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SMA50E

(Skid Mount Aluminum, 50USG, Electric)

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SMA100E

(Skid Mount Aluminum, 100USG, Electric)



Assembly, Parts and Operator's Manual

Version SMA50E-2013

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Safety

Many people die or suffer serious injury in job related accidents every year due to carelessness. Know your machinery and be aware of potential hazards. Put safety first in all your operations.

Review all instructions and procedures outlined in this manual annually. *Every operator must familiarize him or herself with the operating instructions of the sprayer.*

Operational Safety

Shut down sprayer and power unit and wait for all parts to stop before adjusting, cleaning, or lubricating the power unit or sprayer.

Before spraying a field, familiarize yourself with any rocks, debris, trees, ditches or gullies that may potentially be dangerous. Plan the spraying route to avoid these hazards.

Spray only chemicals that the unit was designed to spray (i.e. turf application). Do not use products for which the unit was not designed to spray (i.e. paint, sealants, cleaning fluids, dust inhibitors, ice surfaces, etc.).

Minimize Chemical Drift

Drift can blow off a field after it has been sprayed, especially in high winds. Reasonable caution should be taken in order to spray effectively and safely.

(With optional covered boom attachment)

For maximum drift control, keep curtain in contact with the ground to ensure a seal to it. Drift control of the covered boom is less effective when the wind blows the curtain off the crop canopy and breaks the seal between the curtain and the spray area.

General Spraying Information

Application Tips

Always use clean filtered water in the sprayer tank.

Your **Rogers Sprayers Inc. Skid Mount Sprayer** comes standard with 80 degree stainless steel or ceramic insert tips. Please contact your manufacturer or see the application rate table in this manual for various sizes of tips available for your machine.

Check the flow rate from all nozzles using the capacity calibration technique; see the calibration section for tables and instructions. Use clean filtered water for all calibration testing. Adjust the sprayer pressure to get the proper flow rate.

Caution:	Conventional tips are rated at 40 psi (3 bar); For example, a 8004 tip at 40 psi (3 bar) delivers 0.4 US gal/min (1.5 litres/min) . Only conventional 80° tips are recommended for the Skid Mount Sprayer . Wider angle tips (i.e. 110°) can be used in the boom configuration, but the height needs to be adjusted to achieve proper overlap. 110° tips CANNOT be used with the wind deflector attachments.
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Nozzles

Despite being the most important component for accurate uniform spraying application, nozzles are often neglected and abused.

Nozzle flow rate depends on effective orifice size and pressure. Spray tip manufacturers have supplied tables of nozzle application rates at various pressures; For the best results, it is recommended that you follow these guidelines.

A rule of thumb is that as you increase the pressure to your unit, the average droplet size decreases. Normally with conventional open boom sprayers, large droplets are used to control drift, but large droplets can roll off plants without sticking. With the optional covered spray system, you will be able to spray with smaller droplets, increase coverage and not worry about drift.

The spray patterns must overlap for even coverage but should not interfere with one another. Nozzles are set at a 10° angle so that one edge of its pattern will be just behind the edge of its adjacent spray pattern, evading interference with one another.

Typically as a tip wears, the spray pattern distorts, output volumes usually increase and the droplet characteristics change. Recalibration may correct for output changes but cannot correct for spray pattern changes or the drop size generated. Replacement tips can be purchased through Rogers Sprayers Inc. parts department.

Be cautious as this could possibly happen when using the wind breaker attachment:

When spraying next to a flower bed, do not spray over the turf edge as the spray will go under the curtain and onto the flowers.

Diaphragm Check Valve Nozzle Bodies

Diaphragm check valves close at approximately 15 psi (1 bar) to prevent excessive dripping from the tip after the sprayer has been turned off. Should the tip continue to drip, stop the leak by either tightening the check valve cap or removing the cap in order to inspect the seal for damage, excessive wear, or improper assembly.

To check for defective check valves when the spraying stop control has been actuated, the volume that drips from each nozzle should not exceed 2ml timed over a 5 minute period. The measuring is to start 8 seconds after the flow to the spray boom is shut off.

Nozzle caps are attached by engaging the cap and turning clockwise about one third of a turn. Self-aligning caps have a slot to align the tips. Ensure that the tips are pressed down into the slotted hole before installing caps on the nozzle body.

Non-aligning caps are also available for special tips.

