

BESTWAY AG



50 Gallon Low Profile UTV Sprayer

Owner's Manual

BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL

INVERNESS, MS | 800-392-7440
GREENWOOD, MS | 662-886-8550
OLIVE BRANCH, MS | 866-776-8265
HIAWATHA, KS | 877-390-4480
HOPKINSVILLE, KY | 270-887-8550
ELM CITY, NC | 252-977-1606

FOR HELP WITH QUESTIONS OR CONCERNS ABOUT YOUR BESTWAY AG LAWN/GARDEN SPRAYER, PLEASE CALL.

BEFORE CALLING, PLEASE HAVE RECEIPT AND MODEL NUMBER ON HAND. PLEASE MAKE A NOTE OF SPRAYER MODEL IN THE LOCATION PROVIDED IN THIS MANUAL.



WARNING



DO NOT USE SPRAYER IN AN EXPLOSIVE ENVIRONMENT. DO NOT USE TO PUMP FLAMMABLE FLUIDS, INCLUDING OIL, GASOLINE, KEROSENE, ETC.

GENERAL INFORMATION

Thank you for your purchase of a Bestway Ag UTV sprayer. This manual will assist you in the use and maintenance of your product. Please keep it in a safe place for future reference.

WARRANTY & SERVICE

Products are warranted for one (1) year from date of purchase against manufacturer defects and valid for the original purchaser only.

Commercial users have a 120 day warranty against manufacturer defects.

The Delavan pump included with your sprayer is warranted for a period of two (2) years.

Your Bestway Ag dealer is the best source for parts and service. Always remember to give the following information:

- Correct part description and/or part number
- Model number/serial number

Part descriptions and part numbers are found in this manual for your convenience. Whenever you need parts or repair service, contact your dealer first. For warranty work, always present your sales receipt, or other evidence of original purchase date.

ASSEMBLY

This section details the assembly of your new 50 gallon low-profile sprayer.

REQUIRED TOOLS

- 1/2" Socket Wrench
- Pliers
- Teflon Tape

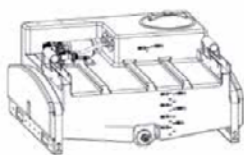
INCLUDED PARTS/HARDWARE

- Sprayer Tank (1)
- Spray Gun Assembly (1)
- 1/2" Hose Clamp (1)
- Pressure Gauge (1)
- Pressure Regulator Assembly (1)
- Drain Cap Tether (1)
- Drain Cap Gasket (1)
- Drain Cap (1)
- Wire Harness (1)
- Tank Lid (1)
- Wand Bracket (1)
- 3/4" Bolts (2)
- Boom Mount Bracket (2)
- Boom Mount Arms (2)
- Square U-Bolt Assembly (2)
- Wing Nut (2)
- 3-1/2" Bolts (2)
- Hex Nuts (2)



SPRAYER MODEL IS:
DATE OF PURCHASE:

SPRAYER COMPONENTS



Sprayer Tank (1)



Spray Gun Assembly (1)
SG-2218-18



1/2" Hose Clamp (1)
SHC-F



Pressure Gauge (1)
1140GXB100



Pressure Regulator
Assembly (1)
33-140118

SPRAYER COMPONENTS



Drain Cap Tether (1)
33-103219



Drain Cap Gasket (1)
33-103220



Drain Cap (1)
33-103218



Wire Harness (1)
33-103233



Tank Lid (1)
G-8146002

SPRAYER COMPONENTS



Wand Bracket (1)
31-100411



3/4" Bolts (2)
33-200120



Boom Mount Bracket (2)
31-100420



Boom Mount Arms (2)
32-100119



Square U-Bolt Assembly (2)
33-10025

SPRAYER COMPONENTS



Wing Nut (2)
33-103068



3.5" Bolts (2)
34-100004



Hex Nuts (2)
33-100136



CAUTION



CAUTION



PARTS ILLUSTRATIONS

Parts illustrated above are intended for reference only. The actual appearance of parts included with your sprayer may differ slightly due to changes within model years. If you are unsure of anything, please call your Bestway Ag dealer for assistance.

