

INSTALLATION OPERATION

**GLOBAL
CENTURY
SUCTION PUMPS
AND REMOTE
DISPENSERS**

3/G2200



February 2004



WARNING

READ THIS MANUAL BEFORE YOU BEGIN

Dispensers have both electricity and hazardous, flammable and potentially explosive liquid. Failure to follow the below precautions and the Warning and Caution instructions in this manual may result in serious injury. Follow all rules, codes and laws that apply to your area and installation.

SAFTY PRECAUTIONS- INSTALLATION AND MAINTENANCE

Always make sure ALL power (motors and electronic head) to the dispenser is turned OFF before you open the dispenser cabinet for maintenance. Physically lock, restrict access to, or tag the circuit breakers you turn off when serving the dispenser. Be sure to trip (close) the emergency valve(s) under the dispenser BEFORE beginning maintenance.

Make sure that you know how to turn OFF power to the dispenser and submersible pumps in an emergency. Have all leaks or defects repaired immediately.

EQUIPMENT PRECAUTIONS

Be sure to bleed air from product lines of remote dispensers and prime suction pumps before dispensing product, otherwise, damage to the equipment may occur. Always use the approved method for lifting the dispenser. Never lift by the nozzle boot, sheet metal, valance, etc., otherwise equipment damage or personal injury may occur.

USE ONLY GENUINE PARTS.

For product liability to be valid no changes, completions or similar may be done in the equipment without the written consent of Wayne.

HOW TO CONTACT WAYNE

Trouble with the installation and operation of the dispenser should be referred to your Wayne service personnel or Wayne Technical Support. (Telephone numbers see page **Erro! Indicador não definido.**)

INDICATORS AND NOTATIONS



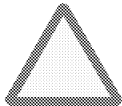
DANGER

Danger indicates a hazard or unsafe practice which, if not avoided, will result in severe injury or possible death.



WARNING

Warning indicates a hazard or unsafe practice which, if not avoided, may result in severe injury or possible death.



CAUTION

Caution indicates a hazard or unsafe practice which, if not avoided, may result in minor injury.

Note:

Important information to consider, otherwise, improper installation and/or damage to components may occur.

INSTALLATION & OPERATION

GLOBAL CENTURY SUCTION PUMPS
AND REMOTE DISPENSERS

3/G2200



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HEALTH AND SAFETY REGULATIONS

When using inflammable liquids it is important that the following rules and regulations are followed:



Within a radius from the pump it is prohibited to smoke and light or enter fire.

Idle running is prohibited while fuelling.

Distribution box must be easily accessible and may not be blocked with goods or similar.

Always let specialists make electrical installations of all kinds. Special regulations are applied!

WARNING!

Never run a leaking pump!

(Failure to observe this information results in immediate danger to life.)

Please watch any leakage from pumps. If there is a leakage, cut the power to the pump (motors and electronic head) and call Wayne After Sales Service (see page 69).

Always follow the regulations regarding handling of petrol and oil, published by each oil company.

Always follow the special authority demands regarding the vapour recovery system.

Make sure that adequate functioning fire-extinguisher is in its place and not blocked.

WARNING!

Mind the rotating V-belt when the cover of the hydraulic unit is removed.

WARNING!

To prevent damage which may result in electric shock or fire, disconnect the main power (motors and electronic head) prior to any work

WARNING!

Action to be taken after elimination of short-circuits in components located behind the motor protection: contactors and protective motor switches must be replaced.

To avoid incorrect function or that the pump is damaged, make sure that there is enough fuel in each tank.

Adequate personal safety equipment should be used by maintenance of the equipment (gloves, breathing mask, glasses etc.).

Product liability

For product liability to be valid no changes, completions or similar may be done in the equipment without the written consent of Wayne.

Intended use

The pump is designed to move (pump) petrol, kerosene and diesel in correct quantities from tank to vehicle.

Product limitation

The pump is designed and approved for measuring of petrol, kerosene and diesel, all in accordance with type approval.

Machine marking

The pump is marked with the sign (Figure 1) which means that it is designed, manufactured and described in accordance with the directives of the European Committee. EC-assurance of conformity, see page 72.

If the pump is redesigned or completed with other products, which the manufacturer does not approve of, this marking is not valid for the products which change the function of the pump.



Figure 1 CE-marking

1. INTRODUCTION

1.1. Dispensers Covered

This manual describes the installation and operation of Global Century dispensers. Global Century dispensers are designated by 3/G2200 model number series. These dispensers have iGEM computer and either Lift-to-Start or Auto on nozzle boot configurations.

The Global Century dispenser may be installed and operated as a stand-alone unit or as a component part of a Wayne Management Control System. This manual provides installation and operation information for Global Century series dispensers operating as stand-alone units; however, information concerning Wayne Control Systems is included where appropriate. Each side of the dispenser is referred to as a fuelling point for connection to a control system. Single-sided dispensers are designated by an "R" in the model number suffix and have only one fuelling point. Complete installation and operation information for the appropriate Wayne Control System can be obtained from the manuals provided with the system.

For programming the iGEM computer on these models, refer to the Programming Manual, Part Number 1-921279.

A description of each model is shown in Figure 2 and the model number suffix designations are defined in Figure 3.

1.2. Model Description

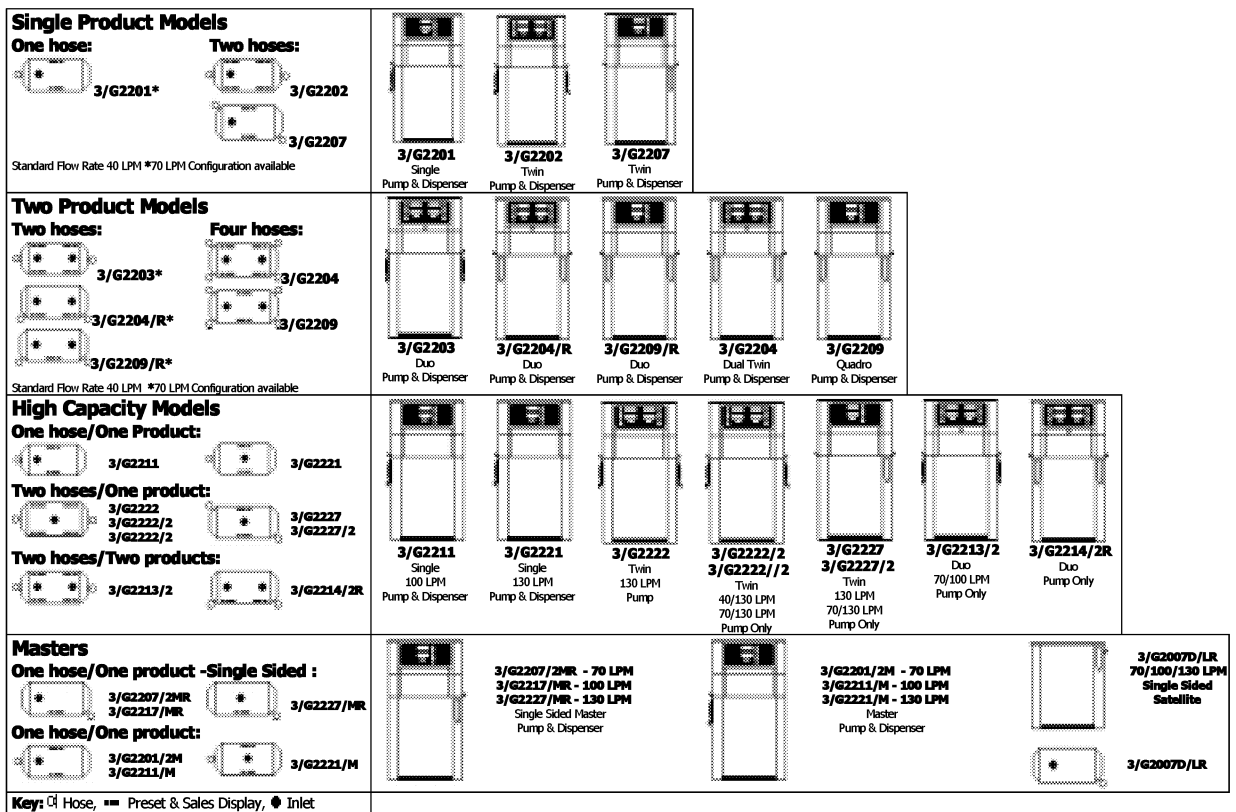


Figure 2 Model Description

1.3. Model Designation Format

Prefix / Main Body / First Suffix / Second Suffix
 XXX / ABCDEF / ZZZZZZZZ / YYYYYYYY

| | | | | |
|-------------------|-------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------|---|
| Prefix | | | | |
| | Electronic & Hydraulic Configuration | 3 | iGEM + iGHM | X |
| Main Body | | | | |
| | Model Series | G | Global | A |
| | | 2 | Century | B |
| | Model Style | 0 | Global Century Cabinet Style - Satellites | C |
| | | 2 | Column Style - Global Century Only Available in Column Style | |
| | Flow Rate Capacity | 0 | Standard Cap.(10G/40L) & High Capacity (18G/70L) | D |
| | | 1 | Special Capacity (26G/100L) | |
| | | 2 | Super High Cap. (30G/120L) | |
| | | 3 | Ultra High Cap., LC meter (40G/150L) - Reserved | |
| | Nozzle & Product Configuration | 1 | Single, Island Oriented | E |
| | | 2 | Twin (Duo I), Island Oriented | |
| | | 3 | Duo (Duo II), Island Oriented | |
| | | 4 | Dual Twin (Duo II +2) Lane Oriented - 2 Products 4 Hoses Simultaneous Dispensing & Single Side Lane Oriented Twin | |
| | | 7 | Twin (Duo I), Lane Oriented & Single Side Lane Oriented | |
| | | 8 | Duo (Duo II), Lane Oriented | |
| | | 9 | Quadro, Lane Oriented | |
| | Hydraulic System | D | Dispenser - Remote | F |
| | | P | Pump - Self Contained | |
| | | L | LPG | |
| 1st Suffix | | | | |
| | Options | 1 | Reserved | Z |
| | | 2 | High Capacity (20G/75L) | |
| | | 5 | Reserved | |
| | Activation | | Default - Lift -to-Start | |
| | | A | Auto On (not UL Listable) - Magnetic Activation on Nozzle | |
| | | A1 | Auto On (not UL Listable) - Magnetic Activation on Flipper | |
| | | B | Flow Indicator | |
| | | C | Canadian Unit - solid state relay | |
| | | E | Alcohol Densimeter (Brazil only) | |
| | | G | Filter (Remotes only) | |
| | | H | Pulser Output Board (Canada only) | |
| | | I | Satellite "In Use" Indicator – UL Models Only | |
| | | J | Explosion Proof J-Box | |
| | | K | Hose Hanger (plastic) | |
| | | K1 | Hose support (metallic) | |
| | | L | Satellite | |
| | | M | Master | |
| | | O | No EMT's - Electronic Totals Only - Default One (1) EMT per Product | |

| | | | | | |
|--------------------------|-----------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------|---|---|
| 2nd Suffix | Stop Button | P | Stop Button - Electrical Interruption | Z | |
| | | P1 | Stop Button - Computer Controlled Function | | |
| | | R | Single Sided Unit - Lane Oriented only | | |
| | Preset | S | Preset - 16 button with dedicated display - reserved | | |
| | | S1 | Preset - 12 Button - Shared functions with sales display | | |
| | | S2 | Preset - 5 Button - Shared functions with sales display | | |
| | | S3 | Preset - ADA 12 Button - Shared functions with sales display | | |
| | | T | Terminal Strip - reserved | | |
| | V | Vapor Recovery IEC Only | | | |
| | Options | 2 | Split Capacity - Different High Flow Capacities on each side of the pump | | Y |
| | | 3 | Quadro Dispenser LCD U. Price per each Product - Default Sales U.P. LCD Only | | |
| | | B | Drip Pan | | |
| | | C | Contoured Door | | |
| | | C1 | Diamond Door (High capacity-master/satellite – UL/CUL) | | |
| | | D | reserved for CAT option | | |
| E | | Export Crating | | | |
| G | | 3 Pole Relay | | | |
| H | | Hose Retractor | | | |
| T | | Temperature compensation (Canada) | | | |
| Communications | | | Default is US Current Loop | | |
| | | I | ISM - DART - Default is US Current Loop | | |
| | | I2 | ISM - DART/IFSF - Default is US Current Loop | | |
| | | J | Hose Mast | | |
| | | L | Heating element and thermostat - Europe Only | | |
| K | EMT per each hose - Default one (1) EMT per product | | | | |
| Inlet Check Valve | | Default is No Inlet Check Valve | | | |
| | M | Spring Loaded Inlet Check Valve | | | |
| | M1 | Spring Loaded Inlet Check Valve with Bleeding device (IEC) | | | |
| | P | Door Lock with unique keys per each unit - Default 1290 Key Lock | | | |
| | U | UL / CUL Approval - Default is IEC / CE Marking | | | |
| Control Valves | | Default - Global Proportional Control Valves | | | |
| | W | No Solenoids - Suction Only, no present | | | |
| | W1 | On/Off Solenoid Valves (No Preset) | | | |

Figure 3 Model Description

NOTE!

Not all models and options are listed by Underwriters Laboratories. Only those device that bear the UL Marking are listed.

1.4. Technical information

Surrounding environment

Corrosive outdoor environment, -30 C - +60 C (CE) and, 0°C - + 40°C (UL), good ventilation. Must be located outdoors.

Product limitations

The product is designed and approved for measuring of petrol, kerosene, ethanol (not certified by UL) and diesel, all according to type approval.

Noise

The noise level does not exceed 70 dB (A).

Weight

Between 116 and 262 kg depending on design.

Power consumption

Maximum power consumption is between 850 W and 2400 W depending on the number of motors.

1.5. Safety Precautions

For UL markets, NFPA 30A include that, "When maintenance to Class I dispensing devices becomes necessary and such maintenance may allow the accidental release or ignition of liquid, the following precautions shall be taken before such maintenance begins:

- only persons knowledgeable in performing required maintenance shall perform the work;
- all electrical power to the dispensing device and pump serving the dispenser shall be shut off at the main electrical disconnect panel; the emergency shut-off valve at the dispenser, if installed, shall be closed; and
- all vehicle traffic and unauthorized persons shall be prevented from coming within 20 feet (6 m) of the dispensing device."

WARNING

ELECTRIC SHOCK HAZARD! More than one disconnect switch may be required to de-energize the dispenser. Use a voltmeter to make sure circuits in the dispenser are de-energized. Failure to do so may result in serious injury.

WARNING!

Mind the rotating V-belt when the cover of the hydraulic unit is removed!

1.6. Local, State and Federal Codes

All tanks (both underground and above ground), piping and fittings, foot valves, leak detectors, corrosion protection devices, wiring, venting systems, etc., must be installed in accordance with the manufacturer's instructions and in compliance with local and regional building codes and requirements pertaining to service stations (or other locations where the dispenser may be installed). **Therefore, it is strongly recommended a licensed engineer or contractor familiar with local regulations and practices be consulted before starting installation.**

For UL markets, these requirements are referenced in the National Electrical Code (NFPA 70); the Automotive and Marine Service Station Code (NFPA 30A); the Flammable and Combustible Liquids Code (NFPA 30); the Code of Federal Regulation, Title 40 (Protection of Environment), Section 280 (40- CFR 280); and other local codes such as the Canadian Electrical Code (CEC).¹

For EU markets, see also DECLARATION OF CONFORMITY page 72.

1.7. Inspect The Equipment

Examine the shipment immediately upon arrival to make certain there has been no damage or loss in transit. Damaged or lost equipment must be reported to the carrier. Any damage or loss that may occur in transit is not covered under the Wayne/Dresser Warranty.

Make sure that all the component parts, including keys and optional equipment, if any, are accounted for. Check Make sure that all the and save the Packing Slip, Bill of Lading, Invoice, and all other documents included in the shipment.

¹ Reprinted with permission from NFPA 30A-90, Automotive and Marine Service Station Codes, Copyright 1990, National Fire Protection Association, Quincy MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association on the referenced subject, which is represented only by the standard in its entirety.

2. SITE PREPARATION

By installation of fuel stations the rules and regulations of the authorities for each country must be followed. You must always be updated regarding changes and completions of the rules.

Therefore, it is strongly recommended a licensed engineer or contractor familiar with local regulations and practices are consulted before starting installation.

If the dispenser is to be attached to an existing underground installation, check the installation carefully. The Wayne Division is not responsible for the improper operation of it due to accidents, abuse or faulty installation.

All equipment must be installed in accordance with all applicable regulation as described in Section 1.6. page 11.

WARNING!

Follow strictly local installation instructions to avoid pipe/pump leakage that may cause substantial fuel leakage.

2.1. Emergency shutdown

To be able to stop an unrequested outflow of petrol the electric control of the meters must be connected in such a way that the flow can be stopped. This function should be designed as an emergency shutdown. A reset of the emergency shutdown must not result in an automatic start of the pump motor. The emergency shutdown is marked according to national standard and should be located in such a way that it can easily be reached by the pump area supervisor. The emergency shutdown must turn off the supply power in the electrical control center to all meter cabinets. All concerned staff must be informed of the location and function of the emergency shutdown."

2.2. Safety switch

There is no safety switch on the pump, but must be installed on the distribution box.

NOTE!

"Every electrical supply must be supplied with a disconnecting device according to the requirements in EN 60204-1."

2.3. Emergency shut-off valve

WARNING!

For remote dispensers, a Listed¹, rigidly anchored emergency shut-off valve must be installed, in accordance with the manufacturer's instructions, in each supply line at the base of each dispenser. For a typical emergency valve installation see Figure 4. Failure to install the proper emergency shut-off valve will present a hazardous condition that could result in serious injury.

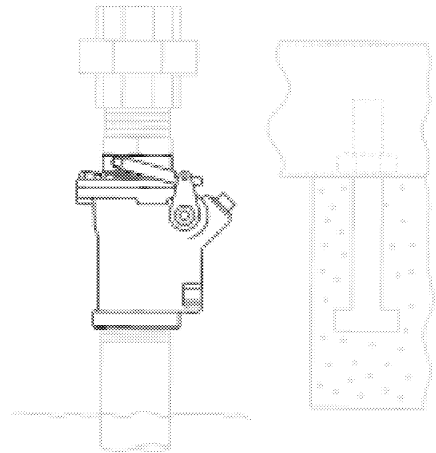


Figure 4 Emergency shut-off valve

¹ "Listed" means published on a list by a nationally recognized testing laboratory (NRTL) which is responsible for product evaluation and is acceptable to the authority having jurisdiction. Underwriters Laboratories, Inc. is one example of a Nationally Recognized Testing Laboratory. For more information on NRTL's, see Title 29, Parts 1907 and 1910 of the Code of Federal Regulations, Safety Testing or Certification of Certain Workplace Equipment and Materials.

2.4. Pipelines (pressure pumps) (For UL markets)

Product piping must avoid the creation of vapor in the lines and deliver a minimum pressure of 25 psi at the dispenser inlet when all dispensers at the station dispensing the same product are operating. The dispenser's maximum operating pressure rating is 50 psi.

Note!

This chapter (2.4.) is not applicable on European market.

Dig a trench between the tanks and the dispenser foundation. The trench must be deep enough to place the product line at least 18 inches (46 cm) below the surface of the ground at its highest point (more in hot climates or high altitudes) and the slope upwards from the tank should be approximately 1/4 inch per foot (1 cm lift per 48 cm length). The trench should be as tight as practical to avoid as many elbows and bends in the line as possible. If the distance from the tank to the dispenser is 60 feet (18.2 m) or less, 1 1/2 inch (I.D.) pipe may be used; if the distance is greater than 60 feet (18.2 m), use 2 inch (I.D.) pipe to lessen friction. All piping must conform to local fire regulations.

Wayne recommends using new galvanized pipe and fittings for supply lines. Galvanized pipe is also recommended for the fill and vent lines. The pipe used for the product line must be clean. To clean it, rap it with a hammer to loosen excessive spelter and dirt, and then swab it out with a rag soaked in mineral spirits. Pull the soaked rag through the pipe by attaching it to the end of a long wire. Be careful to keep the pipe clean during its installation. All pipe threads should be properly cut and each end of the pipe reamed. Clean the pipe of thread cutting and shavings.

Note!

This chapter (2.4.)is not applicable on European market.

To ensure tight pipe joints, wash all cutting oils off the threads and use a UL-Classified pipe joint sealing compound, suitable for use in devices handling petroleum-based products. Place the sealant on male threads only, being careful not to get excess inside the pipe or fittings when making up Joints.

Use nothing but ground joint unions in underground pipe work. No gasket or pipe sealing compound is required with this type of union. We recommend the use of at least one union in the dispenser supply line for accessibility in the event of trouble developing later. This should be placed as close to the tank as possible.

To prevent Zinc contamination of diesel fuels. It is recommended that all diesel fuel supply lines be non metallic, UL-Listed, and Installed per the manufacturers recommendations.

Swing joints and universal joints, or flexible connections, should be used at the ends of all horizontal runs, such as the pipe between the dispenser and the tanks. These aid in aligning the dispenser inlets with the underground piping, and prevent leaks which might develop through the settling of the tanks or heaving of the ground from heavy traffic or frost and thaw.

Note!

This chapter (2.4.) is not applicable on European market.

Block up the sloped section of products line, when installing in the trench to avoid settling. Take particular care that the lines slope continuously upward from tanks to dispenser, otherwise vapor traps may cause erratic dispenser operation. Test the lines for leaks before covering.

Breakaway devices should be used at the base of the dispenser so that damage to a dispenser will not also damage the product line. Certain applications may require emergency shutoff valves as a precaution against hazards due to fires and accidents, if these valves are required, they must be installed in accordance with the manufacturer's instructions. The automatic closing feature of the emergency shutoff valves should be tested at least once per year to ensure proper operation.

Emergency shutoff valves and breakaway devices are examples of the requirements stated in NFPA 30A, the Automotive and Marine Service Station Code. This equipment, as well as any other safety devices required by NFPA 30 and NFPA 30A, must be installed and maintained per the manufacturer's instructions.

When the dispenser has been connected and the pipe sealant is dry, the lines should be tested for leaks. Be sure to properly plug any passages to the underground tank, otherwise, over-pressurization of the tank will result in tank leaks.

Note!

This chapter (2.4.) is not applicable on European market.

To test underground lines, apply air pressure, in accordance with required local codes. While the pressure is on the line, apply soap and water solution completely around each joint. A slight leak will bubble when the solution is applied. This test must be performed /before the lines can be track filled.

On existing underground lines, an air pressure test can be performed by applying a soap and water solution to any visible joints in the line. To ensure a tight line, block any passages to the tank and apply air pressure to the line. Pressure should remain on the line for at least one hour with no loss in pressure, or in accordance with local codes. Also be sure to check unions and impact valves for leaks on the inlet valves under all the dispensers, not just the one being serviced.

Note:

Be certain to check local codes concerning line testing. In some areas a hydrostatic test as well as air pressure test is mandatory.

2.5. Check Valves (Suction Pumps Only) (For UL markets)

Note!

All check valves must be constricted to ensure thermal expansion pressures in excess of 50 psi (345 kPA) are relieved back to the tank. To assure compliance a suitable UL Certified valve is recommended.

Suction pumps require a check valve in the product lines to stop the product from draining back into the tank. Wayne recommends that double poppet foot valves are used inside the underground tank. The foot valves should be the same size as the suction lines. Foot valves designed for handling petroleum products are equipped with a coarse mesh strainer screen, the bottom of this screen is blocked off so that the product enters the valve from the side.

Note!

This chapter (2.5.) is not applicable on European market.

Some installers prefer a double poppet check valve in the line just above the tank. If a check valve is installed at the top of the tank, the end of the suction line in the tank should be equipped with a suction pipe strainer. The suction pipe strainer is similar in construction to the bottom of the foot valve and serves the same purpose.

Examine the valve carefully and remove any blocks or other means used by the manufacturer for protecting the valve in shipping. Clean the valve thoroughly with mineral spirits, because any dirt, lint, or foreign matter between the poppet and the seat will cause it to leak. The valve should be handled carefully, not dropped or thrown around. Never clamp the body of a check valve in a vise or apply a wrench to any part other than the hexagonal end of the valve. If done, it may spring or distort the valve, causing leakage or valve sticking.

Establish the length of the suction pipe in the tank to which the check valve will be attached, keeping in mind that the bottom of the suction stub must be at least four (4) inches (10 cm) off the bottom of the tank. The type of connection at the tank opening will have some bearing on the length of this pipe. Sometimes, a tank reducing plug (double tapped bushing) is used. Wayne recommends the use of an extractable foot valve for easy and quick removal of the check valve in the tank. The importance of keeping the end of the line in the tank at least four (4) inches (10 cm) off the bottom of the tank cannot be overemphasized. Condensation is constantly occurring inside the tank and creating water on the bottom. Checking tanks

regularly and keeping them clean reduces the risk of drawing water and debris into the lines and dispenser.

It is a good idea to test for leaks in both the check valve and the pipe as an assembly before installing them in the tank. Before installing the valve, pour petroleum into the check valve and pipe assembly and let it stand for an hour or two to make sure the check valve seals properly.

2.6. Connecting More Than One Pump To a Tank (Suction Dispensers) (For UL markets)

If you intend to connect more than one suction dispenser to a tank, it is best to obtain a tank with enough openings to provide each pump with a separate suction line. Tanks used in remote systems normally require only one pump (submersible) to supply several dispensers; tanks designed specifically for suction dispensers will have additional openings.

Note!

This chapter (2.5.) is not applicable on European market.

Where a tank is equipped with only one opening for a suction pump connection, Wayne does not suggest the use of two or more pumps on one line; however, if this type of installation is unavoidable, it is very important that a swing check valve be used in each suction line branch, and that each valve be placed in the line as close as possible to the connection leading to the main suction line coming from the tank. This is necessary to prevent a pump from emptying the line leading to another pump instead of pulling the product out of the tank.

2.7. Fill Pipe (For UL markets)

Note!

This chapter (2.7.) is not applicable on European market.

If the fill pipe is used for the insertion of the gauge (dip stick to determine the amount of product in the tank, it is important that this pipe be in a straight vertical position). The top of this pipe should be protected with a fill box so that in freezing weather, the frozen ground will not pull the tank flange loose from the tank.

2.8. Venting (For UL markets)

Note!

This chapter (2.8.) is not applicable on European market.

The tank must be vented, Wayne recommends conforming to the rules of the National Fire Protection Association (NFPA). It is important that this vent line slopes slightly upward from the tank, avoiding traps or pockets, and this line should be equipped with swing joints to prevent its breaking due to settling or freezing. The top of the vent line should be at least 12

feet (366 cm) above the ground and at least 5 feet (152 cm) away from chimneys, windows or other openings. The vent outlet should be protected to minimize the possibility of blockage due to insects, nests, etc.

2.9. Installation of Dispensers in a Centrally Pumped System (European Market)

If the model is a dispenser variant (with the additional marking “D”) an external (central) pump is used instead of an internal pump. The external system must comply with OIML 117, item 5.1.3 (i.e. it shall be equipped with an arrangement that prevents air to come into the system). The external (central) system shall fulfill the requirements below.

2.9.1. Level Detection

An automatically level detection system shall be installed in the storage tank, which prevents using the submerge pump when the liquid level reaches a minimum level above the inlet of the pump.

2.9.2. Preventing Gas Release

There shall be a delay time of at least 3 seconds between the start of submerged pump and the start of the delivery, to assure that no release gas (e.g. generated during shut down periods as a result of temperature drop will be in the system at the start and during a delivery.

2.9.3. Leak Detection

Detection of any leakage shall result in stopping or preventing of any delivery.

Note!

When the leak detection system consist of a pressure control device, this provision fulfills also requirement 2 if the pressure stays always well above the vapor pressure of the liquid.

2.9.4. Pipeline Construction

The pipelines between the pump unit and the dispenser are installed with a positive slope of at least 1%.

2.9.5. Security of the Electronic Devices

The devices mentioned in 1, 2, and 3 shall be in “positive”security so that no delivery is possible if one of these devices fail. It shall be possible to check if the electronic devices (e.g. by simulation) are functioning correctly.

2.10. Function Test of Vapour Recovery

The following instructions must be used when making a function test of the vapour recovery system on pumps of the Global Century series.

Test

- 1 - Enter function F34.03 (side A) or F34.04 (side B) (see "Programming" page 40)
- 2 - Lift the nozzle you want to test
- 3 - Use up or down key on the remote control to increase or decrease the simulated flow rate.
- 4 - Use Elaflex fast tester (Wayne Malmö number 232405) or a plastic bag.

