



# Operation and Maintenance of 12-Volt Sprayers

1. Read owner's manual before operation of sprayer.
2. Your pump is a diaphragm-type pump equipped with EPDM diaphragms. The pump used in this application is self-priming. There is no need to prime, simply apply 12 VDC and the pump will start.
3. Partially fill your tank with water.
4. Connect lead wires to a 12-volt power source. The pump will build up pressure and shut off automatically, it will start pumping again when pressure drops. The pump will cycle on and off as you are spraying, the intervals will vary depending on the way you have the nozzle adjusted. This is the way this pump should be working, it is made to cycle on and off.
5. Most ATV's have a power plug to plug accessories into; this is where you should attach the power for the sprayer too. This plug is available from your ATV dealer. (Different brands of ATVs have different plugs; this is why we don't supply it.) However, a wiring harness (SS10WK) with battery clips is available for this unit. If you need one, just call us.
6. Check to make sure all hose connections are tight. (Caution: DO NOT OVER TIGHTEN PLASTIC FITTINGS).
7. If your sprayer is equipped with a boom, turn ball valve (located on the supply hose to your boom)  $\frac{1}{4}$  turn to activate boom, check the nozzles; they should be spraying away from the sprayer. Make sure nozzle caps are snug. (DO NOT OVER TIGHTEN).
8. If all is functioning well, your sprayer is now ready to be calibrated.
9. CAUTION: Always wear protective clothing when handling chemicals according to manufacturer's recommendations.
10. Always follow chemical manufacturer's directions when mixing and filling your sprayer.
11. When done spraying, always dispose of unused chemicals according to chemical manufacturer's recommendations. Flush tank and pump preferably with a neutralizing solution (household ammonia). For long-term storage, make sure there is no water left in your pump.

Proper calibration is probably the most important part of spraying.  
A properly calibrated sprayer will save you money and grief.

## **TWO WAYS TO CALIBRATE A SPRAYER:**

1. Find the total area that your sprayer will spray per tank full. To do this, determine how many gallons per minute (GPM) a tip is spraying by the use of a catch jar and a watch. Hold the jar under the tip and catch the total spray for one minute. The amount in the jar indicates the GPM. When spraying with the handgun, the GPM closely equals the amount you will apply to each 1000 sq. ft. If boom spraying, use the GPM amount and compare it to a nozzle chart to find the gallons per acre applied.
  2. Fill sprayers with water only (NO CHEMICAL). Measure and spray a given area:  
Ex: Measure off 10,000 sq. ft (100' X 100')  
Spray that area. Refill sprayer keeping track of the gallons required to fill. The gallons required to fill divided by 10 equals the rate sprayed/1000ft. 43,560 sq. ft = 1 acre, so take gallons required times 4 = approximate acre rate.
- Always follow the directions of the chemical manufacturer when mixing the chemical for the area you found your sprayer covers.
  - Calibrate your sprayer carefully. If your tips are worn, replace them. New tips are a fraction of the cost compared to the cost of chemical and crop damage caused by too little or too much chemical being applied.
  - B&B stocks a wide selection of tips that can be ordered through your nearest B&B dealer. If you have some difficulty in calibrating your sprayer, contact your dealer. If he is unable to help you, call B&B at 1-800-847-9875. We will help in any way possible to find the answer.

## **Pre-Operation Sprayer Checklist**

- With trailer sprayers, always hook up sprayer to drawbar of tractor before filling with water. This is a safety precaution as some trailer sprayers have a tendency to tip over backwards when filled with water if they are not secured at the hitch.
- Be sure all tips are in good condition and nozzle caps are tight.
- After seeing that your pump is primed, by turning your sprayer on, be sure all tips are functioning.
- Make sure the lid on your tank is secured to avoid losing the lid, and to help prevent injury due to sloshing chemicals.
- Check to be sure your controls are functioning properly. (If electric controls are used, reference the manufacturer's manual provided for installation, operating and troubleshooting if problems arise).
- Be sure that the pump is properly wired to the power source as recommended by the pump manufacturer.
- Always follow the direction of the chemical manufacturer when mixing or handling all chemicals.







**Caution!**



### **BEFORE you put chemicals into your sprayer tank:**

1. Be sure you are familiar with and confident of your knowledge of how to operate your sprayer. Ask your dealer if in doubt!
2. Re-check all bolts, screws, fittings, clamps, hoses, etc., to be certain they are tight and properly installed.
3. Do not remove safety shields from pumps or any other safety equipment. Be sure it is installed according to manufacturer's recommendations.
4. Handle all chemicals with extreme caution and mix your chemicals only as recommended by your chemical dealer.
5. Check to see that the tank, tank fittings and gaskets are compatible with the chemicals to be used.
6. Check to be certain that the chemicals to be used are compatible with the pump. Check on the chemical compatibility with not only the overall composition, i.e. cast iron, but the kind of seal that should be used, (Viton, Buna, Leather, etc.). Is it a corrosive or abrasive chemical? Some chemicals can give off toxic vapors when they come in contact with a material they are not compatible with, which will not only ruin your pump, but could cause personal injury.
7. Use caution and common sense for your own safety! Take time to read all literature, warnings, cautions and operation manuals provided.

## **Winterizing Your Sprayer**

When winterizing your sprayer, dispose of any unused chemical according to chemical manufacturer's recommendation. Flush out tank and pump, preferably with a neutralizing solution. Then pump a 50-50 mixture of RV anti-freeze and water throughout the sprayer until it comes out the handgun and/or boom. Dispose of the excess. Your sprayer is now ready for winter. Do not use motor oil, diesel fuel, etc., to lubricate your sprayer as these can damage the pump seals and gaskets throughout the sprayer.

## **Questions?**

If you have any questions not answered in this owner's manual, contact your dealer.

If they cannot answer your question you may contact B&B at 800-847-9875,

Monday through Friday, 7:00 a.m. to 4:00 p.m.