American Application Rates at 20" Nozzle Spacing

80 Degree Tips

Rog- ers Part #	Tip Number	Tip Mfg	Liquid	Liq.	Cap.	U. S. GALLONS PER ACRE					U. S. GALLONS PER 1000 SQ. FT.				
			Press	Press	/noz.	2.5	3	4	5	7	2.5	3	4	5	7
			psi	bars	gpm	mph	mph	mph	mph	mph	mph	mph	mph	mph	mph
01369	8001VS (100 mesh)	Teejet	30	2.07	0.087	10.3	8.6	6.4	5.1	3.7	0.24	0.20	0.15	0.12	0.08
			40	2.76	0.100	11.9	9.9	7.4	5.9	4.2	0.27	0.23	0.17	0.14	0.10
			50	3.45	0.112	13.3	11.1	8.3	6.6	4.7	0.30	0.25	0.19	0.15	0.11
			60	4.14	0.122	14.5	12.1	9.1	7.3	5.2	0.33	0.28	0.21	0.17	0.12
00827	80015VS or	Teejet	30	2.07	0.130	15.4	12.9	9.6	7.7	5.5	0.35	0.29	0.22	0.18	0.13
			40	2.76	0.150	17.8	14.9	11.1	8.9	6.4	0.41	0.34	0.26	0.20	0.15
13351	API-80015 (100 mesh)	Albuz	50	3.45	0.168	19.9	16.6	12.5	10.0	7.1	0.46	0.38	0.29	0.23	0.16
			60	4.14	0.184	21.8	18.2	13.6	10.9	7.8	0.50	0.42	0.31	0.25	0.18
05876	8002VS or	Teejet	30	2.07	0.173	20.6	17.1	12.9	10.3	7.3	0.47	0.39	0.29	0.24	0.17
			40	2.76	0.200	23.8	19.8	14.9	11.9	8.5	0.54	0.45	0.34	0.27	0.19
14384	AXI-8002 (50 mesh)	Albuz	50	3.45	0.224	26.6	22.1	16.6	13.3	9.5	0.61	0.51	0.38	0.30	0.22
			60	4.14	0.245	29.1	24.2	18.2	14.5	10.4	0.67	0.56	0.42	0.33	0.24
05877	8003VS or	Teejet	30	2.07	0.260	30.9	25.7	19.3	15.4	11.0	0.71	0.59	0.44	0.35	0.25
			40	2.76	0.300	35.6	29.7	22.3	17.8	12.7	0.82	0.68	0.51	0.41	0.29
14385	AXI-8003 (50 mesh)	Albuz	50	3.45	0.335	39.8	33.2	24.9	19.9	14.2	0.91	0.76	0.57	0.46	0.33
			60	4.14	0.367	43.6	36.4	27.3	21.8	15.6	1.00	0.83	0.62	0.50	0.36
05878	8004VS or	Teejet	30	2.07	0.346	41.2	34.3	25.7	20.6	14.7	0.94	0.79	0.59	0.47	0.34
			40	2.76	0.400	47.5	39.6	29.7	23.8	17.0	1.09	0.91	0.68	0.54	0.39
14061	AXI-8004 (50 mesh)	Albuz	50	3.45	0.447	53.1	44.3	33.2	26.6	19.0	1.22	1.01	0.76	0.61	0.43
			60	4.14	0.490	58.2	48.5	36.4	29.1	20.8	1.33	1.11	0.83	0.67	0.48
05879	8005VS or	Teejet	30	2.07	0.433	51.4	42.9	32.2	25.7	18.4	1.18	0.98	0.74	0.59	0.42
			40	2.76	0.500	59.4	49.5	37.1	29.7	21.2	1.36	1.13	0.85	0.68	0.49
14386	AXI-8005 (50 mesh)	Albuz	50	3.45	0.559	66.4	55.3	41.5	33.2	23.7	1.52	1.27	0.95	0.76	0.54
			60	4.14	0.612	72.7	60.6	45.5	36.4	26.0	1.67	1.39	1.04	0.83	0.59
05880	8006VS or	Teejet	30	2.07	0.520	61.7	51.4	38.6	30.9	22.0	1.41	1.18	0.88	0.71	0.50
			40	2.76	0.600	71.3	59.4	44.6	35.6	25.5	1.63	1.36	1.02	0.82	0.58
14387	AXI-8006 (50 mesh)	Albuz	50	3.45	0.671	79.7	66.4	49.8	39.8	28.5	1.82	1.52	1.14	0.91	0.65
			60	4.14	0.735	87.3	72.7	54.6	43.6	31.2	2.00	1.67	1.25	1.00	0.71

Capacity of the SMA50E (Skid Mount Sprayer)

The SMA50E is only designed to spray up to 8006 tips. Please note that with the unit spraying at max capacity, there will virtually be no agitation back into the tank.

Capacity of the SMA100E (Skid Mount Sprayer)

The SMA100E is only designed to spray up to 8008 tips; you might be able to use 8010 tips and still obtain 40 psi with your system depending on the chemical used. Please note that with the unit spraying at max capacity, there will virtually be no agitation back into the tank.

Metric Application Rates at 20" Nozzle Spacing (0.5 meters)

80 Degree Tips

Rog- ers Part #	Tip Number	Tip Mfg	Liquid Press psi	Liquid Press bars	Cap /noz. gpm	U. S. GALLONS PER ACRE					Liters/Hectare				
						2.5	3	4	5	7	4	4.8	6.4	8	11.2
						mph	mph	mph	mph	mph	kph	kph	kph	kph	kph
01369	8001VS (100 mesh)	Teejet	30	2.07	0.087	10.3	8.6	6.4	5.1	3.7	96	80	60	48	34
			40	2.76	0.100	11.9	9.9	7.4	5.9	4.2	111	93	69	56	40
			50	3.45	0.112	13.3	11.1	8.3	6.6	4.7	124	103	78	62	44
			60	4.14	0.122	14.5	12.1	9.1	7.3	5.2	136	113	85	68	49
00827 13351	80015VS or API-80015 (100 mesh)	Teejet	30	2.07	0.130	15.4	12.9	9.6	7.7	5.5	144	120	90	72	52
			40	2.76	0.150	17.8	14.9	11.1	8.9	6.4	167	139	104	83	60
		Albuz	50	3.45	0.168	19.9	16.6	12.5	10.0	7.1	186	155	116	93	67
			60	4.14	0.184	21.8	18.2	13.6	10.9	7.8	204	170	128	102	73
05876 14384	8002VS or AXI-8002 (50 mesh)	Teejet	30	2.07	0.173	20.6	17.1	12.9	10.3	7.3	192	160	120	96	69
			40	2.76	0.200	23.8	19.8	14.9	11.9	8.5	222	185	139	111	79
		Albuz	50	3.45	0.224	26.6	22.1	16.6	13.3	9.5	248	207	155	124	89
			60	4.14	0.245	29.1	24.2	18.2	14.5	10.4	272	227	170	136	97
05877 14385	8003VS or AXI-8003 (50 mesh)	Teejet	30	2.07	0.260	30.9	25.7	19.3	15.4	11.0	289	240	180	144	103
			40	2.76	0.300	35.6	29.7	22.3	17.8	12.7	333	278	208	167	119
		Albuz	50	3.45	0.335	39.8	33.2	24.9	19.9	14.2	373	310	233	186	133
			60	4.14	0.367	43.6	36.4	27.3	21.8	15.6	408	340	255	204	146
05878 14061	8004VS or AXI-8004 (50 mesh)	Teejet	30	2.07	0.346	41.2	34.3	25.7	20.6	14.7	385	321	240	192	137
			40	2.76	0.400	47.5	39.6	29.7	23.8	17.0	444	370	278	222	159
		Albuz	50	3.45	0.447	53.1	44.3	33.2	26.6	19.0	497	414	310	248	177
			60	4.14	0.490	58.2	48.5	36.4	29.1	20.8	544	453	340	272	194
05879 14386	8005VS or AXI-8005 (50 mesh)	Teejet	30	2.07	0.433	51.4	42.9	32.2	25.7	18.4	481	401	301	240	172
			40	2.76	0.500	59.4	49.5	37.1	29.7	21.2	555	463	347	278	198
		Albuz	50	3.45	0.559	66.4	55.3	41.5	33.2	23.7	621	517	388	310	222
			60	4.14	0.612	72.7	60.6	45.5	36.4	26.0	680	567	425	340	243
05880 14387	8006VS or AXI-8006 (50 mesh)	Teejet	30	2.07	0.520	61.7	51.4	38.6	30.9	22.0	577	481	361	289	206
			40	2.76	0.600	71.3	59.4	44.6	35.6	25.5	666	555	417	333	238
		Albuz	50	3.45	0.671	79.7	66.4	49.8	39.8	28.5	745	621	466	373	266
			60	4.14	0.735	87.3	72.7	54.6	43.6	31.2	816	680	510	408	292

Capacity of the SMA50E (Skid Mount Sprayer)

The SMA50E is only designed to spray up to 8006 tips. Please note that with the unit spraying at max capacity, there will virtually be no agitation back into the tank.