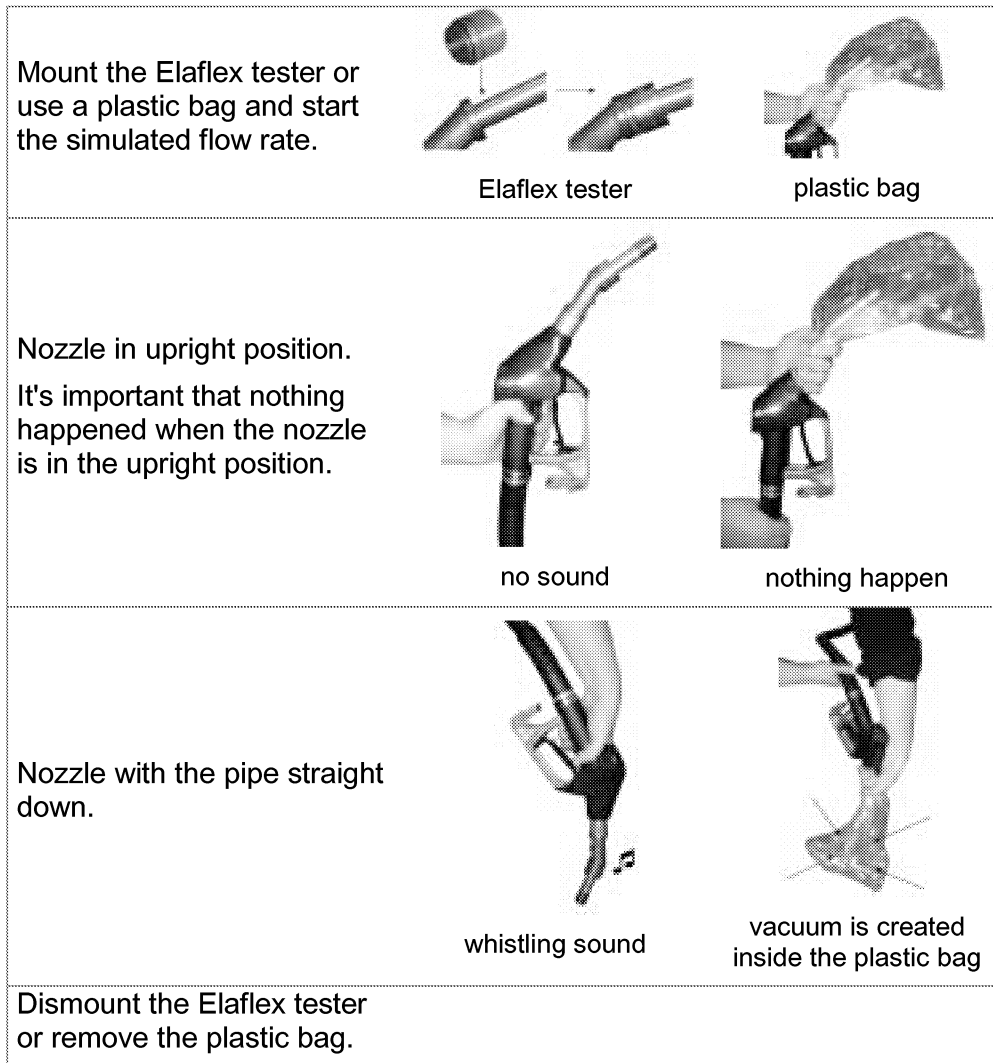


Figure 5 Function Test of Vapour Recovery

If these tests do not work, please contact Wayne After Sales Service (see page 69).

3. INSTALLING THE DISPENSER

A concrete foundation should be provided for the dispenser. Do not pour concrete around product or electrical risers.

Do not leave any loose dirt inside the bottom of the dispenser. Dirt and dust blown around by the motor fan or by the motion of the pulleys is likely to get attached to the V-Link belts and cause excessive wear on the belts.

Rules and regulations

By installation of fuel stations the rules and regulations of the authorities for each country must be followed. You must always be updated regarding changes and completions of the rules.

CAUTION!

Danger of tipping!

Follow the lifting instructions.

Note the point of balance.

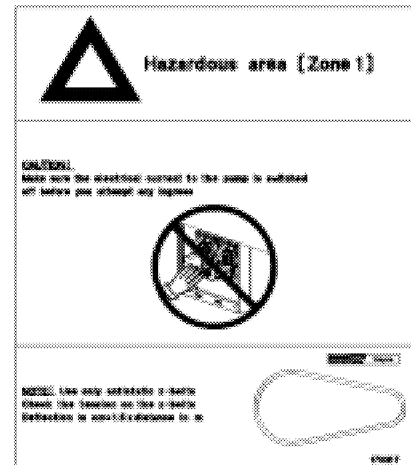


Figure 6 Decal

Vertical supply risers and electrical conduits should be located in accordance with the installation drawings for the appropriate model. Proper height must be maintained to avoid undue stress on the dispenser. To install the dispenser, complete the following steps:

Step 1

Remove the dispenser from its shipping carton. This should have already been done when the equipment was inspected—refer to chapter 1.7. "Inspect The Equipment" page 11.

Step 2

Unlock and remove the dispenser doors by removing screws on the bottom of the hinged doors, lifting them straight up to clear the base, and then pulling them forward.

Step 3

Remove the shipping discs from the inlet unions.

NOTE:

Before performing the following steps, refer to the Installation illustration 1- thru 7-305100 page 77 for new site installations.

CAUTION

When handling the dispenser, lift only by the base or main chassis. Do not lift by the nozzle boot, hose outlet, operating lever or any external panels, this may result in dispenser damage and/or personal injury.

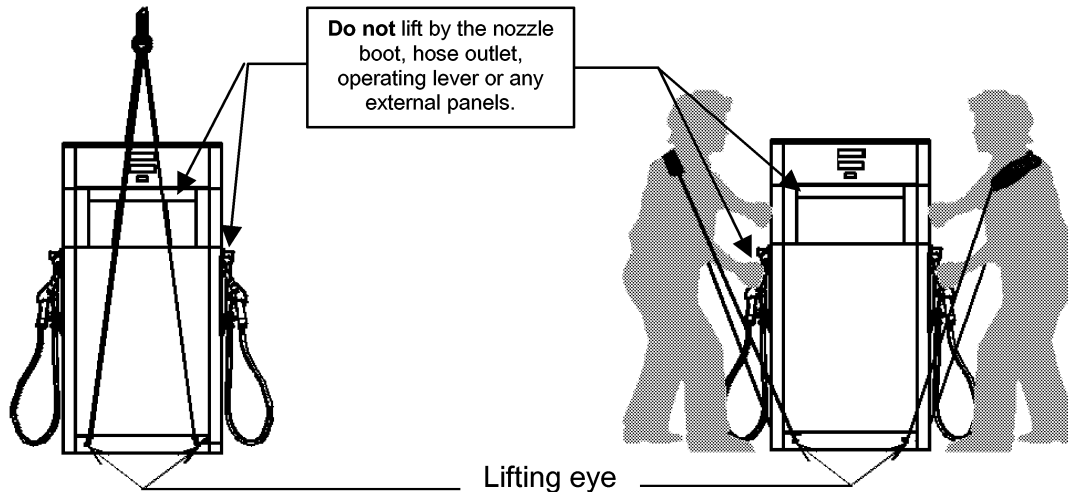


Figure 7 Lifting the pump

WARNING!

Danger of tipping!

Bolt the pump on the base.

See attachment points in the “Installation instruction” page 76!

Step 4

Raise the dispenser up even with the island and slide the dispenser onto the island. Position the dispenser on the island in accordance with the dimensions shown on the appropriate engineering drawing in chapter 11. page 76.

Step 5

Make all piping and conduit connections and anchor the dispenser to the island using anchor bolts. The base of dispenser is provided with two bolt hole slots (3/4 inch by 1 1/2 inches) for anchoring the dispenser to the island.

Step 6

- (a) Make electrical connections as shown on appropriate engineering instruction drawing in chapter 11. page 76 and verify that electrical power source(s) match the component electrical ratings shown in Figure 8 and Figure 14.

NOTE:

Wayne recommends employing a qualified licensed electrician for all wiring. A hazardous liquid is being handled, therefore, it is extremely important to ensure that all wiring is in accordance with the local rules, regulations, and codes discussed in Section 1.6. page 11, Local, State and Federal Codes.

CAUTION

Wires must be marked (labeled) within six (6) inches (15 cm) prior to entering the conduit union and also in the splice box to avoid component damage or shock hazard caused by incorrect wiring connections.

(b) If the dispenser will be operated with a Wayne Control System, make the DATA wire connections as illustrated in the appropriate engineering drawing. These DATA wires are not required for full service (stand-alone) dispenser operations, however, if a Wayne Control System will be installed later, the DATA wires should be run at initial installation.

NOTE:

If the optional DATA wires are run they should not be physically connected to the DATA terminals in the dispenser junction box or left open ended in the dispenser splice box. Instead they should be properly terminated individually using wire nuts.

| Component | Electrical Ratings |
|-----------------------------|---------------------------------------|
| Suction Pump Motor Options | 1 HP, 50/60 Hz, 115/230V, 1 Phase |
| | 1 HP, 50/60 Hz, 230V, 3 Phase |
| | 1 HP, 50/60 Hz, 400V, 3 Phase |
| | 1 HP, 50/60 Hz, 230/400V, 3 Phase |
| | Motor options 1, 1kW is missing above |
| Ballast Transformer Options | 110VAC, 2x7W, 50/60 Hz |
| | 230VAC, 2x7W, 50/60 Hz |

Figure 8 Component Electrical Ratings

3.1. Cable drawing (IEC)

Cable ducts for low voltage and high voltage must be separated, to minimize the disturbances (at least 50 cm between them). Avoid excess wire loops in wells. They cause disturbance in the computers.

3.1.1. Routing of Power Cables

Cables is to be routed along the phased side of the pump as shown in **Erro! A origem da referência não foi encontrada..** They shall be fastened with three appropriate cable-fasteners at the plate.

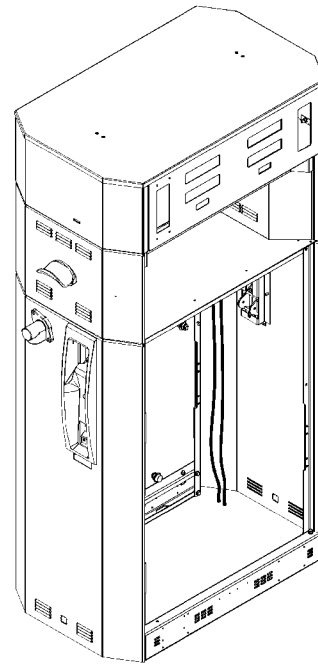


Figure 9 Routing of Power Cables

3.2. Instructions for Non-Junction Box Version of Global Century Master Dispenser (UL only)

The following are instructions for the installing contractor in the event the unit is ordered without an electrical junction box. These instructions will be used for dispenser wiring.

Warning note:

Electric shock hazard! More than one disconnect switch may be required to de-energize the dispenser for maintenance and servicing. Use a voltmeter to make sure ALL circuits in the dispenser are de-energized. Failure to do so may result in serious injury.

1. Unlock and open both hinged doors on the dispenser.
2. Carefully remove the dispenser front bezel panels.
3. Dispenser must be anchored to the island.
4. Pull wires from the station electrical panel to the dispenser electrical enclosure. Wires must be non-interrupted to the dispenser electronic enclosure. Allow a minimum of 24" above the electrical conduit in the enclosure for termination later on.
5. At the base of the dispenser, bring wires through a UL approved seal off and then route wires through a $\frac{3}{4}$ NPT conduit (to be provided by installer) to the coupling under the vapor barrier. This coupling feature $\frac{3}{4}$ NPT for the installer. Conduit or fitting must be free of all oil, chips, and dirt.
6. Wires must be either separated with Part No. 003-201623- at the top of the electrical enclosure.

You can use two or three ply jute string to separate wires and dam conduit Part No. 2-916916-two ply, or 3-916916-three ply. Wrap string around each wire and then around entire bundle as required to complete dam. Twisted wires must be separated.

7. Each wire must be placed into a separate groove of the sealing gasket (3-201623) see Figure 10. After all wires have been separated, place double-faced adhesive tape (918193), or equivalent, over wires and sealing gasket see Figure 11. Roll the sealing gasket and wires into a cylinder, starting at the end of the gasket with wires, to form a wire-sealing dam. Wrap electrical tape around outside of dam see Figure 12. Insert a dam into the top of the conduit such that the top of the separator is 1 1/8 to 1 1/4 inch deep, see Figure 13.

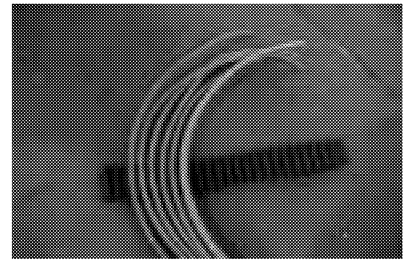


Figure 10 Sealing Gasket

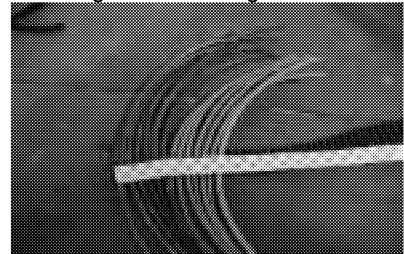


Figure 11 Double-Faced Adhesive tape

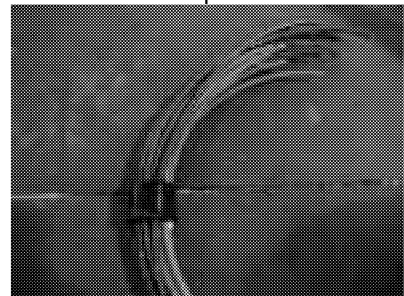


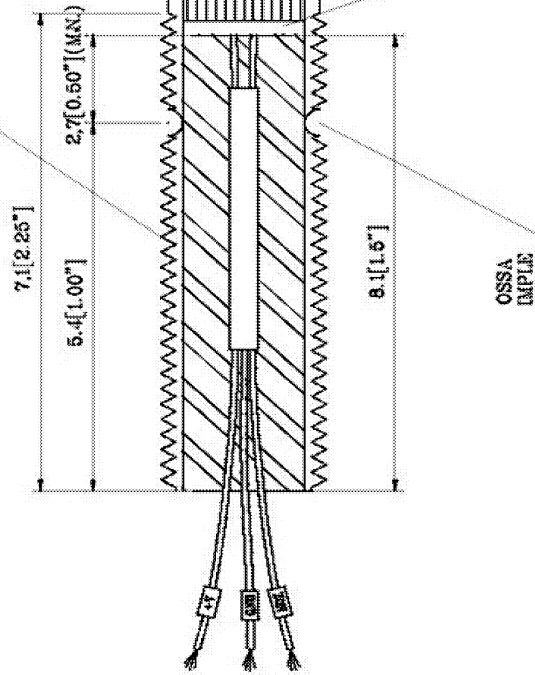
Figure 12 Gasket Wrapped

16915-00R -- COMPOSTO SELANTE --- (QUANTIDADE NECESSARIA)
 SEAL COMPOUND --- (AR)

E. FOR USADO O CIMENTO ROCKITE .
 NECESSARIO O USO DO RETARDANTE DE CURA 3-916915-00R --- (QUANTIDADE NECESSARIA)
 F. ROCKITE CEMENT IS USED
 --916915-00R -- CURE RETARDER IS
 REQUIRED --- (AR)

U / OR
 HICO X

ELANTE COM SEPARADOR
 E FIOS POSICIONADO NA
 PROFUNDIDADE MOSTRADA
 SEAL WITH WIRE
 SEPARATOR LOCATED TO
 DEPTH SHOWN



--916916 -- BARBANTE DE FIBRA -- QUANTIDADE NECESSARIA
 JUTE STRING --- (AR)
 --916916 -- BARBANTE DE FIBRA -- QUANTIDADE NECESSARIA
 JUTE STRING --- (AR)

OU/OR

--201623 -- GAXETA SELANTE -- (I)
 SEALING GASKET -- (I)
 18193-009 -- FTTA -- QUANTIDADE REQUERIDA
 TAPE --- (AR)

Figure 13 1-305797 Conduit Sealing Standards

3.3. Emergency shutdown

To be able to stop an unwanted outflow of petrol the electric control of the meters must be connected in such a way that the flow can be stopped. This function should be designed as an emergency shutdown. A reset of the emergency shutdown must not result in an automatic start of the pump motor. The emergency shutdown is marked according to national standard and should be located in such a way that it can easily be reached by the pump area supervisor. The emergency shutdown must turn off the supply power in the electrical control centre to all meter cabinets. All concerned staff must be informed of the location and function of the emergency shutdown.

3.4. Safety switch

There is no safety switch on the pump, but must be installed on the distribution box.

NOTE!

"Every electrical supply must be supplied with a disconnecting device according to the requirements in EN 60204-1 or appropriate local code."

3.5. Sealing of the pump to the ground

It is important that the pump is sealed to the ground.

By installation of the pump sealing must be done so that any leakage is diverted outside the pump. In this way the leak will be discovered on an early stage.

Through-holes for cable ducts, liquid tubes, gas pipes and bolts, as well as cables in cable ducts must be sealed with sealing compound.

Considering the explosion hazard and the sanitary regulations the equipment must be designed in a way so that fuel in gas or liquid form cannot penetrate other tube systems, station buildings or other areas.

The sealing compound must be resistant to fuel and easy to mend after damages.

We recommend SIKA FLEX 12-SL, order number 203730. The surface of the ground plate must be even without too much irregularities.

3.6. Submersible Pump Controls

Remote dispensers allow the use of a relay to interface to the submersible pump motor. Potter and Brumfield relay No. PRD7AYO in a Listed magnetic motor controller assembly is recommended. Relay specifications are listed in Figure 14 Submersible Pump Relay Specifications.

A maximum of 24 fueling points may be connected to a single PRD7AYO relay; other relays may have different limitations. All dispensers operating the same pump control relay must be connected to the same circuit breaker, which may require multiple submersible pump control relays for a submersible pump.

Ensure the submersible pump receives its power from its own separate Submersible Pump Circuit Breaker as illustrated in the Typical Site Wiring Diagram 7151 -C in chapter 11. page 120.

| | | |
|--------------------------|----------------------------------------------------------------------------------------------------|----------------------|
| Coil (120V) | Control Voltage | 120 VCA, 50/60 Hz |
| | Coil Resistance | 290 0 (Ohms) + 15% |
| | Pull-in Characteristics | Current - 0.085 Amp |
| | | Voltage - 75 VCA |
| Drop-out Characteristics | Current - 0.085 Amp | |
| | Voltage - 55 VCA | |
| Coil (240V) | Control Voltage | 240 VCA, 50/60 Hz |
| | Coil Resistance | 1100((Ohms) (15% |
| | Pull-in Characteristics | Current, - 0.043 Amp |
| | | Voltage - 204.0 VCA |
| Drop-out Characteristics | Current - 0.043 Amp | |
| | Voltage - 144.0 VCA | |
| Contact Rating | Contact rating must be equal to or greater than Voltage and Horsepower rating of Submersible Pump. | |

Figure 14 Submersible Pump Relay Specifications

3.7. Multiple Dispenser Wiring

A primary requirement in dispenser installation wiring is to provide a means for disconnecting all power connections, including the neutral, to the dispensers for safe shutdown and servicing of the units. Each dispenser can be provided with a separate control Power Circuit Breaker.

If this is not desirable or practical, several dispensers can be grouped together and tied to the same Control Power Circuit Breaker as illustrated in Typical Site Wiring Diagram 7151 -C in chapter 11. page 120. A group of dispensers would then consist of all the dispensers and associated Submersible Pump Control Relay coils supplied by the same Control Power Circuit Breaker. When more than one dispenser within the group activates the same submersible pump the Relay Select lines may be tied together at the Submersible Pump Control Relay Coil terminal up to a maximum of 12 connections (24 fueling points). Where more than 12 connections activate the same submersible pump, additional relays should be used and the contacts paralleled as illustrated in 7151-C. In larger installations, dispensers can be separated into multiple groups.

WARNING

Electric Shock Hazard No connections (including neutral) may be shared between groups of dispensers. A separate Control Power Circuit Breaker must be provided for each group. Failure to do so may result in serious injury.

3.8. Hose Installation (UL)

Hose assemblies should be UL Listed and installed in accordance with the manufacturer's instructions. To ensure a proper joint, wash all cutting oil off the threads and use a UL classified gasoline-resistant pipe joint sealing compound. Place the compound on male threads only; be careful not to get any excess compound inside fittings. Install the fixed end of the hose to the dispenser outlet; secure according to the instructions of the sealing compound and hose manufacturers. Install the swivel end of the hose or other swivels to the nozzle according to the manufacturer's instructions.

NFPA code requires that a Listed emergency breakaway device, designed to retain liquid on both sides of the breakaway point, must be installed on each hose dispensing Class I liquids; these devices must be installed and maintained per the manufacturer's instructions. Refer to your state and local codes for breakaway device requirements that apply to your installation.

WARNING

Use only Listed hoses and nozzles. Continuity must be present between the dispenser outlet and nozzle spout to prevent static discharge while fueling. Continuity must be checked for each outlet/hose assembly to insure that the nozzle is grounded. Failure to do so may result in a hazardous condition that could cause serious injury.

3.9. Bleeding Product Lines (Remote Dispenser)

Make sure the power to the appropriate submersible pump is OFF.

NOTE:

To avoid severe damage to the dispenser, all air and air pockets must be bled from the product trunk lines before attempting to dispense product.

To bleed air from a trunk line, remove the pipe plug from the safety impact valve on the dispenser farthest from the storage tank.

Attach a flexible hose to the pipe plug opening in the safety impact valve. Energize the appropriate submersible pump and allow the air to bleed out of the trunk line into a test can until product flows into the test can. De-energize the submersible pump and replace the pipe plug. Repeat the procedure for each product and each trunk line.

3.10. Priming Suction Pumps

Suction pumping units must be primed before their initial operation; it is not advisable to run any type of internal gear pump dry during the priming process. Remove the cover and the check valve and fill up with liquid in the pumping unit before starting the pump for the first time, see picture.

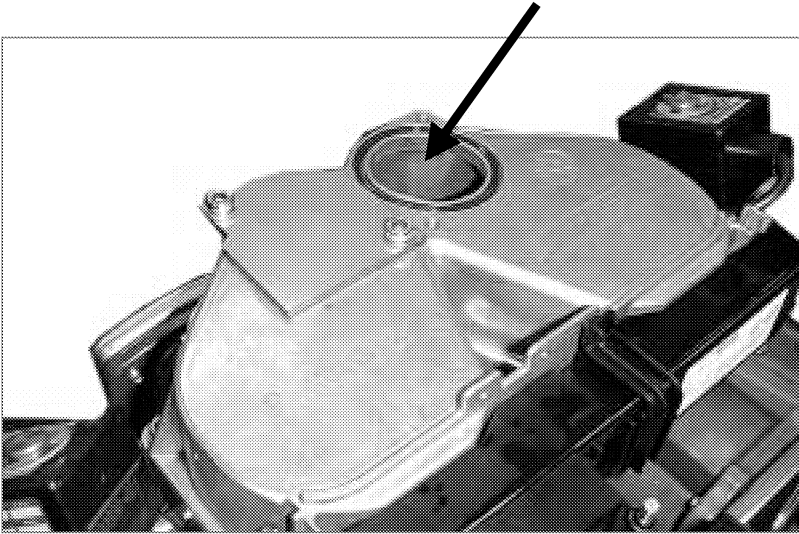
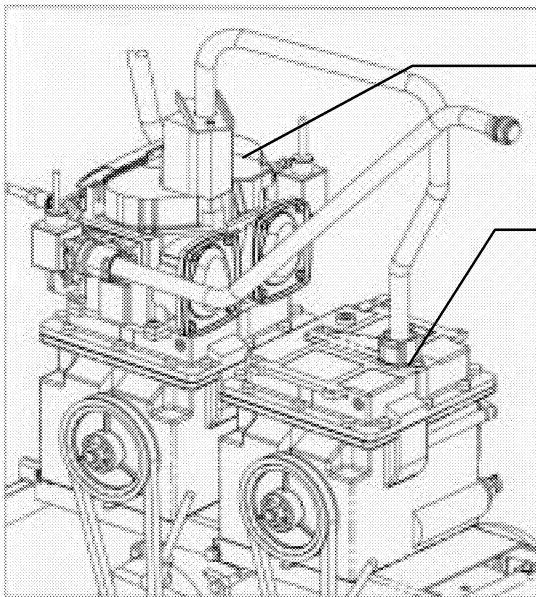


Figure 15 Priming Suction Pumps



Remove the inlet check valve ass'y and cage ass'y plug.

Remove the tube.

Figure 16 Priming Suction Pumps (Duo with one twin meter)

3.11. Above Ground Storage Tanks

When installing Wayne suction pumps in locations with above ground tanks and a pressure regulator valve, a pipe plug with an orifice (see part number with your vendor) must be added into the pumping unit for optimum performance. Refer to the drawing Figure 17 that shows where to add the pipe plug.

Above ground tank installations with a pressure regulator valve may not allow the pumping unit to generate enough vacuum to keep the air chamber from over filling with fuel and allowing it to discharge from the vent. The addition of this orifice plug will prevent this problem.

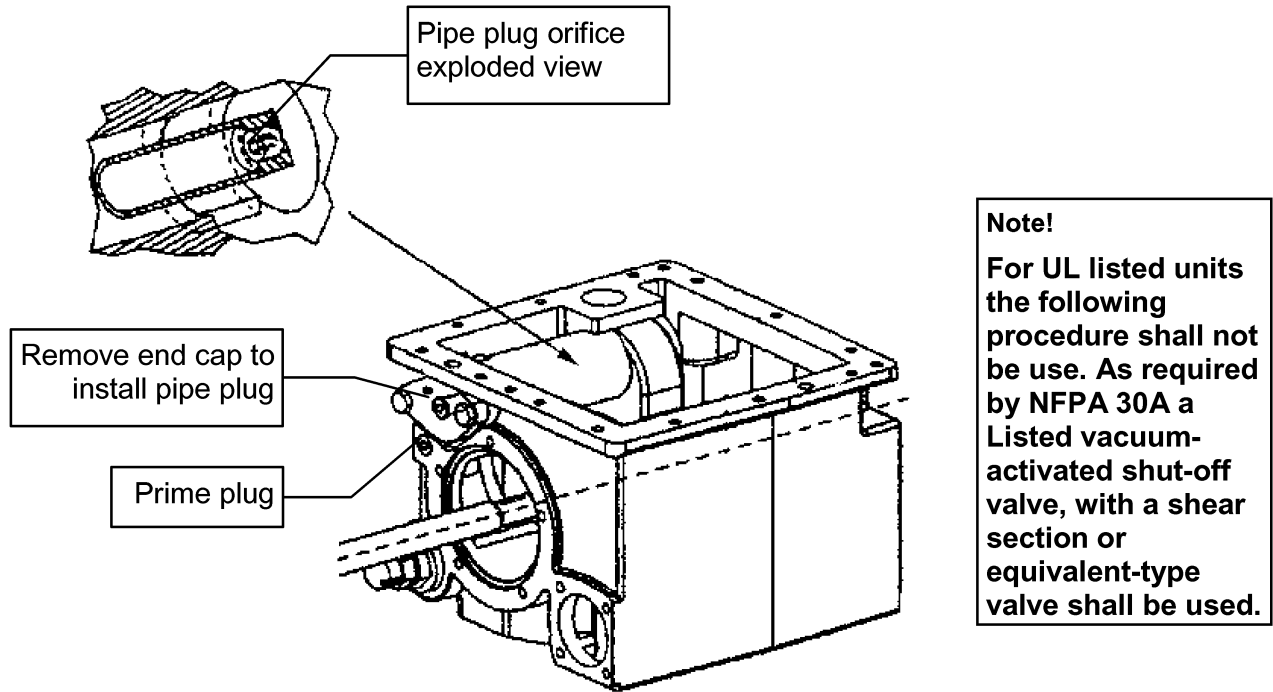


Figure 17 Location of Pipe Plugs in Pumping Unit.
The pipe plug is only required for above ground storage tanks.

Overground Tank and Pipes

The next figure shows in rough outline how an overground tank and its pipes can be placed. This figure shows only one tank, but depending on the pump model the pump can be connected to between one and four tanks.



