

INSTRUCTIONS FOR ASSEMBLY, OPERATION, SERVICING & STORAGE

SOFT WASH SPRAYER



320.340.6464

www.VALLEYIND.com

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INTRODUCTION

Congratulations on the purchase of your Soft Wash Sprayer. This sprayer has been manufactured to provide years of dependable and efficient use in spraying surfaces with soft wash chemicals such as bleach.

IMPORTANT NOTE:

THE PURPOSE OF THIS MANUAL IS TO ASSIST YOU IN THE ASSEMBLY, OPERATION, SERVICING AND STORAGE OF YOUR SPRAYER. PLEASE READ THROUGH THIS MANUAL COMPLETELY TO FULLY UNDERSTAND HOW TO OPERATE AND MAINTAIN YOUR EQUIPMENT. KEEP YOUR MANUAL IN A SAFE, CONVENIENT PLACE FOR FUTURE REFERENCE. ALWAYS MENTION THE MODEL AND PART NUMBER IN ANY CORRESPONDENCE.

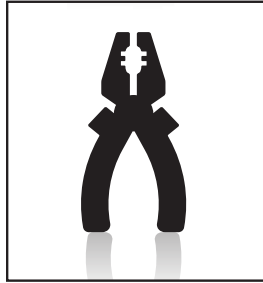
WARRANTY

Sprayers sold shall be warranted from defects in workmanship and material when used within the service and scope for which they were designed for a period of two years from date of purchase. Warranty covers replacement parts **ONLY**.

Contact our Customer Support for warranty parts at 320-340-6464. **DO NOT RETURN PRODUCT TO YOUR DISTRIBUTOR/DEALER.** Please have original proof of purchase, model number of sprayer and part number of part from illustrated parts breakdown in this manual.



1/2" SOCKET WRENCH



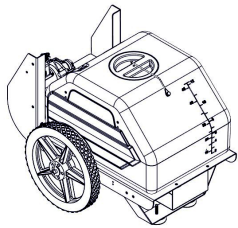
PLIERS

CLOSELY INSPECT ALL CONTENTS IN THE SHIPPING CARTON

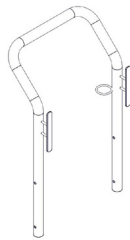
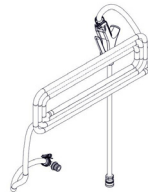
- If you have damaged components:
Contact the freight company that delivered the unit to file a claim.
- If you have missing components:
Contact us at 320-340-6464.

INCLUDED HARDWARE

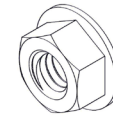
SPRAYER COMPONENTS



Sprayer Base (1)

Handle (1)
32-100175

Spray Gun Assembly (1)

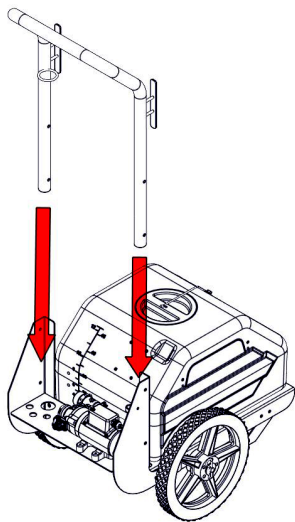
1/2" Carriage Bolts (4)
33-100114Flange Nuts (4)
33-100138Battery Charger (1)
33-100550-US

1. PARTS



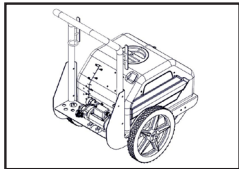
TOOLS

None



Install Handle to Sprayer Base. Make sure holes on Handle line up with holes on Sprayer Base.

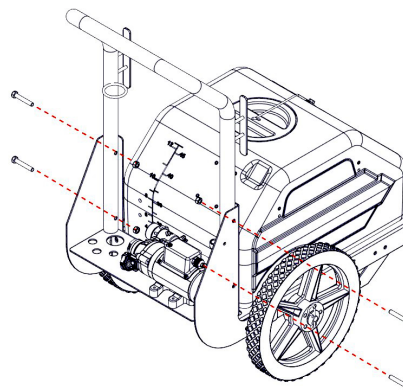
Installs Handle to Sprayer Base



2. PARTS



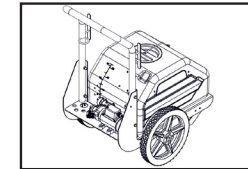
TOOLS

Thread 1/2" Carriage Bolts through open holes between Handle and Sprayer Base.

