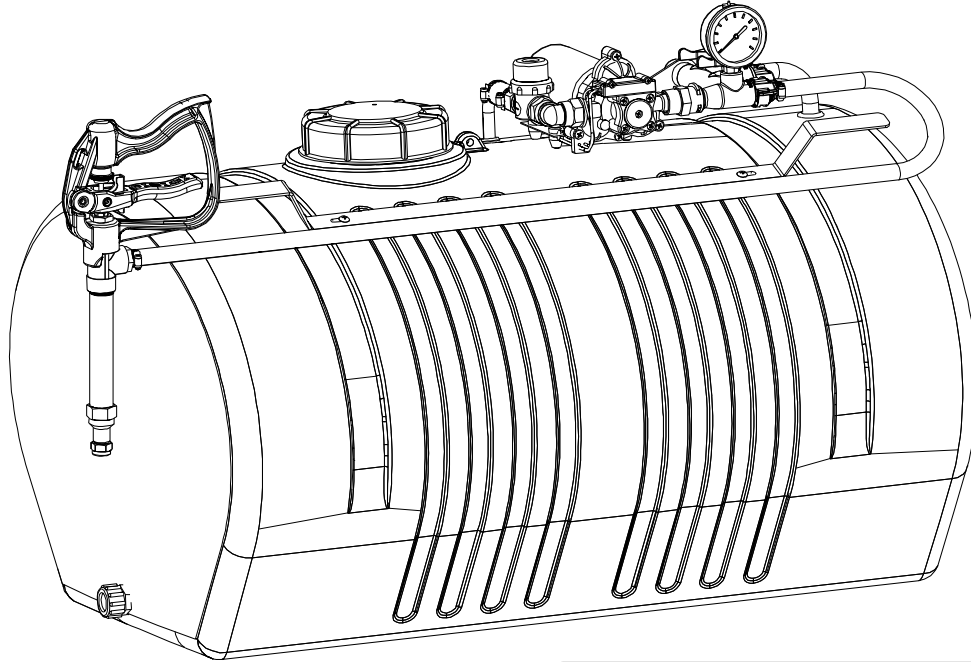


# OWNER'S MANUAL

**Model: DIAMOND55 (5302069)**  
 (55 Gallon Deluxe Lawn & Garden Spot Sprayer)



## General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your lawn & garden spot sprayer.



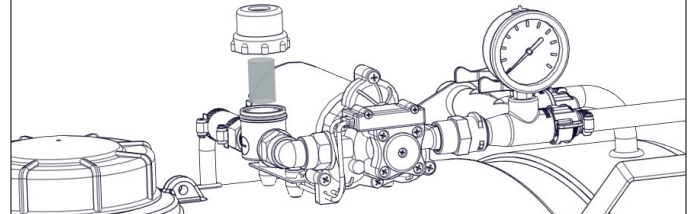
**WARNING:** Cancer and Reproductive Harm.  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)



**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

### \*\*\*IMPORTANT REMINDER\*\*\*

You must occasionally check and clean the strainer screen, especially if experiencing a sudden loss of pressure.



BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL		
<b>BAKERSFIELD, CA</b> 877-724-2236	<b>COLUMBUS, NE</b> 800-274-1025	<b>DOTHAN, AL</b> 800-227-4098
<b>FARGO, ND</b> 701-280-2862	<b>HOPKINSVILLE, KY</b> 800-637-7172	<b>MANKATO, MN</b> 507-388-6295
<b>NEWTON, KS</b> 800-394-7662	<b>PASCO, WA</b> 800-634-2026	<b>TEMPE, AZ</b> 877-974-7166

If you should have a question or experience a problem with your Ag Spray Product: Visit our website @ [www.agspray.com](http://www.agspray.com) or call the Toll free number above. Our technical support representatives will be happy to help you.

In most cases a customer service rep. can resolve the problem over the phone.

To obtain prompt, efficient service, always remember to give the following information....

- Correct Part Description and/or part number
- Model number and Serial Number

Part descriptions and numbers can be obtained from the illustrated parts list section(s) of this manual.

**Retain a copy of your receipt for your unit, as it will be required to validate any warranty service.**

Warranted against manufacturer or workmanship defects from date of purchase with copy of receipt:

Homeowner Usage: One Year

Commercial Usage: 90 Days.