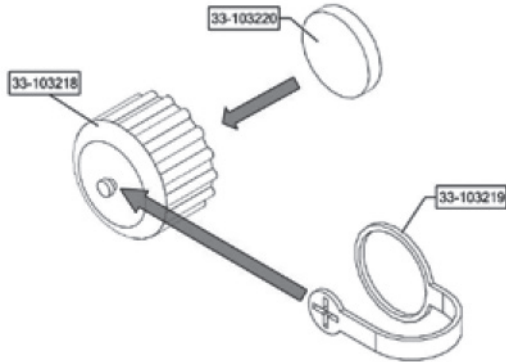
UNIT ASSEMBLY

When performing assembly of your new UTV sprayer, please be sure your work area is clean and free of debris. Doing so lessens the chance of introducing contaminants into the systems of your sprayer.

STEP 1

Press the Drain Cap Gasket into the Drain Cap until fully seated.

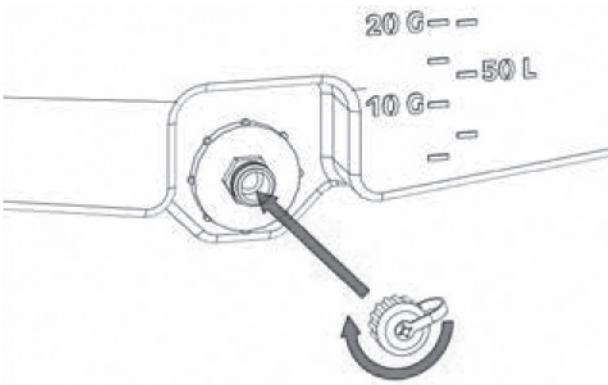
Attach the Drain Tether to the top of the Drain Cap.



STEP 2

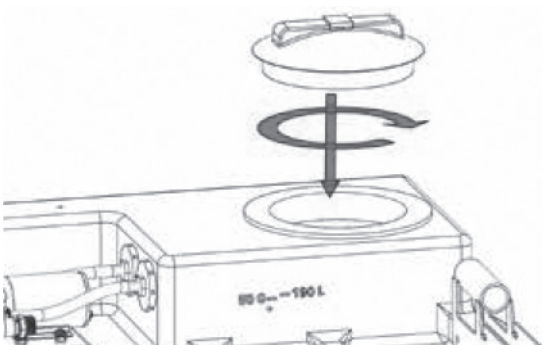
Locate Sprayer Tank outlet and place opposite end of Drain Tether over the tank drain outlet.

Thread the Drain Cap over drain until hand tight.



STEP 3

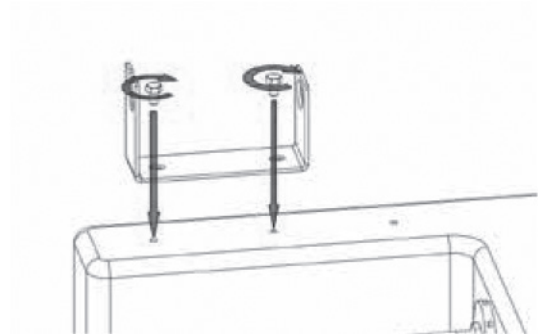
Thread the Tank Lid onto the Sprayer Tank.



STEP 4

For step four, you will need a 1/2" socket wrench.

Place Wand Bracket on tank as show in diagram below (forked side out). Insert 3/4" Bolts into open holes and tighten with socket wrench, being careful not to over-torque the bolts.

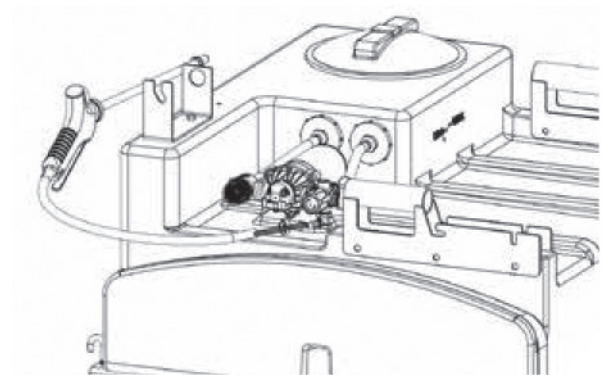


STEP 5

For step five, you will need a pair of pliers.

Place Hose Clamp over the Spray Gun Hose and push the hose onto the bottom of hose barb on the Pressure Regulator Assembly.

Tighten the 1/2" Hose Clamp with pliers and place the Spray Gun in the Spray Gun Bracket.



