

# **CROPCARE**

TM

Equipment Built For You

## **40 GALLON SPOT SPRAYER**

Model LG40

Owner's Manual



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A Paul B Zimmerman Inc. Company

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PaulB LLC thanks you for choosing to purchase one of our spot sprayer models. We appreciate your business and want to personally fill all of your sprayer needs. We also desire to provide you with the technical support and needed parts that will allow you to continue spraying without disruption. See the Contact Us section on page 13.

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## Before You Begin

- ◆ **Please read and understand this manual and its instructions and warnings completely before operating the sprayer.**
- ◆ **Be aware of all safety guidelines, warnings, and cautions including those of any piece of equipment the spot spray may be mounted on.**
- ◆ **Read and understand the chemical manufacturer's labels, warnings, and instructions.**
- ◆ **Know and fulfill all necessary state pesticide applicator license requirements as some chemicals will require a license to purchase.**

# ! Safety Precautions !

## General Guidelines

Every year many unnecessary accidents occur due to improper equipment handling and a disregard for safety precautions. You, the operator, can avoid accidents by observing the precautions in this section.

- ◆ The operator should be a responsible adult. **Do not allow persons to operate this sprayer until they have displayed a thorough understanding of sprayer safety precautions and operational use!**
- ◆ **All operators must fulfill all necessary state pesticide applicator license requirements!**
- ◆ Never attempt to operate this sprayer when under the influence of alcohol or drugs.
- ◆ A chemical warning decal and an owner's manual



Figure 1: Chemical Warning Decal(# DEMT3980)

- warning decal are located on the sprayer's tank. Be aware of their location. See Figure 1 and Figure 2. Always replace any warning decals that aren't legible or are missing.
- ◆ If there is any portion of this manual that you do not fully understand, please contact PaulB LLC.



Figure 2: Owner's Manual Decal(# DE39)

## Before Operation

- ◆ Carefully study and understand this owner's manual.
- ◆ **Read and follow chemical manufacturer's labels, warnings, and instructions!**  
A material safety data sheet (MSDS) should be provided by the chemical manufacturer.
- ◆ To avoid injury from chemical hazards, **wear the proper protective clothing. Each chemical manufacturer's clothing requirements are listed under the "Personal Protective Equipment (PPE) section in the chemical instructions.**
- ◆ Never exceed the load rating of the piece of equipment that the spot sprayer is mounted on. The 40 gallon spot sprayer weighs around 375 lbs. with a full tank.
- ◆ Have all operators practice operating the sprayer until all persons are completely capable of safe operation.
- ◆ **Give the sprayer a visual inspection** for any worn parts, leaking hoses, or other visible problems, and make the necessary repairs. See the maintenance section(page 6).

### During Operation

- ◆ **Always be aware of bystanders, particularly children!**
- ◆ **DO NOT** allow passengers to ride on the equipment the sprayer is mounted on.
- ◆ Be aware of dangerous terrain such as holes, slopes, drop-offs, banks, rocks, and hidden hazards. Operate the equipment and sprayer up and down slopes, not across.
- ◆ Never leave running equipment unattended!
- ◆ Remember that accidents can even happen to seasoned operators. Always take your time and follow all safety instructions.

### Following Operation

- ◆ Always rinse the tank and flush the pump of all harmful chemical residue.
- ◆ Store the sprayer away from human and livestock activity and in an area protected from the elements.
- ◆ Do not permit children to play on or around sprayer.

### Pump Safety Precautions

- ◆ Never pump flammable, explosive, petroleum-based, or any other non-compatible products such as gasoline, fuel oil, kerosene, etc. Such practices will void the manufacturer's warranty.
- ◆ **DO NOT** allow the pump to get wet or to be exposed to the elements. Allowing the pump to get wet or to be exposed to the elements voids the manufacturer's warranty.
- ◆ **Note: The pump may be run dry for limited periods without resulting in damage.**
- ◆ Never attempt to adjust the pressure of the pump. Any unapproved pump adjustment will void the manufacturer's warranty.
- ◆ Always disconnect the power to the pump when working on the pump. Failure to do this could result in electrical shock.

