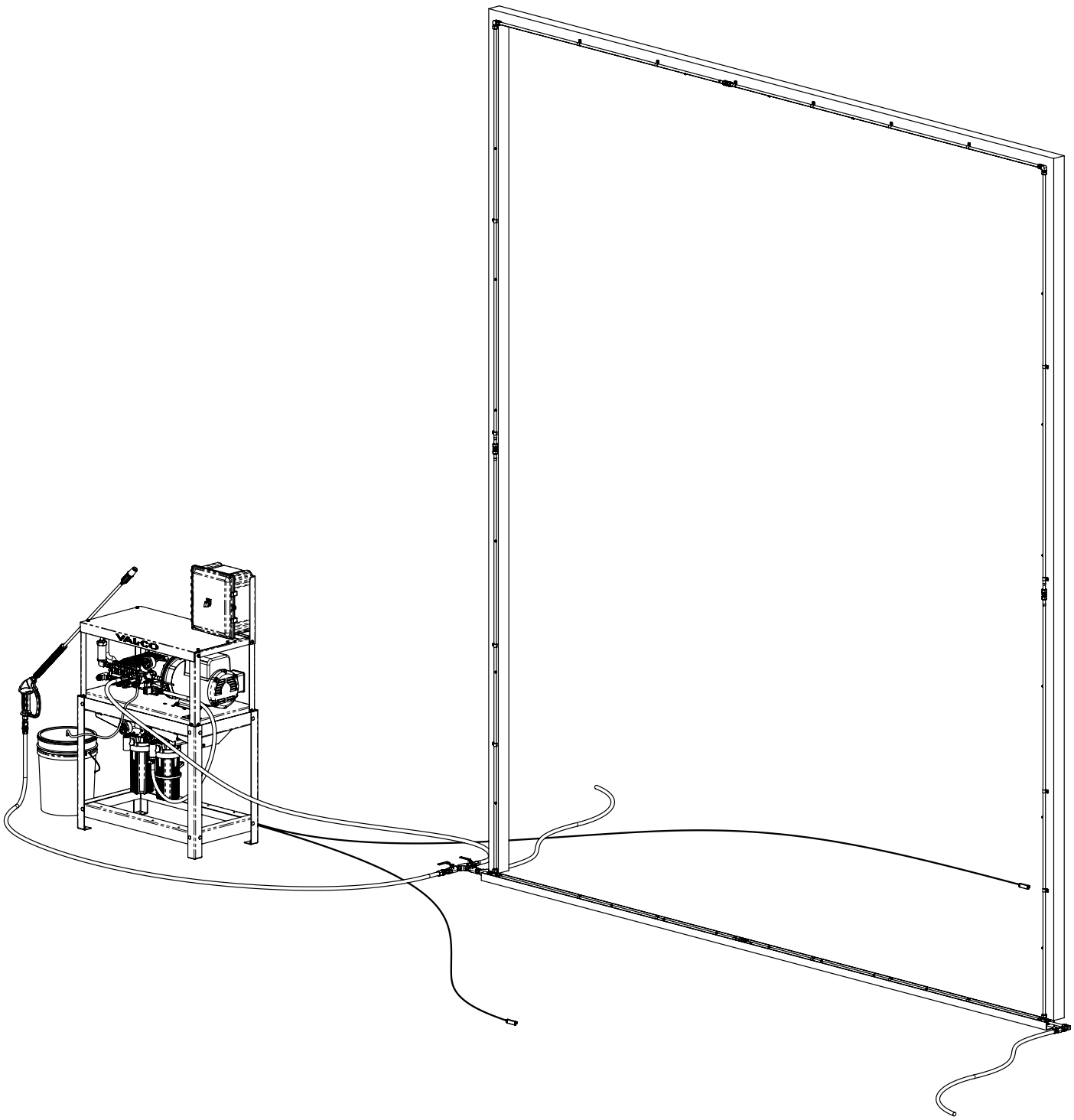
Sentry Vehicle Disinfection System

Installation and Operation Manual



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VAL PRODUCTS, INC. WARRANTIES

MANUFACTURED PRODUCTS STANDARD WARRANTY:

Val Products, Inc. (Valco) warrants that Valco-manufactured products (other than the products subject to an extended warranty set forth below) will be free of defects in material and workmanship, when used in a usual and customary fashion, for a period of one (1) year from the date of original purchase from an authorized Valco distributor or three (3) years from the date of original purchase from Valco, whichever period expires first. If Valco is notified that such a defect exists within that time and, upon inspection, agrees that the product is defective, Valco will, at its option, (a) repair or replace (EXW Valco's plant) the defective product, or (b) refund to the original purchaser (Valco's distributor) the original purchase price paid for the defective product less any installation, shipping, or other charges associated with the original purchase. All defective products must be returned to a Valco designated location for evaluation. Valco's determination as to whether the product is defective is final. See the General Conditions and Limitations.

Product	Extended[1] Warranty Coverage Period	Limited[2] Warranty Coverage Period	Total Warranty Coverage Period (Extended + Limited)
VR & VBL series drinkers	5 years	5 years	10 years
VQ, VA & VBR series drinkers	2 years	3 years	5 years
Roll-formed Tube	3 years	7 years	10 years
Coreless auger[3]	3 years	7 years	10 years
FUZE® feed pans	2 years	3 years	5 years
Fiberglass fan housings	Lifetime[4]	na	Lifetime[4]
Aluminum fan blades	Lifetime[4]	na	Lifetime[4]
Z-Fan™ housings[5]	7 years	na	7 years

Explanations/Conditions of above listed footnotes for VAL-CO warranties:

1. Extended Warranty Coverage: Valco warrants products subject to an extended warranty (above) will be free of defects in material and workmanship, when used in a usual and customary fashion, for the period of time as stated from the date of original purchase by an authorized Valco distributor. If Valco is notified that such a defect exists within that time and, upon inspection, agrees that the product is defective, Valco will, at its option, (a) repair or replace (EXW Valco's plant) the defective product, or (b) refund to the original purchaser the original purchase price paid for the defective product less any installation, shipping, or other charges associated with the original purchase. All defective products must be returned to a Valco designated location for evaluation. Valco's determination as to whether the product is defective is final. See the General Conditions and Limitations.
2. Limited warranty coverage products will be provided at a charge rate of 50% off the Valco list price at the time the warranty claim is made known to the company in writing and is subject to Valco's standard warranty policy conditions and limitations.
3. Coreless Auger warranty is voided if conveying materials with greater than 18% moisture content.
4. Lifetime warranty for fiberglass fan housings and cast aluminum blades is limited to products that prove to be defective in workmanship or material and become unusable over the life of the structure where the product was originally installed, provided that the product has remained undisturbed in its original installation location, and will be repaired or replaced, at Valco's option, at no charge (excluding labor of removal and installation and shipping), EXW Valco's plant.
5. Z-Fan housings are warranted for 7 years against rust through when employed in poultry housing ventilation applications only. Fan components excluding housing are covered by Valco's standard warranty.

General Conditions and Limitations

1. The Product must be installed and operated in accordance with instructions published by Valco or the warranty will be void.
2. Warranty will be void if all components of the product or system are not original equipment supplied by the manufacturer.
3. Products not manufactured by Valco and supplied by outside manufacturers (such as, but not limited to, certain electrical motors, certain controls, gas valves, etc.) are warranted separately by the respective manufacturer and only to the extent of the manufacturer's warranty.
4. Valco feed bins are designed to be used with free-flowing agricultural feed materials with a density proximate to 40 pounds (18.15 kilograms) per cubic foot (.03 cubic meter). Soybean meal, meat scraps and other materials, both agricultural and industrial, are not free flowing and may significantly exceed recommended material density. Feed bin structural failure from their use will void this warranty.
5. Valco does not warrant against feed bin structural failure, or bin unloading components such as flexible auger transitions and boots that arises due to the addition of aftermarket devices attached to, or installed within or attached to the feed bin structure for the purpose of enhancing feed material flow and/or the elimination of feed bridging issues.
6. Warranty applies only to products used in applications as originally intended by Valco – other applications in industry or commerce are not covered by the Warranty. Valco products are expressly not designed or authorized for use in any applications where intended to sustain or support human life or any other application where the failure of the product could result in personal injury or death.
7. Malfunctions resulting from misuse, abuse, mismanagement, negligence, alteration, accident, lack of proper maintenance, lightning strikes, electrical power surges, or electrical power interruption shall not be considered defects under the Warranty. Corrosion, material deterioration and/or equipment malfunction caused by or consistent with the excessive additions of chemicals, minerals, sediments or other foreign elements with the product shall not be considered defects under the Warranty.
8. VALCO WILL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY KIND OF SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR CONTINGENT DAMAGES INCLUDING, BUT NOT LIMITED TO, LOST OR DAMAGED PRODUCT, GOODS OR LIVESTOCK, COSTS OF TRANSPORTATION, LOST SALES, LOST ORDERS, LOST INCOME, INCREASED OVERHEAD, LABOR AND INCIDENTAL COSTS AND OPERATIONAL INEFFICIENCIES. IN NO EVENT SHALL THE WARRANTY LIABILITY EXCEED THE INVOICED PRICE OF THE PRODUCT TO THE ORIGINAL PURCHASER.
9. THE WARRANTIES SET FORTH ABOVE CONSTITUTE VALCO'S ENTIRE AND SOLE WARRANTY. VALCO EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES AS TO THE MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, DESCRIPTION OF QUALITY OF THE PRODUCT FURNISHED, AND ANY OTHER WARRANTY ARISING BY OPERATION OF LAW, CUSTOM OR USAGE.
10. Valco denies any authorization of any distributor, dealer, agent, or employee to modify, extend, or otherwise alter the conditions of any warranty in addition to, or in lieu of, those conditions and terms expressly stated above. Any exceptions not noted in the body of the Warranty must be authorized in writing by an officer of Valco. Valco reserves the right to change or delete models, or change specifications at any time without notice or obligation to improve previous products.