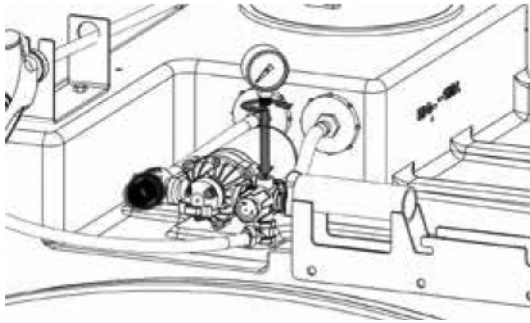
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STEP 6

For step six, you will need teflon tape.

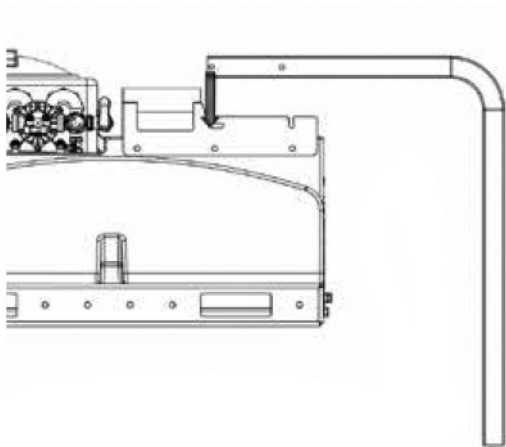
Wrap teflon tape around threads of Pressure Gauge.

Twist the Pressure Gauge into top port of the Pressure Regulator Assembly. **Do not over-tighten.**



STEP 7

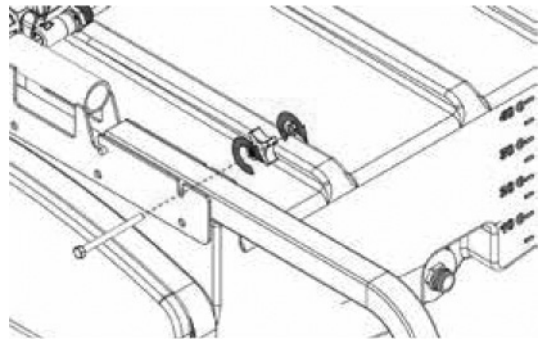
Insert pegs on Boom Mounting Arms into the slots in front of the Sprayer Tank handles and lower into place.



STEP 8

Insert Bolt through Boom Handle and Boom Mounting Arm as show in diagram below.

Screw Wing Nut onto Bolt, followed by the Hex Nut. Leave room between each to facilitate boom removal.

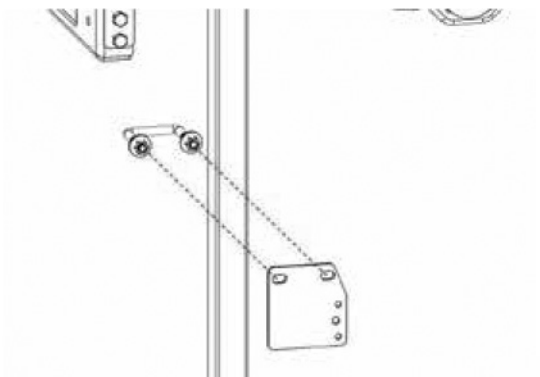


STEP 9

For step nine, you will need a 1/2" socket wrench.

Place the Boom Mounting Bracket in front of the Boom Mounting Arm with the angled side facing the inside top as show below.

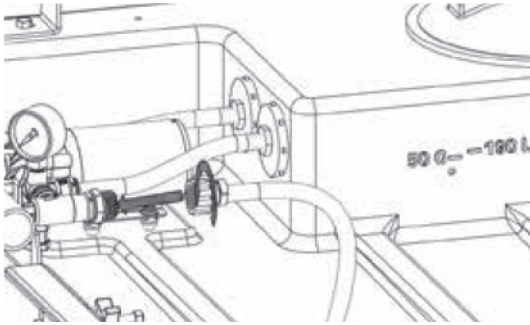
Insert the Square U-Bolt from behind the Boom Mounting Arm and attache with included nuts. Tighten with socket wrench.



