

# INSTRUCTIONS FOR ASSEMBLY, OPERATION, SERVICING & STORAGE

## GAS POWERED MIST SPRAYER



800.825.5397

MANUAL: MMW-M



## TABLE OF CONTENTS

TOOLS REQUIRED & INCLUDED HARDWARE .....	3
MIST SPRAYER COMPONENTS .....	3
MIST SPRAYER ASSEMBLY .....	4
IMPORTANT SAFETY INFORMATION .....	6
GENERAL CHEMICAL SAFETY .....	6
BEFORE SPRAYING .....	6
DURING SPRAYING .....	7
AFTER SPRAYING .....	7
OPERATION - PREPARING & USING MIST SPRAYER .....	7
PREPARING MIST SPRAYER .....	8
USING MIST SPRAYER .....	8
OPERATION - CLEANING, DECONTAMINATING & STORAGE .....	9
TROUBLESHOOTING .....	10
TROUBLESHOOTING TABLE .....	10
MIST SPRAYER BREAKDOWNS .....	11

## PRODUCT INFORMATION

When contacting us for replacement parts, accessories or warranty work, please be sure to have the following information available.

Date of Purchase: \_\_\_\_\_  
 Place of Purchase: \_\_\_\_\_  
 Sprayer Model#: \_\_\_\_\_

(Model # can be found above UPC barcode on packaging  
 or on the Serial Tag affixed to the Mist Sprayer.)

## INTRODUCTION

Congratulations on the purchase of your mist sprayer. This mist sprayer has been manufactured to provide years of dependable and efficient use in spraying a wide range of agricultural pesticides, herbicides and other non-flammable liquids.

### IMPORTANT NOTE:

**THE PURPOSE OF THIS MANUAL IS TO ASSIST YOU IN THE ASSEMBLY, OPERATION, SERVICING AND STORAGE OF YOUR MIST SPRAYER. PLEASE READ THROUGH THIS MANUAL COMPLETELY TO FULLY UNDERSTAND HOW TO OPERATE AND MAINTAIN YOUR EQUIPMENT. KEEP YOUR MANUAL IN A SAFE, CONVENIENT PLACE FOR FUTURE REFERENCE. ALWAYS MENTION THE MODEL AND PART NUMBER IN ANY CORRESPONDENCE.**

## WARRANTY

Mist sprayers sold shall be warranted from defects in workmanship and material when used within the service and scope for which they were designed for a period of two years from date of purchase. Warranty covers replacement parts ONLY.

Contact our Spraying Division for warranty parts at 800.825.5397. DO NOT RETURN PRODUCT TO YOUR DISTRIBUTOR/DEALER. Please have original proof of purchase, model number of mist sprayer and part number of part from illustrated parts breakdown in this manual.

**IMPORTANT NOTES:  
ENGINE DOES NOT SHIP PRE-FILLED WITH GASOLINE OR OIL.**

**TEAM LIFTING REQUIRED (OVER 50 LBS).**

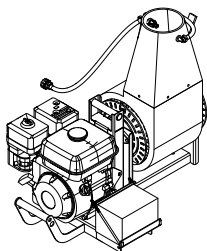
**MINIMUM 2.2 GPM PUMP IS REQUIRED. IDEAL SETUP WOULD  
INCLUDE A PRESSURE REGULATOR AND SHUT OFF VALVE.**

**CLOSELY INSPECT ALL CONTENTS  
IN THE SHIPPING CARTON**

- If you have damaged components:  
Contact the freight company that delivered  
the unit to file a claim.
- If you have missing components:  
Contact us at 800.825.5397.

**INCLUDED HARDWARE**

**MIST SPRAYER  
COMPONENTS**



Mist Sprayer (1)

This Mist Sprayer ships  
fully assembled, without  
oil or gasoline. See engine  
manual for instruction on  
filling oil and gas.

