

Gregson-Clark

SPREADER-MATE™

Operator's Manual

Model SM-A with Single Nozzle



The Spreader-Mate™ is a self-contained, drop-in tank unit to convert your spreader into a spray applicator. We hope that you will find the Spreader-Mate to be a safe, dependable, and accurate tool for your spraying work. Please take time to read the following instructions.

Do not hesitate to call your dealer or Gregson-Clark directly with any questions or concerns. We also welcome your comments and suggestions on how we can continue to improve this product.

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TABLE OF CONTENTS

Safety precautions.....	2
Set-up procedure.....	2
General operation and maintenance.....	5
Initial start-up.....	5
Battery charging.....	5
Calibration.....	6
Troubleshooting.....	6
Accessories.....	7
Warranty.....	8
Spare Parts lists.....	9

SAFETY PRECAUTIONS

Pesticides can cause personal injury and harm the environment when used improperly. Be sure to follow label recommendations concerning safety and disposal. Observe all safety precautions including wearing of protective clothing and equipment.

The Spreader-Mate is designed to fit into many, but not all, commercial broadcast spreaders. Be sure that the overall weight does not exceed spreader manufacturer's recommendations. A full tank and all hardware will add 85 lbs. to the spreader.

- Use extreme caution to avoid tipping of the spreader.
- Calibrate and test using water only.
- Check with each use for leaks or damage.

SET-UP PROCEDURE

Your Spreader-Mate was pressure tested prior to shipment. Some components were disassembled for packaging and shipment. The basic set-up procedure is as follows:

- Remove all contents from inside the tank.
- Remove all contents from the box.
- Report any missing or damaged items to your dealer immediately.



Figure 1

Clean all debris from the spreader hopper. Place the empty tank assembly in your spreader hopper with the battery mounted toward the rear.

Figure 2

Attach the spring mounting clips to the hopper near the vertical centerline with the supplied screws. Snap the hose into the clips with the nozzle facing forward.



Figure 3

Hook up the spray hose wingnut to the ball valve.

Figure 4

Install the handle thumb switch.





Figure 6

Connect the battery wires.

Figure 5

Install the pump wiring assembly clips to the switch spades.

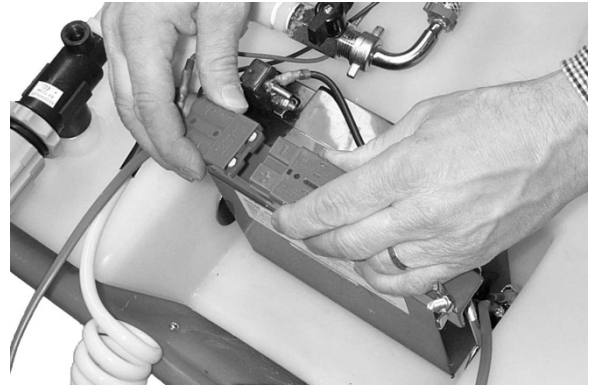


Figure 7

Connect swivel elbow fitting to pump inlet port.



Figure 8

Install the pressure gauge.

IMPORTANT! Screw in the gauge hand-tight, with only sufficient force to prevent leaking. Overtightening the gauge can break the regulator housing.



GENERAL OPERATION AND MAINTENANCE

The sprayer pump is turned on and off by the thumb switch mounted on the handlebar of the spreader. The hand spray wand is activated by closing the ball valve on top of the tank to turn off flow to the front nozzle.

To drain the tank of unused liquids, remove the spray tip from the wand and pump the remaining liquid into the proper receptacle.

- Clean pump filter daily.
- Clean tip screen regularly.
- Prevent from freezing.
- Flush with water after each use.