Effective April 1, 2020

Introduction

The Sentry Vehicle Disinfection System is shipped partially unassembled and requires assembly.

Please check your shipment for correct parts and condition.

- Read all safety information, instructions and illustrations before starting assembly. Please review the complete assembly manual before starting and be sure to check your shipment with the packing list for any shortages. Please report shortages promptly.
- Metric measurements are shown in parenthesis throughout the manual.
  Example: 13” (330mm)

Tools Required:

- *Flat Head Screwdriver*
- *5/16”, 7/16”, 13/16”, 7/8” Open End Wrenches*
- *Socket Wrench with 7/16”, 1/2” Sockets*
- *Adjustable Wrench*
- *Wire Cutters and Strippers*
- *1/4” Hex Driver*

Screw Driver

Open End Wrench set

Socket Set

Adjustable Wrench

Wire Cutters

Hex Key Wrench set

General Description

This manual contains information and instructions essential to the safe installation and use of the Sentry Vehicle Disinfection System. This manual should be read thoroughly before attempting any installation or use of the system. Keep this manual in a location that it can be readily accessible. Failure to read the manual and its safety instructions constitutes misuse of the product.

Correct Use of Your Sentry Vehicle Disinfection System:

1. The system is designed solely for the purpose of disinfecting vehicles entering and exiting a farm. Use of the system in any other way is a misuse of the equipment and may endanger yours or another person's safety and health.
2. In the installation and use of the system, only genuine Valco parts are to be used. Use of other non-genuine parts is a misuse and may lead to unexpected results.

Symbols

Our concern is for your safety. The safety warnings are included in this manual as a guide to help and encourage the safe operation of your equipment. It is your responsibility to evaluate the hazards of each operation and implement the safest method of protecting yourself as owner and/or operator.

= CHECK - the details of all requirements, processes or procedures of instructions listed.

= STOP - before you go further check the details of all requirements, processes or procedures of instructions listed.

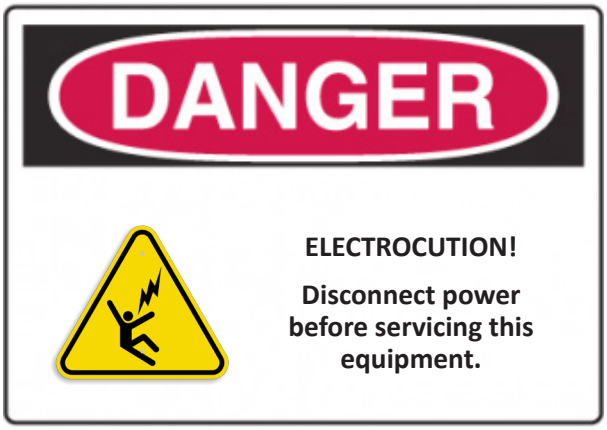
= NOTE - take notice this may help you!

= IMPORTANT INFORMATION - be sure to read!

= WARNING - The safety alert symbol is always used on warning signs that involve your safety or has extra significance since it is describing the importance of a feature or explaining a step to which you should pay close attention to avoid problems.

Wiring Regulations *(Diagram included with motor)*

Be sure power is "OFF" before doing any wiring. All wiring shall be installed in accordance with national, state and local electrical codes. For electrical connection requirements, refer to diagram on the motor nameplate or the enclosed wiring diagram. A circuit breaker switch or slow blow motor type fuse must be used. Three phase motors do not include overload protection. Specifications are subject to change without notice.



Power Requirements

Control Power Requirements			
Voltage	**Frequency**	**Phase**	**Current**
220 - 240 V	50 / 60 Hz	1 PH	1 Amp

Motor Power Requirements				
Part Number	**Voltage**	**Frequency**	**Phase**	**Motor Full Load Current**
814150	220 V	50 Hz	1 PH	22 Amps
814155	230 / 400 V	50 Hz	3 PH	13.8 / 8 Amps
814160	208-230 V	60 Hz	1 PH	25 - 23 Amps
814165	208-230 / 460 V	60 Hz	3 PH	13.9 - 13.4 / 6.7 Amps

Water Requirements

- 7 gpm @ 25 psi minimum / 65 psi maximum.

Wind & Weather Advisory

- Water supply, pump system & spray arch must be protected if system is operated in below freezing temperatures.
- A heated room is recommended for water supply & pump system, and heat tape is recommended for the spray arch.

Spray Arch

- If spray arch is installed in an area with high winds, a wind protection wall should be constructed to maintain spray pattern.
- A support frame is required to mount the spray arch and is not supplied with the Sentry System.

Spray Arch Assembly Instructions

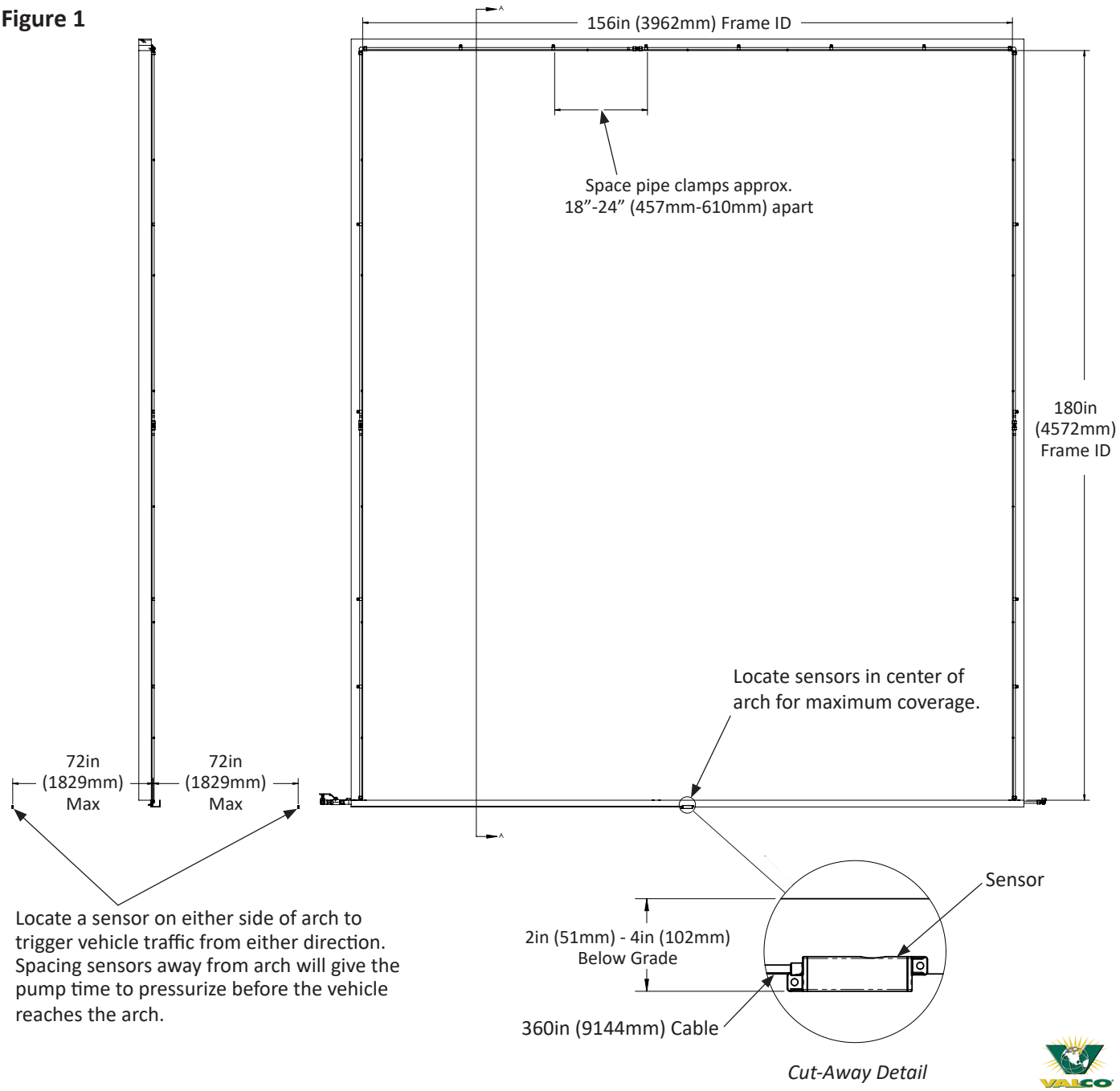
Support Frame Construction:

The support frame is not supplied with the Sentry System. The support frame should be installed on a concrete or asphalt pad that is a minimum of 160” X 24” (406cm X 61cm) but is ideally 160” X 156” (406cm X 396cm). The pad should slope up towards a trough in the center that is a minimum of 2” deep and 2” wide. This will protect the nozzle line on the ground from the weight of the tires, while still allowing water to drain out of the trough on both ends. Please see page 10 for more details. The following requirements depict how to properly mount the spray arch, but do not fully define the support structure. Consult a structural engineer, and ensure all local codes are being met.

Support Frame Layout & Dimensions:

- Horizontal internal frame dimension should be 156in (3962mm).
- Vertical internal frame dimension should be 180in (4572mm).

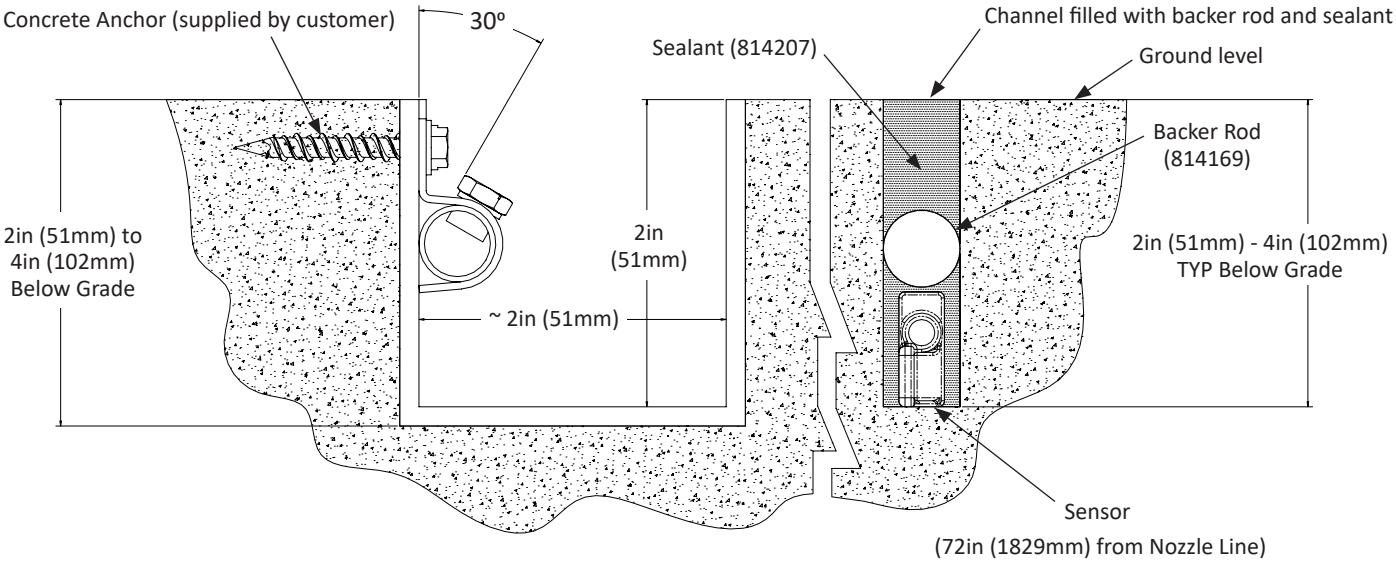
Figure 1



Bottom Nozzle Lines:

- Bottom nozzle line must be protected from the weight of passing vehicles.
- Otherwise, protective ramps will need to be installed to allow vehicle tires to pass over the bottom nozzle line without crushing it.

Figure 2



Cut-Away Detail of Bottom Channel

Sensor Installation:

- Locate a sensor on either side of the arch to trigger vehicle traffic from either direction, as shown in Figure 1. Spacing sensors away from the arch will give the pump time to pressurize before the vehicle reaches the arch.
- It is recommended that the sensors be installed in a channel cut into the concrete or asphalt anywhere from 2in (51mm) - 4in (102mm) deep, located approximately 72in (1829mm) on each side of the bottom nozzle line, as shown in Figure 1. Sensor cables will fit into a .25in (6mm) slot, and the sensor will fit in a .375in (10mm) wide slot. Fill saw cut with sealant. If the slot is cut the full 4in (102mm) deep, use the .5in (12mm) OD backer rod to reduce the amount of sealant needed by pressing the backer rod into the slit and applying sealant on top.
- For optimal performance, mount the sensor below grade, as shown in Figure 2. If the sensor must be mounted to the side of vehicle traffic, make sure that no other moving metal objects can affect the sensor.
- **After Sensors are calibrated it is essential that they cannot and do not move, or else they will have to be recalibrated. Please consult your dealer if you need to install the sensors in unstable ground as the magnetic sensors provided <u>will not</u> work.**

Nozzle Orientation:

- Nozzle lines can be assembled either parallel to the frame, with all the nozzles spraying inward towards each other, as shown in Figure 3, or they can be set so that they spray forward, at an angle, as shown in Figure 4.
- For sites that typically experience traffic related to midsized or smaller vehicles, setting the nozzle lines parallel is recommended, as shown in Figure 3.
- It is recommended that the nozzles lines be installed at 30º when used on sites that experience a large amount of large vehicle traffic, as shown in Figure 4.

Top view of frame posts with nozzle lines either aligned parallel to supports (Figure 3) or at a 30º angle (Figure 4).

Attach nozzle lines to frame with tube straps using self-tapping screws (supplied).

Figure 3

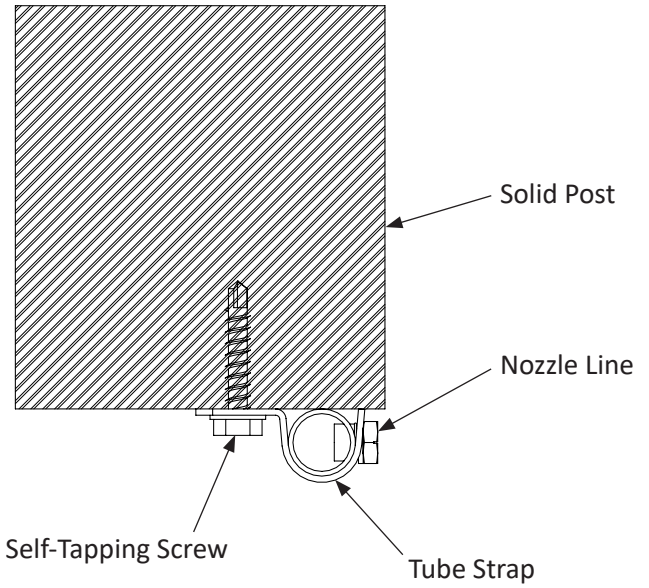
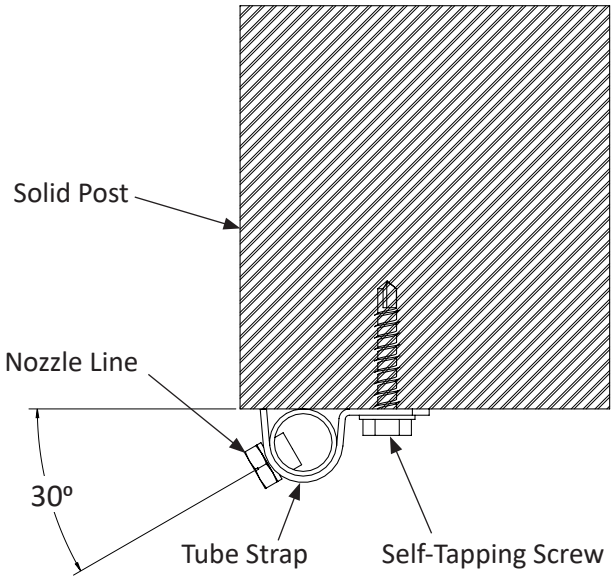
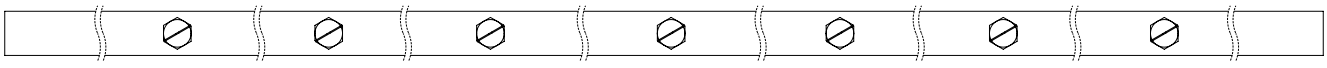


Figure 4



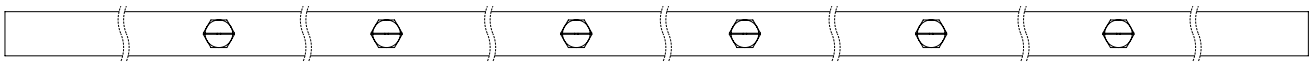
Vehicle Entrance
(Nozzle Orientation)

Figure 5



Bottom nozzles are set at a 30º angle.

