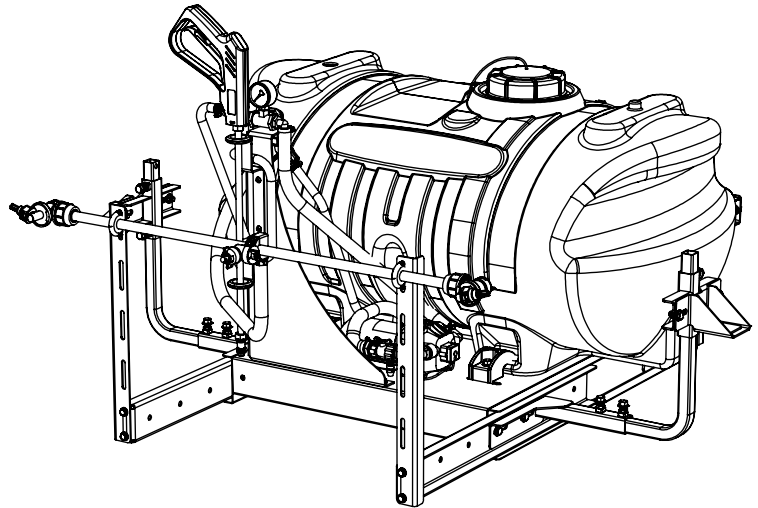


OWNER'S MANUAL

Polaris Model: 2879799 (5302207)

(60 Gallon Lawn & Garden Utility Sprayer w/ "Boomless" Boom)



BEFORE RETURNING THIS PRODUCT
FOR ANY REASON, PLEASE CALL

1-800-831-0027

IF YOU SHOULD HAVE A QUESTION
OR EXPERIENCE A PROBLEM WITH
THIS PRODUCT, PLEASE CALL:

1-800-831-0027

BEFORE YOU CALL, PLEASE HAVE THE
FOLLOWING INFORMATION AVAILABLE:
SALES RECEIPT & MODEL NUMBER. IN MOST
CASES, A FIMCO INDUSTRIES EMPLOYEE CAN
RESOLVE THE PROBLEM OVER THE PHONE.

Technical Specifications

- 60 Gallon Corrosion-Resistant Polyethylene Tank
- Deluxe Pistol-Grip Handgun w/25 Ft. Hand Gun Hose
- 3-Nozzle Boomless Nozzle Assembly w/30 Ft. Spray Coverage
- Adjustable Boom Height
- 12 Volt, 3.8 GPM Diaphragm Pump

General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your utility cart sprayer. Please read it carefully, as it furnishes information which will help you achieve years of trouble-free operation.

Warranty/Parts/Service

For home usage, products are warranted for one year from date of purchase against manufacturer or workmanship defects.

Commercial users have a 90 day warranty.

To obtain prompt, efficient service, call 1-800-831-0027. Always remember to give the following information...

- Correct Part Description and/or part number.
- Model number/Serial number of your sprayer.
- Retain your sales receipt for proof of purchase

Part descriptions and part numbers can be obtained from the illustrated parts list section(s) of this manual.

Tools Needed

A 1/2" wrench and socket, a 9/16" wrench and socket, pliers, Phillips screw driver and pipe sealant for the gauge.

Parts in Carton

- (1) Unit assembly, (1) boom, (2) boom brackets (5277933), (2) boom mounts (5095332), (1) parts box with parts bag.

Assembly Instructions

Remove all parts from the box. Open the parts box and parts bag. Find the two horizontal mounts (5277930 and 5277931). Position the boom brackets and fasten the horizontal mounts (weld nuts facing up) and boom brackets (5277933) to the sides of the frame using four 3/8" x 3/4" screws (5034660). Attach the boom mounts (5095332) to the boom brackets with four 5/16" x 3/4" screws (5117323) and 5/16" nuts (5006307). Mount the boom using the U-bolts and remaining 5/16" nuts. Position the nozzles on the boom and attach the boom feeder hose with the hose clamp. Using four more 3/8" screws, attach the upright tubes (5277927 and 5277928) to the sides of the frame. Start four more 3/8" screws into the horizontal mounts, position the 90 degree upright tubes (5100775) and tighten the screws. Start two 3/8" screws into the weld nuts on each of the slide tubes and slip the slide tubes over the upright tubes. Attach each of the lock and ride plunger mounts to the four slide tubes using 3/8" screws and nuts. Using the lock and ride plugs (5102133) and anchor plates (5027426), secure the sprayer to the ATV. Check that all screws are tightened. Screw the gauge into the gauge tee on top of the valve mount using a 9/16" wrench. Check that the drain plug cap is screwed on securely. Plug the lead wire (5274443) into the plug off the pump and hook to a 12 volt battery source. Note: there is a switch on the pump and a switch on the lead wire.

POLARIS®

[Manual No. 5008377 (09/13)] Printed in the U.S.A.

Testing the Sprayer

It is important to test the sprayer with plain water before actual spraying is attempted. This will enable you to check the sprayer for leaks in the plumbing system.