Tighten securely with Socket Wrench. Do not overtighten as handle tubing may deform.

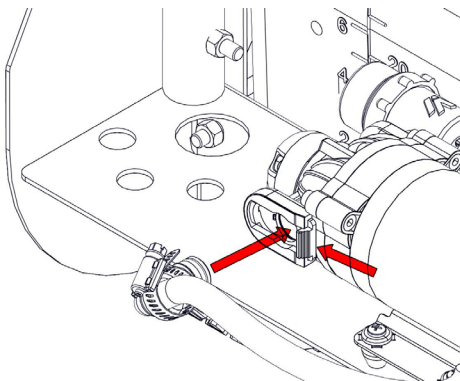
Secures Handle to Sprayer Base



3. PARTS

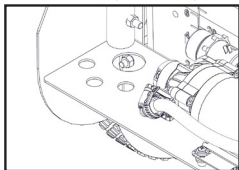


TOOL

NOTE: There may be a red plastic plug in the 12V Diaphragm Port. Remove red plastic plug with Pliers before inserting Spray Gun Assembly.

Connects Spray Gun to Sprayer



Slide locking clip on 12V Soft Wash Pump to open port.

Insert Quick Attach Fitting end of Spray Gun Assembly into open port of 12V Soft Wash Pump.

Slide the lock clip into the "locked" position.

INCLUDED WITH THIS SPRAYER IS A PRE-INSTALLED 12 AMP HOUR, LEAD ACID BATTERY. THIS SPRAYER WILL ALLOW FOR 72 GALLONS TO BE SPRAYED ON A SINGLE CHARGE.

NOTE: DO NOT RUN THE LEAD ACID BATTERY COMPLETELY DEAD. USE INCLUDED CHARGER TO CONNECT BATTERY TO A WALL OUTLET. BATTERY SHOULD BE FULLY CHARGED WITHIN 8 HOURS.

Now that you have assembled your sprayer, there is some important safety and health information you need to know with regard to handling and spraying chemicals.



TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS SECTION IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN PROPERTY DAMAGE, INJURY OR DEATH.

INTENDED USE

- The sprayer is intended for use in spraying disinfecting chemical solutions. Bleach and quaternary ammonium are common disinfecting chemicals. They must never be mixed. Upon first use, it must be determined what chemical will be used in the sprayer, only that chemical can be used for the life of the product.
- If using bleach solutions, the concentration must not exceed 1800 ppm.

NOTE: THE SPRAYER WILL BE DAMAGED, AND WARRANTY VOIDED, IF USED TO APPLY ANY PETROLEUM-BASED PRODUCT (GASOLINE, DIESEL, KEROSENE, OR OIL).

GENERAL CHEMICAL SAFETY



WARNING

Heed the warning below and follow all instructions carefully. Improper handling of chemicals can result in serious injury or illness, or cause damage to humans, animals or the general environment.

BEFORE SPRAYING

- **Soak:** ALWAYS soak vegetation in the area surrounding the work zone before spraying bleach. Bleach can kill vegetation if not soaked thoroughly.
- **Sprayer Prep:** ALWAYS inspect and prepare the sprayer before use according to the directions provided in this manual.
- **Keep Sprayer Off:** Do not turn power on to the sprayer until ready to spray in order to avoid unintentional spray release.
- **Wind Speed:** NEVER spray when wind exceeds 4 MPH in order to minimize spray drift.
- **Clear Area:** ALWAYS keep work area clear of people and pets. Post warning notices to restrict access by the public for the period recommended on chemical label.
- **Chemical Label:** ALWAYS READ and FOLLOW all chemical label instructions.
- **State & Federal Laws:** ALWAYS refer to state and federal regulations with regard to the application of a particular chemical you plan to use.
- **Flammables:** NEVER use any flammable chemicals, such as diesel fuel, in the sprayer.

