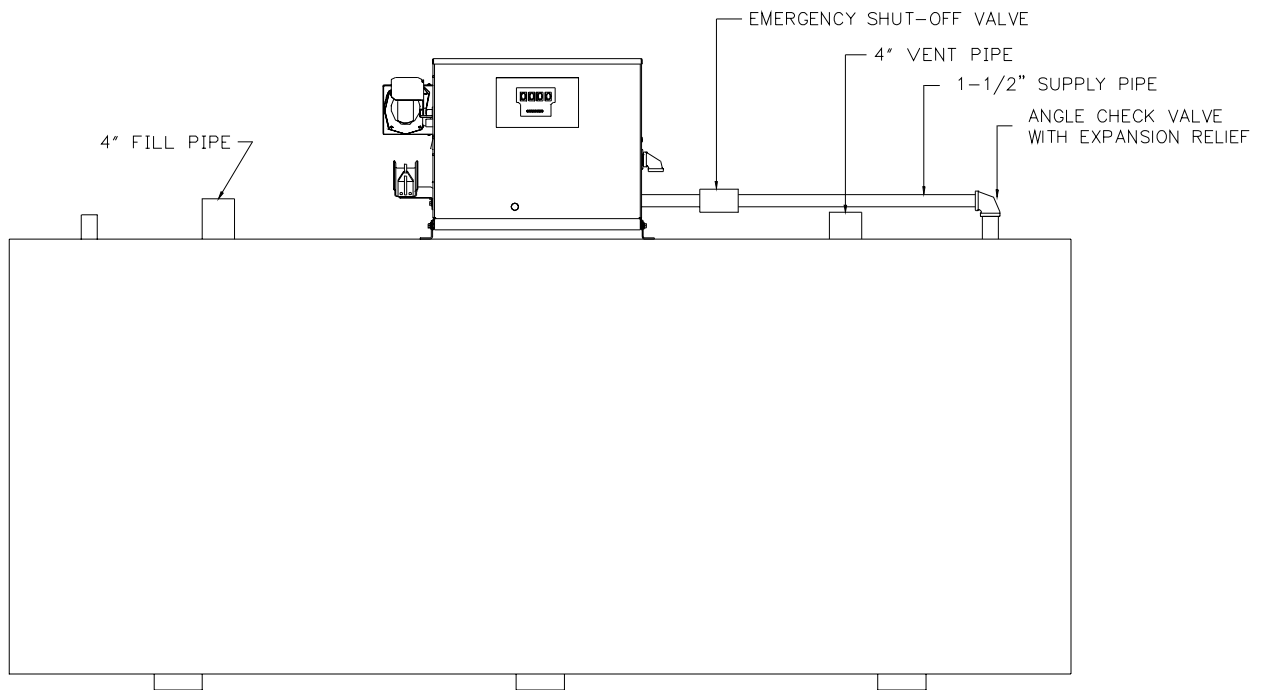
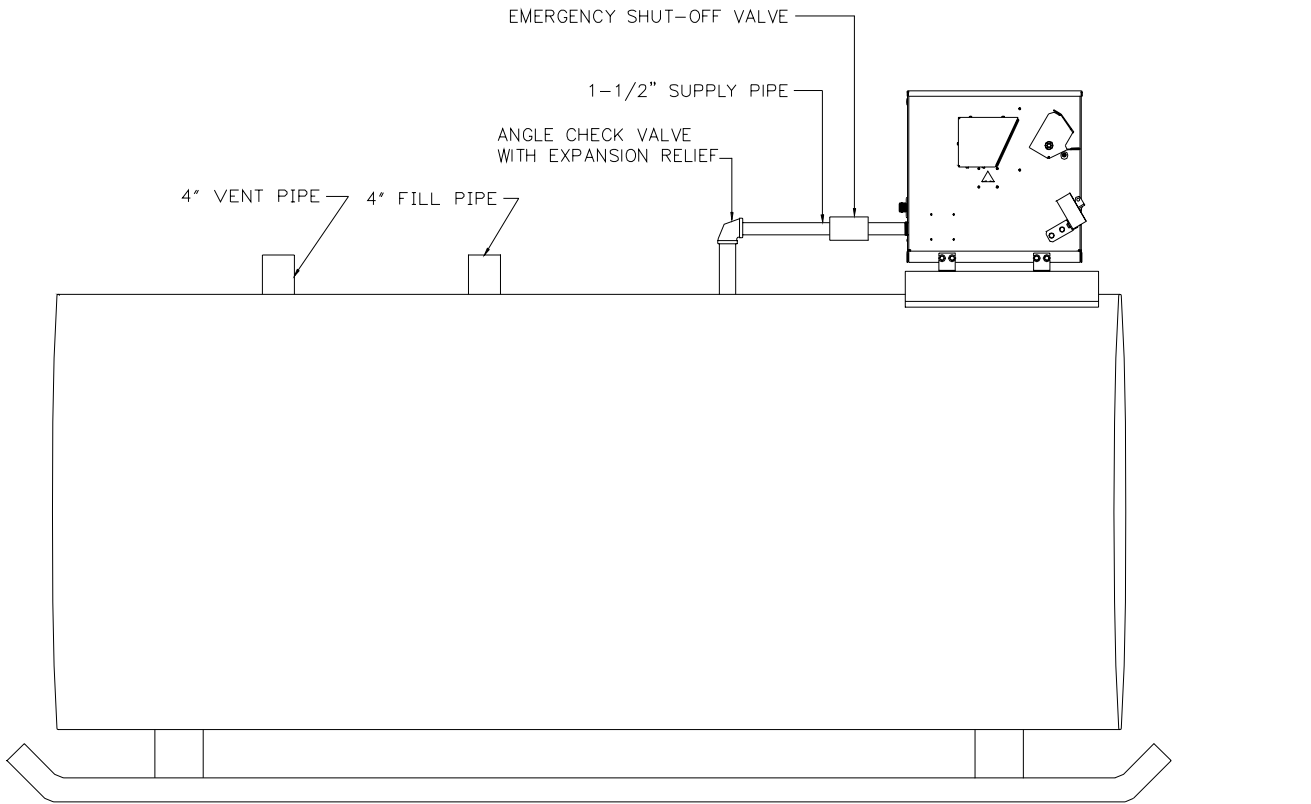
1. **DO** read the **WARNINGS** page at the front of this manual, preceding the Table of Contents. It contains important information regarding the safe use of your dispensing equipment.
2. **DO** install an emergency power cutoff. In addition to circuit breaker requirements of NFPA 70 and NFPA 30A, a single control which simultaneously removes AC power from all site dispensing equipment is recommended. This control must be readily accessible, clearly labeled, and in accordance with all local codes.