1. Open tank lid and be sure the tank is clean and free of foreign material. Fill the tank about half full with plain water.
2. Open the valve on the filter/valve assembly next to the pump and allow water to flow to the pump. The valve is located at this point to enable the strainer to be taken apart for cleaning.
3. There are two valves located on the valve and handgun bracket. One of these is a shut-off for the boom and the other is for pressure adjustment. Open the valve that controls flow to the boom and open the bypass control valve.
4. You may now start the sprayer.
5. The pressure should now be increased to as desired by closing the bypass valve.
6. During this testing period be sure to observe the spray pattern given by the spray nozzles. Each nozzle should overlap the next nozzle approximately 30%. If there is any pattern distortion, it will be necessary to remove and clean the affected tips.

CAUTION: Never use a metal object or other sharp item for cleaning a nozzle tip. It is better to use a nozzle brush (not wire brush) or compressed air for tip cleaning.

Speed Chart			
	Time Required in seconds to travel a distance of:		
Speed in M.P.H. (Miles per Hour)	100 Ft.	200 Ft.	300 Ft.
1.0	68 sec.	136 sec.	205 sec.
2.0	34	68	102
3.0	23	45	68
4.0	17	34	51
5.0	14	27	41
6.0	11	23	34
7.0	9.7	19	29
8.0	8.5	17	26
9.0	7.6	15	23
10.0	6.8	14	20

After Spraying

After use, fill the sprayer tank part way with water. Start the sprayer, and allow the clear water to be pumped through the plumbing system and out through the spray nozzles. Refill the tank about half full with plain water and use a common tank neutralizer and cleaner, and repeat cleaning instructions above.

Flush the entire sprayer with the neutralizing/cleaning agent, then flush out one more time with plain water. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water. For the boom, (if applicable) remove the tips and screens from the nozzle assemblies. Wash these items out thoroughly. Blow the orifice clean and dry. If the orifice remains clogged, clean it with a fine bristle (NOT WIRE) brush, or with a toothpick. Do not damage the orifice. Water rinse and dry the tips before storing.

WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use.

Adjusting Pressure

- When the bypass valve is closed, pressure is at the highest point.
- Opening the valve will decrease pressure.

Operation & Calibration

The performance of any agricultural chemical depends upon the proper application of the correct amount.

Be sure that your equipment has been calibrated before spraying.

Initially begin spraying by opening the handgun. This will enable the air in the line to be eliminated through the tip, while building pressure.

The pumping system draws solution from the tank, through the strainer, and to the pump. The pump forces the solution under pressure to the handgun or boom nozzles.

Pressure may be decreased by opening the bypass valve to the tank. When it is closed the highest spraying pressure will be reached.

- Open the handgun by squeezing the handle lever
- Rotating the adjustable nozzle tip on the handgun will change the tip from a straight stream to a cone pattern (finer mist). Be sure the thumb nut on the adjustment nozzle is tight.
- The pump motor's demand switch shuts off the motor when the handgun, bypass valve and boom lines are fully closed.

The system remains pressurized, and the pump motor will restart automatically when the handgun or boom line is opened. If, however, the bypass line is open, the pump will not shut off automatically.

- The 3 nozzles are fixed on 17 1/2" spacing.
- All three nozzles spraying at the same time will allow a maximum coverage of 30 ft. Overlapping of the ends of the spray pattern will not be needed.
- The center nozzle will cover a 80" swath.
- Each of the three nozzles has a means of shutting down, so you may choose the coverage that is needed.

Winter Storage

Drain all water out of your sprayer, paying special attention to the pump, handgun, and valve(s). These items are especially prone to damage from chemicals and freezing weather.

The sprayer should be winterized before storage by pumping a solution of RV antifreeze through the entire plumbing system. This antifreeze solution should remain in the plumbing system during the winter months. When spring time comes and you are preparing your sprayer for the spray season, rinse the entire plumbing system out, clearing the lines of the antifreeze solution. Proper care and maintenance will prolong the life of your sprayer.

