



Atlas™ 9216K/9216KTW Satellite Dispensers

Installation/Operation Manual

Computer Programs and Documentation

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This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Approvals

Gasboy, Greensboro, is an ISO 9001:2000 registered facility.

Underwriters Laboratories (UL):

UL File#	Products listed with UL
MH4314	All dispensers and self-contained pumping units
MH10581	Key control unit, Model GKE-B Series Card reader terminals, Models 1000, 1000P Site controller, Model 2000S CFN Series Data entry terminals, Model TPK-900 Series Fuel Point Reader System

California Air Resources Board (CARB):

Executive Order #	Product
G-70-52-AM	Balance Vapor Recovery
G-70-150-AE	VaporVac

National Conference of Weights and Measures (NCWM) - Certificate of Compliance (CoC):

Gasboy pumps and dispensers are evaluated by NCWM under the National Type Evaluation Program (NTEP). NCWM has issued the following CoC:

CoC#	Product	Model #	CoC#	Product	Model #	CoC#	Product	Model #
95-179	Dispenser	9100 Retail Series, 8700 Series, 9700 Series	91-019	Dispenser	9100 Commercial Series	05-002	Atlas	8700K, 8800K, 9100K, 9200K, 9800K
95-136	Dispenser	9800 Series	91-057	Controller	1000 Series FMS, 2000S-CFN Series			

Patents

Gasboy products are manufactured or sold under one or more of the following US patents:

Dispensers

5,257,720

Point of Sale/Back Office Equipment

D335,673

Additional US and foreign patents pending.

Trademarks

Non-registered trademarks

Atlas™
Consola™
Infinity™

Registered trademarks

ASTRA®
Fuel Point®
Gasboy®
Keytrol®
Slimline®

Additional US and foreign trademarks pending.

Other brand or product names shown may be trademarks or registered trademarks of their respective holders.

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1 – Introduction

Purpose

This manual provides instructions for the installation and operation of Gasboy® Atlas™ 9216K/9216KTW satellite dispensers. This manual must be supplied to the electrician prior to the installation of conduit and wiring to ensure the satellite dispensing 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 satellite dispensing unit. Ensure that this manual is left with the owner after the installation is complete.

Note: For any assistance pertaining to the installation, contact the Gasboy distributor.

Intended Users

This manual is intended for Authorized Service Contractors (ASCs) who will be involved in the installation of Atlas satellite dispensers.

General Description

Gasboy Atlas satellite dispensing units are used in conjunction with Gasboy-listed Atlas dispensers. This unit provides additional control of a remote dispensing line.

The features and specifications of the 9216K/9216KTW satellite dispenser are as follows:

- Hose hangers
- Discharge elbows
- A 12 feet gasoline hose assembly
- A working voltage of 115 VAC, 60 Hz for domestic units or 230 VAC, 50 Hz or 60 Hz for international use
- Unions are provided at the inlet of all suction pumps and dispensers.
- The top and side panels are painted black and the front and rear panels are painted white for the standard cabinet.
- The height of the cabinets is 39.92” (1013.90 mm). For other dimensions of the base layout for each model, refer to “[Installation](#)” on [page 7](#).
- Available options and accessories for the satellite dispensing units include automatic nozzles, high or low slowdown valves, special lengths of hose, dual swivels, front and back panels painted to the color specified by the customer, stainless steel panels, and emergency shutoff valves.

Related Documents

Document Number	Title	GOLD Library
FE-361	Atlas Master and Satellite Field Wiring Diagram	Gasboy Parts List and Wiring Diagrams
MDE-4331	Atlas Fuel Systems Installation Manual	Gasboy Atlas Pumps/Dispensers
MDE-4333	Atlas Fuel Systems Site Preparation Manual	Gasboy Atlas Pumps/Dispensers

Abbreviations and Acronyms

Term	Description
AC	Alternate Current
ASC	Authorized Service Contractor
DC	Direct Current
NEC	National Electric Code
NFPA	National Fire Protection Association
STP	Submerged Turbine Pump
UL®	Underwriters' Laboratories

Warranty

For information on warranty, refer to MDE-4255 Gasboy's Warranty Policy Statement. If you have any warranty-related questions, contact Gasboy's Warranty Department at its Greensboro location.

2 – Important Safety Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury, if these safe service procedures are not followed.


Preliminary Precautions


You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

Emergency Total Electrical Shut-Off

The first and most important information you must know is how to stop all fuel flow to the pump/dispenser and island. Locate the switch or circuit breakers that shut off all power to all fueling equipment, dispensing devices, and Submerged Turbine Pumps (STPs).

⚠ WARNING

 The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you activate these stops, fuel may continue to flow uncontrolled.

 You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not the console's ALL STOP and PUMP STOP or similar keys.

Total Electrical Shut-Off Before Access

Any procedure that requires access to electrical components or the electronics of the dispenser requires total electrical shut off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing 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 Hazard Association (OSHA) regulations and federal, state, and local codes. All these regulations must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

Replacement Parts

Use only genuine 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.

Important Safety Information

No Open Fire



Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

No Sparks - No Smoking



Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuel vapors. Every time you get out of a vehicle, touch the metal of your vehicle, to discharge any electrostatic charge before you approach the dispenser island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power when 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 when the equipment is down.

Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause cancer.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause birth defects or other reproductive harm.

In an Emergency

Inform Emergency Personnel

Compile the following information and inform emergency personnel:

- Location of accident (for example, address, front/back of building, and so on)
- Nature of accident (for example, possible heart attack, run over by car, burns, and so on)
- Age of victim (for example, baby, teenager, middle-age, elderly)
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on)
- Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on)

WARNING



Gasoline ingested may cause unconsciousness and burns to internal organs.
Do not induce vomiting.
Keep airway open.
Oxygen may be needed at scene.
Seek medical advice immediately.

WARNING



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.
Keep airway open.
Seek medical advice immediately.

WARNING



Gasoline spilled in eyes may cause burns to eye tissue.
Irrigate eyes with water for approximately 15 minutes.
Seek medical advice immediately.

WARNING






Gasoline spilled on skin may cause burns.
Wash area thoroughly with clear water.
Seek medical advice immediately.