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STEP 10

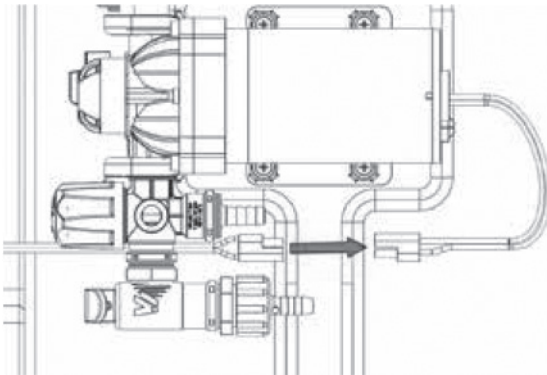
Screw the Boom Inlet Hose onto the Boom Shut-Off Valve



STEP 11

Connect Wire Harness to Pump by pushing the two-pin terminal connectors together.

When ready to use, connect the red clamp to your battery's positive terminal and the black clamp to negative terminal.



CAUTION



WIRE HARNESS

Do not connect to battery until ready to use unit.

Connecting wire harness clamps to opposite terminals will result in pump running backwards.

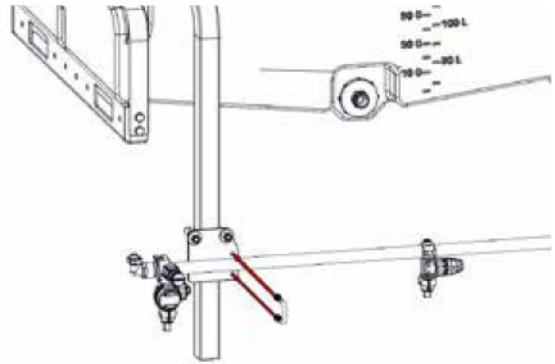
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STEP 12

For step twelve, you will need a 1/2" socket wrench.

Line up holes of Boom Assembly with holes of the Boom Mounting Brackets.

Install with Bolts and Flange Nuts from Boom Assembly. Tighten with socket wrench.



OPERATION

Before spraying, please observe the following:

- **Sprayer Prep:** Always inspect and prepare the sprayer for use according to the directions provided in this manual.
- **Keep Sprayer Off:** Do not provide power to the sprayer until ready to spray to avoid any unintentional release.
- **Check 3-Nozzle Wet Boom** orientation for desired spray application (precision or boomless).
- **Wind Speed:** NEVER spray when wind exceeds four (4) MPH in order to minimize spray drift.
- **Clear Area:** Always keep work area clear of people and pets.
- **Chemical Label:** Always read and follow all chemical label instructions.
- **State & Federal Laws:** Always refer to state and federal regulations with regard to application of a particular chemical you plan to use.
- **Flammables:** Never use any flammable chemicals in the sprayer.
- **Corrosives:** Do not use corrosive chemicals, such as bleach, in the sprayer as they can weaken the sprayer and its parts, resulting in leaks.
- **Emergency procedures:** Before handling chemicals, carefully review the "Statement of Practical Treatment on the label."

OPERATION

During spraying, please observe the following:

- **Over Application:** Do not over apply pesticides or other chemicals. Apply at a rate recommended by chemical manufacturer. Excess chemicals can be dangerous to humans, damage desirable plants and contaminate soil and water sources.
- **Spray gun orientation:** Never point spray gun at people or animals.
- **Children & Pets:** Always exercise extreme caution when spraying around areas accessible to children or pets.
- **Eating & Smoking:** Do not eat, drink, smoke or rub your eyes or touch any part of your bare skin when handling chemicals and spraying.
- **Heat & Flames:** Do not spray near open flames of sources of heat.
- **Spills:** Always clean up spills immediately per instructions on the chemical label.
- **Unattended vehicle:** Always turn off vehicle and set brake or block wheels, turn off power to sprayer and relieve system pressure before leaving sprayer unattended.

OPERATION

After spraying, please observe the following:

- **Clean sprayer:** Always clean the sprayer immediately after use according to the directions provided in this manual.
- **Decontaminate:** Always decontaminate yourself immediately after finishing spraying or handling chemicals. Wash all exposed areas of the body with soap and water. Remove and launder clothing.
- **Chemical disposal & storage:** Always dispose or store remaining chemicals properly as recommended on the chemical label.
- **Health monitoring:** Monitor the health of operators who are frequently exposed to chemicals and pesticides as recommended on the chemical label.

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WARNING



Inspect sprayer for leaks or damage before each use. Failure to do so could result in damage to person or property.



