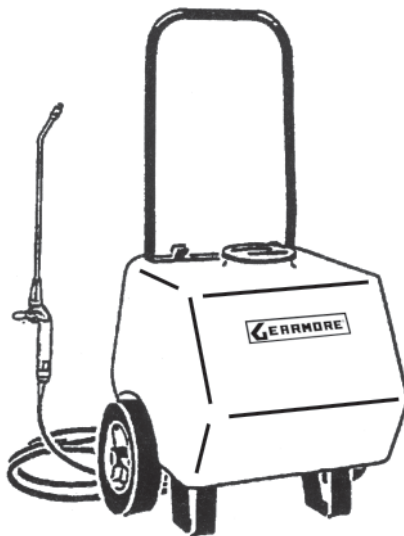




HANDGUN SPRAYERS

Operation / Service / Parts
Manual For



**Cart Sprayer Model:
C-8**

October 2004

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1 INTRODUCTION

Congratulations on your choice of Handgun Sprayers. This equipment has been designed and manufactured to meet the needs of a discriminating buyer for their spraying needs.

These sprayers are designed for ease of operation at affordable quality prices.

Safe, efficient and trouble free operation of your Sprayer requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, and Maintenance information contained within the Operator's Manual.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your dealer, or us if you need assistance, information or additional copies of the manuals.

1. **POWER SOURCE:** Battery
2. **PUMP:** Diaphragm
3. **TANK:** All sprayers have a polyethylene tank

Model No: _____

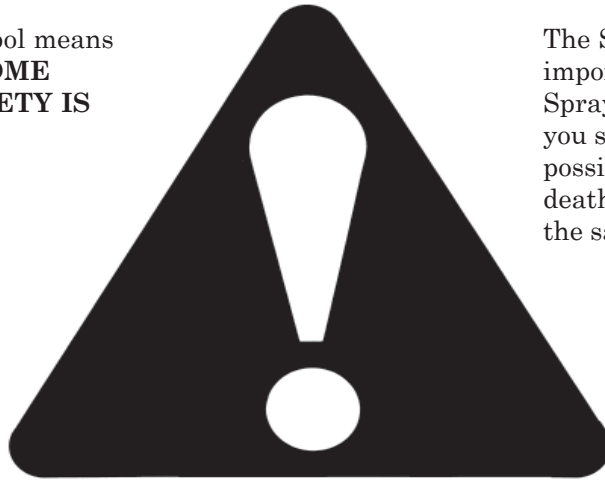
Serial No: _____

Date of Purchase: _____

2 SAFETY

SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



The Safety Alert symbol identifies important safety messages on the Sprayer and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill

Accidents Cost

Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

DANGER - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer.

2.1 TRAINING & PREPARATION

Before operating this Sprayer, read and understand this manual completely. Become familiar with it for your own safety. To fail to do so may cause serious injury. **DO NOT** allow anyone to operate this Sprayer who has not read this manual.



NEVER use your Sprayer for any other purposes than its intended use. Any other use may cause an injury.

NEVER allow children to operate your Sprayer, nor adults lacking proper instructions. Keep them away from your work area. Your Sprayer is not a toy. Only the operator is to be near your Sprayer during use. Keep all others, including pets a minimum of 10 feet away from your work zone.

NEVER operate your Sprayer when under the influence of alcohol, drugs or medication. A clear mind is essential for safety.

NEVER allow a person who is tired or otherwise not alert to use your Sprayer.



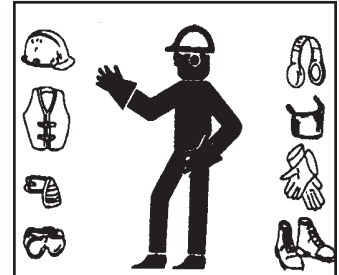
WARNING - Do not pump flammable or explosive fluids such as; gasoline, fuel oil, kerosene, etc. Do not use in explosive atmospheres. The pump should be used only with liquids compatible with the pump component materials. Failure to follow this warning may result in personal injury and/or property damage and will void the product warranty.

2.2 SAFETY WEAR

NEVER wear loose clothing or jewelry that can be caught by moving parts of your Sprayer and pull you into it. Keep clothing away from all moving parts of your Sprayer. Wear proper head gear to keep hair away from moving parts.