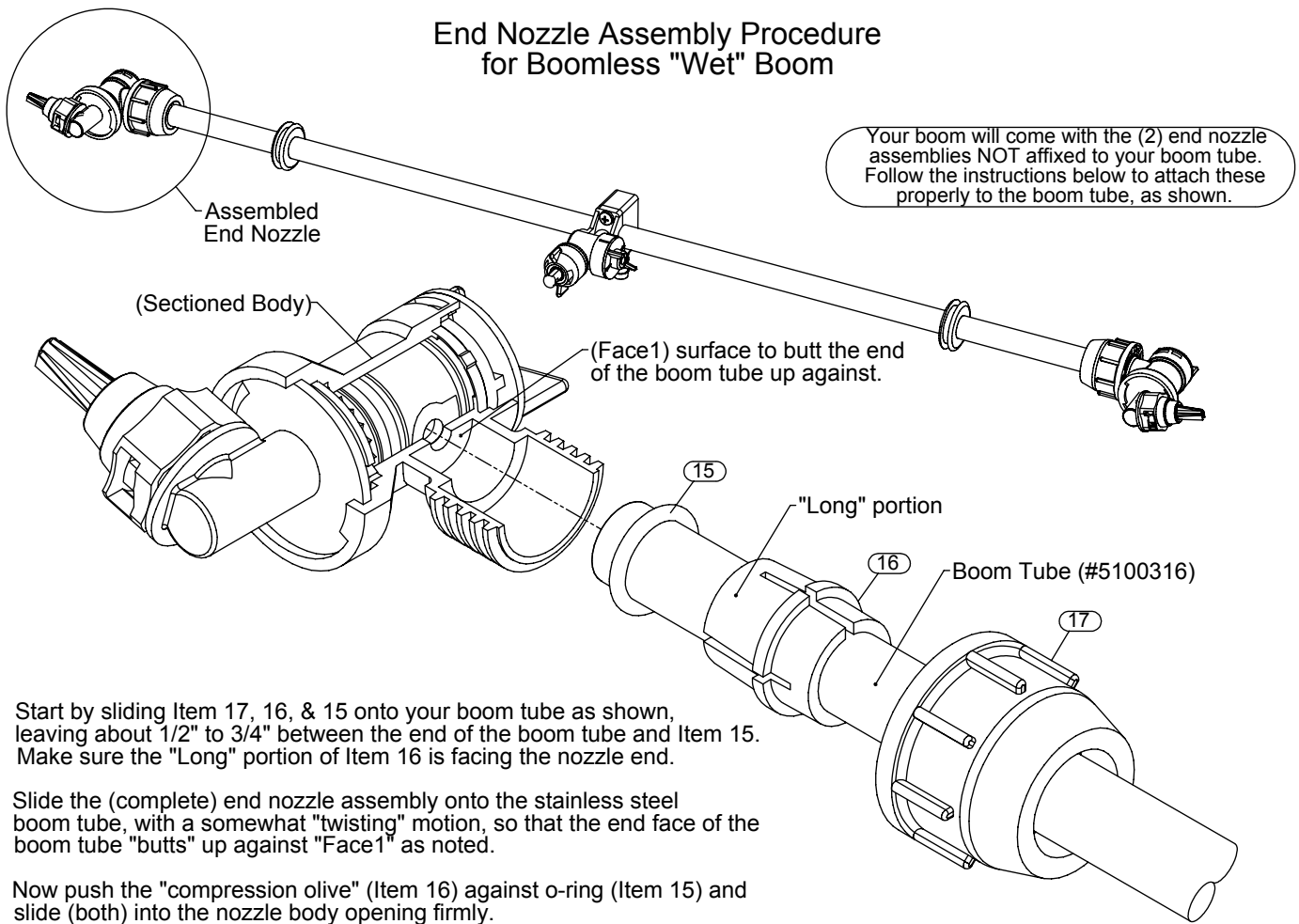
Using the Boom Nozzles

Four things must be considered before spraying with the boom:

1. How much chemical must be mixed in the tank.
2. Rate of spray (gallons per acre to be sprayed)
3. What pressure (p.s.i.) will be used.
4. Speed traveled (mph) while spraying.

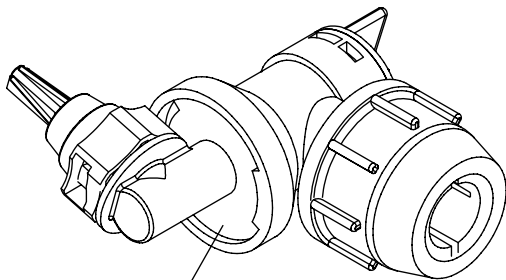
- Refer to the chemical label to determine your chemical mixture.
- See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.
- Start the pump and open the valve(s) to the boom nozzles.
- Check the spray pattern. Usually you can see the coverage better on a solid concrete surface, such as a driveway.
- The boomless nozzles should be approx. 33" above the objects being sprayed.

End Nozzle Assembly Procedure for Boomless "Wet" Boom



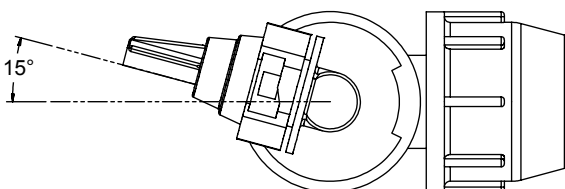
1. Start by sliding Item 17, 16, & 15 onto your boom tube as shown, leaving about 1/2" to 3/4" between the end of the boom tube and Item 15. Make sure the "Long" portion of Item 16 is facing the nozzle end.
2. Slide the (complete) end nozzle assembly onto the stainless steel boom tube, with a somewhat "twisting" motion, so that the end face of the boom tube "butts" up against "Face1" as noted.
3. Now push the "compression olive" (Item 16) against o-ring (Item 15) and slide (both) into the nozzle body opening firmly.
4. Firmly tighten flynut (Item 17) onto threads of nozzle body.
5. Repeat for other side.

End Nozzle Information (#5275122)



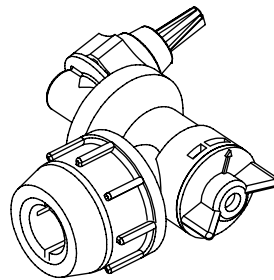
This nozzle mounting stem has a ratcheting motion.

** Each "click" of the ratcheting motion is approx. 15° **

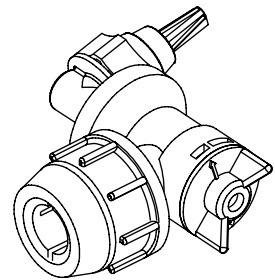


For proper/optimal spray coverage, the nozzle must be at a 15° angle
The 15° angle shown will prevent the outer nozzles from overlapping with the center nozzle.