In a fuel management system application, the **DISABLE PUMPS** and **STOP** keys on the console and/or the optional **DISABLE PUMPS** button on the Island Card Reader do not remove AC power from equipment and under certain conditions, will not stop product flow.

In order to provide the highest level of safety to you, your employees, and customers, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system.

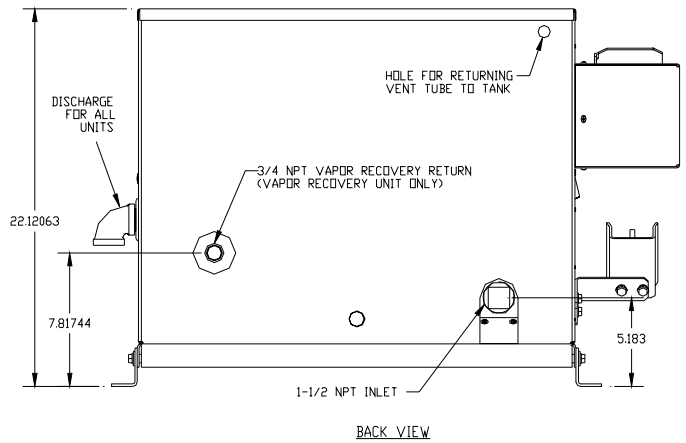
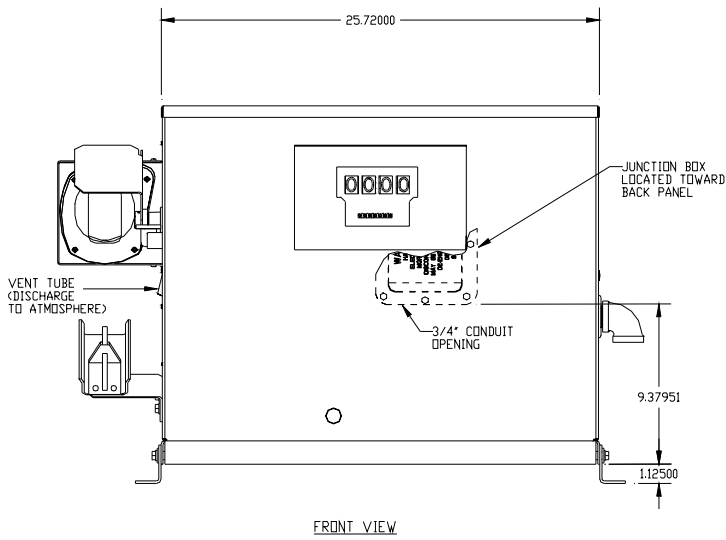
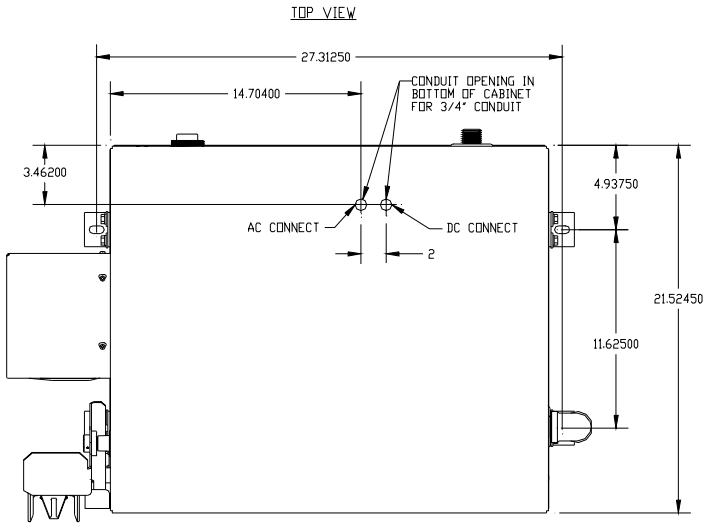
3. **DO** have the pump/remote dispenser installed by a competent installer/electrician.
4. **DO** install breakaway coupling on discharge hose. If using a high hose retriever, install breakaway approximately 12" downstream of hose clamp on nozzle side of clamp.
5. **DO** install emergency shut-off valve on supply pipe.
6. **DO NOT** experiment with a pump if you are not sure the installation is correct.
7. **DO NOT** overload sub- or main breaker panels.
8. **DO NOT** use power line wiring of inadequate capacity. (Use gauge specified by the wiring diagram or wire chart provided in Section 4).
9. **DO NOT** use a circuit breaker of improper size. (See Section 4).
10. **DO NOT** use the GASBOY fuel dispensing equipment to remove water ballast from the storage tank.
11. **DO NOT** use gaskets on covers of explosion-proof type boxes. The sealing compound found around wires at various locations within conduit is a requirement of the National Electrical Code and should not be disturbed. Ensure that the mating surfaces between the junction box and cover are free of dirt, debris, nicks and scratches. Tighten junction box covers before replacing panels.
12. **DO NOT** use knock-out boxes or flexible conduit for installing this unit. All power and lighting wires should be run in threaded, rigid, metal conduit. All threaded connections must be drawn up tight. All but one opening in the power junction box are provided with plugs at the factory. At completion of the installation, it is the installer's responsibility to ensure that any unused openings are plugged.

