

Gregson-Clark

SPREADER-MATE™

Operator's Manual

Model SM-B with 62" Boom



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	6
Initial startup	6
Battery charging	6
Calibration	7
Troubleshooting	7
Accessories	8
Warranty	9
Spare Parts lists	10

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 the spreader manufacturer's recommendations. A full tank and all hardware will add 102 lbs. to the spreader.

- Use extreme caution to avoid tipping of the spreader.
- Calibrate and test using clean water.
- 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 the spray wand from inside the tank.
- Remove all contents from the box.
- Cut the plastic ties holding the boom sections together.
- Report any missing or damaged items to your dealer immediately.

NOTE: The pink liquid residue in the tank is RV antifreeze. Flush out the tank before use. (See page 6)



Figure 1

Line up the holes in the boom hinges of the center and outside sections and install the bolts and locknuts.



Figure 2

With the boom folded closed, install the springs on the spring mounting tabs.



Figure 3

Install the boom on the front of the spreader. Set the opened boom assembly on the tubular hopper support of the spreader. Center the vertical mounting brackets horizontally and mark the two hole locations. Set the boom assembly aside and drill two 1/4-inch diameter holes for the mounting hardware.

Mounting Holes

Place the 1-1/2 inch diameter washers on the inside of the hopper wall and insert the 1/4-20 hex head bolts in the holes. The bolt heads should be inside the hopper. They should be snug and will need to be screwed into the holes. Replace the boom assembly and align the bolts with the mounting holes. The small lockwashers and wingnuts are used to secure the boom while in use. See illustration below.

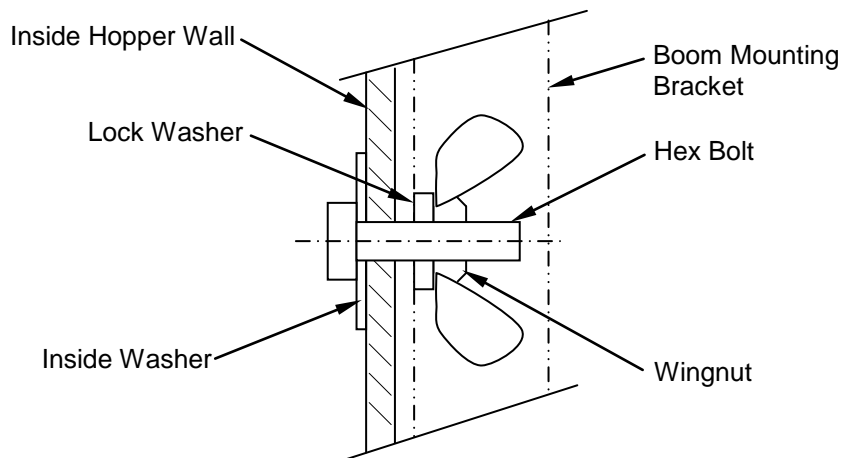


Figure 4

Figure 5

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



Figure 6

Hook up the boom hose wingnut to the
boom line valve.

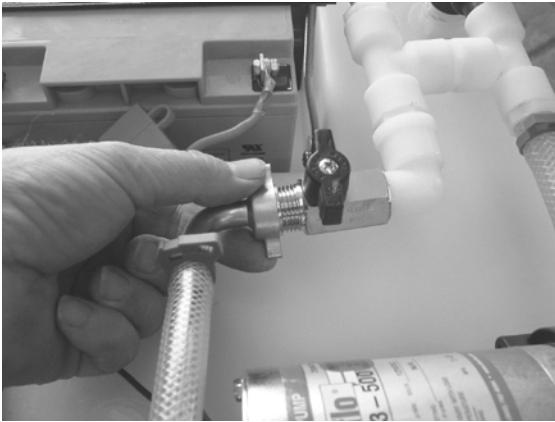


Figure 7

Install the sprayer nozzles,
screens, and caps.



Figure 8

Install the handle thumb switch.





Figure 9

Install the pump wiring assembly clips to the switch spades.

Figure 10

Connect the battery wires.