INITIAL START UP AND PRESSURE TESTING

1. Turn the pressure regulator knob counter-clockwise all the way.
2. Put about one gallon of water in the tank for testing.
3. Be sure that the spray line valve is turned off.
4. Turn on the handlebar thumb switch. You should hear the pump running and see water moving through the hoses.
5. Slowly turn the pressure regulator knob clockwise to increase the pressure. You should notice movement of the needle on the pressure gauge. Adjust the pressure to 30 psi for testing.
6. With the spray wand assembled, operate the trigger valve and check it for leaks. Note the trigger lock. Also adjust the nozzle and angle adapter orientation to the desired position.
7. Turn off the switch. Turn on the spray line valve.
8. Turn on the switch and observe the spray pattern from the spray nozzle. Check the hose assembly for leaks.
9. Once the unit has been pressure tested and you are familiar with its operation, you can begin the calibration procedure.

BATTERY RECHARGING

The Spreader-Mate battery is a sealed, maintenance-free 12-volt battery. Charging at a low rate (3 amp max.) with an automotive quality battery charger will extend battery life. A 110-volt powered plug-in battery charger is available as an optional accessory to recharge the battery when not in use. The battery can also be recharged by the service truck's charging system by using the optional vehicle charging kit.

CALIBRATION

The Spreader-Mate is equipped with a Hypro DeflecTip wide-angle flat flood nozzle. The table below will serve as a reference for application rates. A working pressure of 15-20 psi will provide adequate coverage. The nozzle should be adjusted to provide a 60-65 inch spray width with a 4-6 inch overlap of the previous spray pass.

Hypro Nozzle Number:	Pressure PSI	Capacity GPM	Gallons per 1000 Sq. Ft.			
			2 MPH	3 MPH	4 MPH	5 MPH
30DT7.5	10	0.8	0.9	0.6	0.4	0.3
	15	0.9	1.0	0.7	0.5	0.4
	20	1.1	1.2	0.8	0.6	0.5
	30	1.3	1.5	1.0	0.7	0.6

Table 1

Because walking speeds vary, it is always best to perform a field test to confirm the application rate. The procedure is simple:

1. Measure an area at least 10,000 square feet.
2. Fill the tank with water.
3. Spray the measured area at 20 psi and at a comfortable sustainable walking speed.
4. Refill the tank from a calibrated container keeping track of the amount needed to refill the tank.
5. Divide the number of gallons used by the square footage of the area sprayed (Expressed in 1000 square foot increments)
6. Since the tank holds 9 gallons, divide 9 by the result to obtain the expected coverage per tank full.

Example: 4.5 gallons used
 10,000 square feet sprayed
 $4.5 \text{ divided by } 10 = .45 \text{ gallons per } 1000 \text{ square feet}$
 $9 \text{ divided by } .45 = 20$

The capacity is 9 gallons, so in this example a full tank should cover 20,000 square feet.

TROUBLESHOOTING

Problem	Possible cause	Solution
Pump runs, but little or no flow	Battery drained Tank empty Filter clogged Filter bowl not on tight Filter gasket faulty or missing Broken fitting or hose Pump needs repair Plugged intake line Pump has lost prime	Recharge battery Refill tank Clean filter screen Tighten filter Check / Replace gasket Repair as necessary Repair as necessary Remove obstruction Re-prime the pump by backing the Pressure Regulator all the way out
Pump won't turn on	Battery dead Loose or faulty connection Faulty switch	Recharge battery Repair as necessary Repair as necessary
Nozzle not spraying	Spray valve turned off Nozzle screen is plugged	Turn valve on Clean nozzle screen

Table 2

SPREADER-MATE ACCESSORIES



SPREADER-MATE TRUCK CHARGER

The charger allows the sprayer battery to be recharged from a truck charging system in between jobs. Included is 20 feet of 10-gauge x 2 wire, 40 amp circuit breaker, battery wire connectors, and a quick-connect modular plug for Spreader-Mate battery.



SPARE SPREADER-MATE BATTERY

One battery can be charging while another battery is in use. The spare battery comes with battery wire connectors, fuse assembly and a quick-connect modular plug.