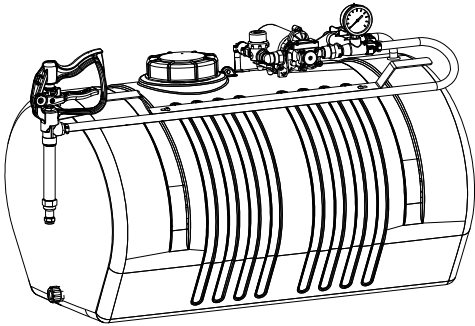
[www.agspray.com](http://www.agspray.com)

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## Model: DIAMOND55 (5302069) (55 Gallon Deluxe Lawn & Garden Spot Sprayer)

### Technical Specifications

- 55 Gal. Corrosion-Resistant Polyethylene Tank
- 12 Volt Diaphragm Pump, 4.0 GPM, 45 PSI
- Aluminum "GunJet" Pistol Grip Handgun w/15' 3/8" Hose

**Caution: Always check vehicle load rating before using the sprayer. Do not exceed the recommended weight. The loaded weight of this sprayer is approx.: 275 lbs. when the tank is full.**

### ~~~~~IMPORTANT~~~~~

Remove tank lid and be sure the tank is clean and free of any foreign material. Rinse tank out of any tank residue before filling with water to test.

### ~~~~~IMPORTANT~~~~~

It is VERY important to test this sprayer with plain water before actual spraying is attempted. This will enable you to check the sprayer for leaks without the possibility of losing any expensive chemicals.

### ~~~~~WARNING~~~~~



**Read and Understand** the Owner's Manual completely before using this sprayer. Assemble, test and use in accordance to manual instructions.

**Read and Follow** chemical label instructions and wear protective gear when filling, using, cleaning and servicing the sprayer.

**Exercise Caution** in vehicle handling when towing/hauling a filled sprayer to avoid loss of control or overturning.

**Keep Sprayer and Spray materials** away from other people, children and pets.

**Do Not Turn on Power** to the sprayer, until ready to spray in order to avoid unintentional spray release.

**Do Not Use** on steep slopes. A full sprayer could cause loss of control or overturn sprayer and vehicle.

**Always operate** up and down a slope, never across the face of a slope.

**Keep all movement on slopes** slow and gradual. Do not make sudden changes in speed, directions or turning. Do not start or stop suddenly when going uphill or downhill.

**Stop on level ground**, set the parking brake and shut off engine before leaving the operator's position for any reason.

**Keep all parts** in good condition and properly installed. Fix damaged or worn parts immediately.

**Caution should be taken** when towing and/or using any sprayer. This sprayer combined with the weight distribution, turning radius and speed of vehicle can result in damage to vehicle and/or sprayer or severe injury or death, if not used properly.

**Improper use of this sprayer or handling of chemicals could result in serious injury or illness, or could cause damage to the environment.**

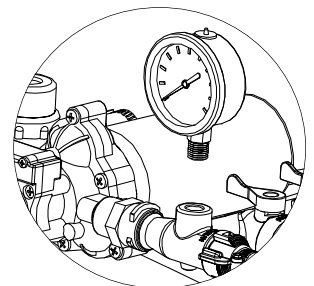
### Assembly Instructions

Your sprayer has been mostly assembled at the factory.

Install the pressure gauge. Using pipe sealant or plumber's Teflon tape, hand tighten securely. **\*\*Do Not Over-Tighten.\*\***

Make sure all hose clamps are tight before testing or spraying for the first time.

One requirement will be for you to hook up your battery leads to a fully charged 12 Volt battery.



**\*\*The Sprayer is now ready to TEST w/plain water before actual use\*\***

**IMPORTANT:** Remove tank lid and be sure the tank is clean and free of any foreign material. Rinse tank out of any tank residue before filling with water to test.

### Testing the Sprayer

#### NOTE:

It is VERY important to test this sprayer with plain water before actual spraying is attempted. This will enable you to check the sprayer for leaks without the possibility of losing any expensive chemicals.

Fill the tank about 1/2 full with plain water and drive to the starting place for spraying.

When you are ready to spray, turn the boom valve (your handgun is connected to this outlet) to the "on" position (Detail A). This will start solution spraying from handgun when the trigger is pulled. The pressure will decrease slightly when spraying.

Adjust the pressure by turning the "ON/OFF" valve lever on the pressure adjust valve (Detail B). Make sure your pattern is sufficient. You may down-pressure the system by 'bypassing' solution back into the tank. This is achieved by opening the pressure adjust valve. Regulating pressure is done in this manner.

Read the operating instructions and initially begin spraying by closing the 'Pressure Adjust' valve and opening the boom line valve (Detail A). This will enable the air in the line to be eliminated (purged) through all the tip, when the trigger is pulled on the handgun, while building pressure. When everything tests all right (no leaks and good pressure), add the desired chemicals to the mixture and water combination and start your spraying operation. Adjust the pressure and spray as you did in the testing procedure.

Conditions of weather and terrain must be considered when setting the sprayer.