# Typical Installation



# 011932 Base Layout

Models: 9122Q, 9123Q





## 3. Control Lines

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### Purpose

This section is provided to familiarize the installer with the control inputs and outputs that are available for the Series 9120Q. It is recommended the installer read these descriptions to obtain a better working knowledge of the unit in order to guide him in planning the site wiring. Reference Section 4 for a specific wiring diagram and installation notes.

### Grounding

To ensure proper operation of the equipment and provide the necessary safety factors, a good ground line must be provided. A ground wire (preferably green) must be connected between the unit's AC junction box ground lug and the main electrical service panel. One (1) earth ground connection is required per unit. The ground rod is to be a solid corrosion-resistant conductor and must be installed at the main electrical panel in accordance with the National Electrical Code. It should be properly tied into the ground bus strip of the panel. We recommend the neutral and ground bus strips be bonded together (unless prohibited by local codes).

### Pump Motor Feed

The pump motor feed is a 115VAC input which is supplied to the pump motor. The gauge of this wire (and its neutral wire) should be determined according to the size of the motor, the voltage at which the motor will be powered (115VAC or 230VAC), and the distance from the breaker panel to the pump.

### Neutral Feed

The neutral feed is the AC current return line back to the breaker panel for all attached devices. The gauge of this wire should be equal to that of the pump motor feed.

### Switch Detect

Switch detect is a 115VAC output which is used to indicate the reset is complete and the compact commercial pump unit is ready to dispense product. It should only be used when monitoring of the pump unit is desired (as when used with a fuel management system). This line is active when the motor is turned on and comes up to speed. It must be capped when not in use.

### Phase 2 Feed

The phase 2 feed is a hot feed which is the opposite phase of the pump motor feed. This line and the pump motor feed are used for 230VAC motor applications.

### Pulser

The pulser supplies a DC output which is provided to indicate the quantity dispensed. Pulsers are optional and are only used when monitoring of the pump unit operation is desired (as when used with a fuel management system).



## 4. Wiring



Customers and installers having any questions pertaining to the installation should contact their GASBOY distributor.

### Wiring Precautions

The quality of the electrical installation is a major factor in maintaining proper safety levels and providing trouble-free operation of your GASBOY pump/remote dispenser. To assure a quality installation, follow these rules:

1. All wiring must be installed to conform with all building/fire codes, all Federal, State, and Local codes, National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.
2. Use only threaded, rigid, metal conduit.
3. Use only UL-approved insulated gasoline- and oil-resistant stranded copper wiring of the proper size.
4. Wire connections should be tightly spliced and secured with a wire nut; close off the open end of the wire nut with electrical tape.
5. The line to the motor should be on a separate circuit and installed on a 20 to 30 AMP breaker depending on the motor size and/or the voltage setting.
6. Install an emergency power cutoff. In addition to circuit breaker requirements of NFPA 70 and NFPA 30A, a single control which simultaneously removes AC power from all site dispensing equipment is recommended. This control must be readily accessible, clearly labeled, and in accordance with all local codes.