WARNING!
Follow strictly local installation instructions to avoid pipe/pump leakage that may cause substantial fuel leakage.

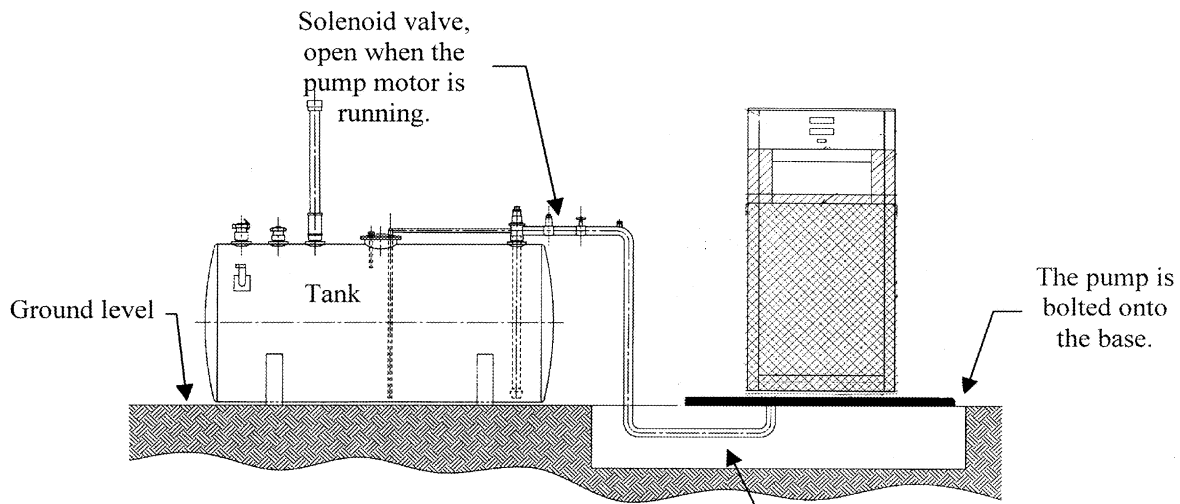


Figure 1 Overground tank and pipes

See also chapter xx xx page xxx and chapter xxx xxx page xxx.

Pipes:

- fuel
- vapour recovery
- return pipe from the air separator to the tank

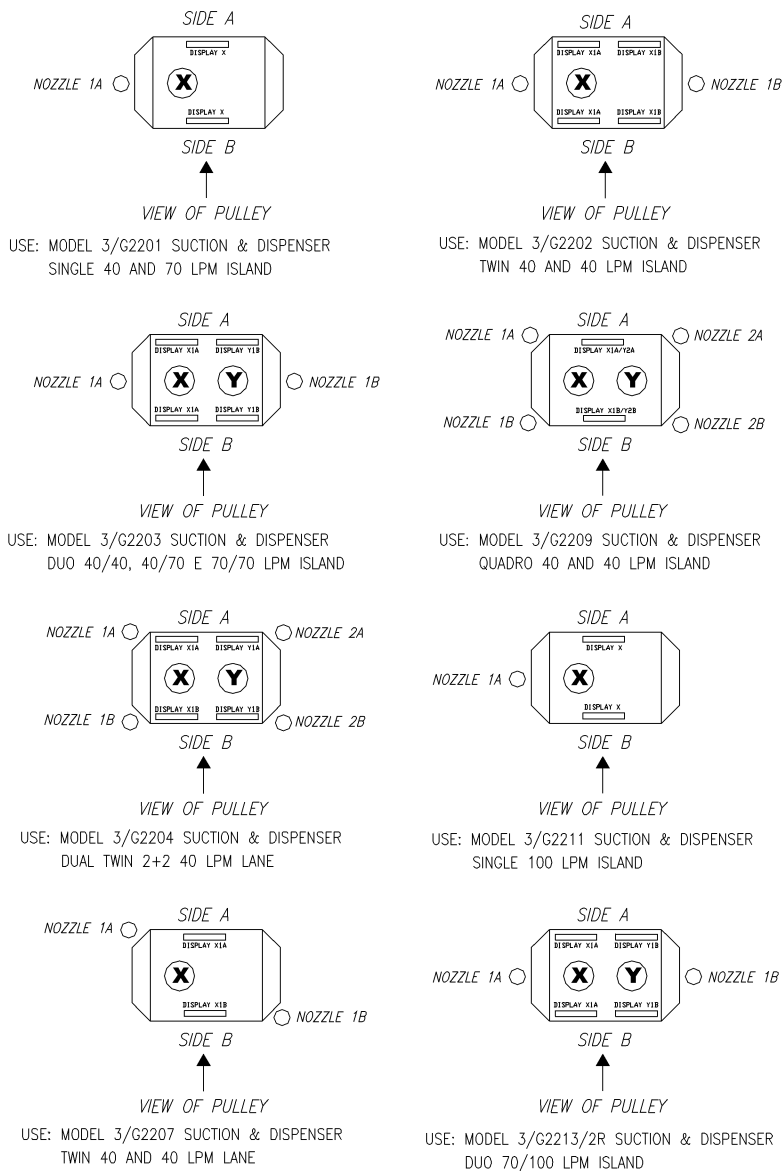
Figure 18 Overground Tank and Pipes

4. START-UP PROCEDURE

Power should be OFF. Always turn the dispenser control power circuit breaker OFF before accessing the inside of the dispenser.

4.1. Hose Position Coding

In order to set up the dispenser properly, the installer has to understand hose position coding. Unit Prices and Totals are given in hose position order; for an example of hose position coding see Figure 19. When viewing the dispenser from the junction box side, the "X" hose position is always the hose on the far left.



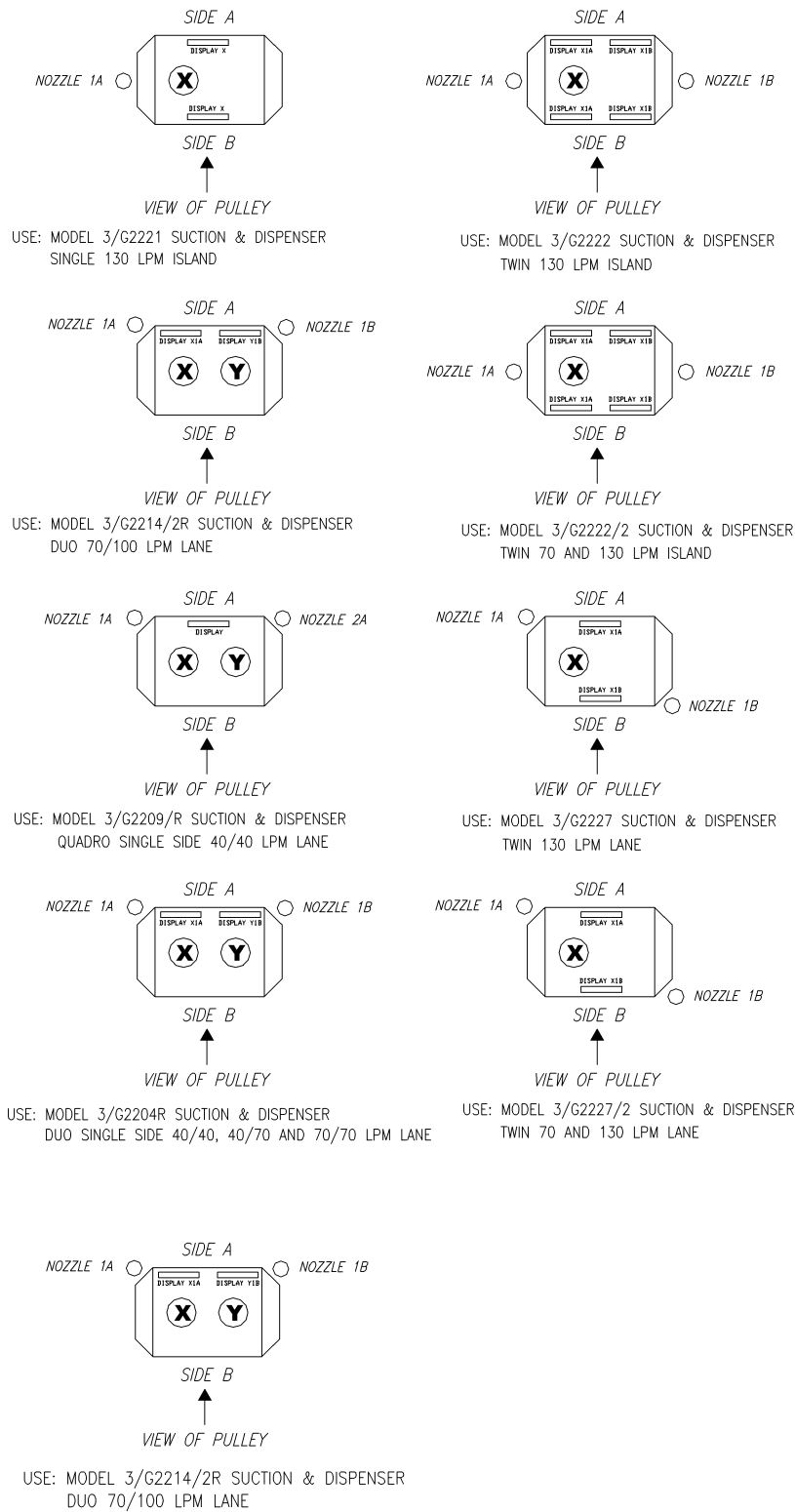


Figure 19 Hose Position Coding for Century Series.
 These positions are critical for unit price programming from a system.

4.2. Nozzle Switch Check

Check the operation of the nozzle switch as follows:

1. Authorize dispenser and remove the nozzle from the nozzle boot. Lift the lever fully upward (not needed for Auto-on models) to make sure the switch turns ON. An ON switch will be indicated by the displays showing eight's and then the unit price and zero on the volume and sale displays.
2. Lower the Lift-to Start lever to the down position (replace the nozzle only for Auto-on models) and check that the switch turns OFF.

4.3. Meter Check

NOTE!

Except at calibration/verification the power to the pulser should be turned off when handling it.

4.3.1. Global Century Pumps Calibration "No Blender"

One can only calibrate one side of the meter at the same time. The valid calibration volumes are 5, 10 and 20 litres. Verification should be done after each calibration.

1. Function 1. Select pump mode 4 (= W&M Stand-alone mode) (see "User's Manual").
2. Open the calibration door for the first meter (A-side or B-side) that should be calibrated (see Figure 20). If several meters deliver to one nozzle, please check, with a screwdriver, which solenoid valve is open and open the corresponding calibration door. Make sure that the door is fully opened.
3. Fill up the calibration can (5, 10, or 20 litres) to the zero-mark. Due to the fact that the system isn't calibrated yet, the display will show a volume that doesn't entirely correspond to the volume in the can.
4. Close the calibration door.
5. Empty the can.
6. If several meters deliver to one nozzle repeat the procedure from item 1 for the other meter. (Switch to the next meter by Function 1 and select mode 4 once again.)
7. Function 1. Select pump mode - restore to its former state.
8. To verify the calibration, fill up the can until the display shows the correct volume. The volume in the can should now be in within the limits approved by the authorities. If not, a new calibration should be performed.

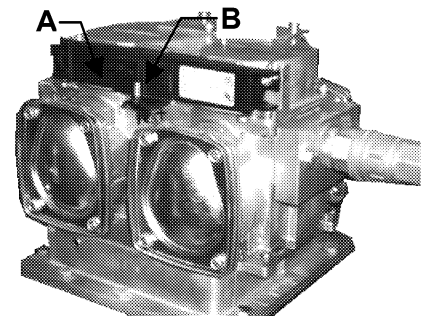


Figure 20 Calibration door
In the picture the calibration door for the A-side is closed and the door for the B-side is opened.

4.3.2. Global Century Pumps Calibration “Blender”

Step 1 – To calibrate meter 1

- Set function F18; for sub function 18.XX, .XX = 100.
- Lift nozzle.
- Open “pulser window” of meter 1 when motors has started.
- Fill 20 liters at 65 l/min (regulate with the nozzle or set function F29; for sub function 29.XX, .XX = 65).
- Return “pulser window” (motors will stop).
- Return nozzle.
- Verify by doing 20 liters filling at 65 l/min.

Step 2 – To calibrate meter 5

- Set function F18; for sub function 18.XX, .XX = 0.
- Lift nozzle.
- Open “pulser window” of meter 5, when motors has started.
- Fill 20 liters at 65 l/min (regulate with the nozzle or set F29; for sub function 29.XX, .XX = 65).
- Return “pulser window” (motors will stop).
- Return nozzle.
- Verify by doing a 20 liters filling at 65 l/min.
- Set back function F18 to it’s regular value (50%).
- Verify by doing a 20 liters filling at 130 l/min.
- Also do at 5 liters filling at 6-8 l/min.

4.3.3. Global Century Pumps – Calibration “Super Hi-Cap”

To Calibrate Side “1”

- Dispense product through Master and Satellite Nozzle for side “1” until a continuous and steady flow of product is observed at each nozzle.
- Return nozzles to boot.
- Check both Side “1” Master and Satellite hydraulic components and hanging hardware for leaks and filtrations. Correct any problems detected before proceeding.
- Trip Master Inlet Shut-Off Valve “B”.
- Dispense at least 2 gallons of product from both Master and Satellite side “1” nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to repair or replace Shut-Off Valve.
- Return nozzles to boot.

**CHANGE PAGES FOR 3/G2200 GLOBAL CENTURY
INSTALLATION & OPERATION MANUAL**

**USE THESE PAGES FOR CALIBRATING 3/G2220 SUPER HI-CAP
MASTER & SATELLITE SERIES**

Refer to the attached Figure 21 during the following procedure.

To Calibrate Side “1”

1. Dispense product through Master and Satellite nozzle for side “1” until a continuous and steady flow of product is observed at each nozzle.
2. Return nozzles to boot.
3. Check both side “1” Master and Satellite hydraulic components and hanging hardware for leaks and filtrations. Correct any problems detected before proceeding.
4. Trip Master Inlet Shut-Off Valve “B”.
5. Dispense at least 2 gallons of product from both Master and Satellite side “1” nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to repair or replace Shut-Off Valve.
6. Return nozzles to boot.
7. Remove sealing guard from side “1” Ball Valve.
8. Close side “1” Ball Valve.
9. Open iMeter “A” side “1” Calibration Door and wait 60 seconds.
10. Remove from nozzle boot Master nozzle for side “1”, reset side “1” to zero and measure 5 Gallons with a certified calibration can.
11. Close iMeter “A” side “1” Calibration Door and then return nozzle to boot.
12. Remove from nozzle boot Master nozzle for side “1”, reset side “1” to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
13. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
14. Open Shut-Off Valve “B”.
15. Trip Master Inlet Shut-Off Valve “A”.
16. Dispense at least 2 gallons of product from both Master and Satellite side “1” nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to repair or replace Shut-Off Valve.
17. Return nozzles to boot.
18. Open iMeter “B” side “1” Calibration Door and wait 60 seconds.
19. Remove from nozzle boot Master nozzle for side “1”, reset side “1” to zero and measure with a certified calibration can 5 Gallons.
20. Close iMeter “B” side “1” Calibration Door and then return nozzle to boot.
21. Remove from nozzle boot Master nozzle for side “1”, reset side “1” to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
22. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).

23. Open Shut-Off Valve "A".
24. Open side "1" Ball Valve.
25. Dispense at least 2 gallons of product from both Master and Satellite side "1" nozzles and verify that the flow rate is back to normal at each nozzle. Return nozzles to boot.
26. Remove from nozzle boot Master nozzle for side "1", reset side "1" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
27. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.).
28. Replace sealing guard on side "1" Ball Valve and seal.

To Calibrate Side "2"

1. Dispense product through Master and Satellite nozzle for side "2" until a continuous and steady flow of product is observed at each nozzle.
2. Return nozzles to boot.
3. Check both side "2" Master and Satellite hydraulic components and hanging hardware for leaks and filtrations. Correct any problems detected before proceeding.
4. Trip Master Inlet Shut-Off Valve "B".
5. Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to repair or replace Shut-Off Valve.
6. Return nozzles to boot.
7. Remove sealing guard from side "2" Ball Valve.
8. Close side "2" Ball Valve.
9. Open iMeter "A" side "2" Calibration Door and wait 60 seconds.
10. Remove from nozzle boot Master nozzle for side "2", reset side "2" to zero and measure 5 Gallons with a certified calibration can.
11. Close iMeter "A" side "2" Calibration Door and then return nozzle to boot.
12. Remove from nozzle boot Master nozzle for side "2", reset side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
13. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
14. Open Shut-Off Valve "B".
15. Trip Master Inlet Shut-Off Valve "A".
16. Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to replace or fix Shut-Off Valve.
17. Return nozzles to boot.
18. Open iMeter "B" side "2" Calibration Door and wait 60 seconds.

19. Remove from nozzle boot Master nozzle for side "2", reset side "2" to zero and measure 5 Gallons with a certified calibration can.
20. Close iMeter "B" side "2" Calibration Door and then return nozzle to boot.
21. Remove from nozzle boot Master nozzle for side "2", reset side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
22. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.).
(If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
23. Open Shut-Off Valve "A".
24. Open side "2" Ball Valve.
25. Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is back to normal at each nozzle. Return nozzles to boot.
26. Remove from nozzle boot Master nozzle for side "2", reset side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
27. Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.).
28. Replace sealing guard on side "2" Ball Valve and seal.
29. Seal all Meter Brackets.

SUPER HI-CAP MODELS CALIBRATION PROCEDURE

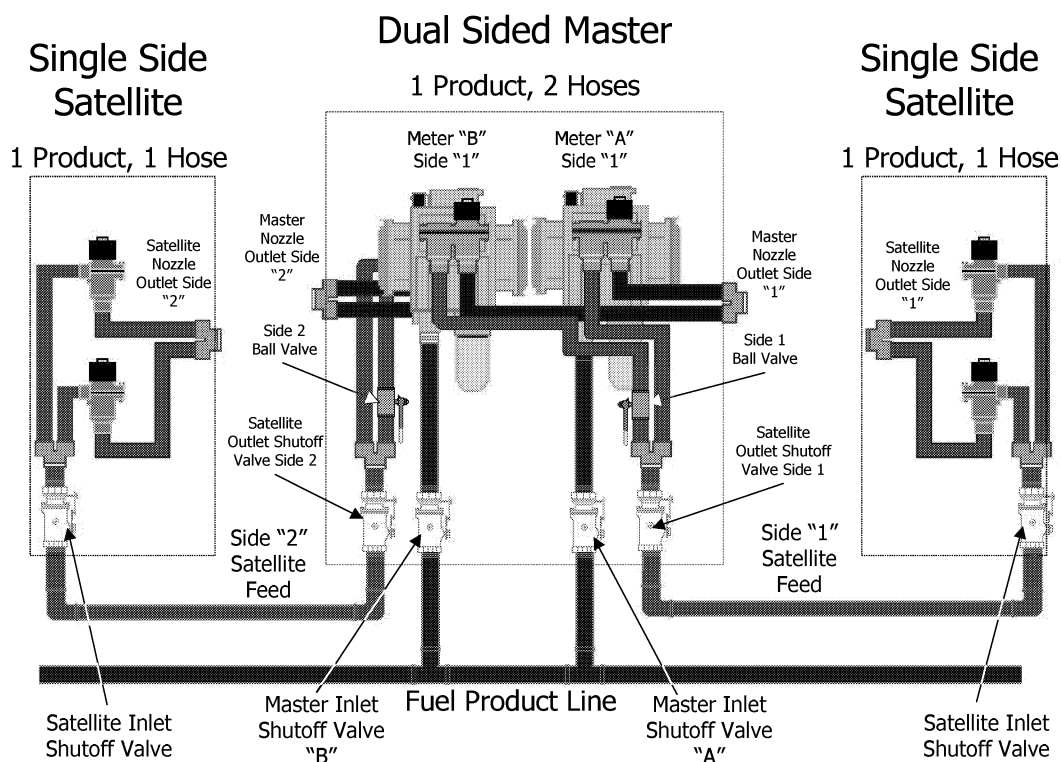


FIGURE 21 GLOBAL CENTURY SUPER HI-CAP CALIBRATION

- Open iMeter "A" Side "1" Calibration Door and wait 60 seconds
- Remove from nozzle boot Master Nozzle for Side "1" , reset Side "1" to zero and measure with a certified calibration can 5 Gallons.
- Close iMeter "A" Side "1" Calibration Door and then return nozzle to boot.
- Remove from nozzle boot Master Nozzle for Side "1" , reset Side "1" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
- Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
- Open Shut-Off Valve "B"
- Trip Master Inlet Shut-Off Valve "A"
- Dispense at least 2 gallons of product from both Master and Satellite side "1" nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to replace or fix Shut-Off Valve.
- Return nozzles to boot.
- Open iMeter "B" Side "1" Calibration Door and wait 60 seconds. Remove from nozzle boot Master Nozzle for Side "1" , reset Side "1" to zero and measure with a certified calibration can 5 Gallons.
- Close iMeter "B" Side "1" Calibration Door and then return nozzle to boot.
- Remove from nozzle boot Master Nozzle for Side "1" , reset Side "1" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
- Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.). (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
- Open Shut-Off Valve "A"
- Dispense at least 2 gallons of product from both Master and Satellite side "1" nozzles and verify that the flow rate is back to normal at each nozzle. Return nozzles to boot.
- Remove from nozzle boot Master Nozzle for Side "1" , reset Side "1" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.

Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.)

To Calibrate Side "2"

- Dispense product through Master and Satellite Nozzle for side "2" until a continuous and steady flow of product is observed at each nozzle.
- Return nozzles to boot.
- Check both Side "2" Master and Satellite hydraulic components and hanging hardware for leaks and filtrations. Correct any problems detected before proceeding.
- Trip Master Inlet Shut-Off Valve "B".
- Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to repair or replace Shut-Off Valve.
- Return nozzles to boot.

- Open iMeter "A" Side "2" Calibration Door and wait 60 seconds.
- Remove from nozzle boot Master Nozzle for Side "2" , reset Side "2" to zero and measure with a certified calibration can 5 Gallons.
- Close iMeter "A" Side "2" Calibration Door and then return nozzle to boot.
- Remove from nozzle boot Master Nozzle for Side "2" , reset Side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
- Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
- Open Shut-Off Valve "B"
- Trip Master Inlet Shut-Off Valve "A"
- Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is significantly lower than normal. If this is not the case, do not continue and call service contractor to replace or fix Shut-Off Valve.
- Return nozzles to boot.
- Open iMeter "B" Side "2" Calibration Door and wait 60 seconds.
- Remove from nozzle boot Master Nozzle for Side "2" , reset Side "2" to zero and measure with a certified calibration can 5 Gallons.
- Close iMeter "B" Side "2" Calibration Door and then return nozzle to boot.
- Remove from nozzle boot Master Nozzle for Side "2" , reset Side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
- Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.). (If reading is out of tolerance, repeat procedure. If tolerance specification is not obtainable, take the dispenser out of operation and call service contractor).
- Open Shut-Off Valve "A"
- Dispense at least 2 gallons of product from both Master and Satellite side "2" nozzles and verify that the flow rate is back to normal at each nozzle. Return nozzles to boot.
- Remove from nozzle boot Master Nozzle for Side "2" , reset Side "2" to zero and dispense product until the volume display shows 5.000 Gallons. Return nozzle to boot.
- Verify that the volume at the calibration can is within accepted tolerance (± 3 c.i.) Seal Meter Brackets

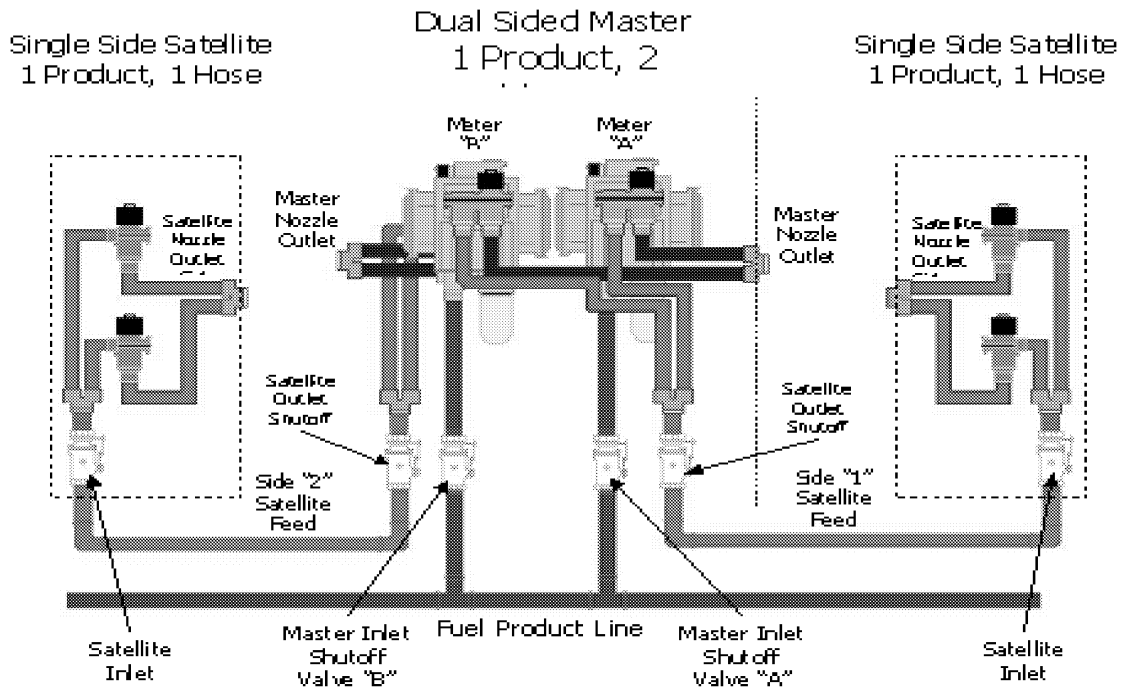


Figure 21 Global Century Pumps – Calibration “Super Hi-Cap”

4.4. V-Link Belt Adjustment

4.4.1. Z-profile belt

NOTE!

Use only antistatic Z-belts.

Check the tension on the Z-belts.

Deflection in cm = 1.5 x distance in m.

(See **Erro! A origem da referência não foi encontrada.**)

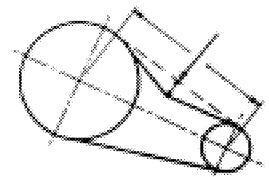


Figure 22 Z-profile belt

4.4.2. V-link belt (option for UL marks)

Adjustments to the V-Link belt on suction pump models should be performed in accordance with the V-Link belt installation Manual, Part Number 920057.

4.5. Adjusting Compact Pumping Unit

The pumping unit in suction dispensers should be checked and, if required, adjusted; see Figure 23. If there is not enough delivery pressure, the pump will deliver product slowly. If the pump puts out too much pressure, delivery of product will not increase, but increased noise and wear will result, and an unnecessary load will be put upon the motor. The motor is thermally protected and automatically shuts off when overloaded.

Step 1

Before deciding a pump adjustment is necessary, check and clean the strainer. To clean the pumping unit strainer, remove the strainer cover and clean the strainer with compressed air. Strainers often require cleaning frequently at station start-up, as materials such as pipe sealant and dirt are flushed from the lines; after start-up, only occasional cleaning should be necessary.

Step 2

Install a pressure gauge (see picture) and check to see if the relief valve pressure is in the 18 to 20 psi range (170 to 180 kPa, or 1.7 to 1.8 kg/cm²) for standard capacity and in the 24 to 26 psi range (200 to 210 kPa, or 2 to 2.1 kg/cm²) for high capacity units. The maximum field adjustment possible does not exceed 50 psi.

Step 3

To adjust the relief valve pressure, remove the adjustment cap (see picture) and turn the screw inward (clockwise) to increase pressure, or back off the screw counter-clockwise) to decrease pressure.

