



57L & 95L SPOT SPRAYER

OPERATORS HANDBOOK



SVSM0057L0083
SVSM0095L0083



WARNING**IMPROPER USE OR FAILURE TO FOLLOW INSTRUCTIONS CAN RESULT IN EXPLOSIVE FAILURE CAUSING SERIOUS EYE OR OTHER INJURY.**

FOR SAFE USE OF THIS PRODUCT YOU MUST READ AND FOLLOW ALL INSTRUCTIONS. DO NOT LEAVE SPRAYER IN THE HOT SUN. HEAT CAN CAUSE PRESSURE BUILD-UP RESULTING IN POSSIBLE EXPLOSION. DO NOT STORE OR LEAVE SOLUTION IN TANK AFTER USE. ALWAYS WEAR GOGGLES, GLOVES, LONG SLEEVE SHIRT, LONG PANTS AND FULL FOOT PROTECTION WHEN SPRAYING.

DO NOT ATTEMPT TO MODIFY THIS SPRAYER. REPLACE PARTS ONLY WITH MANUFACTURER'S ORIGINAL PARTS.

NEVER SPRAY FLAMMABLE, CAUSTIC, ACIDIC, CHLORINE, BLEACH, PETROLEUM BASED OR OTHER CORROSIVE SOLUTIONS OR HEAT, PRESSURE, OR GAS PRODUCING CHEMICALS. ALWAYS READ AND FOLLOW CHEMICAL MANUFACTURER'S INSTRUCTIONS BEFORE USE WITH THIS SPRAYER AS SOME CHEMICALS MAY BE HAZARDOUS WHEN USED WITH THIS SPRAYER.

ENSURE THE WIRING HARNESS DOES NOT BECOME PINCHED OR DAMAGED IN ANY WAY. THIS MAY DAMAGE THE PUMP OR CAUSE THE WIRING HARNESS TO OVERHEAT, RESULTING IN MELT DOWN OR FIRE.

SOME CHEMICALS WILL DAMAGE THE PUMP VALVES IF ALLOWED TO SOAK UNTREATED FOR A LONG PERIOD OF TIME. ALWAYS FLUSH THE PUMP WITH WATER AFTER USE. DO NOT ALLOW CHEMICALS TO SIT IN PUMP FOR EXTENDED TIMES OF IDLENESS. FOLLOW CHEMICAL MANUFACTURERS INSTRUCTIONS ON DISPOSAL OF ALL WASTE WATER FROM THE SPRAYER.

ALWAYS OBEY VEHICLE MANUFACTURER INSTRUCTIONS REGARDING LOADING AND OPERATION OF YOUR VEHICLE. SERIOUS INJURY OR DEATH CAN OCCUR FROM IMPROPER USAGE. RAPID SPRAY ACCEPTS NO LIABILITY FOR THE UNSAFE OPERATION OF THIS UNIT.

CAUTION

THIS SPRAYER HAS BEEN DESIGNED TO BE ATTACHED TO STABLE SURFACES.

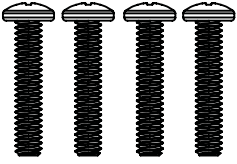
INTRODUCTION

The purpose of this manual is to assist you in the assembly, operation and maintenance of your sprayer or accessories. Please read through this manual completely to fully understand how to operate and maintain your equipment. This product has been manufactured to provide years of dependable service, proper operation and maintenance will ensure its dependability. Keep your manual in a safe, convenient place for future reference. Always mention the model and part number in any correspondence.

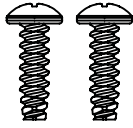
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NOT TO SCALE

