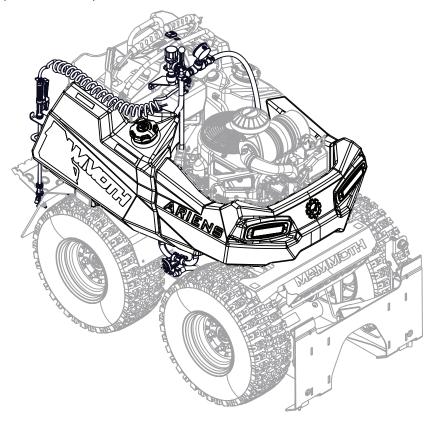


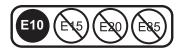
# Brine Spraying Attachment

Operator's Manual Manuel du Utilisateur

# Model

851005 – Brine Spraying Attachment (SN 000101 +)





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FRANÇAIS



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# WELCOME

Congratulations on your purchase and welcome to the Ariens family! Every machine in the Ariens lineup is designed for long-lasting and unsurpassed performance. We are confident your machine will be part of your family for many years to come.

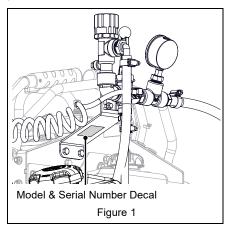
# Have Questions or Need Assistance? www.ariens.com

A parts manual for your unit is available for free download or purchase at www.ariens.com.

# **REGISTER YOUR PRODUCT!**

It is extremely important to register your product at time of purchase. Product registration activates the warranty and establishes a communication link from AriensCo.

Locate the model and serial number decal on your unit and register those numbers online at www.ariens.com. See Figure 1 for decal location. Be aware that the original selling dealer may have already completed product registration on behalf of the original purchaser.



Record model number here.

#### Record serial number here.

# MANUALS

Before operating or servicing the unit, carefully and completely read the manuals provided with the unit. They contain safety instructions and important information about unit controls.

The engine on this unit is covered by a separate manual. Refer to the engine manual for engine service recommendations. Contact the engine manufacturer for a replacement manual if necessary.

Your dealer must review important information in this manual with you before or upon delivery of the unit. It is your responsibility to read and understand all safety precautions and instructions in the manuals. If you do not understand or have difficulty following the instructions, contact your Ariens dealer for assistance. To locate your nearest Ariens dealer, go to www.ariens.com.

### DISCLAIMER

Ariens reserves the right to discontinue, make changes to, and add improvements upon its products at any time without public notice or obligation. The descriptions and specifications contained in this manual were in effect at printing. Equipment described in this manual may be optional. Some illustrations may not be applicable to your unit.

# SAFETY

Read these safety rules and follow them closely. Failure to follow these rules could lead to loss of control of unit, severe personal injury or death to you or bystanders, or result in damage to property or the machine.

# PRACTICES & LAWS

Practice usual and customary safe working precautions. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

# EMISSION CONTROL SYSTEM

This equipment and/or its engine may include exhaust and evaporative emissions control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an Ariens dealer or an authorized engine manufacturer's service center. Contact your Ariens Equipment Retailer concerning emission controls and component questions.

### REQUIRED OPERATOR TRAINING



Read and understand the Operator's Manual and decals on the unit. This information is for your safety and the proper use of your equipment. Failure to follow these

instructions and warnings may cause death or serious injury. If you have purchased this product from an Ariens dealer, the dealer can provide you with training.

Familiarize yourself and any other operators with all controls and the safe use of the features of this unit. If you loan, rent or sell this product to others, provide them with all manuals.

If you have any questions, please call our customer support line at 920-756-4688 or contact us at www.ariens.com. Do not use this equipment if, after reading the Operator's Manual and the on-board decals, you have any questions about the safe use of this product.



**WARNING:** AVOID INJURY. This machine is capable of amputating hands and feet and throwing objects. Failure to observe the safety instructions in the manuals and on decals could result in serious injury or death.

# SAFETY ALERT SYMBOL



This is the safety alert symbol. It means:

- ATTENTION!
- YOUR SAFETY IS
  INVOLVED!

When you see this symbol:

- BECOME ALERT!
- OBEY THE MESSAGE!

# SIGNAL WORDS

The safety alert symbol above and signal words below are used on decals and in this manual. Read and understand all safety messages.

### 1. Danger



DANGER: Indicates an IMMINENTLY HAZARDOUS SITUATION! If not avoided, WILL RESULT in death or serious injury.

# 2. Warning



WARNING: Indicates a POTENTIALLY HAZARDOUS SITUATION! If not avoided, COULD RESULT in death or serious injury.