In a fuel management system application, the DISABLE PUMPS and STOP keys on the console and/or the optional DISABLE PUMPS button on the Island Card Reader do not remove AC power from equipment and under certain conditions, will not stop product flow.

In order to provide the highest level of safety to you, your employees, and customers, we recommend that all employees be trained as to the location and procedure for turning off power to the entire system.

**WARNING:**

*To reduce the risk of electrical shock when servicing, turn off all power to the pump.*

## Grounding

To ensure proper operation of the equipment and provide the necessary safety factors, this unit must be grounded. A ground wire (preferably green) must be connected between the unit's AC junction box ground lug and the main electrical service panel. One (1) earth ground connection is required per unit. The ground rod is to be a solid corrosion-resistant conductor and must be installed at the main electrical panel in accordance with the National Electrical Code. It should be properly tied into the ground bus strip of the panel. We recommend the neutral and ground bus strips be bonded together (unless prohibited by local codes).

## Circuit Breakers

Power to the unit should be supplied from a dedicated breaker. No other equipment should be powered from this breaker. A tag on the motor identifies the maximum current draw of the motor. If two (2) pumps are supplied from one breaker, that breaker must be capable of handling the load of both motors. Provisions must be made to break both legs of any AC circuit.

## The Pump Motor

Pumps are shipped from the factory with motors wired according to the specifications given on the order as to kind of current, frequency and voltage.

Very often on installation, it becomes necessary to change the original setting to suit the AC power source. To do this, locate the motor changeover plate, typically located on the shaft end of the motor, and remove the screw which secures it in place. Slide the plate so that the desired voltage, as marked on the plate, lines up with the screw hole. Reinsert the screw and secure the plate in place.

Many motor failures result from improper setting of the motor change-over plate. If set for 115 VAC and a 230 VAC feed is used, the motor will burn out after running only a short time. If set for 230 VAC and a 115 VAC feed is used, the motor will run very slowly and the starting field will soon burn out.

## Wire Size

The AC wire size of the Control Lines of a Pump (Pump Motor Feed, Neutral Feed, Phase 2 Feed) is dependent upon the HP rating of the pump motor, the voltage at which the pump will be operated (115/230), and the distance from the circuit breaker panel to the pump. In cases where two pumps are powered from the same breaker through the same wires, the gauge of the wires should be increased to handle the added load according to the distance from the breaker panel. The chart below should be used as a guide in selecting the proper wire size according to the specific installation requirements.

The AC wire size for the Switch Detect lines should be 14 AWG (when they are used).

The DC wire size for the Pulser lines must be 18 AWG (when they are used).

115 VOLT WIRE GAUGE SIZES PER FEET OF RUN								
Motor HP	25'	50'	100'	150'	200'	250'	300'	Over 300' Use Relay At Motor Location
3/4	14	12	10	8	6	6	4	
230 VOLT								
3/4	14	12	12	10	10	10	8	



## Conduit

All wiring to the GASBOY Series 9120Q Compact commercial Pump Unit must be installed in threaded, rigid, metal conduit. AC power wires must be installed in a separate conduit from the DC pulser (if used with a GASBOY fuel management system) and the AC power wires and DC pulser wires must not be run in any sort of common conduit or trough. When the GASBOY Series 9120Q is being installed with a fuel management system other than a GASBOY System, see the manufacturer's installation manual for their specific conduit requirements.

All wiring and conduit runs must also conform with the National Electrical Code (NFPA 70) and the Automotive and Marine Service Station Code (NFPA 30A). All wiring and conduit runs must conform to local codes.

Use the charts below as a guideline to determine the proper conduit sizes for the GASBOY Series 9800A dispensing unit. When planning the orientation of the wiring runs, follow the applicable GASBOY wiring diagram and consider the layout of the components at the site. Long runs or a large number of bends may require you to increase conduit size over what is listed.

THHN/THWN Wire Areas				
Gauge	Diameter		Area (Sq units)	
	in	mm	in	mm
18	.090	2.29	.007	4.1
16	.104	2.64	.009	5.5
14	.118	2.95	.011	6.8
12	.135	3.43	.014	9.2
10	.169	4.29	.022	14.5
8	.216	5.49	.037	23.7
6	.259	6.60	.053	34.2
4	.331	8.41	.086	55.5
3	.359	9.14	.102	65.6
2	.394	10.01	.122	78.7
1063A	.417	10.59	.137	88.4

Areas of Trade Size Conduit						
Trade Size	Int. Diameter		Area (Sq units)		Fill Area (sq units) 25% Fill	
	in	mm	in	mm	in	mm
1/2	.629	16	.303	196	.076	49
3/4	.826	21	.532	343	.133	86
1	1.063	27	.862	556	.215	139
1-1/4	1.378	35	1.50	968	.375	242
1-1/2	1.614	41	2.04	1314	.509	329
2	2.087	53	3.36	2165	.839	541

To determine conduit size needed, use the THHN/THWN Wire Areas table (left) to find the area for each wire gauge. Add up all wire areas. Use the Areas of Trade Size Conduit Table (right) to select the smallest number in the 25% fill area (based on NEC 501-1) that comes closest without exceeding the total wire area.

