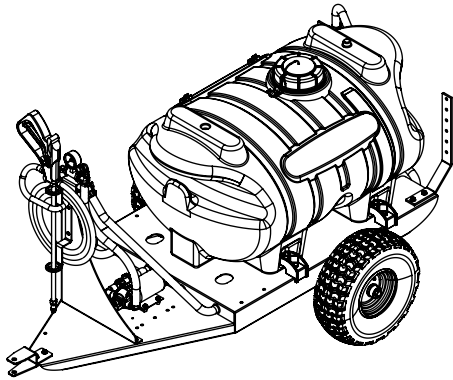


# OWNER'S MANUAL

Model: FSTS-40-12V (5301498)

(40 Gallon Lawn & Garden Trailer Sprayer - Boom Ready)



**BEFORE RETURNING THIS PRODUCT  
FOR ANY REASON, PLEASE CALL  
1-800-274-1025**

**IF YOU SHOULD HAVE A QUESTION OR  
EXPERIENCE A PROBLEM WITH YOUR  
SCHABEN INDUSTRIES PRODUCT:  
1-800-274-1025**

**BEFORE YOU CALL, PLEASE HAVE THE  
FOLLOWING INFORMATION AVAILABLE:  
SALES RECEIPT & MODEL NUMBER. IN MOST  
CASES, A SCHABEN 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 trailer sprayer. Please read it carefully, as it furnishes information which will help you achieve years of trouble-free operation.

## Warranty/Parts/Service

Products are warranted for one year from date of purchase against manufacturer or workmanship defects.

Commercial users have a 90 day warranty.

Your authorized dealer is the best source of replacement parts and service. To obtain prompt, efficient service, always remember to give the following information...

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

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

Whenever you need parts or repair service, contact your distributor/dealer first. For warranty work, always take your original sales slip, or other evidence of purchase date, to your distributor/dealer.

## Technical Specifications

- 40 Gal. Corrosion-Resistant Polyethylene Tank
- 12 Volt Diaphragm Pump, 1.8 g.p.m. - 60 p.s.i.
- Deluxe Pistol-Grip Handgun
- 25 Ft. Handgun Hose
- 18 Ft. Max. Vertical Throw, 30 Ft. Max. Horizontal Throw
- Low Profile Trailer & Tank
- 15/600 x 6 2-Ply Pneumatic Tires
- Pressure Gauge
- Adjustable Pressure
- Boom-Ready

## Assembly Instructions

Your sprayer has been partially assembled at the factory. Follow the instructions below to complete the assembly of this unit. (Refer to the exploded view drawing later in this manual)

1. Mount the axle to the frame, securing it with the hardware provided.
2. Slide a wheel spacer and a wheel (valve stem out) onto each end of the axle, then use a cotter pin to secure the wheels in place.
3. Bolt the boom brackets to the back of the frame. (if not already done)
4. If attaching a boom, bolt your boom assembly to the boom brackets. Your spray tips need to be approximately 18" above the spraying surface. Secure in place with the appropriate hardware.
5. Thread the pressure gauge into the end of the "T" fitting on the gauge sub-assembly. Use a good grade of sealant, to insure no leaks.
6. Remove the handgun clips, and attach them to the tank, as shown.
7. A section of hose is included for attaching to your boom. Connect this to the hose barb on the "Y" valve and to your boom. Secure in place with 1/2" hose clamps.
8. 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 (-).

# SCHABEN INDUSTRIES

[www.schabenindustries.com](http://www.schabenindustries.com)

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Form No. 1168 [5004722 (01/10)] Printed in the U.S.A.

## Operation

Your sprayer is equipped with (2) ON/OFF switches. One is on the wire assembly that you hook up to your battery, the other is on the pump itself, on the opposite end of the pressure switch. The "-" is the "ON" position and the "o" is the "OFF" position for the switches. Make sure both switches are depressed in the "-" position for operation.

In addition to the ON/OFF switch, the pump is equipped with an electronic pressure switch that is factory pre-set for it to shut off at 60 p.s.i.. This switch assembly is the 'square box' on the head portion of the pump.

Always fill the tank with a desired amount of water first, and then add the chemical slowly, mixing as you pour the chemical into the tank. You may use the handgun to spray into the solution 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.