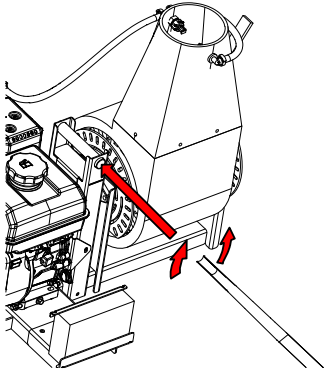
# MIST SPRAYER ASSEMBLY

1.

PARTS

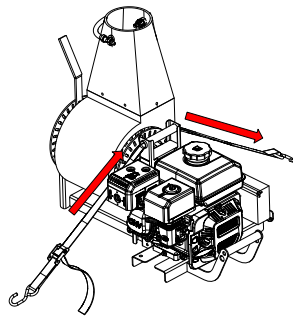
TOOLS

None

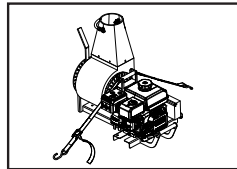


Remove strap from Ratchet.

Fold strap and insert through Handle, then reattach ratchet to strap and secure mist sprayer on ATV mounting points.



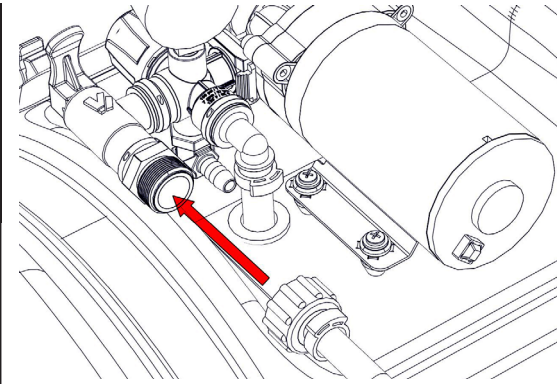
Secures Mist Sprayer to Vehicle



2.

PARTS

TOOLS

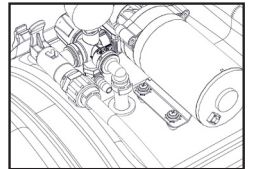


NOTE: Use a Knife to cut zip tie, freeing the Fan Hose.

Locate Fan Hose and make sure there is a Washer in the end of Boom Cap.

Thread the Fan Hose to the Shut-Off Valve.

Connects Mist Sprayer to Shut-Off Valve

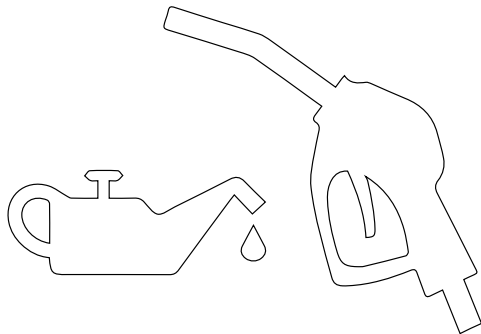


3.

PARTS

TOOLS

None



Add Gasoline and Oil to Engine per the instructions given in the Engine Operations Manual.

Readies Engine for Use





## OPERATION - IMPORTANT SAFETY INFORMATION

Now that you have assembled your mist sprayer, there is some important safety and health information you need to know with regard to handling and spraying chemicals.



TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS SECTION IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN PROPERTY DAMAGE, INJURY OR DEATH.

**NOTE: THE USE OF CORROSIVE OR FLAMMABLE CHEMICALS IN THIS MIST SPRAYER IS HAZARDOUS AND WILL ALSO VOID YOUR WARRANTY.**

### GENERAL CHEMICAL SAFETY



#### WARNING

Pesticides are hazardous chemicals. Heed the warning below and follow all instructions carefully. Improper handling of chemicals can result in serious injury or illness, or cause damage to humans, animals or the general environment.

