OWNER'S MANUAL

Model: LG-25-BL (5302183)

(25 Gallon ATV Dual Nozzle Sprayer)

Technical Specifications

- 25 Gal. Corrosion-Resistant Polyethylene Tank
- 12 Volt Diaphragm Pump, 3.8 g.p.m.—45 psi
- Deluxe Pistol Grip Handgun
- 15 Ft. Handgun Hose (3/8" I.D.)
- 26 Ft. Vertical throw, 35 Ft. Horizontal Throw
- 28 Foot Spray Coverage w/(2) (Boomless) Nozzles

Caution: When fully filled with water, this sprayer will weigh 250 lbs.. Consult the owner's manual for your vehicle to verify that you are within it's load carrying capacity.

BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL 1-800-831-0027

IF YOU SHOULD HAVE A QUESTION OR EXPERIENCE A PROBLEM WITH YOUR FIMCO INDUSTRIES PRODUCT:

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.

General Information

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

Warranty

Products are warranted for one year from date of purchase against manufacturer or workmanship defects for home owner usage and 90 days for commercial usage.

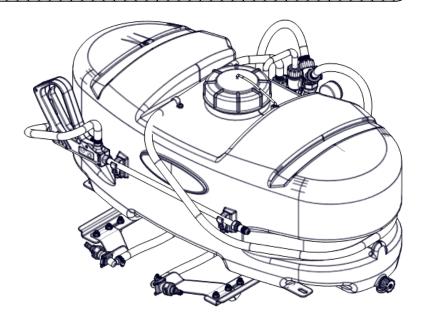
For technical assistance, visit our website @ www.fimcoindustries.com or call: TOLL FREE @ 1-800-831-0027

Our Technical Support Representatives will be happy to help you.

To obtain prompt, efficient service, always remember to give the following information...

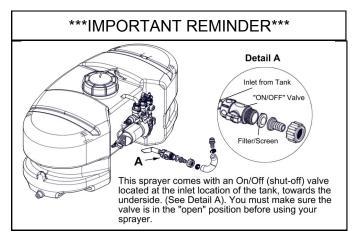
- Correct Part Description and/or part number
 - Model #/Serial # of your sprayer

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



Assembly Instructions

- Make sure the contents of the sprayer's carton match the items shown on page 2 of the manual.
- Follow the steps on pages 2, 3 & 4 to properly assemble the sprayer.
- After assembly is complete and before testing your sprayer, make sure you connect the electrical hook-up to the end of your pump and clip the clips to a fully charged battery. The red wire must be connected to the positive (+) and the black wire should be connected to the negative (-).
- The drain plug assembly should already be attached to the tank

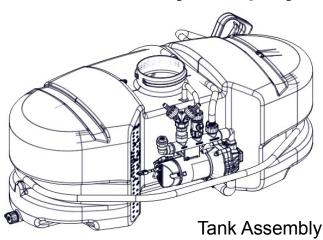


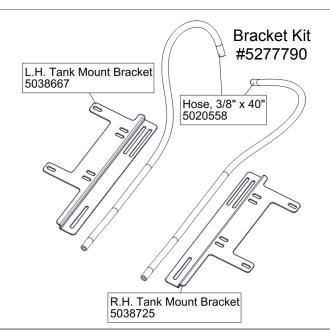


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Contents of your sprayer's carton (LG-25-BL):

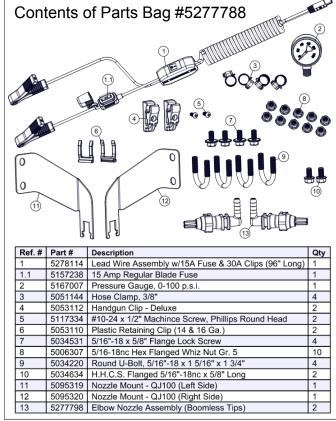


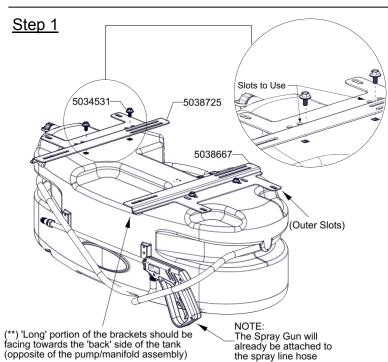












Assembly Procedure (LG-25-BL)