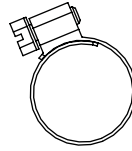
SPRAYER HARDWARE



Phillips Head Screw
H-1



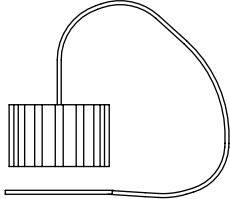
Phillips Head Screw
H-2



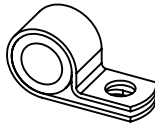
Worm Gear Clamp
H-3



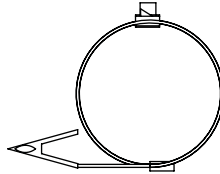
Wand Clamp
H-4



Drain Cap w/ Lanyard
H-5

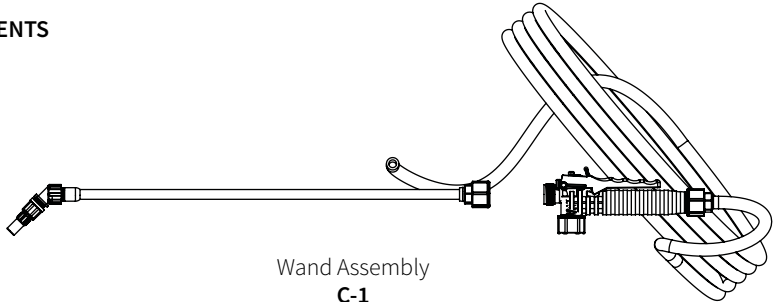


Loop Clamp
H-6

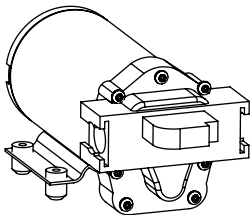


Lead Wire Assembly
H-7

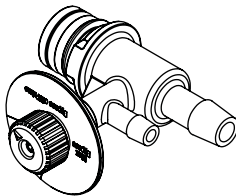
SPRAYER COMPONENTS



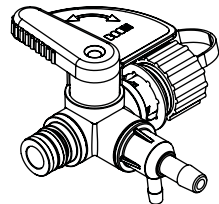
Wand Assembly
C-1



Pump
C-2



External Bypass
C-3

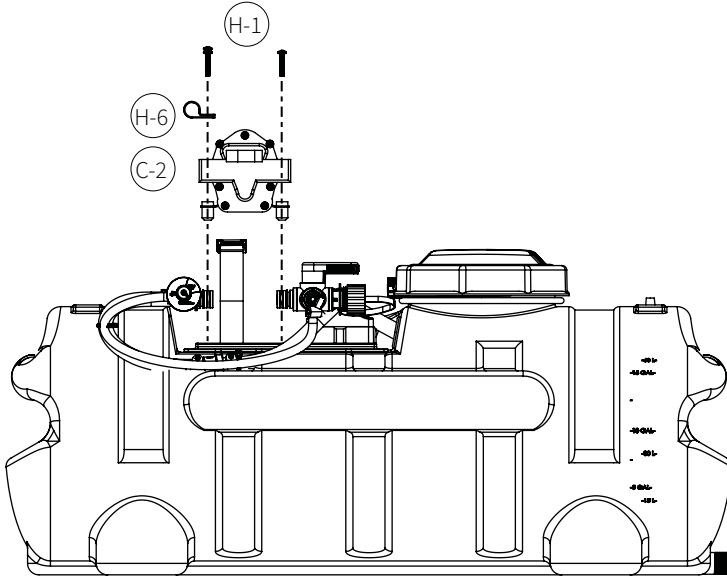


Flow Director Valve
C-4

NOTE: not all components shown may be needed on your model.

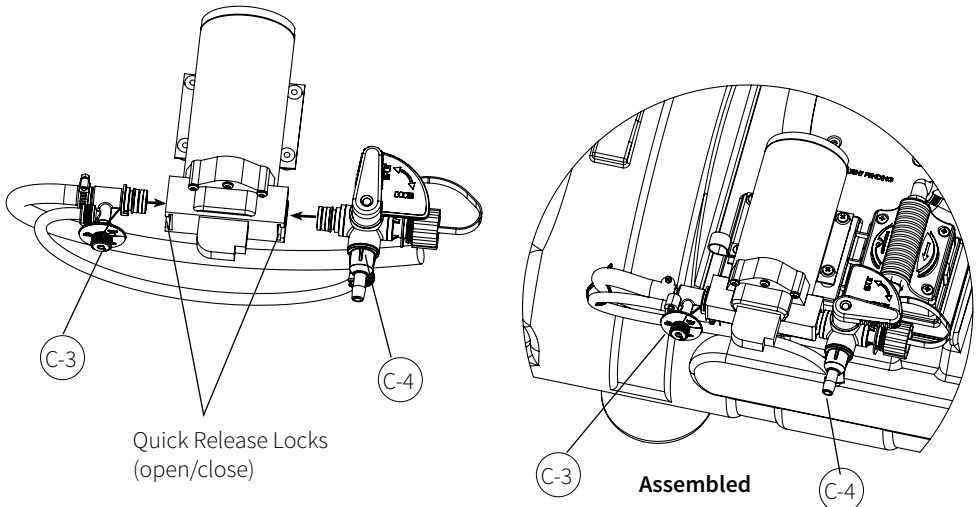
ASSEMBLE PUMP TO TANK

Using H-1 screws, fasten pump (C-2) to face plate with loop clamp (H-6) inserted between pump and front left screw. **NOTE:** Do not over-tighten screws.