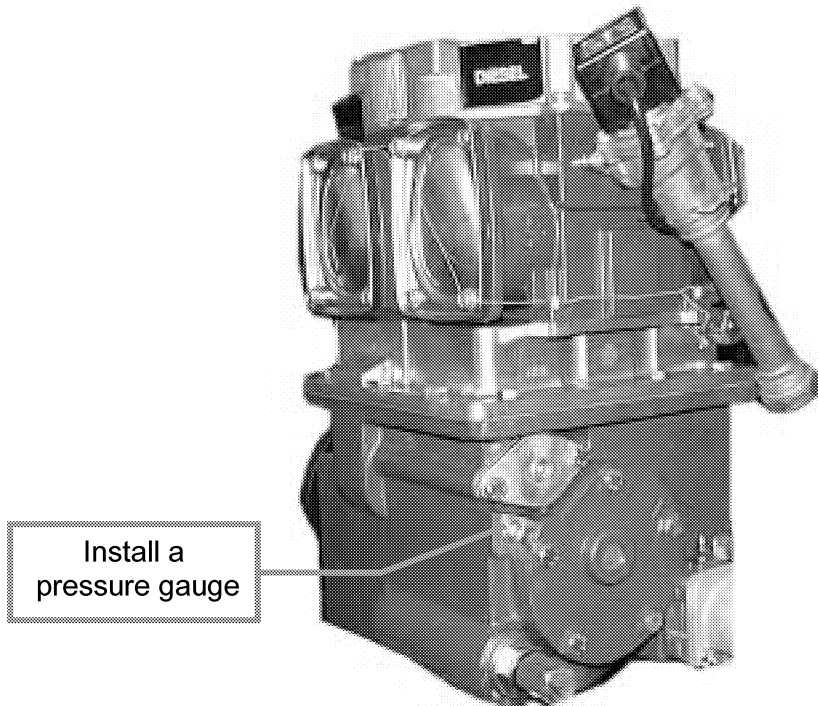


Figure 23 Compact Pumping Unit

4.6. Fluorescent Lights

If the dispenser is lighted, turn on the light circuit breaker and ensure that all of the fluorescent lights operate correctly. Replace any fluorescent light bulbs that fail to illuminate.

4.7. Totalizer Readings

Totals can be read off at the display for the respective pump sides. The pump must not be activated, not even disengaged during this operation. Press the stop-key. Volumes for each grade will be displayed for 5 seconds.

4.7.1. *Electro-mechanical volume totalizer (Option)*

There is a six digit electro-mechanical volume totalizer located on the side of the head. Read and record the totals. The initial readings must be given to the station manager in order to maintain accurate station totals.

4.7.2. *Volume Totalizer Through Preset*

In the Preset, press the keys "1" and "2" simultaneously. The least significant six (6) digits of the data value appear on the "Volume" display. The higher order non-zero digits of the data value, if present, appear as blanks. In the "Unit price" display appear corresponding nozzles. Ex. A1, B1, A2, B2, A3, B3, A4, B4.

5. COMPUTER OPERATION

5.1. Introduction

You will need to access the maintenance mode in order to program functions and/or view statistics. The function and statistics data appear in the money, volume, and unit price display windows.

The infrared interface is similar to a television remote control. It has 16 buttons (see Figure 24). Use the infrared interface to access dispenser functions. This interface uses only the pump display for user feedback. There is no additional display.

5.2. Programming functions

| | |
|----------------------------------------------------|---------|
| Change Unit Price (F03 and F04)..... | page 47 |
| Checking the Electronic Totals (S11 and S12) | page 43 |
| Pump Start up | page 52 |
| Exit Function | page 42 |
| Filling Modes (F01) | page 43 |
| Exit (F00) | page 42 |
| Password Change (F33) | page 43 |
| Access to Functions | page 40 |

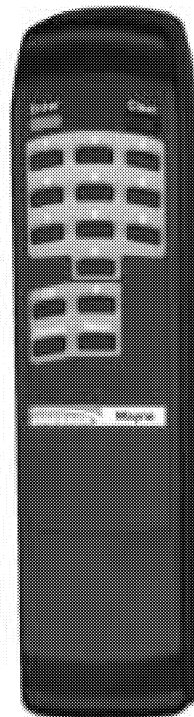


Figure 24 Remote Control

Note!

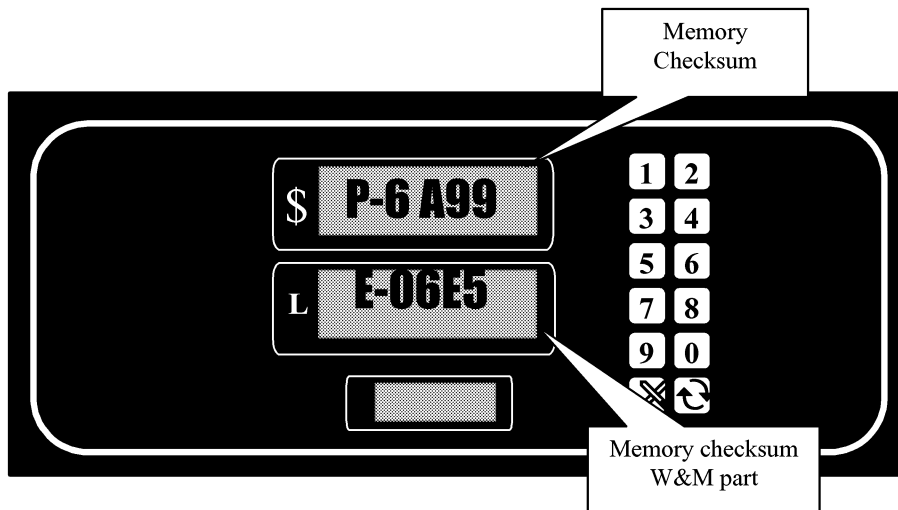
The Infrared interfaces only suitable for use in unclassified (non-hazardous) locations. See

Figure 25 Hazardous Zone Diagram. (UL) and Figure 26 Hazardous Location Diagram (IEC).

5.3. Access to functions

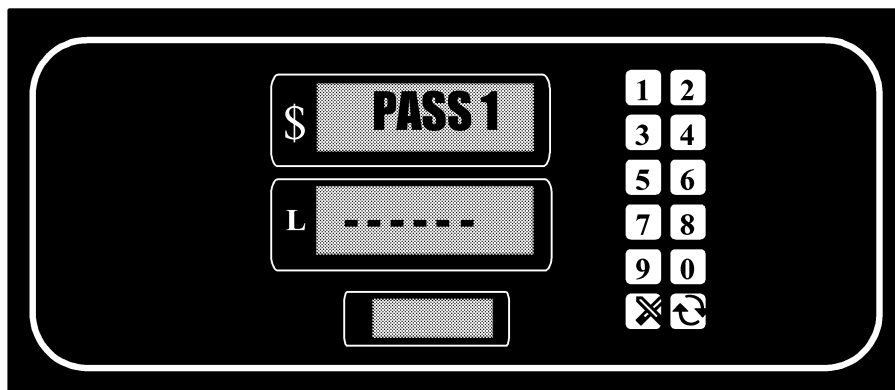
Access the programming mode by pressing one of the following keys:

- 1 Station manager entry using station manager password.
- 2 Operator entry using operator password.
- CLEAR Weights and Measures entry using weights and measures password.



The programming mode asks you for a password twice before allowing access to the functions. A 10-second time-out is built into the password entry code.

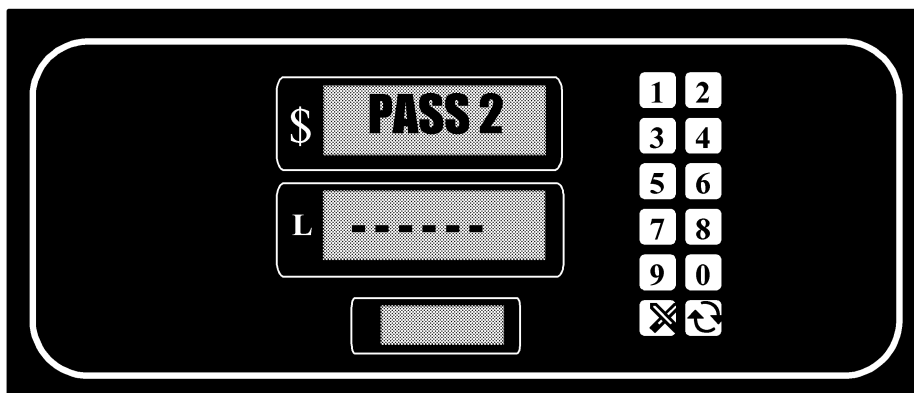
After 3 seconds, the display shows:



When the word PASS 1 appears on the sale display, you have 10 seconds to start entering the password. The timer restarts after you press a key. When you finish entering the password and press ENTER = ↵.

PASS 2 appears in the sale display window, prompting you to enter the password again.

The display will show:



Note1:

If you press nothing more, press <ENTER> or press the wrong password, or there's no confirmation after pressing the password and the <ENTER> key, after about 10 seconds the computer will leave this function automatically.

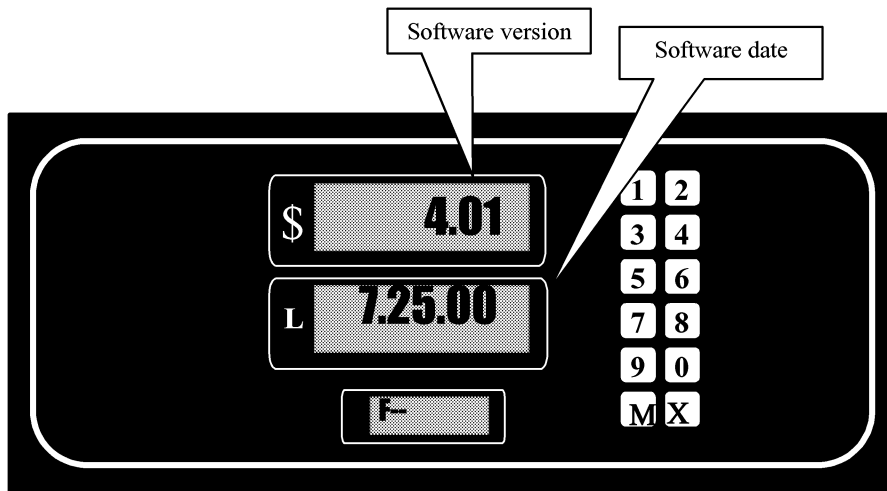
Note 2:

If you press the wrong keys, press <CLEAR> =(X) key to erase the last digit you typed.

Press again the password to confirm and press <ENTER>

Press <ENTER>

The Display shows the function screen



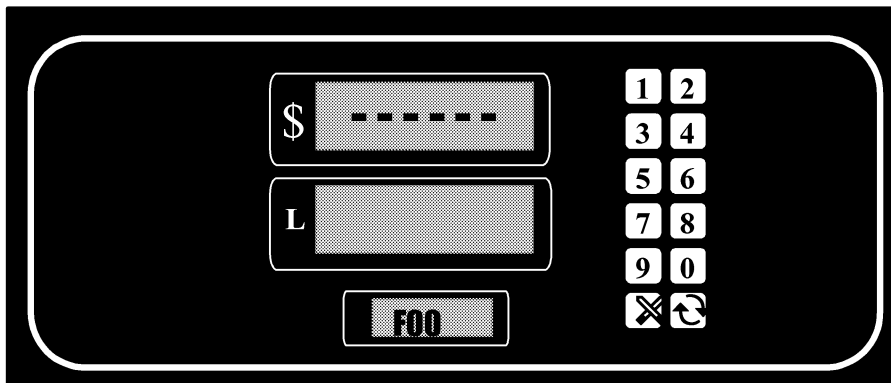
When you enter the programming mode, the unit price display windows show "F - - ", the money display window shows the software version number, and the volume display window shows the date of the software version. To edit or view specific functions, enter any function number using the number keys and press ENTER. The corresponding number appears in the money display window.

5.4. Exit (F00)

Use this function to select one of three maintenance mode exits.

Type 00

Press <ENTER>



- 01 Do not exit and do not save changes
- 02 Exit, but do not save changes
- 03 Exit and save changes

5.5. Password Change (F33)

Dashes appear in the money display window, and the word PASS appears on the volume display. When you begin editing, the money display goes blank and dashes appear instead of the regular entries. Enter the new password twice. The sub-function numbers are defined as follows:

- 01 Station Manager Password, maximum of 6 characters (Use numbers only)
- 02 Station Operator Password, maximum of 6 characters (Use numbers only)
- 03 Weights and Measures Password, maximum of 6 characters (Use numbers only)

5.6. Filling Modes (F01)

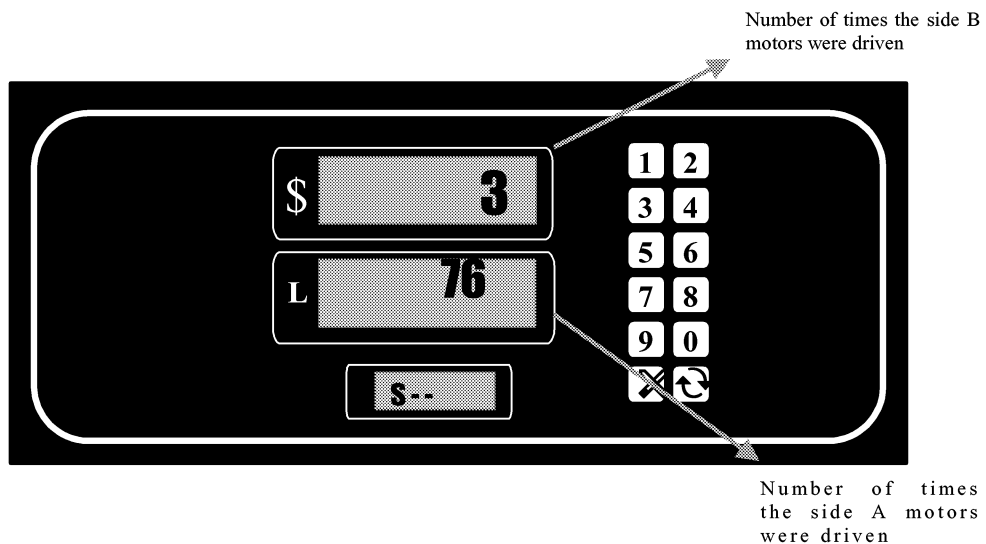
Selected configuration parameters defined as follows:

- 01 Serial Mode, dispenser controlled by site controller via serial link
- 02 Stand Alone Mode, dispenser not supervised by a site controller
- 03 Serial W&M Mode, same as 01 but volume decimal point format forced to .xxx volume units
- 04 Stand Alone W&M Mode.

5.7. Checking the Electronics Totals (S11)

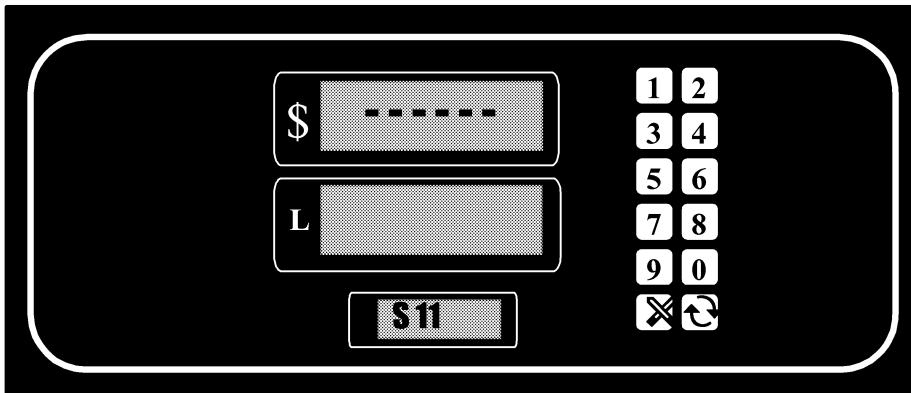
Access to functions, see page 40.

Press <DOWN> and the display shows:

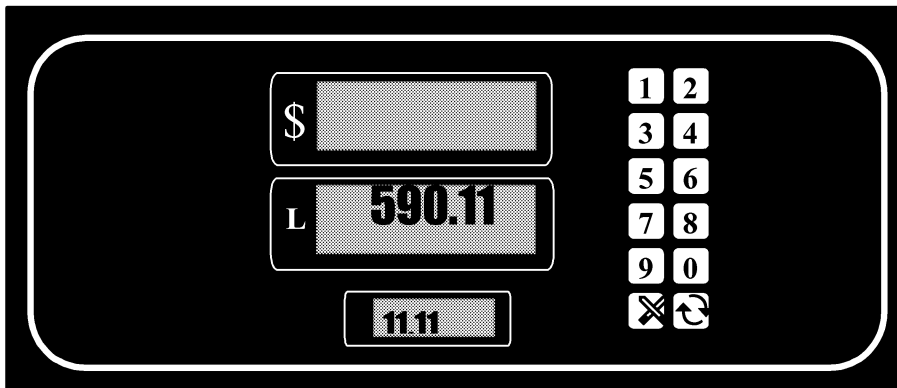


Type 11

Press <ENTER> and the display shows or press the <UP> or <DOWN> keys to enter statistical mode, and the display shows:

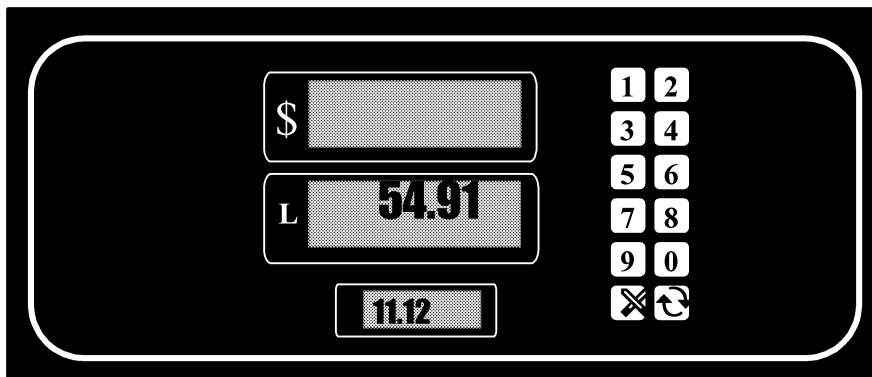


Press <ENTER> to access the function and view the last dispensing.

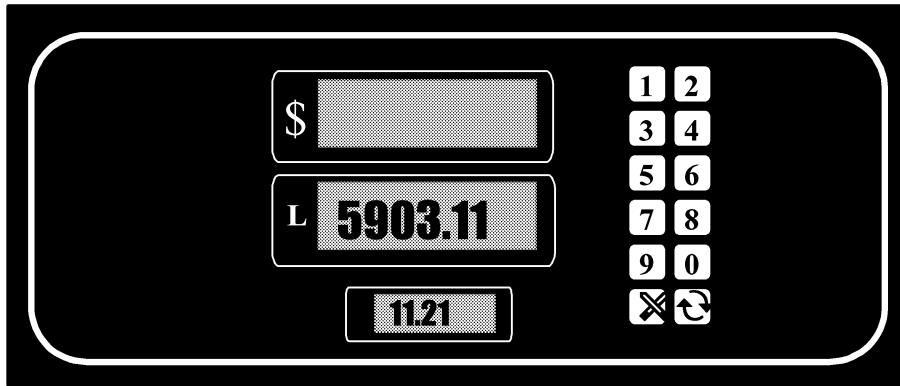


The volume above are example.

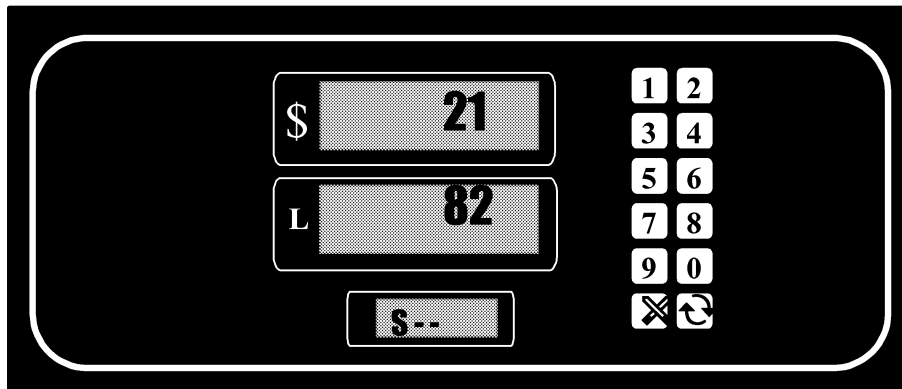
Press <UP> to read the volume total of the other nozzle.



If you press <UP> will read the money totals of nozzle 1A



To read other total press <UP>. See item 5.7.1.

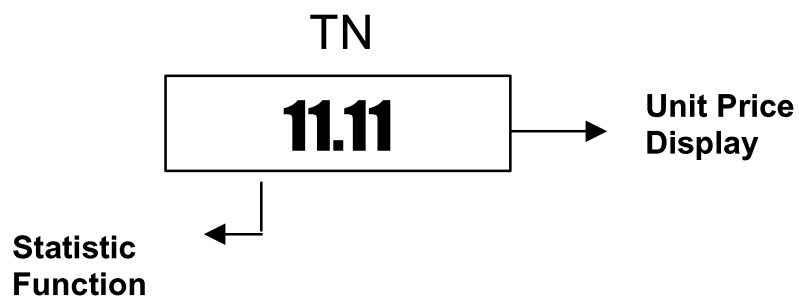


Exit, see page 42.

5.7.1. Access to the statistic model

S11 – GENERAL TOTAL BY LOGICAL NOZZLE – SIDE A

Exemple: S.11.11



The substatistical numbers have the format “.TN” :

- T = type of totals
- 1 = volume
- 2 = total in cash
- 3 = total in credit
- 4 = total on demand
- 5 = number of dispensing done with console
- 6 = number of dispensing done without console
- N = number of the logical nozzle 0-8, where 0 = not configured

At least six (6) data digits shows up at the window “VOLUME”. The complement of data digits different from “zero”, if any, shows at the window “TOTAL SALES”. The decimal “zeros” are blank.

S12 – GENERAL TOTAL BY LOGICAL NOZZLE – SIDE B

The substatistical numbers have the format “.TN” :

- T = type of totals
- 1 = volume
- 2 = total in cash
- 3 = total in credit card
- 4 = total on demand
- 5 = number of dispensings done with console
- 6 = number of dispensings done without console
- N = number of the logical nozzle 0-8, where 0 = not configured

At least six (6) data digits shows up at the window “VOLUME”. The complement of data digits different of “zero”, if any, shows at the window “TOTAL SALES”. The decimal “zeros” are blank.

5.7.2. Mode “Statistics”

S01 – SHIFT TOTALS BY LOGICAL NOZZLE – SIDE A

At least six (6) data digits show up at the window “VOLUME”. The complement of data digits different from “zero”, if any, shows at the window “TOTAL SALES”. The non-significative “zeros” are blank.

PROCEDURE TO ERASE SHIFT TOTALS – SIDE A

- Access the function **S01**
- Press “ENTER” (the display shows UNIT PRICE the subfunction “1.11” and in display VOLUME the registered volume)

- Press “#”(the display shows PAYING TOTAL “CLEAR” and in display VOLUME “TOTALS”)
- Press “ENTER” (the display shows PAYING TOTAL “PASS”)
- Type “42”
- Press “ENTER” (**All shift totals are zeroed**)

S02 – SHIFT TOTALS BY LOGICAL NOZZLE – SIDE B

The substatistical numbers have the format “.TN” :

- T = type of totals
- 1 = volume
- 2 = total in cash
- 3 = total in credit card
- 4 = total on demand
- 5 = number of dispensings done with console
- 6 = number of dispensings done without console
- N = number of the logical nozzle 0-8, where 0 = not configured

At least six (6) data digits show up at the window “VOLUME”. The complement of data digits different of “zero”, if any, shows at the window “TOTAL SALES”. The non-significative “zeros” are blank.

- Press “Next” to go forward
- Exit, see page 42.

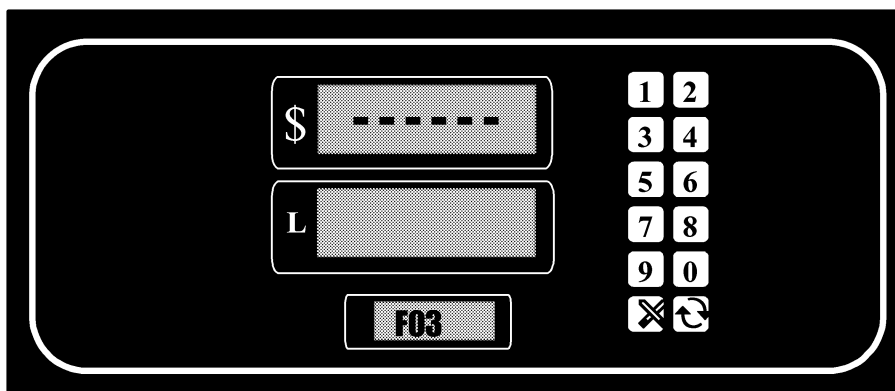
5.8. Changing Unit price (F03)

5.8.1. Changing prices on Side A

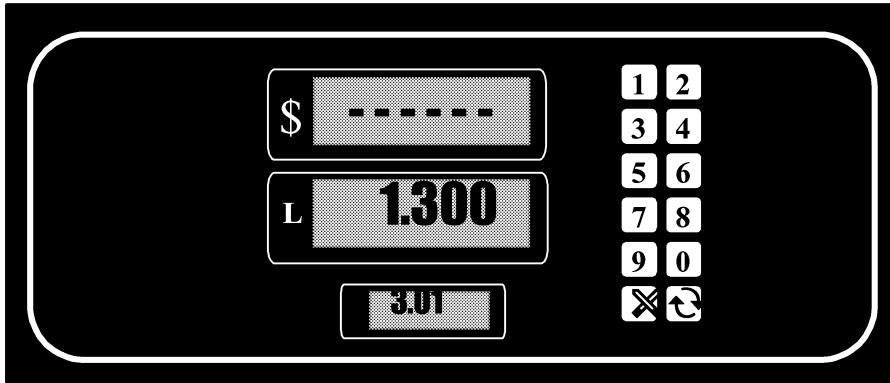
Access to functions, see page 40.

The Display shows the function screen

- Step 1 – Press 03 and press <ENTER>, and the display shows:



- Step 2 - Press <ENTER> and the display shows:



Note:

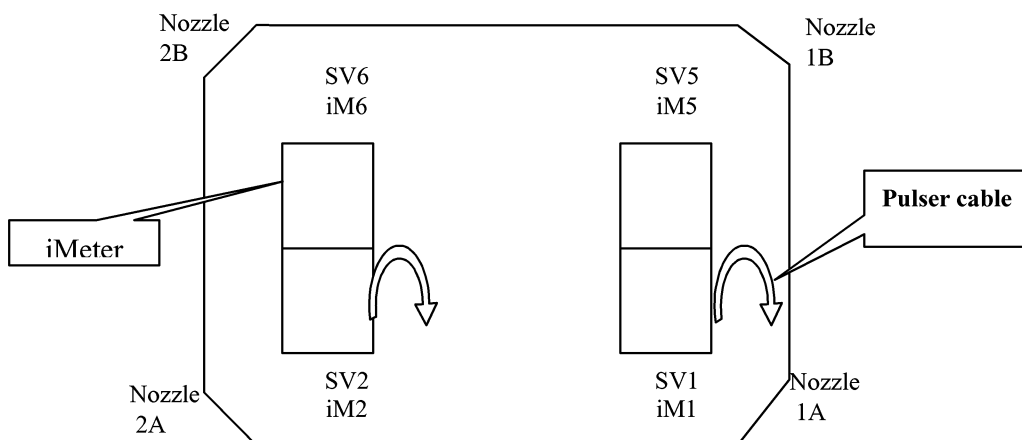
To access the other unit price press <Next>.