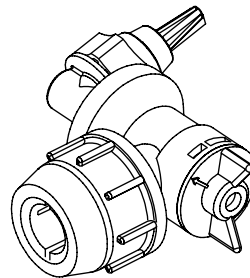
"On/Off" Valve Positions



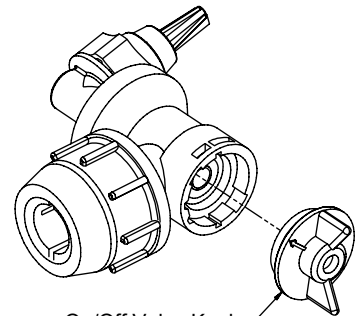
Valve "Open"



Valve "Closed"



Service Position

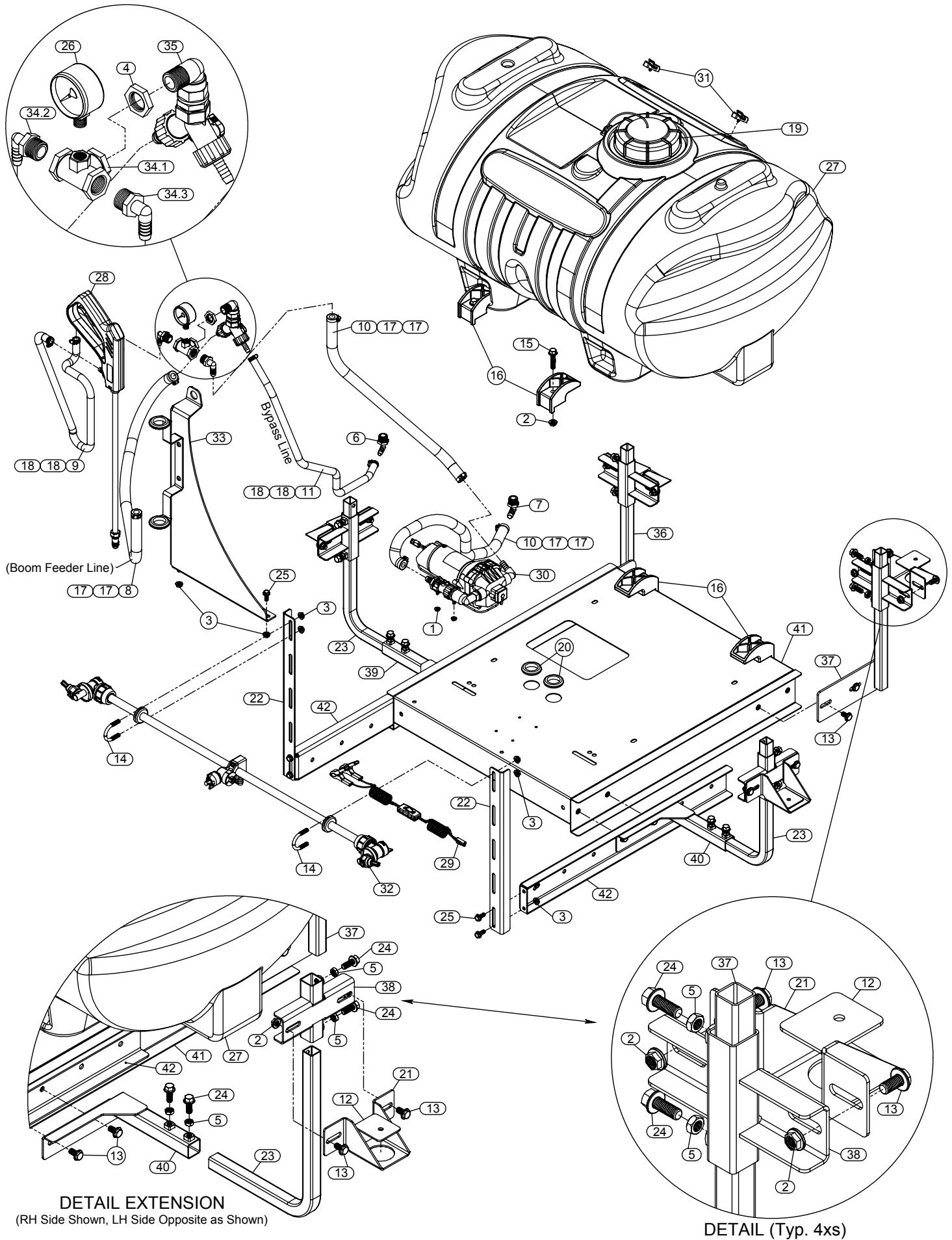


On/Off Valve Knob

Eliminate line pressure, then pull out to check diaphragm condition.

Note: The check valve & diaphragm can fall out during transport, if the knob is not turned to the "ON" or "OFF" position.