ALWAYS wear safety shoes.

ALWAYS wear safety glasses. Chemicals or other herbicides can irritate the eyes



If you wear gloves, be sure they are tight fitting without loose cuffs or draw strings.

Have a first aid kit available should the need arise and learn how to use it.



ALWAYS wear protective hearing devices as needed.



2.3 OPERATING SAFETY

YOU are responsible for the **SAFE** operation and maintenance of your Sprayer. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Sprayer be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Sprayer.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

Do not operate pump above recommended R.P.M.

Do not pump at pressure higher than the maximum recommended for the pump.

Operate pump between 45° and 145° liquid temperatures.

Make certain that the power source conforms to the requirements of your equipment.

Provide adequate protection in guarding around the moving parts, such as the shaft and pulleys.

Disconnect power before servicing.

Release all pressure within the system before servicing any component.

Drain all liquids from the system before servicing.

Secure the discharge lines before starting the pump. An unsecured discharge line may whip, causing personal injury and/or property damage.

Check hoses for weak or worn condition before each use. Make certain that all connections are tight and secure.

Periodically inspect the pump and the system components. Perform routine maintenance as required.

Use only pipe, hose and fittings rated for maximum rated pressure of pump or pressure at which pressure relief valve is set. Check with local supplier for proper pressure rating. **(Do Not Use Used Pipe!)**

Do Not use these pumps for pumping water or other liquids for human or animal consumption.

- Sprayer owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety feature on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** Review the safety instructions with all users annually.
- **Think SAFETY! Work SAFELY!**

2.4 OPERATING PROCEDURE

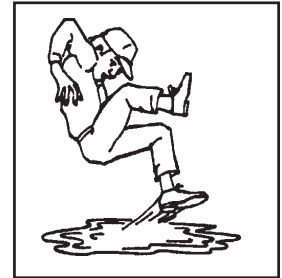
- ◆ Sprayer should be operated only by qualified persons.
- ◆ **ALWAYS** fill sprayer slowly to avoid spillage.
- ◆ When starting sprayer, maintain a safe distance from moving parts. Keep hands, feet and clothing away from all moving parts.
- ◆ **DO NOT** make adjustments when sprayer is running, unless specifically recommended.
- ◆ Be sure all tips are in good condition and nozzle caps are tight.
- ◆ Know how to stop the unit and disengage the controls.
- ◆ After seeing that your pump is primed, turn your sprayer on. Be sure all tips are functioning.
- ◆ Make sure the lid on your tank is secured.
- ◆ Check to be sure your controls are functioning properly. (If electric controls are used, reference the manufacturers manual provided for installation, operating and troubleshooting if problems arise.)
- ◆ **ALWAYS** follow directions of the chemical manufacturer when mixing or handling all chemicals.
- ◆ Be sure your pump is capable of pumping your chemicals. For example, cast iron roller pumps are not recommended for pumping acid base or abrasive chemicals as the pump will be ruined within a few short hours of use.
- ◆ **NEVER** leave your Sprayer unattended. Shut off the engine if you are leaving your Sprayer even for a short period of time.

2.5 REPAIR & MAINTENANCE SAFETY

Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

Follow good shop practices.

- Keep service area clean and dry.
- Be sure electrical outlets and tools are properly grounded.
- Use adequate light for the job at hand.



Make sure there is plenty of ventilation. Never operate engines in a closed building. The exhaust fumes may cause asphyxiation.

A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.



DON'T operate your Sprayer in poor mechanical condition or when in need of repair.

PERIODICALLY check that all nuts, bolts, fittings, clamps, hoses, and screws are tightened and properly installed.

DON'T alter your Sprayer in any manner. Such alterations may cause your Sprayer to be unsafe.

PERFORM all recommended maintenance procedures before you use your Sprayer.

REPLACE all damaged or worn parts immediately.

DISCONNECT power before servicing.

RELEASE all pressure within the system before servicing.

DRAIN all liquids from the system before servicing.

All replacement parts must meet manufacturer's specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.