Normally, the sprayer will be mounted on an ATV with the pump assembly at the operator's back and the spray wand will be at the rear of the unit. Right Hand (RH) and Left Hand (LH) sides of the sprayer are determined as if you are standing behind the sprayer, looking at it (facing forward)

After removing the tank from the box, start the assembly procedure by turning the tank upside on a stable, flat surface.

A 1/2" socket or wrench is required for this step.

(**) Mount tank brackets (LH: 5038667) & (RH: 5038725) to the underside of the tank as shown in Step 1. Use (4) bolts (5034531) to secure it to the tank. The tank will rest on the surface of the brackets which have the six small slots. You will not be using the two outer slots on each bracket, as they are used for other sprayers. Make sure the brackets are parallel with each other before tightening down the bolts. Do not over-tighten.

Step 2 5006307 Detail A 5034220 This tube represents the cross member of a 'typical' ATV rack system RH Side) Tank not shown for clarity (LH Side) 5006307 5038725 Detail B 5006307 5095320 Detail C 5095319 5034220 503667 5034634 (RH Side) 5034220 5034634 (LH Side)

Assembly Procedure (LG-25-BL)

A 1/2" socket or wrench is required for this step.

After the brackets are securely attached to the tank, you are now ready to mount this to an ATV rack system.

Remember that all rack systems are not alike and this was designed to fit 'most' rack systems. There is a chance it may not fit your particular rack.

It may be beneficial to have a helper or 2nd person, while doing this step.

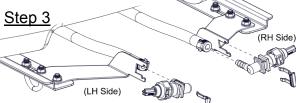
Detail A: Place the sprayer on to the ATV rack and find the most optimal place for the u-bolts to attach through the rack and then through the long slots on the tank brackets. Once the position is determined, feed the u-bolts (5034220) up from the underside of the rack and secure in place with the whiz nuts (5006307). Make sure the threads of the u-bolts do not puncture the tank at any point. Manually adjust the u-bolts slightly if they get too close to the tank. Do this prior to fully tightening the brackets to the rack.

After your brackets are secured to the rack, assemble the nozzle mounts to the brackets and the ATV rack.

Detail B: Secure the LH nozzle mount (5095319) to the LH tank mounting bracket with u-bolt (5034220), flange bolt (5034634) and three whiz nuts (5006307). Attach the u-bolts in the same manner as Detail A.

You can position the nozzle mounts as needed within the slot on the tab. Just be sure that the surfaces of both brackets are even with each other.

Detail C: Repeat for RH nozzle mount (5095320)



(RH Side)

5277798

After your nozzle mounts are secured in place, attach the nozzle assemblies (5277798).

Slip a hose clamp (5051144) over each end of the hose. Slightly tighten so they won't fall off the hose.

Slip one end of each hose under tank to secure to manifold in the next step.

Attach other end of hose to the hose barb on the nozzle body. Slip hose over barb with a twisting motion and tighten hose clamp. Repeat for the other nozzle assembly.

Detail A: Attach nozzle assemblies to nozzle mounts and secure in place with poly spring clips (5053110).



Step 4

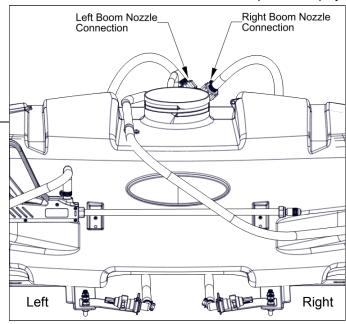
Detail A

5051144 5020558

After securing the nozzle assemblies to the nozzle mounts, secure other end of hoses to the hose barbs on the y-valve on the manifold, with a twisting motion and secure with hose clamps..