# 3. Caution



**CAUTION:** Indicates a POTENTIALLY HAZARDOUS SITUATION! If not avoided, MAY RESULT in minor or moderate injury. It may also be used to alert against unsafe practices.

# 4. Notice

**NOTICE:** Indicates information or procedures that are considered important but not hazard related. If not avoided property damage could result.

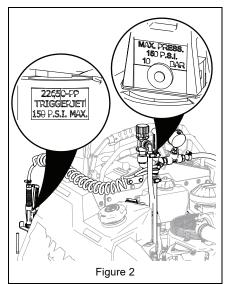
### 5. Important

**IMPORTANT:** Indicates general reference information worthy of special attention.

# PRESSURE WARNING

All messages on your unit must be fully understood and carefully followed. Pressure warnings on the machine are explained below. See Figure 2 for pressure warning locations.

### **Pressure Warning Locations**



# Pressure Warning Descriptions

# CAUTION!



# SAFETY RULES

The following safety instructions are based on the B71.3 specifications of the American National Standards Institute, and other applicable standards in effect at the time of production.

### Training

Read, understand and follow all instructions on the unit and in the manual(s) before operating this unit. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.

NEVER allow children to operate or play on or near the equipment. NEVER allow adults to operate the equipment without proper instruction.

Keep the area of operation clear of all persons, particularly small children. Be alert and shut off unit if children enter area.

Exercise caution to avoid slipping or falling, especially when operating in reverse.

ALWAYS remove key and/or wire from spark plug before assembly, maintenance or service. Unintentional engine start up can cause death or serious injury.

Complete a walk-around inspection of the unit to understand the unit, your work area and all safety decals.

Understand how to operate all controls, the functions of all controls and how to STOP in an emergency.

### Preparation

ALWAYS check overhead and side clearances carefully before operation.

ALWAYS be aware of traffic when operating near streets or along curbs.

Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, toys, wires and other foreign objects.

Check parking brake operation frequently. Adjust and service as required.

Inspect unit before each use for missing or damaged decals and shields, correctly operating safety interlock system. Replace or repair as needed.

Ensure Safety Interlock System is functioning properly. DO NOT operate unit if safety interlock is damaged or disabled.

Be sure all drives are in neutral and parking brake is engaged before starting engine. Steering control levers must be in neutral and PTO disengaged. Only start engine from the operator's position.

Operate unit only when standing in operator zone.

Handle fuel with care; it is highly flammable.

- Use an approved fuel container.
- NEVER add fuel to a running engine or hot engine.
- Fill fuel tank outdoors with extreme care. NEVER fill fuel tank indoors.
- NEVER fill containers inside a vehicle or trailer bed with a plastic liner. ALWAYS place containers on the ground, away from your vehicle, before filling.
- When practical, remove gas-powered equipment from the trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. DO NOT use a nozzle lock-open device.
- Replace gasoline cap securely and wipe up spilled fuel.
- If fuel is spilled on clothing, change clothing immediately.

Adjust the auger / impeller housing height to clear gravel or crushed rock surface.

NEVER attempt to make any adjustments while the engine is running (except when specifically recommended by manufacturer).

ALWAYS allow unit and engine to adjust to outdoor temperature before operating.

### Operation

Disengage all controls before starting engine.

Adjust brush contact before operating.

NEVER leave a running unit unattended. ALWAYS stop engine and remove key before leaving unit to prevent unauthorized use.

DO NOT put hands or feet near or under rotating parts. Keep clear of the discharge area at all times.

Moving and/or rotating parts can cut off body parts such as fingers or a hand. NEVER place your hands, other body part or clothing near any moving parts while unit is running.

ALWAYS keep hands away from all pinch points.

DO NOT touch parts which might be hot from operation. Allow parts to cool before attempting to maintain, adjust or service.

Thrown objects can cause injury. Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain and stay alert for hidden hazards.

Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic.

After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the unit for any damage, and repair the damage before restarting and operating the unit.

If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.

Stop the engine whenever you leave the operating position and when making any repairs, adjustments or inspections.

When cleaning, repairing or inspecting the unit, stop the engine and make certain that all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent someone from accidentally starting the engine.

DO NOT run the engine indoors, except when starting the engine and for transporting the unit in or out of the building. Open the outside doors; exhaust fumes are dangerous.

NEVER operate the unit without proper guards, and other safety protective devices in place and working.

ALWAYS stand clear of the discharge area when operating this unit.

NEVER direct the discharge toward people or areas where injury or property damage can occur from thrown objects. Keep children and others away.

Be aware of the discharge direction and do not point it at anyone. Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator.

Never engage PTO when attachment, is not in use. Always turn off power to attachment when not in active use such as traveling or crossing driveways.