2.6 SAFETY DECALS



ALWAYS REPLACE
MISSING OR
DAMAGED DECALS

CAUTION

**Not For Use With
Flammable Liquids**

**NOT FOR
POTABLE
WATER
STORAGE**

P.N. 10208



3 OPERATING INSTRUCTIONS

3.1 ASSEMBLY

The Model C-8 is shipped in one carton completely assembled. The battery charger is the only part not attached.

3.2 CHARGING BATTERY

Only the charger provided should be used to charge the battery. Any other charger may cause over-charging which will cause permanent battery damage.

The battery needs only 13 hours to fully charge. Leaving the battery on charge for extended periods will shorten battery life.

3.3 OPERATION

Operate sprayer with plain water to check operation and then add spray materials following manufacturers recommendations for the particular chemical you are using. (**Do not** use petroleum products, acids, paint, abrasive wettable powders or similar materials of heavy viscosity in your sprayer.) Before spraying any chemicals, read the label.

To adjust spray from a steady stream to a fine mist, turn the nozzle tip on your spray wand.



CAUTION: Turn only to steady stream as nozzle tip will screw off.

4 MAINTENANCE

4.1 MAINTENANCE INSTRUCTIONS

Your sprayer will operate most efficiently if you carefully follow the operating instructions and keep it thoroughly cleaned and lubricated. The following action must be taken to keep your sprayer at peak efficiency:

1. Keep all working parts clean and free of obstructions, with special attention to intake screen (ref. 23). Periodically examine them and replace worn or damaged parts.
2. After each spraying, empty the tank of spraying solution and wash it with clear water. Run clear water through the pump and spray gun. When using lime, sulphur, Bordeaux mixture or other highly corrosive mixtures **DO NOT DELAY** in thoroughly rinsing and cleaning the equipment. See special instructions (Section 5.2) for cleaning after using weed killers.

4.2 REMOVING PUMP OR BATTERY FOR SERVICING

- | | |
|--|--|
| <ol style="list-style-type: none">1. Gently pry with fingers or screwdriver back (Ref. 4) that is connected to hold-down bracket (Ref. 1) by velcro.2. Loosen swivel nuts (Ref. 17 & 18).3. Unscrew 2 nuts and remove hold-down bracket (Ref. 1).4. Lift tank (Ref. 3) from frame (Ref. 2). All parts should now be accessible. | <ol style="list-style-type: none">5. Disconnect wires from battery and remove battery (Ref. 8) by clipping battery strap (Ref. 40). Reorder battery strap when replacing battery.6. To remove pump loosen nuts (Ref. 35) and disconnect wire to switch (Ref. 26). For instructions on servicing pump see Section 7. |
|--|--|

5 CLEANING & STORAGE

5.1 BEFORE STORAGE

1. Run clear water through the pump and spraygun and rinse tank thoroughly. Completely drain the hoses, pump, tank, and spraygun.
2. The battery should be fully charged before storing.
 - a. Protect from freezing.
 - b. Store indoors.

5.2 CLEANING AFTER USING WEED KILLER OR HERBICIDE



CAUTION: All traces of 2, 4-D or other extremely persistent and powerful herbicides must be removed from the tank, pump, hose, and gun prior to applying agricultural or horticultural insecticides on trees, shrubs, vegetables, or other tender plants.

Follow the chemical supplier's recommendations carefully.

Contact your local county agricultural agent for data on new spray chemicals.

