



US9424739 (03-18)

## Operator's Manual & Parts List – 424-NOVA



If you are missing parts or have questions, **DO NOT** return this unit back to the store. Call 1-800-SOLO-INC (1-800-765-6462). Solo will send the missing parts promptly.



### WARRANTY:

Solo backpack sprayers are covered by Solo's 1-YEAR LIMITED WARRANTY. Solo's polyethylene tank is covered by this limited warranty for the life of the unit. Solo guarantees the original purchaser that any failure of Solo parts due to defects in material or workmanship, which occurs during the applicable warranty period, will be repaired or replaced without charge, except for those items not covered by warranty. See page 3 for additional warranty information.

### SAFETY PRECAUTIONS:

1. Before using sprayer with chemicals, fill sprayer with fresh water to assure that it is properly assembled; pressurize and practice spraying. Also, check for any leaks at this time. After thoroughly familiar with the sprayer operation, follow normal operating procedures.
2. Ensure all pressure in the sprayer is relieved by locking the shut-off valve in the open position.
3. Avoid contact with chemicals.
4. Always wear rubber gloves, safety goggles and appropriate protective clothing.
5. Work in a well ventilated area.
6. Operators should be trained in the proper use of sprayer, chemical handling procedures, and first aid/emergency care. If training is not available, operator should study and follow the procedures detailed in this manual.

### WARNINGS:

Chemicals can be harmful to individuals and the environment if improperly used. In addition, some chemicals are caustic, corrosive or poisonous and should be avoided. Read warnings and chemical manufacturers' instructions. Solo high density polyethylene sprayers are fitted with chemical resistant seals which are compatible to a wide variety of agricultural and household chemicals; however, care should be exercised to ensure that sprayer components are clean, functioning properly, and functioning properly before and during use. If in doubt about a particular chemical, check the manufacturer's instructions or call the manufacturer. If you suspect or observe indications that the material may be unsafe in a Solo sprayer, **STOP. DO NOT USE OR APPLY CHEMICAL. ALWAYS WEAR RUBBER GLOVES, GOGGLES, AND APPROPRIATE PROTECTIVE CLOTHING!**

1. Read and follow operating instructions.
2. Do not fill with, use, or spray flammable materials, including Diesel Fuel.
3. Do not modify sprayer.
4. Never spray in the direction of humans, animals or property which might be injured or damaged by spray formula.
5. Do not use disinfectants, solvents or impregnating agents unless first tested to ensure they are not harmful to the environment or sprayer.
6. Do not use liquids with a temperature above 110°F (43°C).
7. Wear appropriate protective clothing to prevent contact with chemical agents.
8. Rinse and clean sprayer thoroughly after using. Disposal of contaminated rinse should be in accordance with applicable ordinances. Observe the precautionary instructions of the chemical manufacturer.
9. Do not use any acid (including citrus) or caustic chemicals. For bleach solutions, try a Solo 475-B or 475-B-PROF sprayer.
10. Remember that a sprayer with liquid is a significant amount of weight (8 lbs. per gallon). Do not climb when wearing the sprayer. Use caution when bending, leaning or walking. Bend at the knees rather than the waist.
11. During sprayer operation, the pressure cylinder (#14381) contains compressed air and liquid. Compressed air and liquid under pressure are inherently dangerous.

### PUMP LEVER INSTALLATION:

Insert pump handle in slot "n". Pump handle may be inserted on either side of the tank base "e" for right or left-hand operation. When the sprayer is not in use, pump handle may be stored in slot "o".