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

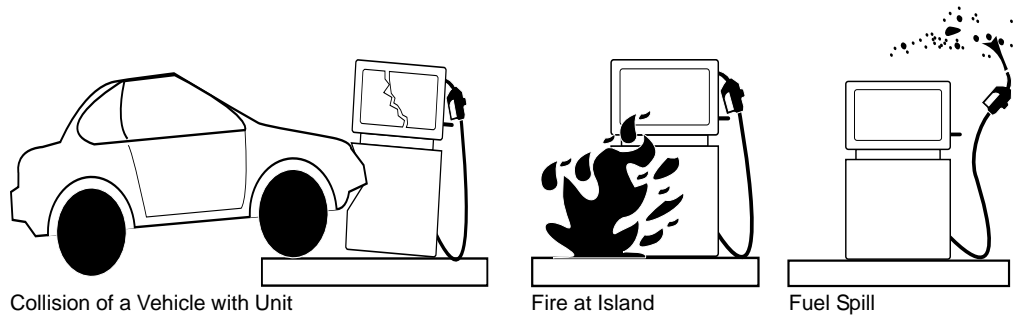
Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical or other energy, but does not cover electrical hazards. Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

Hazards and Actions

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

The following actions are recommended regarding these hazards:



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

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3 – Installation

Installation Precautions

All installations must conform with all building or fire codes, all Federal, State, and Local codes, NEC, NFPA 70, NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must also comply with the Canadian Electrical Code.

Plan the installation carefully. A dispensing unit cannot be expected to work satisfactorily unless the underground installation is correct. Dispensing troubles are frequently traced to faulty installation. Review the following list of installation DO's and DO NOT's to avoid potential problems:

- Read the “[Important Safety Information](#)” on [page 3](#). It contains important information regarding the safe use of dispensing equipment.
- 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 EMERGENCY STOP and STOP keys on the console and/or the optional EMERGENCY STOP button on the Island Card Reader do not remove AC power from equipment and under certain conditions, will not stop product flow. To provide the highest level of safety to individual, staff, and customers, we recommend that all personnel be trained as to the location and procedure for turning off power to the entire system.
- A competent installer/electrician must install the satellite dispensing unit.
- Install breakaway coupling on discharge hose. If using a high hose retriever, install breakaway approximately 12” downstream of hose clamp on nozzle side of the clamp.
- DO NOT attempt to wire a pump or remote dispenser without first reviewing the appropriate wiring diagram and notes. This manual contains instructions for wiring mechanical and electronics units. If the mechanical wiring diagram is used for an electronic pump, then it will cause CPU PCB damage to the electronic pump.
- DO NOT experiment with a pump if you are not sure the installation is correct.
- DO NOT overload sub or main breaker panels.
- DO NOT install any underground piping without proper swing joints (always use shoulder nipples, never close nipples).
- DO NOT cover any lines until they are both air-tested and liquid-tested.
- DO NOT back-fill the tank or supply line with cinders or ashes (back-fill with clean sand, crushed rock, or pea gravel).
- DO NOT use black iron pipe or fittings for underground installations (use only new galvanized or fiberglass pipe and fittings).
Note: Install all fiberglass pipe and fittings according to manufacturer's specifications and requirements.
- DO NOT use power line wiring of inadequate capacity.
Note: Use gauge specified by the wiring diagram or wire chart provided in “[Wiring Diagrams](#)” on [page 18](#).
- DO NOT use a circuit breaker of improper size (refer to “[Wiring](#)” on [page 15](#)).

- DO NOT install fill pipe to tank where it can be submerged with standing water.
- DO NOT use the Gasboy fuel dispensing equipment to remove water ballast from the storage tank.
- 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 NEC and must not be disturbed. Ensure that the mating surfaces between the junction box and cover are free of dirt, debris, nicks and scratches. Tighten the junction box covers before replacing panels.
- DO NOT use knock-out boxes or flexible conduit for installing this unit. All power and lighting wires must be run in a threaded, rigid, metal conduit. All threaded connections must be drawn up tight with five (5) threads minimum engagement. Only one opening in the AC junction box is provided with a plug at the factory. At completion of the installation, ensure that any unused openings are plugged.

Foundation

When constructing the island for the dispensing equipment, ensure to extend the island excavation beyond the depth of the frost line. Leave open an area from the inside edge of the unit's base as shown on the specific base layout. If required by local regulations, do not cement the pipes and conduits into the island. The open area within the base provides access for future servicing of the fittings and conduit assemblies. Fill in the boxed-in section with dry sand to keep condensation in the satellite housing to a minimum.

Secure the dispensing unit to the island using anchor bolts through the mounting holes (see [Figure 3-3](#) on [page 12](#)). If the dispensing unit is not securely fastened to the island, supply line leaks at unions and pipe joints may occur. Use one of two types of bolts to anchor the satellite to the island. Use two 1/2 x 5" (13 x 125 mm) machine bolts embedded in the concrete, or to meet minimum UL and API requirements for universal interchangeability of pumps, use two 1/2 x 3-1/2" (13 x 90 mm) lag screws with 2" (51 mm) expansion shields.

Dispenser

For proper installation and operation of this unit, refer to the following installation/operation manuals supplied with the dispenser.

- MDE-4333 Atlas Fuel Systems Site Preparation Manual
- MDE-4331 Atlas Fuel Systems Installation Manual
- FE-361 Atlas Master and Satellite Field Wiring Diagram

Nozzle, Hose, and Accessories

This unit is equipped for use with a UL-listed interchangeable service station type nozzle. Units equipped with suffix N are equipped for use with a UL-listed Richards Mark XIII nozzle. Use only UL-listed hose assemblies and accessories with this device. A listed breakaway connector must be installed on all hose assemblies. On twin satellites, each start lever corresponds with the hose outlet to its right.

Supply Line

The supply line for satellite dispensing units is connected to the satellite outlet of the dispenser. Use new galvanized or fiberglass pipe, 1.91" (48.51 mm) minimum diameter (1-1/2" Standard Pipe Nipple).

Note: Fiberglass pipe must be installed according to manufacturer's specifications and requirements.

