

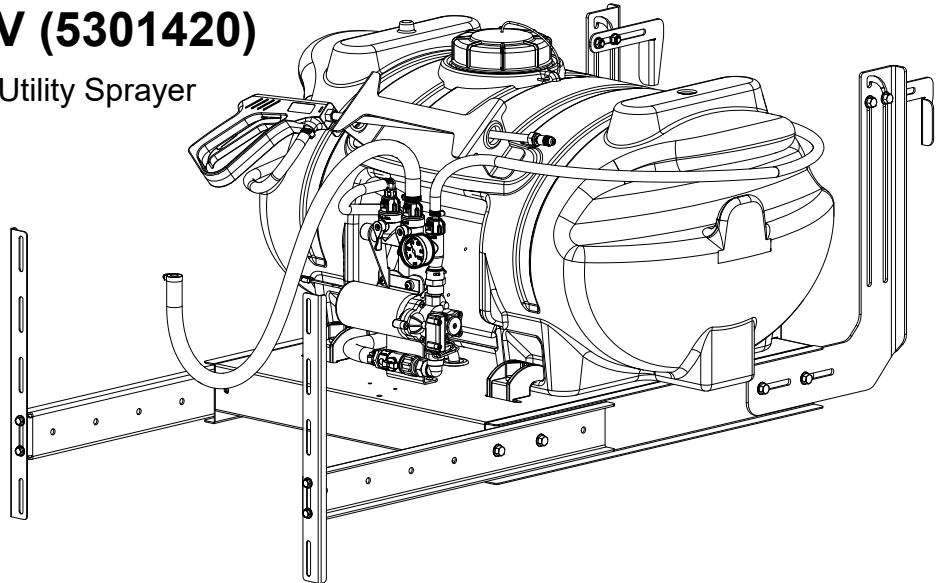
OWNER'S MANUAL

Model: FSUTL40-12V (5301420)

(60 Gallon Lawn & Garden Utility Sprayer
Boom-Ready)

Technical Specifications

- 40 Gal. Corrosion-Resistant Polyethylene Tank
- Deluxe Pistol-Grip Handgun
- 25 Ft. Handgun Hose
- 26 Ft. max. vertical throw, 35 Ft. horizontal throw
- 12 Volt Diaphragm Pump, 4.0 GPM, 45 PSI
- Boom-Ready



General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your lawn & garden utility sprayer.

Assembly Instructions

Most of the sprayer is assembled at the factory. The only assembly necessary is to thread the pressure gauge in place, attach the boom and to hook up the wiring to an existing 12 volt power source.

Connect the electrical hook-up to the end of your pump and clip the clips to a fully charged battery.

IF YOU SHOULD HAVE A QUESTION OR EXPERIENCE A PROBLEM WITH YOUR AG SPRAY PRODUCT GIVE US A CALL

BAKERSFIELD, CA 877-724-2236	COLUMBUS, NE 800-274-1025	DOTHAN, AL 800-227-4098
FARGO, ND 701-280-2862	HOPKINSVILLE, KY 800-637-7172	MANKATO, MN 507-388-6295
NEWTON, KS 800-394-7662	PASCO, WA 800-634-2026	TEMPE, AZ 877-974-7166

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



WARNING: To reduce the risk of injury, the user must read and understand the operator's manual before using this product.



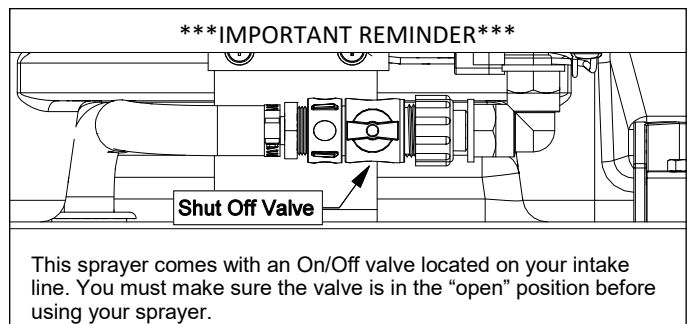
WARNING: Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Retain a copy of your receipt for your unit, as it will be required to validate any warranty service. Products are warranted against manufacturer or workmanship defects for one year from date of purchase for home owner usage and 90 days for commercial usage.