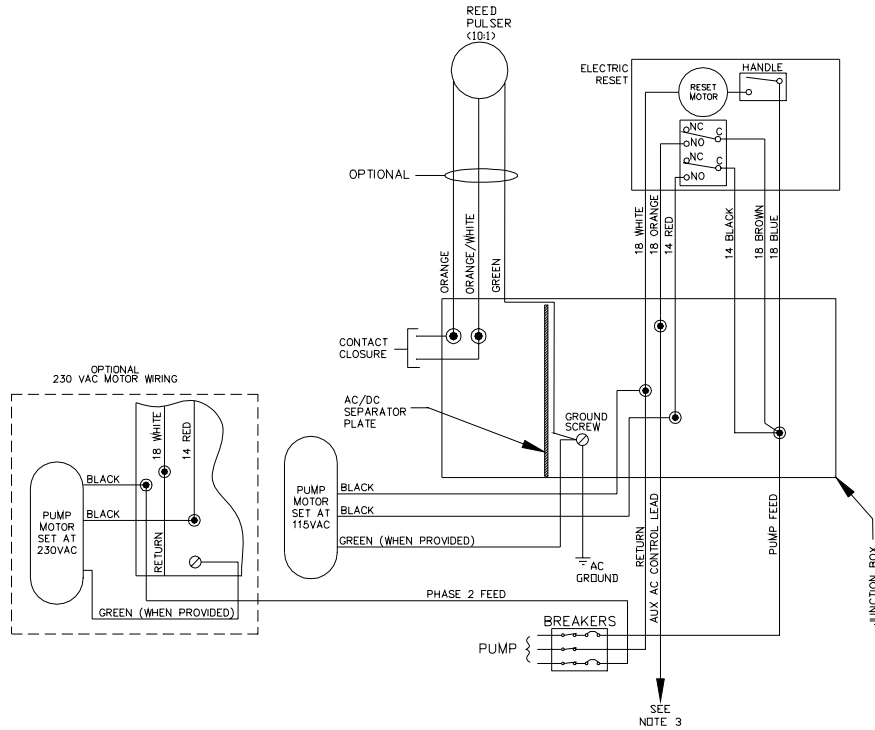
## Wiring Notes for 024390

- All wiring and conduit runs must conform with all building/fire codes, all Federal, State, and Local codes, the National Electrical Code, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.
- Pump motors may be wired as 230 VAC to reduce current draw.
- The brown wire (Aux AC Control Lead) is shipped capped from the factory. When used, it connects to a solenoid valve or fuel management system. Do not connect this wire without first checking the ON voltage of this line to ascertain compatibility with the equipment being connected.
- Use the wire size chart listed on page 4-3 when determining the wire size for the control wiring.
- Pulser wiring must be installed in metal conduit separate from all AC wiring.
- Pulser wiring must be 18AWG.

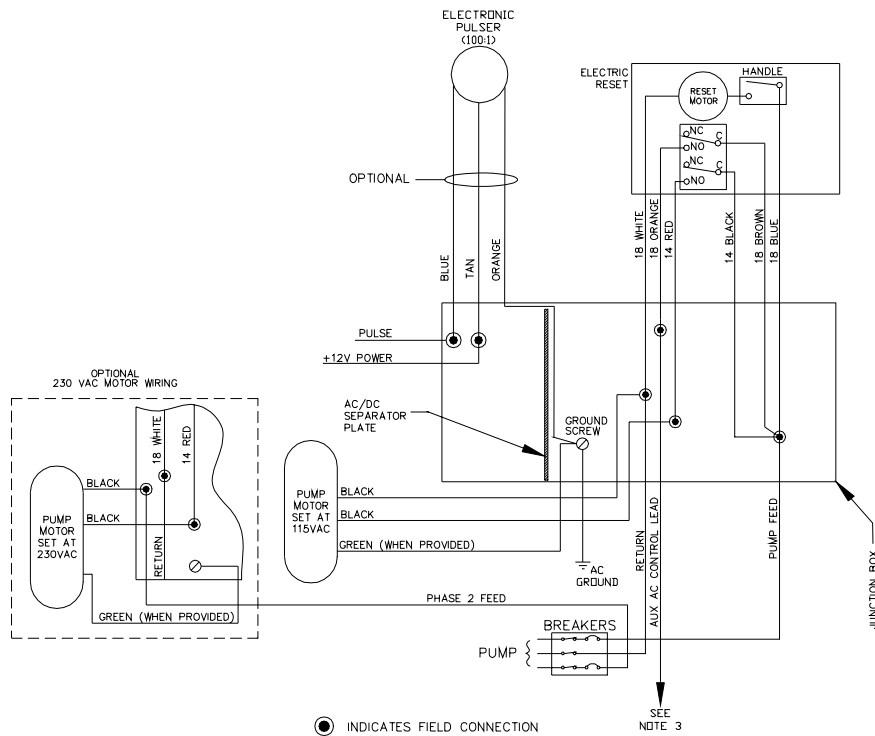
# 024390 Wiring Diagram

Models 9122Q, 9123Q

115/230 VAC WIRING  
(10:1 REED PULSER)