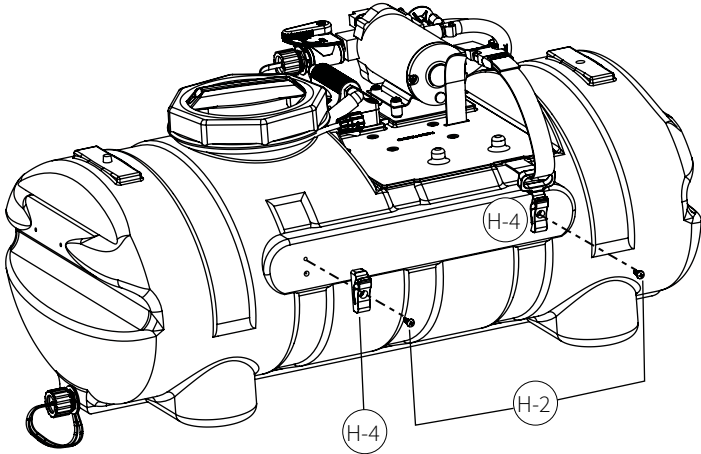
INSTALL EXTERNAL BYPASS AND FLOW DIRECTOR VALVE

Install external bypass (C-3) and flow director valve (C-4) into pump quick release ports; engage quick release locks. Note: to ensure a good seal, a tight fit is used; significant hand force may be necessary to install bypass fittings.



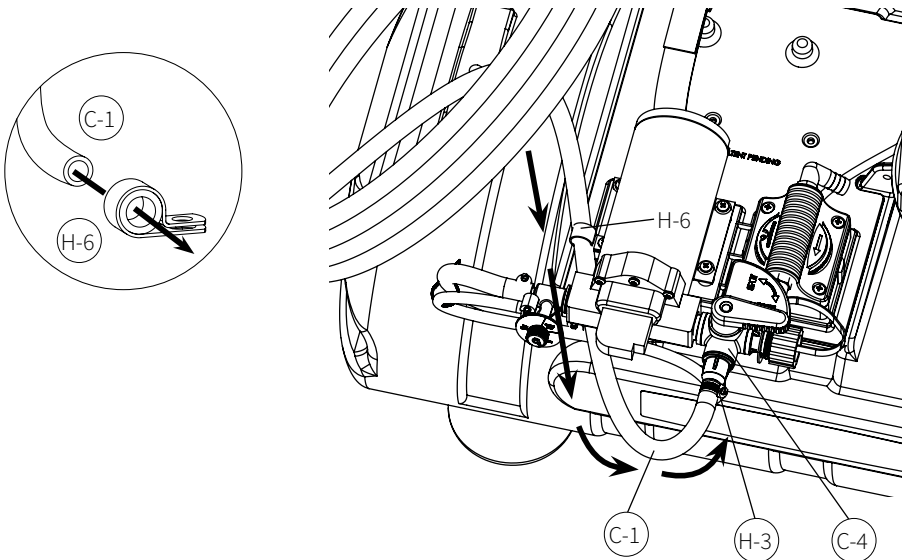
INSTALL WAND CLIPS

Install wand clip (H-4) and wand clip from nylon strap (as shown above) with screws (H-2). Note: The wand clip shown to the right can be found hanging from the nylon strap.



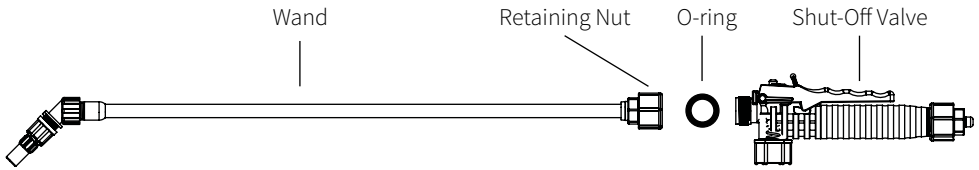
ATTACH HOSE TO DIVERTING VALVE

Guide wand hose (C-1) through loop clamp (H-6) and attach hose (C-1) to diverting valve (C-4) with hose clamp (H-3). Tighten clamp (H-3).