### BEFORE SPRAYING

- **Test with Fresh Water:** Before adding and spraying chemicals, always test mist sprayer with fresh water to make sure there are no cracks or leaks and equipment is performing correctly.
- **Mist Sprayer Prep:** ALWAYS inspect and prepare the mist sprayer before use according to the directions provided in this manual.
- **Keep Mist Sprayer Off:** Do not turn power on to the mist sprayer until ready to spray in order to avoid unintentional spray release.
- **Wind Speed:** NEVER spray when wind exceeds 4 MPH in order to minimize spray drift and always spray with the wind.
- **Clear Area:** ALWAYS keep work area clear of people and pets. Post warning notices to restrict access by the public for the period recommended on chemical label.
- **Operator Age:** To operate this mist sprayer, you must be 16 years of age or older. Pesticides are extremely toxic to children.
- **Chemical Label:** ALWAYS READ and FOLLOW all chemical label instructions.
- **State & Federal Laws:** ALWAYS refer to state and federal regulations with regard to the application of a particular chemical you plan to use.
- **Flammables:** NEVER use any flammable chemicals, such as diesel fuel or gasoline, in the mist sprayer.
- **Corrosives:** DO NOT use corrosive chemicals, such as bleach, in the mist sprayer. They can weaken the mist sprayer and its parts, resulting in leaks. Always check with chemical manufacturer for compatibility with mist sprayer.
- **Emergency Procedures:** Before handling chemicals, carefully review the "Statement of Practical Treatment" on the chemical label.

### DURING SPRAYING

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

## AFTER SPRAYING

- **Clean Mist Sprayer:** ALWAYS clean the mist sprayer immediately after use according to the directions provided in this manual.
- **Decontaminate:** ALWAYS decontaminate yourself immediately after you are finished with spraying and 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 pesticides, as recommended by the chemical label.



### WARNING

Chemical spills, mist sprayer leaks, personal contamination, and poisoning are accident situations which you may encounter. All require an immediate response. In the event these accidents take place, follow first aid instructions on the chemical label and contact poison control for further advice (1-800-222-1222). If victim collapses or isn't breathing CALL 911.

## OPERATION - PREPARING & USING MIST SPRAYER

If the mist sprayer has been used previously, it must be prepared BEFORE EACH SUBSEQUENT USE.



### WARNING

Read the following instructions carefully for inspecting and using the mist sprayer.

Damaged or clogged equipment could result in leaks or uncontrolled spray. Leaks could result in injury to the operator or bystanders from chemical exposure, or cause damage to the environment.

### IMPORTANT NOTE:

THIS MIST SPRAYER IS NOT CERTIFIED FOR USE IN DISPENSING POTABLE WATER OR OTHER CONSUMABLE LIQUIDS.

## PREPARING MIST SPRAYER

- **Review Safety Information:** Review safety information in this manual and manufacturer chemical label before use.
- **Mist Sprayer Attachment:** Ensure the mist sprayer is securely attached to the vehicle.
- **Empty Tank:** Ensure the mist sprayer has been thoroughly flushed and drained of all residual chemical prior to uses.
- **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. IMPORTANT: After any repair, ALWAYS test for leaks with fresh water one final time before use.
- **Check Drain Cap:** Before filling tank, ensure drain cap at bottom of tank is securely tightened.

## USING MIST SPRAYER

- **Protective Equipment:** ALWAYS wear protective equipment as directed on the chemical label.
- **Assess Wind & Area Conditions:** Before spraying, determine if wind conditions are suitable. DO NOT spray if wind speeds are greater than 4 MPH. DO NOT spray if bystanders are in the intended area and verify that area is in a well-ventilated outdoor area. Spray with the direction of the wind.
- **Power Off:** Before filling tank, make sure power to the mist sprayer and the vehicle is off and brakes are set to prevent unintended movement.
- **Filling Tank:** Remove mist sprayer tank lid and add chemical/water dilution ratios that are called out by chemical label. Ensure chemical is thoroughly mixed with a stirring device and then securely thread tank lid back on mist sprayer tank.



## USING MIST SPRAYER (CONTINUED)

- **Broadcast Boom Valve:** Close broadcast fan valve to prevent accidental spray release.
- **Turn On Power:** Properly connect the wire harness to vehicle battery and turn the remote switch to the “On” position.

## OPERATION - CLEANING, DECONTAMINATING & STORAGE

When done using the mist sprayer, it is always important to clean the mist sprayer and decontaminate yourself. Do not store the mist sprayer with chemicals in the tank, as it is unsafe and could also result in damage. We recommend flushing the system with soapy water to remove residual chemical.