BEFORE SPRAYING (CONTINUED)

- **Test with Fresh Water:** Before adding and spraying chemicals, always test sprayer with fresh water to make sure there are no cracks or leaks and equipment is performing correctly.
- **Emergency Procedures:** Before handling chemicals, carefully review the “Statement of Practical Treatment” on the chemical label.
- **Do Not Spray Undiluted Bleach:** Always dilute strictly in accordance with directions.
- **Do Not:** Use for any other purposes once the sprayer has been used with bleach.
- **Do Not:** Mix bleach with other chemicals.
- **Inhalation/Contact:** ALWAYS take precautions to avoid inhaling or coming into contact with chemical.
- **Know:** Applicable licensing and regulatory requirements for the chemical you plan to use.
- **Know:** Emergency procedures before handling chemicals. Carefully review “Chemical Accident Procedures” listed below. Also see First Aid instructions on the chemical label.
- **Wear Protective Gear:** Wear protective clothing, eye protection, and chemical resistant gloves when filling using and cleaning the sprayer. Wear additional protective gear, such as facemask or apron, as recommended on the chemical label.
- **Ventilation:** ALWAYS ensure there is adequate ventilation when mixing, pouring or spraying.

DURING SPRAYING

- **Over Application:** DO NOT over apply chemical. Apply at a rate recommended by chemical manufacturer. Excess can be dangerous to humans, damage desirable plants, and contaminate soil and water sources.
- **Never Point Spray Gun:** NEVER point the spray gun at people or animals.
- **Children & Pets:** ALWAYS exercise extra caution when spraying near areas accessible to children and pets.
- **Eating & Smoking:** DO NOT eat, drink, smoke, rub your eyes or touch any part of your bare skin while handling chemicals and spraying.
- **Heat & Flames:** DO NOT spray near open flames or sources of heat.
- **Spills:** ALWAYS clean up spills immediately per instructions on the chemical label.
- **Unattended:** ALWAYS turn off power to sprayer and relieve system pressure by squeezing spray gun trigger before leaving sprayer unattended.

AFTER SPRAYING

- **Soak:** ALWAYS soak vegetation in the area surrounding the work zone after spraying bleach. Bleach can kill vegetation if not soaked thoroughly.
- **Clean Sprayer:** ALWAYS clean the sprayer immediately after use according to the directions provided in this manual.
- **Flush Sprayer:** ALWAYS flush sprayer with fresh water after each use to prevent damage to sprayer and pump.
- **Decontaminate:** ALWAYS decontaminate yourself immediately after you are finished with spraying and handling chemicals. Wash all exposed areas of the body with soap and water. Remove and launder clothing.
- **Chemical Disposal & Storage:** ALWAYS dispose or store remaining chemicals properly as recommended on the chemical label.
- **Health Monitoring:** Monitor the health of operators as recommended by the chemical label.



WARNING

Chemical spills, sprayer leaks, personal contamination, and poisoning are accident situations which you may encounter. All require an immediate response. In the event these accidents take place, follow first aid instructions on the chemical label and contact poison control for further advice (1-800-222-1222). If victim collapses or isn't breathing CALL 911.

OPERATION - PREPARING & USING SPRAYER

If the sprayer has been used previously, it must be prepared BEFORE EACH SUBSEQUENT USE.



WARNING

Read the following instructions carefully for inspecting and using the sprayer. Damaged or clogged equipment could result in leaks or uncontrolled spray. Leaks could result in injury to the operator or bystanders from chemical exposure, or cause damage to the environment.

IMPORTANT NOTE:

THIS SPRAYER IS NOT CERTIFIED FOR USE IN DISPENSING POTABLE WATER OR OTHER CONSUMABLE LIQUIDS.

PREPARING SPRAYER

- **Review Safety Information:** Review safety information in this manual and manufacturer chemical label before use.
- **Empty Tank:** Ensure no other chemical was used in the sprayer prior to application. **Make sure to flush sprayer and pump of all chemicals prior to use.**
- **Clean Inline Strainer:** Clean inline strainer of any chemical residue with fresh water. Make sure to flush sprayer and pump of all chemicals prior to use with fresh water.
- **Inspect & Test:** Inspect the tank and components for any cracks or leaks. Replace any damaged parts. **IMPORTANT:** After any repair, **ALWAYS** test for leaks with water one final time before use.
- **Check Drain Cap:** Before filling tank, ensure drain cap at bottom of tank is securely tightened.