## Mounting the Sprayer

This spot sprayer is designed to be mounted on the rack of an ATV, on a garden trailer, or on a utility vehicle such as a John Deere Gator™. Mounting the sprayer correctly and securely will ensure consistent and safe spraying.

## Sprayer Unit

1. Before mounting the sprayer on any piece of equipment **determine whether the sprayer weight exceeds the equipment manufacturer's load rating.** The 40 gallon spot sprayer weighs around 375 lbs with a full tank.
2. The sprayer tank is mounted on a steel powder-coated frame with four pre-drilled holes. For optimal stability mount the sprayer with bolts using the pre-drilled holes in the sprayer frame. **See Figure 3 on page 4.** For some temporary situations it may make more sense to strap the spray down with heavy-duty straps. If you choose to strap the sprayer down ensure that it is fastened securely.

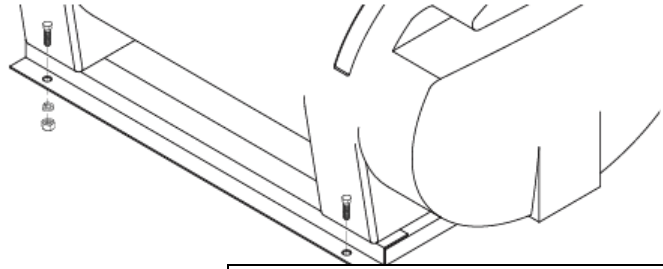


Figure 3: Sprayer unit mounting

**Note:** If you are permanently mounting the sprayer in an outdoors location that isn't protected from the elements, it is important that you cover the pump to protect it.

## Wiring Harness

1. The spot sprayer includes an eight foot wiring harness with a built in fuse and control switch. The end of the wiring harness with a two-prong plug needs to be connected to the pump's adapter plug.
2. The other end of the wiring harness needs to be attached a power source with at least a 10 amp and 12 volt capability. In most cases the power source is the 12 volt battery on the piece of equipment being used(ex battery on an ATV, mower, utility vehicle). Attach the red wire's ring terminal to a positive power source and the black wire's ring terminal to a negative power source. **See the Accessories section on page 12 if additional wire length is needed.**

**Note:** The end of the wiring harness with the ring terminals is detachable and can be left attached to the battery for convenience purposes.

3. The wiring harness also is equipped with an in-line on-off control switch. This control switch should be positioned in a location that is easily accessible and will not interfere with operation of the piece of equipment. The control switch can be strapped into place if appropriate.

# Operating Instructions

Before operating the sprayer, it is important that you read this entire manual and know all safety precautions. Always take your time and be alert when operating your sprayer. This will allow you to safely spray without accident or interruption.

## **Before and During Operation:**

1. Before operation it is important to give the sprayer unit a thorough inspection, which covers the hoses, wiring harness, and other sprayer components. Ensure that the suction strainer and the tank are rinsed out.
2. Before using any chemical or product ensure that it isn't a petroleum-based product or a non-compatible chemical for the pump. Using petroleum-based products or non-compatible chemicals voids the manufacturer's warranty. If you are unsure of the acceptableness of a chemical or substance, contact PaulB LLC.
3. Fill the sprayer tank with the amount of water and chemicals as instructed by the manufacturer of the chemical being used.
4. Connect the wiring harness to an approved power source as directed in the Mounting the Sprayer section on page 3. Turn the control switch to the on position and allow the pump to run until it reaches its maximum pressure. The pump will automatically turn off when its maximum pressure is reached. The pump does not need to manually turned off with the control switch.
5. When you are ready to spray, point the gun in the desired direction and squeeze the trigger on the spray gun. The pump will automatically start when the spray gun is engaged.
6. The spray gun's liquid flow can be adjusted by turning the spray tip at the end of the spray gun wand. The spray gun's trigger can also be locked in the "on" position by sliding the plastic tab on the top of the trigger towards yourself.