Figure 6



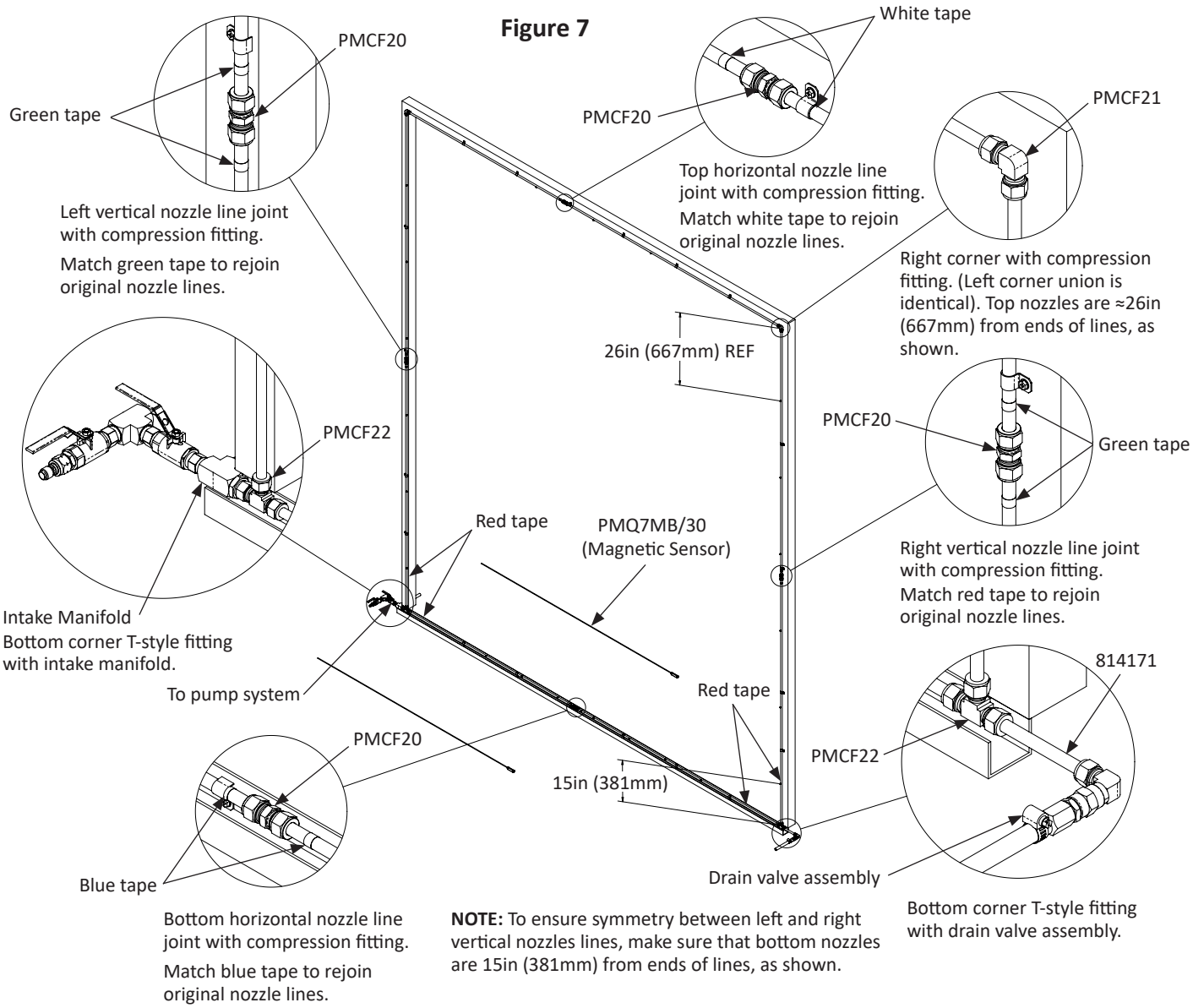
Side and top nozzles are set parrallel with pipe.

Nozzle Line Installation

156in (3962mm) horizontal and 180in (4572mm) vertical nozzle lines are cut after manufacturing to facilitate shipping. Colored tape is placed on the ends that indicate where the lines are to be rejoined. Match the colors on the tape to rejoin the lines as they were originally manufactured. Refer to the instructions on Page 13 to properly install compression fittings.

- Top nozzle lines (3 nozzles total) = white tape
- Bottom nozzle lines (7 nozzles total) = blue tape in middle and red tape on ends
- Vertical nozzle lines (6 nozzles total, per line) = green tape in middle and red tape on the bottom of lower pipe

Figure 7



NOTE: To ensure symmetry between left and right vertical nozzles lines, make sure that bottom nozzles are 15in (381mm) from ends of lines, as shown.

Drain valve chemical runoff must meet local, state, and federal regulations.

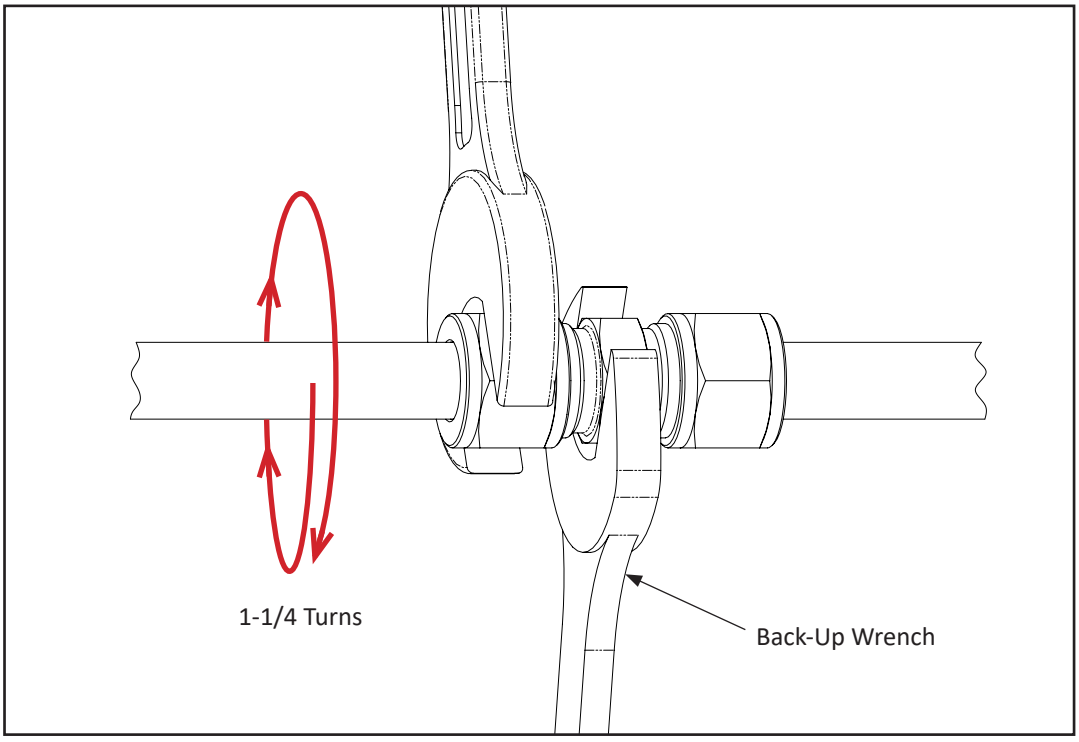
Proper Installation of Compression Fittings

The following guidelines should be used and closely followed when installing the high pressure compression fittings shipped with your system.

All nozzle line and tubing ends **MUST** be clean and undamaged to be inserted into the compression fittings.