WARNING



Sprayer is not certified for use in dispensing potable water or other consumable liquids.

OPERATION

To prepare the sprayer:

- **Review safety information:** Review safety information in this manual and manufacturer chemical label before use.
- **Sprayer attachment:** Be sure the sprayer is securely attached/mounted to the vehicle.
- **Empty tank:** Check the sprayer has been thoroughly flushed and drained of all residual chemical prior to use.
- **Clean suction strainer:** Clean suction strainer of any chemical residue with fresh water: USE RUBBER GLOVES for extra safety.
- **Inspect & test:** Inspect the tank and components for any cracks or leaks. Replace any damaged parts.
- **Check drain cap:** Before filling, check drain cap for proper tightness.

OPERATION

To use the sprayer:

- **Fill tank:** Be sure unit is powered off. Remove sprayer tank lid and add chemical/water dilution ratios that are called for on chemical label. Ensure chemical is thoroughly mixed.
- **Boom valve:** Ensure boom valved is closed before powering on sprayer.
- **Pressure regulator:** Adjust pressure regulator to desired pressure. Normal operating range is 30-50 PSI.
- **Power on:** Connect the wire harness to 12-volt source and turn the switch to the 'on' position.

OPERATION

To use the hand gun/wand:

- **Boom valve:** Ensure boom valve is closed.
- **Activate spray gun/wand:** Make sure nozzle is pointed at desired target and pull trigger.
- **Adjust nozzle:** If your gun/wand is so equipped, twist the spray nozzle to adjust from a straight stream to a wide pattern.

OPERATION

Spray boom:

Your new sprayer is equipped with a 3-nozzle wet boom, which is a highly versatile boom system allowing for both precision spraying, as well as boomless.

- **Nozzle selection:** Determine the proper nozzle selection for your application and turn each head on the boom to the appropriate setting. You may turn left side, right side or all on. You may select precision or boomless nozzles.
- **Adjust pressure:** Adjust the pressure regulator to desired/required pressure.
- **Open boom valve:** Open up the boom valve to allow flow from tank to boom.

NOTE: For nozzle calibration, please see rate chart at back of manual.

CARE AND MAINTENANCE

When spraying is complete, it is important to clean and decontaminate the unit. Do not store the sprayer with chemicals left in the tank as it is unsafe and could result in damage.

- **Drain tank:** If there is excess chemical in the tank, drain into a suitable container. **Be sure to wear protective rubber gloves and eye protection for your safety.**
- **Chemical storage/disposal:** Properly store or dispose of unused chemical in its original, suitable container and make sure to follow manufacturer's recommendation. Adhere to local hazardous waste disposal regulations.

- **Flush sprayer:** Flush sprayer per the chemical manufacturer's recommendations.
- **Decontaminate & launder:** Decontaminate yourself after handling chemicals by removing clothing worn, washing exposed body parts with soap and water and laundering clothing separately from other wash.

SPRAYER STORAGE

Prepare the sprayer for end-of-season storage by running RV anti-freeze through the system. This will keep internal parts lubricated, protect against corrosion and protect the unit against freezing.



CAUTION



Allowing your sprayer to freeze, without taking proper winterization steps, voids warranty.



WARNING



SPRAYER WILL BE DAMAGED IF IT FREEZES. PROTECT YOUR INVESTMENT DURING STORAGE BY FOLLOWING THE GUIDE FOUND BELOW.

Preparing sprayer for storage:

- **Add anti-freeze:** Pour one gallon of RV anti-freeze into the sprayer tank.
- **Spray briefly:** Turn on the pump motor and squeeze the gun trigger until fluid runs out.

Bringing unit out of storage:

- **Drain anti-freeze:** Drain the anti-freeze that is left in the tank through the tank drain hole, capturing the solution in a suitable container.
- **Flush with water:** Fill tank with fresh water and run through entire system. Operate the spray gun to circulate water.
- **Disposal:** Be sure to capture the solution in an appropriate container and dispose of properly.

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TROUBLESHOOTING

This section will guide you in diagnosing some of the most common issues associated with sprayers.



WARNING



BEFORE TROUBLESHOOTING OR ATTEMPTING TO SERVICE YOUR PUMP OR SPRAYER, READ THE FOLLOWING SAFETY RULES TO AVOID ACCIDENTAL EXPOSURE TO CHEMICALS AND THE POSSIBILITY OF ELECTRIC SHOCK.