For technical assistance, visit our website @ www.agspray.com or call: Toll Free to one of the above phone numbers. 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.



This sprayer comes with an On/Off valve located on your intake line. You must make sure the valve is in the "open" position before using your sprayer.



www.agspray.com

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IMPORTANT: Remove tank lid and be sure the tank is clean and free of any foreign material. Rinse tank out of any tank residue before filling with water to test.

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.

Before starting, open the suction line valve (next to the pump), The valve is located at this point to enable the strainer to be taken apart for cleaning.

There are two valves levers on your manifold. One of these is a shut-off for the boom and the other is for pressure adjustment. Open the bypass control valve. You may now start the sprayer. The pressure should now be increased as desired by closing the pressure adjustment valve.

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 & Calibration

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

Always fill the tank with a desired amount of water first and then add the chemical into the tank. You may use the handgun to spray into the solution in order to mix the chemical and water. 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 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 a discharge line is opened. If, however, the bypass line is open, the pump will not shut off automatically.

- 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)

When you are ready to spray, mix chemicals as follows. Add the proper amount of water to the tank. Run the sprayer while adding chemical to the water. Do NOT spray through the boom (if applicable) at this time. This will allow the solution to return ('bypass') to the tank. The movement of solution through the bypass will aid in mixing the water and chemicals. You should now be ready to spray.

Maintenance During/After Spraying

Periodically close the suction line valve and check the strainer and clean the screen. Always flush the entire plumbing system with water or a neutralizing agent, such as Nutra-Sol after completing the spraying operation.

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

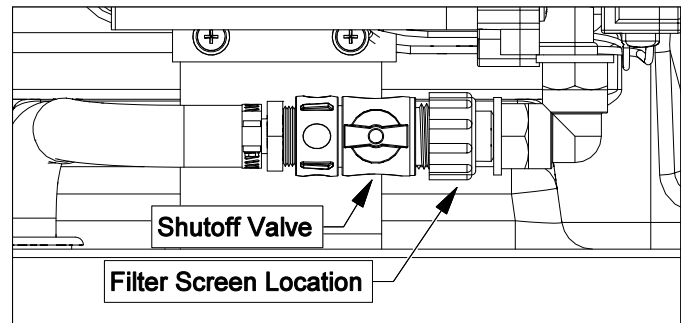
Prepare the sprayer for end-of-season storage by running RV antifreeze through the system. This will keep internal parts lubricated, protect against corrosion and keep the unit from freezing. *Note: RV antifreeze is non-toxic and biodegradable and generally safer for the environment than automotive antifreeze.*

Before storing your sprayer for winter or long term storage, thoroughly clean and drain it as much as possible. Then pour enough pink RV antifreeze into the tank so that when the pump is turned on you can pump the antifreeze throughout the entire plumbing system, including the bypass. Make sure to operate the handgun until you see pink fluid spraying from the nozzle. Leave any remaining antifreeze in the tank. Before your next usage, rinse the antifreeze from the sprayer with clean water.

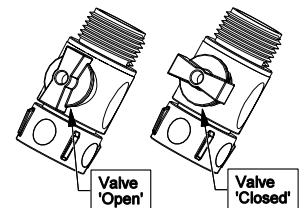
It is nearly impossible to drain all of the water from the sprayer and any trapped water can freeze in cold weather and damage parts of the sprayer. Pumping the antifreeze through the system will displace the water and help prevent this damage.

Removing from storage: drain the antifreeze. Fill the tank with fresh water and run through the system.

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



There is a shut-off valve on the intake line, next to the pump. 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 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 intake line.
- ◆ 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.