USING SPRAYER

- **Protective Equipment:** **ALWAYS** wear protective equipment as directed on the chemical label.
- **Assess Wind & Area Conditions:** Before spraying, determine if wind conditions are suitable. **DO NOT** spray if wind speeds are greater than 4 MPH. **DO NOT** spray if bystanders are in the intended area and verify that area is in a well-ventilated outdoor area.
- **Power Off:** Before filling tank, make sure power to the sprayer is OFF.
- **Filling Tank:** Remove sprayer tank lid and add to tank in this order:
 1. Household bleach (6% sodium hypochlorite concentration)
 2. Soft Wash Surfactant
 3. Water

USING SPRAYER (CONTINUED)

Recommended Mix Ratios:

Soft Wash Mix	Surface to be Cleaned	Household Bleach	Surfactant	Water
1%	Siding, screen enclosures	2 gallons	8 ounces	10 gallons
2%	Fences, decking	4 gallons	8 ounces	8 gallons
3%	Roofs, brick, stone, stucco, concrete, driveways	6 gallons	8 ounces	6 gallons

IMPORTANT: Never spray undiluted bleach. It must be mixed with water and Soft Wash Surfactant. Failure to do so could result in unforeseen damage to vegetation or the cleaning surface. Always test soft wash mix in an inconspicuous area to confirm compatibility.

IMPORTANT: Not for use on painted wood surfaces. Use only on hard, non-porous surfaces.

WARNING: Never exceed 3%, higher concentrations will increase the risk of damage to the sprayer. For difficult stains, repeat applications may be required.

- **Turn On Power:** Make sure wire harness is connected between the 12V Soft Wash pump and battery. Flip the on/off switch to “on”.

SELECTING NOZZLE

- **Selecting Nozzle:** The sprayer comes with three nozzles to select from: 15°, 40° and soap nozzle. Use the 15° nozzle (yellow) for a more precise spray pattern. Use the 40° nozzle (white) for a wider spray pattern. Use the soap nozzle for close range wide spray patterns.
- **Nozzle On Spray Gun:** Make sure the pump is off and the hose is depressurized. Install the nozzle by pulling the collar back and twist the nozzle firmly into the coupler on the end of the spray gun. Release the collar, making sure it springs back and re-seats to its original (non-retracted) position. Check the connection by pulling on the nozzle to ensure a tight connection.

SPRAYING SURFACES WITH SOFT WASH MIX

- **Spraying Roofs with Soft Wash Mix :**
 1. Using a 3% mix (see table), spray roofs from top to bottom.
 2. Spray in 10-foot-wide sections, only applying enough to get the surface wet.
 3. Let the chemical dwell for approx. 10 minutes, but do not let the chemical dry on the surface. While chemical is dwelling, the previous section can be rinsed.
- **Spraying Siding with Soft Wash Mix:**
 1. Using a 1% mix (see table), spray siding from bottom to top.
 2. Spray in 10-foot-wide sections, only applying enough to get the surface wet.
 3. Let the chemical dwell for approx. 10 minutes, but do not let the chemical dry on the surface. While chemical is dwelling, the previous section can be rinsed.
- **Spraying Fences & Decking with Soft Wash Mix:**
 1. Using a 2% mix (see table), spray fences from bottom to top; spray flat surfaces (decking floor) starting on the far side and working back towards the sprayer.
 2. Spray in 10-foot-wide sections, only applying enough to get the surface wet.
 3. Let the chemical dwell for approx. 10 minutes, but do not let the chemical dry on the surface. While chemical is dwelling, the previous section can be rinsed.

RINSING

- **After Spraying, Rinse All Surfaces & Vegetation:** Using fresh water from a garden hose, rinse any vegetation that may have come into contact with soft wash mix. Make sure surfaces are rinsed from top to bottom. Rinse until there are no visible suds on the cleaned surface.
- **NOTE:** The pump head (cartridge) is a wear item and will fail in time. There are two failure modes: 1.) Decreased performance or 2.) An internal leak (red LED light on motor illuminates). See instructions in the **Maintenance** section for replacing pump cartridge.