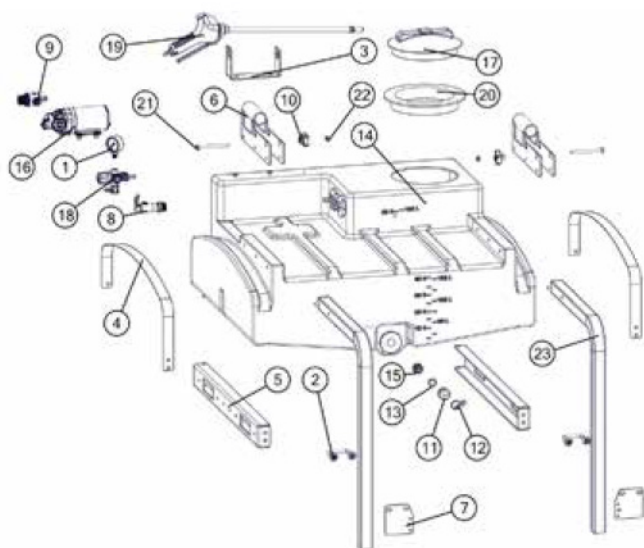
Maintenance safety checks:

- **Personal protective equipment:** Wear proper personal protective equipment as directed on chemical label while servicing sprayer.
- **Review troubleshooting table:** Review the troubleshooting table to locate the type of problem you are experiencing. **Do not** attempt repair until reading remaining safety steps below.
- **Empty & flush tank:** Empty the tank and flush the sprayer with water as directed.
- **Disconnect power/relieve pressure:** Disconnect power to the sprayer and squeeze the spray gun/wand trigger to release system pressure.
- **Perform repairs:** Follow the directions provided in the troubleshooting table to repair.
- **Test:** After repairs, always test the sprayer for leaks with fresh water before using.

PROBLEM	CAUSE	SOLUTION
Pump Will Not Turn On	Bad Electrical Connection	Check Battery Connections
	Fuse Blown	Replace Fuse
	Short In Wire	Check Condition of Wires
	Low Voltage	Check Voltage
	Locked Drive	Replace Diaphragm Assembly
	Faulty Pressure Switch	Replace Pressure Switch
Pump Will Not Prime	Out of Product	Refill Supply Container
	Inlet Air Leak	Tighten Fittings or Replace Cracked Fittings
	Inlet/Outlet Tube Obstruction	Remove Obstruction
	Clogged Intake Valve	Remove Obstruction
	Low Voltage	Check Voltage
Low Pressure or Flow	Worn Spray Gun Nozzle	Replace Spray Gun
	Worn Boom Nozzle	Replace Boom Nozzle
	Worn Wobble Plate or Diaphragm	Replace Diaphragm Assembly
	Worn Pressure Switch	Replace Pressure Switch
	Inlet Air Leak	Tighten Fittings or Replace Cracked Fittings
	Inlet/Outlet Tube Obstruction	Remove Obstruction
	Clogged Intake Valve	Remove Obstruction
	Low Voltage	Check Voltage
Pump Leaks	Loose Fasteners	Tighten Fasteners
	Pump Seals Degraded	Replace Pump Head Assembly
	Leak In Diaphragm	Replace Diaphragm Assembly
Poor Spray Distribution	Clogged Intake Tube	Remove Obstruction
	Clogged Suction Strainer	Clean Suction Strainer
	Worn Spray Gun Nozzle	Replace Spray Gun
Pump Cycles While Not Spraying	Leak In the System	Tighten Leaking Hose Clamps, Fittings or Replace Spray Gun
	Faulty Pressure Switch	Replace Pressure Switch
	Low Voltage	Check Voltage
	Air Trapped In System	Purge Air From System
Rough Operation	Flexible Mounting Surface	Mount Pump On Rigid Surface
	Loose Pump Head	Tighten Fasteners
	Compressed Base Feet	Decompress Base Feet
	Rigid Plumbing	Plumb Pump with Flexible Plumbing

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PARTS BREAKDOWN



ID	Part Number	Description	Qty
1	1124DAB100	Pressure Gauge	1
2	33-100025	Square U-Bolt	2
3	31-100411	Spray Gun Bracket	1
4	31-100412	Tank Strap	2
5	31-100413	Frame Rail	2
6	32-100118	Boom Handle	2
7	31-100420	Boom Mounting Brackets	2
8	34-140161	Boom Shut-Off Valve	1
9	34-140164	QA Inline Strainer	1
10	33-103068	Wing Nut	2
11	33-103218	Drain Cap	1
12	33-103219	Drain Cap Tether	1