ACCUMATE CHARGER

110-Volt powered plug-in charger for overnight recharging. This is a top quality charger designed specifically for AGM batteries.



SPREADER-MATE TRUCK STAND

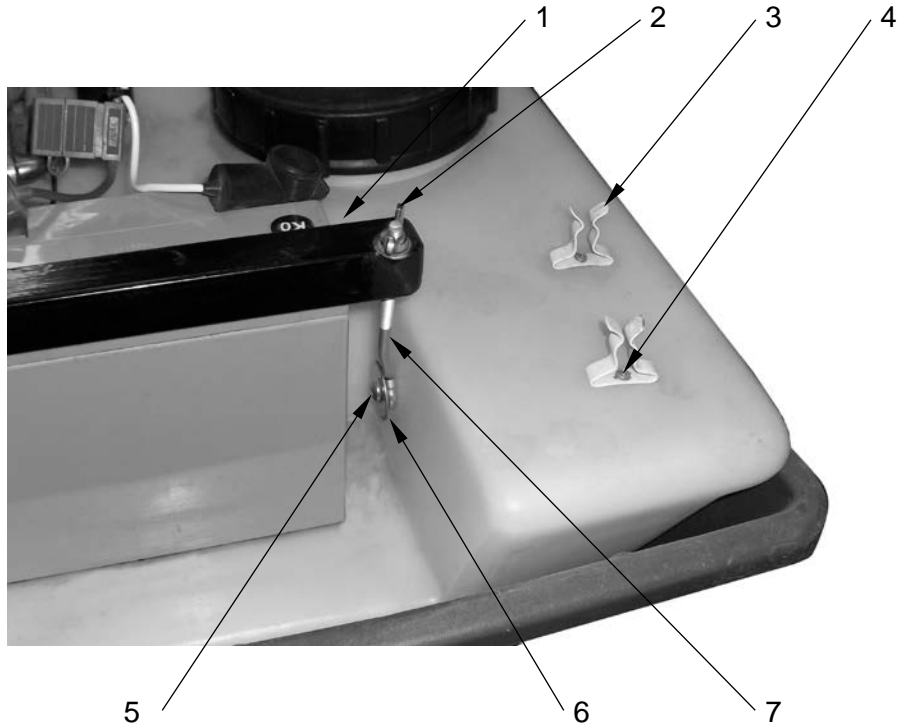
This rugged steel frame mounts easily to the truck securing the Spreader-Mate tank assembly when not in use.

WARRANTY

The Gregson-Clark Spreader-Mate is warranted by the manufacturer to the original purchaser to be free from defects in materials and workmanship for a period of one year. The battery and the pump elastomers, which are considered normal wear items, carry a 90-day warranty against defects in materials and workmanship.

Gregson-Clark's liability shall be limited to replacement of defective components, FOB shipping point. In no event shall Gregson-Clark be liable for any special, incidental, or consequential damages including loss of profits.