Do not spray on windy days. Protective clothing must be worn in some cases.

**Be sure to read the chemical label(s) before application!**

#### Operation

The pumping system draws solution from the tank, through the strainer and to the pump. The pump forces the solution under pressure to the handgun nozzle.

Fill the tank part way with water and then add the desired amount of chemical to be sprayed. Finish filling tank to proper level.

**Only fill the tank with what you're going to spray in a day, never leave chemicals sit in tank.**

Connect the lead wire to a fully charged 12 volt battery. You may use either a stand-alone battery or the battery on your towing vehicle. Connect to the positive (red) terminal first, then connect to the negative (black) terminal. Then connect the end of the lead wire to the end of the pump. When disconnecting, disconnect the end of the pump wire from the lead wire, then disconnect the negative (black) connection and finally the positive (red) connection. The lead wire has an On/Off switch to activate the pump. "-" is on and "O" is off. Turn the pump on by depressing the "-" side of the rocker switch.

The pump is equipped with a pressure switch that is pre-set at the factory to shut the pump off when all discharges are closed.

The pump will turn back on when one of the following actions occurs:

- ◆ Pressure adjust valve is opened to re-circulate solution back into the tank.
- ◆ Trigger is pulled on the handgun.

#### Tank Care & Maintenance

**Warning:** Do not use the tank as a container for fuel oils, kerosene, gasoline or any other petroleum distillate product. All polyolefins are softened and permeated by such products. In an enclosed area the vaporization of these materials from the outside surface of the tank could create a dangerous condition.

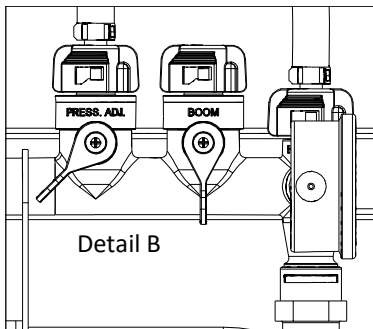
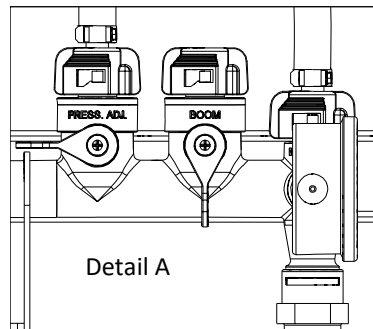
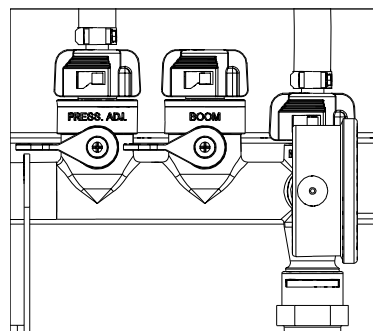
The tank should not be used as a pressure vessel nor used with chemicals or solutions having a weight of more than 12 pounds per gallon.

Store the tank in a dry dark place when not in use. Storage out of sunlight will prolong the life of the tank.

Do not drop, strike or kick the tank, especially at low temperatures. Tanks become brittle and are subject to cracking at temperatures below 20° Fahrenheit.

Always flush the tank with water and a neutralizing agent at the end of each use, to prevent contamination of solutions.

Manifold Valves CLOSED



### Maintenance During/After Spraying

Periodically check the strainer and clean the screen on your intake line.

If sprayer becomes clogged during use, discontinue use immediately. DO NOT attempt to service while chemicals are in the sprayer and power is connected.

Proper care and maintenance will prolong the life of your sprayer.

After use, drain the tank and store or dispose of chemical properly. Fill the sprayer half way with clean water. Start the pump and allow the water to pump through the entire plumbing system and nozzles. Drain and then refill half full, add the recommended amount of a good quality tank cleaner, such as FIMCO Tank Neutralizer and Cleaner. (If no tank cleaner is available, you may substitute dish soap for this step, about 1-2 oz. per gallon). But a neutralizer/cleaner should be used to thoroughly clean the system. Turn pump on and circulate through system for 15 minutes and then spray out through boom and handgun nozzles. Refill sprayer half way with clean water and repeat. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water.

If boom (if applicable) or handgun nozzles need cleaning, remove them from the sprayer and soak in warm soapy water. Clean with a soft bristled brush or toothpick if necessary. Never use a metal object. Even the slightest damage can change the flow rate and spray distribution. Water rinse and dry the tips before storing.

**WARNING:** Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use. DO NOT allow chemicals to sit in the pump for extended times of idleness. Follow the chemical manufacturer's instructions on disposal of all waste water from the sprayer.