WAND ASSEMBLY

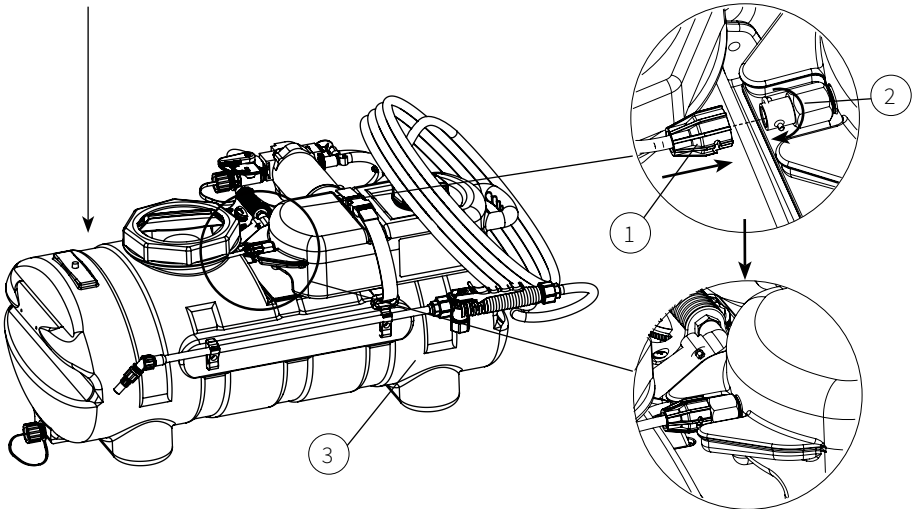
Make sure the o-ring is installed on the end of the wand. Insert the wand into shut-off valve. Turn and tighten the retaining nut clock-wise onto the shut-off valve.



ATTACH CHEMICAL CONCENTRATE TANK

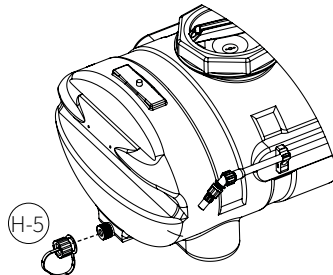
Before chemical tank installation, attach supplied ratchet straps to strap slots on tank. Securely fasten assembly to ATV. NOTE: not all models included ratchet straps.

Attach the mix valve's suction tubing (1) to the chemical concentrate tank's quick release port (2). Secure chemical concentrate tank with nylon webbing (3).



ATTACH CHEMICAL CONCENTRATE TANK

Install cap lanyard around drain plug. Screw drain cap (H-5) on drain plug.



Assembled

SPRAYER COMPONENTS

1 MIX SETTING VALVE

The mix setting valve allows the user to set the desired chemical mix ratio. It is calibrated to a specific gravity of water. See setting chart for each settings mix value in ml/L. Due to chemical viscosity, actual mix ratios may vary. Refer to chemical's recommended mix ratios when choosing what setting to use.

Note:

- Use water based chemicals only.
- When not spraying set mix ratio to zero.

2 WAND / BOOM SELECTOR VALVE

The wand/boom selector valve allows the user to select the flow to either be diverted to the wand assembly or the boom.

3 BYPASS / PRESSURE VALVE

The bypass/pressure valve allows the user to adjust the wand's pressure. During low flow applications it allows flow to be diverted to eliminate pump cycling.

How to use: Start with the valve set to "Bypass off". When the pump begins to cycle; between on and off, turn the valve slowly counter clockwise until the cycling stops. The valve setting should fall in the "optimal" flow region.

Note:

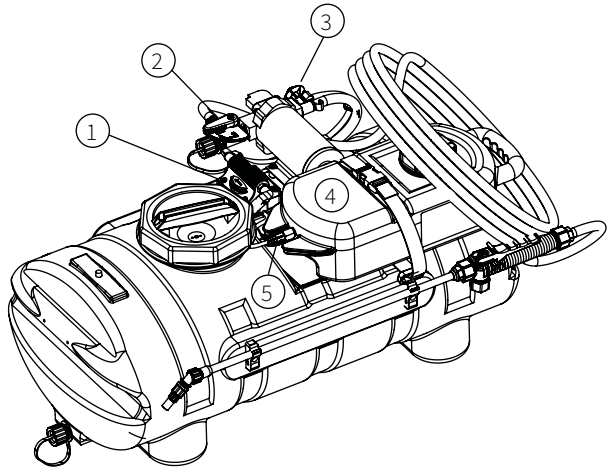
- If the bypass is used beyond the "optimal flow" region the pump may not shut off as the bypass doesn't allow it to build enough pressure to turn the pump off.
- If too much air is introduced into the system from changing chemicals or running the water or chemical tanks dry it may be necessary to switch the bypass valve to "Bypass off/Prime" in order to prime the unit.