Exploded View: Polaris Model '2879799' (5302207)

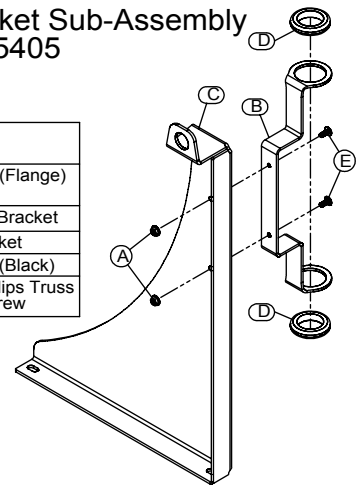


Parts List: Polaris Model '2879799' (5302207)

Valve Mount Bracket Sub-Assembly #5275405

Item No	Part Number	Qty	Description
1	5006186	4	#10-24 Hex Whiz (Flange) Locknut
2	5006259	12	3/8"-16 Hex Whiz (Flange) Locknut
3	5006307	10	5/16"-18 Hex Whiz (Flange) Locknut
4	5006351	1	1/2" Poly Nut
5	5006362	12	3/8"-16 Hex Jam Nut
6	5010202	1	Poly Elbow, 1/2" MNPT x 3/8" HB
7	5010203	1	Poly Elbow, 1/2" MNPT x 1/2" HB
8	5020122	1	Hose, 1/2"-1 Brd. x 48"
9	5020135	1	Hose, 3/8"-1 Brd. x 25 Ft.
10	5020307	2	Hose, 1/2"-1 Brd. x 23"
11	5020523	1	Hose, 3/8"-1 Brd. x 31"
12	5027426	4	Lock & Ride Anchor Plate
13	5034099	16	H.H.C.S. 3/8"-16nc x 3/4" Long
14	5034220	2	Round U-Bolt, 5/16"-18 x 1 5/16" x 1 3/4"
15	5034664	4	H.H.C.S. Flanged 3/8"-16nc x 1 3/4" Long
16	5038698	4	Plastic Tank Hold-Down Leg Clip
17	5051114	6	Hose Clamp (3/8"-1/2")
18	5051144	4	Hose Clamp, 3/8"
19	5058188	1	Tank Lid w/Lanyard
20	5075014	2	Rubber Grommet (Black)
21	5095330	4	Lock & Ride Plunger Mount
22	5095332	2	Boom Mount, 40/60 Gallon Utility Sprayer
23	5100775	2	90 Degree Upright Tube
24	5117307	12	H.H.C.S. Flanged 3/8"-16nc x 1" Long
25	5117323	6	5/16"-18 x 3/4" Flange Whiz Lock Screw
26	5167007	1	Pressure Gauge, 0-100 p.s.i.
27	5169249	1	60 Gallon Elliptical Tank (White)
28	5273959	1	Deluxe Pistol-Grip Handgun w/X-26 Tip
29	5274443	1	Lead Wire Assembly (w/Switch), 96"
30	5274808	1	Pump Sub-Assembly
31	5274880	1	Handgun Clips & Screws (Pkg/2) (#10-24 Thread)
32	5275260	1	"Wet Boom" Assembly
33	5275405	1	Valve Mount Sub-Assembly
34	5275501	1	Top Valve Sub-Assembly
34.1	5010256	1	Poly Tee, 1/2" FNPT w/1/4" Port (Gauge)
34.2	5010202	1	Poly Elbow, 1/2" MNPT x 3/8" HB
34.3	5010203	1	Poly Elbow, 1/2" MNPT x 1/2" HB
35	5277726	1	Lower Valve Sub-Assembly
36	5277927	1	Upright Tube Weldment (L.H.)
37	5277928	1	Upright Tube Weldment (R.H.)
38	5277929	4	Slide Tube Weldment
39	5277930	1	Horizontal Mount Weldment
40	5277931	1	Horizontal Mount Weldment
41	5277932	1	40/60 Gallon Polaris Utility Sprayer Frame Weldment
42	5277933	2	Boom Bracket, 40/60 Gallon Utility Weldment

Item No	Part Number	Qty	Description
A	5006186	2	#10-24 Hex Whiz (Flange) Locknut
B	5038638	1	Handgun & Hose Bracket
C	5038704	1	Valve Mount Bracket
D	5075014	2	Rubber Grommet (Black)
E	5117234	2	#10-24 x 1/2" Phillips Truss Head Machine Screw



Rate Chart for Boomless Nozzle (Set of 3)

Gallons per Acre Based on Water - 17 1/2" Spacing
Note: The same figures are used for 1, 2, or 3 nozzles.

Pressure P.S.I.	Capacity G.P.M. (3 Nozzles)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
20	1.68	28.0	14.0	9.4	7.0	5.6	4.7	3.5
30	2.05	34.4	17.2	11.4	8.6	6.9	5.7	4.3
40	2.40	39.6	19.8	13.2	9.9	7.9	6.6	5.0