### Winter Storage

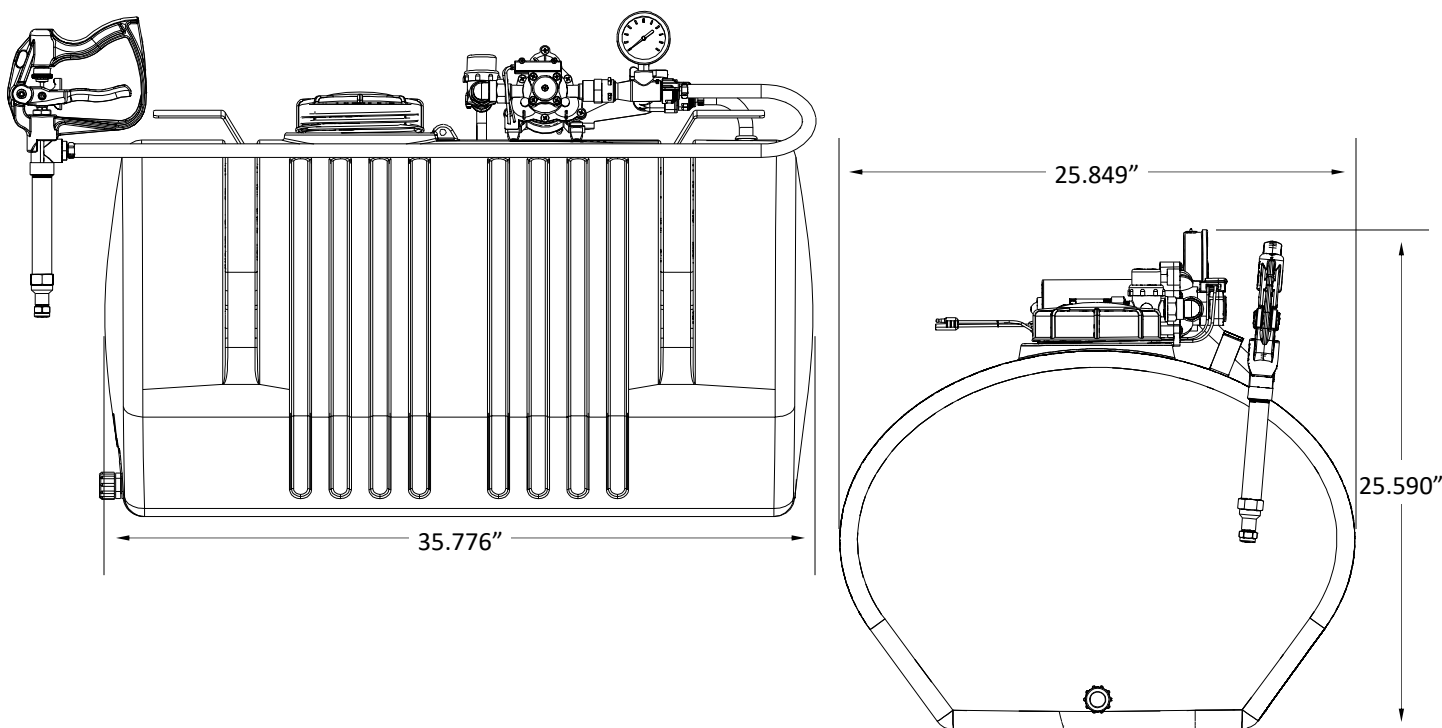
Prepare the sprayer for end-of-season storage by running RV antifreeze through the system. This will keep internal parts lubricated, protect against corrosion and keep the unit from freezing. *Note: RV antifreeze is non-toxic and biodegradable and generally safer for the environment than automotive antifreeze.*

Before storing your sprayer for winter or long term storage, thoroughly clean and drain it as much as possible. Then pour enough pink RV antifreeze into the tank so that when the pump is turned on you can pump the antifreeze throughout the entire plumbing system, including the pressure adjust (bypass) line. Make sure to operate the boom and handgun until you see pink fluid spraying from the nozzles. Leave any remaining antifreeze in the tank. Before your next usage, rinse the antifreeze from the sprayer with clean water.

It is nearly impossible to drain all of the water from the sprayer and any trapped water can freeze in cold weather and damage parts of the sprayer. Pumping antifreeze through the system will displace the water and help prevent damage.