Capacity of the SMA100E (Skid Mount Sprayer)

The SMA100E is only designed to spray up to 8008 tips; you might be able to use 8010 tips and still obtain 40 psi with your system depending on the chemical used. Please note that with the unit spraying at max capacity, there will virtually be no agitation back into the tank.

Calibration

As a tip wears, recalibration may be required. Collect the output from each nozzle for 60 seconds using an accurate measuring cup. Use clear water for all testing. Record the output from each nozzle. Replace nozzles that are more than 5% above or below the average reading or that have a visibly distorted pattern.

Run a speed test in the area to be sprayed. The sprayer must be up to speed before starting the test run. To determine the speed, mark off a distance as found on one of the tables. Operate the sprayer over this distance, carefully noting and recording the time to cover the distance. The speed traveled can be found for the specific distance and time to travel using the tables below.

After the nozzles have been individually checked and matched, the sprayer should be calibrated to determine the correct speed for the desired application volume. To get area covered multiply the width (i.e. BK10 – 10ft(3.04m), BK12 – 12ft (3.66m) x distance).

Table 1: Time in Seconds to Travel Distance of:

	10	25	50	100	200
mph	(ft)	(ft)	(ft)	(ft)	(ft)
1	6.8	17.0	34.1	68.2	136.0
1.5	4.5	11.4	22.7	45.5	90.9
2	3.4	8.5	17.0	34.1	68.2
2.5	2.7	6.8	13.6	27.3	54.5
3	2.3	5.7	11.4	22.7	45.5
4	1.7	4.3	8.5	17.0	34.1
5	1.4	3.4	6.8	13.6	27.3
6	1.1	2.8	5.7	11.4	22.7

Table 2: Time in Seconds to Travel a Distance of:

	10	25	50	100	200
Km/h	(m)	(m)	(m)	(m)	(m)
1	36.0	90.0	180.0	360.0	720.0
1.5	24.0	60.0	120.0	240.0	480.0
2	18.0	45.0	90.0	180.0	360.0
2.5	14.4	36.0	72.0	144.0	288.0
3	12.0	30.0	60.0	120.0	240.0
4	9.0	22.5	45.0	90.0	180.0
5	7.2	18.0	36.0	72.0	144.0
6	6.0	15.0	30.0	60.0	120.0

Note: Tip pressure is usually less than the pressure at the pump. Losses occur in valves, hoses, etc. Always check the flow by the above calibration method.

Assembly & Installation

For safety reasons, please do not try and install your SMA Skid with one person; a minimum of 2 people are required for assembly and installation. Remove skid mount (SMA) and boom (either BK10T or BK12T) from box or packaging. Use safe location on frame for lifting and moving the skid around. Convenient handles are placed on all 4 corners of the SMA100E that are designed for lifting and moving the skid around.

Figure 1. SMA100E



Stand unit up using legs and pins as seen in Figure 1.

Figure 1a. SMA50E



Figure 2. Fold Legs

Lift unit and set in rear of box.

Fold and pin legs for transport as seen in Figure 2 .

Using two people, lift the back of the unit and slowly slide into box of utility vehicle. Remove and fold back legs.

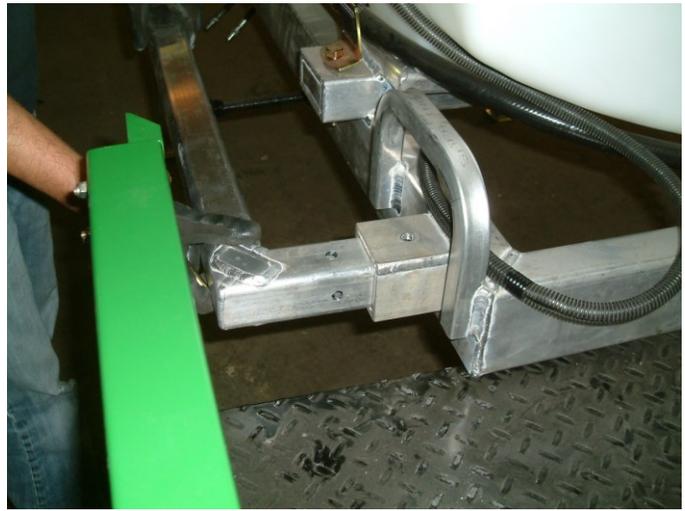


Figure 3. Tank Locks



Center sprayer in box and thread out tank locks so that skid is firmly in box. Use jam nut to hold threaded tank lock in place. Skid frame should be tight against the front of the box.

To hook up the electrical, you will need access to the battery of your work vehicle. The supplied grey power cord will need to be installed on the terminals of the onboard battery. (A weather pak connector is used so that removal of the skid can be made without removing battery terminals).

Figure 4. Battery Hookup

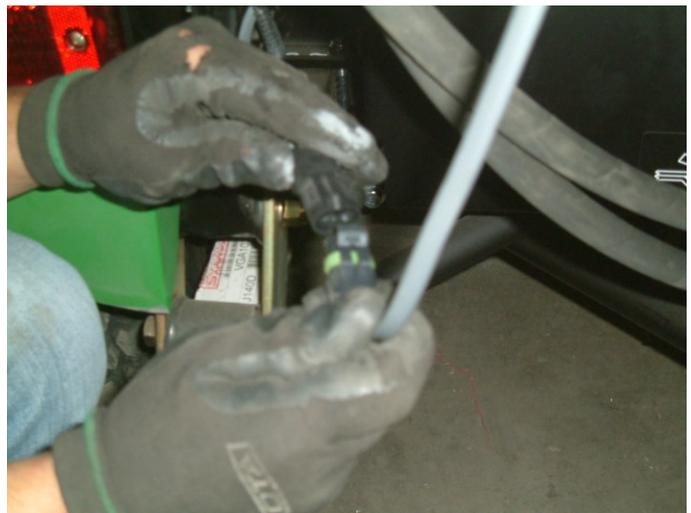


Figure 5. Control box install



SMA100E Pictured

The electric solenoid control box can be mounted at the front of the work vehicle.