### WARNING

Clean-up and decontamination procedures must be followed after each use. Improper equipment clean-up and disposal of chemicals can result in dangerous chemical exposure to humans and the environment, as well as equipment damage. Personal decontamination is required after spraying to minimize unsafe exposure to chemicals and potential illness.

## CLEANING & DECONTAMINATING MIST SPRAYER

- **Drain Tank:** If there is excess pesticide left in tank, drain into a suitable container.  
**Note:** when draining pesticides, be sure to wear protective gear such as rubber gloves and eye protection for increased safety.
- **Unused Chemical:** Properly store or dispose of unused chemical in its original, suitable container and make sure to follow chemical manufacturer's recommendations and according to local hazardous waste disposal regulations.
- **Flush Mist Sprayer:** Flush mist 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.

## MIST SPRAYER STORAGE

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

### IMPORTANT NOTE:

**ALLOWING YOUR MIST SPRAYER TO FREEZE, WITHOUT TAKING PROPER WINTERIZATION STEPS, VOIDS YOUR WARRANTY.**



### WARNING

The mist sprayer will be damaged if it freezes. Protect the mist sprayer from freezing during storage by following instructions below.

## PREPARING MIST SPRAYER FOR STORAGE

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

## REMOVING MIST SPRAYER FROM STORAGE

- **Drain RV Anti-Freeze:** Drain the anti-freeze that is left in the tank through the tank drain port into a suitable container.
- **Flush with Water:** Fill tank with fresh water and have it run through system. Operate spray gun and fan until the system is completely flushed. Be sure to set up containers to capture the flushing of the RV anti-freeze.
- **Disposal:** Dispose of RV anti-freeze and flush water properly.

## TROUBLESHOOTING

Here you will find troubleshooting steps for some of the most common issues users have with mist sprayers.



### WARNING

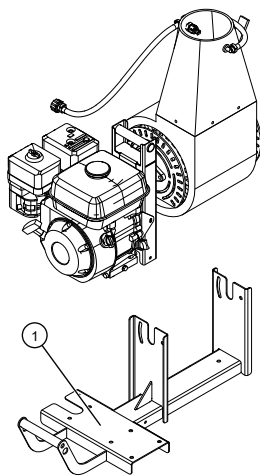
Before troubleshooting or attempting to service your pump or mist sprayer, read the following safety rules to avoid accidental exposure to chemicals and the possibility of electric shock.

## BEFORE ATTEMPTING TO SERVICE MIST SPRAYER

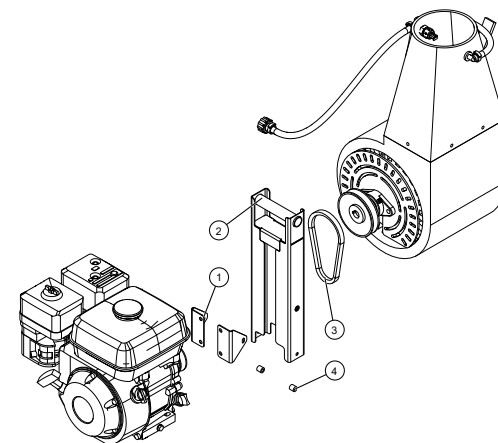
- **Personal Protective Equipment:** Wear personal protective equipment as directed on the chemical label while servicing mist sprayer.
- **Review Troubleshooting Table:** Review the troubleshooting table to the right for the type of problem you are experiencing. DO NOT attempt to repair until reading remaining steps listed below are followed.
- **Empty & Flush Tank:** Empty the tank and flush the mist sprayer with water as directed in the section Cleaning, Decontaminating & Storage.
- **Disconnect Power/Relieve Pressure:** Disconnect power to the mist sprayer and be sure all system pressure is relieved by squeezing the gun trigger.
- **Perform Repairs:** Follow the directions provided in the troubleshooting table to repair the mist sprayer.  
**Note:** Never try to unclog the mist sprayer nozzle by blowing through it.
- **Test after Repairs:** After repairs, ALWAYS test the mist 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/Replace Filter
	Clogged Intake Valve	Remove Obstruction
	Low Voltage	Check Voltage
Low Pressure or Flow	Worn Spray Gun Nozzle	Replace Spray Gun /Nozzle
	Worn Fan Nozzle	Replace Fan 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/Force Prime
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