Removing from storage: drain the antifreeze. Fill the tank with fresh water and run through the system. Dispose of antifreeze and flush water properly

### Approx. Dimensions:





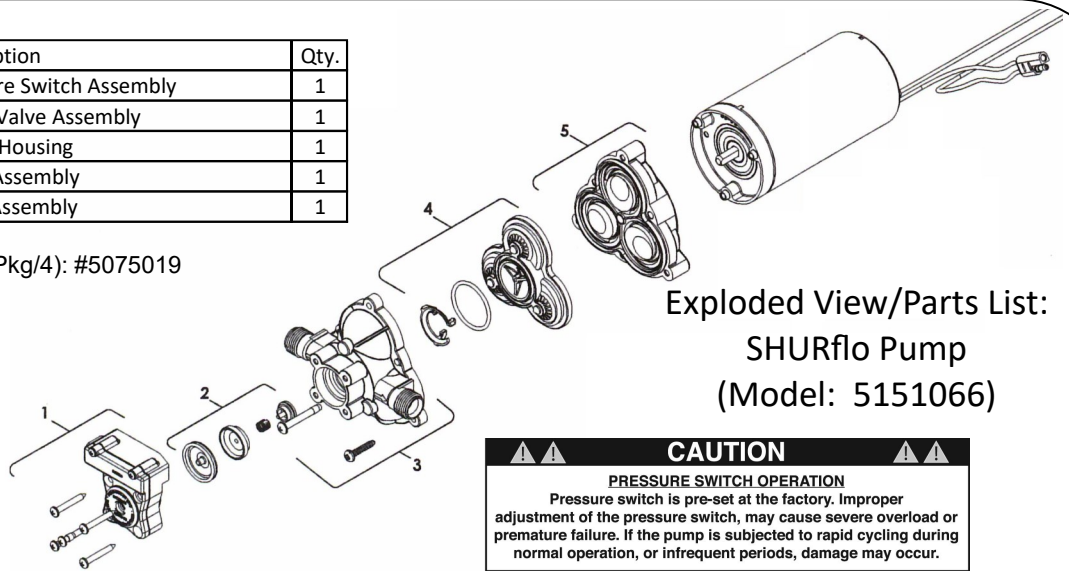
- Clean and rinse your pump after each use with Fimco Tank Neutralizer
- Winterize your pump or sprayer by rinsing, draining and running RV Antifreeze through it before storing for the winter.
- Use clean water for your spray mixture
- Store inside a building when not in use.



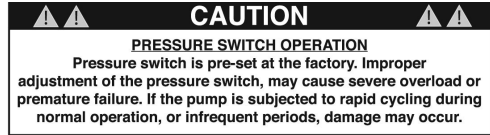
- Use to pump bleach.
- Use to pump petroleum products such as diesel fuel, gasoline or kerosene.
- Use to pump chemicals w/petroleum distillates or surfactants.
- Leave pump sit with spray mixture in it for extended periods.
- Use dirty or unfiltered water for spraying.

Ref. #	Mfg. Part #	Description	Qty.
1	94-230-56	Pressure Switch Assembly	1
2	94-237-05	Check Valve Assembly	1
3	94-231-30	Upper Housing	1
4	94-232-05	Valve Assembly	1
5	94-226-17	Drive Assembly	1

Base Plate Grommets (Pkg/4): #5075019



Exploded View/Parts List:  
SHURflo Pump  
(Model: 5151066)