Sub-Function 3.01 is responsible for changing unit price of fuel at nozzle 1 on side A, and so on, according to the table below:

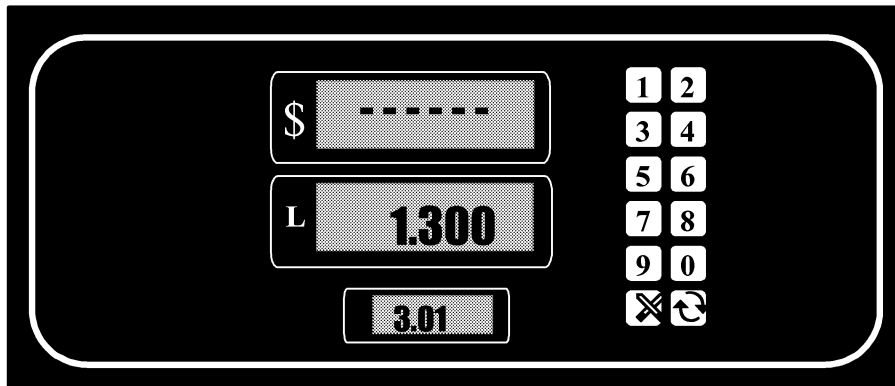
| Sub-Function Cash Prices | Nozzle (Position) | Side |
|-----------------------------|------------------------|------|
| 3.01 | 1 | A |
| 3.02 | 2 | A |

| Sub-Function Credit Prices | Nozzle (Position) | Side |
|-------------------------------|------------------------|------|
| 3.11 | 1 | A |
| 3.12 | 2 | A |

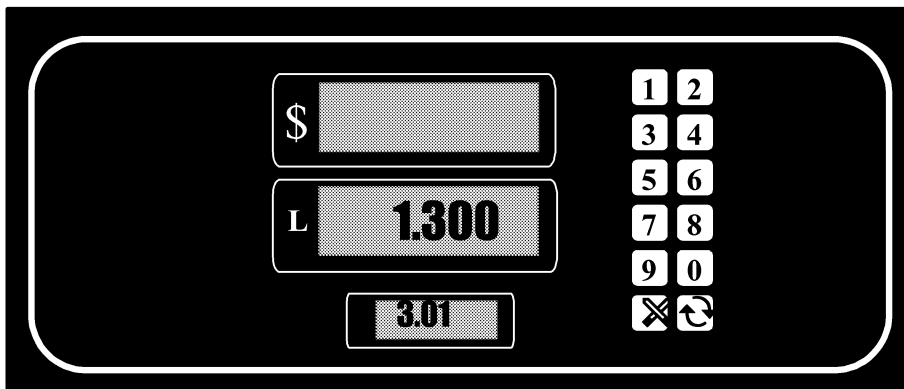
Pump Side Identification



Example: I have 2 pumps programmed to a unit price of \$ 1.300 and want to change to 1.420

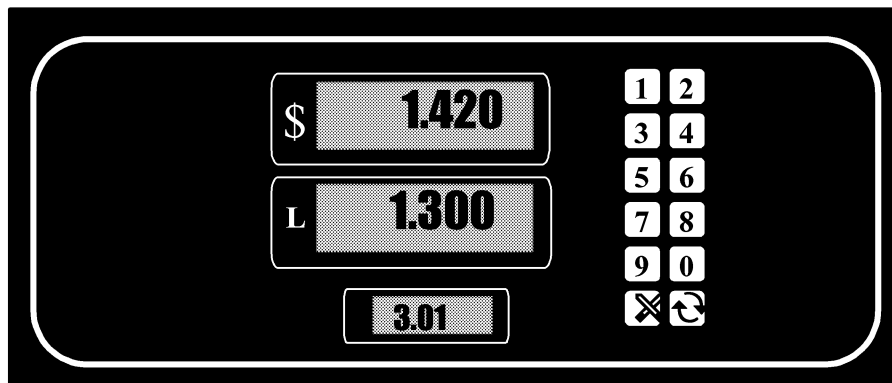


Press the <#> key, the dotted part on paying total of display will be erased.

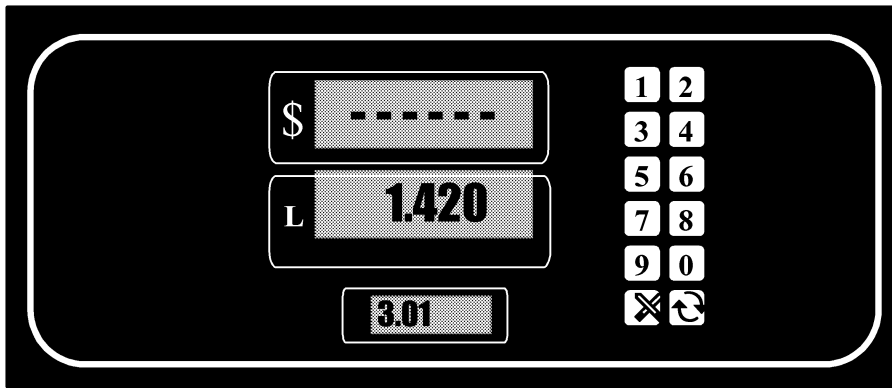


Press the desired value

Ex.: 1420



Press <ENTER>, and the display shows

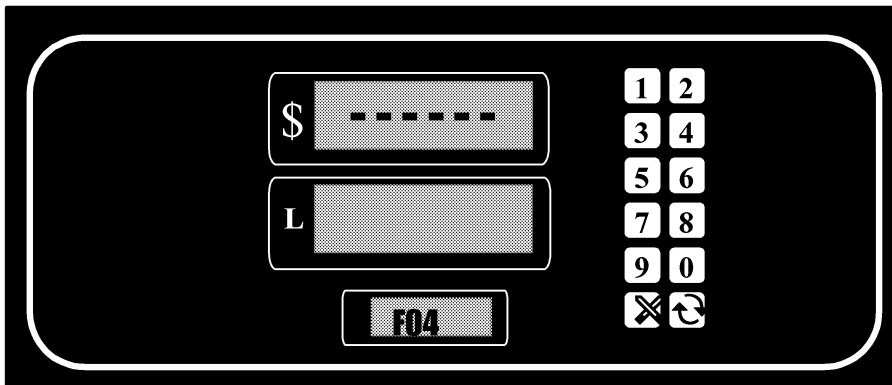


To change from one Sub-Function to another use the <NEXT> key (Ex.: from 3.01 to 3.02).
 The same procedure applies to change the credit prices. (Sub functions 3.11 to 3.12, see table)
 To save all changes follow the procedure of “F00” exiting, value 3. (see page 42)

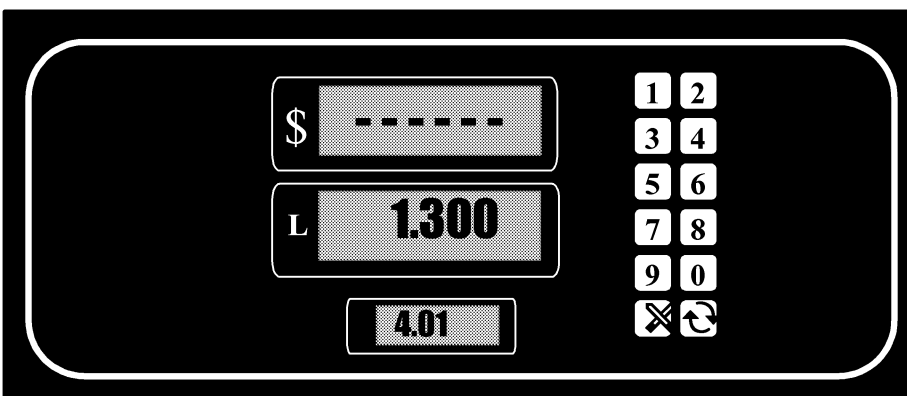
5.8.2. Changing prices on Side B

Access to functions, see page 40.

- Step 1 – Press 04 and press <ENTER>, and the display shows:



- Step 2 - Press <ENTER>

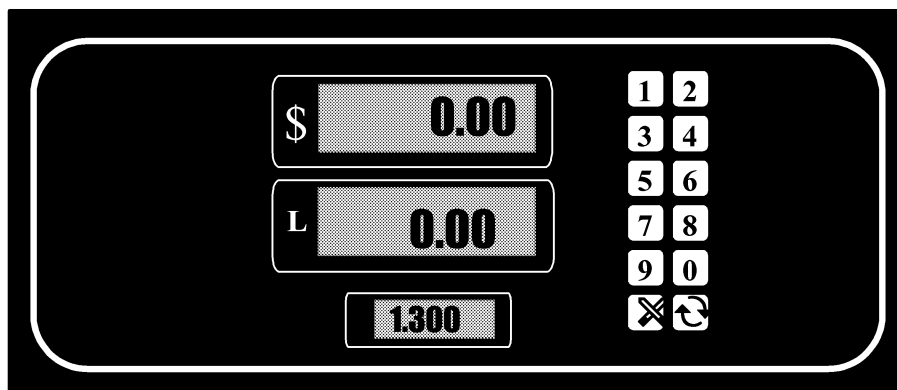


The Sub-Function 4.01 is responsible for changing unit price of fuel at nozzle 1 on side B, and so on, according to the table below:

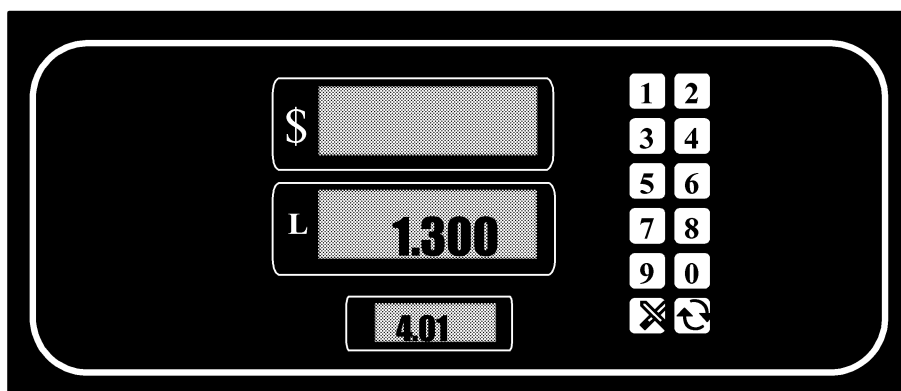
| Sub-Function Credit Prices | Nozzle (Position) | Side |
|-------------------------------|------------------------|------|
| 4.01 | 1 | B |
| 4.02 | 2 | B |

| Sub-Function Cash Prices | Nozzle (Position) | Side |
|-----------------------------|------------------------|------|
| 4.11 | 1 | B |
| 4.12 | 2 | B |

Example: I have 2 pumps programmed to a unit price of \$ 1.300 and want to change to 1.420



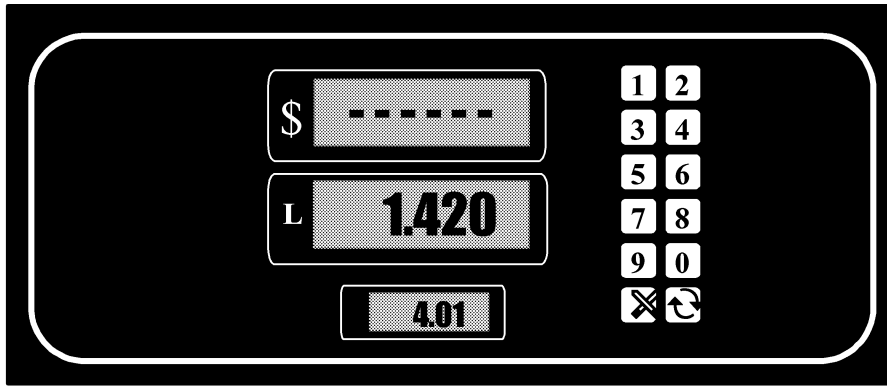
Press the <#> key, the dotted part on paying total of display will be erased.



Press the desired value

Ex.: 1420

Press <ENTER>, and the display shows.



To Change from one Sub-Function to another use the <NEXT> key (Ex.: from 4.01 to 4.02).
 The same procedure applies to change the credit prices. (Sub functions 4.11 to 4.12, see table page 51)
 To save all changes follow the procedure of “F00” exiting, value 3. (see page 42)

5.9. Pump Startup

5.9.1. Changing decimal points of unit price

To change the number of decimal points of any unit price, you should enter the function mode.

Access to functions, see page 40.

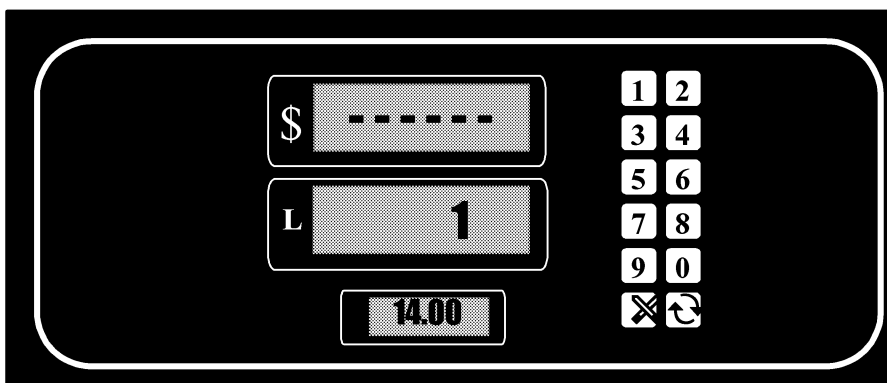
Note 1:

If you press nothing more, press <ENTER> or press the wrong password, or there's no confirmation after press the password and the <ENTER> key, after about 10 seconds the computer will leave this function automatically.

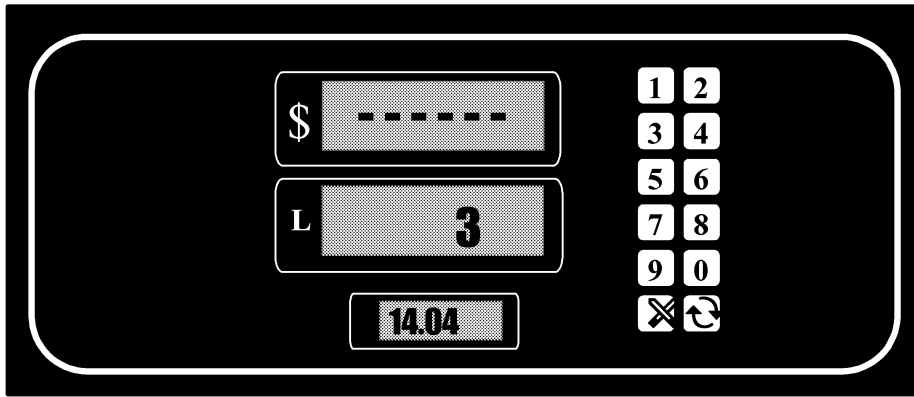
Note 2:

If you press the wrong keys, press <CLEAR> key to erase the last number you typed.

Step 1- Select function 14 and press <ENTER> twice and the display shows:



Step 2- Using the <NEXT> key, select Sub function 14.04, and the display shows:

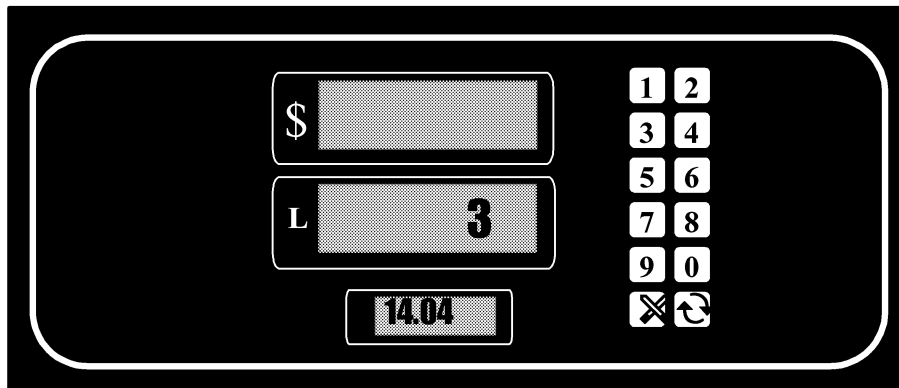


Note:

In this manual example, the unit price value is \$1.000 (three decimal points).

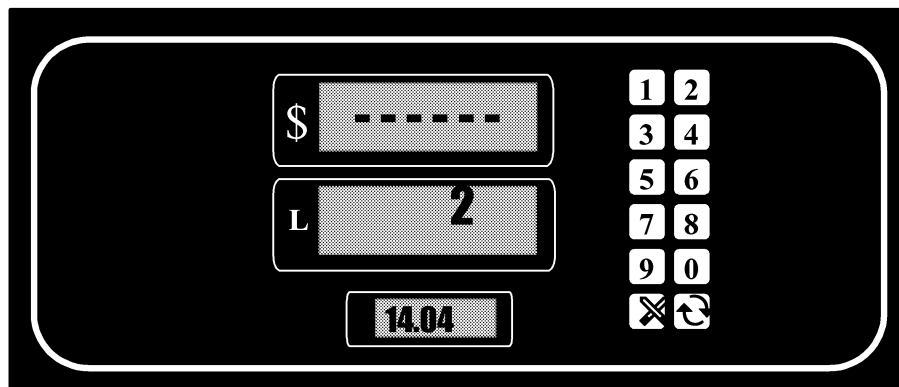
| Example of UP | Function 14.04 |
|---------------|----------------|
| 1000 | 0 |
| 100.0 | 1 |
| 10.00 | 2 |
| 1.000 | 3 |

Press the <#> key, the dotted part of paying total will be erased.



Press the desired value and press <ENTER>.

Ex.: 2

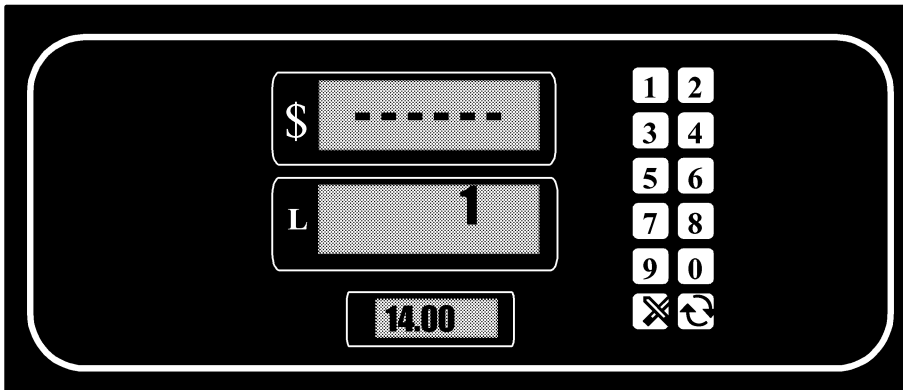


Press <ENTER> to return to function 14, press <CLEAR> to return to function menu, and follow procedure at function F00, value 3 to save the changes (see page 42).

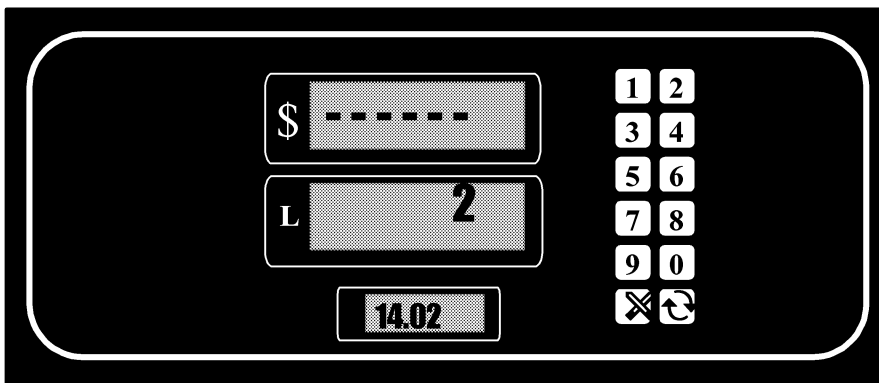
5.9.2. Changing decimal points of Paying Total

Function 14.02

- Step 1 – Select Function 14 and press <ENTER>, and the display shows:



- Step 2 – Using the <NEXT> key, select Sub-Function 14.02, and the display shows:

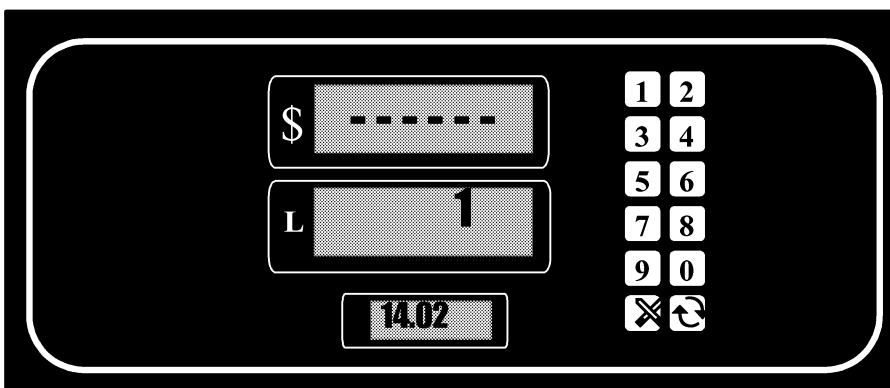


- Step 3

Press #

- Step 4 – Press the desired value and press <ENTER>, and the display shows:

Ex.: 1



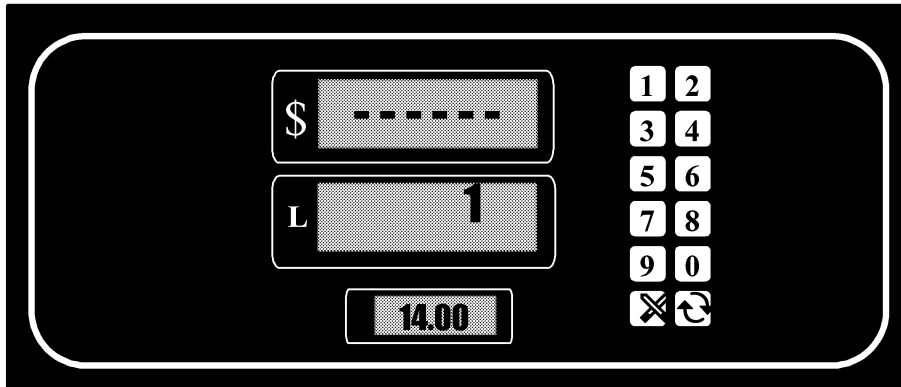
Press <CLEAR> to return to function 14 and follow as described at “Exiting functions (Function zero)”

To save all changes follow the procedure of “F00” exiting, value 3. (see page 42)

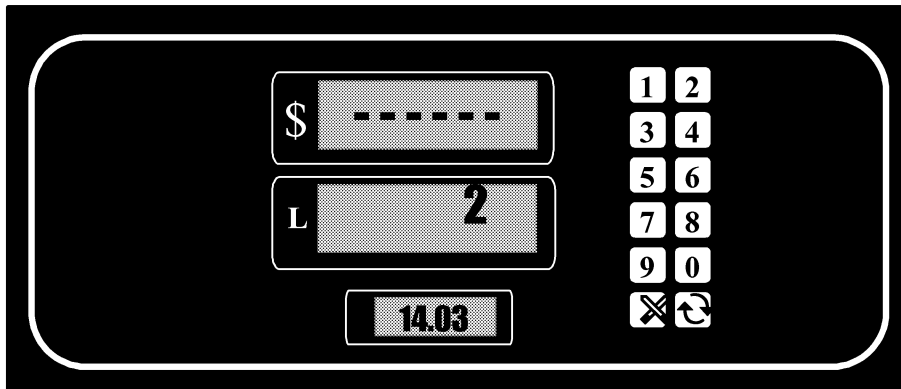
5.9.3. Changing decimal points of Volume

Function 14.03

- Step 1 – Select function 14 and press <ENTER>, and the display shows:



- Step 2 – Using the <NEXT> key, select Subfunction 14.03, and the display shows:

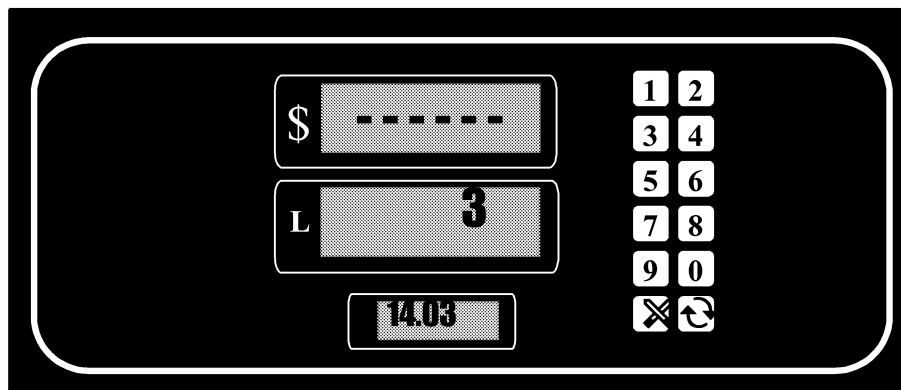


-Step 3

Press #

- Step 4 – Press desired value number and press <ENTER>, and the display shows:

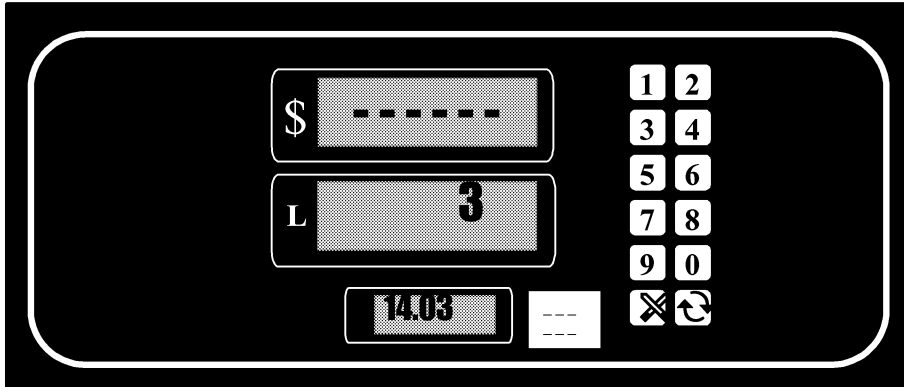
Ex.: 3



To save all changes follow the procedure of "F00" exiting, value 3. (see page 42)

NOTE:

The UL master-satellite models have a “satellite in use” indication in a display besides the unit price, as show in the picture. Once the satellite nozzle is activated, the display shows dashes going up.



6. DEMOUNTING

6.1. Preparations

Read chapter 2. page 12 and forward.

WARNING!

To prevent damage which may result in electric shock or fire, disconnect the main power (motors and electronic head) prior to any work

6.2. Drain fuel from the pump

It is important that the pump is emptied of fuel before demounting.

Seal the inlet pipes with a flange with gasket. Depending on the pump model between one and two pump units must be emptied and seal.

If needed, ask a transportation company for special regulations.

7. OPERATION

7.1. Introduction

The dispensers are one or two inlet dispensers, with one or two outlets (depending on model). Each side of the dispenser represents a fueling point.

The dispenser is equipped with one unit price per nozzle. Unit price must be set to operate. If the dispenser is connected to a Management Control System, each dispenser must have a unique fueling point number set for communication with a Management Control System.

Select the desired product. The dispenser is turned on by removing the nozzle from the nozzle boot and lifting the operating lever (the lever is not lifted with the Auto-On models). The sales display will show 8s, blanks and then reset to zero.

The pump motor starts at the end of the reset cycle and the solenoid valves open approximately 3-5 seconds later.

To complete the sale, lower the operating lever, replace the nozzle in the nozzle boot and the pump motor will be switched OFF.

7.2. Portable Tanks and Containers

Portable containers of 12 gallons (45 liters) or less shall not be filled while they are in or on a motor vehicle. Filling portable containers, especially when they are sitting on a non-conductive surface such as a floor mat or a plastic bedliner in the back of a pick-up truck, can present a possible safety hazard and should be avoided as so stated in the following WARNING:

WARNING

FIRE HAZARD! The flow of gasoline through the dispenser nozzle can produce static electricity, which can cause a fire if gasoline is pumped into an ungrounded gasoline container. To avoid static buildup and the possible resulting serious injury:

- Place approved container on the ground. Do not fill the container in the vehicle or truck bed.
- Keep the nozzle in contact with the can or container while filling. Do not use an automatic pump handle (latch-open) device.

7.3. OPERATION OF THE PRESET (option)

Dispensers with the preset option will have a preset keypad assembly installed in them. This option allows the customer, or attendant, to input the amount of product desired, either in volume or money, prior to the beginning of the sale. The following sections describe typical operational scenarios using the preset option.

7.3.1. Twelve button keyboard

- Preset Operation

1. Pump Display shows last sale
2. Operator presses a digit key.



The display starts to blink

If this is a numeric key the number will be indicated at the default panel (volume or money panel), the other panel shows dashes.

If this is the ↻ key, the display will switch to the Money/Volume line, in case of money selected, dashes are indicated on the volume panel.

Pressing the “✕” key cancels the preset operation.

3. Display will continue to blink showing the entered numbers at one panel and dashes at the other until the operator lifts the nozzle.
4. The display starts the reset cycle and stop blinking.
5. The normal filling information will be indicated at the display.
6. At the end of the sale the display shows the sale (without blinking and showing the preset entry).

| | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 | 2 |
| 3 | 4 |
| 5 | 6 |
| 7 | 8 |
| 9 | 0 |
|  |  |

7.3.2. Five button keyboard

- Preset Operation

1. Pump display shows last sale
2. Operator presses a digit key.

The display starts to blink.