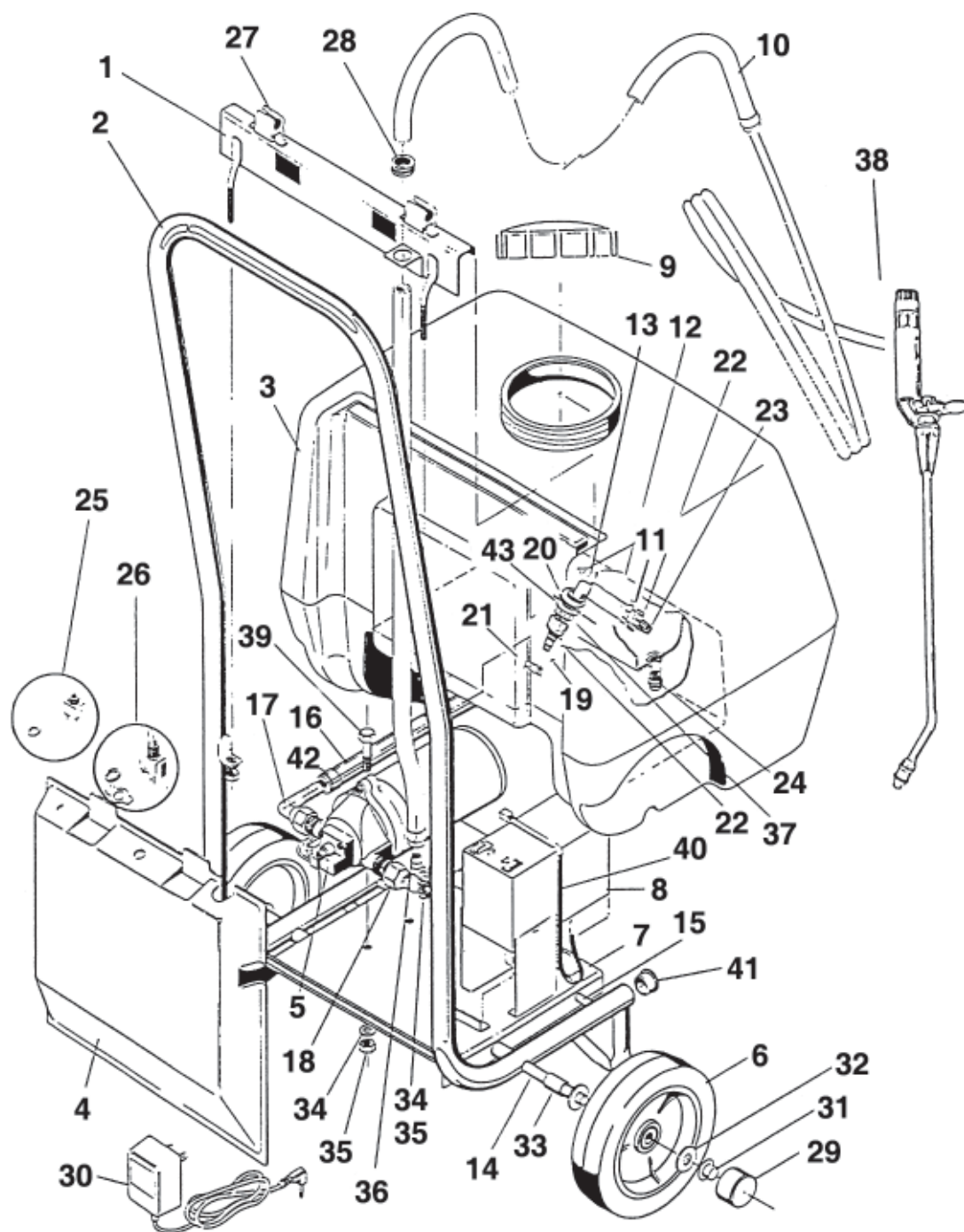
Next dissolve one ounce (approximately five teaspoons full) of household ammonia, tri-sodium phosphate, or sal soda per gallon of warm water and wash the sprayer, using several gallons of this cleaning solution.

Operate the sprayer several minutes with the gun discharging into the tank, making sure all interior surfaces are washed.

Discharge cleaning solution through gun and again thoroughly rinse several times with warm water. Tests indicate that numerous rinsings are more effective than a single long soaking.