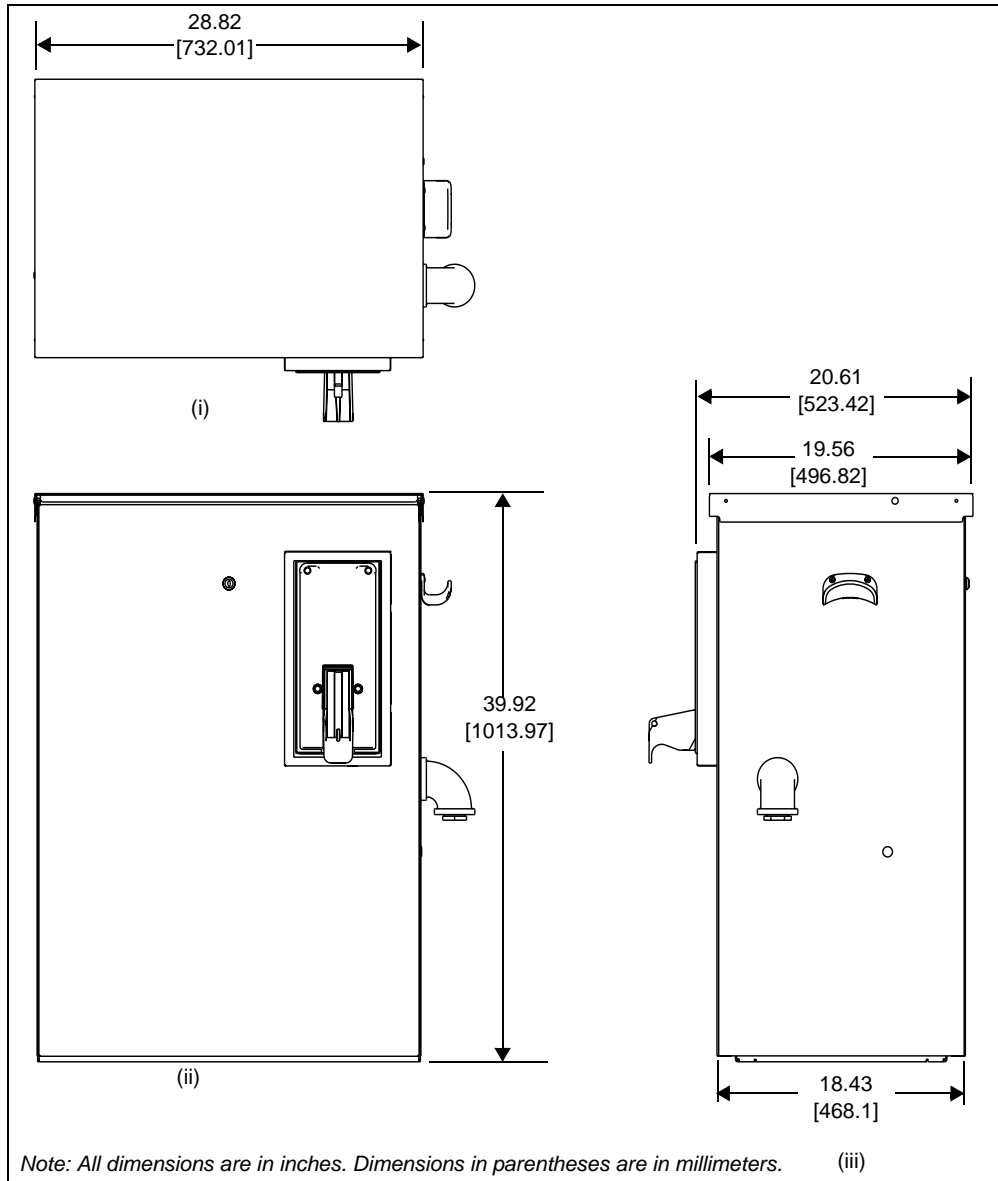
Ensure that both the pipe and tank are clean. Foreign matter entering the satellite can cause extensive damage. Obstructions in the supply line can create pump problems and reduce the flow rate.

Ensure that all pipe threads are properly cut and the inside reamed to remove burrs. Use listed gasoline-resistant compound on all joints of gasoline handling piping. Sealing compound must also be resistant to Gasohol (Ethanol and Methanol). Do not use Teflon Pipe Sealing Tape. 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. Install swing joints under the pump and at the satellite to avoid breaks in the supply line from settling or frost heave.

Note: After completion of installation, all liquid-carrying lines must be checked for leaks.

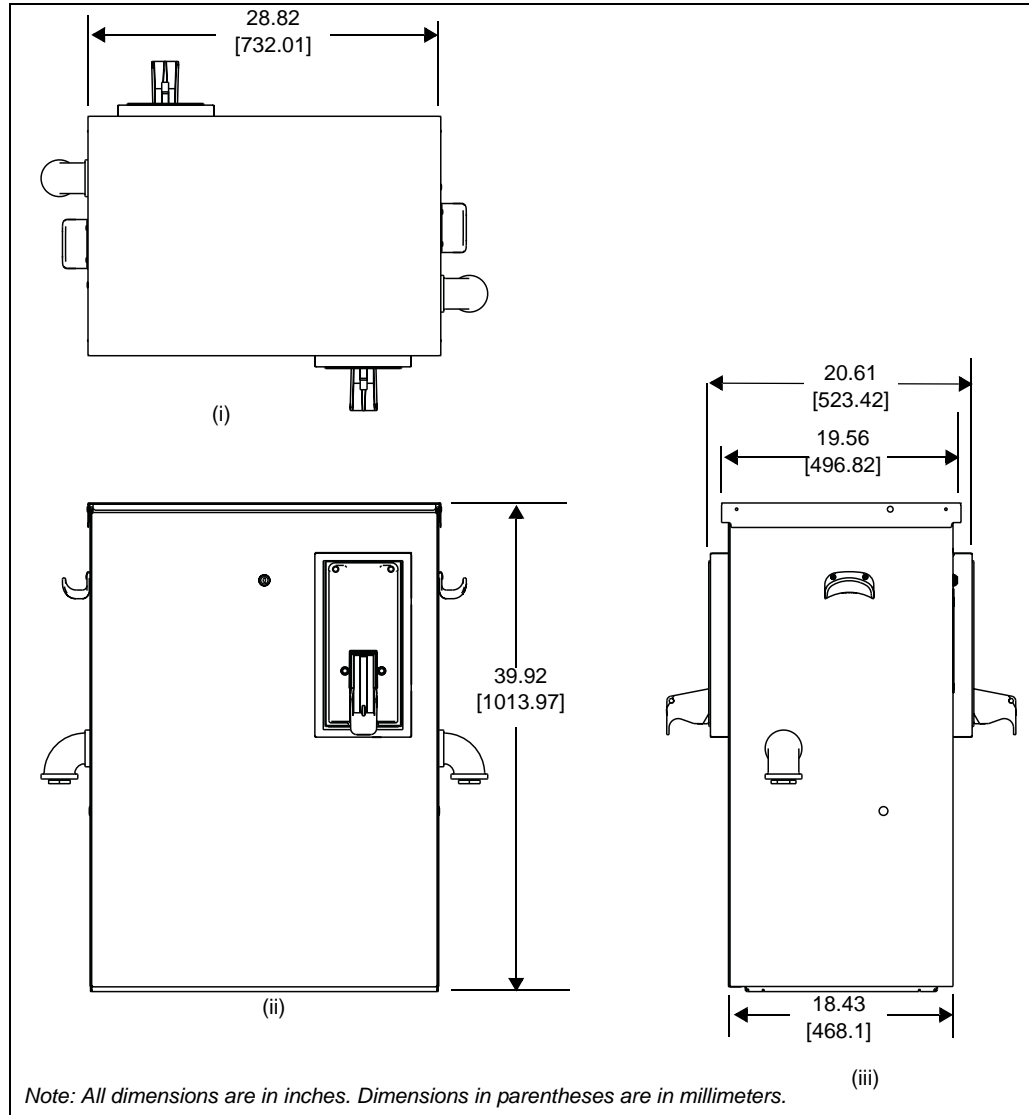
9216K Front Load Satellite Dispensing Unit Dimensions