There are 3 fixed values of 10, 20 and 50.

Multiple press of any of the fixed preset value buttons will be added to the preset value.

For example, if the button 10 is pressed, 10 will be indicated,

next if 50 is pressed, then 60 (10+50) will be indicated,



next if 20 is pressed, then 80 will be indicated as preset value at the display.

If this is a numeric key the number will be indicated at the default panel (volume or money panel), the other panel shows dashes.

If this is the ↻ key, the display will switch to the Money/Volume line, in case of money selected, dashes are indicated on the volume panel.

Pressing the “✕” key cancels the preset operation.

3. Display will continue to blink showing the entered numbers at one panel and dashes at the other until the operator lifts the nozzle.
4. The display starts the reset cycle and stop blinking.
5. The normal filling information will be indicated at the display.
6. At the end of the sale the display shows the sale (without blinking and showing the preset entry).

| | |
|---------------------------------------------------------------------------------------|------------------------|
| 10 | Softkey 1 10 |
| 20 | Softkey 2 20 |
| 50 | Softkey 3 50 |
|  | Softkey 4 Mon./Vol. |
|  | Clear |

7.4. Health Note




Be advised that petroleum fuel and fuel vapours can damage your health.

Warning

Never run a leaking pump!

Be careful with the environment and mind the skidding risk; take care of leaching fuel immediately.

Adequate personal safety equipment should be used by maintenance of the equipment (gloves, breathing mask, glasses etc.).

| UNLEADED GASOLINE | DIESEL OIL |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>May cause cancer. Also dangerous: may cause lung damage if swallowed. Irritating to skin.</p> <p>Avoid exposure - obtain special instructions before use. In case of accident, or if you feel unwell, seek medical advice immediately (show the label where possible). After contact with skin wash immediately with soap and water.</p> <p>If swallowed do not induce vomiting; Seek medical advice immediately.</p> <p>Avoid release to the environment. Keep out of the reach of children. Do not empty into drains.</p> <p>EXTREMELY FLAMMABLE</p>  |  <p>Possible risk of irreversible effects. Also dangerous: may cause lung damage if swallowed.</p> <p>Keep out of the reach of children. After contact with skin wash immediately with soap and water. If swallowed do not induce vomiting; seek medical advice immediately. Do not breath fumes or vapour. Avoid release to the environment. Do not empty into drains.</p> |
| <p>Contains: Gasoline Benzene - unspecified</p> | <p>Contains: Gas oil - unspecified</p> |

7.5. Hazardous Zones (IEC)

It is important to know the Hazardous Zones around the dispenser as shown in Figure 25.

| Zones | Risk types | Protection class | Example |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------|
| 0 | A risk area where explosive gas mixture exists all the time or during a long period. | Exia | In a tank. |
| 1 | A risk area where explosive gas mixture may exist occasionally during normal operation. | Exd, Exe, Exib, Exp, Exia, Exs, Exm | Within the meter. (within the hydraulic areas and pillar of the pump, see Figure 25 and Figure 26. |
| 2 | A risk area where explosive gas mixture is not expected to exist during normal operation and, if it should exist anyway, in that case seldom and during a short period of time. | Exd, Exe, Exib, Exp, Exia, Exs, Exo, Exq, Exm | see Figure 25 and Figure 26. |

7.5.1. Hazardous Zone UL

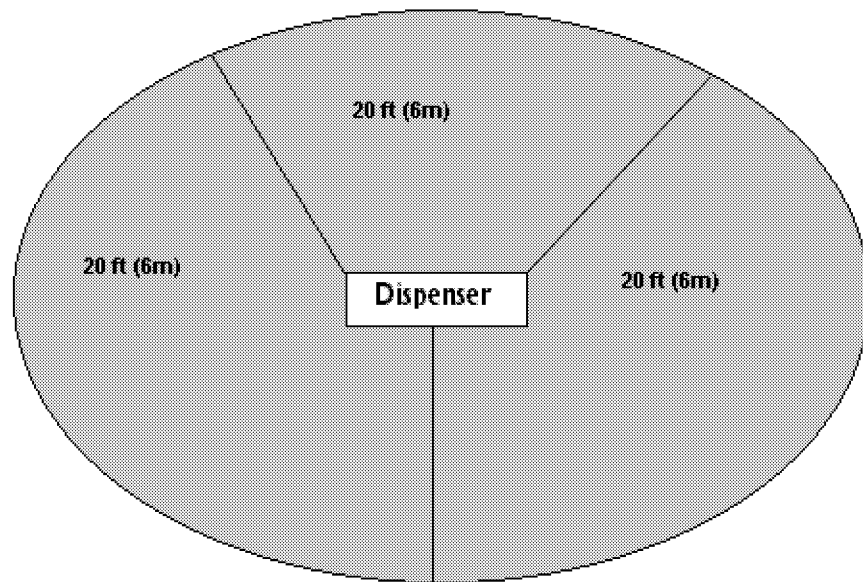
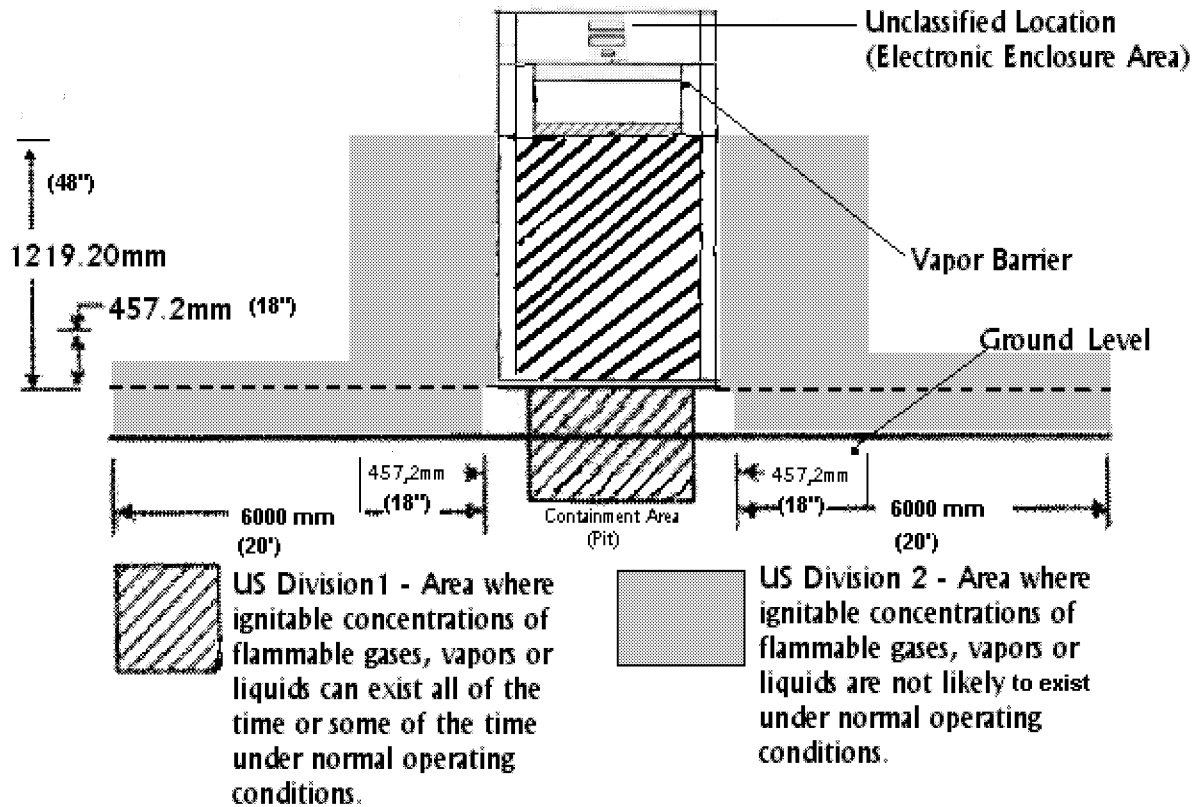
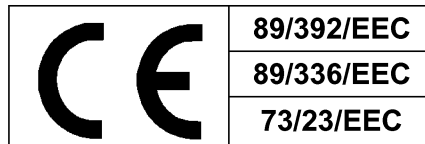


Figure 25 Hazardous Zone Diagram. (UL)
Front and top views showing horizontal and vertical distances.

7.6. European Community Conformity Identification



European Committee. EC-assurance of conformity, see page 72.

7.7. How To Get Service On Your Dispenser

Trouble with the operation of the dispenser should be referred to your local Wayne authorized service personnel or call the Wayne Help Desk (see page 69).

8. PREVENTIVE MAINTENANCE

8.1. Water Damage

It is recommended that the following precautions be taken to prevent water from getting inside the dispenser:

If it is necessary to clean the dispenser, wipe it off with a damp cloth. Do not spray the dispenser with water.

Do not use abrasive cleaners on the bezel. Use only mild soap and water with a soft cloth. Do not use gasoline or other petroleum based products to clean the dispenser.

Before removing the bezel, wipe off any water lying along the top edge of the dispenser so it will not run inside when the bezel is removed.

Care must be taken to prevent rain from getting inside if the bezels must be removed during rainy weather.

Always remove snow and ice from the pump.

8.2. Maintenance Guidelines

A correctly installed, properly maintained dispenser, will seldom require emergency service.

Check the dispenser for internal and external leaks regularly. Check nozzles, swivels, hoses, and joints for leaks and wear. Have all defects repaired immediately.

WARNING!

Never run a leaking pump!

(Failure to observe this information results in immediate danger to life.)

Test the tank for water regularly. Water in petroleum is not only a source of engine trouble, but will also cause damage to the dispenser.

Do not abuse the hose by trying to stretch it to reach an automobile. This will cause early failure at the couplings.

8.3. Cleaning of filters

A dirty strainer screen will slow down the delivery of petroleum. If the underground installation is a new one, it may be necessary to clean the strainer screen two or three times the first few days of operation to remove debris and pipe sealant. After this, occasional cleaning is all that should be required.

NOTE:

Before removing the fuel filter or strainer assembly turn off the circuit breaker to the pump.

NOTE:

Replacement fuel filters can be obtained from the vendor or from Wayne Division, Dresser Industries, Inc.

1. Wash the screen in gasoline and dislodge lint and other foreign particles with compressed air. Check for leakage after reinstalling.
2. All keylock cylinders and locking mechanisms should be periodically checked and lubricated.

8.3.1. Inlet filter (Standard) (IEC)

Remove the tube and filter (see Figure 27). The filter can then be rinsed in water and/or blown with pressure air.

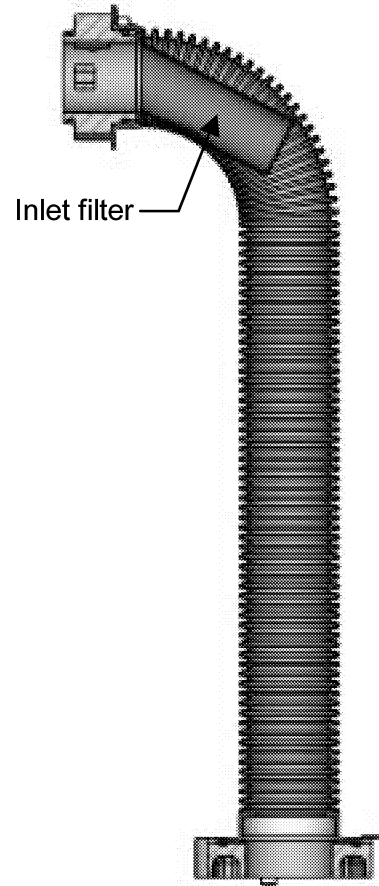


Figure 27 Inlet filters

8.3.2. Inlet filter (US)

The strainer is removed for cleaning by unfastening the cap; see Figure 28. Place a container under the cap to catch the petroleum and sediment.

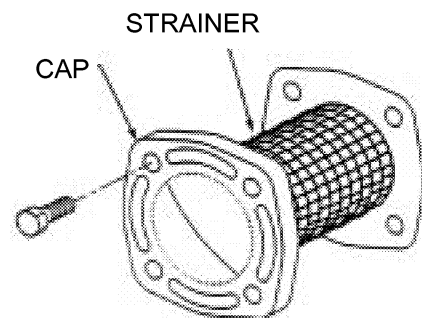


Figure 28 Strainer Assembly. (US)

8.3.3. Inlet Filter (Remote)

Remove the flange and filter below.

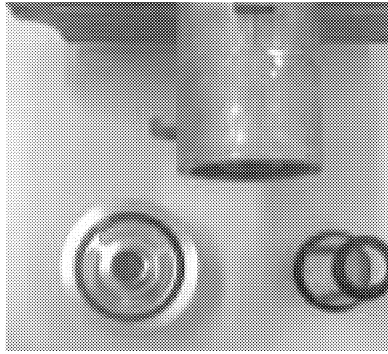
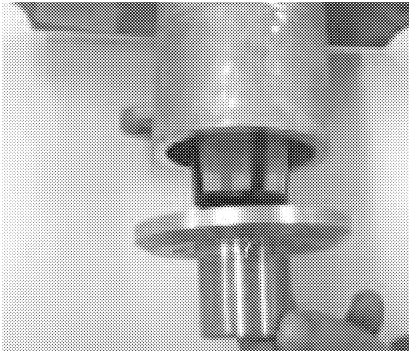


Figure 29 Inlet Filter (Remote)

8.3.4. Outlet filter

Under the lid (see arrow in Figure 30) the outlet filter of the pump is placed. If you remove the lid (two screws) it is possible to remove the filter. There are two outlet filters in each pump unit, one on each side.

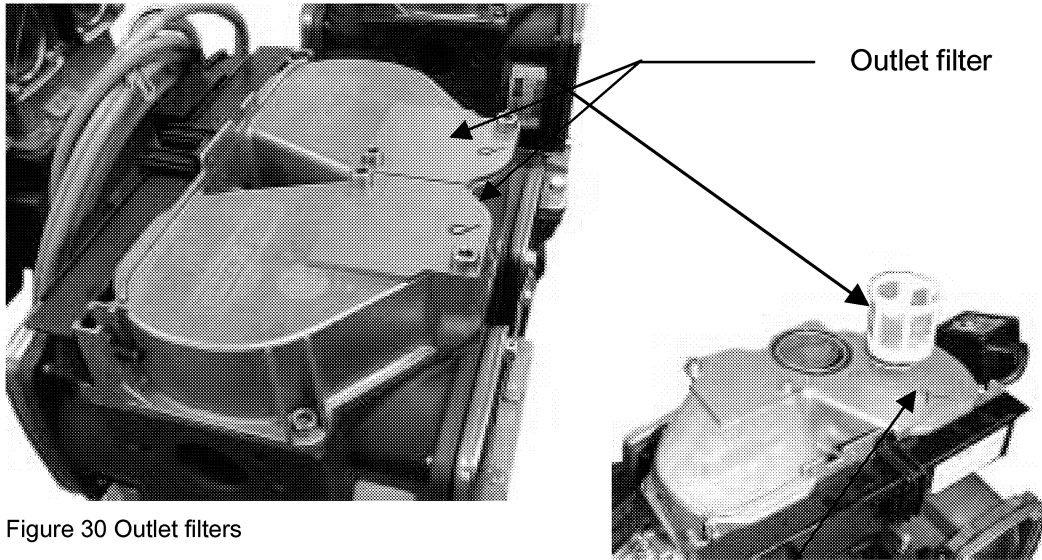


Figure 30 Outlet filters

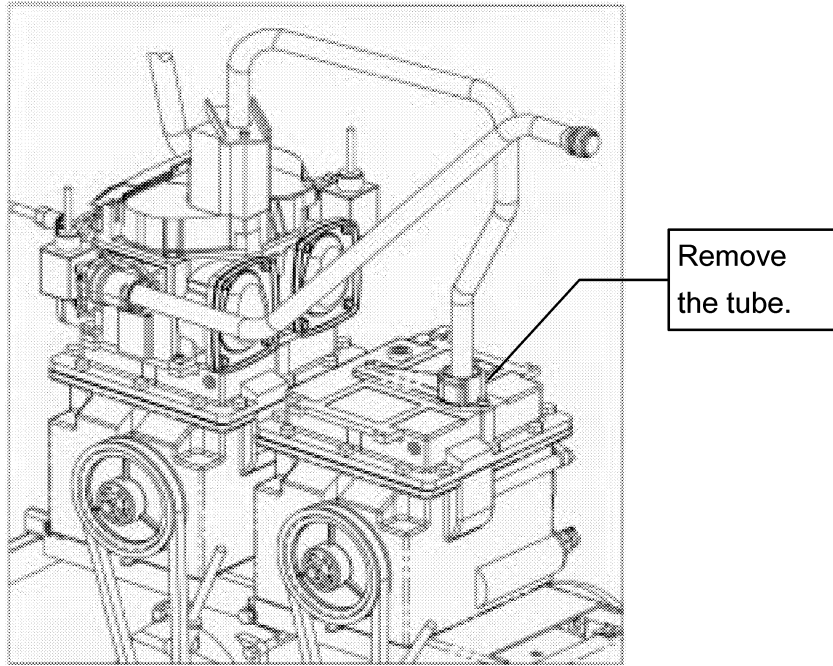


Figure 31 Outlet filters (Duo with one twin meter)

8.3.5. Nozzle filter (only ZWA nozzle)

At the nozzle swivel there is a filter, see Figure 32. Use correct size of keys. The filter can be rinsed in water and/or blown with pressure air.

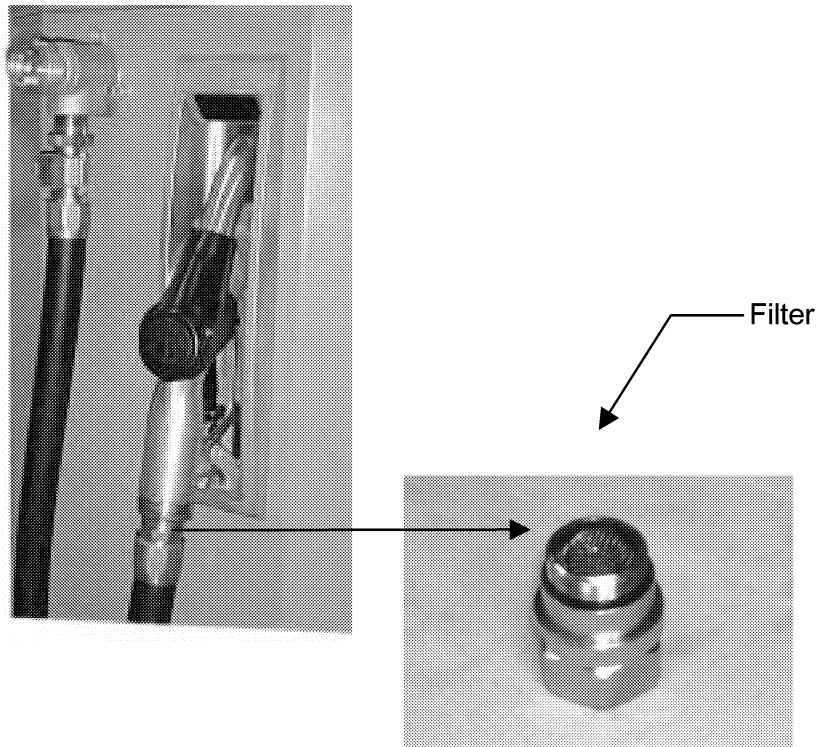


Figure 32 Nozzle filter (only ZWA nozzle)

8.3.6. After filter cleaning:

Put on the power and check the functions. Make sure that there is no leakage.

WARNING!

Never run a leaking pump!

(Failure to observe this information results in immediate danger to life.)

9. WAYNE WORLDWIDE

| Operation Name Location Name | Physical Address | Mailing Address | Phone |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------|
| Dresser Europe SA - Wayne Germany | Grimsehlstrasse 44 Einbeck,D-37574 Germany | PO Box 1615 Einbeck 37557 Germany | + 49 55 617 940 |
| Dresser Japan Ltd/Wayne Operations Japan | Room 818 Shin Tokyo Bldg 3-3-1 Marunouchi Chiyoda-Ku,Tokyo,100-0005 Japan | | + 813 320 11501 |
| Dresser Service Inc. Kazakhstan | Dresser Service Inc. 36, Samal 1, 5th floor Almaty 480099, Kazakhstan | | +7(3272)533840 |
| Dresser Singapore PTE. Ltd Wayne Singapore | 79 Anson Road, Unit 20-01, Singapore 079906 | | + 65 4222 397 |
| Dresser Wayne (Suntronic Systems) USA | 110 W Woodstock St Crystal Lake,IL,60014 USA | | |
| Dresser Wayne (Suntronic Systems) USA | 1722-A General George Patton Dr Brentwood,TN,37027 USA | | |
| Dresser Wayne - Italy Italy | Zona Industriale Campoferro Via Italo Betto 11 27058 Voghera,Pavia Italy | Zona Industriale Campoferro Via Italo Betto 11 27058 Voghera,Pavia Italy | + 39 0383 6911 |
| Dresser Wayne Russia | Dresser Wayne Novocheryomushkinskaya street 60/2 Podyezd "DB" Moscow 117420 Russia | | +0070 95 331 47 59 |
| Dresser Wayne Ukraine | Dresser Wayne Rep.office. 2.M. Krivonosa Str., 03680, Kiev-37 Ukraine | | +380 44 276 74 46 |
| Dresser-Wayne Div Headquarters USA | Corridor Park I 3814 Jarrett Way Austin,TX,78728 USA | | +512 388 8311 |
| Kellogg Brown & Root/DuPont USA | c/o DuPont Waldo Building 212 DuPont Blvd Waynesboro,VA,22980 USA | PO Box 400 Waynesboro,VA,2 2980-0296 USA | +540 949 2488 |

| Operation Name Location Name | Physical Address | Mailing Address | Phone |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------|
| Wayne Singapore | 79 Anson Road #20-00 Singapore,079906 Singapore | | +65 2238311 |
| Wayne Brazil Brazil | Estrada Do Timbo 126 Bonsucesso Rio De Janeiro, 21061-280, Brazil | | +5521 598 7722 |
| Wayne Canada Canada | 160 Cochrane Drive Markham,ON,L3R 9S1 Canada | | + 905 470 9090 |
| Wayne Denmark Denmark | Box 30049 SE-200 61 Sweden | | + 46 40-36 05 00 |
| Wayne Finland Finland | Dresser Finland OY, Veininlaaksintie 1, Box 53, Esboo, F1-02621 Finland | | + 358 959 1961 |
| Wayne International Sales United Kingdom | 13 Thatcham Business Village Colthrop Lane Thatcham Berkshire,England,RG13 4DN United Kingdom | | + 44 1635 874881 |
| Wayne Latvia Latvia | Dresser Latvia LTD Aviacijas Str. 10 LV-3002 Jelgava Latvia | | +371 30 81 300 |
| Wayne Norway Norway | Dresser Wayne AB Olav Ingstads vie 7 B, Postboks 173, Rud, Norway | | +47 67 137150 |
| Wayne Poland Poland | Dresser Polska Sp zoo. 80-369 Gdansk Al. Rzeczypospolitej 8, Poland | | +48 58 553 3611 |
| Wayne Scandinavia Sweden | Linhamnsvagen 109, Box 30049 Malmo Sweden S-200 61 | | +464 036 0500 |
| Wayne South Africa Republic of South Africa | 119 Grahamstown Rd Port Elizabeth Republic of South Africa | | |
| Wayne South Africa Republic of South Africa | 31 Coronation Road Cape Town 8000, Maitland, South Africa 7409 | PO Box 3425 Cape Town,8000 Republic of South Africa | +27 21551 7275 |
| Wayne Switzerland Switzerland | Steinackerstrasse 21, Postfach, Kloten, Ch-8302 Switzerland | | + 411 804 2600 |

| Operation Name Location Name | Physical Address | Mailing Address | Phone |
|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------|--------------------|
| Wayne UK United Kingdom | Butlerfield Industrial Est. Bonnyrigg, Midlothian, EH19 3JQ United Kingdom | | +44 1875 402140 |
| Wayne US - Austin USA | 3814 Jarrett Way Austin, TX, 78728-1212 USA | | 512 388 8311 |
| Wayne US - Salisbury USA | 124 West College Ave Salisbury, MD, 21804 USA | | 410 546 6600 |

<http://www.wayneuk.com/Wayne%20worldwide.htm>

10. DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY

according to the
EMC 89/336/EEC, LVD 73/23/EEC, MD 98/37/EC

as amended
and by the CE marking Directive 93/68/EEC

| | |
|-----------------------|----------------|
| Type of equipment | Fuel dispenser |
| Revision | First version |
| Brand name/trade mark | Global Century |
| Serial number | 3/G2200 series |

Manufacturer

WAYNE BRASIL
DRESSER IND. E COM. LTDA.
Est.do Timbó, 126
21061-280-RJ
Brasil

The annex indicates the documents used for verification of conformity.

Additional information EMC Directive

The product complies with the harmonised EMC standards listed in annex.

See technical report 00F52915 and 15938

Additional information Low voltage Directive

The product complies with the harmonised European safety standards/other safety standards/technical specification listed in annex.

We have an internal production control system that ensures compliance between the manufactured product and the technical documentation.

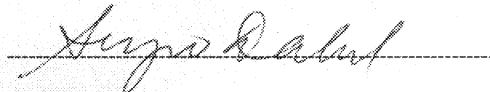
The product is CE marked in 2001

Additional information Machinery Directive

Declaration according to Annex II, Sub A. The product is in conformity with the provision of the Machinery Directive 98/37EC as amended.

As manufacturer, we declare under our sole responsibility that the equipment follows the provision of the Directive stated above.

2001-02-28



Sergio Dabbur
President Dresser Ind. E Com. Ltda.

1

**Annex to the
DECLARATION OF CONFORMITY**

The following harmonised European standards have been applied:

| Standards | Date | Note |
|------------------|-------------|----------------------------------------------------------------------------|
| EN 60204-1 | 1997 | Safety of machinery-Electrical equipment of machines |
| EN 50 081-1 | 1992 | EMC- Emission standard residential, commercial and light industry |
| EN 55 022 | 1998 | Limits and methods of measurement of radio disturbance |
| EN 61000-6-2 | 1999 | EMC-Immunity for industrial environments |
| EN 61000-4-2 | 1995 | EMC-Electrostatic discharge immunity test |
| EN 61000-4-3 | 1996 | EMC-Radiated, radio-frequency, electromagnetic field immunity test |
| EN 61000-4-4 | 1995 | EMC-Electrical fast transient/burst immunity test |
| EN 61000-4-5 | 1995 | EMC-Surge immunity test |
| EN 61000-4-6 | 1996 | EMC- Immunity to conducted disturbances, induced by radio-frequency fields |
| EN 61000-4-11 | 1995 | EMC- Immunity to voltage dips and interruptions |
| EN 61000-3-2 | 1995 | EMC- Limits for harmonic current emissions |
| EN 61000-3-3 | 1995 | EMC-Limitation of voltage fluctuations and flicker |

The following national standards have been applied:

| Standards | Date | Note |
|------------------|-------------|------------------------------------------------|
| SS 421 08 75 | 1987-04-01 | Elektrisk utrustning i mätarskåp för drivmedel |

The following company standards and other technical specifications have been applied:

| Standards/specifications | Date | Note |
|---------------------------------|-------------|-------------|
|---------------------------------|-------------|-------------|



DECLARATION OF CONFORMITY

according to the
EMC 89/336/EEC, LVD 73/23/EEC, MD 98/37/EC, ATEX 94/9/EC

as amended
and by the CE marking Directive 93/68/EEC

| | |
|-----------------------|-----------------|
| Type of equipment | Fuel dispenser |
| Revision | Second version |
| Brand name/trade mark | Global Century |
| Type | 3/G22... series |

Manufacturer

DRESSER WAYNE AB
Limhamnsvagen 109
20061 Malmoe
Sweden

The annex indicates the documents used for verification of conformity.

Additional information 94/9/EC

The product is in conformity with the provision of 94/9/EC as amended.

Notified Body
UL International Demko A/S
Lyskaer 8
2730 Herlev
Denmark

EC-type examination certificate number DEMKO 01 ATEX 130168

Additional information EMC Directive

The product complies with the harmonised EMC standards listed in annex.

Additional information Low voltage Directive

The product complies with the harmonised European safety standards/other safety standards/technical specification listed in annex.