OPERATION - CLEANING, DECONTAMINATING & STORAGE

When done using the sprayer, it is always important to clean the sprayer and decontaminate yourself. Do not store the sprayer with chemicals in the tank, as it is unsafe and could also result in damage. **ALWAYS flush sprayer with fresh water.**



WARNING

Clean-up and decontamination procedures must be followed after each use. Improper equipment clean-up and disposal of chemicals can result in dangerous chemical exposure to humans and the environment, as well as equipment damage. Personal decontamination is required after spraying to minimize unsafe exposure to chemicals and potential illness.

CLEANING & DECONTAMINATING SPRAYER

- **Drain Tank:** If there is excess chemical left in tank, drain into a suitable container.
 - Note:** when draining chemicals, be sure to wear protective gear such as rubber gloves and eye protection for increased safety.
- **Unused Chemical:** Properly store or dispose of unused chemical in its original, suitable container and make sure to follow chemical manufacturer's recommendations and according to local hazardous waste disposal regulations.
- **Flush Sprayer:** Flush sprayer per the chemical manufacturer's recommendations.
- **Decontaminate & Launder:** Decontaminate yourself after handling chemicals by removing clothing worn, washing exposed body parts with soap and water, and laundering clothing separately from other wash.

SPRAYER STORAGE

Prepare the sprayer for end-of-season storage by running RV anti-freeze through the system. This will keep internal parts lubricated, protect against corrosion, and keep the unit from freezing.

IMPORTANT NOTE:
**ALLOWING YOUR SPRAYER TO FREEZE, WITHOUT TAKING
 PROPER WINTERIZATION STEPS, VOIDS YOUR WARRANTY.**



WARNING

The sprayer will be damaged if it freezes.
 Protect the sprayer from freezing during storage by following instructions
 below.

PREPARING SPRAYER FOR STORAGE

- **Flush Sprayer:** Flush sprayer with fresh water to ensure all chemical has been flushed from sprayer and pump.
- **Add Anti-Freeze:** Pour one gallon of RV anti-freeze into the sprayer tank.
- **Spray Briefly:** Turn on the pump motor and squeeze the gun trigger briefly until RV anti-freeze appears from spray gun.

REMOVING SPRAYER FROM STORAGE

- **Drain Anti-Freeze:** Drain the anti-freeze that is left in the tank through the tank drain port into a suitable container.
- **Flush with Water:** Fill tank with fresh water and have it run through system. Operate spray gun until the system is completely flushed. Be sure to set up containers to capture the flushing of the anti-freeze.
Note: DO NOT add anti-freeze back into the sprayer before flushing the system.
- **Disposal:** Read label to properly dispose of RV anti-freeze and flush water properly.

MAINTENANCE

In the event of an internal pump cartridge leak, the pump will shut off to protect the motor and the LED light will turn on to indicate the problem. To repair the pump, use the 2.2GPM replacement pump head (cartridge) EFSW2200CT.

- **To Remove The Old Pump Head (Cartridge) From The Motor:**
 1. Disconnect power to the pump and be sure all system pressure is relieved.
 2. Disconnect quick connect fittings from pump ports.
 3. Disconnect both red wires from the pressure switch.
 4. Disconnect black plug from the pump motor.
 5. Using the supplied hex wrench, unthread the silver mounting screws (black screws can remain installed). Hex wrench included in purchase of replacement pump head (cartridge).
 6. Slide the pump cartridge off the shaft of the motor. Discard the pump cartridge.
 7. Dry any wet areas of the motor before installing new pump cartridge.

- **To Install The New Pump Cartridge:**
 1. Line up the holes in the pump cartridge to the holes in the motor face.
 2. Slide the pump cartridge onto the shaft of the motor.
 3. Using the supplied hex wrench, secure the pump cartridge using the new mounting screws supplied with the pump cartridge.
 4. Attach the red wire from the back of the motor to the back spade of the pressure switch.
 5. Attach the red wire from the 2-pin connector to the front spade of the pressure switch.
 6. Attach the black plug from the pump cartridge to the pump motor.
 7. Reconnect power to the pump and reconnect quick connect fittings.
 8. Test system for leaks with water.