4 CHEMICAL CONCENTRATE TANK

The chemical concentrate tank is where the chemical concentrate is held. To install the tank, insert the tank onto the faceplate's alignment feet and secure with the nylon webbing and snap latch.

5 CHEMICAL TANK QUICK RELEASE COUPLING

The chemical tank quick release coupling allows the user to quickly and cleanly change out chemical tanks. When disengaged the tank's quick release automatically closes to stop spillage. To use, align the male locking pins with the female nut's slots. Press female nut over the male nut and turn clockwise to lock in place. To disengage the quick release coupling, slightly push the female nut in, turn counterclockwise and remove.



OPERATING INSTRUCTIONS

1. Fill both water and chemical tanks.
2. Set Mix Ratio Valve to “0” (1) by turning the adjustment wheel.
3. Set Wand/Boom selector valve to “Wand” (2).
4. Set Bypass to “Bypass Off/Prime” (3) by turning the selector knob.
5. Turn system on by pressing wiring harness in-line switch to “on” (not shown).
6. Prime: using the wand spray until all air has been purged from the system. If the bypass was set to “off” the pump will begin to cycle on and off.
7. Adjust bypass until the pump stops cycling. Do not bypass more than needed as this will cause the pump to continuously run.
8. Set the desired mix ratio setting and begin spraying.
9. Cleaning between chemical types: While spraying on mix setting 7 disconnect the concentrate tank's quick release. This allows chemical in the line to quickly be flushed. If necessary, flush with water by submerging the chemical line into the water source. Once adequately flushed the new concentrate tank may be installed. With the mix valve set to 7 and the bypass set to “Bypass off/Prime” prime the system. Once primed, re-adjust the bypass valve and you're ready to spray.

SETTING GUIDE	
SETTING	ML. PER LITRE
0	0ml / L
1	8ml / L
2	15ml / L
3	25ml / L
4	30ml / L
5	40ml / L
6	80ml / L
7	120ml / L

Chemical mix ratios can easily be adjusted in between or lower than the listed 0-7 settings by pre-diluting your concentrate.

For example, if you wish to spray at 15ml/L, simply mix your chemical 50:50 with clean water before placing it in the concentrate tank.

Divide the desired rate by the closest higher rate (ml/L) value from above guide to determine the % of chemical in concentrate tank.

$$\frac{\text{Desired Rate (ml/L)}}{\text{Closest higher rate (ml/L)}} \times \frac{100}{1} = \begin{array}{l} \% \text{ Chemical to} \\ \text{Water for} \\ \text{Concentrate} \\ \text{Tank} \end{array}$$

CAUTION

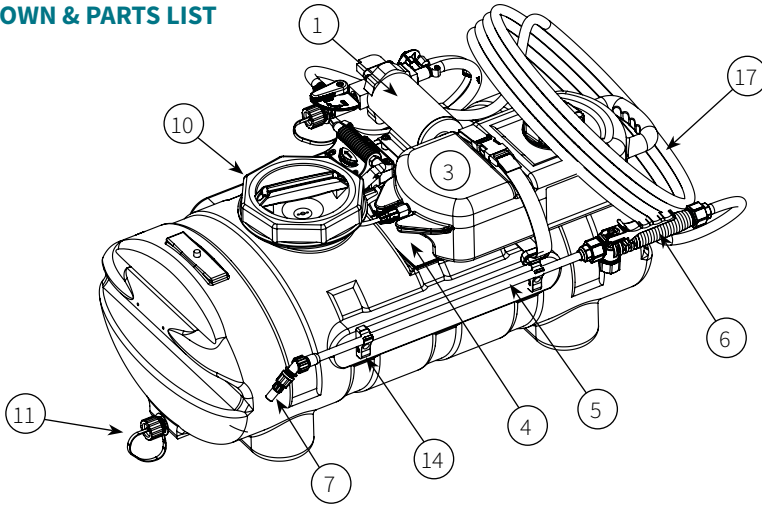
ALWAYS FOLLOW CHEMICAL MANUFACTURER'S INSTRUCTIONS FOR PROPER USE, STORAGE AND DISPOSAL.