Additional information Machinery Directive

Declaration according to Annex II, Sub A. The product is in conformity with the provision of the Machinery Directive 98/37EC as amended.

As manufacturer, we declare under our sole responsibility that the equipment follows the provision of the Directive stated above.

2002-01-14

Mats E Olsson
President International operations



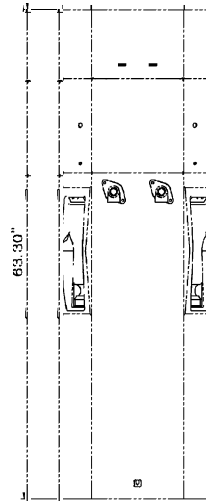
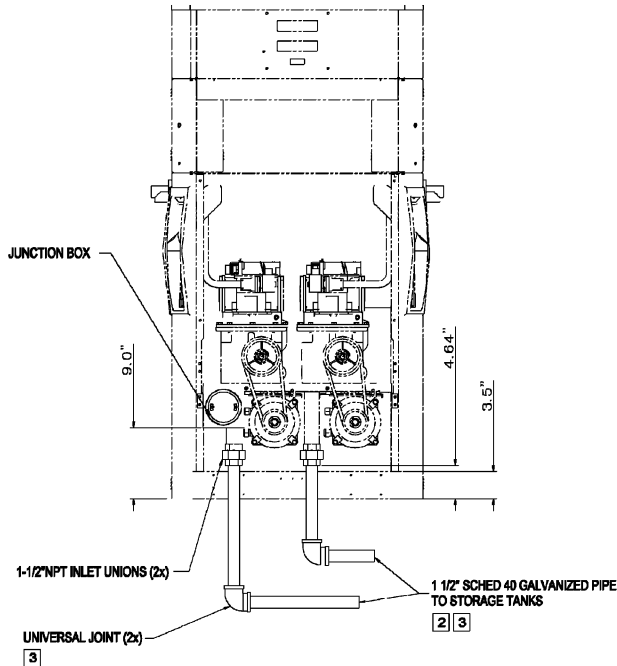
Annex to the DECLARATION OF CONFORMITY

The following harmonised European standards have been applied:

| Standards | Note |
|---------------|-------------------------------------------------------------------------------------|
| prEN 13617-1 | Construction and performance of metering pumps, dispensers and remote pumping units |
| EN 60204-1 | Safety of machinery-Electrical equipment of machines |
| EN 50 081-1 | EMC- Emission standard residential, commercial and light industry |
| EN 55 022 | Limits and methods of measurement of radio disturbance |
| EN 61000-6-2 | EMC-Immunity for industrial environments |
| EN 61000-4-2 | EMC-Electrostatic discharge immunity test |
| EN 61000-4-3 | EMC-Radiated, radio-frequency, electromagnetic field immunity test |
| EN 61000-4-4 | EMC-Electrical fast transient/burst immunity test |
| EN 61000-4-5 | EMC-Surge immunity test |
| EN 61000-4-6 | EMC- Immunity to conducted disturbances, induced by radio-frequency fields |
| EN 61000-4-11 | EMC- Immunity to voltage dips and interruptions |
| EN 61000-3-2 | EMC- Limits for harmonic current emissions |
| EN 61000-3-3 | EMC-Limitation of voltage fluctuations and flicker |
| EN 50 014 | Electrical apparatus for potentially explosive atmospheres Generell requirements |
| EN 50 018 | Flameproof enclosures |
| EN 50 019 | Increased safety |
| EN 50 020 | Intrinsic safety |
| EN 50 028 | Encapsulation |

11. ENGINEERING DRAWINGS

This chapter contains engineering drawings for reference when installing and configuring dispensers.



NOTES:

1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE.

2- PIPING FROM TANK TO DISPENSER SHOULD SLOPE UPWARDS, AVOIDING AIR OR LIQUID TRAPS.

3- USE UNIVERSAL JOINTS AT DISPENSERS TO ALLOW FOR GROUND MOVEMENT.

4- CONDUIT TAPS SHOWN ARE PROVIDED. ANY OR ALL MAY BE USED TO MAKE ELECTRICAL CONNECTIONS TO DISPENSER.

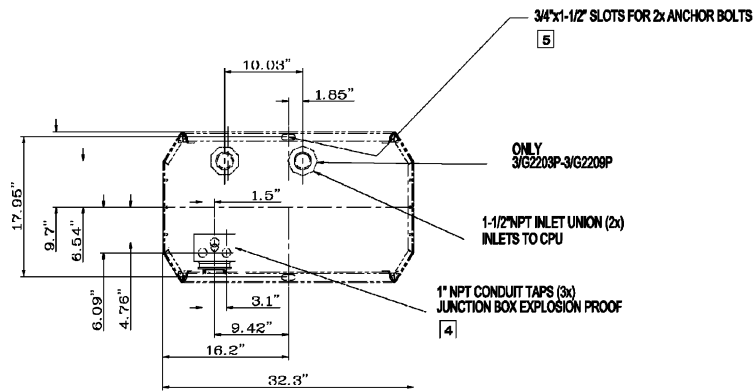
5- FIRMLY MOUNT THE DISPENSER TO THE ISLAND USING THE ANCHOR BOLT LOCATIONS PROVIDED.

6- EMERGENCY SHUTOFF VALVES AND BREAKAWAY DEVICES ARE EXAMPLES OF REQUIREMENTS STATED IN THE NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE. THESE, AS WELL AS ANY OTHER SAFETY DEVICES REQUIRED BY NFPA30 & 30A, MUST BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS.

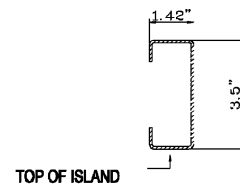
7- SEE CHART FOR MOTOR VOLTAGES LIMITS.

8- RECOMMENDED A 3 FEET MINIMUM DISTANCE (LIFT) BE PROVIDED FROM THE DISPENSER INLET UNION TO THE LIQUID SURFACE IN THE UNDERGROUND TANK.

IF A MINIMUM OF 3 FEET IS NOT PROVIDED, WAYNE PART NUMBER 129881 MUST BE INSTALLED IN THE PUMPING UNIT AIR SEPARATOR (PROVIDING A SMALLER ORIFICE) TO PROVIDE OPTIMUM PERFORMANCE.



BASE DIMENSIONS 3/G2201P-3/G2202P-3/G2203P-3/G2207P-3/G2209P



TOP OF ISLAND

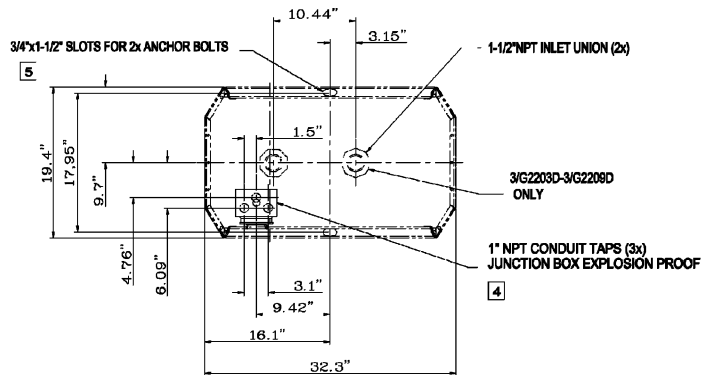
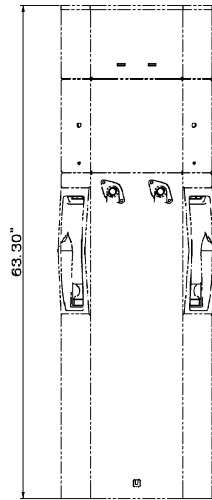
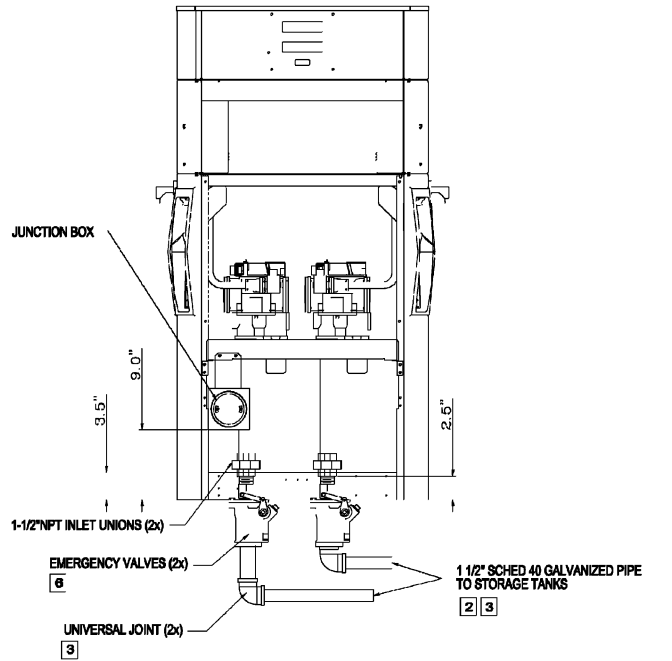
SECTION THRU BASE

MODEL / 3/G2209P / SHOWN

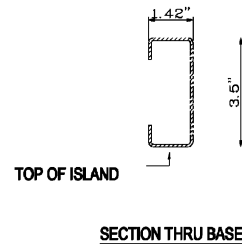
| MOTOR VOLTAGE LIMITS | | | | |
|----------------------|-----------------|-------|-----------------------|--|
| PHASE | NOMINAL VOLTAGE | HERTZ | VOLTAGE RANGE | |
| | 115 / 230 V | 50/60 | 92 - 127 / 194 - 253 | |
| | 220 V | 50/60 | 176 - 242 | |
| | 380 V | 50/60 | 304 - 418 | |
| | 220 / 380 V | 50/60 | 176 - 242 / 304 - 418 | |

| REV | DESCRIPTION | DATE | BY | CHKD |
|-----|----------------------|----------|-----|------|
| 1 | 1/2" NPT INLET UNION | 05/10/10 | ADS | |

| | |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| DIVISION WAYNE WAYNE DIVISION DRAWN BY: ADS CHECKED BY: [] APPROVED BY: [] DATE: 05/10/10 PROJECT: 1-305100-DWC | FOOTPRINT SUCTION MODELS REV: A DATE: 05/10/10 |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|



BASE DIMENSIONS 3/G2201D - 3/G2202D-3/G2203D-3/G2207D-3/G2209D



MODEL- 3/G2208D - SHOWN

NOTES:

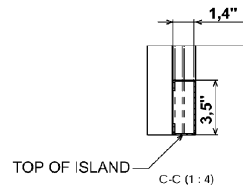
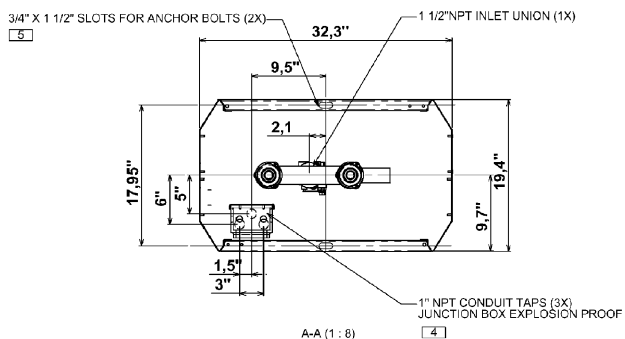
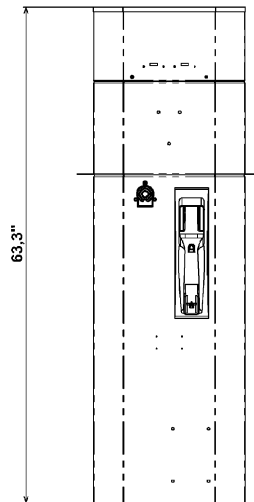
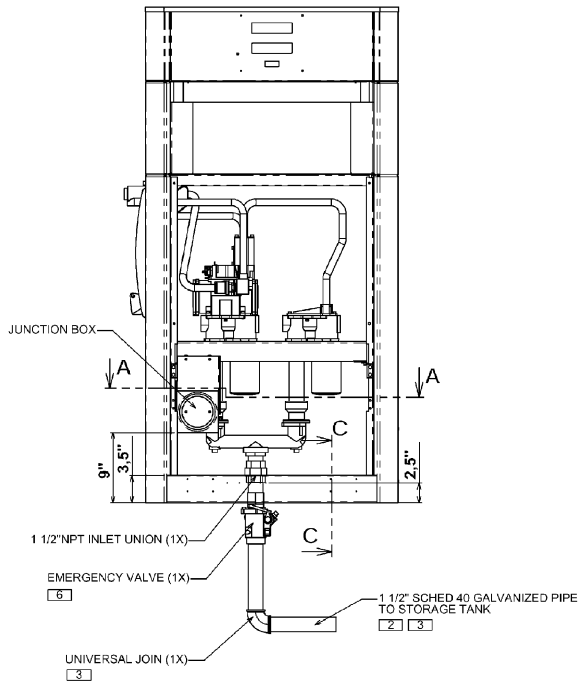
- 1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE.
- 2- PIPING FROM TANK TO DISPENSER SHOULD SLOPE UPWARDS, AVOIDING AIR OR LIQUID TRAPS.
- 3- USE UNIVERSAL JOINTS AT DISPENSERS TO ALLOW FOR GROUND MOVEMENT.
- 4- CONDUIT TAPS SHOWN ARE PROVIDED. ANY OR ALL MAY BE USE TO MAKE ELECTRICAL CONNECTIONS TO DISPENSER.
- 5- FIRMLY MOUNT THE DISPENSER TO THE ISLAND USING THE ANCHOR BOLT LOCATIONS PROVIDED.
- 6- EMERGENCY SHUTOFF VALVES AND BREAKAWAY DEVICES ARE EXAMPLES OF REQUIREMENTS STATED IN THE NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE. THESE, AS WELL AS ANY OTHER SAFETY DEVICES REQUIRED BY NFPA30 & 30A, MUST BE INSTALLED AND, MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS.

| REV | DESCRIPTION | DATE |
|-----|-----------------------|----------|
| 1 | ISSUED / NEW PARTS | 25/06/02 |
| 2 | REVISIONS / REVISIONS | |

| NO | DATE | BY | CHKD | APP'D | REV |
|----|----------|----|------|-------|-----|
| 1 | 25/06/02 | | | | |

| | |
|----------------------------------|------------------------------------------------------------|
| DIVISION WAYNE MODEL 3/G2208D | WAYNE DIVISION 10000 W. Highway 100 Dallas, TX 75243 |
|----------------------------------|------------------------------------------------------------|

| | |
|-----------------------------------------|-------|
| FOOTPRINT REMOTE MODELS 2-305100-DWC | REV A |
|-----------------------------------------|-------|



BASE DIMENSIONS 3/G2221D-3/G2227D/R

MODEL - 3/G2221D - SHOWN

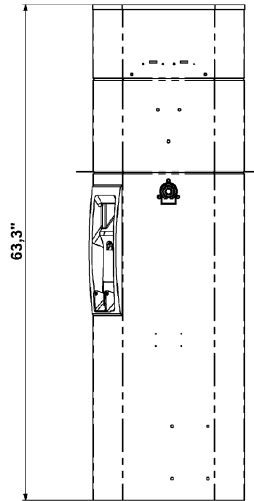
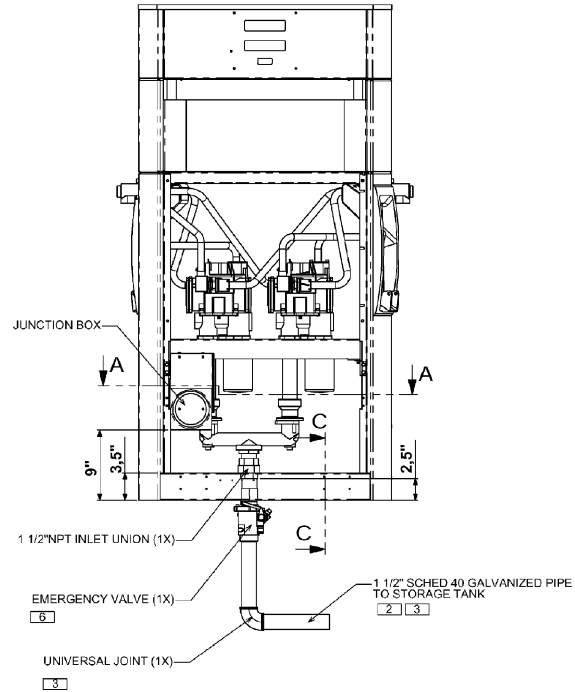
NOTES:

- 1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELETRICAL CODE.
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| REV | DESCRIPTION | DATE | BY | CHKD |
|-----|--------------------------|----------|----|------|
| A | UBRIDADO/UNIDAD/ILLUSTR. | 20/06/03 | | |
| B | REVISION | | | |

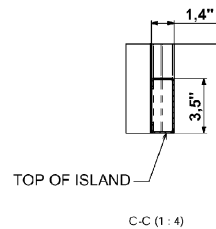
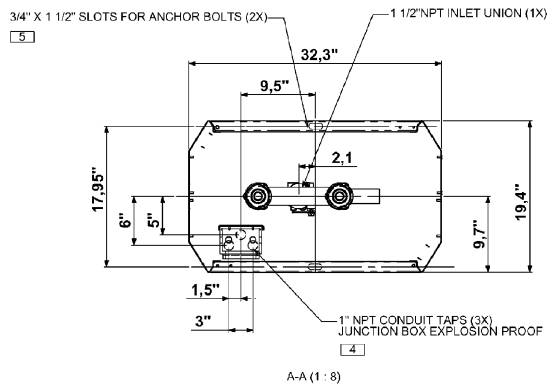
| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| AUTOMOTIVE & MARINE SERVICE STATION NFPA 30A AUTOMOTIVE & MARINE SERVICE STATION NFPA 30A AUTOMOTIVE & MARINE SERVICE STATION NFPA 30A | 3/G2221D & 3/G2227D/R 3-305100-DWG 1:1 | DIVISION WAYNE WAYNE DIVISION 3000 TOWER ST DETROIT, MI 48226-1600 313-224-2000 313-224-2000 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------|

FOR LINE NO. 30
DRAWN BY
AIR



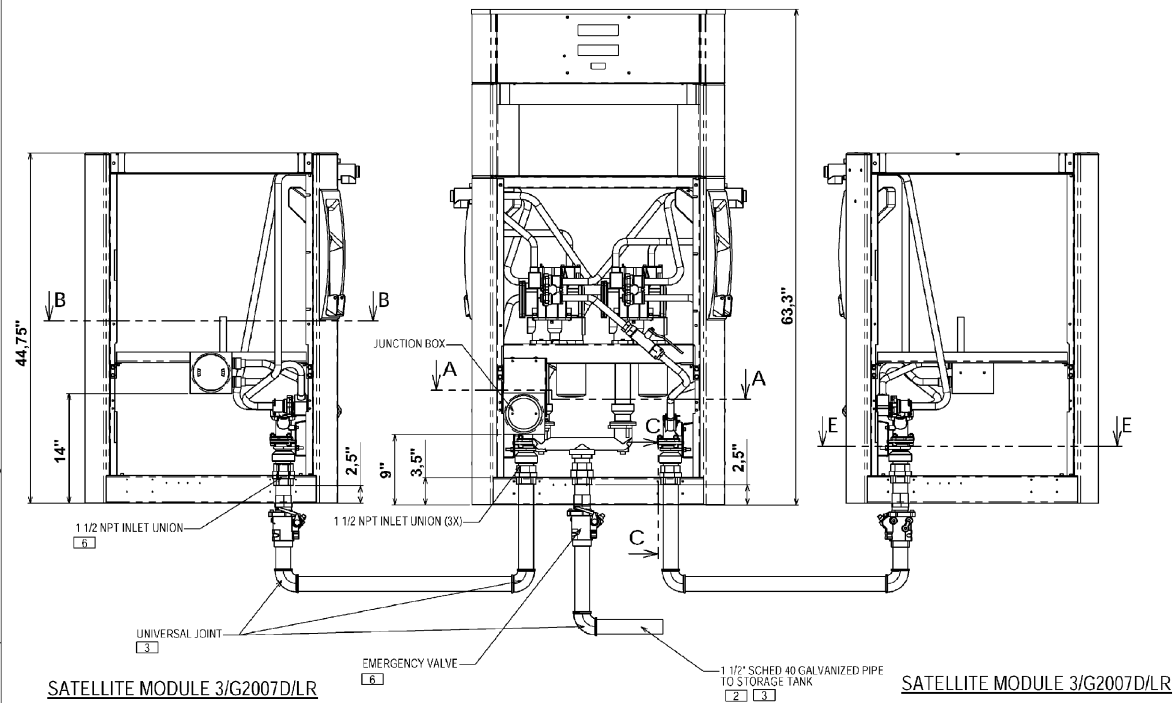
NOTES:

- 1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE.
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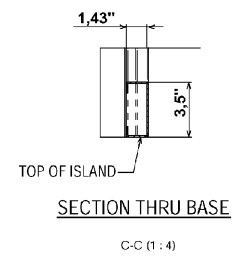
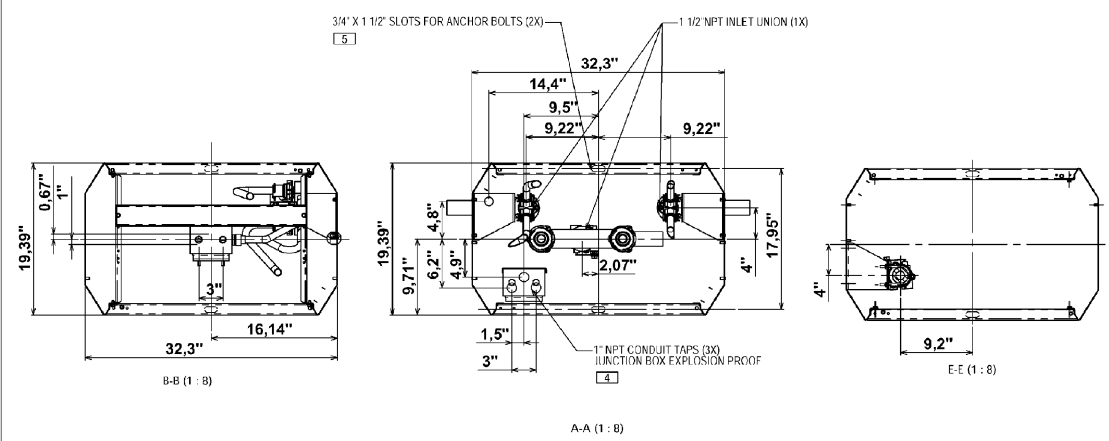
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| REV | DESCRIPTION | DATE | BY | CHECKED |
| A | REVISIONS | | | |

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| PROJECT: 4-305100-DWG SHEET: 1 OF 1 DATE: 11/11/11 DRAWN BY: AIR CHECKED BY: | DIVISION: WAYNE PROJECT: 4-305100-DWG SHEET: 1 OF 1 DATE: 11/11/11 DRAWN BY: AIR CHECKED BY: | PROJECT: 4-305100-DWG SHEET: 1 OF 1 DATE: 11/11/11 DRAWN BY: AIR CHECKED BY: | PROJECT: 4-305100-DWG SHEET: 1 OF 1 DATE: 11/11/11 DRAWN BY: AIR CHECKED BY: |
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NOTES:

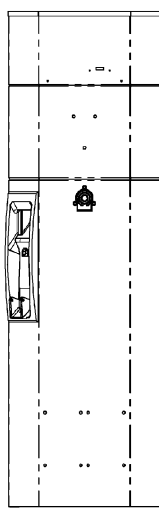
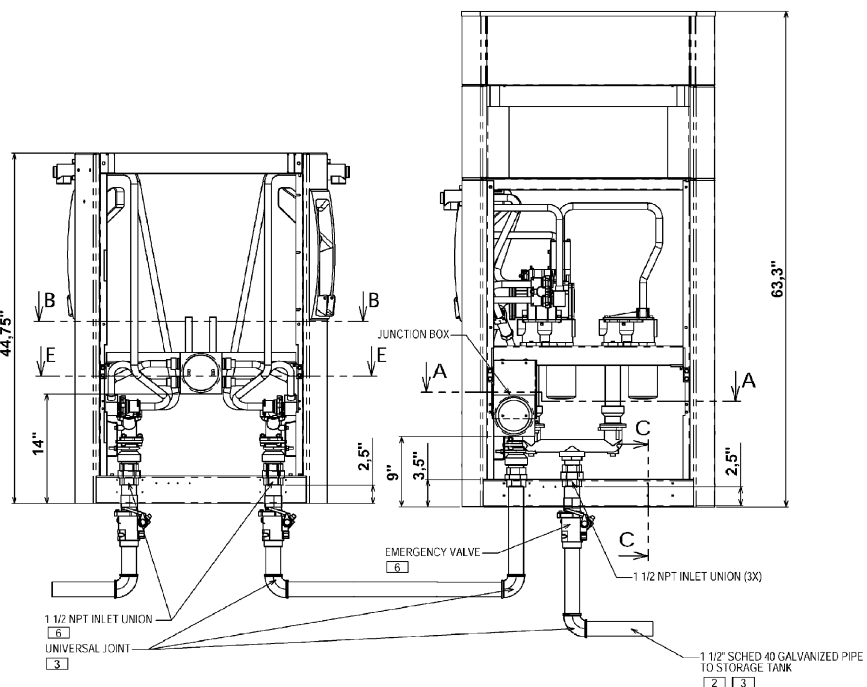
- 1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE.
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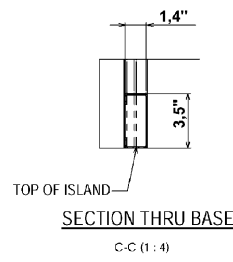
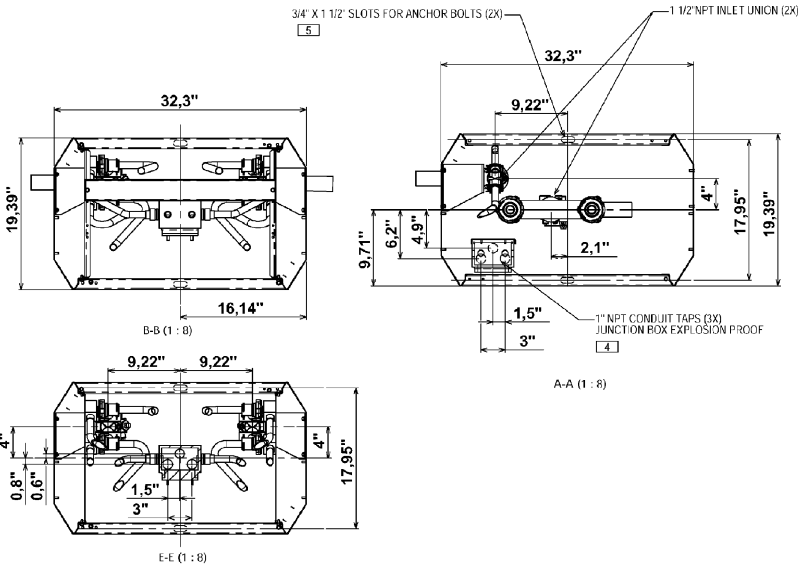
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|-----|----------------------------|------|----|------|
| A | LIBRIZIO / INITIAL RELEASE | | | |
| B | REVISED | | | |
| C | REVISION | | | |
| D | REVISION | | | |
| E | REVISION | | | |
| F | REVISION | | | |
| G | REVISION | | | |
| H | REVISION | | | |
| I | REVISION | | | |
| J | REVISION | | | |
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| V | REVISION | | | |
| W | REVISION | | | |
| X | REVISION | | | |
| Y | REVISION | | | |
| Z | REVISION | | | |

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|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| PROJECT: 5-305100-DWG SHEET: 1-1 DATE: 11/11/11 DRAWN: [Signature] CHECKED: [Signature] APPROVED: [Signature] | DIVISION WAYNE WAYNE DIVISION 5-305100-DWG A |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|

DATE: 08/12/10
 DRAWN BY: JWS



SATELLITE MODULE 3/G2008D/L



NOTES:

- 1- ALL PIPING AND ELECTRICAL INSTALLATIONS MUST CONFORM TO ALL APPLICABLE REGULATIONS INCLUDING NFPA30, FLAMMABLE & COMBUSTIBLE LIQUIDS CODE; NFPA30A, AUTOMOTIVE & MARINE SERVICE STATION CODE; NFPA70, NATIONAL ELECTRICAL CODE.
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| | | | | |
|-----|-------------------------|----------|-----|------|
| NO. | DESCRIPTION | DATE | BY | CHKD |
| 1 | ISSUED FOR CONSTRUCTION | 08/12/10 | JWS | |
| 2 | REVISIONS | | | |

| | | | | | |
|------------------------------------------------------------------------|-----------------|----------------|-------------------------------------|-----------------------|--------|
| DESIGNED BY: JWS | CHECKED BY: JWS | DATE: 08/12/10 | SCALE: AS SHOWN | PROJECT: 6-305100-DWG | REV: A |
| DYNAMIC WAYNE 6-305100-DWG FOOTPRINT REMOTE MODEL 3/G222TD/MR | | | WAYNE DIVISION 6-305100-DWG A | | |

EM COMUM COM
SHARED BY
AUS

JUNCTION BOX FIELD CONNECTION

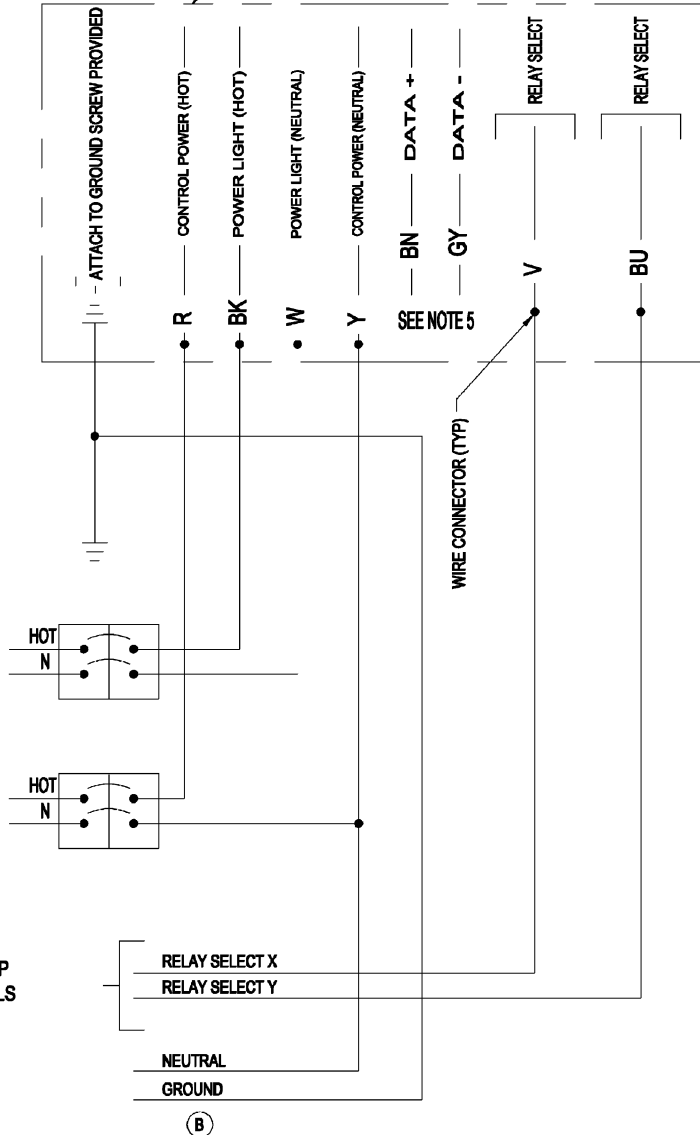
2-7212-C

COLOR CODE
Y-YELLOW
W-WHITE
BN-BROWN
GY-GRAY
BK-BLACK
R-RED
G-GREEN
V-VIOLET

LIGHTS POWER
240 OR 120 VAC
(SEE NOTE 3)

CONTROL POWER
240 OR 120 VAC
(SEE NOTE 3)

TO SUBMERSIBLE PUMP
CONTROL RELAYS COILS



NOTES:

1- ALL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA 70) AND THE AUTOMOTIVE AND MARINE SERVICE STATION CODE (NFPA 30A). NOTE: DATA AND RELAY SELECT WIRES ARE CONSIDERED CLASS I CIRCUITS.