TROUBLESHOOTING

Here you will find troubleshooting steps for some of the most common issues users have with sprayers.



WARNING

Before troubleshooting or attempting to service your pump or sprayer, read the following safety rules to avoid accidental exposure to chemicals and the possibility of electric shock.

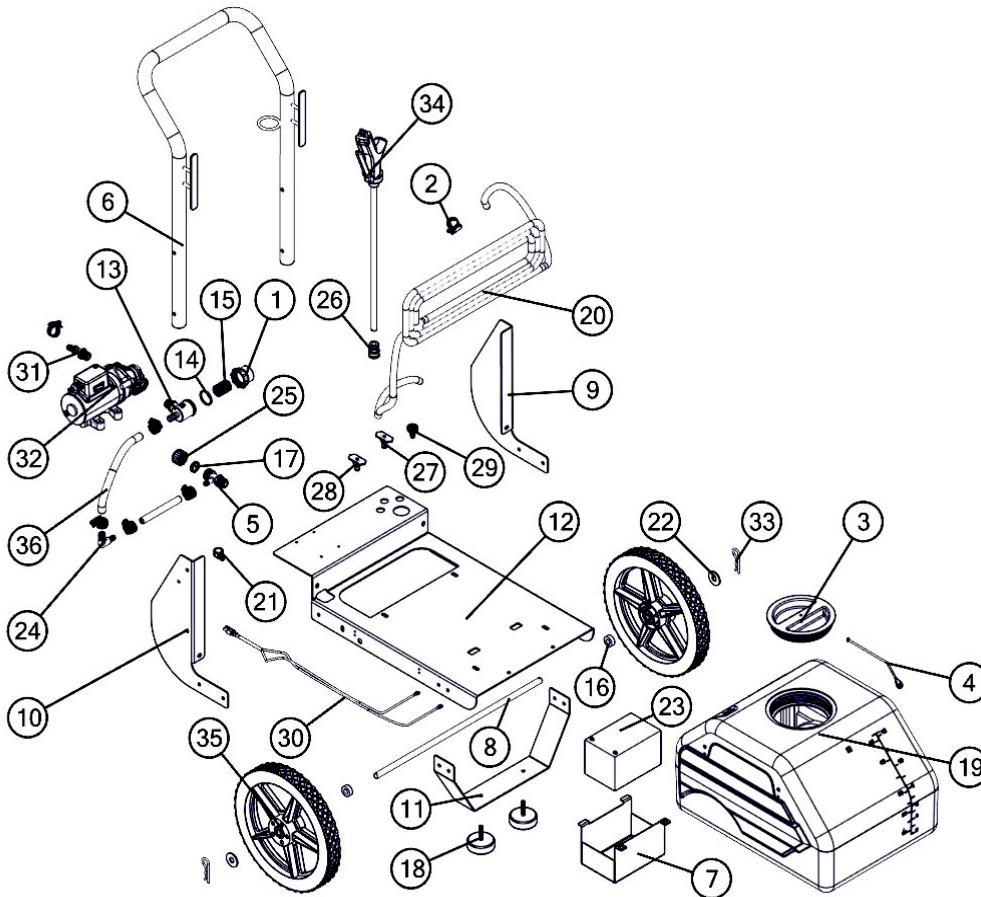
BEFORE ATTEMPTING TO SERVICE SPRAYER

- **Personal Protective Equipment:** Wear personal protective equipment as directed on the chemical label while servicing sprayer.
- **Review Troubleshooting Table:** Review the troubleshooting table to the right for the type of problem you are experiencing. **DO NOT** attempt to repair until reading remaining steps listed below are followed.
- **Empty & Flush Tank:** Empty the tank and flush the sprayer with fresh water as directed in the section Cleaning, Decontaminating & Storage.
- **Disconnect Power/Relieve Pressure:** Disconnect power to the sprayer and be sure all system pressure is relieved by squeezing the gun trigger.
- **Perform Repairs:** Follow the directions provided in the troubleshooting table to repair the sprayer.
Note: Never try to unclog the sprayer nozzle by blowing through it.
- **Test after Repairs:** After repairs, **ALWAYS** test the sprayer for leaks with fresh water before using.