SMA50E - Mount switch box in convenient location.

SMA100E

Install wires on the solenoid and regulator as per manufacturer's instructions.

Figure 6. Solenoid install



Figure 7. Hydraulic hookup



Plug in the hydraulic lines to the female outlets underneath your work vehicle

Testing After Assembly

After assembling the spray boom, check for field readiness. Points to consider are:

- Remove the nozzle body caps with the spray tips and the tip screens. Flush the entire system with clear water. Install the tip screens and nozzle caps with spray tips. Check for proper alignment of the nozzle caps. Pressure test all the booms inspecting hose connections, nozzle caps, spray pattern and diaphragm nozzle bodies.
- Move all hinge or swivel joints through the full arc of movement. Check for interference and ease of movement.
- Check all fasteners to see that they are tightened firmly or allowed to pivot if required.
- Calibrate the sprayer.

Last Check

- ⇒ Recheck all assembled parts for completeness and secure connections.
- ⇒ Your sprayer is now ready for a wet test to ensure complete operation.

Operation

Once the Skid frame is installed in the power unit, add clean water to the tank.

IMPORTANT:

Never fill the tank with the unit on its storage legs; the legs are not designed to withstand the water load and will break.

Prior to starting, be sure that the ball valve from the bottom of the tank is OPEN to allow water into the pump (see figure 8 below). Completely open the pressure regulator (figure 9) and start the pump. Slowly close the pressure regulator until the pressure gauge reaches 40psi. Ideal spraying pressure is 40 psi. Once you can obtain +/- 40 psi with just using the control box adjustment, lock the pressure regulator by tightening the bottom ring. You will need to adjust the regulator as you change tip sizes.



Figure 8. Tank drain ball valve



Figure 9. Pressure Regulator

This unit is equipped with Tee Jet brand Triplex nozzle bodies. It is able to switch between 3 different nozzle tips by rotating the head around. Note: Only adjust the spray tips when the unit is not in operation/spraying. Make sure one of the nozzles is pointed towards the ground. If not, a nozzle will impact with the frame when placing the wing in an upright position.

If your unit is equipped with a Honda engine, consult the manual provided for operating instructions.

Note: The pump requires fluid flowing through it for lubrication. Do not run without fluid. The lack of fluid will cause your pump to overheat and prematurely wear.

Breakaway Operation

Should the wing hit a large or fairly heavy object on the field, the wing will pivot back out of the way. Stop and shut off the sprayer immediately. Reset the boom manually after such an incident. Swing the boom forward and the catch mechanism will lock the boom in place. Note: Be aware of all pinch points while the boom is being reset.

General Maintenance

Cleaning

Sprayers need to be cleaned to prevent corrosion and cross contamination of chemicals. Trace amounts of one chemical can react with another or carry over to the next spraying and cause crop damage, especially with pesticides. Long exposures with even small amounts of some chemicals can damage sprayer components either by corrosion or gum deposits. If you spray crops that are very susceptible to injury from the last chemical used (i.e. vegetables, turf, and ornamentals), clean the unit especially well.

Always try to end the day with an empty tank; avoid contamination of water supplies and injury to plants or animals. Do not make puddles that might be accessible to children, pets, farm animals, or wildlife. Flush with clean water preferably after each day's operation. If you plan to use the same material over several days, most chemicals may be kept in the tank overnight; labels on the chemical usually indicate those that may not. Rinse the outside of the sprayer. Surfactants combined with chemicals, when they are compatible, will provide some cleaning action in the sprayer.

Some chemical combinations (especially if oil is used) may produce a putty type paste (buttering out) in the sprayer tank and components; flushing with water after each load may prevent an accumulation. If water alone does not dissolve and remove the buildup, add solvent, kerosene, or other low flammable solvent; allow paste to dissolve, then agitate and flush. Next, flush with detergent and, finally, with clean water. Check with your chemical agent.

Whenever pesticides are changed, or before sprayer storage, clean sprayers thoroughly with a cleaning solution. The solution used depends on the chemical to be removed from the sprayer. Check the chemical label for cleaning instructions.

First flush with water, then add the cleaning solution to the tank and thoroughly agitate before flushing. Always flush with clean water to remove the cleaning solution. Remove nozzle tips and screens; clean them in a strong detergent solution or kerosene, using a soft brush such as an old toothbrush. Never use a metal probe to clean the orifice of a spray tip!

Follow the same safety precautions during cleaning as for applications. Use a respirator, rubber gloves, or other protective gear as may be directed by label instructions.

If a nozzle becomes blocked, turn the sprayer off. Note that the spray lines could still be pressurized; therefore, prior to removing the cap on the nozzle body, proper safety equipment should be worn, (i.e. gloves, eye protection, etc).

Sunshine

Many plastic sprayer parts are degraded by ultra violet light, especially the nozzle flow indicators. Store the sprayer in the shade to extend the length of service.

Winterizing

After the sprayer is thoroughly cleaned, put 2-5 gallons (7-19 litres) of rust inhibitor or antifreeze in the tank prior to the final flushing to help prevent corrosion. As the water is pumped from the sprayer, the antifreeze will leave a protective coating on the inside of the tank, pump, and plumbing. Remove nozzle tips, screens and no-drip valves (if used) and store them in a can of light oil such as diesel fuel or kerosene to prevent corrosion. Close nozzle openings with tape to prevent dirt, insects, mice, or other contaminants from entering.

During the final cleaning, completely check the sprayer. Look at the hoses, clamps, connections, nozzle tips, and screens for needed replacements. Store the sprayer in a reasonably clean and dry building.

Trouble Shooting

Leaking Nozzles

If 1 or 2 tips drip until the line is empty, check:

- For deteriorated diaphragms
- For material under the diaphragm
- For a weak spring
- For a deterioration of the diaphragm sealing surface

If all tips spray for more than 3 seconds after shut off, check:

- To see if the sprayer shut off valve is leaking

If all tips spray for less than 3 seconds after shut off, check:

- For air accumulation in the line
- For swelling of the feed hoses

If the diaphragm leaks out the diaphragm spring body, check:

- For loose spring body
- For ruptured diaphragms
- For misaligned diaphragm
- For broken diaphragm body

Wing Breaks Away Too Easily

Adjust the bolt on the top of the spring; tightening the bolt adds tension making it more difficult to breakaway.