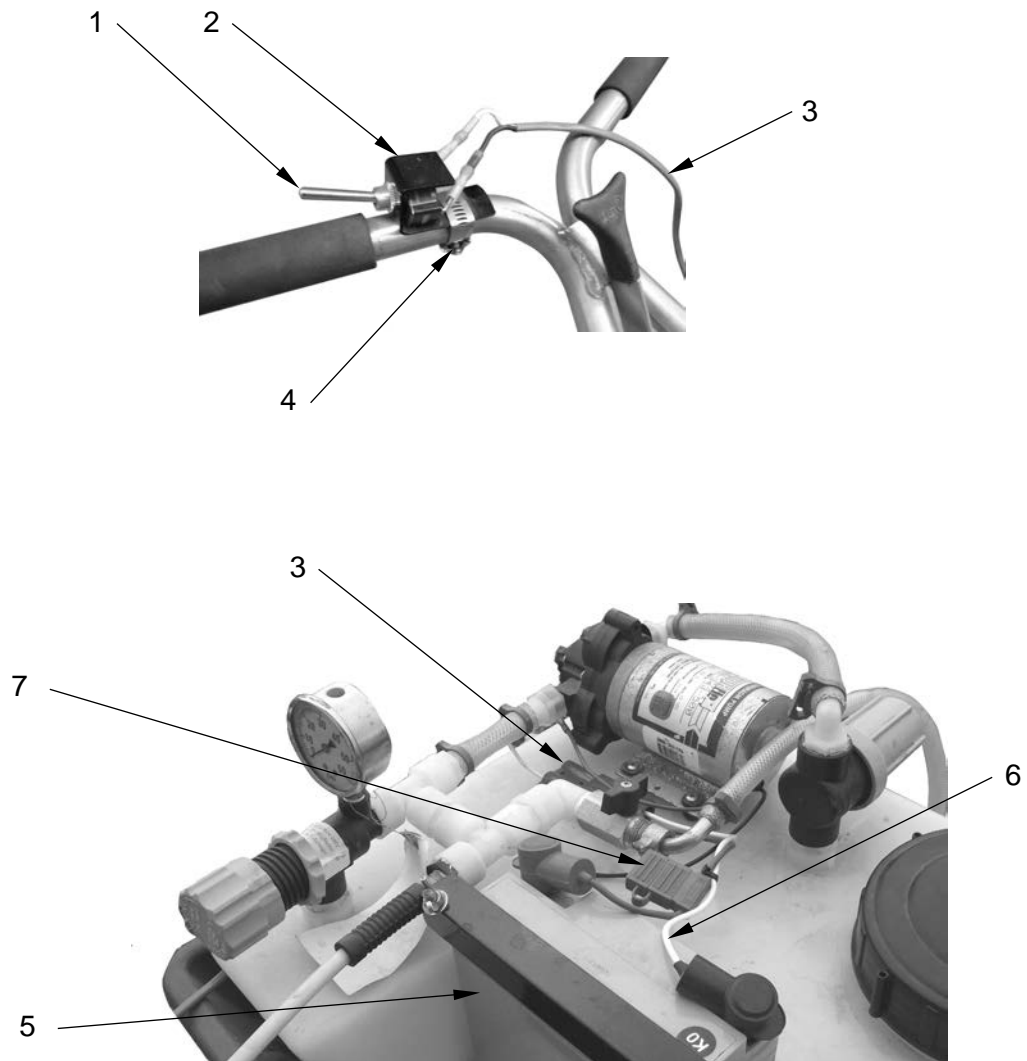
BATTERY AND SPRAY WAND MOUNTING HARDWARE



REF. #	QTY.	PART #	DESCRIPTION
1	1	SMAB1	Angle Bracket
2	2	1170910	Wing Nut
3	2	0-BV	Mounting Clip
4	2	1172906	Screw #6 x 1/2"
5	2	1172586	Pan Head Screw
6	2	1171215	Fender Washer
7	2	42216	Eye Bolt
7*	2	42217	Eye Bolt (H.C. Battery)