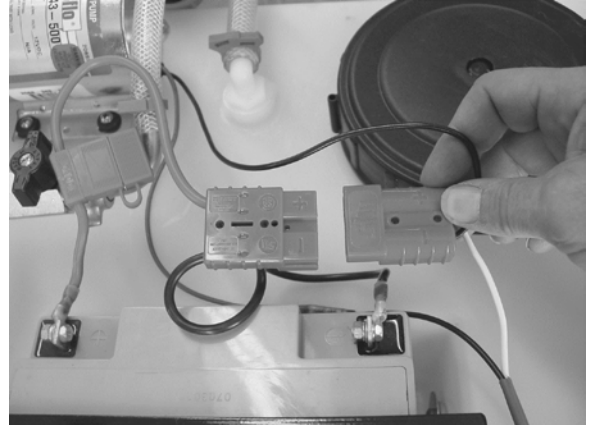


Figure 11

Connect swivel elbow fitting to pump inlet port.

Figure 12

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. Each driplless nozzle body has a special shut-off cap. The nozzle body requires 5 psi of system pressure to open, thus keeping the nozzles from dripping when the pump is off. The nozzles can be completely shut off by turning the cap clockwise. The operator can turn off individual nozzles as needed. The hand spray wand is activated by closing the boom line valve (ball valve on top of the tank) to turn off flow to the boom. 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 screens regularly.
- Prevent from freezing.
- Adjust hinge lock nut tension as necessary.
- Flush with water after each use.
- Lubricate hinges with grease.

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 boom 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 boom line valve and all four caps on the top of each boom nozzle body.
8. Turn on the switch and observe the spray pattern from each boom nozzle. Check the entire boom assembly for leaks.
9. Flush out the water and antifreeze. 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 Turbo TeeJet Air Induction nozzles. The nozzle table below will serve as a reference for application rates. The nozzle spacing is 20 inches. The pressure is adjustable. A working pressure of 20 psi will provide adequate coverage. A four-inch overlap of the previous spray pass is recommended.

Turbo TeeJet Nozzle Number:	Pressure PSIG	Capacity 1 nozzle 1GPM	Gallons per Acre at 20" Spacing							
			2.5 MPH	3 MPH	3.5 MPH	4 MPH	4.5 MPH	5 MPH	5.5 MPH	6 MPH
TTI11002-VP	20	0.14	16.6	13.9	11.9	10.4	9.2	8.3	7.6	6.9
	30	0.17	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4
	40	0.20	23.8	19.8	17.0	14.9	13.2	11.9	10.8	9.9
	50	0.22	26.1	21.8	18.7	16.3	14.5	13.1	11.9	10.9

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	Recharge battery Refill tank Clean filter screen Tighten filter Check / Replace gasket Repair as necessary Repair as necessary Remove obstruction
Pump won't turn on	Battery dead Loose or faulty connection Faulty switch	Recharge battery Repair as necessary Repair as necessary
Not all nozzles spraying	Caps on nozzle bodies turned off Nozzle screen is plugged	Turn all caps to the ON position Clean all nozzle screens

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

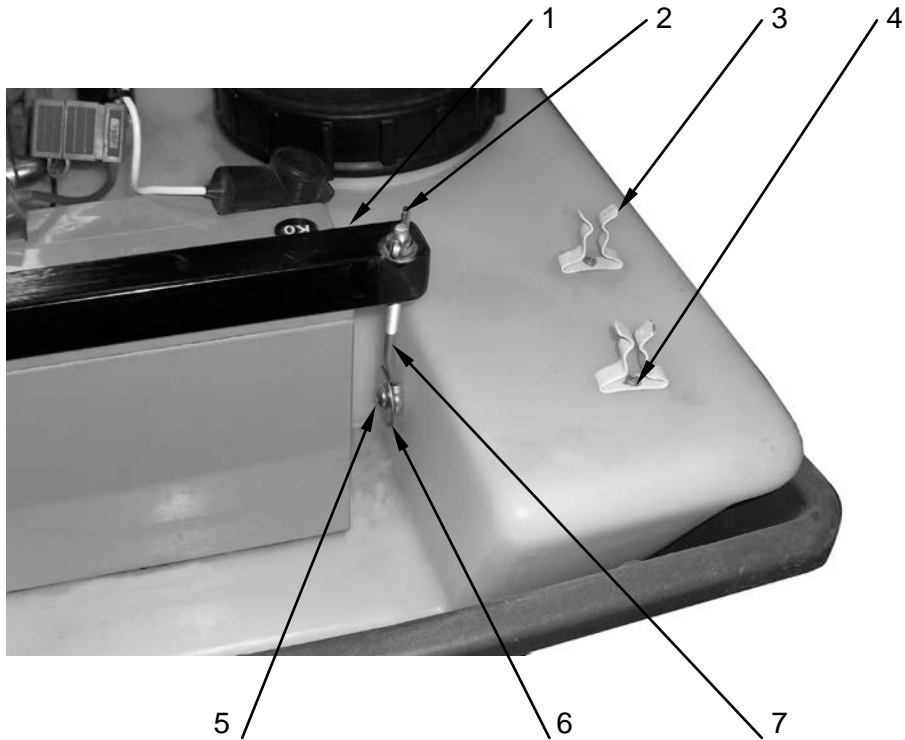
This rugged steel frame mounts easily to the truck securing the Spreader-Mate tank assembly when not in use.