1. **DO NOT** remove the compression fitting nuts from the body of compression fitting to insert the tubing.
2. Loosen the compression fitting nut a 1/4 turn.
3. Firmly insert the tubing into the compression fitting assembly. *Proper insertion requires that the tubing be fully bottomed out in the compression fitting body.*

Figure 8



4. Hand tighten the compression fitting nut.
5. With the tubing and compression fitting held in place, use a permanent marking pen to place a mark in the following locations:
   A. On the tubing at the end of the compression nut. This mark is placed on the tubing so that you can be assured that the tubing has remained fully inserted during the assembly process.
   B. On the compression nut.
   C. On the body of the compression fitting adjacent to the mark placed on the compression nut.
6. Using properly sized open end wrenches, further tighten the compression fitting nut 1-1/4 turns using the marks placed on the compression fitting nut and body as reference. **DO NOT** over tighten compression fitting nuts.
7. Compression fittings use tapered NPT (National Pipe Thread) and BSP/ISO (International Standards Organization) screw threads. **Teflon tape is ONLY required on NPT threads.**

Pump Stand Assembly

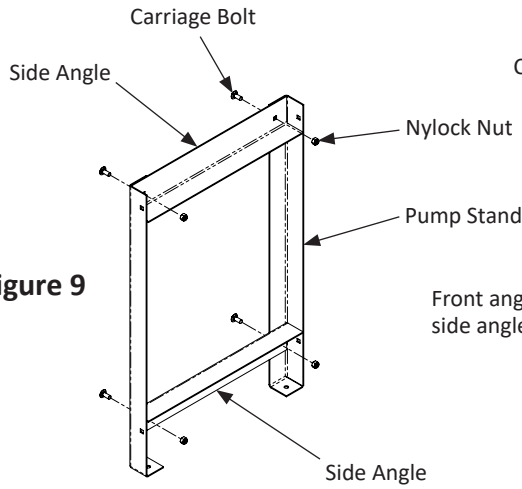


Figure 9

Step 1:
Assemble side angles to legs with 5/16-18 carriage bolts and nylock nuts, as shown in Figure 9. Note the side angles are positioned differently in the upper and lower positions.

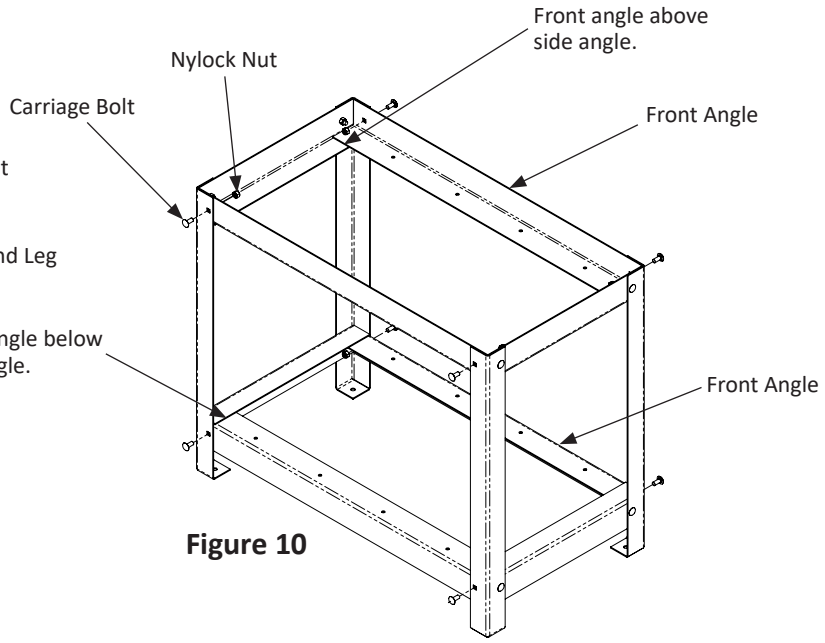


Figure 10

Step 2:
Assemble front angles to legs with 5/16-18 carriage bolts and nylock nuts, as shown in Figure 10. Note the front angles are positioned above the side angles in the upper positions and below the side angles in the lower positions.

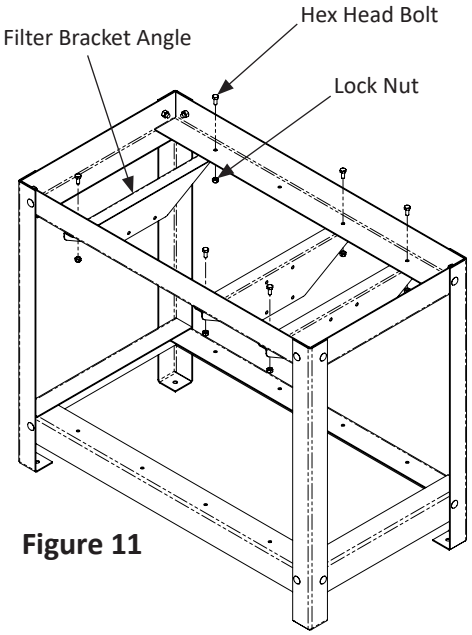


Figure 11

Step 3:
Assemble filter bracket angles to the front angles with the 1/4-20 x 5/8 hex bolts and nylock nuts, as shown in Figure 11. Note that one filter bracket angle is faced in the opposite direction from the others.