DO

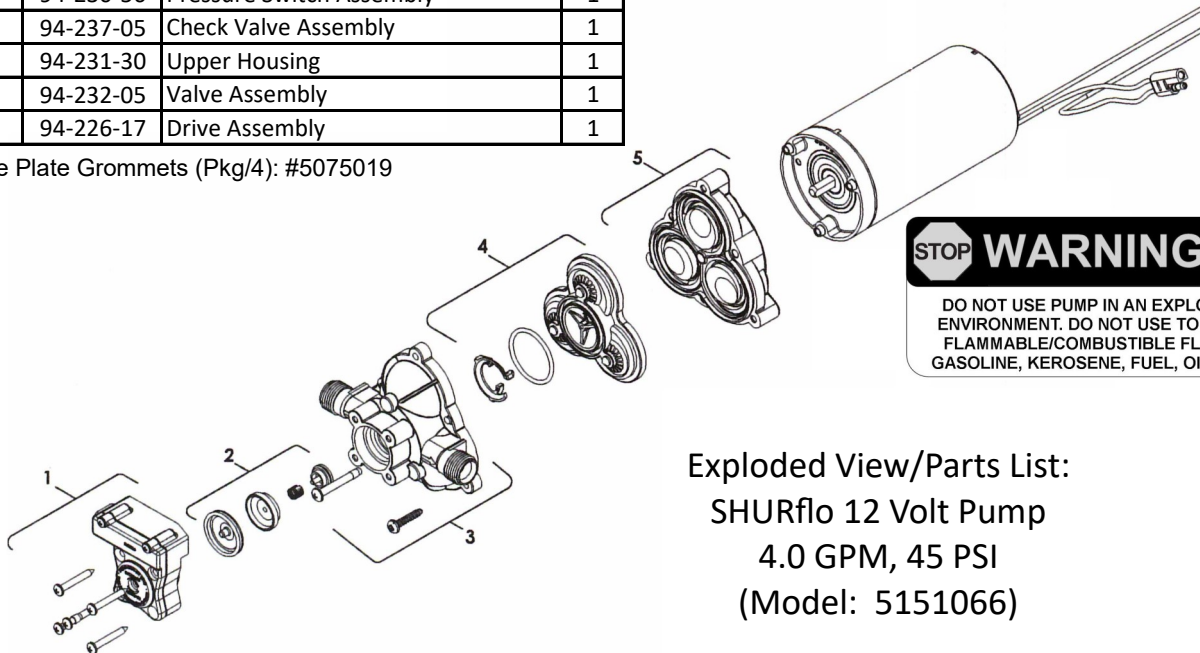
- Clean and rinse your pump after each use with Fimco Tank Neutralizer
- Winterize your pump or sprayer by rinsing, draining and running RV Antifreeze through it before storing for the winter.
- Use clean water for your spray mixture
- Store inside a building when not in use.

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

Ref. #	Mfg. Part #	Description	Qty.
1	94-230-56	Pressure Switch Assembly	1
2	94-237-05	Check Valve Assembly	1
3	94-231-30	Upper Housing	1
4	94-232-05	Valve Assembly	1
5	94-226-17	Drive Assembly	1

Base Plate Grommets (Pkg/4): #5075019



STOP WARNING STOP
DO NOT USE PUMP IN AN EXPLOSIVE ENVIRONMENT. DO NOT USE TO PUMP FLAMMABLE/COMBUSTIBLE FLUIDS, GASOLINE, KEROSENE, FUEL, OIL, ETC.

Exploded View/Parts List:
SHURflo 12 Volt Pump
4.0 GPM, 45 PSI
(Model: 5151066)

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 switch assembly. Make sure you are connected to a good 12 volt power source. Make sure any on/off switches are in the 'on' position. Disconnect the wires off of switch assembly and short them out. If your pump runs when you do this, your switch assembly will need to be replaced.
- Check the fuse, if applicable.
- Check for low voltage at the power supply.

Pump does not prime:

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

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.