Striping

At end of Shroud – check:

- If tips are spraying at a greater angle than 80°.
- High tip pressure; over 40 psi (2.8 Bar), will cause a wider spray pattern by extending the spray pattern angle.

Between Tips – check:

- Low tip pressure will cause a narrower pattern. Actual tip pressure should be as close to 40 psi (1.7 - 2.8 bar) as possible.
- Check tip screens to see if they are plugged.

Blocked Nozzles

If a nozzle becomes blocked, turn the sprayer off and completely fold up the spray boom (i.e. fold into transport position). Note that the spray lines could still be pressurized. Therefore prior to removing the cap on the nozzle body, proper safety equipment should be worn (i.e. gloves, eye protection, etc).

Drawings and Replacement Parts

Frame Assembly SMA50E

PARTS LIST

ITEM	QTY	PART#	DESCRIPTION
1	1	15353	FRAME SKID ASBY SMA50
2	4	15354	LEG ASBY SMA50E
3	4	15114	TANK LOCK ASSBY TM4/TM6
4	4	00963	NUT, NYLOCK, 1/2NC, PLD
5	4	07618	WASHER FLAT SAE 1/2" PLD
6	4	01319	PIN STL SQ. WIRE LOCK 1/4x2-1/2
7	4	14988	TANK LOCK BOLT SMA
8	8	01313	NUT, 5/8"NC, PLD
9	2	14951	MOUNT ANGLE SMA/BK
10	4	05437	BOLT 3/8"x3 PLD
11	16	07617	WASHER, FLAT, 3/8" PLD SAE
12	8	00956	NUT, NYLOCK, 3/8NC, PLD
13	2	05567	WASHER LOCK 1/4 PLD
14	2	14509	BOLT M6-1.00 x 12MM
15	1	01152	SCREW MACH. #10-24x3/4, TRUSS
16	5	01153	NUT, NYLOCK #10-24 PLD
17	4	05385	SCREW MACH. #10-24x1.5, TRUSS
18	5	01183	WASHER FLAT #10
19	1	07789	CLAMP RUBBER INSULATED, 1"
20	4	05432	BOLT, 3/8"x1.5", PLD
21	4	07619	WASHER, 5/8" SAE, PLD
22	4	01150	WASHER LOCK 5/8 PLD

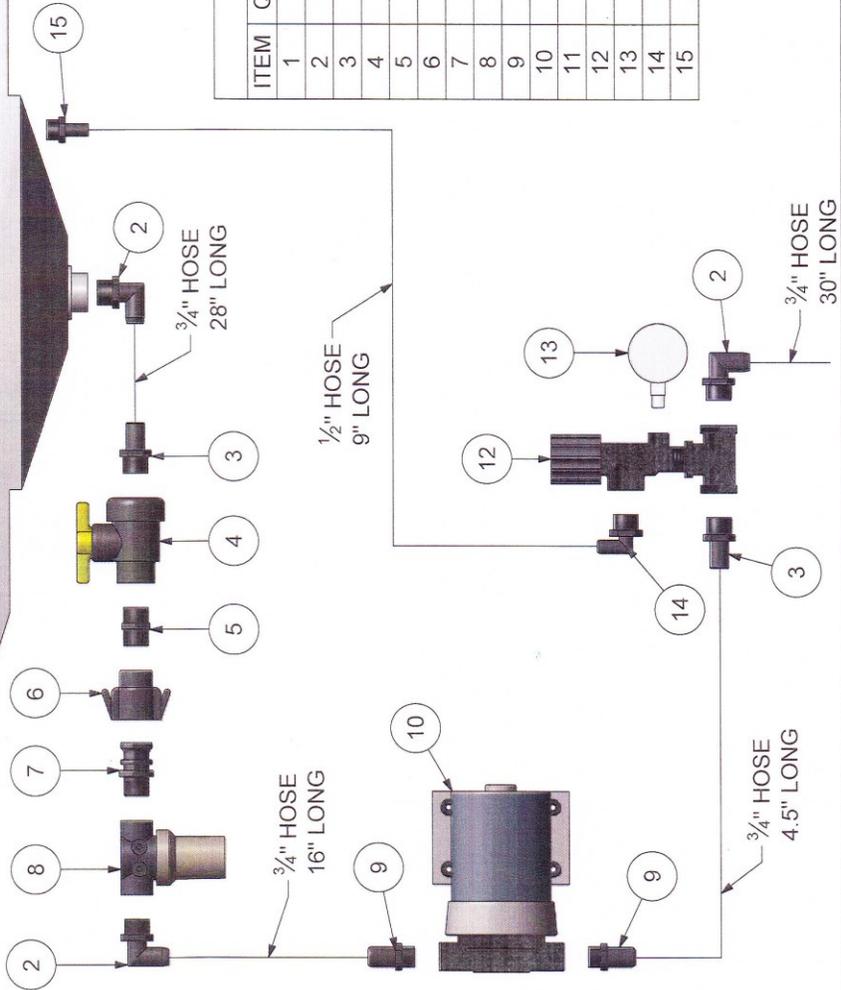
ROGERS SPRAYERS INC.

DESIGN:	MERVIN BILINSKI
DATE:	06/05/2015
PROJECT:	FRAME ASSEMBLY SMA50E
SKID MOUNTS:	DWG NO 15355
REVISION #:	
SCALE:	BEST FIT
MATERIAL:	
SIZE:	A