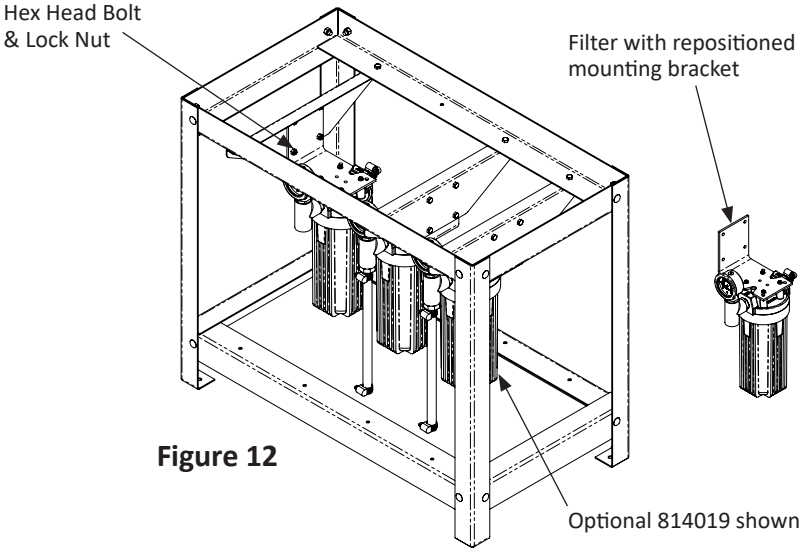


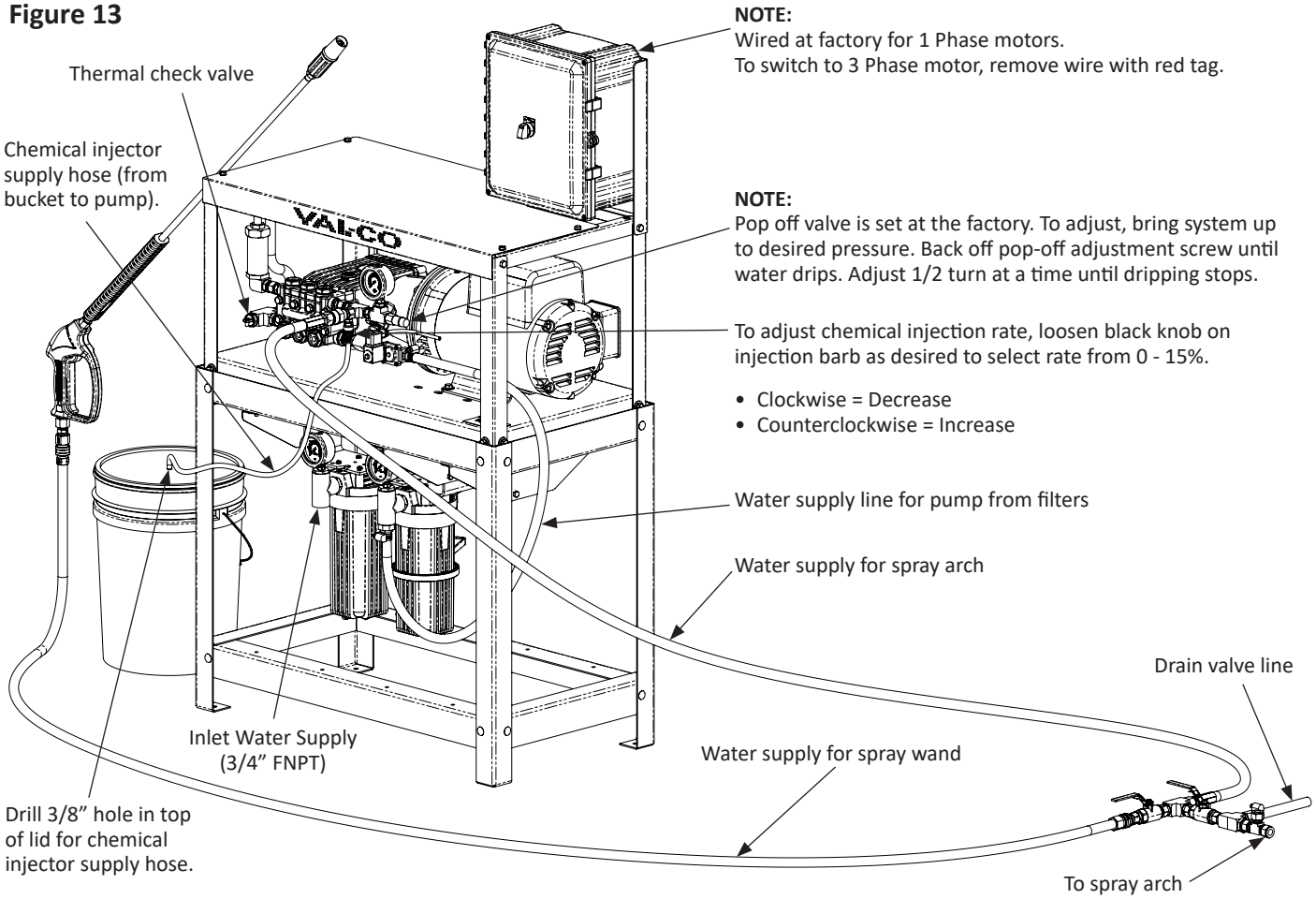
Figure 12

Step 4:
Before mounting the filters to the stand, the filter mounting bracket that comes assembled to the filter must be repositioned. Remove the filter mounting bracket and reposition, as shown in Figure 12. The filters can now be assembled to the stand using the 1/4-20 x 5/8 hex bolts and nylock nuts.

Optional:
Install 814019 between 1 micron filter and the pump for scale removal (sold separately).

Sentry System Overview

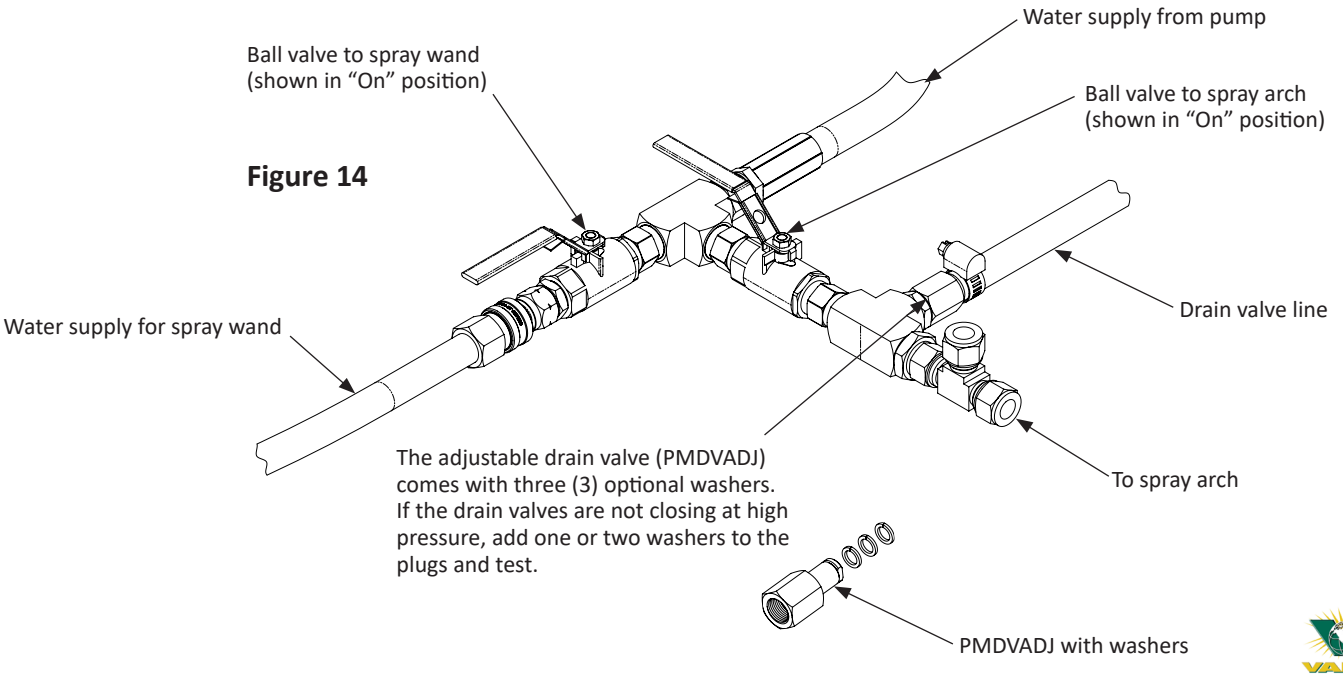
Figure 13



Valve Positions

To use spray arch: Turn ball valve to spray arch "On" & ball valve to spray wand "Off."
To use spray wand: Turn ball valve to spray arch "Off" & ball valve to spray wand "On."

Figure 14



First Time Start-Up Procedure

Before the System can be pressurized, the tubing must be flushed out to remove any installation debris.

In accordance with National and Local Electrical Codes, have a Certified Electrician verify and run the individual power supplies for both the motor and control voltage to the controller used on the Sentry System.

Use a separate Circuit Breaker/Service Disconnect for each of the two voltages. (regardless if they are the same voltage).

1. **This procedure will ONLY use the Incoming water supply pressure.**
2. **The Incoming water supply pressure MUST be greater than 25 PSI and MUST NOT exceed 65 PSI.**
3. **DO NOT run the Pump and Motor during the flushing procedure.**

1. DO NOT install (at this stage) any of the Automatic Drain Valve Assemblies on the Spray Arch.
2. Isolate the Motor voltage at the Circuit Breaker/Service Disconnect.
3. Activate the Control Circuit voltage at the Circuit Breaker/Service Disconnect.
4. Verify that ALL of the Filter Cartridges have been installed in the System's Filtration Assembly.
5. SLOWLY and ONLY PARTIALLY OPEN the Isolation Valve for the Incoming water supply, allowing water to slowly enter the Filter Housing Assembly.

Opening the Isolation Valve MUST be done SLOWLY in order to prevent an air pocket from forming within the Filter Housing Assembly.

6. The Incoming Water Supply Isolation Valve can be fully opened when the 0-100 PSI Gauges located on the Filter Assembly indicate that full pressure has been achieved.
7. Place the Controller in the ON position.
8. Without the Motor voltage supply being activated, only the Pump Unit's Inlet Solenoid will open, allowing the Incoming Water Supply to pass through the Pump Unit and into the Spray Arch, exiting out of where the Automatic Drain Valve is typically located.
9. At the completion of the flushing procedure, place the Controller in the OFF position.
10. Install the Automatic Drain Valve(s) and (if used) Flush Valve Kit(s).
11. OPEN the Isolation Ball Valves at the start of the Spray Arch.
12. Activate the Motor Voltage at the Circuit Breaker and/or Service Disconnect.
13. Pressurize the system to verify that all of the compression fittings are secure.
14. Place Pump Unit in the ON position.
15. The Pump Unit's Inlet Solenoid will open and there will be a short delay before the Pump Unit's Motor will start.
16. Maximum system pressure will be achieved when ALL Automatic Drain Valves are closed.