Park unit on a flat level surface, lower implements, disengage drives, engage parking brake, disengage PTO, shut off engine and allow moving parts to stop before leaving the operator's position.

DO NOT overload the unit capacity by attempting to operate at too fast a rate.

NEVER operate the unit at high transport speeds on slippery surfaces. Look behind and use care when operating in reverse.

DO NOT operate in reverse unless absolutely necessary. ALWAYS back up slowly and look down and behind before and while backing.

Never carry passengers and keep pets and bystanders away. Stop machine if anyone enters the area.

Disengage attachment when not in use and when traveling from one work area to another.

This product is equipped with an internal combustion engine. DO NOT use unit on or near any unimproved, forest-covered or brush-covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if used, must be maintained in effective working order by operator.

ALWAYS be sure of your footing, and keep a firm hold on the handles.

NEVER operate unit after or during the use of medication, drugs or alcohol. Safe operation requires complete and unimpaired attention at all times.

NEVER allow anyone to operate this unit when their alertness or coordination is impaired.

NEVER touch a hot engine or muffler.

Avoid contact with sharp edges; sharp edges can cut.

Do not throw snow higher than necessary.

Know the weight of loads. Limit loads to those you can safely control and the unit can safely handle.

Turn off switches to disengage the spreader and sprayer pump when not operating.

Stop on level ground, lower implements, disengage spreader and sprayer pump, engage parking brake, shut off engine before leaving the operator's position for any reason.

Slow down and use caution when making turns and crossing roads and sidewalks. Disengage spreader and sprayer pump if not operating.

### Batteries

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

Reverse connections may result in sparks which can cause serious injury. ALWAYS connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.

ALWAYS disconnect negative (-) cable FIRST and positive (+) cable SECOND. ALWAYS connect positive (+) cable FIRST, and negative (-) cable SECOND.

Explosive Gases from battery can cause death or serious injury. Poisonous battery fluid contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns.

No flames, No sparks, No smoking near battery.

ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.

ALWAYS keep batteries out of reach of children.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

# Maintenance and Storage

Park unit on a flat level surface. Never allow untrained personnel to service machine.

Secure unit so it will not tip over during maintenance.

Before cleaning, removing obstructions or making any inspections, repairs, etc., stop engine, remove key, allow moving parts to stop and hot parts to cool. Check hardware at frequent intervals for proper tightness to be sure the unit is in safe working condition.

Check PTO and drive control operation frequently.

DO NOT change engine governor settings and DO NOT over-speed engine.

Adjust and service as required. Motion of drive wheels and attachment must stop quickly when PTO is disengaged and drive control is returned to neutral.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.

Keep unit free of ice or other debris. Clean up oil or fuel spills.

ALWAYS block wheels and know all jack stands are strong and secure and will hold weight of unit during maintenance. Use jack stands to support components when required.

Carefully and slowly release any pneumatic or hydraulic pressure from components with stored energy.

ALWAYS keep body and hands away from pin holes or nozzles which eject hydraulic fluid under pressure.

ALWAYS keep protective structures, guards, and panels in good repair and secured in place. NEVER modify or remove safety devices.

NEVER store the unit with fuel in the fuel tank inside a building where ignition sources are present such as hot water heaters, space heaters or clothes dryers. Close fuel valve and allow the engine to cool completely before storing in any enclosure or covering the unit.

ALWAYS refer to operator's manual for important details if the unit is to be stored for an extended period.

Maintain or replace safety and instruction labels as necessary.

Remove attachments from tractor before lifting. Attachments must be lifted separate from tractor.

Run the unit a few minutes after removing snow to prevent freeze-up.

Springs may contain stored energy. Use caution when disengaging or removing springs and/or spring-loaded components.

Before working on this machine, be sure the valve system, brine tank and hopper have been thoroughly rinsed according to the recommendations of the chemical manufacturer.

### **Personal Protection**

Wear proper footwear to improve footing on slippery surfaces. NEVER wear open sandals or canvas shoes during operation.

Wear adequate safety gear, including safety glasses with side shields and protective gloves.

DO NOT wear loose clothing or jewelry, and tie back hair that may get caught in rotating parts.

NEVER attempt to clear obstructions or clean unit while engine is running. Rotating attachments can cause serious injury.

Protect eyes, face and head from objects that may be thrown from unit. Wear appropriate hearing protection.

ALWAYS wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the unit.

### Slope Operation

Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you cannot back up the slope or if you feel uneasy on it, do not operate.

DO NOT operate on slopes of more than 20°. This maximum degree of operation is without attachments.

Operate across slopes, not up and down.

DO NOT operate on slopes steeper than you can feel secure about the traction of the tires and the stability of the tractor.