Figure 3-1: 9216K Front Load Satellite Dispensing Unit



9216KTW Twin Satellite Dispensing Unit Dimensions

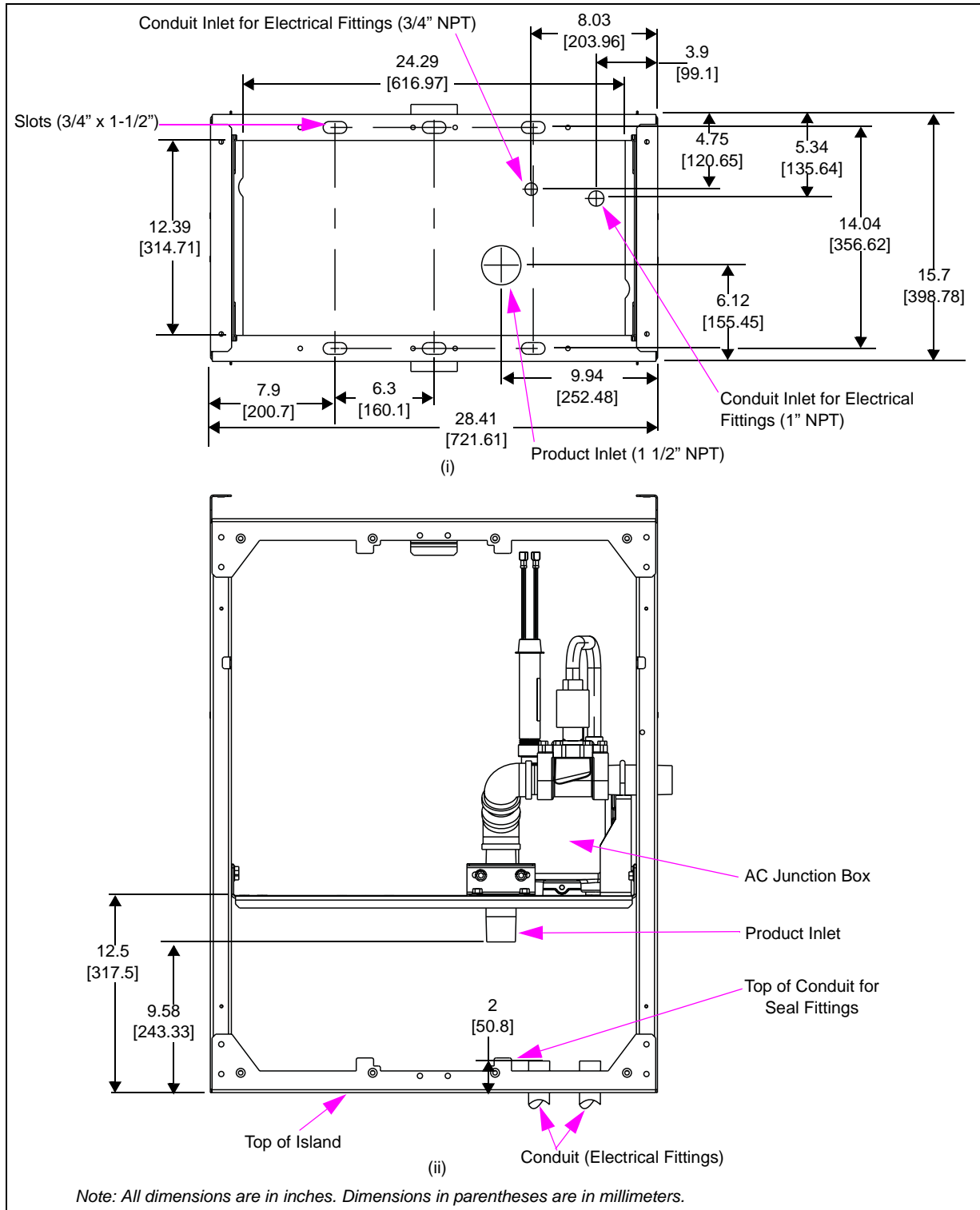
Figure 3-2: 9216KTW Twin Satellite Dispensing Unit