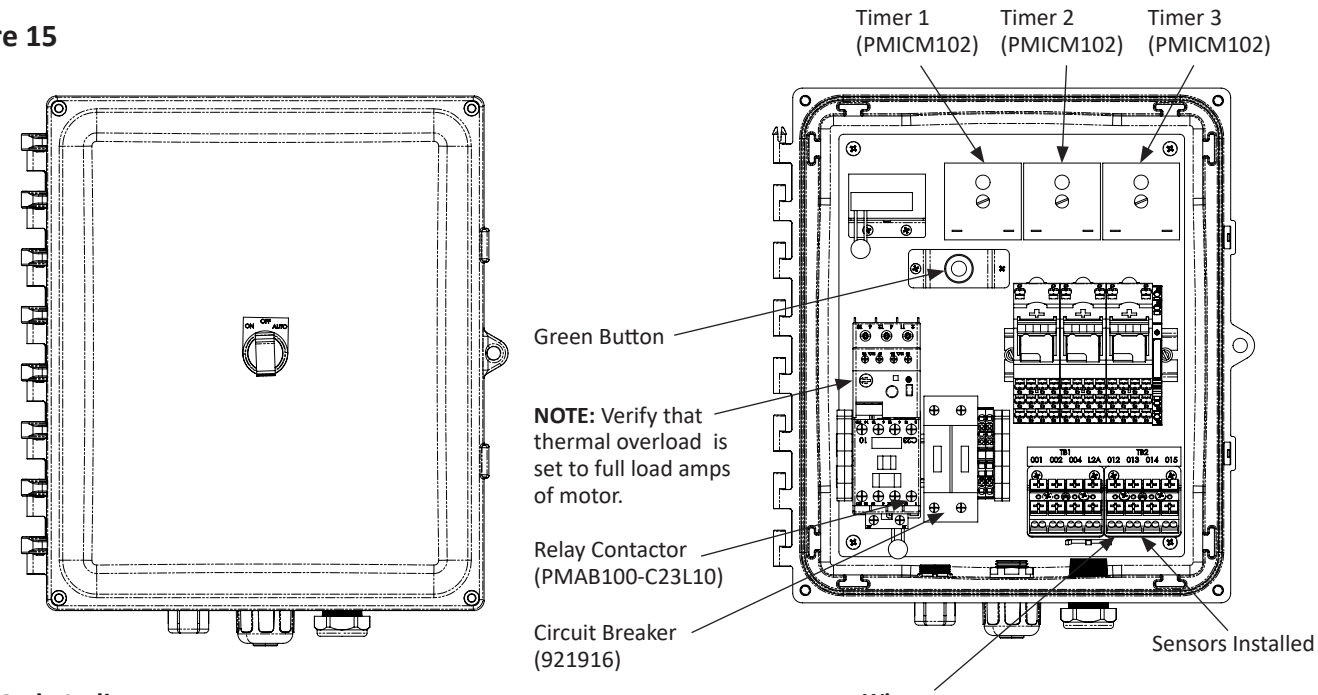
It is essential that as the system is pressurizing you closely observe the 0-2000 PSI gauge, located at or near the discharge of the High Pressure Pump, as the system is being pressurized. The system pressure MUST NOT exceed 1000 PSI.

17. Required adjustments to system pressure can be made by adjusting the brass nut on the Pump Unit's Pressure Regulator.
18. Before the Pump Unit is placed into Auto mode, it is important to have an Electrician verify the rotation of the Motor.

The first oil change will come after the first 50 hours of operation.

Control & Wiring

Figure 15



Mode Indicator:
ON: System runs continuously in manual mode.
AUTO: System is activated by sensor.

Magnetic Sensor Calibration

1. After sensor is installed, turn system to Auto Mode.
2. Remove all vehicles & all other metal objects from the sensing area.
3. Press green button once inside controller. Sensor output indicator will flash approximately 12 times.

Magnetic Sensor Sensitivity Adjustment

1. Turn system to Auto Mode.
2. Press green button twice quickly to enter sensitivity adjustment. Output will flash every 2 seconds to indicate sensitivity level from 1 (low) to 6 (high).
3. To increase sensitivity, press the button once to raise the sensitivity level by one, until the desired level is reached. For example: Sensitivity level 4: flash 4 times, wait 2 seconds, flash 4 times, wait 2 seconds.
4. Press green button twice quickly to save setting.

Timer Setup

- *Timer 1, Flood Inlet Delay* - sets the amount of time between when the water inlet solenoid is opened and the pump begins running.
- *Timer 2, Sensor False Trigger Timeout* - sets the amount of time after a vehicle is detected for the system to begin running.
- *Timer 3, Off Delay* - sets the amount of time that the system will run after a vehicle has left the sensing area. This time may also be set to allow for long distances between tractor trailer axles.

Maintenance

Disconnect and lock out all power sources before servicing equipment.

Change Pump Crankcase Oil

Change oil after 1st 50 hours of operation, then every 300 hours of operation, or every 3 months. Refill with General Pump Series 100 oil (814173) 16 oz. bottle Pump Capacity: 40.6 oz.

Oil Pressure Regulator

Add 4 drops of light weight oil in the small weep hole in the side of the regulator every month.

* If water is noticed coming from the small weep hole in the side of the regulator, this in an indication that one or more of the O-rings needs to be replaced - please order PMBR10-2REB replacement kit.

Replace Filters

Do not clean or reuse dirty filters. Pressure drop across the filters should be checked every week. If there is a 10 PSI drop across the gauges, replace the 5 micron filter. If there is still a 10 psi differential, then replace the 1 micron filter.

Clean Filter Housings

Check and clean every 6 months.

Inspect Automatic Drain

Check every month. Replace if drain does not seal during operation. See page 15 for more details.

Inspect / Clean Nozzles

Check and clean every month, if needed.

Inspect Pressure Gauges

Check every month. Replace if faulty.

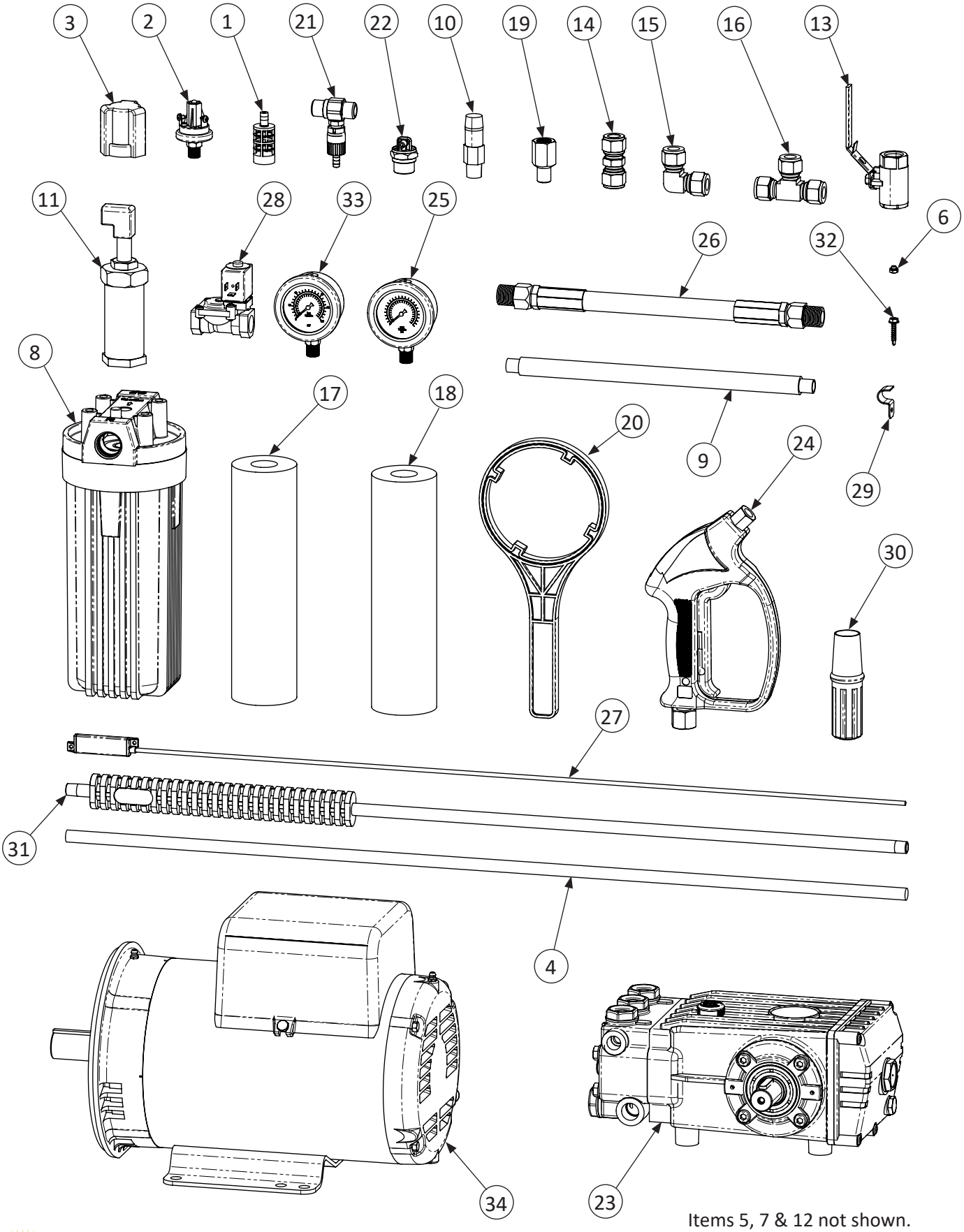
Grease Motor Bearings

Check every 12,000 hours of operation. Lubricate motor bearings with Polyrex EM grease.