115/230 VAC WIRING  
(100:1 ELECTRONIC PULSER)



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## 5. Pulsers

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### General

A pulser is an optional device which is used when external monitoring of the dispensing unit operation is desired. The pulser transmits one electrical signal (pulse) for each predetermined amount of fuel dispensed. The signal is received by the external monitor (fuel management system) which keeps a running total of the quantity of fuel being dispensed during each transaction.

All of the pulsers in the Series 9120Q are operated with DC voltages. These pulsers include the reed pulser which outputs 10 pulses per unit of measure and the electronic pulsers which are available at 100 pulses per unit of measure. The pulser type should be selected according to the monitoring equipment, the application, and the regulations that must be met.

Refer to the wiring diagrams in the previous section for pulser wiring.



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## 6. Start-Up

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### Completion Checklist

The information below should be reviewed to help verify the proper installation of the Series 9120Q Compact Commercial Pump Unit. **If the installation does not meet criteria listed, correct the problem before the start-up is performed.**

1. The unit must be properly secured to the tank.
2. All plumbing must be complete and tight. All liquid-carrying lines must be checked for leaks.
3. When DC pulsers are used in the pump for connecting to GASBOY fuel management systems, AC and DC wires should not share any conduits, junction boxes, or troughs.
4. All conduit work must be complete. All junction box covers must be secured. Conduits should not be sealed until the wiring is verified through proper operation.
5. The unit must be properly grounded.
6. Before any testing begins, remove any water in the tank through a fill opening, using a suitable pump. Do not use the GASBOY pump to remove water. Serious damage may occur.
7. A sufficient volume of fuel must be put in the tank to insure that the liquid level is above the bottom of the suction pipe.

### Start-Up

After successfully verifying the installation against the completion check list, the unit is ready for start-up. Follow the procedure listed below to perform an orderly start-up of the Series 9120Q Compact Commercial Pump Unit.

1. Turn on the circuit breaker(s) for the various control lines to the unit.
2. Remove the nozzle from its holder and turn the crank until register wheels reset to all zeros. Then turn on the pump handle.
3. Dispense fuel. Check all plumbing for leaks at this time.
4. Turn the pump handle off. Open the nozzle. No fuel should be dispensed.
5. The pump unit should go through all standard calibration procedures.

### Post Start-Up Tests

#### Voltage

The incoming voltage to the pump should be checked and any reading not within 10% of rated voltage should be corrected before testing is continued. It is good practice to take voltage readings while the pump is operating on bypass and also while making a delivery. Any voltage drop in excess of 10% during either of these operating states should be considered a low voltage condition. Corrective action should be taken to insure an adequate power supply to the pump.

#### Tightness

After determining that the pump is operating satisfactorily and the system is fully primed, check the pump and piping to make sure that all connections are tight.

## Belts

Since belts do stretch slightly during the first few minutes of operation, check the belt tension after completing the operational test; a properly tightened belt will permit twisting the belt 180 degrees midway between the motor and pump pulleys.

On the 9122Q and 9123Q, the belt can be tightened by loosening the cap screw which holds the idler arm and sliding the arm to obtain the correct belt tension of 6 3/4 lbs. (+ 3/4). When the adjustment is complete, remember to retighten the cap screw.

## Calibration

All GASBOY pumps are adjusted for accurate measure at the factory. However, since the conditions of the installation can affect pump accuracy, it is the responsibility of the installer to check the pump for accuracy and make any needed adjustments. *Where required*, it is the owner's responsibility to report this device to the local Weights and Measures officials for their inspection before the unit is put into service.

Each meter is equipped with a mechanism for calibration, located on the side of the meter. To adjust the volume dispensed:

1. Check meter registration by delivering product to a reliable, accurate, 50 or 100 gallon prover.
2. Remove the seal wire from the locking pin.
3. Remove locking pin and turn wheel to adjust measurement. Turn clockwise to decrease the amount in the prover to match the display, turn counter-clockwise to increase the amount in the prover to match the displayed. Moving the wheel one hole position changes the calibration by 2/3 cubic inch per 5 gallons. To change by half of this amount, you may utilize the alternate locking pin hole on the opposing side of the calibration wheel.
4. Repeat process until volume in prover and amount recorded are within tolerance.
5. After calibration is complete, reinstall locking pin and secure in place using a seal wire.