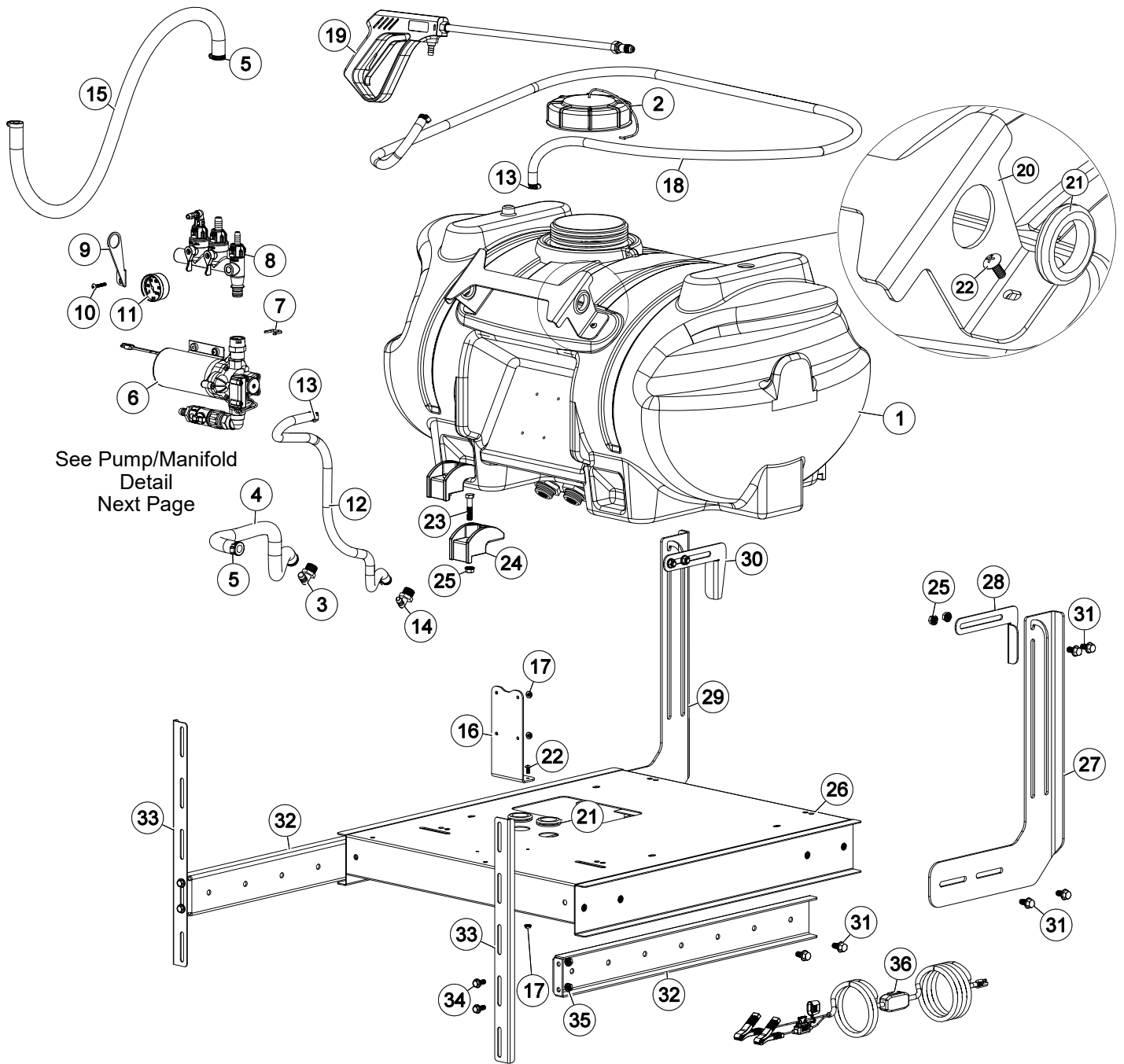
Pulsating flow (surging):

- Check for defective switch assembly.
- 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 valve assembly.
- Check for defective switch assembly.