*Optional

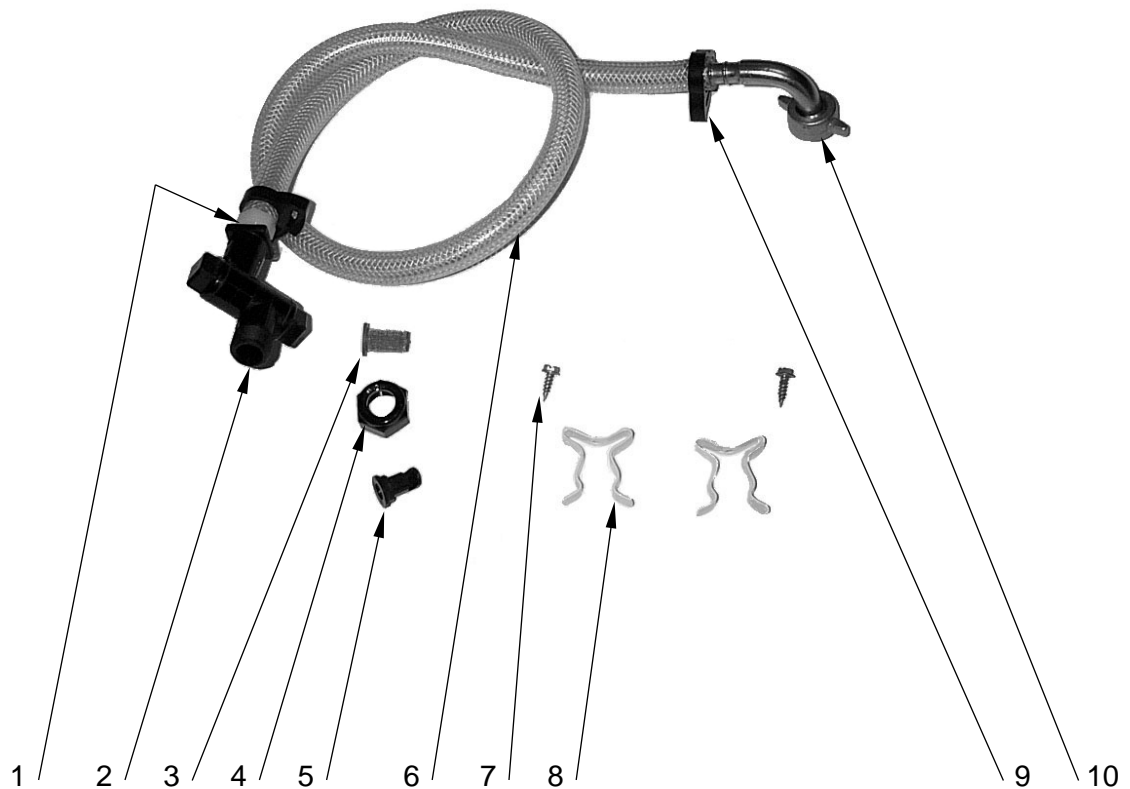
ELECTRICAL COMPONENTS DIAGRAM



REF. #	QTY.	PART #	DESCRIPTION
1	1	7200030	Toggle Switch
2	1	SMSB1	Switch Bracket
3	1	SMWA1	Pump/Switch Wiring Assembly
4	1	12J	Screw Clamp
5	1	ES17-12	Battery
5 *	1	ES33-12	Battery, High Capacity
6	1	SMWA2	Battery Wiring Assembly
6 *	1	SMWA3	Battery Wiring Assembly, H.C. Battery
7	1	78330	Fuse Holder
---	1	78205	20 Amp Fuse