- Open 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 (finer mist).

This sprayer is designed to be towed behind a garden tractor.

## 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 all 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.

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

## Testing the Sprayer

### NOTE:

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

Add water to the tank & 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 your 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.

Read the operating instructions and Initially begin spraying by closing the 'bypass' valve and opening the boom line valve. 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, & 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) correctly!**

**WARNING:** Some chemicals will damage the pump valves if allowed to soak untreated for a length of time. ALWAYS thoroughly flush the pump with water after 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.

## 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 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.

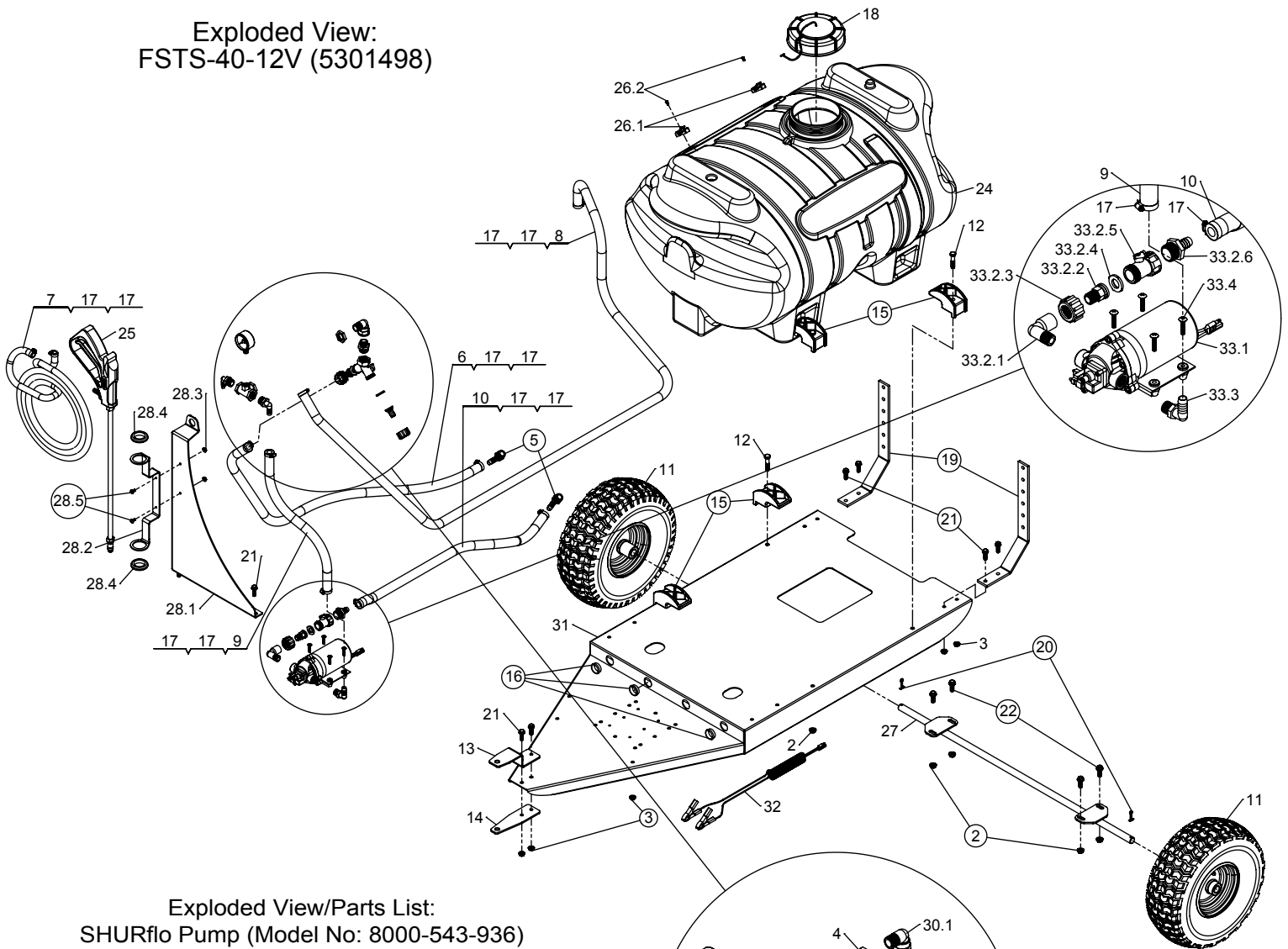
**WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use.**