Gallons per 1000 Sq. Ft. Based on Water - 17 1/2" Spacing

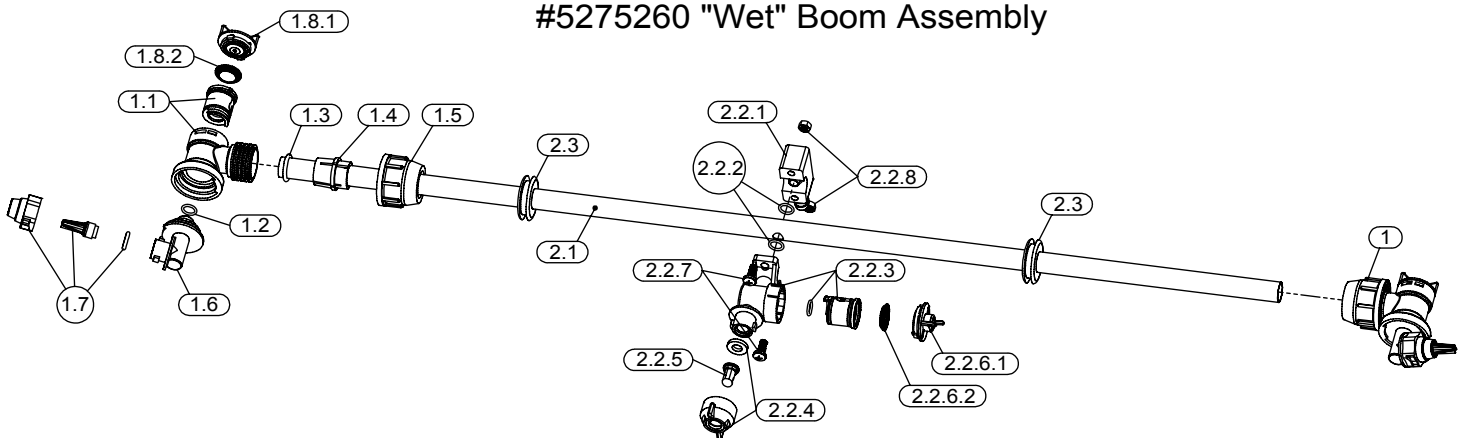
Pressure P.S.I.	Capacity G.P.M. (3 Nozzles)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
20	1.68	0.64	0.32	0.21	0.16	0.13	0.11	0.08
30	2.05	0.78	0.39	0.26	0.20	0.16	0.13	0.10
40	2.40	0.90	0.45	0.30	0.23	0.18	0.15	0.12

Gallons per 100 Sq. Ft. Based on Water - 17 1/2" Spacing

Pressure P.S.I.	Capacity G.P.M. (3 Nozzles)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
20	1.68	0.064	0.032	0.021	0.016	0.013	0.011	0.008
30	2.05	0.078	0.039	0.026	0.020	0.016	0.013	0.010
40	2.40	0.090	0.045	0.030	0.023	0.018	0.015	0.012

MPH = Miles Per Hour / FPM = Feet Per Minute
PSI = Pounds Per Square Inch / GPM = Gallons Per Minute
** The rate of spray as shown in the chart will remain the same with 1, 2, or 3 Nozzles. **
The only difference will be with the width of the spray swath.

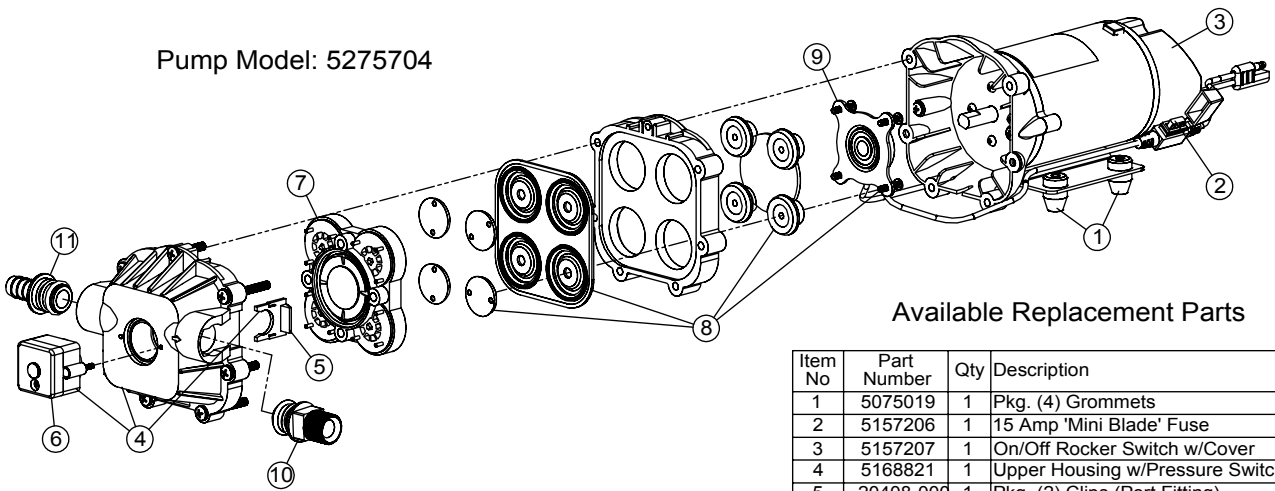
#5275260 "Wet" Boom Assembly



Item No	Part Number	Qty	Description
1	5275122	2	End Nozzle Assembly (Wet Boom)
1.1	5002499	1	Boomless Nozzle Body w/Core (Outer)
1.2	5072518	1	Stem O-Ring
1.3	5072517	1	Compression O-Ring
1.4	5010427	1	Compression Olive
1.5	5006348	1	Flynut
1.6	5132073	1	Nozzle Holder Stem
1.7	5274861	1	XT Spray Nozzle, Cap, & O-Ring
1.8.1	5088024	1	Yellow ON/OFF Valve Knob
1.8.2	5063255	1	Diaphragm
2	5275712	1	Wet Boom Sub-Assembly
2.1	5100316	1	Boom Tube

