



Backpack Sprayer

Operator's Manual

MODEL MS-100

WARNING  **DANGER**

Read rules for safe operation and instructions carefully, ECHO provides this Operator's Manual which must be read and understood for proper and safe operation.

INTRODUCTION

Thank you for choosing the ECHO Backpack Sprayer. This sprayer is powered by retained air pressure and is made of materials highly resistant to corrosion and commonly used chemicals. The ECHO Backpack Sprayer is easy to maintain and easy to repair. No special tools are required. These, and other features, make this sprayer very functional, lightweight and economical.

OPERATOR SAFETY

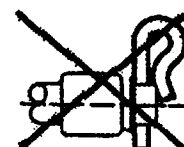
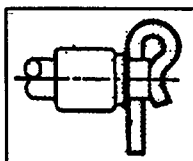
WARNING DANGER

- 1 Carefully read and understand the Operator's Manual supplied with this unit prior to filling using and/or cleaning this sprayer.
- 2 DO NOT use flammables in the sprayer. They can ignite or explode causing serious injury.
- 3 Always wear splash goggles and protective gear and clothing when filling, using and/or cleaning the sprayer.
- 4 Oil the rubber cap gasket prior to first usage so the gasket will seal properly.
- 5 Tighten all connections before using the sprayer. Some may not be properly secured and must be tightened to prevent leakage.

ATTENTION

Hose clamps are not completely tight.
Please tighten hose clamps prior to using. Hose clamps are left loose to extend life of gaskets and fittings.

IMPORTANT: Make sure to insert the locking pin for the pump handle in its (only) CORRECT POSITION...



The pin limits the pump stroke for optimum performance without seepage. Observe Fig. 1 exactly. (Figs. 2 and 3 spell trouble.)

For best results and to maintain a good seal, re-grease piston sleeve periodically with vaseline or similar light lubricants.



WARNING



BEFORE USING: Oil cap gasket, oil check valve and maintain breather hole clear of debris.

Your failure to oil and to clean check valve, and to maintain breather hole open to allow air into tank, can cause tank to collapse and crack due to vacuum created by the pump.

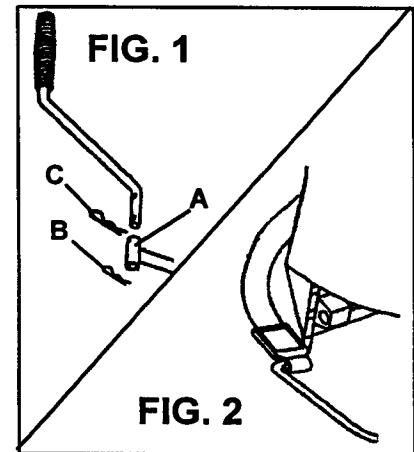
Read and understand this entire manual before using the sprayer, to avoid a potentially serious situation.

- Always inspect your sprayer thoroughly before and after each use. Check to be sure hose is securely attached and in good condition before pressurizing the tank.
- Do not spray on or near electrical installations.
- Keep the work area clear of people and animals.
- Never use the sprayer during windy conditions.
- Always wear goggles when filling, using and cleaning the sprayer.
- Always wear a mask or respirator when filling, using and cleaning sprayer, if recommended by the spray material manufacturer.
- Wear protective gear and clothing when filling, using and cleaning the sprayer.
- Always release pressure in the pump prior to filling, cleaning or servicing the sprayer.
- Before opening a container of pesticide or other spray material; carefully read, understand, and follow all instructions on the label.
- Do not use flammable materials in the sprayer; they can ignite and/or explode, causing serious injury.
- Never use caustic or corrosive materials in the sprayer, which could result in damage to the unit.
- In case of personal contamination, remove contaminated clothing; remain upright; do not consume liquids or cause vomiting; get professional help immediately.
- Never attempt to pressurize the unit by any other method than with the pump module provided. Never over pressurize the unit.
- Do not eat, drink or smoke while spraying.

- Wash face and hands with soap and water after spraying.
- Clean and rinse tank and spraying assembly after each use, to prevent crystallizing; which would later cause clogging and chemical damage to the unit.
- Do not store sprayer under pressure or with spray solution in tank.
- Do not transfer spray materials to other containers; especially, food and/or drink containers.
- Keep spray materials locked up and out of reach of children and animals.
- Use only original manufacturer's replacement parts.

ASSEMBLY

1. Attach spray wand to spray gun and tighten firmly.
2. Take pump handle and insert into tube on the pump lever cross bar (A) ("T" shape lever on sprayer). Install the lower small hairpin (B) in the bottom hole in the pump lever.
3. Install the upper large hairpin (C) through the pump lever cross bar and the pump handle. (Fig. 1)
4. For shoulder strap installation, place the sprayer on a hard flat surface.
5. Take the white plastic buckle with the hook of the buckle facing upward and place under the tubular metal frame. (Fig. 2)
6. Slowly push down, forcing the frame into the hook of the buckle.
7. Repeat the same procedure for other side.



PRE-OPERATION

1. Remove cap.
2. Always oil the seal on the cap of the unit, as well as the check valve. This will extend life of the seal and is important for obtaining proper seal with no leaks.
3. Mix solution in a separate receptacle, following manufacturer's directions on the container.
4. Pour pre-mixed solutions into sprayer and install cap.
5. Place sprayer on back and pressurize unit by pumping approximately 10 to 15 times. For best results, the sprayer should be pumped every five seconds on a continuous basis. This will maintain your spraying pressure. If you do not pump, you will not have pressure to spray.

NOTE

A unit that has been used with herbicides should never be used to spray insecticides unless the sprayer has been properly cleaned and all other chemicals neutralized. Failure to do this could cause you to kill plants that have been sprayed. Consult with the manufacturer of the chemicals in use to obtain proper instructions.

MAINTENANCE AND STORAGE

1. Remove cap and pour out remaining solution, then rinse all parts thoroughly with clean water.
2. Leaving approximately 1/2 gallon of fresh water in tank, pressurize and flush pumping system by depressing trigger at least two minutes, then drain all remaining water.
3. Always store tank clean and empty in a dry, shaded location.

CAUTION

Failure to follow manufacturer's recommendation of use and care of unit will void any expressed or implied warranty. Do not use Chlorine or Clorox. It will permanently damage pump system.

PARTS CATALOG

To obtain a parts catalog send a check or money order for \$2.00 per parts book made payable to ECHO, INCORPORATED. Include a sheet of paper stating your name and address and specify

MS-100 Parts Catalog Part Number 99922202862

Mail to:

ECHO, INCORPORATED
400 OAKWOOD ROAD
LAKE ZURICH, IL 60047

Please allow three to four weeks for delivery

**TO OBTAIN ADDITIONAL OPERATORS MANUALS YOU MAY
ORDER THEM BY WRITING DOWN THE MODEL NUMBER OR
PART NUMBER OF THE OPERATOR MANUAL AND SEND
YOUR REQUEST WITH \$1.50 PER MANUAL TO:**



**400 OAKWOOD ROAD
LAKE ZURICH, ILLINOIS 60047**

**99922202848
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