6 PARTS BREAKDOWN

6.1 C-8 SPRAYER ASSEMBLY

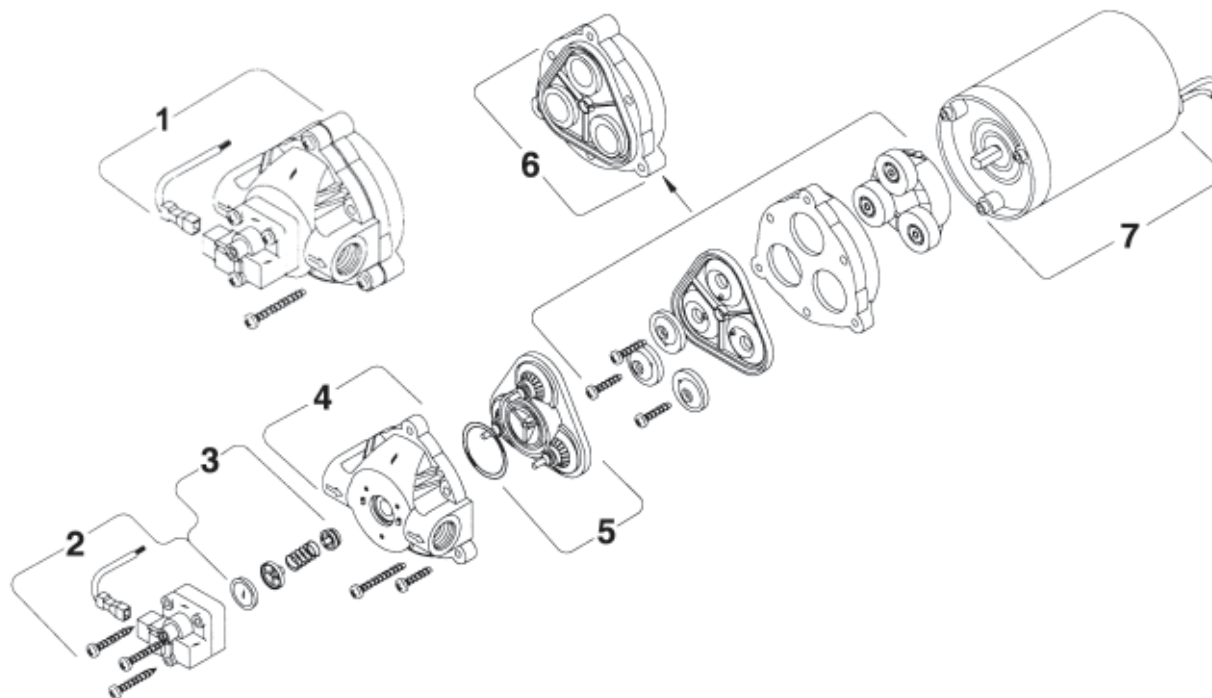


6.1 C-8 SPRAYER ASSEMBLY

<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	5380100	Bracket
2	1	5380110	Handle
3	1	5380102	Tank
4	1	5380103	Back Cover
5	1	8000-543-236	Pump
6	2	5271013	Tire & Wheel
7	1	5380104	Mount Plate
8	1	5370151	Battery 12 Volt
9	1	5340134	Lid
10	1	5380106	Hose, Handgun
11	1	3850MN	Hose Barb $\frac{3}{8}$ " x $\frac{1}{2}$ "
12	1	5380221	Hose $\frac{1}{2}$ " x 3"
13	1	5056023	Nozzle Body
14	1	5380111	Axle
15	1	5380112	Support Rod
16	1	5380222	Hose $\frac{1}{2}$ " x 6 $\frac{1}{2}$ "
17	1	5350108	Fitting, Swivel
18	1	5350107	Fitting, Swivel
19	1	8400-500-NYB	Hose Barb $\frac{1}{2}$ "
20	1	5380115	Washer, Sealing
21	1	SSC6	Clamp S.S.
22	2	5046052	Cap
23	1	5116019	Filter Screen
24	1	5380219	Plug, Drain $\frac{3}{8}$ "
25	1	5340123	Charger Receptacle
26	1	5340104	Switch
27	2	5380118	Clip, Gun
28	1	5075005	Grommet
29	2	5046018	Cap
30	1	5380119	Charger
31	2	5380120	Lock Cap
32	4	5016029	Washer
33	4	5380121	Spacer
34	6	5016025	Washer
35	6	5006041	Nut
36	1	5380122	Clamp
37	1	5380218	Nut
38	1	275-190	Handgun
39	4	5034083	Bolt $\frac{1}{4}$ " x 1"
40	1	5380123	Strap, Battery
41	2	5380125	Plug
42	1	5380124	Clamp
43	1	5380216	Washer