Item No	Part Number	Qty	Description
2.2	5275123	1	Center Nozzle Assembly (Wet Boom)
2.2.1	5051137	1	Hose Barb Saddle
2.2.2	5072509	2	O-Ring
2.2.3	5002500	1	Center Nozzle Body w/Core
2.2.4	5274862	1	Center Boomless Nozzle Cap w/Gasket
2.2.5	5018329	1	Red Spray Tip
2.2.6.1	5088024	1	Yellow ON/OFF Valve Knob
2.2.6.2	5063255	1	Diaphragm
2.2.7	5117310	2	SS Screw, 6mm x 16mm (5/8")
2.2.8	5006347	2	SS Nut, 6mm
2.3	5075016	2	Rubber Grommet

Pump Model: 5275704



Available Replacement Parts

Item No	Part Number	Qty	Description
1	5075019	1	Pkg. (4) Grommets
2	5157206	1	15 Amp 'Mini Blade' Fuse
3	5157207	1	On/Off Rocker Switch w/Cover
4	5168821	1	Upper Housing w/Pressure Switch
5	20408-000	1	Pkg. (2) Clips (Port Fitting)
6	5157203	1	Pressure Switch Assembly
7	5168824	1	Check Valve w/O-Ring
8	5168826	1	Diaphragm Kit w/Pistons & (4) Screws
9	5168828	1	Cam/Bearing Kit, w/Set Screw
10	5168832	1	Port Kit Fitting, 1/2" MNPT
11	5168833	1	Port Kit Fitting, 1/2" Hose Barb

CAUTION
PRESSURE SWITCH OPERATION
 Pressure switch is pre-set at the factory. Improper adjustment of the pressure switch, may cause severe overload or premature failure. If the pump is subjected to rapid cycling during normal operation, or infrequent periods, damage may occur.

Troubleshooting the Pump:

Motor does not run:

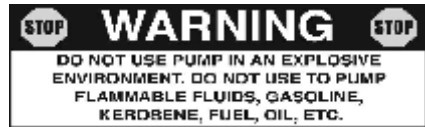
- Check for loose wiring connection(s).
- Make sure the 'ON/OFF' switches in both the lead wire assembly & on the pump motor are in the 'ON' position. "I" is the 'ON' position and 'O' is the 'OFF' position.
- Check for defective pressure switch. Make sure you are connected to a good 12 volt power source. Make sure your on/off switches are in the 'on' position. Remove the cap to the pressure switch. Pull both red wires off of their terminals, and touch the two ends together. If your pump runs when you do this, your pressure switch will need to be replaced.
- Check the fuse.
- Check for low voltage at the power supply.

Pump Specifications	
Flow Rate:	3.8 GPM @ Open Flow
Current:	7.4 Amps @ 40 PSI
Check Valve:	Viton
Port Type:	Plug-In Port
Motor Voltage:	12 Volts DC
Wetted Parts Housing:	Polypropylene
Diaphragm:	Santoprene
Liquid Temperature:	130° F max.

GPM = Gallons Per Minute
 PSI = Pounds per Square Inch
 DC = Direct Current

Pump does not prime:

- Check for air leaks in supply line.
- Check for debris in the check valve assembly.
- Check for defective check valve.
- Check for clogged strainer/filter.
- Check for cracks in the pump housing.
- Check for empty product supply.

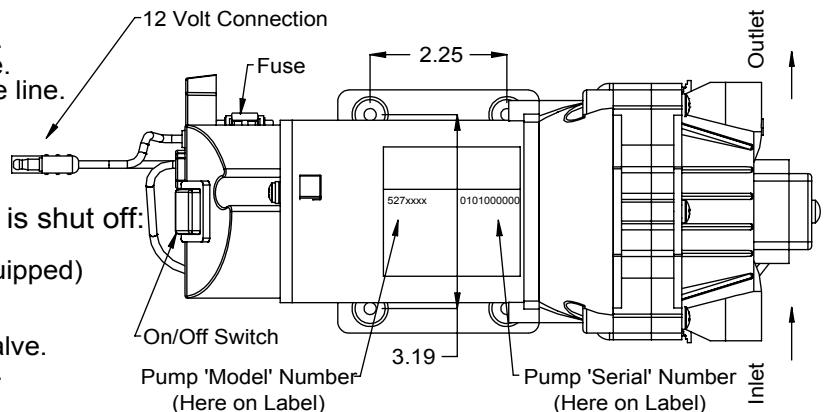


Pulsating flow (surging):

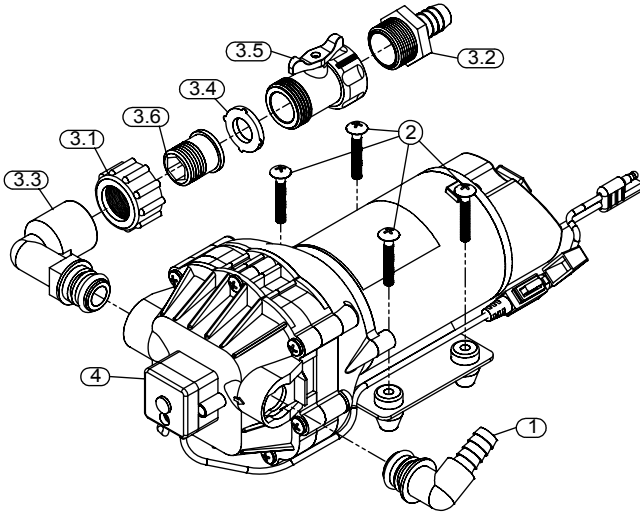
- Check for defective pressure switch.
- Check for leaks in the discharge line.
- Check for restriction in the discharge line.
- Check for debris in nozzle orifice.
- Discharge hose may be too long.
- Check for clogged strainer.