## **Following Operation:**

1. Thoroughly rinsing the sprayer of any chemical residue is an important activity. It is recommended to fill the tank with fresh water and engage the spray gun until the system is entirely free of chemical residue. It is important not to rinse the sprayer in an area where humans, animals, or sensitive plants could come in contact with chemical residue.
2. Store the sprayer in a location where it will be away from human or animal activity. Do not allow children to play on or near the sprayer.

# Maintenance Instructions

## Routine Maintenance

It is very important to perform routine maintenance on your sprayer before and after each use. Good maintenance practices will help to guard against any unnecessary sprayer breakdowns or accidents.

1. It is recommended to perform a visual and physical inspection for any worn parts, damaged hoses, or other visible problems. Make all necessary repairs before spraying. See the Contact Us section (page 13) for instructions on ordering parts and getting technical help.
2. **After each use it is important to rinse the pump** and all components by running water through the system. Fill the tank with a sufficient amount of fresh water and engage the spray gun. Rinsing the pump with fresh water will greatly improve the life of the pump!
3. The suction strainer should be taken out and rinsed regularly.
4. Always follow all pump safety precautions and warnings (page 3). Following these guidelines will help to ensure many years of smooth and trouble-free pumping.

## Winterizing your Sprayer

To avoid damage from freezing and corrosion, it is important to winterize your sprayer before temperatures grow too cold.

1. Verify that the tank is empty and rinsed out. Dump a ½ gallon of RV nontoxic antifreeze into the tank. **It is not recommended to use standard antifreeze. Standard antifreeze can be harmful to humans, animals, crops, and the environment.**
2. Engage the pump and spray with the spray gun for several minutes. Ensure that the antifreeze has been pumped through the entire system.
3. Store the sprayer in a dry location away from the elements.
4. Before spraying in the spring it is recommended to flush the sprayer with fresh water to cleanse it of the antifreeze and any other buildup. It would also be beneficial to do a thorough inspection of all sprayer components before spraying.



# Trouble Shooting

During the many years you will use your spot sprayer, it is possible that you will encounter minor problems that can be easily fixed. The following problems and respective causes and solutions should cover most of the potential problems that you may face. If you are having problems please attempt to use this troubleshooting section to solve the problem. If you are unable to fix the problem please contact our trained sprayer technicians for technical advice at no charge or to have one of our technicians repair your spot sprayer. See the Contact Us section on page 13 for ordering parts and contact information.

## Common Troubleshooting

<i><b>Problems/Symptoms</b></i>	<i><b>Possible Causes</b></i>	<i><b>Solutions</b></i>
<b>Low Rate of Flow</b>	Suction strainer is partially clogged	Remove the suction strainer and rinse.
	Pump valves are damaged/bad	Replace the valves(ref# 4) or See PaulB LLC for repairs.
	Low voltage	Use a power source with at least 10 amps and 12 volts.
<b>Pump Doesn't Prime</b>	Suction line is clogged	Inspect the suction line for debris.
	Suction strainer is clogged	Remove the suction strainer and rinse.
	Pump damaged from chemicals that weren't rinsed out properly	See PaulB LLC for service and pump repairs.
<b>Pump Doesn't Run</b>	Fuse is blown	Replace the fuse on wiring harness (ref# 26).
	Incorrect voltage	Ensure you are using a 10 amp, 12 volt power source.
	Pump pressure switch is malfunctioning	Replace the pressure switch(ref# 1) or see PaulB LLC for repair.
<b>No Spray Flow</b>	Spray tip clogged	Remove the spray tip and rinse it out.
	Suction strainer is clogged	Remove the suction strainer and rinse.