Base Layout

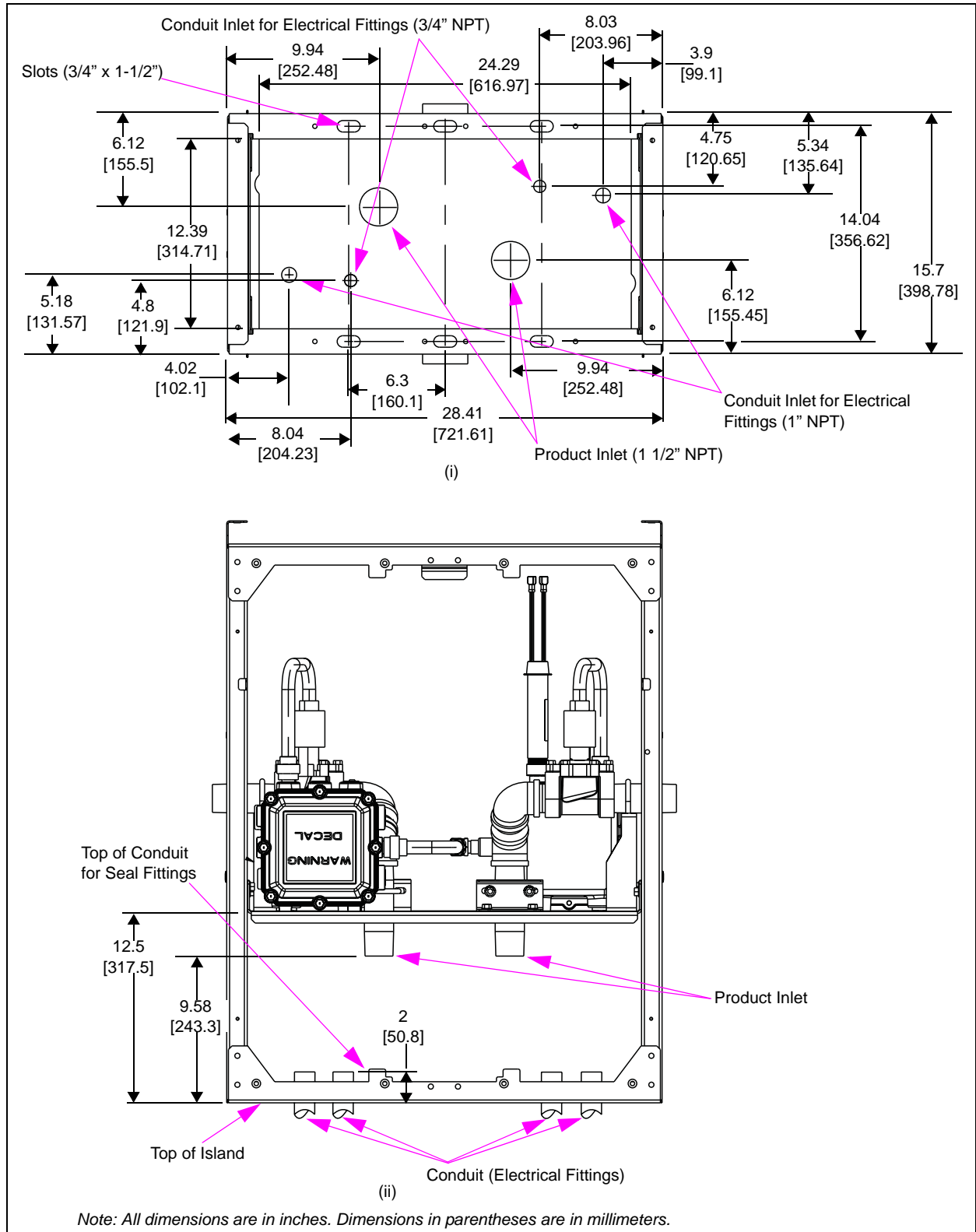
Model 9216K

Figure 3-3: Base Layout - Model 9216K



Model 9216KTW

Figure 3-4: Base Layout - Model 9216KTW



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4 – Wiring

Wiring Precautions

Note: For any questions pertaining to the installation, contact Gasboy distributor.

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

- All wiring must be installed to conform with all building/fire codes, all Federal, State, and Local codes, NEC, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must also comply with the Canadian Electrical Code.
- Use the proper wiring diagram. This manual contains instructions for wiring mechanical and electronic units. Using the mechanical wiring diagram for an electronic pump will cause CPU PCB damage to the electronic pump.
- Use only threaded, rigid, metal conduit.
- Use only UL-labeled insulated gasoline- and oil-resistant stranded copper wiring of the proper size.
- Wire connections must be tightly spliced and secured with a wire nut. Close the open ends of the wire nut with an electrical tape.
- The line to the motor must be on a separate circuit and installed on a 20 to 30 Amp breaker depending on the motor size and/or the voltage setting.
- Have the pump/dispenser installed by a competent installer/electrician.
- 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 EMERGENCY STOP and STOP keys on the console and/or the optional EMERGENCY STOP 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/dispenser. In submersible pump applications, turn off power to the submersible pump and any other dispensers which use that submersible pump. AC power can be fed back into a shut-off dispenser when dispensers share a common submersible pump or starter relay.

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 main electrical service panel. One earth ground connection is required per unit. The ground rod must be a solid corrosion-resistant conductor that must be installed at the main electrical panel as per the NEC. It must be properly tied into the ground bus strip of the panel. It is recommended that the neutral and ground bus strips be bonded together (unless prohibited by Local codes).

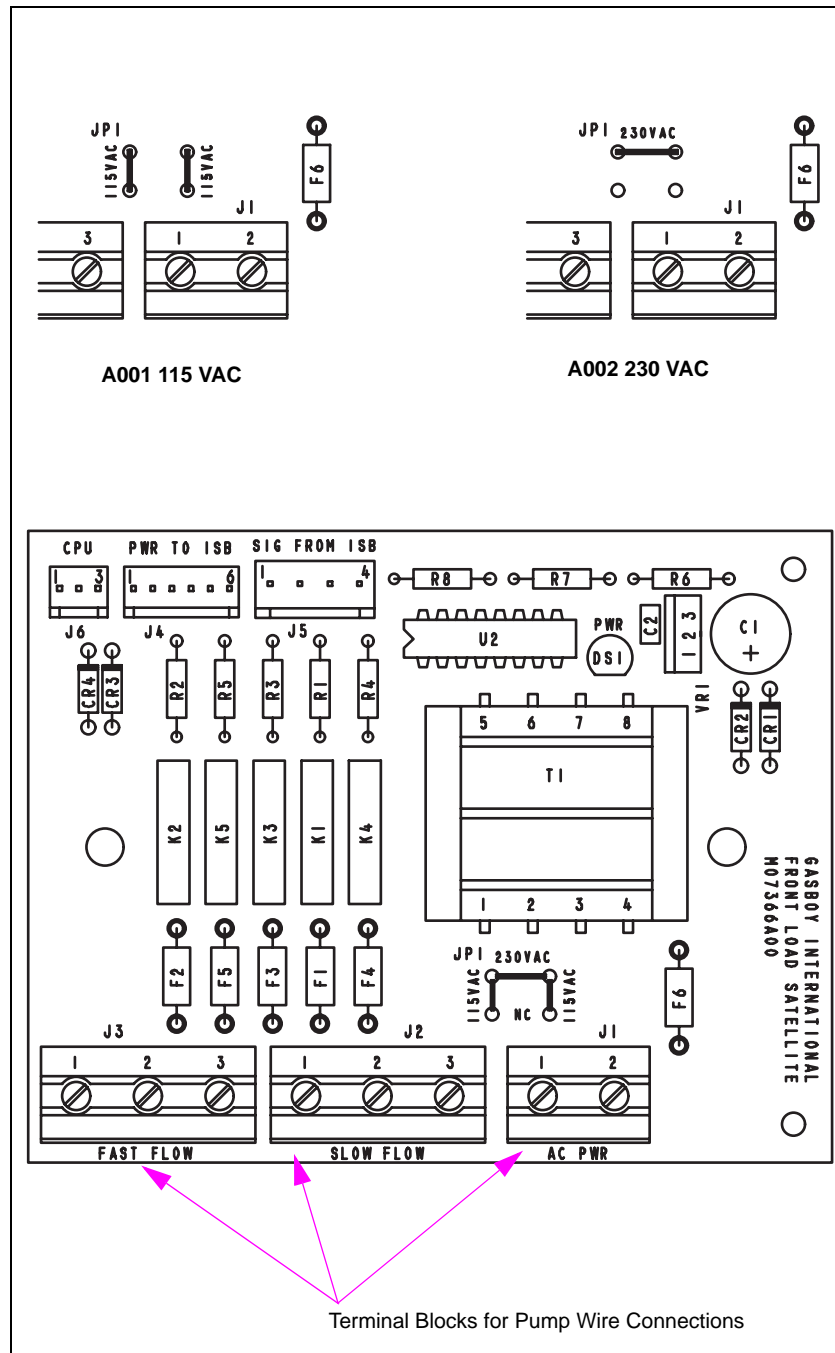
Wire Size

The AC wire size of the satellite, can be a maximum of 10 AWG and a minimum of 14 AWG.

Wire Connections

Wires to the satellite unit must be connected to the board-mounted green terminal blocks on the Front Load Satellite Relay board inside the junction box. 9216KTW models will have two junction boxes and two boards.

Figure 4-1: Wire Connections



Conduit

All wiring to the satellite dispensing unit must be installed in threaded, rigid, metal conduit. PVC is not acceptable.