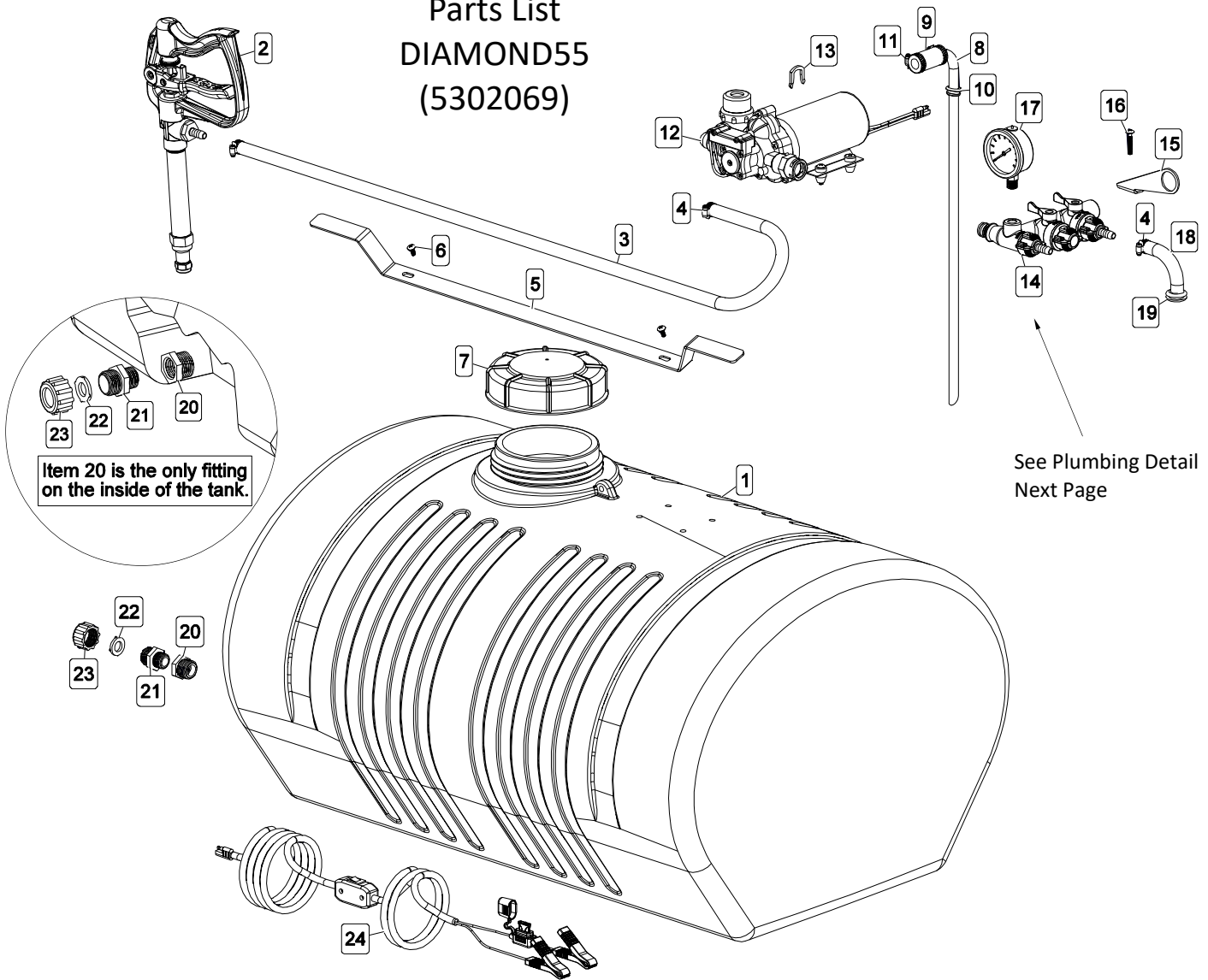


**Before Troubleshooting or Attempting to Service the Pump:**

- ◆ **Review Troubleshooting Chart:** Do Not attempt to repair until steps below are followed.
- ◆ **Personal Protective Gear:** Wear protective gear when servicing pump.
- ◆ **Disconnect Power:** Disconnect the power to the pump and relieve the pressure from the system.
- ◆ **Empty and Flush** the pump system with water, never attempt to service the pump until it has been emptied and flushed.
- ◆ **Perform Repairs:** Follow directions provided in the troubleshooting section to repair the pump.
- ◆ **Test:** Always test the pump for leaks with plain water after any repairs before using.

Troubleshooting	
Pump will not run:	Check for loose wiring
	Make sure the ON/OFF switch is on
	Check the fuse
	Check for defective pressure switch
	Check to see if connected to good 12 Volt Power Source
	Check for Low Voltage
Pump Does Not Prime (No Discharge w/Motor Running)	Check for clogged strainer/filter
	Check for kinked inlet/outlet hoses
	Check for empty product supply
	Check for debris in check valve assembly
	Check for defective check valve
	Check for cracks in the pump housing
Low Pressure/ Low Flow:	Check for air leaks in supply line
	Check for a clogged strainer
	Check for proper voltage Try another 12-Volt battery
	Check for leaks in the discharge line
	Check for restrictions in the discharge line
	Check for debris in intake
Pump surges:	Check for debris in nozzle orifice
	Discharge hose may be too long
	Check for clogged strainer/filter
	Check for restriction in discharge line
	Check for defective pressure switch
	Check for leaks in the discharge line
Pump continues to run:	Check for empty product supply
	Check for Low Voltage
	Check for leaks in the discharge line
	Check for defective pressure switch
	System has leaks
	Air trapped in outlet line or pump head
Fuse blows:	Check for open bypass valve (if equipped)
	Check for defective or dirty check valve
Improper adjustment of pressure switch	Excessive voltage
	Damaged or defective wiring harness
	Defective pressure switch