## 7. Preventive Maintenance

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### General

GASBOY pumps are designed and constructed to give many years of uninterrupted service. In fact, operators report years of trouble-free operation with absolutely no service expense. Yet, certain parts of a pump are bound to wear, and GASBOY therefore recommends a periodic inspection, at least twice a year, for such things as fuel leaks, belt tension and condition, lubrication and strainer cleanliness. If such a procedure is followed, any small adjustments that are necessary can be made before expensive, annoying breakdowns occur. The result of this sound approach is continuous, profitable service from all of your GASBOY equipment.

**WARNING:**

*To reduce the risk of electrical shock when servicing, turn off all power to the pump.*

### Hints For Better Pump Performance

#### Demand Competent Service

If your pump should stop or fail to operate properly, don't depend upon the repair service of a general mechanic unless he is thoroughly familiar with the mechanism. Experience shows that the repair results will be much more satisfactory if you demand the service of a competent representative of the pump manufacturer. GASBOY has a Distributor Network which services fuel dispensing and management systems in every section of the country.

#### Use Authorized Parts

Should excessive wear, rust, or corrosion of parts cause inefficient operation, it is always best to replace them immediately; but if you want the best results and continuity of the Underwriters' Label on your pump, be sure they are new authorized service parts supplied by GASBOY. Every part of a pump is carefully designed for a particular purpose. If it is replaced by an incorrect or substandard substitute, pump operation will be unsatisfactory. Always use new gaskets or seals when servicing or rebuilding GASBOY equipment; do not re-use the old ones.

#### Operate with Reasonable Care

Like any machine, the pump that is operated with reasonable care will last longer and give better service. Abuse should be avoided (such as dropping the nozzle on the ground, operating the unit with a dirty strainer, dragging the hose across the concrete island or driveway, running the pump with the nozzle closed for more than two minutes, etc.). The time and care given to your pumps will be returned to you in the form of dependable service.

### Preventive Maintenance Checklist

#### Keep Water Out

Water tends to collect in storage tanks. This is due to moisture-laden air being drawn into the storage tank and condensing, or to defective fill openings that are not properly protected with watertight covers. Storage tanks should be checked after every fill-up for water and removed with a sump pump, to forestall serious damage to equipment. Water, sediment, and other foreign matter that accumulates in the tank can be drawn up into the pump and cause failures.

## Keep Mechanical Registers Lubricated

Although the mechanical registers used in GASBOY pumps are carefully adjusted and lubricated at the factory before shipment, they require (as do all mechanical parts) occasional cleaning and lubrication when in service. The intervals at which this should be done vary with conditions of operation, but under normal conditions it is necessary only twice a year, or after each 100,000 gallons delivered.

Clean the mechanical register with compressed air\* and wipe all accessible parts (such as figure wheel drums) with a clean cloth. Never use solvents, such as gasoline or kerosene, as this will become trapped in many of the inaccessible bearings and dissolve the new lubricant when it is applied.

A light, non-acid type oil (SAE 10) is recommended because this gives maximum protection in varying temperatures. The oil must also be acid-free so that it will not cause corrosion of the cast metal parts. A long handled, fine lettering brush is very convenient for applying the oil to all bearings and shafts and for applying light, nonfluid oil (grease with body similar to that of chassis lubricant) to the bevel type gears.

*NOTE: Always wear protective safety goggles or glasses when using compressed air.*

## Dial Face

Clean the dial face with a soft, clean, damp cloth as often as necessary.

## Cleaning the Strainer

Clean the strainer immediately after the pump has been installed and tested, and again after a few hundred gallons have been delivered. Thereafter, once every six months, or as required.

The symptoms of a dirty or clogged strainer in a pump are slow delivery, noisy operation, and pulsation. To clean the strainer, turn off AC power to the pump. Locate the Suction Strainer Cap on the plumbing unit and unscrew it to access and remove the strainer. Use compressed air\* to blow the dirt out of the strainer.

*NOTE: Always wear protective safety goggles or glasses when using compressed air.*

## Filter

If the unit is equipped with a filter, check and change it at regular intervals. A dirty filter in a pump or remote dispenser will cause a slower delivery rate. Refer to the accessories section of your parts manual to ensure that you replace the filter with one designed for your model. Always use a drip pan directly below the filter when removing the cartridge to prevent contamination of both the soil and the electrical components within the cabinet.

## Adjusting the Belts

With the proper care, belts will give exceptionally good service. A loose belt not only cuts down dispensing speed, due to slipping, but also results in excessive wear. A properly tightened belt will allow twisting the belt 180 degrees midway between the motor and the pump pulleys.

On the 9122Q and 9123Q models, the belt can be tightened by loosening the cap screw which holds the idler arm and sliding the arm to obtain the correct belt tension of 6 3/4 lbs (+ 3/4). When the adjustment is complete, remember to retighten the cap screw.



## Preserve the Finish of Your Pumps

Nearly all gasoline pumps are installed outdoors where their surfaces are subjected to the action of the weather. As a result, it is necessary to give the finish a reasonable amount of care if an attractive appearance is to be maintained.