# **PaulB LLC Limited Warranty**

## **40 Gallon Spot Sprayer: Model LG40**

### **Warranty Coverage**

PaulB LLC hereby provides a **Limited One (1) Year Warranty** on the 40 gallon spot sprayer model LG40 manufactured by PaulB LLC from the date of original purchase. Spot sprayers built by PaulB LLC are warrantied against any manufacturer's defects that may occur to any of the sprayer's components in the 12 months following the original date of purchase. This warranty covers the purchaser of this spot sprayer and any other owners who own it during the one year warranty period. To retain the warranty, the spot sprayer must be operated and maintained as ascribed by its owner's manual.

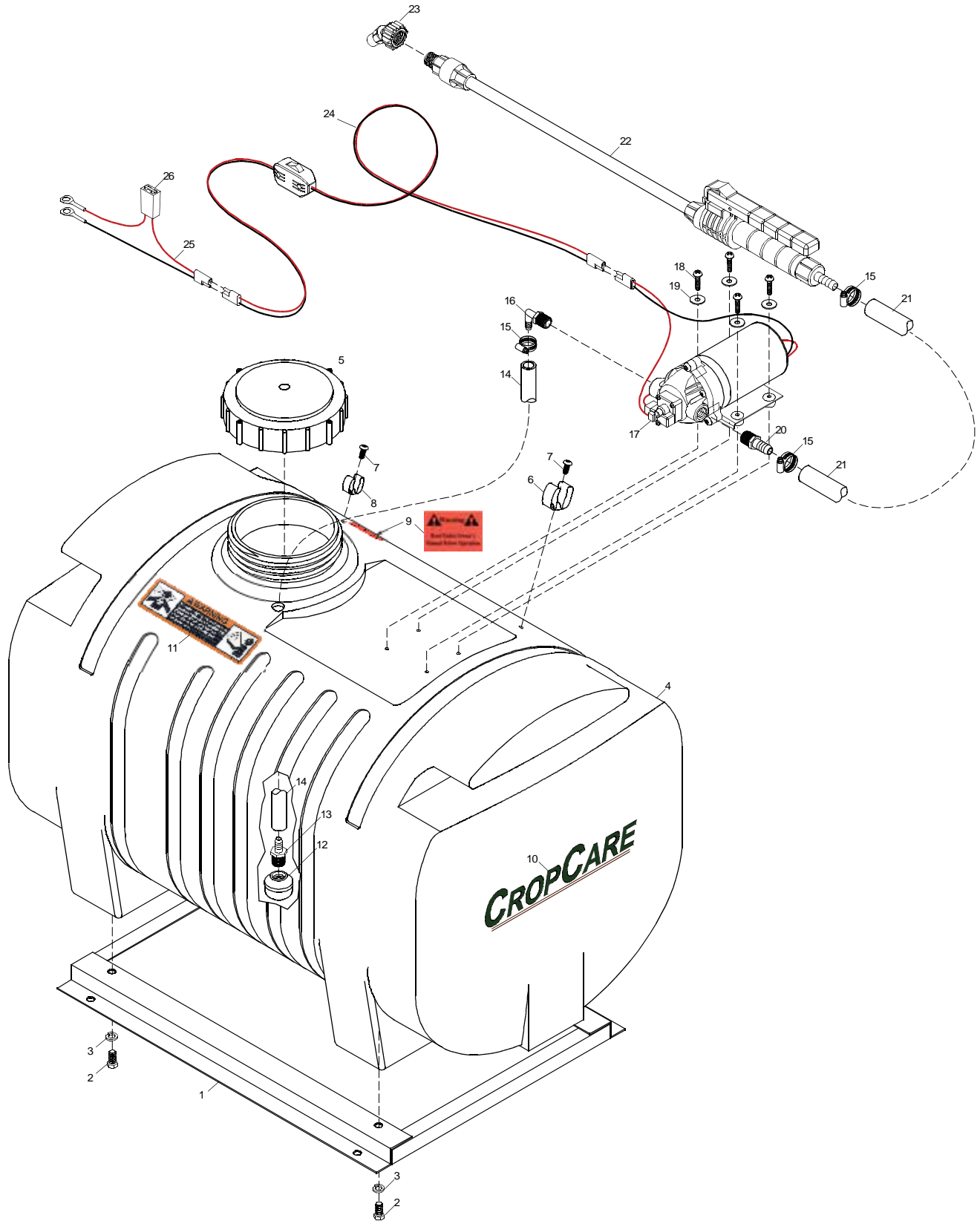
### **Warranty is void if:**

1. The spot sprayer has been subjected to, in the opinion of PaulB LLC, negligent handling, misuse, an accident or if the instructions in the owner's manual were not followed.
2. The spot sprayer's components have been altered in any manner or repairs have taken place with unapproved parts. Alterations include adjusting the pressure setting of the pump.
3. The spot sprayer and its components were subject to freezing or freezing conditions. The spot sprayer must have been winterized as per the maintenance instructions to retain the warranty.
4. The spot sprayer was powered by a power source other than a 10 amp, 12 volt DC power source.
5. A non-compatible chemical(including petroleum-based or flammable liquids) was used and/or if the sprayer operator failed to rinse all chemical residue out of the sprayer's components after use.
6. The pump was allowed to get wet repeatedly or was unprotected from the elements.