All wiring and conduit runs must also conform with the NEC (NFPA 70) and the Automotive and Marine Service Station Code (NFPA 30A). All wiring and conduit runs must conform to Local codes. Canadian users must also comply with the Canadian Electrical Code.

Wiring Diagrams

The following section contains wiring notes and wiring diagrams for both Atlas mechanical and electronic pumps. For pump/dispenser model and follow all notes, refer to the appropriate wiring diagram. For more information, refer to FE-361 Atlas Master and Satellite Field Wiring Diagram.

Note: Ensure that the correct wiring diagram is used. Incorrect wiring of a 9800K Series unit will cause damage to the CPU PCB.

Wiring diagrams show simultaneous and non-simultaneous operation of master and satellite dispensers. Ensure that the correct wiring diagram is used for the suitable application.

9100K/8700K Series Wiring Diagram

Models - Satellite 9216K/9153K, 9153KX, 9152KTW, 9153KTW, 9153KXTW, 9140K, 9140KX, 9216K/8753K, 8753KX, 8752KTW, 8753KTW, 8753KXTW

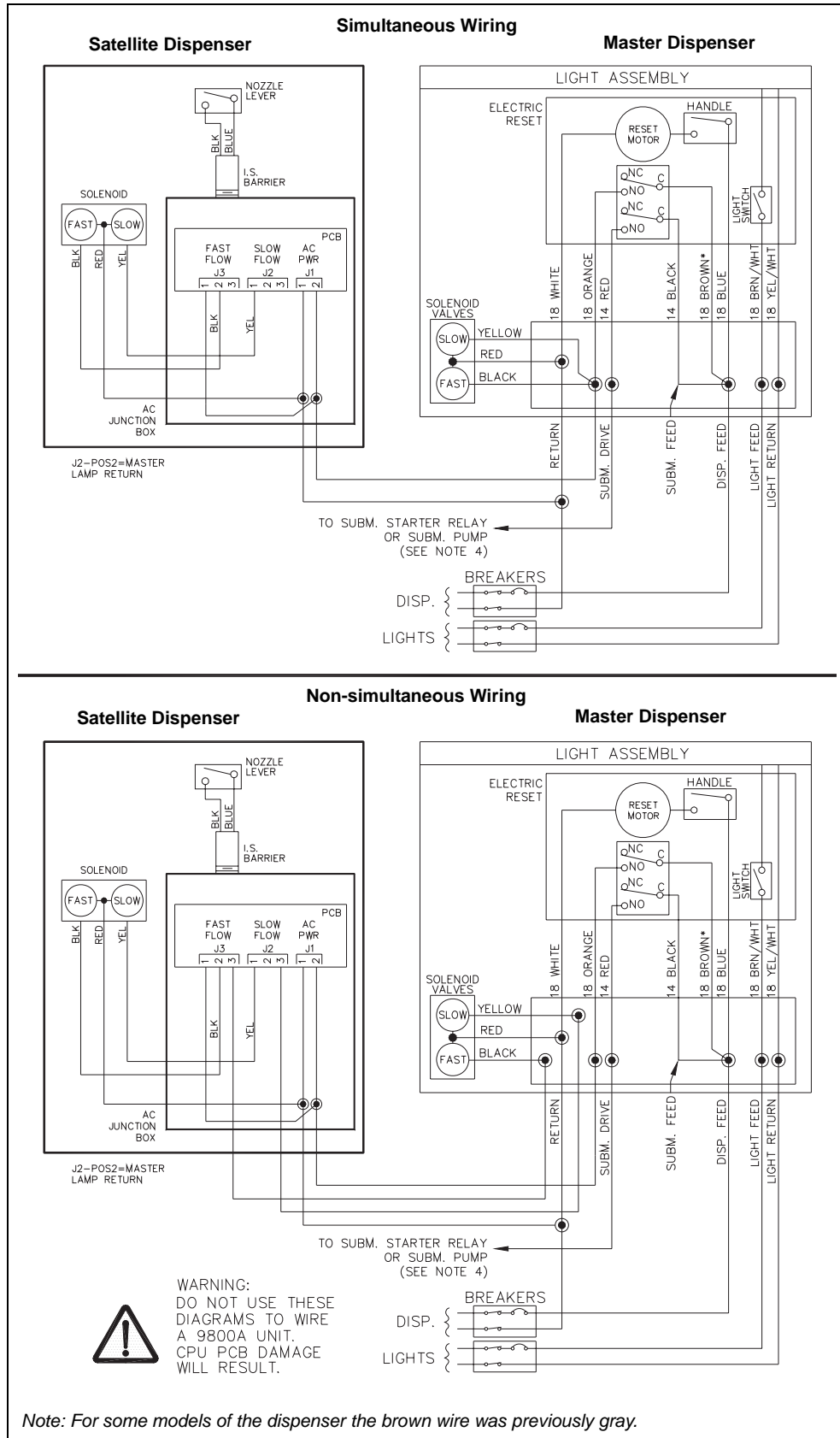
Notes: 1) All wiring and conduit runs must conform with all building/fire codes, all Federal, State, and Local codes, NEC, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations.

2) To determine which mode of satellite operation is relevant for your application, refer to Weights and Measures Handbook 44. In many cases, the satellite must be wired so that, it cannot dispense the product when the master dispenser is dispensing and vice versa. Use the correct wiring diagram according to your application.

3) This wiring diagram is intended only to show the connections between the satellite and the dispenser. For applicable warnings and proper connection of all wires, see wiring diagram for the master dispenser (according to model number). For the complete wiring information for the dispenser, refer to MDE-4331 Atlas Fuel Systems Installation Manual.

4) When a submersible pump is used, submersible starter relays are always recommended for wiring the dispensers. However, the control circuit is capable of directly driving a submersible pump up to 1 HP at 115/230 VAC. Any pump over these ratings will require a submersible starter relay.