5053110

Each nozzle will have its own shut-off valve control.



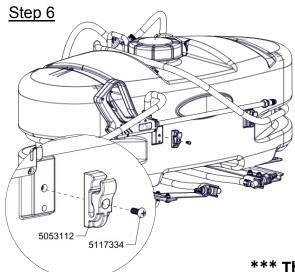
Step 5 Lanyard Connection Tab Lid Lanyard 5058188 5167007

Assembly Procedure (LG-25-BL)

Thread the pressure gauge into the (open) port located on the end of the manifold. Hand tighten securely.

** DO NOT OVER-TIGHTEN **

Screw the lid (5058188) onto the tank. Place the end of the lanyard through the tab in the tank. (See DETAIL Lanyard). This is so the lid can 'hang' off the tank when filling/rinsing the tank out.



The only thing left to assemble is the spray wand clips to the tank. Locate the (2) clips (5053112) and (2) phillips head machine screws (5117334) from the parts bag.

A phillips head screwdriver is required for this step

Place a screw through the hole in the clip and bring it up to the tank, where the embossments for the clips are (located on the rear side of the tank)

Secure the clip/screw to the tank. Tighten so that the clip is secure. Do this for each clip.

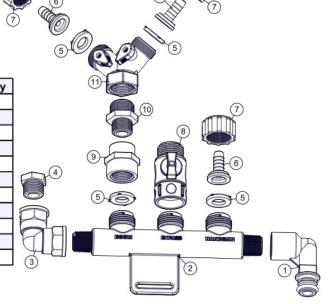
** DO NOT OVER-TIGHTEN **

The spray wand will snap into the clips once installed. Do not use excessive force when placing the spray wand into the clips, as this could cause the clips to break.

*** The Sprayer should now be ready for use ***

Manifold Assembly #5277787

Ref. #	Part #	Description	Qty
1	5010430	Port Kit Elbow, 1/2" FNPT	1
2	5143405	Manifold w/Mounting Tab	1
3	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
4	5041073	Poly Reducing Bushing, 1/2" MNPT x 1/4" FNPT	1
5	5016066	Garden Hose Washer	4
6	5149034	Poly Swivel, 3/8" Hose Barb	3
7	5006209	Poly Knurled Swivel Nut, 3/4" FGHT	3
8	5143419	Swivel Shut-Off	1
9	5005190	Poly Adapter Coupler, 3/4" FGHT x 1/2" FNPT	1
10	5005195	Poly Adapter, 1/2" MNPT x 3/4" MGHT	1
11	5143204	Dual Hose Shut-Off "Y" Valve	1



Testing the Sprayer

NOTE: It is VERY important for to test your sprayer with plain water before actual spraying is attempted. This will enable you to check for leaks without the possibility of losing any expensive chemicals.

Fill the tank about 1/2 full with plain water and drive to the starting place for spraying. When you are ready to spray, turn the boom valve to the "on" position. This will start solution spraying from the tips of the boom. The pressure will decrease slightly when the boom is spraying. Adjust the pressure by turning the "ON/OFF" valve lever on the bypass line valve. Make sure your pattern is sufficient. You may down-pressure the system by 'bypassing' solution back into the tank. This is achieved by opening the bypass valve. Regulating pressure is done in this manner.

Read the operating instructions and initially begin spraying by closing the 'bypass' valve (this is the valve marked Press. Adj. on your manifold assembly) and opening the boom line valve (this is the center valve on the manifold). This will enable the air in the line to be eliminated (purged) through all the tips, while building pressure. When everything tests all right (no leaks and good pressure), add the desired chemicals to the mixture and water combination and start your spraying operation. Adjust the pressure and spray as you did in the testing procedure.

Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases

Be sure to read the chemical label(s) before application!

Operation

Your sprayer is equipped with (1) ON/OFF switch in the wire assembly that you hook up to your battery. The "-" is the "ON" position and the "o" is the "OFF" position for the switch. Make sure the switch is depressed in the "-" position for operation. The pump is equipped with a pressure switch that is factory pre-set for it to shut off at 45 p.s.i. This switch assembly is the 'square box' on the head portion of the pump.

Always fill the tank 1/2 full with water first and then add the chemical slowly, mixing as you pour the chemical into the tank and then fill the rest of the way. You may use the bypass in order to mix the chemical and water.

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

- Activate the handgun by squeezing the handle lever
- Rotating the adjustable nozzle tip on the handgun will change the tip pattern from a straight stream to a cone pattern (fine mist)
- Both nozzles spraying at the same time will allow a maximum coverage of 28 feet
- Both nozzles have a shutoff valve, so you can shut off each nozzle individually. This may help in achieving the actual coverage needed for your application.

Calibration

Chemical labels may show application rates in gallons per acre, gallons per 1000 square feet or gallons per 100 square feet. You will note that the tip chart shows 3 of these rating systems. Once you know how much you are going to spray, then determine (from the tip chart) the spraying pressure (PSI), and the spraying speed (MPH).

Determining the proper speed of the pulling vehicle can be done by marking off 100, 200 & 300 feet. The speed chart indicates the number of seconds it takes to travel the distances. Set the throttle and with a running start, travel the distances. Adjust the throttle until you travel the distances in the number of seconds indicated by the speed chart. Once you have reached the throttle setting needed, mark the throttle location so you can stop and go again, returning to the same speed.

Add water and proper amount of chemical to the tank and drive to the starting place for spraying.

Adjusting Pressure

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

Using the Boom Nozzles

Four things must be considered before spraying with the boom.

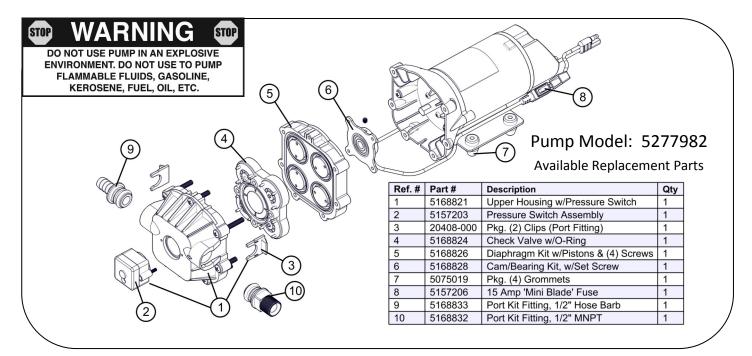
- 1. How much chemical must be mixed in the tank.
- 2. Rate of spray (gallons per acre to be sprayed).
- 3. What pressure (p.s.i.) will be used.
- 4. Speed traveled (mph) while spraying.
- * Refer to the chemical label to determine your chemical mixture
- * See the tip chart to determine the pressure to be used. The chart will also show the speed used when spraying.
- * Start the pump and open the valve 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.

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		

	Rate Chart for Boomless Nozzle							
Gallons	Gallons per Acre Based on Water							
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. F	t. Base	d on V	Vater			
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	Gallons per 100 Sq. Ft. Based on Water							
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

^{**} 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





- Clean and rinse your pump after each use with Fimco Tank Neutralizer
- Winterize your pump or sprayer by rinsing, draining and running RV Antifreeze through it before storing for the winter.
- Use clean water for your spray mixture
- Store inside a building when not in use.

DON'T (



- Use to pump bleach.
- Use to pump petroleum products such as diesel fuel, gasoline or kerosene
- Leave your pump sit with spray mixture in it for extended periods
- Use dirty or unfiltered water for spraying

Pump Specifications			
Current:	7.4 Amps @ 40 PSI		
Check Valve:	Viton		
Wetted Parts Housing:	Polypropylene		
Diaphragm:	Santoprene		
Liquid Temperature:	130° F max.		