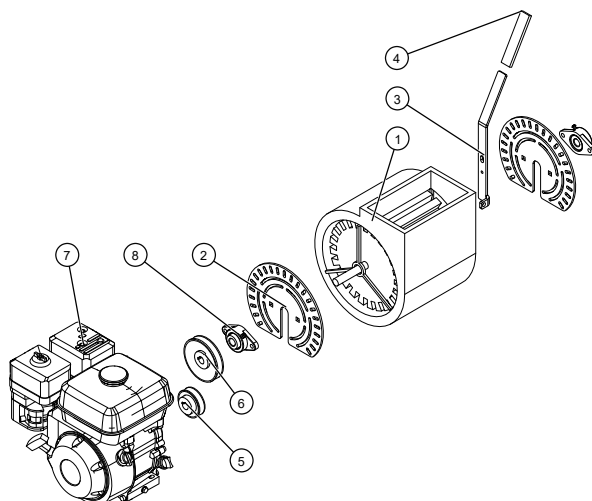




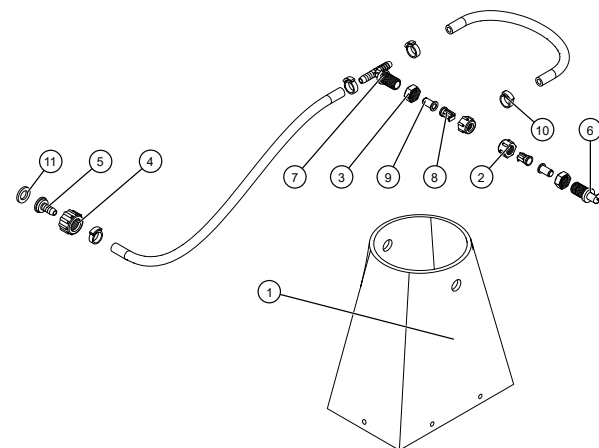
ID	Part Number	Description	Qty
1	32-200044-PC	Frame Weldment	1



ID	Part Number	Description	Qty
1	31-200290	Belt Guard Bracket	2
2	32-200045-PC	Belt Guard Weldment	1
3	33-200061	Belt	1
4	33-200357	Limit Switch Spacer	2



ID	Part Number	Description	Qty
1	33-200098-S	Fan & Blower Housing	1
2	31-200174	Fan Position Plate	2
3	31-200175	Fan Handle	1
4	33-200002	Handle Grip	1
5	33-200031	Sheave, FB, 2.85" OD, 3/4", 1 Groove	1
6	33-200032	Sheave, FB, 4.45" OD, 3/4", 1 Groove	1
7	ENG-R210-3/4	Engine, 210CC, 7HP, 3/4" Horizontally Keyed Shaft	1
8	33-200296	Bearing	



ID	Part Number	Description	Qty
1	33-200088	Volute	1
2	38027	Nozzle Nut 11/16" FPS	2
3	3B12	Nozzle Nut 11/16"	2
4	3B34	Swivel Nut 3/4" FGHT	1
5	3C38	Flat Seat hose Barb 3/8"	1
6	3NTL38-C	Elbow 11/16" MPS x 3/8" HB	1
7	3NTT38-C	Tee 11/16" MPS x 3/8" HB	1
8	DF1.5	Deflector Nozzle (Blue)	2
9	NS-50	Nozzle Strainer	2
10	SHC-F	Snapper Hose Clamp	4
11	W406V	Washer 1" OD x 3/4" ID	1



**PLEASE FOLLOW ALL WARNINGS IN THIS MANUAL, FAILURE TO DO SO COULD RESULT IN PROPERTY DAMAGE & INJURY.**