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.

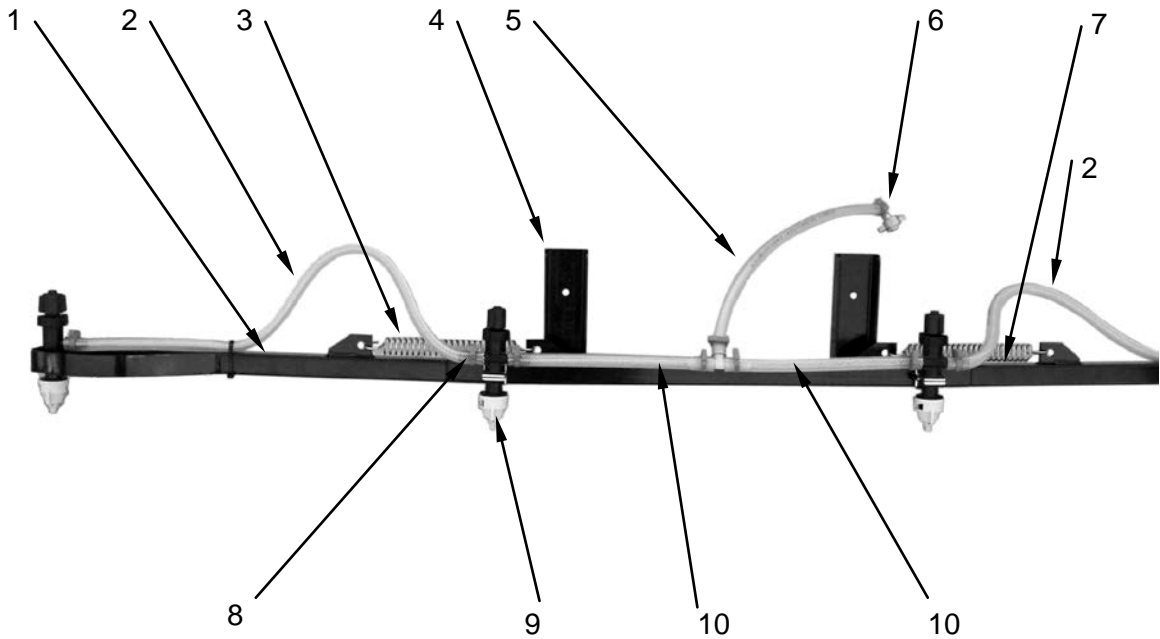
BATTERY AND SPRAY WAND MOUNTING HARDWARE



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 - 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)