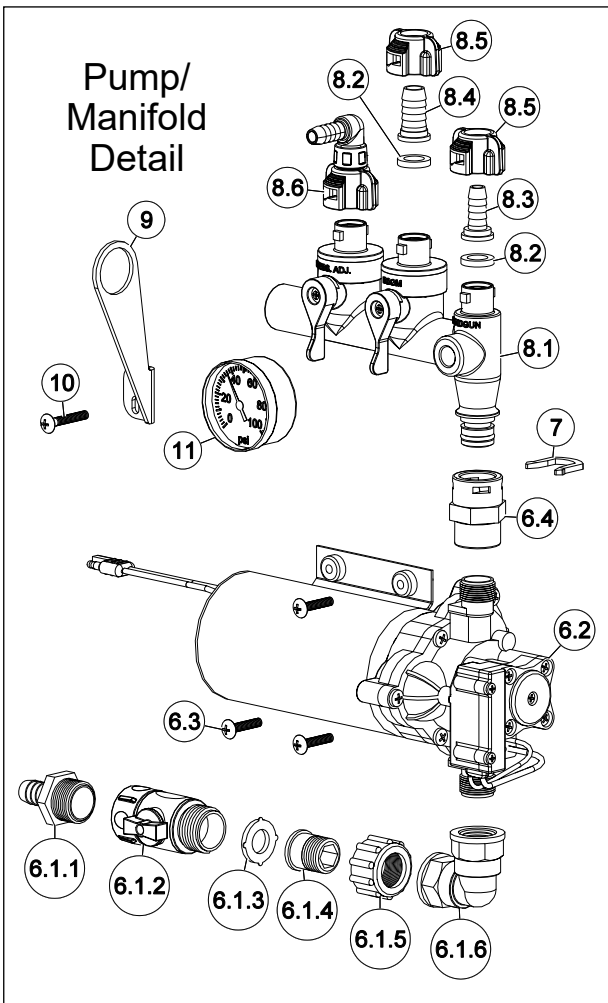
Exploded View FSUTL40-12V (5301420) (See Next Page for Parts List)



Parts List: FSUTL40-12V (5301420)

Ref. #	Part #	Description	Qty
1	5169246	40 Gallon Elliptical Tank (Yellow)	1
1.1	TF50DTN	1/2" Bulkhead Fitting Assembly	2
2	5058188	Tank Lid w/Lanyard	1
3	5010203	Poly Elbow, 1/2" MNPT x 1/2" HB	1
4	5020324	Hose, 1/2"-1 Brd. x 18"	1
5	5051114	Hose Clamp (1/2")	4
6	5281364	SHURflo 4.0 Pump Assembly	1
6.1	5280362	SHURflo Plumbing Assembly	1
6.1.1	5067121	Poly Hose Fitting, 3/4" MGHT 1/2" HB	1
6.1.2	5143419	Swivel Shut-Off	1
6.1.3	5116242	Strainer, 1" Filter Washer	1
6.1.4	5005287	Poly Swivel Adapter Spud, 1/2" NPT	1
6.1.5	5006209	Poly Knurled Swivel Nut, 3/4" FGHT	1
6.1.6	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
6.2	5151066	SHURflo Pump, 12V, 4 GPM, 45 PSI	1
6.3	5117168	#10-24 x 1" Phillips Truss Head Mach. Screw	3
6.4	5005456	3/4" Port to 1/2" Female NPT Adapter	1
7	5005457	Port Adapter Clip	1
8	5302506	Quick Connect Manifold Assembly	1
8.1	5302347	Quick Connect Manifold (Body)	1
8.2	5143430	Flat Washer - Hose Barb Seal	2
8.3	5143431	QC Manifold - 3/8" Hose Straight Barb	1
8.4	5143432	QC Manifold - 1/2" Hose Straight Barb	1
8.5	5143429	Quick Connect Quarter Turn Cap	2
8.6	5302802	QC Manifold 3/8 Swivel 90° Elbow Assembly	1
9	5037943	Manifold Support Brace	1
10	5117166	#10-24 x 1 1/4" Phillips Truss Head Mach. Screw	1
11	5167097	2" Dry 100# Back Mount Gauge	1