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' switch in the lead wire assembly is 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 any 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 does not prime:

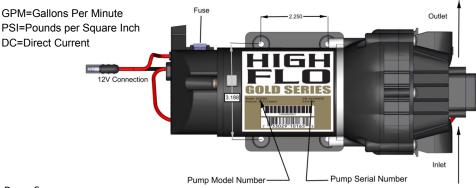
- Check for air leaks in supply line.
- Check for debris in the check valve assembly.
- Check for defective check valve.
- Check for clogged strainer/filter.
- Check for cracks in the pump housing.
- Check for empty product supply.

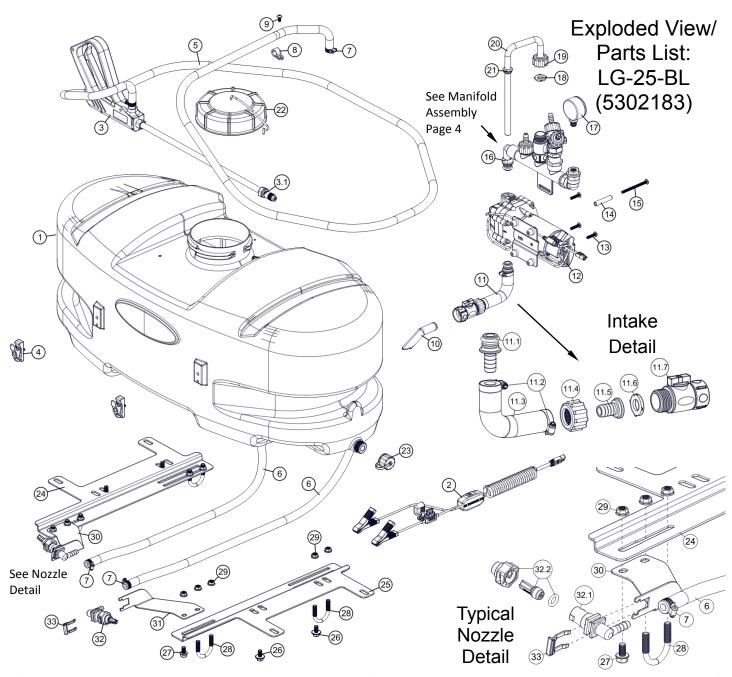
Pulsating flow (surging):

- 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.