2- FOR SUPPLY CONNECTIONS, USE WIRES RATED AT LEAST 90°C (194°F), 600V, GAS & OIL RESISTANT.

3-DISPENSER CONTROL POWER:

VOLTAGE: 110/220 VAC - 50/60 Hz
AMPERAGE: CONTROL POWER - 1.0 AMPS
CONTROL POWER AND LIGHTS - 1.6 AMPS

VOLTAGE: 240 VAC - 50 Hz
AMPERAGE: CONTROL POWER - 0.8 AMPS
CONTROL POWER AND LIGHTS - 1.5 AMPS

VOLTAGE: 240 VAC - 60 Hz
AMPERAGE: CONTROL POWER - 0.6 AMPS
CONTROL POWER AND LIGHTS - 1.3 AMPS

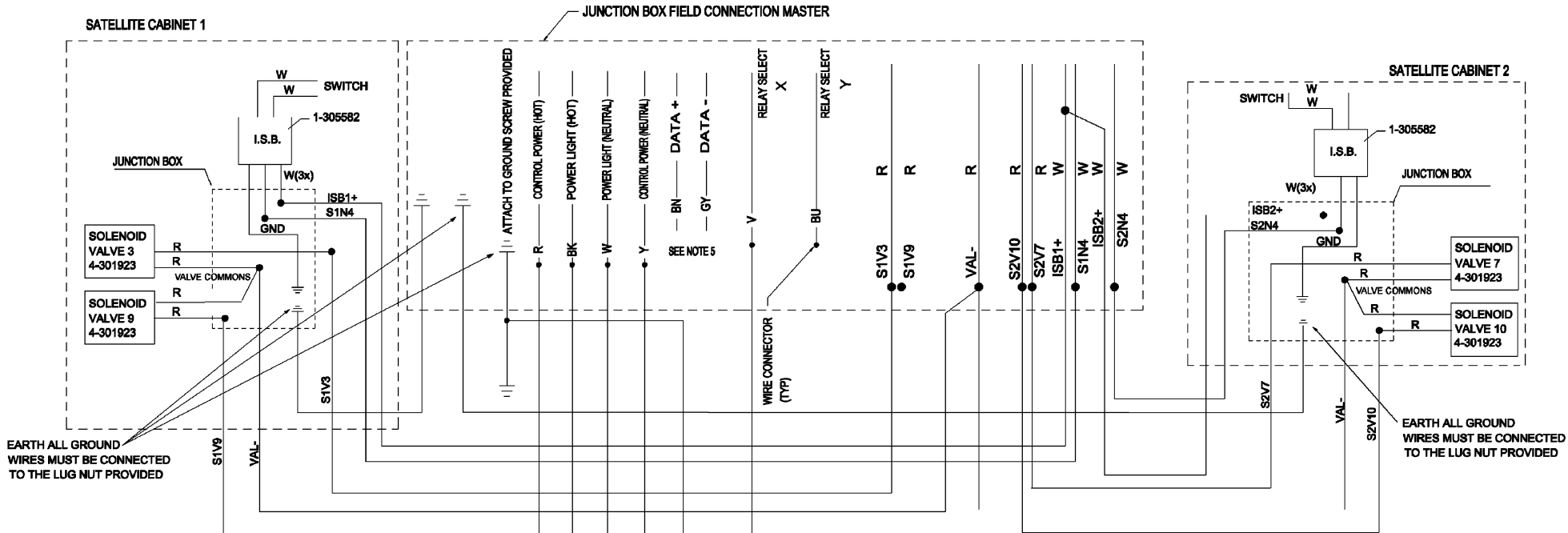
4- REMOTE DISPENSERS REQUIRE A RELAY TO INTERFACE TO THE SUBMERSIBLE PUMP MOTOR. POTTER AND BRUMFIELD RELAY PRO7AYO (120) IN A LISTED MAGNETIC MOTOR CONTROLLER ASSY RECOMMENDED. MAXIMUM OF 12 DISPENSERS (24 FUELINGS POINTS) MAY BE CONNECTED TO PRO7AYO RELAY. OTHER RELAYS MAY HAVE DIFFERENT LIMITATIONS.

5- IN MULTIPLE DISPENSER INSTALLATIONS, ALL DISPENSERS OPERATING THE SAME SUBMERSIBLE PUMP CONTROL RELAY MUST BE CONNECTED TO THE SAME MAIN POWER CIRCUIT BREAKER THIS MAY REQUIRE MULTIPLE PUMP CONTROL RELAYS FOR A SUBMERSIBLE PUMP.

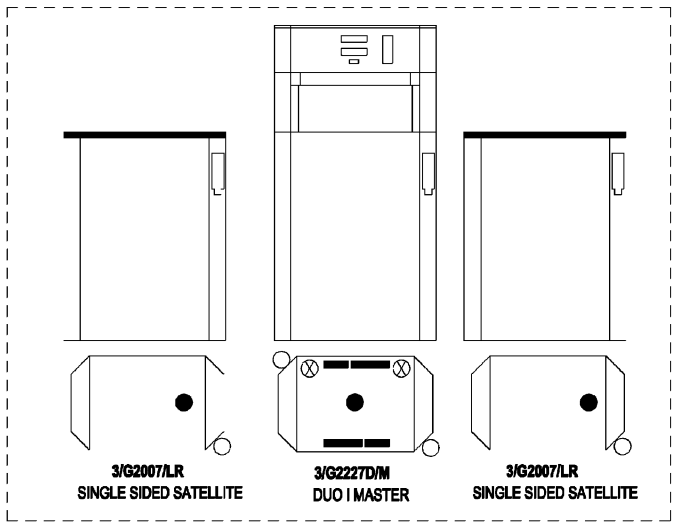
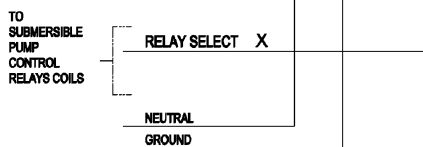
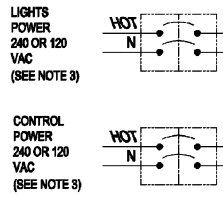
6- THE ELECTRICAL INTERCONNECTIONS SHOWN ON THIS DRAWING ARE TYPICAL WHEN ADDITIONAL LIKE DISPENSERS ARE INSTALLED AT A SITE. SEE APPROPRIATE MODEL No. INSTALLATION WIRING DIAGRAM WHEN OTHER MODELS ARE BEING INSTALLED.

7- FOR FULL DETAILS OF WAYNE CONTROL SYSTEMS INTERCONNECTIONS SEE THE MANUAL PROVIDED WITH THE WAYNE PUMP CONTROL SYSTEM OR WAYNE CARD PROCESSING SYSTEM.

| | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| NÃO USAR O DESENHO COMO ESCALA/DO NOT SCALE DRAWING NUNCA USAR O DESENHO COMO ESCALA/DO NOT SCALE DRAWING UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS (INCHES) | DESENHADO DRAWN PROJETO DESIGNED APROVADO APPROVED | JAC | 23/01/02 | DIVISÃO WAYNE Dresser Ind. e com. Ltda | WAYNE DIVISION Dresser Industries, Inc |
| ÂNGULOS / ANGLES +/- 1° X (X) 1/1 (0.50) X (XX) +/-0.5 (0.25) XX (XXX) +/-0.25 (0.10) | PARTIÇÃO/SH ME UNFOLD MODELO / REF SET REV | | | <input type="checkbox"/> Austin <input type="checkbox"/> Markham <input checked="" type="checkbox"/> Rio <input type="checkbox"/> Scitbury | TÍTULO/TITLE INSTALLATION WIRING DIAGRAM REMOTE NON-MASTERS |
| A PEÇA DEVE SER LIVRE DE REBARBAS / QUEBRAR CANTOS VIVOS PART SHALL BE FREE OF BURRS / BREAK SHARP EDGES | DATA/DATE INICIALS/INITIALS | | | FORMATO SCALE A3 | DESENH. Nº/DRAWING NO. 2-7212-C REV C |
| REINFORMAÇÃO PROFISSIONAL - ESTE DOCUMENTO CONTÉM INFORMAÇÃO PROPRIETÁRIA E CONFIDENCIAL. É FORNECIDO SOB FIDELIDADE E NÃO DEVE SER REPRODUZIDO OU COPIADO SEM CONSENTIMENTO POR ESCRITO DO INVENIDOR ORIGINAL. NÃO SE DEVE USAR PARA QUALQUER FIM NÃO AUTORIZADO SEM O CONSENTIMENTO POR ESCRITO DO INVENIDOR ORIGINAL. NÃO SE DEVE REPRODUZIR OU COPIAR SEM O CONSENTIMENTO POR ESCRITO DO INVENIDOR ORIGINAL. | RESERVAÇÃO DE DIREITOS - THIS DOCUMENT CONTAINS PROPRIETARY AND CONFIDENTIAL INFORMATION. IT IS LOANED FOR LIMITED PURPOSES ONLY AND REMAINS THE PROPERTY OF THE WAYNE DIVISION, DRESSER INDUSTRIES, INC. IT MAY NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF THE WAYNE DIVISION AND MUST NOT BE USED FOR ANY UNAUTHORIZED PURPOSES WITHOUT THE WRITTEN CONSENT OF THE WAYNE DIVISION. THIS DOCUMENT IS TO BE RETURNED TO WAYNE DIVISION UPON REQUEST AND/OR UPON COMPLETION OF THE USE FOR WHICH IT WAS LOANED. | 1° DIEDRO FIRST ANGLE PROJECTION | | ESCALA SCALE S/E | FOLHA SHEET 01 DE 01 |

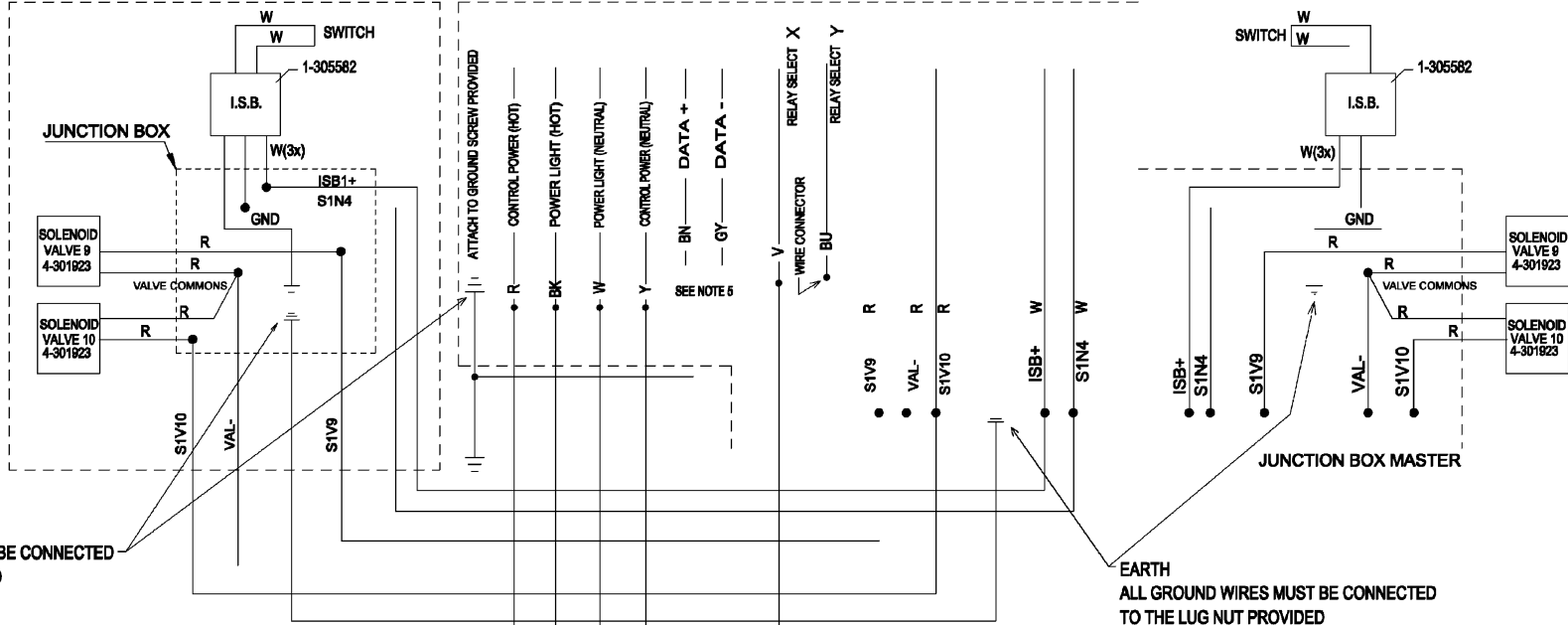


WIRE COLOR CHART:
 YELLOW: Y
 WHITE: W
 BROWN: BN
 GRAY: GY
 BLACK: BK
 RED: R
 GREEN: GN
 VIOLET: V



| | | | | | | | |
|------------------------------------------------------------|-----------|-------|------|---------------------------------------------------------|----|-------|--------|
| NO. OF SHEETS | DATE | SCALE | REV. | DATE | BY | CHKD. | APP'D. |
| 1 | 11-7212-C | 1:1 | 1 | | | | |
| DIVISION WAYNE WAYNE DIVISION 11-7212-C 11-7212-C | | | | DIVISION WAYNE WAYNE DIVISION 11-7212-C 11-7212-C | | | |
| TITLE INSTALLATION WIRING DIAGRAM REMOTE 3/G2227/D/M | | | | SHEET NO. 1 OF 1 11-7212-C 11-7212-C | | | |

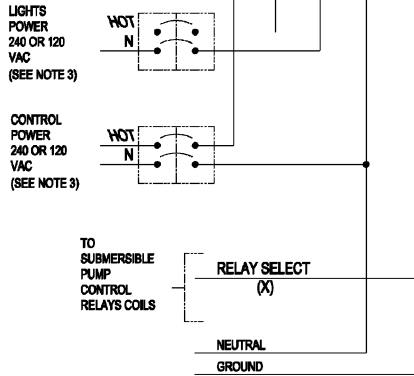
SATELLITE CABINET 1



EARTH
ALL GROUND WIRES MUST BE CONNECTED TO THE LUG NUT PROVIDED

EARTH
ALL GROUND WIRES MUST BE CONNECTED TO THE LUG NUT PROVIDED

WIRE COLOR CHART:
YELLOW: Y
WHITE: W
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GRAY: GY
BLACK: BK
RED: R
GREEN: GN
VIOLET: V

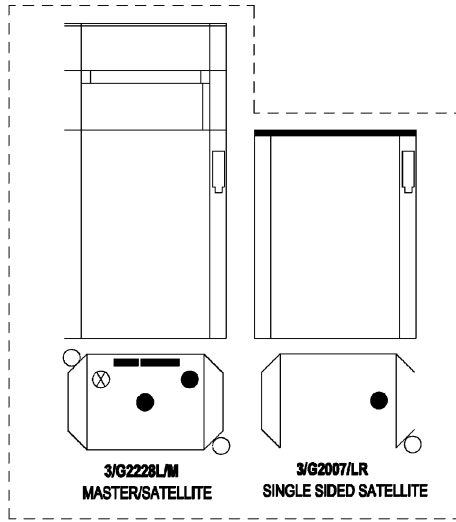


- NOTES:**
- 1- ALL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE ELECTRICAL CODE (NFPA 70) AND THE AUTOMOTIVE AND MARINE (NFPA 70) AND THE AUTOMOTIVE AND MARINE SERVICE STATION CODE (NFPA 30A). NOTE: DATA AND RELAY SELECT WIRES ARE CONSIDERED CLASS I CIRCUITS.
 - 2- FOR SUPPLY CONNECTIONS, USE WIRES RATED AT LEAST 90°C (194°F), 600V, GAS & OIL RESISTANT.
 - 3- DISPENSER CONTROL POWER:
VOLTAGE: 110/220 VAC - 50/60 Hz
AMPERAGE: CONTROL POWER - 1.0 AMPS
CONTROL POWER AND LIGHTS - 1.5 AMPS

VOLTAGE: 240 VAC - 50 Hz
AMPERAGE: CONTROL POWER - 0.8 AMPS
CONTROL POWER AND LIGHTS - 1.5 AMPS

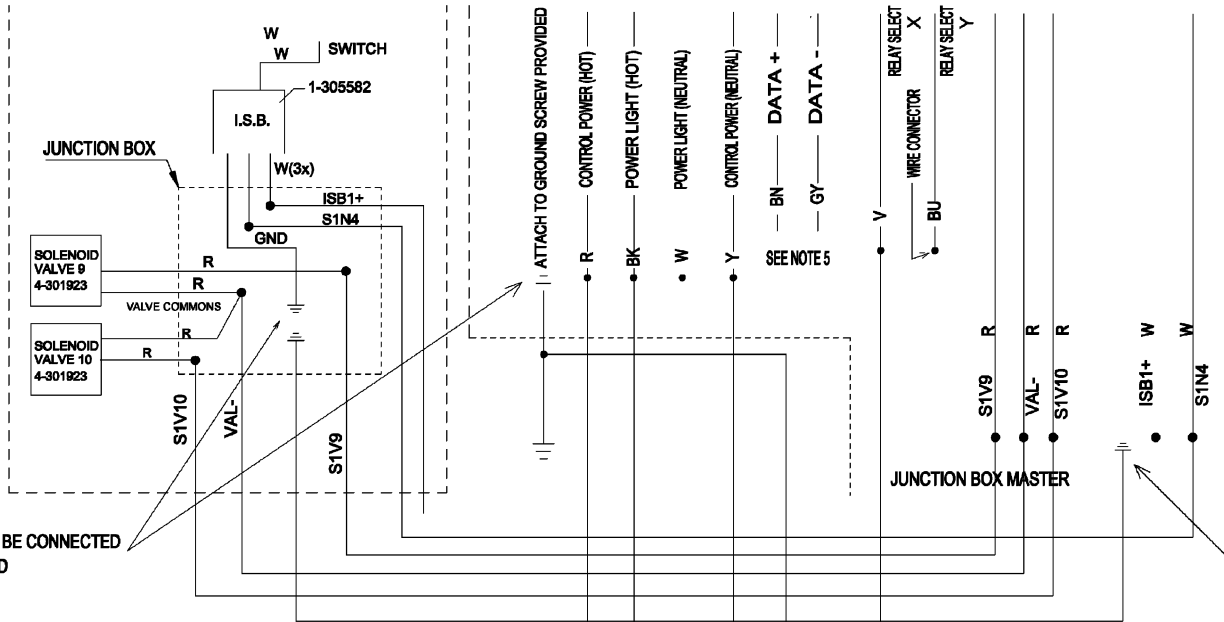
VOLTAGE: 240 VAC - 60 Hz
AMPERAGE: CONTROL POWER - 0.8 AMPS
CONTROL POWER AND LIGHTS - 1.3 AMPS

- 4- REMOTE DISPENSERS REQUIRE A RELAY TO INTERFACE TO THE SUBMERSIBLE PUMP MOTOR. POTTER AND BRUMFIELD RELAY PROTAYO (120) IN A LISTED MAGNETIC MOTOR CONTROLLER ASSY IS RECOMMENDED. A MAXIMUM OF 12 DISPENSERS (24 FUELINGS POINTS) MAY BE CONNECTED TO PROTAYO RELAY. OTHER RELAYS MAY HAVE DIFFERENT LIMITATIONS.
- 5- IN MULTIPLE DISPENSER INSTALLATIONS, ALL DISPENSERS OPERATING THE SAME SUBMERSIBLE PUMP CONTROL RELAY MUST BE CONNECTED TO THE SAME MAIN POWER CIRCUIT BREAKER. THEY MAY REQUIRE MULTIPLE PUMP CONTROL RELAYS FOR A SUBMERSIBLE PUMP. SEE DWG 1-306270 FOR DETAILS.
- 6- THE ELECTRICAL INTERCONNECTIONS SHOWN ON THIS DRAWING ARE TYPICAL WHEN ADDITIONAL LIKE DISPENSERS ARE INSTALLED AT A SITE. SEE APPROPRIATE MODEL No. INSTALLATION WIRING DIAGRAM WHEN OTHER MODELS ARE BEING INSTALLED.
- 7- FOR FULL DETAILS OF WAYNE CONTROL SYSTEMS INTERCONNECTIONS SEE THE MANUAL PROVIDED WITH THE WAYNE PUMP CONTROL SYSTEM.



| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------|
| <p>DO NOT USE A GENERIC WIRE SIZE. THE WIRE SIZE MUST BE AS SPECIFIED IN THE WIRING DIAGRAM. THE WIRE SIZE MUST BE AS SPECIFIED IN THE WIRING DIAGRAM. THE WIRE SIZE MUST BE AS SPECIFIED IN THE WIRING DIAGRAM.</p> | <p>DATE: 12/21/2013 BY: [Signature] CHECKED BY: [Signature]</p> | <p>WAYNE DIVISION 12-7212-C A</p> |
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SATELLITE CABINET 1



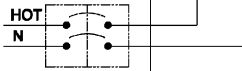
EARTH
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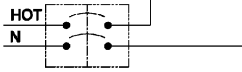
WIRE COLOR CHART:

- YELLOW: Y
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- BROWN: BN
- GRAY: GY
- BLACK: BK
- RED: R
- GREEN: GN
- VIOLET: V

LIGHTS
POWER
240 OR 120
VAC
(SEE NOTE 3)



CONTROL
POWER
240 OR 120
VAC
(SEE NOTE 3)



TO
SUBMERSIBLE
PUMP
CONTROL
RELAYS COILS

RELAY SELECT X

NEUTRAL
GROUND

NOTES:

- 1- ALL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE ELECTRICAL CODE (NFPA 70) AND THE AUTOMOTIVE AND MARINE (NFPA 70) AND THE AUTOMOTIVE AND MARINE SERVICE STATION CODE (NFPA 30A). NOTE: DATA AND RELAY SELECT WIRES ARE CONSIDERED CLASS I CIRCUITS.
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AMPERAGE: CONTROL POWER - 1.0 AMPS
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VOLTAGE: 240 VAC - 60 Hz
AMPERAGE: CONTROL POWER - 0.8 AMPS
CONTROL POWER AND LIGHTS - 1.5 AMPS

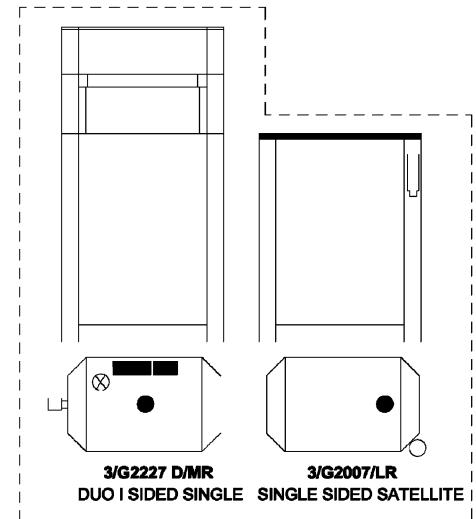
VOLTAGE: 240 VAC - 60 Hz
AMPERAGE: CONTROL POWER - 0.8 AMPS
CONTROL POWER AND LIGHTS - 1.3 AMPS

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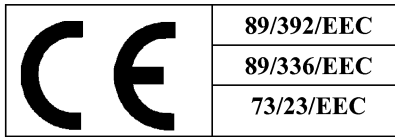
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| | | | | |
|------------------------------------------------------------------|------------------------|-----------------------|------------------------|-------------------------------------------------|
| NO USE A DESIGN ORIGINATOR NOT SCALE DRAWING | DATE: 11/10/03 | VOL: 1 | 13-7212-C | WAYNE DIVISION |
| DATE: 11/10/03 | DESIGNER: J. W. WATSON | CHECKED: J. W. WATSON | APPROVED: J. W. WATSON | WAYNE DIVISION |
| PROJECT: 13-7212-C | DESCRIPTION: 13-7212-C | REVISION: 1 | DATE: 11/10/03 | BY: J. W. WATSON |
| 13-7212-C INSTALLATION WIRING DIAGRAM REMOTE: 3/G2227 D/MR | | | | WAYNE DIVISION Wayne, Michigan 48186-1500 |

European Community Conformity Identification



UL markets:

"NOTE: This equipment has been tested and found to comply with the limits for 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."



WAYNE DIVISION

Dresser Indústria e Comércio Ltda. Divisão Wayne – Estrada do Timbó, 126 – Bonsucesso
CEP: 21061-280 – Rio de Janeiro – RJ – Brasil – Tel.: +55 21 2290-9140

April 2002

Part No 921278 Rev. E

February 2004