THREE NOZZLE WET BOOM



- Allows easy switch between boomless nozzles and precision nozzles
- Spray left, right, center or simultaneously
- Quick flush port
- Stainless steel tubing
- Diaphragm check valves for drip-free shutoff

ID	Part Number	Description	Qty
13	33-103220	Drain Cap Gasket	1
14	33-103910	50 Gallon Tank	1
15	3E34	3/4" MGHT x 1/2" MPT Adapter	1
16	5950-201E	5 GPM Delavan Pump	1
17	G-8146002	Tank Lid - 8"	1
18	34-140158	Pressure Regulator Assembly	1
19	SG-2218-38-RUB15	Deluxe Spray Gun Assembly	1
20	G-8148000	Lid Ring - 9"	1
21	33-100004	Carriage Bolt - 5/16"-18 x 3 1/2"	2
22	33-100120	Lock Nut - 5/16"-18	2
23	32-100119	Over-Gate Boom Mounting Arm	2

SPRAY TIP CALIBRATION (FOR BOOMS)

Chemical labels will often show application rates in gallons per acre, gallons per 1,000 square feet or gallons per 100 square feet. In addition to this, you will need to determine your speed.

Speed may be determined using a GPS device, or, you may calculate it manually.

To determine your speed, see how long it takes to travel down a 100' or 200' strip. The chart to the right provides times for commonly used speeds.

Once speed is determined, see the chemical label to ensure you apply the right volume. You may then use the travel speed of your sprayer to calculate nozzle flow rate using the following formula:

SPEED (MPH)	TIME IN SECONDS	
	100 FEET	200 FEET
1	68	136
2	34	68
3	23	45
4	17	34
5	14	27

FORMULA:
$$GPM = \frac{GPA \times MPH \times NOZZLE \text{ SPACING}}{5940}$$

EXAMPLE:
$$\frac{20\text{gpa} \times 4\text{mph} \times 20''}{5940} = \frac{1600}{5940} = .27 \text{ GPM}$$

Take the GPM calculated and look down the chart on next page to find the pressure you need to run.

NOTE: Your sprayer comes equipped with a 3-nozzle wet boom. This boom features precision nozzles comparable to a TeeJet VP11003-VS @ 20" spacing as well as Valley Industries BP088LSX boomless nozzles. Charts for both are found below.

NOTE: The nozzle body and caps are compatible with TeeJet nozzles, should you need to replace.

PRECISION NOZZLE RATE CHART							
PSI	GPM	GALLONS PER ACRE w/20" SPACING					
		4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH
15	0.18	13.4	10.7	8.9	7.6	6.7	5.9
20	0.21	15.6	12.5	10.4	8.9	7.8	6.9
30	0.26	19.3	15.4	12.9	11.0	9.7	8.6
40	0.30	22	17.8	14.9	12.7	11.1	9.9
50	0.34	25	20	16.8	14.4	12.6	11.2
60	0.37	27	22	18.3	15.7	13.7	12.2

BOOMLESS NOZZLE RATE CHART					
PSI	GPM	GALLONS PER ACRE			
		3 MPH	4 MPH	5 MPH	6 MPH
20	.08	8.3	6.2	5	4.1
30	1	10.3	7.7	6.2	5.2
40	1.2	12.4	9.3	7.4	6.2



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Not the only way...the Bestway!

Thank you for your purchase of a Bestway Ag low profile UTV sprayer.

At Bestway Ag, we take pride in providing you with a quality, durable product that is easy to operate and maintain.

Should you have any questions about your new sprayer, our team is standing by to assist with any questions you may have.

Welcome to the Bestway Ag family.

Inverness, Mississippi

800 Moore Street
800-392-7440

Greenwood, Mississippi

104 Eastman
800-392-7440

Olive Branch, Mississippi

8971 Yahweh Drive
866-766-8265

Hiawatha, Kansas

2021 Iowa Street
877-390-4480

Hopkinsville, Kentucky

1100 New Industry Lane
270-887-8550

Elm City, North Carolina

6345 US-301
252-977-1606