Figure 4-2: 9100K/8700K Series Wiring Diagram

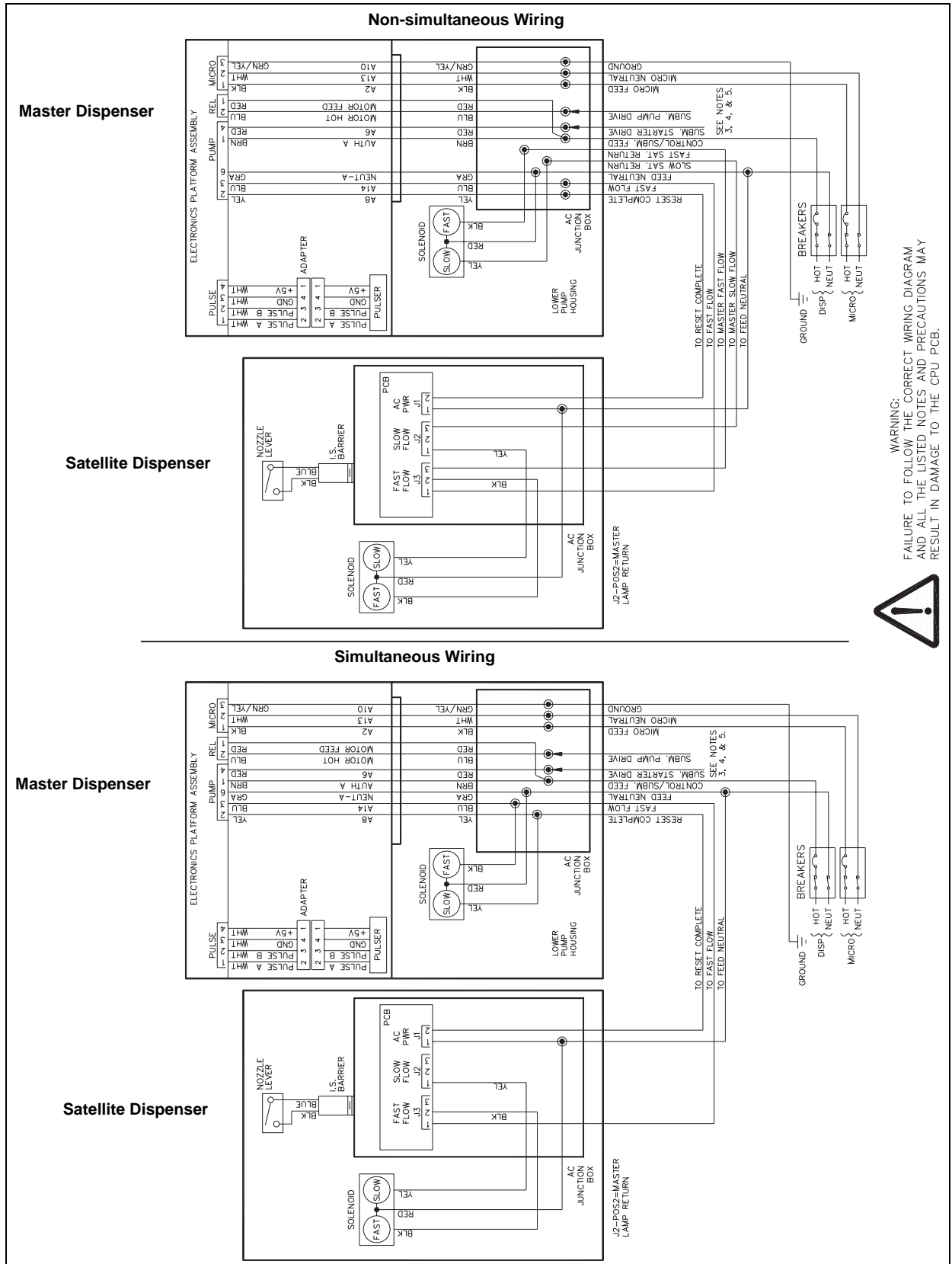


9800K Series Wiring Diagram

Models - Satellite 9216K/9853K, 9853KTW, 9853KX, 9852KXTW1, 9853KXTW, 9840KX, 9216K/8853K, 8853KTW, 8853KX, 8852KXTW1, 8853KXTW

- Notes:*
- 1) *All wiring and conduit runs must conform with all building/fire codes, all Federal, State, and Local codes, NEC, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must also comply with the Canadian Electrical Code.*
 - 2) *To determine which mode of satellite operation is relevant for your application, refer to Weights and Measures Handbook 44. In many cases, the satellite must be wired so that, it cannot dispense product when the master dispenser is dispensing and vice versa. Use the correct wiring diagram according to your application.*
 - 3) *If using a Gasboy 9800K and satellite in an application where both master and satellite cannot dispense the product at the same time, a minor change to the factory wiring in the 9800K must be made. Wire the dispenser to the satellite as shown in the wiring diagram labeled “Non-Simultaneous”.*
 - 4) *If this unit is equipped for 230 VAC operation (international), connect the wires as shown in the standard 115 VAC wiring layout diagram.*
 - 5) *This wiring diagram is intended only to show the connections between the satellite and the dispenser. For applicable warnings and proper connection of all wires, see wiring diagram for master dispenser (according to model number). For the complete wiring information for the dispenser, refer to MDE-4331 Atlas Fuel Systems Installation Manual.*