# Exploded View/ Parts List DIAMOND55 (5302069)

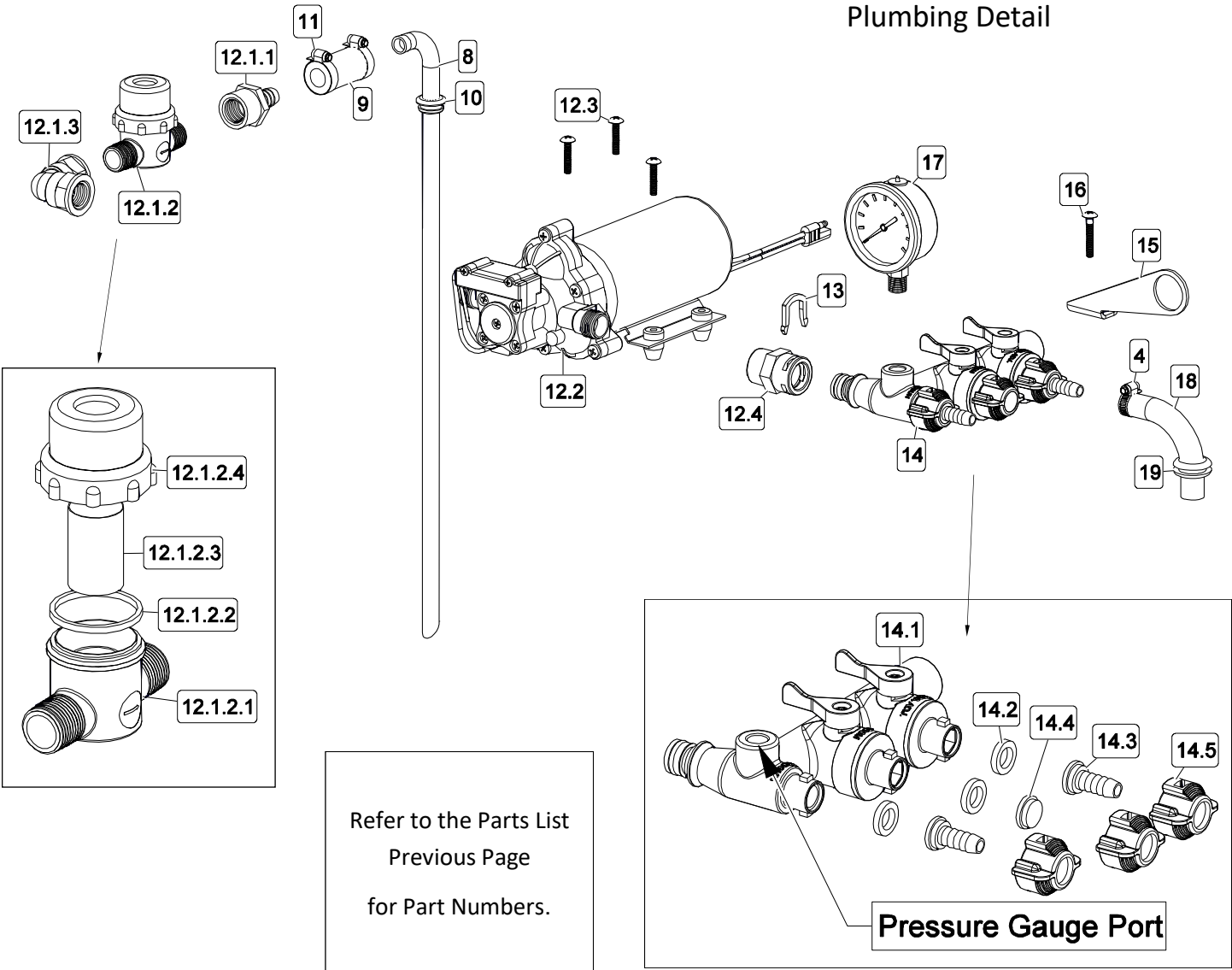


See Plumbing Detail  
Next Page

Ref. #	Part #	Description	Qty
1	TA55Y	55 Gallon Tank Yellow (No Sump)	1
2	5163149	13" HP Spray Gun with 3/8" Hose Barb	1
2.1	5163137	High Pressure Aluminum Spray Gun 13"	1
2.2	5067130	Poly Fitting, 1/2" MNPT x 3/8" HB	1
3	5020524	Hose, 3/8"-1 Brd. x 15 Ft.	1
4	5051144	Hose Clamp, 3/8"	3
5	5038769-BLK	Hose Wrap Bracket	1
6	5117234	#10-24 x 1/2" PH Truss Head Screw	2
7	5058189	5" Lid (NO Lanyard)	1
8	5100537	Intake Tube 1/2" O.D. x 20 1/4"	1
9	5020494	Hose, 1/2"-1 Brd. x 2"	1
10	5075018	Grommet, 1/2" I.D.	1
11	5051114	Hose Clamp, 1/2"	2
12	5281365	SHURflo 4.0 Pump Assembly	1
12.1	5277057	Intake Sub-Assembly (Super Deluxe)	1
12.1.1	3AF12	Poly Hose Barb, 1/2" FNPT x 1/2"	1
12.1.2	5116417	Poly Inline Strainer	1
12.1.2.1	5046451	Poly Strainer Cap	1
12.1.2.2	5072533	Strainer O-Ring	1
12.1.2.3	5116452	Strainer Screen	1
12.1.2.4	5058205	Clear Strainer Bowl	1
12.1.3	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
12.2	5151066	SHURflo Pump, 12V, 4 GPM, 45 PSI	1