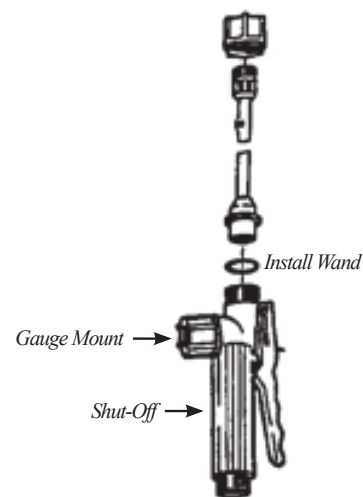


**WAND ASSEMBLY INSTRUCTIONS:**

1. Insert wand into shut-off valve as shown.
2. Tighten the screw cap clockwise onto the shut-off valve.

**FILLING:**

Mix the spray formula and the proper volume of water in a separate container. Pour the mix through the filter basket in the tank opening. This keeps debris from entering the sprayer. Pump the sprayer handle to prime the pump and pressurize the pressure cylinder. The volume of liquid in the sprayer tank will appear to decrease as the pressure cylinder is pressurized. Remember that it's not necessary to completely fill the sprayer tank each time. Mix only the amount needed to get the job done. Chemicals should not be stored in the sprayer. Always read and carefully follow the manufacturer's instructions printed on the product label. This can save money and help prevent injury and crop and environmental damage.

**SPEED TIP NOZZLE:**

The speed tip multi-pattern spray nozzle with 3 of the most popular spray patterns: powerful jet stream, fine full cone mist, and a wide angle flat spray pattern. Now with a simple turn of the dial, you can rapidly switch spray patterns on demand thus eliminating the need to carry additional nozzles or perform nozzle changes in the field.

| <u>Item</u> | <u>Application</u> | <u>Part #</u> |
|-------------|--------------------|---------------|
|-------------|--------------------|---------------|

Speed Tip Nozzle



Row, spot, shrubs &amp; bushes

4074666

**SPRAYING:**

Prime the pump with smooth, firm pump strokes. When you feel very firm resistance, the pressure chamber is filling with liquid. With repeated piston strokes, the air in the pressure chamber is slowly compressed. In a safe area, point the wand upward and press the shut-off valve lever spraying for 10 seconds or until no air and only liquid is coming out. This will bleed all of the air out of the hose and wand. By pressing the hand lever, the valve opens, and liquid is forced through the nozzle. The shut-off valve has a retaining clip which keeps the valve in the "OPEN" position for continuous operation. Pump using the end of the pump handle, as it is less fatiguing. The volume of liquid delivered varies with the working pressure which should be as high as needed to ensure an adequate spray pattern for each individual application. NOTE: Should the pressure drop very quickly, drain the tank completely and pump without liquid. By this procedure, the air chamber is refilled with the required volume of air. It is advisable to pump the tank completely empty from time to time.

**CLEANING:**

- After spraying, clean the tank thoroughly. If some spray liquid is left inside, drain tank completely.
- Pumping causes air to be taken in and the remaining liquid to be discharged. Pump until liquid and air are coming out through the nozzle.
- Refill tank with a few quarts of clean, soapy water and pump the water out as explained above (if necessary, repeat this procedure several times).
- If the shut-off valve is removed, the pump can be flushed quickly. Improper spray distribution is the result of a clogged nozzle, which is easily removed and cleaned.
- Soap and water may also be used to clean tank.
- Do not use aggressive cleaning agents or abrasives.
- Follow the recommendations of the chemical manufacturer for disposal of waste water and chemicals.
- Activated charcoal in liquid or other form may be used to absorb chemicals in tanks or spills.

**NOTE:** When cleaning the sprayer after working with hormone weed killers, follow the instructions of the herbicide producers. Neutralize with activated charcoal. (Example: add 0.35 oz. /1 g. of activated charcoal to 1.7 pint/1 liter of water and leave this detergent in the tank and the lines approximately for 24 hours.) This is very important if other chemicals will be sprayed as the residues of the herbicide may damage susceptible plants. Cleaning after application of products containing carbolineum, a coal tar wood preservative, is imperative. If the chemicals are not water soluble, cleaning should be done with a 5% soda lye having a temperature of 104°F (40°C). Rinse with plenty of clean water.

#### **MAINTENANCE AND STORAGE TIPS:**

- After operation, the sprayer should be stored away from direct sunlight to prevent UV damage.
- After removing the pump or when mounting a new O-ring, treat both the O-ring and the piston with water-resistant grease.\*
- Before winter, drain all liquid in tank, lines and air chamber by holding the shut-off valve in the open position and pumping the pump handle until only air is coming out of the shut-off valve. (See “Cleaning.”) Leave shut-off valve locked in the “open” position to prevent freezing.
- For service, visit our website to locate your nearest Solo dealer. Always insist on original Solo spare parts.
- Regularly inspect hose, wand, pump, tank and shut-off valve for wear, damage or leaks. Repair promptly.