Plumbing Assembly SMA50E

LID ASSEMBLY PART #11412
INCLUDES RING

1



PARTS LIST

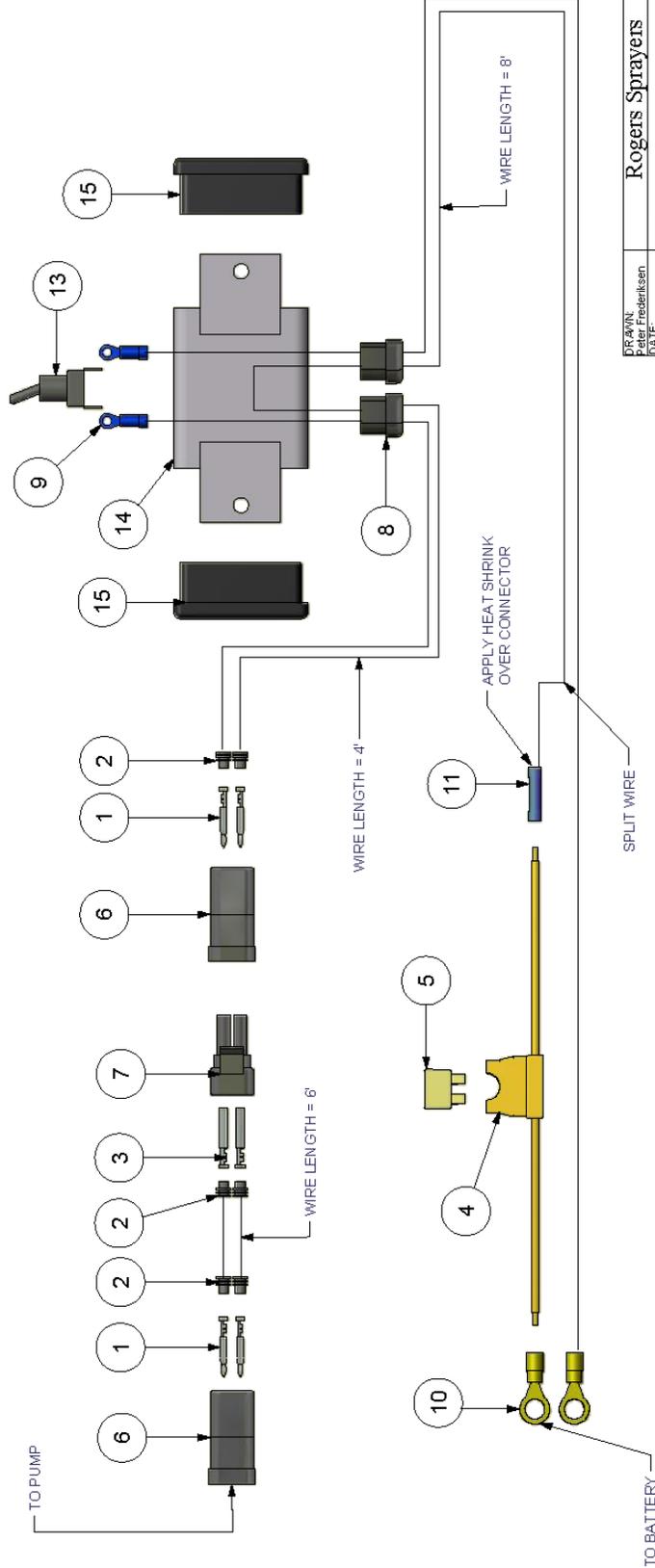
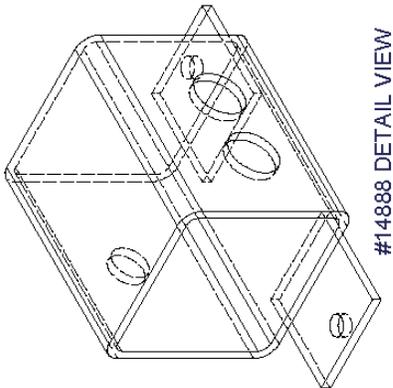
ITEM	QTY	PART#	DESCRIPTION
1	1	15076SM	TANK RECT 50 USG, SMA50E
2	3	01245	FTG POLY ELB 3/4MNPTX3/4HB
3	2	01349	FTG POLY ADPT 3/4MNPTX3/4HB
4	1	01250	VALVE BALL POLY 3/4FPT
5	1	01193	FTG POLY NIPPLE 3/4MNPT/MNPT
6	1	14521	FTG CAMLOCK 3/4FCAM x 3/4FNPT
7	1	14097	FTG CAMLOCK 3/4MNPTX3/4MCM
8	1	14027	STRAINER LINE 3/4 COMPACT W/MT
9	2	01086	FTG POLY ADPT 1/2MNPTX3/4HB
10	1	14499	PUMP 12V DEL 7870 SERIES
11	1	05892	POLY FTG TEE 3/4" F/F/F
12	1	14453	REGULATOR PRESSURE NYLON, 3/4" SS
13	1	01281	PRESSURE GAUGE
14	1	01243	FTG POLY ELB 3/4MNPTX1/2HB
15	1	05527	FTG POLY ADPT 1/2MNPTX1/2HB

DRAWN MERVIN BILLINSKI	ROGERS SPRAYERS INC.
DATE 1/28/2013	TITLE PLUMBING ASSEMBLY SMA50E
PLUMBING	DWG NO 15356
REVISION #	SCALE BEST FIT
	MATERIAL A
	SIZE A