Ref. #	Part #	Description	Qty
12.3	5117168	#10-24 x 1" PH Truss Head Screw	3
12.4	5005456	3/4" Port to 1/2" Female NPT Adapter	1
13	5005457	Port Adapter Clip	1
14	5302792	Quick Connect Manifold Assembly	1
14.1	5302347	Quick Connect Manifold (Body)	1
14.1.1	5072514	O-Ring - Pump Port Connection	1
14.2	5143430	Flat Washer	3
14.3	5143431	QC Manifold - 3/8" Hose Straight Barb	2
14.4	5143435	QC Manifold - Quarter Turn Cap Plug	1
14.5	5143429	QC Manifold - QC Quarter Turn Cap	3
15	5037943-BLK	Manifold Support Brace	1
16	5117166	#10-24 x 1 1/4" PH Truss Head Screw	1
17	5167031	Gauge, Liquid-Filled, 0-100 PSI	1
18	5020532	Hose, 3/8"-1 Brd. x 7 1/4"	1
19	5075022	Grommet, 5/8" I.D.	1
20	5041078	Reducer Bushing, 3/4" MNPT x 1/2" FNPT	1
21	5005195	Poly Adapter, 1/2" MNPT x 3/4" MGHT	1
22	5016066	Garden Hose Washer	1
23	5046375	Poly Knurled Threaded Cap, (3/4" FGHT)	1
24	5277040	Lead Wire (14 ga. w/Switch), 120"	1
24.1	5157238	15 Amp Regular Blade Fuse	1

# Plumbing Detail



**High Pressure Handgun**

- No Drip Shut Off • Easy Pull Trigger Handle
- Chemical Resistant Construction
- 38' Horizontal Throw & 27' Vertical Throw

To adjust the spray pattern, the nut needs to be adjusted (Ref. A). Spinning it off, towards the lever, will make a cone pattern and spinning it on, away from the lever, will make a stream. The lever (Ref. B), is the lock that can be used to lock the lever when pulled, holding the valve open. Squeezing the trigger, will release the lock.

# Warranty

## LIMITED WARRANTY FOR NEW AG SPRAY EQUIPMENT

**WHO MAY USE THIS LIMITED WARRANTY.** This limited warranty (the "Limited Warranty") is provided by Ag Spray Equipment to the original purchaser ("you") of the Equipment (as defined below) from Ag Spray Equipment or one of Ag Spray Equipment's authorized dealers. This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

**WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG.** Ag Spray Equipment warrants that any new Equipment will be free from defects in material and workmanship for a period of **one (1) year** (homeowner), **90 days** (commercial user), after delivery of the Equipment to you (the "Warranty Period"). The Warranty Period is not extended if Ag Spray Equipment repairs or replaces the Equipment.

**WHAT IS NOT COVERED BY THIS LIMITED WARRANTY.** This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Ag Spray Equipment or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Ag Spray Equipment's operator's manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to misuse, accident or neglect, "acts of God" or other events beyond Ag Spray Equipment's reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Ag Spray Equipment, whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

**HOW TO OBTAIN WARRANTY SERVICE.** To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Ag Spray Equipment of the defect during the Warranty Period and within **thirty (30)** days after the defect becomes apparent or the repair becomes necessary, at the following address: Ag Spray Equipment, 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Ag Spray Equipment or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-274-1025** or your local Ag Spray location.

**WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY.** If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Ag Spray Equipment shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Ag Spray Equipment will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

**LIMITATION OF IMPLIED WARRANTIES AND OTHER REMEDIES.** THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES, AND AG SPRAY EQUIPMENT'S SOLE LIABILITY, FOR ANY BREACH OF THIS LIMITED WARRANTY. TO THE EXTENT APPLICABLE, ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE WARRANTY PERIOD, AND THE REMEDIES AVAILABLE FOR BREACH THEREOF SHALL BE LIMITED TO THE REMEDIES AVAILABLE UNDER THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IN NO EVENT SHALL AG SPRAY EQUIPMENT'S LIABILITY UNDER THIS LIMITED WARRANTY EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE EQUIPMENT, NOR SHALL AG SPRAY EQUIPMENT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.