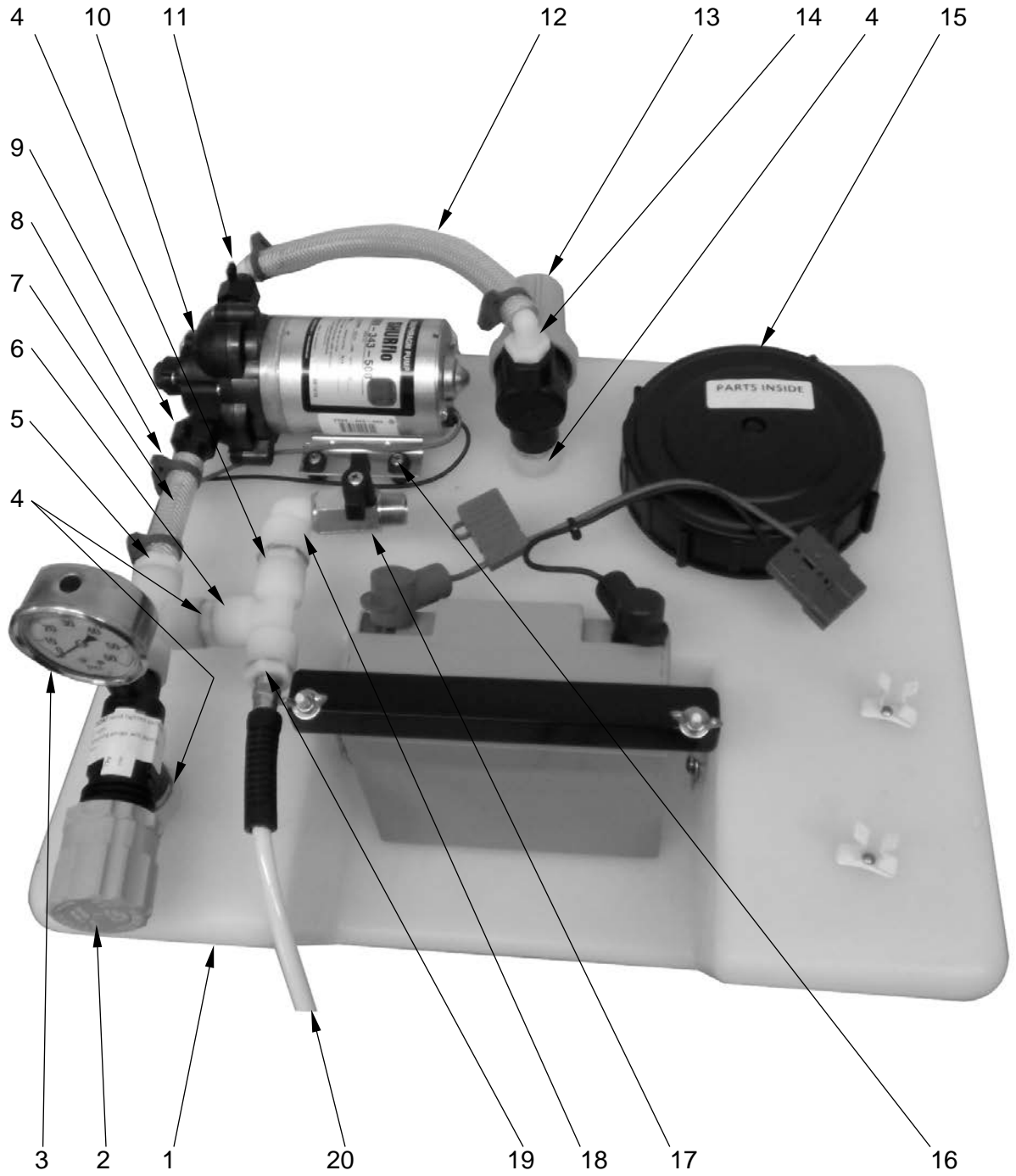
*Optional

NOZZLE ASSEMBLY DIAGRAM



REF. #	QTY.	PART #	DESCRIPTION
1	1	A1438	Hose Barb, 1/4 NPT x 3/8 Male
2	1	8600-1/4-NYB	Single Swivel Adapter
3	1	4193A-PP-5-50SS	Strainer w/ Check Valve
4	1	CP8027-NYB	Cap
5	1	30DT7.5	Wide Angle Spray Tip
6	1	GCH08/CBX20	Clearbraided Hose 3/8" ID x 20"
7	2	1172906	Screw #6 x 1/2"
8	2	0-BV	Spring Clip
9	2	5P038	Easy Seal Clamp For 3/8" ID Hose
10	1	163.604.4	3/8" Wing Nut Barb Steel