7 PUMP BREAKDOWN

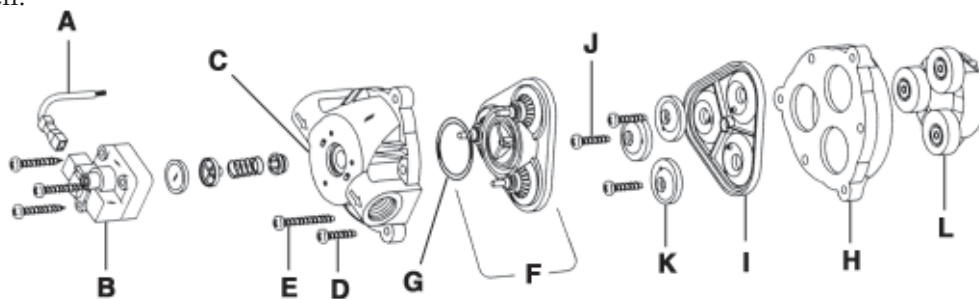
7.1 8000-543-236 PUMP ASSEMBLY - 1.8 GPM Only



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	94-380-02	Complete Pump Head
2	1	94-375-05	Switch Assembly
3	1	94-374-05	Check Valve Assembly
4	1	94-379-00	Upper Housing
5	1	94-390-05	Valve Assembly (Standard)
6	1	94-385-32	Solid Diaphragm/Drive Assembly
7	1	11-111-00	Motor

7.2 PUMP DISASSEMBLY & REPAIR

NOTE: Before starting work, make certain power to pump is off. Release liquid pressure on outlet line of pump before performing any maintenance. You may find it easier to remove the pump and work on a bench.



DISASSEMBLY:

1. Disconnect lead wires (A) from pressure switch (B). Note which wire goes to each lead on the switch.
2. The 8000 Series is equipped with a strain relief. Remove the strain relief plug by pushing out on plug from the motor side with a flat blade screwdriver and pull the lead wires through the strain relief.
3. Remove the upper housing (C) screws and nuts (D). **NOTE:** There is no need to remove the three pressure switch screws.
4. Remove the long screws (E). These screws hold the pump assembly to the motor.
5. Remove the upper housing (C), valve assembly (F), and o-ring (G).
6. Remove the lower housing (H) from motor.
 - a. With lower housing sitting on a flat surface, and with diaphragm (I) facing up, remove the three piston cap screws (J).
 - b. Remove piston caps (K) from diaphragm.
 - c. Remove diaphragm from lower housing.

RE-ASSEMBLY:

NOTE: The two sides of the diaphragm (I) are different. One side is shaped relatively smooth. It is the side that goes toward the motor (face down). The side with the large groove and the three dimples goes toward the pump head (face up).

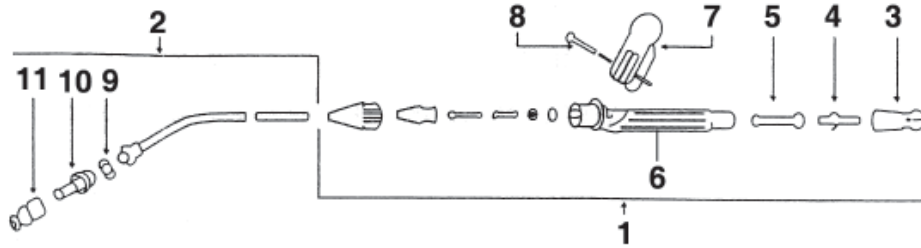
1. With the diaphragm in place on the lower housing, install the three piston caps (K) so that the small tapered hole in the piston cap fits the dimple on the diaphragm. **NOTE:** The flat side of the piston cap should face toward the diaphragm (or down).
2. Set the lower housing and diaphragm on top of the wobbler (L) and install the three piston cap screws (J). **NOTE:** The lower housing is now back together. The wobbler and diaphragm should move freely within the lower housing.
3. Place the valve assembly and new o-ring on top of the diaphragm. Make sure valve assembly seats properly on diaphragm.
4. Place the upper housing in position over the valve assembly diaphragm and lower housing. Replace the three screws and nuts. **Do not** run screws down tight until the pump head has been attached to the motor.

NOTE: There are small holes in the lower housing. These small openings are drain holes and should be down by the motor mounting plate when assembled to the motor.