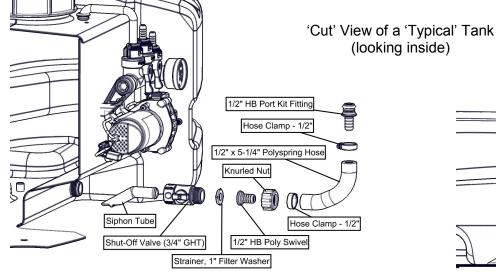


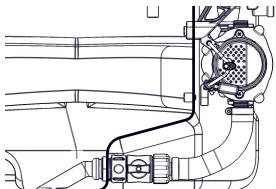


Ref. #	Part #	Description	Qty
1	5169243	25 Gallon Tank (White)	1
2	5278114	Lead Wire Assembly w/15A Fuse & 30A Clips (96" Long)	1
2.1	5157238	15 Amp Regular Blade Fuse	1
3	5273959	Deluxe Pistol-Grip Handgun w/X-26 Tip	1
3.1	5018331	Brass Handgun Tip (X-26)	1
4	5278348	Deluxe Wand Clips & Screws (Pkg/2) (#10-24 Thread)	1
5	5020524	Hose, 3/8"-1 Brd. x 15 Ft.	1
6	5020558	Hose, 3/8"-1 Brd. x 40"	2
7	5051144	Hose Clamp, 3/8"	6
8	5051122	5/8" Black Nylon Loom Cable Clamp	1
9	5117234	#10-24 x 1/2" Phillips Truss Head Machine Screw	1
10	5100452	Siphon Tube	1
11	5275877	Intake Sub-Assembly	1
11.1	5168833	Port Kit Fitting, 1/2" Hose Barb	1
11.2	5051114	Hose Clamp, 1/2"	2
11.3	5020557	1/2" Polyspring Hose x 5 1/4"	1
11.4	5006209	Poly Knurled Swivel Nut, 3/4" FGHT	1
11.5	5149035	Poly Swivel, 1/2" Hose Barb	1
11.6	5116242	Strainer, 1" Filter Washer	1
11.7	5143419	Swivel Shut-Off	1
12	5277982	Hi Flo Gold Series 3.8 GPM Pump	1
13	5117168	#10-24 x 1" Phillips Truss Head Machine Screw	3
14	5127192	Manifold Spacer (3.8gpm)	1

Ref. #	Part #	Description	Qty
15	5117314	#10-24 x 3" Truss Head Machine Screw	1
16	5277787	Manifold Assembly	1
17	5167007	Pressure Gauge, 0-100 p.s.i.	1
18	5016066	Garden Hose Washer	1
19	5006209	Poly Knurled Swivel Nut, 3/4" FGHT	1
20	5100359	Rigid By-Pass Tube Assembly	1
21	5075018	Grommet	1
22	5058188	Tank Lid w/Lanyard	1
23	5274373	Drain Plug Cap, Tether, and Washer Assembly	1
24	5038667	Tank Mounting Plate (L.H.) (ATV)	1
25	5038725	Tank Mounting Plate (R.H.) (ATV)	1
26	5034531	5/16"-18 x 5/8" Flange Lock Screw	4
27	5034634	H.H.C.S. Flanged 5/16"-18nc x 5/8" Long	2
28	5034220	Round U-Bolt, 5/16"-18 x 1 5/16" x 1 3/4"	4
29	5006307	5/16-18nc Hex Flanged Whiz Nut Gr. 5	10
30	5095319	Nozzle Mount - QJ100 (Left Side)	1
31	5095320	Nozzle Mount - QJ100 (Right Side)	1
32	5277798	Elbow Nozzle Assembly (Boomless Tips)	2
32.1	5056113	Single Hose Shank (3/8" Hose)	1
32.2	5274861	XT Spray Nozzle, Cap, & O-Ring	1
33	5053110	Plastic Retaining Clip (14 & 16 Ga.)	2

Intake/Siphon Tube/Screen Detail of a Typical L&G/ATV Sprayer (not including the 'EC'Units)





The suction line of your sprayer should contain a 'siphon tube' or intake tube which should be rotated so that it just touches the bottom of the tank surface. (see Detail Views). Reach in and rotate it, as needed, if not already in this position.

A nylon shut-off valve is threaded onto the pipe nipple at the intake location on the tank. It is at this location so you can shut off the flow of solution to access your system's screen for cleaning.

Checking/Cleaning the sprayer's filter/screen:

- ♦ Start your pump and before it shuts off, reach down and Shut the nylon valve to the 'Closed' position (lever is perpendicular to the flow of fluid), then shut off your pump.
- Unscrew the knurled nut from the shut-off valve, leaving the valve connected to the tank.
- Swing (swivel) the intake assembly towards you. Look in the nut you JUST unscrewed. There is a screen/washer there.
- Remove the screen and clean as necessary. Replace when done and reassemble the entire assembly.
- Make sure the valve is turned to the 'Open' position before restarting your pump.

Maintenance During/After Spraying

Periodically check the strainer and clean the screen at the bottom of your intake tube.

Proper care and maintenance will prolong the life of your sprayer.

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 FIMCO 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. DO NOT allow chemicals to sit in the pump for extended times of idleness. Follow the chemical manufacturer's instructions on disposal of all waste water from the sprayer.

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.