Electrical Assembly SMA50E

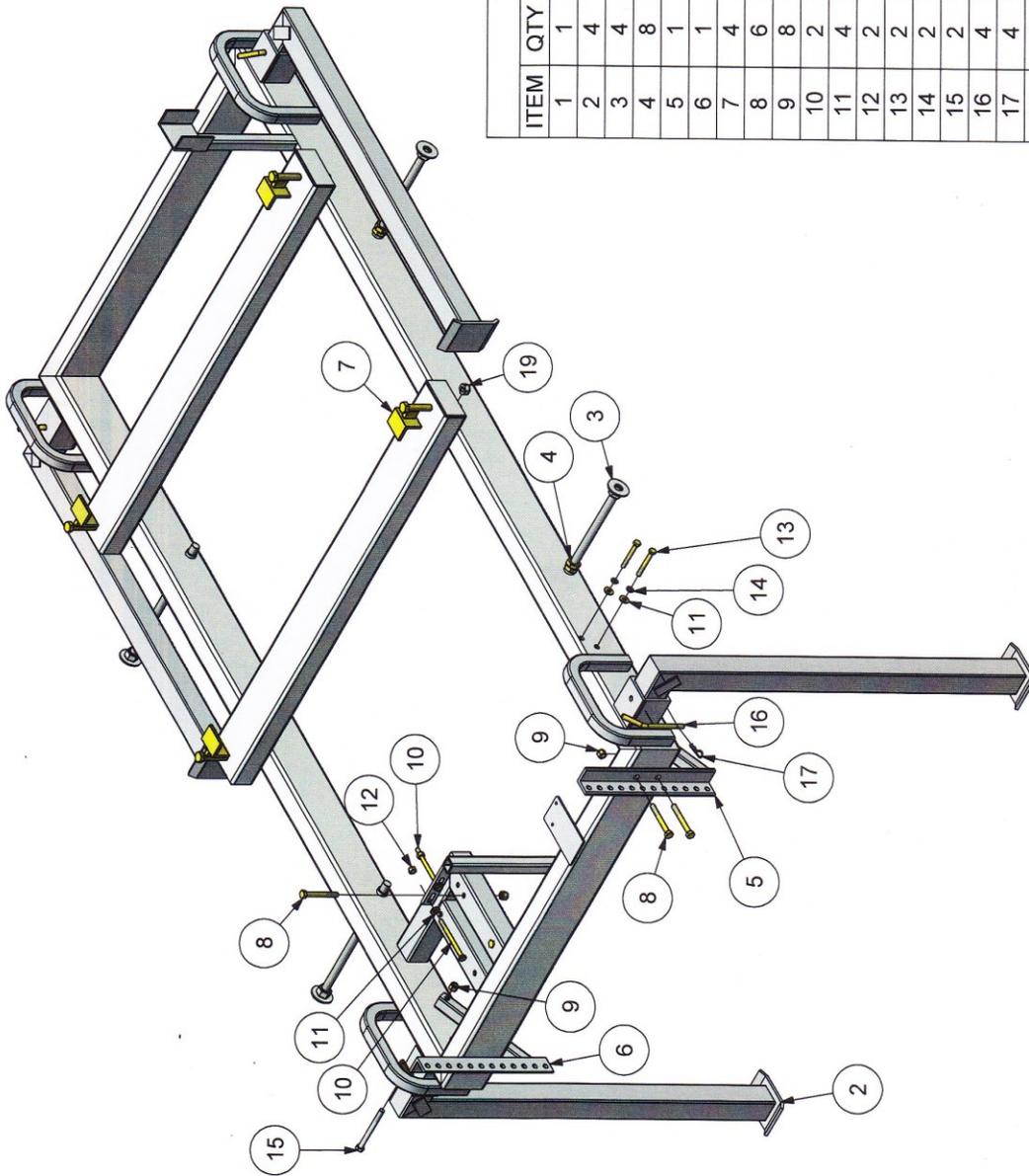
Parts List

ITEM	QTY	PART#	DESCRIPTION
1	4	01215	TERMINAL 14-16 GAGE M
2	6	01216	SEAL SILICONE GREY, 14-16 Ga
3	2	01219	TERMINAL 14-16 GAGE F
4	1	01268	FUSE HOLDER INLINE BLADE 12Ga
5	1	01271	FUSE BLADE 20 AMP 12V
6	2	01274	CONNECTOR WEATHER-PAK 2M
7	1	01276	CONNECTOR WEATHER-PAK 2F
8	2	01278	STRAIN RELIEF 1/2" SJ CABLE
9	2	01429	CONNECTOR RING 14-16Ga x .170
10	2	04658	CONNECTOR RING 10-12Ga x 3/8
11	1	09323	CONN BUTT 14-16 Ga
12	1	12297	HEAT SHRINK 1/2" x 4"
13	1	13324	SWITCH TOGGLE 15A/120V MINI
14	1	14888	BOX TOGGLE CTR ACT ASSY
15	2	15017	PLUG PLASTIC 2.5" SQ (.125w TUBE)



DRAWN	Reber/ksen	Rogers Sprayers	
DATE	03/01/2012	TITLE	T/M WIRING HARNESS
PROJECT	ELECTRICAL	DWG NO	15088
REVISION #		SCALE	MATERIAL
		SIZE	

Frame Assembly SMA100E



PARTS LIST

ITEM	QTY	PART#	DESCRIPTION
1	1	14980	SMA 100/150 FRAME ASBY
2	4	14985	LEG ASSEMBLY SMA100/150
3	4	14988	TANK LOCK BOLT SMA
4	8	13709	NUT, JAM 5/8NC, Pld
5	1	15054	MOUNT ASSEMBLY SMA, L
6	1	15055	MOUNT ASSEMBLY SMA, R
7	4	14993	TANK LOCK SMA100/150E
8	6	05437	BOLT 3/8"x3 PLD
9	8	00956	NUT, NYLOCK, 3/8NC, Pld
10	2	05451	BOLT 5/16NCx4 Pld
11	4	15247	WASHER FLAT 5/16 Pld
12	2	00969	NUT NYLOCK 5/16NC, Pld
13	2	15011	BOLT 5/16NCx2-1/2 Pld
14	2	05570	WASHER LOCK 5/16 PLD
15	2	05440	BOLT, 3/8"x4", PLD
16	4	14999	SMA LEG PIN
17	4	12361	PIN, HITCH, 3/32" x 1.5"
19	4	00963	NUT, NYLOCK, 1/2NC, Pld

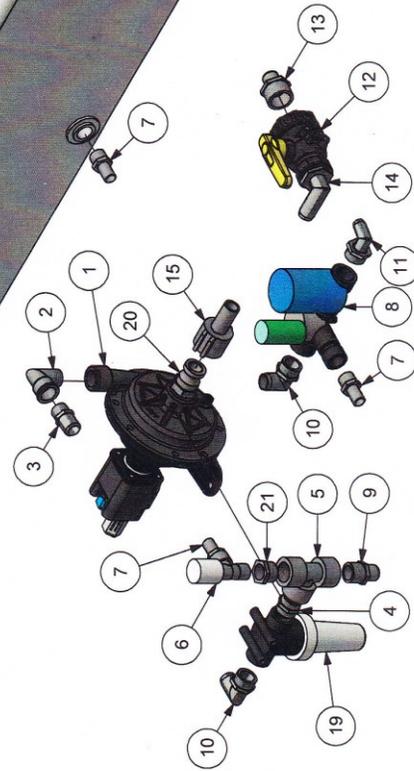
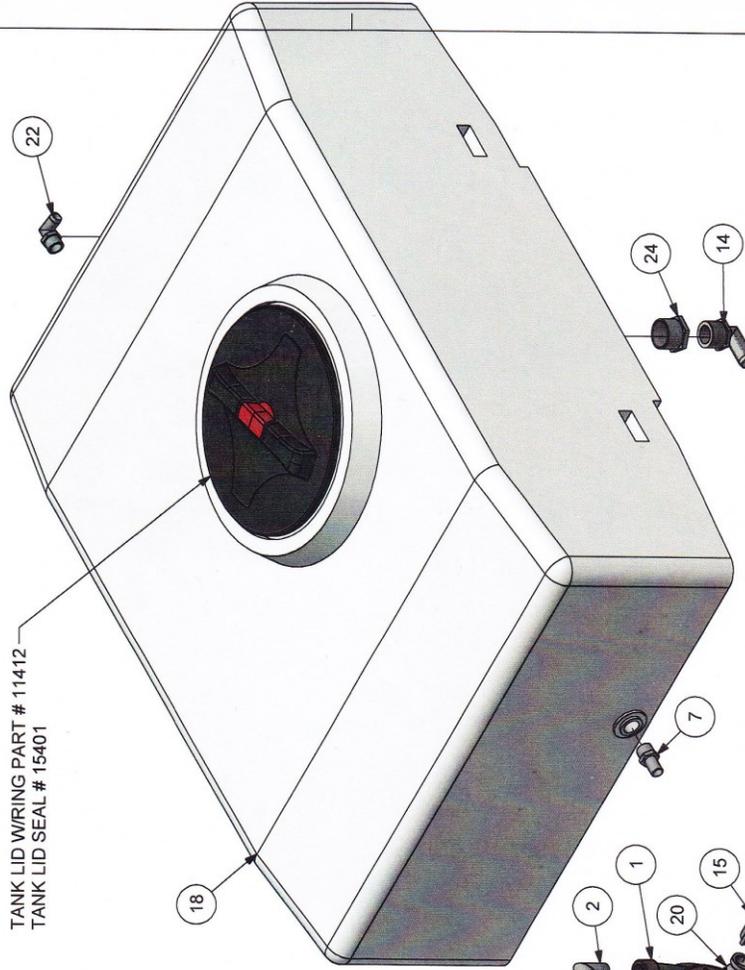
DESIGNED BY:	MERVIN BILINSKI
DATE CREATED:	22/09/2014
PROJECT:	SKID MOUNT AL(SMA), 100USG Elec
SMA SERIES:	DWG NO
DATE CHECKED:	SMA100E
SCALE:	BEST FIT
MATERIAL:	
SIZE:	A