## Winter Storage

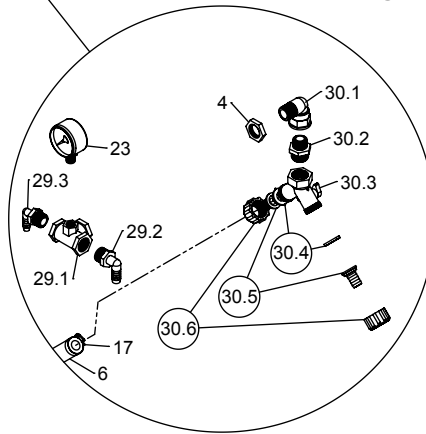
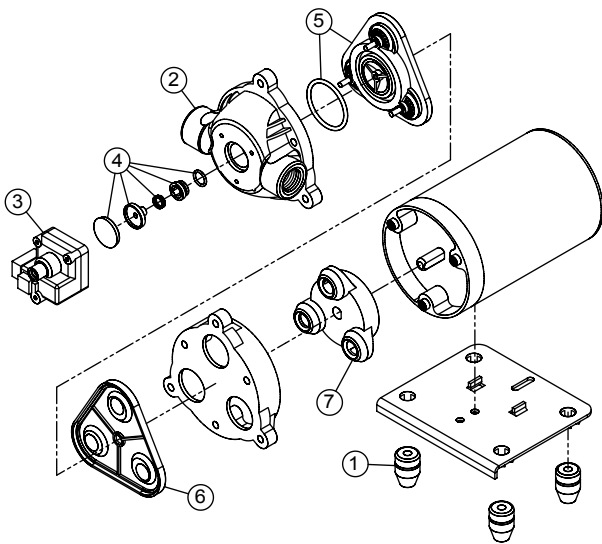
Drain all water out of your sprayer, paying special attention to the pump, handgun, and valve(s). These items are especially prone to damage from chemicals and freezing weather.

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.

Exploded View:  
FSTS-40-12V (5301498)



Exploded View/Parts List:  
SHURflo Pump (Model No: 8000-543-936)  
FIMCO Part No: 5273232



**STOP WARNING STOP**

**DO NOT USE PUMP IN AN EXPLOSIVE ENVIRONMENT. DO NOT USE TO PUMP FLAMMABLE FLUIDS, GASOLINE, KEROSENE, FUEL, OIL, ETC.**

**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.

ITEM NO.	FIMCO Part Number	MFG PART NUMBER	QTY.	DESCRIPTION	LIST PRICE
1	5075019		1	Pkg. (4) Grommets	2.99
2	5084089	94-379-00	1	Upper Housing	17.85
3	5157114	94-375-05	1	Switch Assembly	25.44
4	5168759	94-374-05	1	Check Valve Kit	10.25
5	5168760	94-390-05	1	Valve Assembly	39.11
6	5168761	94-395-06	1	Diaphragm	17.60
7	5168762	94-385-03	1	Drive Assembly	30.10