Troubleshooting Guide

Problem	Possible Cause	Corrective Action
Pump won't turn on.	No electricity.	Check circuit breaker.
	Low incoming water pressure.	Add booster pump with pressure tank.
Pump turns On but won't stay On.	Low incoming water pressure.	Add booster pump with pressure tank.
	Low incoming water flow.	Increase size of pipe that connects to the filters. Increase water supply pressure (Max. 65 PSI)
Pump does not turn On when vehicle drives through system.	Mode Indicator.	Turn Mode Indicator to AUTO.
	Magnetic Sensors.	Recalibrate Magnetic Sensors. Refer to page 17.
Water is coming out of Automatic Drain Valve when the system is running.		Refer to Page 15 for details.
Water coming out of weep hole in pressure regulator.		O-Rings need to be replaced.
Hand sprayer not producing high pressure spray.		Adjust High / Low tip to High.
Chemical Injector will not draw chemical.	System is not in low pressure mode.	Change or adjust nozzle to put system in low pressure mode.
	Chemical line is clogged.	Clear chemical line of obstruction.
Rate of draw from Chemical Injector seems too slow.	Air leak in chemical line.	Locate and repair leak.
	Chemical is too viscous.	Reduce chemical with water to decrease its viscosity.
Chemical Injector is leaking from hose barb.	Obstruction in hosebarb checkvalve.	Disassemble and remove obstruction.
	Damaged O-ring in checkvalve.	Remove and replace O-ring.

Replacement Parts Drawing



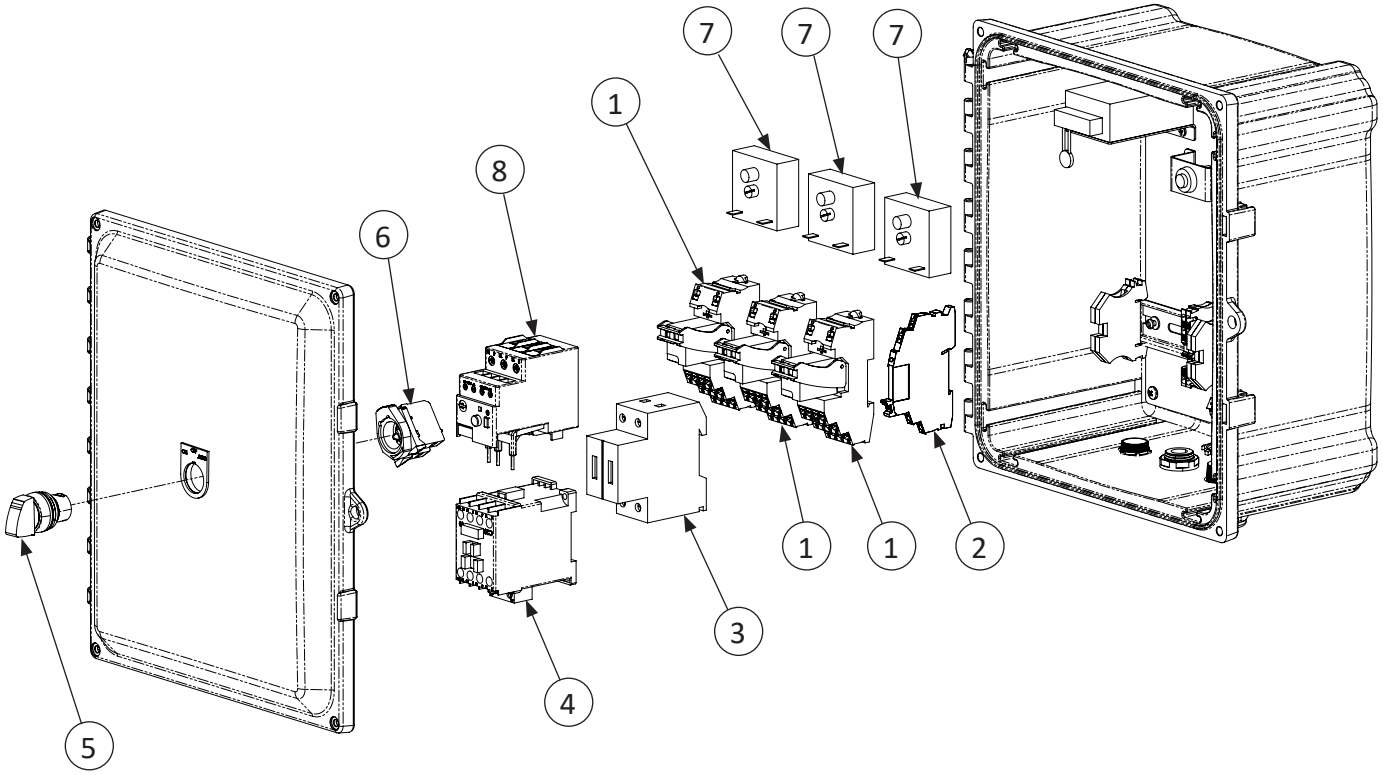
Items 5, 7 & 12 not shown.

Replacement Parts List

ITEM #	PART #	DESCRIPTION
1	814089	FILTER, CHECK VALVE, GP ZF2
2	814116	PRESSURE SWITCH, A6, 3.1-7 PSI
3	814128	COVER, PRESSURE SWITCH, A6
4	814169	BACKER ROD, 1/2” OD
5	814173	30W OIL, GP SERIES 100, 16 OZ.
6	814174	NOZZLE ASSEMBLY
7	814207	CONCRETE/ASPHALT JOINT SEALANT, 10 OZ. CARTRIDGE
8	PM10FILTERHOUSE	10” FILTER HOUSING, 3/4” FNPT
9	PM50HPSPRAYHOSE	50 FT HP SPRAY HOSE
10	PM33960	POP OFF VALVE
11	PMBR10-2	10 GPM PRESSURE REGULATOR
12	PMBR10-2REB	REBUILD KIT, 10 GPM PRESSURE REGULATOR
13	PMBVL	HIGH PRESSURE BRASS BALL VALVE
14	PMCF20	1/2” COMPRESSION FITTING
15	PMCF21	1/2” COMPRESSION ELBOW
16	PMCF22	1/2” COMPRESSION TEE
17	PMCLR1-10	1 MICRON WATER FILTER 10”
18	PMCLR-5-10	5 MICRON WATER FILTER 10”
19	PMDVA	DRAIN VALVE BODY BRASS - ADJUSTABLE
20	PMFILTERWRENCH	FILTER WRENCH FOR 20GPM FILTER KIT
21	PMGP100826	ADJUSTABLE CHEM. INJ.
22	PMGPTHERMALPRO	BRASS PUMP THERMAL PROTECTOR
23	PMGPTS1021	6.62 GPM PUMP
24	PMGPYG3600	HIGH PRESSURE SPRAY GUN
25	PMHPGAUGE	0 - 2000 PSI NO SHOK GAUGE
26	PMHPHOSE20FT	20 FT HIGH PRESSURE FLEXIBLE
27	PMQ7MB/30	MAGNETIC SENSOR, M-GAGE Q7M FLAT-PAK W/ 30 FT. CABLE
28	PMSOLASCO1-2NC60-50	1/2” BRASS SOLENOID; NC
29	PMSTRAP50	1/2” TUBE STRAP - BOX OF 100
30	PMYHILO130	HI-LO PRESSURE NOZZLE
31	PMYL35PNS	LANCE 35” MOLDED GRIP
32	VAHXHDSCR10X1ZP	10X1 HEX WASHER HEAD SELF-DRIL
33	VG100	OIL FILLED PRESSURE GAUGE
34	SEE TABLE BELOW	MOTOR, 5HP

ASSEMBLY	MOTOR PART #	DESCRIPTION
814150	PMTR0500S5T06V3	MTR,5HP,220V,50HZ,1P
814155	PMTR0500T5T06V7	MTR,5HP,208-230/400V, 50HZ,3P
814160	PMCL1410TM	MTR, 5HP,230V, 60HZ 1P
814165	PMTR0500T6T02V2B2	MTR, 5HP, 208-230/460V, 60HZ,3P

Control - Replacement Parts Drawing & Parts List



ITEM #	PART #	QTY	DESCRIPTION
1	814121	3	RELAY, 4PDT 5A 230V
2	814122	1	RELAY, SPST 6A 12V
3	921916	1	CIRCUIT BREAKER, 2P, 277V, 6A DIN RAIL MOUNT
4	PMAB100-C23L10	1	AUXILARY RELAY CONTACTOR, 1NO, B23 AMP, 208V-240V
5	PMAB800FM-SM32	1	3-POSITION SELECTOR SWITCH
6	PMAB800FPX20	1	800F SERIES CONTACT BLOCK W/PLASTIC LATCH MOUNT
7	PMICM102	3	TIMER
8	RY-011-204	1	RELAY MOTOR OVERLOAD, 5.4-27A 3

Customer Service

My dealer's name:

_____

How to contact my dealer:

Street / PO Box _____

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State / Province _____

Zip / Postal _____

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