ALWAYS FOLLOW STATE/LOCAL CODES FOR PROPER HANDLING, STORAGE AND DISPOSAL OF CHEMICAL.

TROUBLESHOOTING

CONDITION	CHECK
Pump won't start	Correct voltage (12 - 13V) and electrical connections
	Fuse or breaker
	Pressure switch operation
	Rectifier or motor for open or grounded circuit
	Locked drive assembly
	Correct voltage at switch
Pump will not prime (No discharge with motor running)	Debris in strainer
	Restriction (kinks) in inlet / outlet tubes
	Debris / swelling in inlet / outlet valves
Pump output spits and sputters	All hose clamps are adequately tight
	No holes in tubing
	There is adequate liquid in both the water and the chemical tank
	Adjust external bypass to optimise spray patten
Pump will not shut-off (output line closed and no leaks)	Air trapped in outlet line or pump head
	Correct voltage to pump
	Debris in pump inlet / outlet valves
	Loose drive assembly or pump head screws
	Pressure switch operations / adjustments
Lead from pump head or switch	Loose screws at switch or pump head
	Switch diaphragm ruptured or pinched
	Punctured diaphragm if fluid is present

BREAKDOWN & PARTS LIST



REF NO.	PART NO.	QTY	DESCRIPTION
1	APDR0083Q	1	Pump Assembly, 8.3L/min
2	RPN00016N	1	Pump Hardware Kit
3	PTCM0005L	1	Tank Assembly, 5L
3	PTCM0007L	1	Tank Assembly, 7.5L
4	6-8272	1	Faceplate, 57L
4	6-8273	1	Faceplate, 95L
5	6-8219	1	Extension Assembly
6	RP00098N	1	Shut-Off Assembly, cushion grip
7	6-8093	1	Nozzle Kit, Poly
8	RP00125N	1	Suction Hose Assembly
9	RP00007N	1	Inlet Strainer
10	6-8146-1	1	Tank Lid & 6" Filter Basket
11	RP00017N	1	Drain Plug Kit
12	CFCW21016MM	2	Worm Gear Clamp
13	CYGE15	1	Rubber Grommet
14	CHCLP12MMX2	2	Wand Clip, pair
15	6-8274	1	Wand Clip, Tie Down
16	ATCWL02412VSA	1	Lead Wire Assembly w/ Switch
17	CUY30010MMX6	1	4.5m Hose, Reinforced

SPRAY & PUMP FAQ

1. Why does the pump not run all the time?

This is an on- demand pump and only runs with flow; spray wand, by-pass, spray tips or leak in system.

2. Why does the pump surge while using the spray wand?

Low flow/high pressure may cause the pump to surge (or cycle). This could happen when the spray wand is adjusted for a small or fine spray pattern. To overcome, adjust the nozzle for higher flow.

3. How do I adjust the pressure?

Pressure can only be adjusted by adjusting the nozzle.

4. My pump quit and will not restart - what should I check?

Check all electrical connections. Ensure switch is in the on position. Check in-line fuse and/or fuse in car adapter end. Ensure correct voltage (12-13 volt).

5. Low flow or no flow at all - what should I check?

Check for a clogged suction hose and/or suction strainer. Often you will need to clean the suction strainer. Check for proper voltage.

6. Is there a fuse for the sprayer?

Yes, either an in-line fuse, a fuse located in the car adapter housing or both.

7. What size fuse should I use as a replacement?

7.5 amp

8. What is the range of the spray wand?

10m

9. How should I clean the tank after use?

- Rinse tank thoroughly with water only, empty, refill with water.
- Empty sprayer by spraying no less than 1 minute to rinse out line. The remaining water can be drained per the drain plug.
- Store sprayer tank upside down, in a warm dry location.

10. Can the spray tip on the wand be replaced with a different type of tip?

Yes, however your wand comes with a #18 tip which is standard. Brass tips generally produce better spray patterns than plastic.

11. Each time I turn on the pump my fuse blows.

- Excessive voltage
- Improper adjustment of the pressure switch
- Damaged wiring harness

12. Pump continues to run and surge when not spraying

Ensure your system has no leaks. Check by-pass valve to ensure it's not letting too much fluid to bypass. If too much fluid is bypassed, the system is unable to build enough pressure to shut-off.



See <https://www.rapidspray.net/resources/warranty-registration> to register your Rapid Spray product for warranty or call 1800 011 000.



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