Figure 4-3: 9800K Series Wiring Diagram

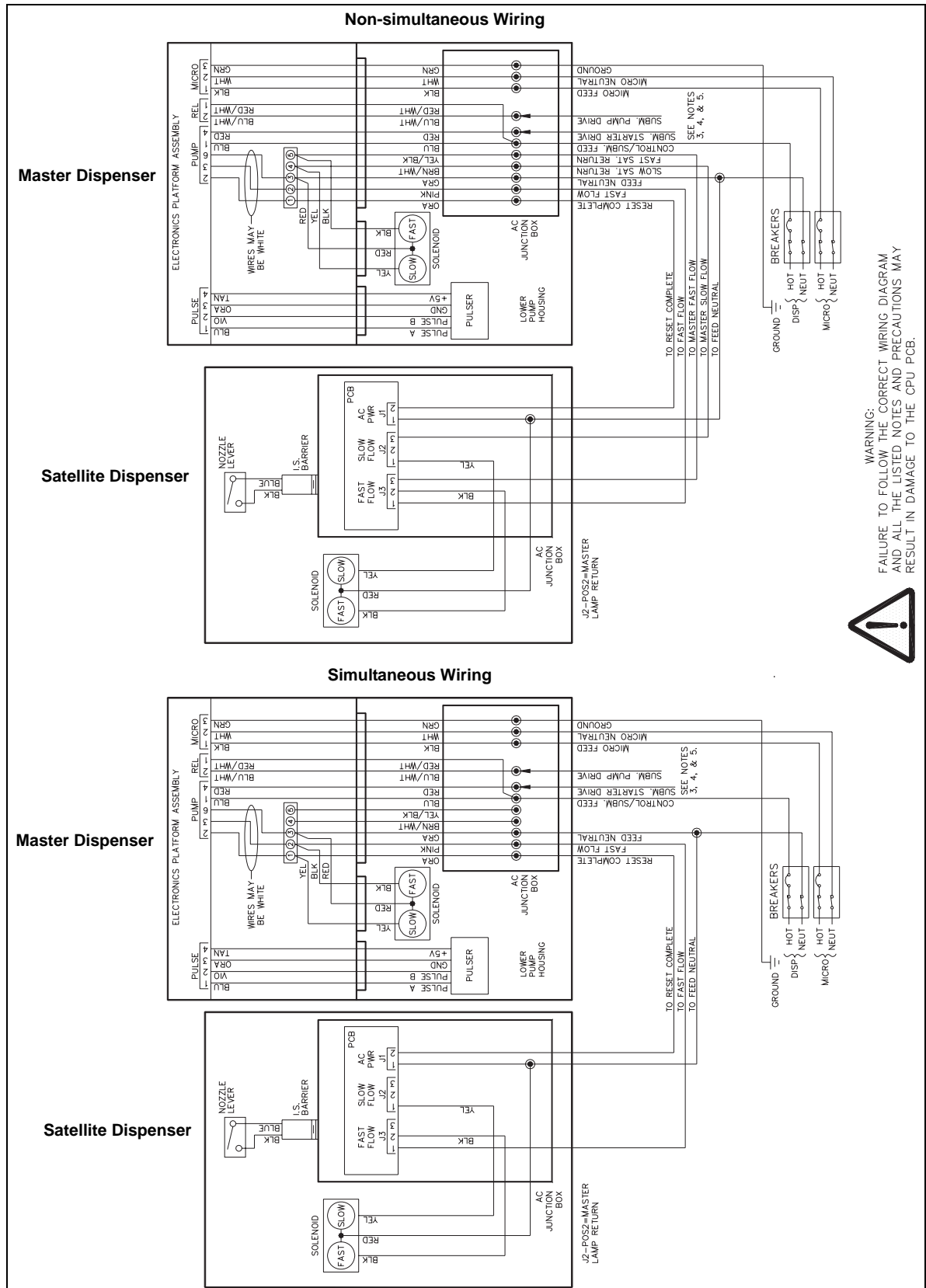


9850K Series Wiring Diagram

Models - Satellite 9216K/9850K, 9850KX, 9850KTW3, 9850KXTW

- Notes:*
- 1) All wiring and conduit runs must conform with all building/fire codes, all Federal, State, and Local codes, NEC, (NFPA 70), NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must also comply with the Canadian Electrical Code.
 - 2) To determine which mode of satellite operation is relevant for your application, refer to *Weights and Measures Handbook 44*. In many cases, the satellite must be wired so that, it cannot dispense product when the master dispenser is dispensing and vice versa. Use the correct wiring diagram according to your application.
 - 3) If using a Gasboy 9850K and satellite in an application where both master and satellite cannot dispense the product at the same time, a minor change in the 9850K wiring must be made at the terminal block. Wire the dispenser to the satellite as shown in the wiring diagram labeled “Non-Simultaneous”.
 - 4) If this unit is equipped for 230 VAC operation (international), connect the wires as shown in the standard 115 VAC wiring layout diagram.
 - 5) This wiring diagram is intended only to show the connections between the satellite and the dispenser. For applicable warnings and proper connection of all wires, see wiring diagram for master dispenser (according to model number). For the complete wiring information for the dispenser, refer to *MDE-4331 Atlas Fuel Systems Installation Manual*.

Figure 4-4: 9850K Series Wiring Diagram



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5 – Start-up

Completion Checklist

The following information must be reviewed to verify the proper installation of the satellite dispensing unit. If the installation does not meet the following criteria, correct the problem before the start-up is performed.

- 1 If connected to an Atlas Series 9800K dispenser, to avoid damage to the CPU PCB board, verify if the RESET COMPLETE, FAST FLOW, SUBM. STARTER DRIVE, and SLOW and FAST SATELLITE RETURN wires are not shorted to conduit or chassis.
- 2 The unit must be properly secured to the island.
- 3 All plumbing must be complete and tight. All liquid-carrying lines must be checked for leaks.
- 4 All conduit work must be complete. All junction box covers must be secured. Conduits must 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 or dispenser and submersible pump to remove water. Serious damage may occur.
- 7 A sufficient volume of fuel must be put in the tank to ensure that the liquid level is high enough to allow the submersible pump to operate efficiently (dispensers). This section provides information specific to the installation of Atlas pumps/dispensers.

Start-up

After successfully verifying the installation against the completion checklist, the unit is ready for start-up. To perform start-up of the satellite dispensing unit, proceed as follows:

- 1 Turn on the circuit breaker(s) for the various control lines to the dispenser to be tested.
- 2 Remove the nozzle for Side 1 from its holder and turn on the pump handle.
- 3 Dispense fuel. If the unit contains a slow/fast flow valve, verify if it opens. Check all plumbing for leaks at this time.
- 4 Turn the pump handle off. Open the nozzle. No fuel must be dispensed.
- 5 For twin models, repeat steps 1 to 4 for the other untested dispenser.

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6 – Operating the Satellite Dispenser

To operate the satellite dispenser, proceed as follows:

- 1 Provide AC power (115 or 230 VAC) to the submersible feed and slow flow/reset motor feed. If a submersible starter relay is used, AC power (115 or 230 VAC) must be supplied to the input contacts of the submersible starter relay.
- 2 Dispense the product.
- 3 At the master dispenser, the register displays the total volume. If an optional pulser kit is attached, it supplies pulses which may be recorded by an external monitoring system.
- 4 The fueling transaction continues to run until the user turns off the dispenser handle.

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7 – Preventive Maintenance

General Maintenance

Gasboy recommends a periodic inspection, at least twice a year. 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.

Note: Only a qualified service personnel must disassemble parts of the dispenser.

WARNING

To reduce the risk of electrical shock when servicing, turn off all power to the dispenser. In submersible pump applications turn off power 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. Always turn off all power to the dispenser and submerged pumps at the master panel and close any impact valve before performing any maintenance or service to the dispenser, including the changing of any fuel filters or strainers. Also block islands such that no vehicles can pull up to the dispenser when the dispenser is being worked on.

Tips for Better Pump Performance

Demand Competent Service

If the pump stops or fails to operate properly, do not depend upon the repair service of a general mechanic unless the mechanic is thoroughly familiar with the mechanism. Experience shows that the repair results are 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

If excessive wear, rust, or corrosion of parts cause inefficient operation, it is always best to replace them immediately. However, if you want the best results and continuity of the UL label on your pump, ensure that they are new and authorized service parts supplied by Gasboy. Every part of a pump or dispenser 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 reuse old ones.

Operate with Reasonable Care

The pump or dispenser that is operated with reasonable care will last longer and give better service. Abuse must 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, and so on. 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 underground and aboveground storage tanks. This is due to condensation of the moisture laden air drawn into the storage tank, or defective fill openings that are not properly protected with watertight covers. Storage tanks must 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 or dispenser and cause failures.

Preserve the Finish of 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 required. 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 must be wiped dry with a soft clean cloth to prevent the formation of water spots. Marks or spots, such as grease, oily finger prints and smudges which resist soap and detergents, will have to be removed with a stronger cleaner.

Note: DO NOT use ordinary steel wool as iron particles may adhere to the surface and cause corrosion.

Exercise care in choosing a cleaner because any cleaning compounds or powders that 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.

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