ROGERS SPRAYERS INC.

Plumbing Assembly SMA100E

PARTS LIST		
ITEM	QTY	PART# DESCRIPTION
1	1	14884 PUMP CENT/HYD POLY ASBY
2	1	01076 FTG POLY ELB ST 3/4MNPTX3/4FNPT
3	1	05531 FTG POLY ADPT 3/4MNPTX1HB
4	1	01188 FTG POLY NIPPLE 1MNPT/MNPT
5	1	05887 FTG POLY TEE 1NPT F/F/F
6	1	14413 VALVE THROTTLE POLY 3/4"
7	3	01349 FTG POLY ADPT 3/4MNPTX3/4HB
8	1	14910 CONTROL SYSTEM 1 SOLENOID ELEC.
9	1	01194 FTG POLY ADPT 1MNPTX1HB
10	2	01230 FTG POLY ELB 1MNPTX1HB
11	1	01231 FTG POLY ELB 1MNPTX3/4HB
12	1	00258 VALVE BALL POLY 1-1/4 FNPT
13	1	01198 FTG POLY ADPT 1.25MNPTX1HB
14	2	01233 FTG POLY ELB 1-1/4MNPTX1HB
15	1	14093 FTG CAMLOCK 1FCAM X1HB
18	1	15084SMA TANK RECT 100 USG. GREY SMA
19	1	01253 STRAINER LINE 1IN FPT POLY GLASS
20	1	08158 FTG CAMLOCK 1MCAM X1MNPT
21	1	05683 FTG POLY RDCR 1MNPTX3/4FNPT
22	1	01245 FTG POLY ELB 3/4MNPTX3/4HB
24	1	05685 FTG POLY RDCR 1.5MNPTX1.25FNPT

TANK LID W/IRING PART # 11412
TANK LID SEAL # 15401



SOLENOID ASSEMBLY (14910)
SOLENOID REPLACEMENT PART # 04664
REGULATOR REPLACEMENT PART # 04634

DRAWN: MERVIN BILINSKI		ROGERS SPRAYERS INC.	
DATE CREATED: 25/09/2014		TITLE: SMA100E PLUMBING ASSEMBLY	
DRAWN BY: MERVIN BILINSKI		DWG NO: 15079	
DATE CHECKED:		SCALE: 1:10	
		MATERIAL:	
		SIZE: A	

Rogers Sprayers Inc. (RSI)
141 - 105th Street East
Saskatoon, SK S7N 1Z2 Canada



Tel.: (306) 975-0500 or (888) 975-8294
Fax: (306) 975-0499
Email: info@rogerssprayers.com

ROGERS SPRAYERS INC OWNER WARRANTY AGREEMENT

Windfoil Drift Containment Spray Systems (DCSS) are warranted to be free of factory defects under normal and intended use for a period of one (1) year from date of purchase to the original purchaser. Equipment must be setup in accordance with factory instructions and operated, maintained and used in accordance with the operator's manual. Equipment used for rental has a warranty period of forty five (45) days. Any customization or modifications to the original equipment voids warranty immediately.

RSI reserves the right not to warranty any items that are not directly manufactured by RSI. Such components need to be returned to the factory for inspection and tested by either RSI or the original manufacturer for defects. Examples of these parts include actuators, engines, pumps and electrical systems.

All warranty Claims must be pre-authorized by the factory!

To obtain warranty, all defective parts must be returned to the factory; in some cases, location of part might require only photo of defective part. RSI must be contacted to determine which route is required. RSI through its designated dealer or factory appointed representative will repair or replace, at its option, any or all parts that are proven to be defective free of charge.

RSI DOES NOT pay or reimburse for any travel time or investigation time to determine the defective part. Warranty labor will be based on the time required for RSI to replace only the part. Warranty labor rates and replacement times will be assessed yearly and will be included in a labor replacement sheet.

This warranty does not apply to damage caused by misuse, accident, acts of god, and/or operation without proper servicing. RSI will not be responsible for consequential damages; its liability is limited to replacement of parts.

Standard wear components (see list) such as belts, nozzles, screens, bearings, wheels, flow indicator bodies or flow indicator parts are only warranted for 30 days after original purchase.

RSI makes no other expressed, implied or statutory warranty; nor is anyone authorized to make any on our behalf.

Complete your Warranty Registration online at www.rogerssprayers.com

The warranty registration is found on the Contact page of our website. The warranty registration **MUST** be filled out completely and submitted to RSI to activate the warranty. If you would prefer, a printable copy is also available online.

It is our intention to manufacture durable, user-friendly products. Any suggestions you have as to how we may improve our equipment are greatly appreciated.



ROGERS SPRAYERS INC.

141 - 105th Street East
Saskatoon, SK S7N 1Z2
Canada

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Web: www.rogerssprayers.com