5. Lubricate the motor shaft with a small amount of general purpose grease.
6. Align the groove of the motor shaft with the groove on the eccentric (wobbler) inside the lower housing. Check to be sure the drain holes are on the side with the motor mounting plate. Push pump head until it seats on the motor face.
7. Put the three long screws in place and screw down until each touches. Then tighten each screw securely.
8. Tighten the three outer screws and nuts.
9. Snap strain relief back into upper housing with thumb or flat head screwdriver and connect lead wires to pressure switch.

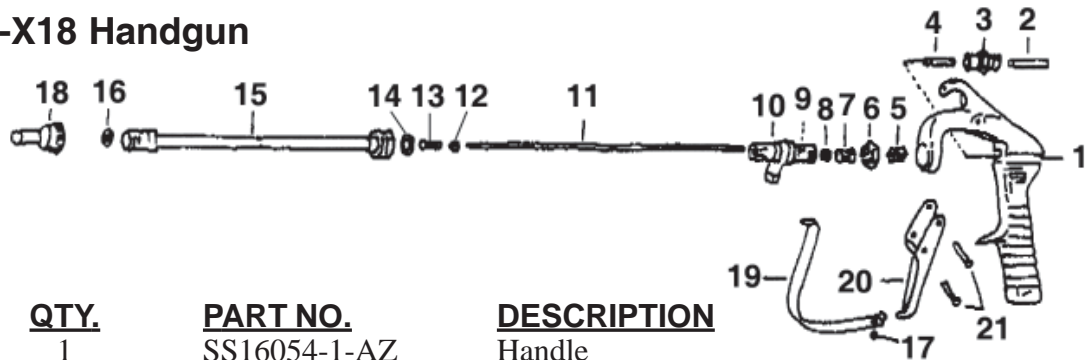
7.3 HANDGUN ASSEMBLY

275-190 Handgun



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	S2-16-53	Handle Assembly
2	1	S2-13-15	Pipe Assembly
3	1	S2-15-32	Connector
4	1	S2-15-42	Hose Barb
5	1	S2-15-51	Filter
6	1	S2-15-62	Handle Only
7	1	S2-15-12	Trigger
8	1	S2-14-81	Pin
9	1	S2-12-31	Gasket
10	1	S2-12-13	Body
11	1	S2-12-23	Cap

23L-7676-X18 Handgun



<u>REF #</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	SS16054-1-AZ	Handle
2	1	SS16053-1-SS	Spring 125 PSI
2	1	SS16053-2-S	Spring 800 PSI
3	1	SS7480-IZP	Spring Screw
4	1	SS7491-ALEF	Stud, Spring
5	1	SS8591-IZF	Guide
6	1	SS7486-SS	Lock Nut
7	1	SS16071-SS	Screw, Packing
8	1	SS14255-1-BN	Cap
9	1	SS7892-IZP	Key
10	1	SS16074	Body, Inlet
11	1	7677-18-SS	Stem
12	1	SS7679-1-SS	Nut
13	1	SS7678	Stem End
14	1	SS4743-TEF	Gasket
15	1	SS13206-18	Extension
16	1	SS23437-PP	Seat
17	1	SS9697-INP	Screw
18	1	SS5500-PPB-X12	Nozzle
19	1	SS9539-INP	Guard
20	1	SS14252-INP	Trigger
21	2	SS8038-IZP	Rivet

8 LIMITED WARRANTY



GEARMORE, INC., warrants each new Gearmore product to be free from defects in material and workmanship for a period of twelve (12) months from date of purchase to the original purchaser. This warranty shall not apply to implements or parts that have been subject to misuse, negligence, accident, or that have been altered in any way.

Our obligation shall be limited to repairing or replacement of any part, provided that such part is returned within thirty (30) days from date of failure to Gearmore through the dealer from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature, direct, consequential or contingent, to person or property. This warranty does not extend to loss of crops, loss because of delay in harvesting or any other expenses, for any other reasons.

Gearmore in no way warrants engines, tires, or other trade accessories, since these items are warranted separately by these respective manufacturers.

Gearmore reserves the right to make improvements in design or changes in specification at any time, without incurring any obligations to owners or units previously sold.

GEARMORE, INC.
13477 Benson Ave.
Chino, CA 91710

Always refer to and heed machine operating warning decals on machine.

The serial number of this product is stored in our computer database, thus submitting a warranty registration card is not required.