### **Getting Service**

All spot sprayer warranty claims must be made through PaulB LLC. All warranty claims must be submitted with an invoice or a proof of purchase that denotes the purchase date and place. If you have any questions or comments concerning this warranty, please contact PaulB LLC.

# Sprayer Breakdown



## Spot Sprayer Parts List

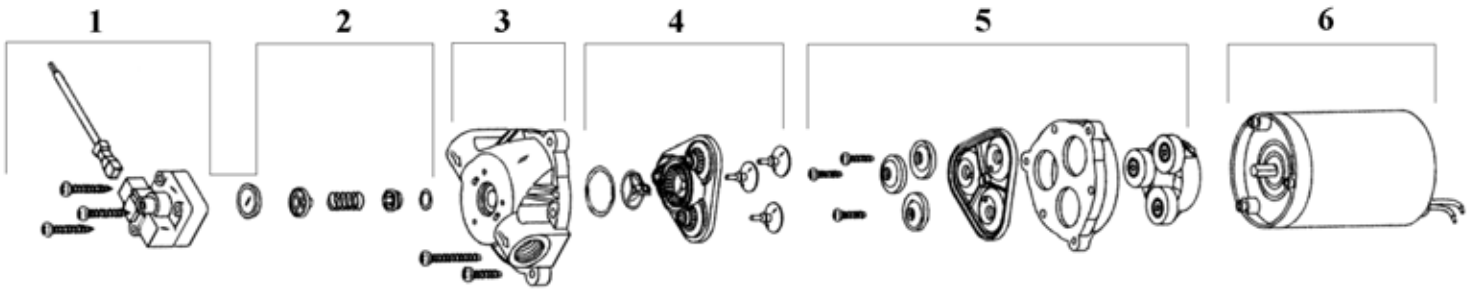
<i>Ref #</i>	<i>Qty.</i>	<i>Part Number</i>	<i>Description</i>
1	1	T233	Tank frame, 25 gallon lawn & garden tank
2	4	H5C516*34	Hex cap screw, 5/16" x 3/4", grade 5
3	4	LW516	Lock washer, 5/16"
4	1	10959	40 gallon lawn & garden tank, yellow <b>(includes ref# 5)</b>
5	1	60322*	Threaded tank lid, 5", black
6	1	C13201	Grip clip
7	2	MR1024*38S	Machine screw, 10-24 x 3/8", stainless, round
8	1	N189472	Grip clip, 3/8" - 5/8", zinc
9	1	DE46	Crop Care logo decal
10	1	DEMT3980	Chemical warning decal
11	1	DE39	Owner's manual warning decal
12	1	10416D	Suction strainer, 3/8" fpt, 40 mesh
13	1	3A3838	Hose adapter, 3/8" barb x 3/8" mpt
14	19'	6106	Vinyl reinforced tubing, 3/8", 250 psi
15	3	62602	Hose clamp, 1/4" - 5/8", stainless steel
16	1	3EL3838	Hose adapter elbow, 3/8" mpt x 3/8" barb, poly
17	1	8000-543-936**	SHURflo® 12 volt pump, 1.4 gpm
18	4	MR1024*1S	Machine screw, 10-24 x 1", stainless, round
19	4	FW14S	Flat washer, 1/4", stainless
20	1	3A3838	Hose adapter, 3/8" barb x 3/8" mpt
21	15'	6106	Vinyl reinforced tubing, 3/8", 250 psi
22	1	5080015PP406	Triggerjet® spray gun, 15" extension <b>(includes ref# 23)</b>
23	1	38720PPBX18*	Adjustable conejet spray tip, orange
24	1	SPT-SWH-9615	Wiring harness with switch
25	1	SPT-BCG-1215	Detachable pig tail wiring harness w/ fuse
26	1	ATC-15*	Buss fuse, 15 amp