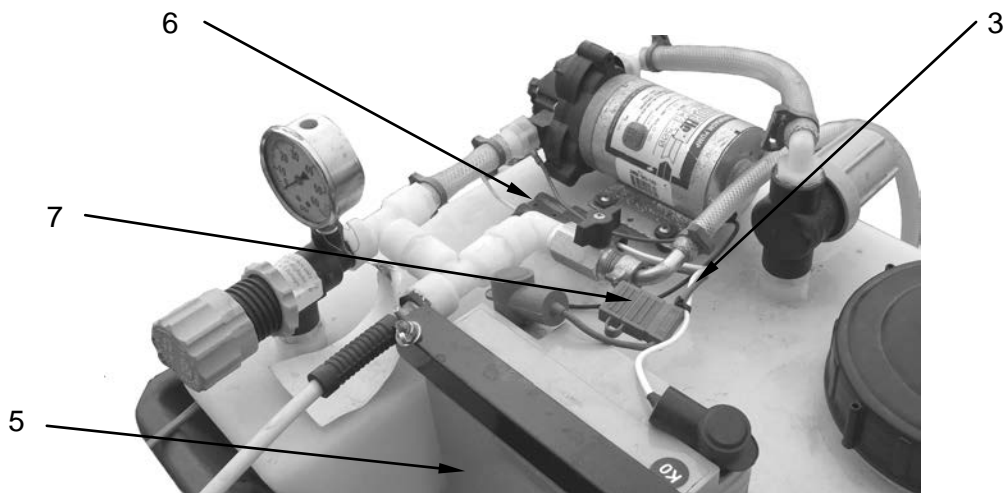
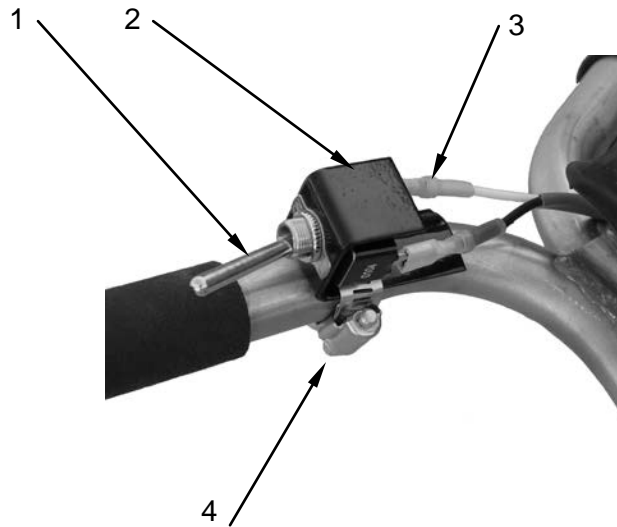
*Optional

BOOM COMPONENTS DIAGRAM



REF. #	QTY.	PART #	DESCRIPTION
1	1	SMRB	Right Boom Section
2	2	GCH06/CBX24	Hose, 3/8" ID x 24"
3	2	LE-085H-05-M	Spring, Stainless Steel
4	1	SMCB	Center Boom Section
5	1	GCH06/CBX21	Hose, 3/8" ID x 21"
6	1	163.604.4	Hose Barb Wing Nut Assy. 3/8"
7	1	SMLB	Left Boom Section
8	2	SMHB	Hinge Bolt, Lock Nut, 3/8"
9	4		Nozzle Assembly, See Page 14
10	2	GCH06/CBX9	Hose, 3/8" ID x 9"

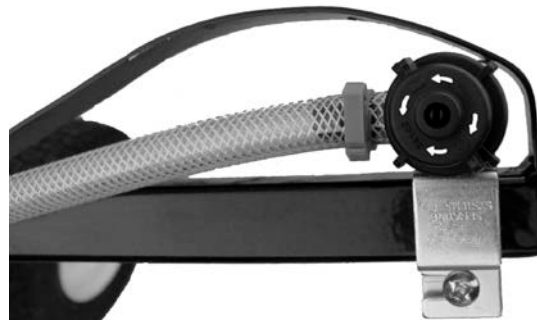
ELECTRICAL COMPONENTS DIAGRAM



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

SPRAY NOZZLE DIAGRAM



Your Spreader-Mate is equipped with dripless nozzle bodies with special shut-off caps. Each nozzle body requires 5 psi of system pressure to open. This keeps the nozzles from dripping when the pump is turned off. Also, the nozzle bodies can be completely shut off by turning the cap clockwise as shown. This allows the operator to turn off individual nozzles when spraying with less than the full boom width is desired.