TANK AND PLUMBING PARTS DIAGRAM

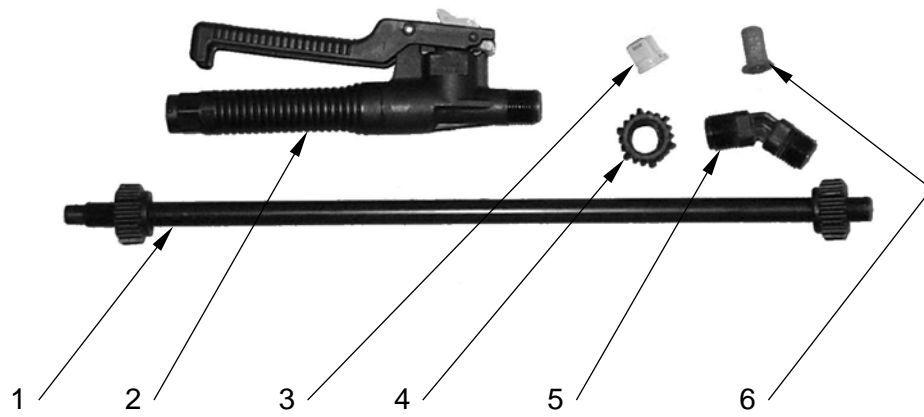


TANK AND PLUMBING PARTS LIST

REF. #	QTY.	PART #	DESCRIPTION
1	1	GCT09SM	Poly Tank, 9 Gallon
2	1	23120-1/2-PP	Regulator
3	1	2141GXB60	0-60 SS Liquid Filled Gauge
4	4	M1200P	1/2" Close Nipple Hex
5	2	A1212P	1/2" MPT x 1/2" Barb
5 (not shown)	2	A1212P	1/2" MPT x 1/2" Barb (Inside Tank)
6	2	TT12P	1/2" Female Tee
7	1	GCH08/CBX3.5	Clear Braid Hose 1/2" ID x 3.5"
8	4	5P050C	Easy Seal Clamp For 1/2" ID Hose
9	1	234-2926	1/2" FPT x 1/2" Barb Straight Swivel
9 *	1	20381-000	1/2" ORS x 1/2" Barb Straight
10	1	2088-343-500	Shurflo Pump 3 Gpm
10 *	1	04100-143A	FloJet Pump, 5 GPM
11	1	234-3926	1/2" FPT x 1/2" Barb Elbow Swivel
11 *	1	20381-009	1/2" ORS x 1/2" Barb Elbow
12	1	GCH08/CBX10	Clearbraided Hose 1/2" ID x 10"
13	1	AA122-1/2-PP-50	Strainer 1/2" 50 Mesh - Complete
not shown	1	CP45102-3-SSPP	50 Mesh Screen
not shown	1	CP23173 EPR	Strainer Bowl Gasket
14	1	EL1212P	1/2" MPT x 1/2" Barb Elbow
15	1	3542010	6" Female Tank Lid With Vent
16	4	1172444	# 10-24 x 1" SS Machine Screw
17	1	MVT12FM	Ball Valve 1/2" FPT x 1/2" MPT
18	1	SE12P	1/2" Street Ell
19	1	RB1214P	1/2" x 1/4" NPT Reducer Bushing
20	1	HSC2841- 04x10	Retractable Hose 1/4" x 10'
not shown	1	GCH08/CBX15	Hose 1/2" ID x 15" (Inside Tank, Suction Line)
not shown	1	GCH08/CBX16	Hose 1/2" ID x 16" (Inside Tank, Return Line)
not shown	1	6J	Screw Clamp, SS (Inside Tank, Suction Line)

*Optional

HAND SPRAY WAND DIAGRAM



REF. #	QTY.	PART #	DESCRIPTION
1	1	22665-15-PP	Extension Wand
2	1	22650-PP-1/4	Trigger Jet Valve
3	1	TT11002-VP	Turbo TeeJet Nozzle Tip
4	1	CP22668-PP	Cap Nut
5	1	22673-PPB	Angle Adapter
6	1	4193A-PP-5-50SS	50 Mesh Screen