\*Part is included in a complete assembly.

\*\*See complete pump breakdown on page 11.

# SHURflo® Pump Breakdown

## Part # 8000-543-936



<i>Ref #</i>	<i>Qty.</i>	<i>Part Number</i>	<i>Description</i>
1	1	9437505	Switch kit, viton, 60 psi
2	1	9437405	Check valve kit
3	1	9437900	Upper housing kit
4	1	9439005	Valve kit, viton
5	1	9438532	Diaphragm & drive kit, santoprene
6	1	1111100	SHURflo® motor, 12 volt

# Accessories

There are many beneficial accessories that can complement your spot sprayer and help you to optimize your operation. If you need parts or accessories that aren't listed in this owner's manual, please contact us and we will attempt to fill all of your needs. See the Contact Us section on page 13 for information on ordering and shipping.

## 3/8" Vinyl Reinforced Hose

Part Number: 6106



Additional hose comes in handy for reaching those hard to get to places. This durable hose can be cut to length and is available in additional sizes.

## Adjustable Brass Spray Tip

Part Number: 5500X18



Upgrade your spray gun with this durable brass spray tip. This spray tip is adjustable and will increase the performance of your spray gun.

## 10' Wiring Harness Extension

Part Number: 9428



Need an additional length of wire? A 10' wiring harness extension simply plugs into your existing wiring harness giving you the length you need.

## Triggerjet® Spray Gun

Part Number: 22670PP1514



Increase your spraying performance by replacing your existing spray gun with a Triggerjet® spray gun. This spray gun features a 15" wand and can be repaired with replacement parts.

# Contact Us

We desire to give you continuing service in the best manner possible. This includes listening to your comments, suggestions, and problems. We will do our best to answer all questions thoroughly and in a timely manner. We have trained sprayer technicians who are more than willing to listen to any questions or problems and help you to find a feasible solution.

## Ordering Parts

We have a fully-stocked parts department that will be able to meet all of your parts needs. Our trained salespersons will ensure that all purchases are processed smoothly and shipped in a timely manner. Our hardware store also has a plumbing, electrical, automotive, paint, lawn & garden, and a power tool department. We are set up to ship our products via UPS and would be glad to work with you on the best shipping solution. If you desperately need a part, we are able ship UPS Next Day Air for many locations.

**Note:** When ordering parts, please provide our sales staff with the correct part number and description listed on the parts list. **To directly reach our parts department, please call (717) 738-7355 ext 2000.**

# **CROPCARE**™

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