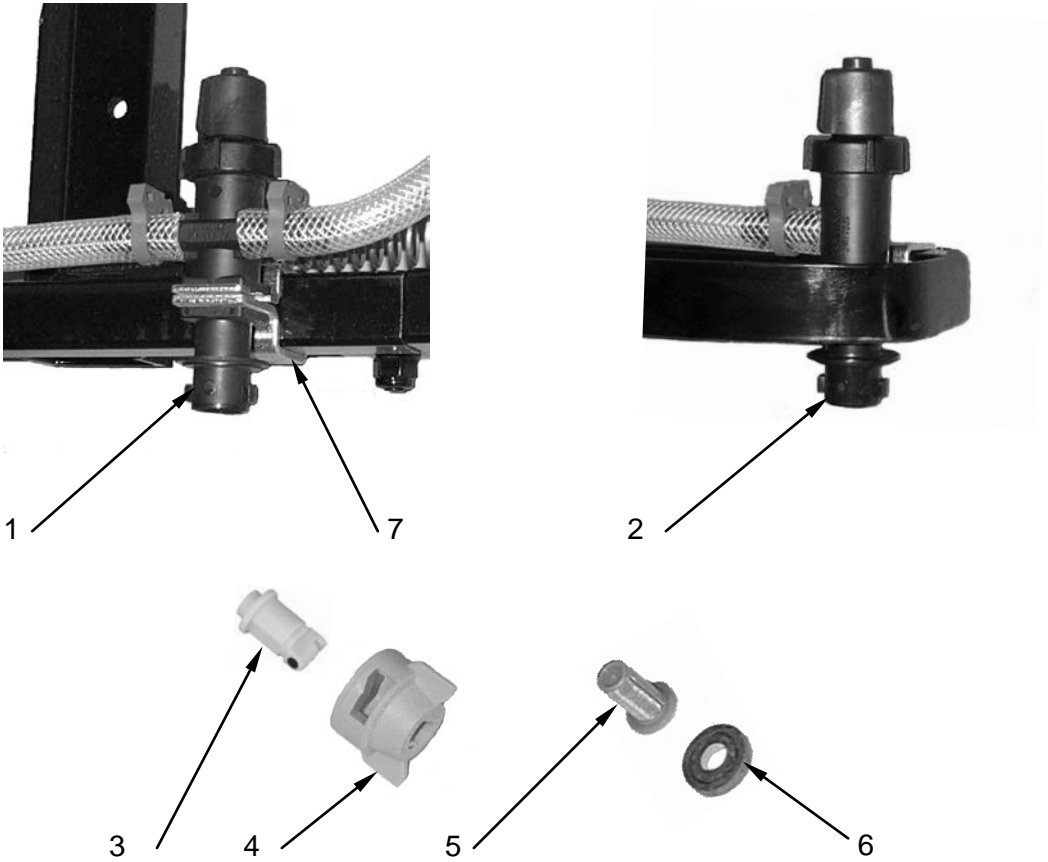


Nozzle in ON position



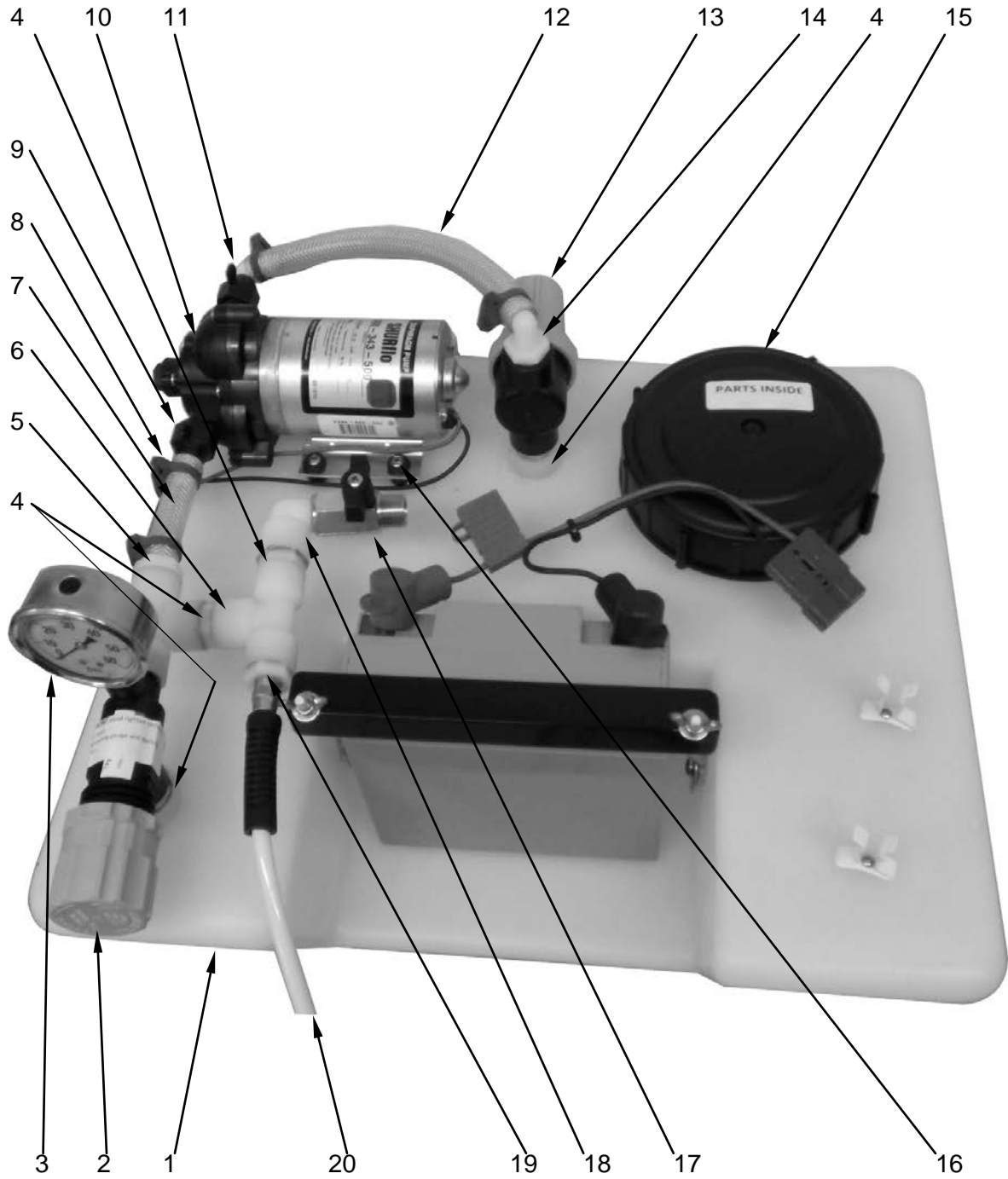
Nozzle in OFF position

NOZZLE ASSEMBLY DIAGRAM



REF. #	QTY.	PART #	DESCRIPTION
1	2	22252-312-375-NYB-MC	Dripless Nozzle Body, Double w/ Cap
2	2	22251-311-375-NYB-MC	Dripless Nozzle Body, Single w/ Cap
3	4	TTI11002-VP	Turbo TeeJet Air Induction Nozzle