Ref. #	Part #	Description	Qty
12	5020528	Hose, 3/8"-1 Brd. x 25"	1
13	5051144	Hose Clamp (3/8")	4
14	5010202	Poly Elbow, 1/2" MNPT x 3/8" HB	1
15	5020506	Hose, 1/2"-1 Brd. x 42"	1
16	5038855	Pump Mount Bracket	1
17	5006186	#10-24 Hex Flange Whiz Nut, ZP	6
18	5020527	Hose, 3/8"-1 Brd. x 25 Ft.	1
19	5273959	Deluxe Pistol-Grip Handgun w/X-26 Tip	1
19.1	5018331	Brass Handgun Tip (X-26)	1
20	5038775	Handgun Bracket	1
21	5075014	Rubber Grommet (Black)	4
22	5117234	#10-24 x 1/2" Phillips Truss Head Mach. Screw	4
23	5034101	H.H.C.S., 3/8"-16 x 1 3/4"	4
24	5038698	Plastic Tank Hold-Down Leg Clip	4
25	5006259	3/8-16nc Hex Flanged Whiz Nut Gr. 5	8
26	5277932	40/60 Gallon Utility Sprayer Frame Weldment	1
27	5095349	Upright Tube Mount R.H.	1
28	5023127	Clamp Arm L.H.	1
29	5095348	Upright Tube Mount L.H.	1
30	5023126	Clamp Arm R.H.	1
31	5034660	H.H.C.S. Flanged 3/8"-16nc x 3/4"	12
32	5277933	Boom Bracket, 40/60 Gallon Utility Weldment	2
33	5095176	Boom Mount, 40/60 Gallon Utility Sprayer	2
34	5117323	5/16"-18 x 3/4" Flange Whiz Lock Screw	4
35	5006307	5/16-18nc Hex Flanged Whiz Nut Gr. 5	4
36	5277040	Lead Wire Assembly (14 ga. w/Switch), 120"	1
36.1	5157238	15 Amp Regular Blade Fuse	1



Warranty

LIMITED WARRANTY FOR NEW AG SPRAY EQUIPMENT

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Ag Spray Equipment to the original purchaser ("you") of the Equipment (as defined below) from Ag Spray Equipment or one of Ag Spray Equipment's authorized dealers. This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG. Ag Spray Equipment warrants that any new Equipment will be free from defects in material and workmanship for a period of **one (1) year** (homeowner), **90 days** (commercial user), after delivery of the Equipment to you (the "Warranty Period"). The Warranty Period is not extended if Ag Spray Equipment repairs or replaces the Equipment.

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY. This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Ag Spray Equipment or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Ag Spray Equipment's operator's manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to misuse, accident or neglect, "acts of God" or other events beyond Ag Spray Equipment's reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Ag Spray Equipment, whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

HOW TO OBTAIN WARRANTY SERVICE. To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Ag Spray Equipment of the defect during the Warranty Period and within **thirty (30)** days after the defect becomes apparent or the repair becomes necessary, at the following address: Ag Spray Equipment, 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Ag Spray Equipment or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-274-1025** or your local Ag Spray location.

WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY. If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Ag Spray Equipment shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Ag Spray Equipment will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

LIMITATION OF IMPLIED WARRANTIES AND OTHER REMEDIES. THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES, AND AG SPRAY EQUIPMENT'S SOLE LIABILITY, FOR ANY BREACH OF THIS LIMITED WARRANTY. TO THE EXTENT APPLICABLE, ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE WARRANTY PERIOD, AND THE REMEDIES AVAILABLE FOR BREACH THEREOF SHALL BE LIMITED TO THE REMEDIES AVAILABLE UNDER THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IN NO EVENT SHALL AG SPRAY EQUIPMENT'S LIABILITY UNDER THIS LIMITED WARRANTY EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE EQUIPMENT, NOR SHALL AG SPRAY EQUIPMENT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.