Motor continues to run after discharge is shut off:

- Check for empty product supply.
- Check for open bypass valve. (if equipped)
- Check for low voltage.
- Check for leak in discharge line.
- Check for defective or dirty check valve.
- Check for defective pressure switch.



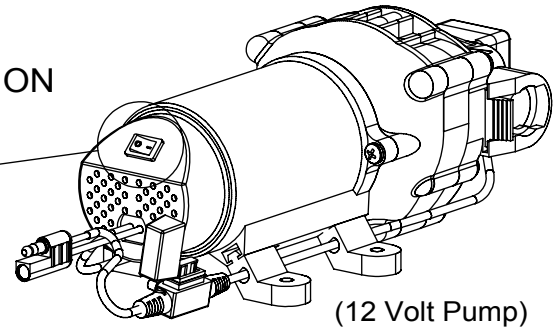
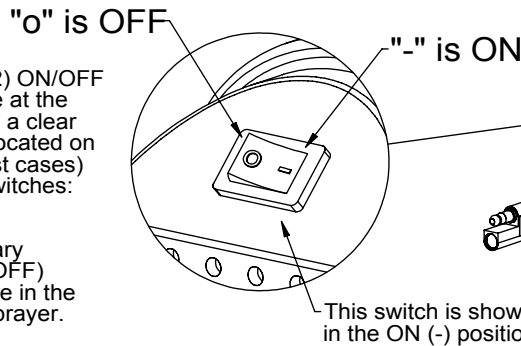
Pump Sub-Assembly #5274808



Item No	Part Number	Qty	Description
1	5010426	1	90 Deg. Port Elbow x 1/2" HB
2	5117166	4	#10-24 x 1 1/4" Phillips Truss Head Screw
3	5275570	1	Filter/Valve Sub-Assembly
3.1	5006209	1	Poly Knurled Swivel Nut, 3/4" FGHT
3.2	5067121	1	Poly Hose Fitting, 3/4" MGHT 1/2" HB
3.3	5010430	1	Port Kit Elbow, 1/2" FNPT
3.4	5116242	1	Strainer, 1" Filter Washer
3.5	5143188	1	Nylon Shut-Off Valve (3/4" GHT)
3.6	5005287	1	Poly Swivel Adapter Spud, 1/2" NPT
4	5275704	1	Gold Series 3.8 g.p.m. Pump

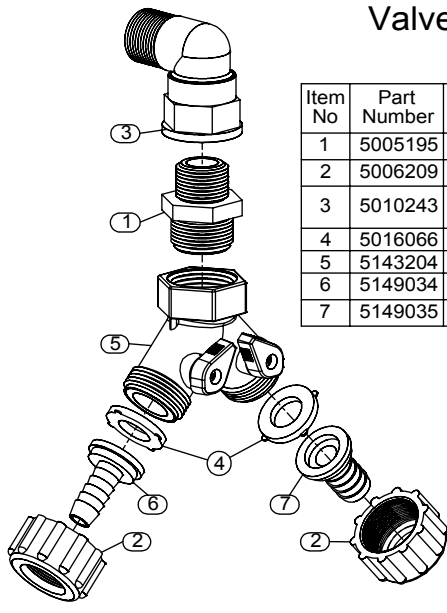
ON/OFF Switch Information For Your Sprayer

Your sprayer may be equipped with (2) ON/OFF switches. The one on the pump will be at the 'rear' of the pump, located underneath a clear plastic cover. A similar switch will be located on your battery connecting cable. (in most cases) Things you need to know about the switches:
 "-" is for the ON position
 "o" is for the OFF position
 (These symbols are based off the binary number system, where 1=ON and 0=OFF)
 Make sure BOTH of these switches are in the "ON" position before operating your sprayer.



(12 Volt Pump)

Valve Assembly #5277726



Item No	Part Number	Qty	Description
1	5005195	1	Poly Adapter, 1/2" MNPT x 3/4" MGHT
2	5006209	2	Poly Knurled Swivel Nut, 3/4" FGHT
3	5010243	1	Poly Street Elbow, (90 Deg) 1/2" MNPT x 1/2" FNPT
4	5016066	2	Garden Hose Washer
5	5143204	1	Dual Hose Shut-Off "Y" Valve
6	5149034	1	Poly Swivel, 3/8" Hose Barb
7	5149035	1	Poly Swivel, 1/2" Hose Barb

Pump Replacement Parts

Part	Description
5275088	HIGH-FLO 3.8 GPM GOLD SERIES PUMP
7771878	PKG/3.8 GPM CHECK VALVE
7771881	PKG/45 PSI PRESSURE SWITCH

Popular Accessories

Part	Description
7771938	12 VOLT WIRELESS REMOTE
7771786	LEAD WIRE FOR PUMP

Spray Nozzle Parts

Part	Description
7771781	PKG/(1) 5274861 TIP/CAP/O-RING
7771884	PKG/WETBOOM CENTER NOZZLE
7771885	PKG/WETBOOM END NOZZLE