4	4	CP25597-6-NY	Quickjet Cap
5	4	8079-PP-50	Screen
6	4	CP19438-EPR	Washer
7	4	QJ111SQ-1	Vari-Spacing Clamp

TANK AND PLUMBING PARTS DIAGRAM

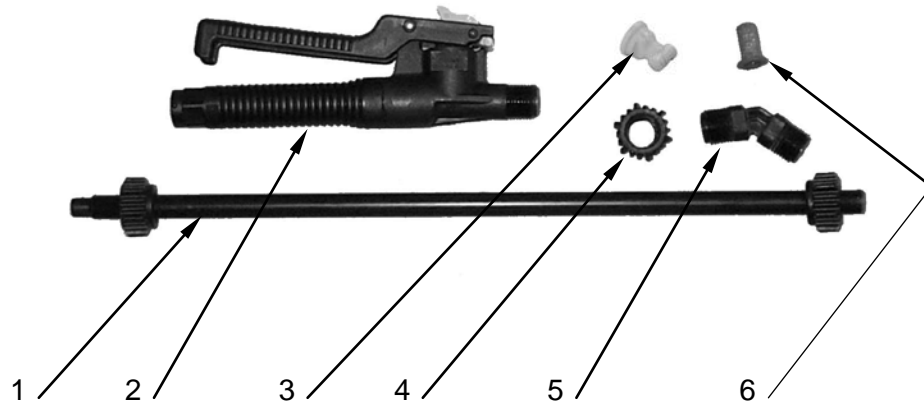


Tank and Plumbing Parts List

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
4	1	CP22668-PP	Cap Nut
5	1	22673-PPB	Angle Adapter
6	1	4193A-PP-5-50SS	50 Mesh Screen