## Parts List: FSTS-40-12V (5301498)

Item No	Part Number	Qty	Description	List Price
1	5006186	4	#10-24 Hex Whiz (Flange) Locknut	.10
2	5006259	8	3/8"-16 Hex Whiz (Flange) Locknut	.25
3	5006307	8	5/16"-18 Hex Whiz (Flange) Locknut	.25
4	5006351	1	Nylon Nut	
5	5010039	2	Nylon Elbow, 1/2" MNPT x 1/2" HB	.82
6	5020122	1	Hose, 1/2"-1 Brd. x 48"	5.88
7	5020135	1	Hose, 3/8"-1 Brd. x 25 Ft.	17.25
8	5020152	1	Hose, 1/2"-1 Brd. x 72"	6.24
9	5020416	1	Hose, 1/2"-1 Brd. x 19 3/8"	2.17
10	5020462	1	Hose, 1/2"-1 Brd. x 31"	2.77
11	5021087	2	Wheel, 15/600 x 6, 2-Ply (Turf) 3/4" Single Sealed BB	30.57
12	5034101	4	H.H.C.S., 3/8"-16 x 1 3/4"	.50
13	5038517	1	HITCH BRACKET (FORMED)	4.85
14	5038518	1	Hitch Bracket (Flat)	2.30
15	5038698	4	Plastic Tank Hold-Down Leg Clip	2.93
16	5041105	3	Snap Bushing	.30
17	5051114	10	Hose Clamp (3/8"-1/2")	.63
18	5058188	1	Tank Lid w/Lanyard	10.50
19	5095071	2	Boom Mount	7.25
20	5101207	2	Cotter Pin, 5/32" x 1 3/4"	.10
21	5117300	8	5/16"-18 x 1" Flange Whiz Lock Screw	.22
22	5117307	4	3/8"-16 x 1" Whiz (Flange) Lockscrew	.46
23	5167007	1	Gauge, 0-100 p.s.i.	6.25
24	5169246	1	40 Gallon Elliptical Tank (Yellow)	105.00
25	5273959	1	Handgun w/X-26 Tip	24.95
26.1	5053096	2	Handgun Clip, for Blow-Molded Tanks	.95
26.2	5117293	2	#10-24 x 3/8" Phillips Round Head Machine Screw	.25
27	5274972	1	Axle Weldment (40 Gallon)	27.23
28	5275405	1	Valve Mount Sub-Assembly	31.23
28.1	5038704	1	Valve Mount Bracket	11.61
28.2	5038638	1	Handgun Holder Bracket	9.32
28.3	5006186	2	#10-24 Hex Whiz (Flange) Locknut	.10
28.4	5075014	2	Rubber Grommet (Black)	2.79
28.5	5117234	2	#10-24 x 1/2" Phillips Truss Head Machine Screw	.25
29	5275501	1	Top Valve Sub-Assembly	5.16
29.1	5010193	1	Nylon Tee, 1/2" FNPT w/1/4" Port (Gauge)	3.71
29.2	5010039	1	Nylon Elbow, 1/2" MNPT x 1/2" HB	.82
29.3	5010038	1	Nylon Elbow, 1/2" MNPT x 3/8" HB	.75
30	5275502	1	Bottom Valve Sub-Assembly	8.65
30.1	5010148	1	Nylon Street Elbow, 1/2" MNPT x 1/2" FNPT	2.16
30.2	5005021	1	Nylon Adapter, 1/2" MNPT x 3/4" MGHT	.62
30.3	5143204	1	Dual-Shut-Off Y-Valve, 3/4" GHT	4.38
30.4	5016066	2	Garden Hose Washer	.20
30.5	5149011	2	Nylon Swivel, 1/2" Flat Seat Hose Barb	.44
30.6	5006055	2	Nylon Swivel Nut, 3/4" FGHT	.48
31	5275753	1	40 Gallon Trailer Frame (Green)	206.35
32	5277040	1	Battery (Power) Cable (10 Ft. - 14 Gauge)	
33	5277125	1	SHURflo Pump Sub-Assembly	
33.1	5273232	1	Shurflo Pump, 12V, 1.8 GPM, 60 PSI	132.28
33.2	5277124	1	SHURflo Filter Sub-Assembly	
33.2.1	5010343	1	Nylon Street Elbow, 3/8"	2.08
33.2.2	5005243	1	Nylon Swivel Fitting, 3/8" MNPT	1.61
33.2.3	5006209	1	Poly Knurled Swivel Nut, 3/4" FGHT	.57
33.2.4	5116242	1	Strainer, 1" Filter Washer	.31
33.2.5	5143188	1	Nylon Shut-Off Valve	3.14
33.2.6	5067121	1	Poly Hose Fitting, 3/4" MGHT 1/2" HB	.66
33.3	5010043	1	Nylon Elbow, 3/8" MNPT x 1/2" HB	.80
33.4	5117168	4	#10-24 x 1" Phillips Truss Head Machine Screw	.25

(List Prices are Subject to Change)