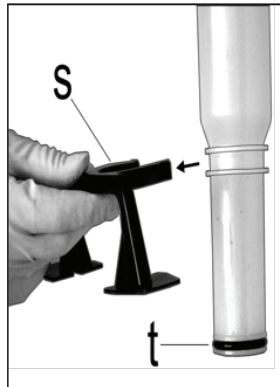
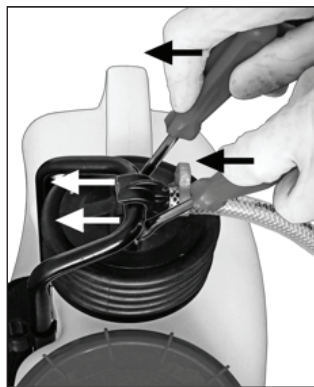
Avoid excessive wear and prolong sprayer life by:

1. Regular lubrication of the pump O-ring with water-resistant grease.\*
2. Prompt and thorough cleaning and flushing of sprayer. Soap and water work well.

\*Use Solo Superior Grease (# 9850-P). Petroleum jelly may also be used.

To Lubricate pump O-ring, first remove the pump lifting rod. Next, lift up on the pump bellows and raise the pump.

Remove the fill cap and reach into the tank to remove the agitator (part s). This will allow you to remove the pump assembly from the tank and lubricate the pump O-ring (part t). To reinstall the pump, just reverse the steps. To reconnect the pump lifting rod, you will need a pair of channel-lock or similar pliers.



#### **OWNER'S OBLIGATION AND RESPONSIBILITY:**

Proof of purchase must be provided by the owner in order to obtain warranty service. Should any failure covered by this Limited Warranty occur, deliver or ship the Solo products or parts to an authorized Solo service center. Freight, packing and insurance costs, if any, will be borne by the owner. Follow normal maintenance service to include applicable lubrication, operation and storage of the product as explained in the operator's manual.

#### **ITEMS NOT COVERED BY WARRANTY:**

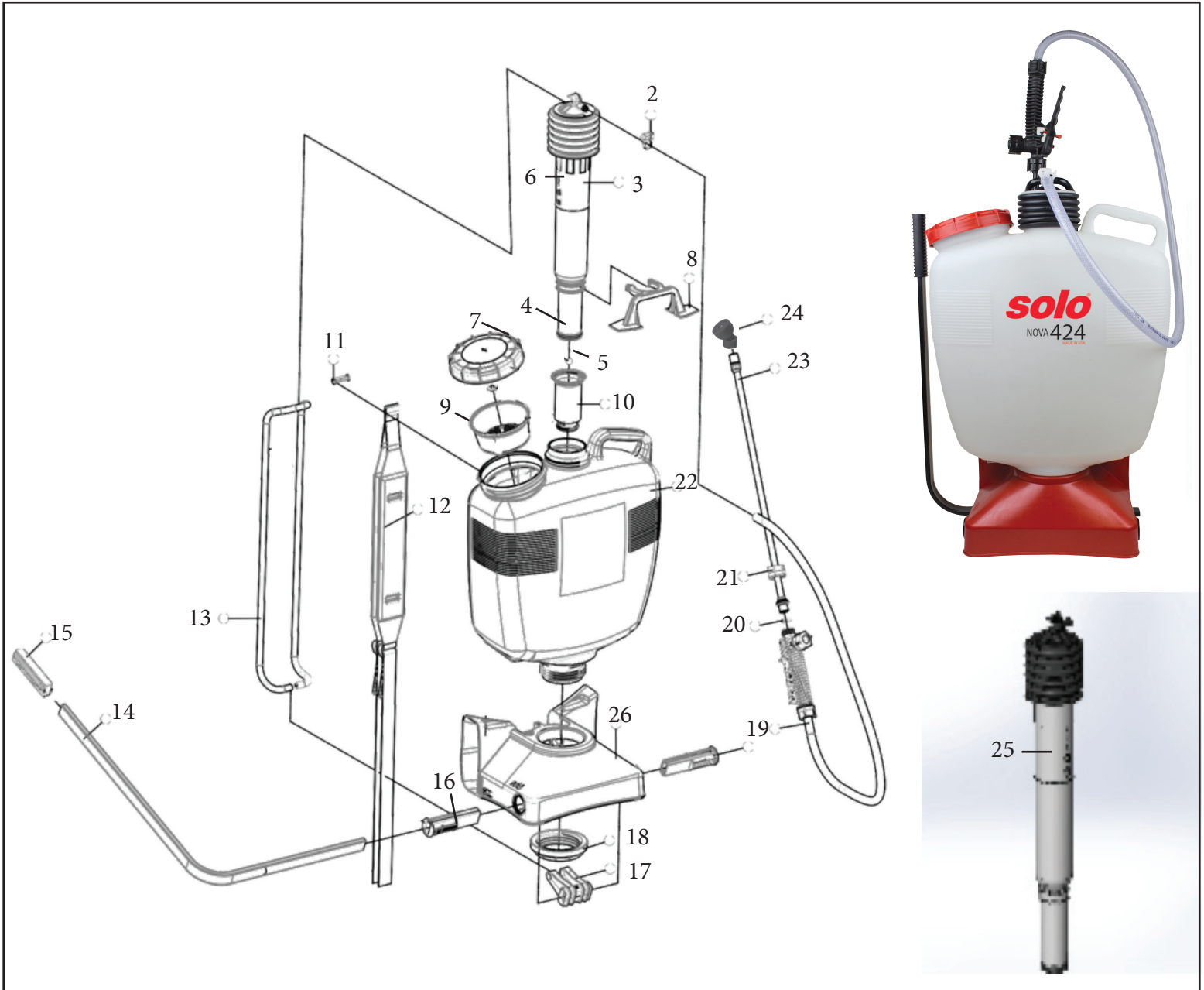
Provisions of the Limited Warranty will not apply to the following:

- Any indirect or consequential damages that may result from the failure or malfunction of the Solo product.
- Normal service requirements arising during the warranty period, such as cleaning, normal wear, lubrication, filter, spray tips, etc.
- Normal service work over and above the repair or replacement of defective parts. Any failure that results from an accident, customer abuse, normal wear, neglect or failure to operate the product in accordance with the instructions provided in the operator's manual or provided with the product.
- When an alteration or modification has been performed on a Solo product, Solo is responsible only for products as originally furnished by Solo, provided the alterations or modifications do not adversely affect the product's operation, performance or durability. Parts or accessories that are incompatible with the product are not approved by Solo.

Full disclosure of Solo's Limited Warranty is available from your local Solo dealer or SOLO INCORPORATED, 5100 Chestnut Avenue, Newport News, Virginia 23605 (800-765-6462).

This Limited Warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

| Pos # | Part # | Description      | Pos # | Part #  | Description                                    | Pos # | Part #  | Description       |
|-------|--------|------------------|-------|---------|--|-------|---------|-------------------|
| 2     | 14300  | Hose Clamp       | 11    | 12980   | Strap Pin                                      | 20    | 4800170 | Shut-off Valve    |
| 3     | 14381  | Pressure Chamber | 12    | 4300355 | Shoulder Strap (also need 2 x 4074412 Buckles) | 21    | 4074337 | Screw Cap         |
| 4     | 14382  | O-ring           | 13    | 14330   | Pump Lifting Rod                               | 22    | 14376   | Tank & Frame Assy |
| 5     | 10497  | Ball             | 14    | 14331   | Pump Handle                                    | 23    | 4900230 | Spray Wand        |
| 6     | 14332  | Bellows          | 15    | 14383   | Handle Grip                                    | 24    | 4074666 | Speed Tip Nozzle  |
| 7     | 14378  | Tank Cap         | 16    | 12974   | Bushing  | 25    | 4400331 | Pump Assy         |
| 8     | 12978  | Agitator         | 17    | 12975   | Pump Lever                                     |       | 10764   | Pickup Tube       |
| 9     | 12976  | Filter Basket    | 18    | 14377   | Pedestal Nut                                   | 26    | 12877   | Tank Pedestal     |
| 10    | 14379  | Pump Cylinder    | 19    | 0064234 | Hose Assy                                      |       | 12979   | Wand Holder       |



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