PROBLEM	CAUSE	SOLUTION
Pump Will Not Prime	Pressure Switch Failure	Replace Pressure Switch
	Bad Electrical Connection	Check Battery Connections
	Fuse Blow	Replace Fuse
	Short In Wires	Check Condition of Wires
	Low Voltage	Check Voltage with Battery Monitor
Pump Will Not Turn On & LED Light Is On	Leak Inside Pump Head (Cartridge)	Replace Pump Cartridge
Low Pressure	Worn Spray Gun	Replace Spray Gun
	Worn Pump Head (Cartridge)	Replace Pump Cartridge
Low Flow	Clogged Intake Tube	Remove Obstruction
	Clogged Inline Strainer	Clean Inline Strainer
	Low Voltage	Check Voltage with Battery Monitor
	Worn Pump Head (Cartridge)	Replace Pump Cartridge
Poor Spray Distribution	Inline Strainer Clogged	Clean Inline Strainer
	Clogged Intake Tube	Remove Obstruction
	Worn Spray Gun	Replace Spray Gun
	Worn Pump Head (Cartridge)	Replace Pump Cartridge
Pump Cycles While Not Spraying	Leak In The System	Tighten Leaking Hose Clamps or Fittings, Replace Spray Gun

SPRAYER BREAKDOWN

SWI-09-012S-VI



ID	Part Number	Description	Qty
1	11421	Inlet Strainer Bowl	1
2	300-006	1/2-1" Hose Clamp	6
3	31-100340	Lid, Tank Recessed 6"	1
4	31-100341	14" Tank Lid Tether	1
5	31-100343	Fitting, special, 1/2" MNPT x 3/4" GHT x 3/8" HB	1
6	32-100175	Bleach Sprayer Handle	1
7	31-100441	Battery Cover	1
8	31-100442	Axle, Bleach Sprayer	1
9	31-100443	Left Handle Brace, Bleach Sprayer	1
10	31-100444	Right Handle Brace, Bleach Sprayer	1
11	31-100445	Support, Bleach Sprayer	1
12	31-100446	Frame, Bleach Sprayer	1
13	31-400004	Inlet Strainer, Top, Quick Attach	1
14	31-400006	Inlet Strainer, Gasket, Viton	1
15	31-400007	Inlet Strainer, 50 Mesh	1
16	33-100517	Spacer, Wheel, Bleach Sprayer	2
17	33-103220	Gasket, 3/4 Superseal	1
18	33-103586	Foot, pad, 1 1/2x5/8 W/3/8Bore	2
19	33-103836	Tank, 12 Gallon, lawn Trailer	1
20	33-103938	PVC Tube, Vinyl Braid, clear .37x.59	1
21	33-200012	Loop Clamp Steel Vinyl Coated 5/8"	1
22	33-200117	Washer, Flat 1/2"	2
23	33-300082	Bleach Sprayer Battery, 12V, 12 AH	1
24	3EL1238HB	Hose Barb Fitting	1
25	3N34	Cap, Garden Hose, 3/4" FGHT	1
26	8102.0301.00	Coupler BST-2 1/4 FPT	1
27	8113.1100.15	Nozzle QC 1/4 15100 Yellow	1
28	8113.1100.40	Nozzle QC 1/4 40100 White	1
29	8113.3160.00	Nozzle QC 1/4 6540 Black	1
30	34-140189	Wire Harness	1
31	EF-QC-EL38	Elbow Fitting QCx3/8" HB	1
32	EFSW2200	2.2 GPM Everflo Bleach Pump	1
33	P-7924	Hair Pin	2
34	SG-2218-18	Short Range Spray Gun	1
35	TWA12X1.75-12	12" Composite Wheel	2
36	33-100059	PVC Tube, Vinyl Braid, Clear .50 ID x .75 OD	1

PLEASE FOLLOW ALL WARNINGS IN THIS MANUAL, FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE & INJURY.