The finish on GASBOY pump housings is a high-heat baked synthetic enamel, similar to that used on automobiles. The life of this finish can be lengthened several years if, at regular intervals, the painted surfaces are thoroughly cleaned with a high grade automobile polish and then protected with a coat of paste wax. Do not use abrasive cleaners or polish. Do not use high pressure spraying equipment.

In order to retain the unmarked finish on stainless steel, occasional cleaning is required. In corrosive atmospheres, such as coastal areas, a more frequent cleaning schedule is necessary. Under ordinary conditions, washing with detergent or soap and water, followed by a clean water rinse, is sufficient. If hard water is used, the surface should be wiped dry with a soft clean cloth to prevent the formation of water spots. Marks or spots, such as grease, oily fingerprints and smudges which resist soap and detergents, will have to be removed with a stronger cleaner. (**DO NOT** use ordinary steel wool as iron particles may adhere to the surface and cause corrosion.) Care should be taken in choosing a cleaner because any cleaning compounds or powders which contain abrasives can scratch a mill-rolled finish. Care must be exercised in their use to run in the direction of the polishing lines in the steel, never across them. After cleaning, an application of paste wax is recommended to protect the surface and prolong the interval between cleaning.

# WARRANTY

**General Statements:**

Gasboy International LLC. warrants all new equipment manufactured by Gasboy against defective material and/or workmanship, for the warranty period specified below, when the equipment is installed in accordance with specifications prepared by Gasboy.

This warranty does not cover damage caused by accident, abuse, Acts of God, lack of surveillance of automatic recording systems, negligence, mis-application, faulty installation, improper or unauthorized maintenance, installation or use in violation of product manuals, instructions, or warnings. Under no circumstance shall Gasboy be liable for any indirect, special, or consequential damages, losses, or expenses to include, but not limited to, loss of product, loss of profits, litigation fees, or the use, or inability to use, our product for any for any purpose whatsoever.

Parts Only - During the warranty period, Gasboy will, at its option, repair or replace defective parts returned transportation prepaid to its factory.

On-Site Labor Included - Gasboy will also provide, within the Continental United States and during the warranty period, the services of an Authorized Service Representative (ASR) for on-site repair or replacement of defective parts.

Replacement Parts - Any system components that are not part of the original system order, including Island Card Readers, Pump Control Units, etc., are considered replacement parts.

<b>Equipment</b>	<b>Term</b>	<b>Coverage</b>
Commercial Pumps and Dispensers Full-Cabinet Consumer Pumps	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Small Transfer Pumps, Meters, Pressure Regulators	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- Excepting the Model 2020 Hand Pump, which has a 90-day warranty from date of GASBOY International's invoice.	Parts Only.
Keytrol	One year from date of installation or 18 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts and Labor.
Fuel Management Systems: - CFN/ Profit Point - Series 1000/Fleetkey - TopKAT - Fuel Point Readers (sold with new systems)	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.- The basic warranty only applies to systems which have been started up by a Gasboy Authorized Service Representative (ASR).	Parts and Labor.
Additional Fuel Point Items: - Fuel Point Readers sold for retrofitting existing systems. - Fuel Point vehicle and dispenser components.	One year from date of start-up or 15 mos. from date of Gasboy International's invoice to the purchaser, whichever comes first.	Parts Only.
Encoders, Embossers, Modems, CRTs, and Logger Printers	Purchased with Fuel Management System (Encoders, Embossers only): 90 days from the date of start-up by a Gasboy ASR, or 180 days from date of Gasboy International's invoice, whichever occurs first.  Purchased with Fuel Management System (Modems, CRTs, and Logger Printers only): Matches system warranty.  Purchased Separately: 90 days from date of Gasboy International's invoice to the purchaser.	Purchased with System (Encoders, Embossers only): Parts only.  Purchased with System (Modems, CRTs, Logger Printers only): Matches system warranty.  Purchased Separately: Parts Only.
Air Diaphragm Pumps	Three years from date of purchase (for full warranty description, see Price List).	Parts Only.
Items not manufactured by Gasboy (ex. automatic nozzles, hoses, swivels, etc.)	Not warranted by Gasboy International (consult original manufacturer's warranty).	Not Applicable.
Replacement Parts	One year from date of Gasboy International's invoice to the purchaser.	Parts Only.

To the extent permitted by law, this warranty is made in lieu of all other warranties, expressed or implied, including warranties of freedom from patent infringement, or merchantability, or fitness for a particular purpose, or arising from a course of dealing or usage of trade. No one is authorized to vary the terms of the warranty nor may anyone make any warranty of representation, or assume any liability other than that herein stated, in connection with the sale described herein. The acceptance of any order by Gasboy International is expressly made subject to the purchaser's agreement to these conditions.



**GASBOY INTERNATIONAL LLC**

P.O. Box 309, Lansdale, PA 19446 ● (800) 444-5579 ● FAX: (800) 444-5569 ● [www.gasboy.com](http://www.gasboy.com)