Use a slow speed to avoid stops or shifts on slopes. Avoid starting or stopping on a slope. DO NOT park unit on a slope unless absolutely necessary. When parking on a slope ALWAYS block the wheels. Operation on slopes may lead to loss of steering control. When operating on slopes be prepared to react to an emergency situation:

- Return steering levers to neutral position.
- Immediately set parking brake.
- Turn off PTO and engine.

DO NOT try to stabilize the machine by putting your foot on the ground.

DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Do not bypass transmission or allow transmission to free-wheel when on a slope.

### Fuel

DO NOT run engine in an enclosed area. ALWAYS provide good ventilation. Fumes from engine exhaust can cause injury or death.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use only an approved gasoline container with an appropriately-sized dispensing spout.

No smoking, no sparks, no flames. ALWAYS allow engine to cool before servicing.

NEVER fill fuel tank when engine is running or hot from operation.

NEVER fill or drain fuel tank indoors.

Replace fuel cap securely and clean up spilled fuel.

NEVER fill fuel containers inside a vehicle or on a trailer bed with a plastic liner. ALWAYS place containers on the ground away from your vehicle before filling.

When practical, remove gas-powered equipment from the trailer and refuel it on the ground. If this is not possible, then refuel on a trailer with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete. DO NOT use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

### Transporting

Use extra care when loading or unloading unit onto trailer. Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged. DO NOT transport unit while engine is running.

Tie the machine down securely using straps, chains, cable, or ropes. Both front and rear straps should be directed down and outward from the machine.

Use full width ramps when loading machine.

### Accessories

Use only attachments recommended by AriensCo that are appropriate to your use and can be used safely in your application.

### **Chemical Safety**

Chemicals used in this machine may be hazardous to apply and produce gasses that are hazardous if inhaled or with contact to your skin.

Caustic liquid or chemical burns could occur if chemicals are not used properly.

Read and follow all the instructions and warnings from manufacturer for all chemicals used.

Become familiar with and follow all warnings, recommendations, instructions and procedures for: first aid measures, safe use, mixing, handling, applying, spills cleanup, storage and disposal of all chemicals.

Wear all personal protective equipment as recommended on the manufacturer's label of any chemicals. Personal protective equipment may include safety glasses or goggles and/or face shields, chemical resistant gloves, and rubber boots, and a respirator.

Obtain the proper training before using or handling any chemicals. Follow all local, state and federal requirements for the handling and spreading of chemicals.

Be sure to verify there is an adequate supply of clean water and soap nearby and immediately wash off any chemicals that may contact you.

Handle chemicals in a well-ventilated area.

Keep clean water available for immediate rinsing off and clean-up of any spilled chemicals.

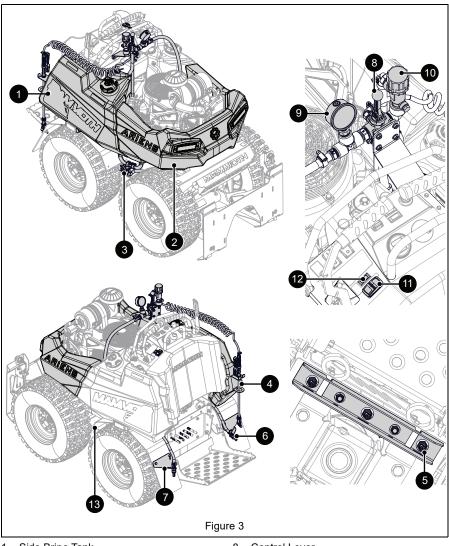
Hydraulic fluid can result in severe burns. Fluid in hydraulic system can penetrate skin and result in serious injury or death.

Be sure to stop the engine before doing any work on hydraulic parts.

Keep body and hands away from pin holes or nozzles which expel hydraulic fluid when under pressure. Use paper or cardboard, not hands, to search for leaks.

Ensure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to system.

# **CONTROLS & FEATURES**



- 1. Side Brine Tank
- 2. Front Brine Tank
- 3. Strainer / Drain
- 4. Spray Wand
- 5. Center Spray Nozzle (3)
- 6. Side Spray Nozzle (2)
- 7. Spray Width Adjustment Bracket (2)

- 8. Control Lever
- 9. Pressure Gauge
- 10. Pressure Regulator
- 11. Salt On / Off Switch / Brine On
- 12. Low-Brine Level Indicator Light
- 13. Pump (Inside Frame)



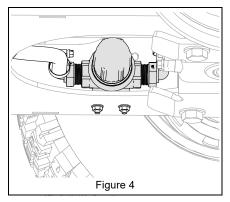
**WARNING:** Read and understand the *Safety* section before proceeding.

See Figure 3 for all controls and features locations.

# STRAINER / DRAIN

See Figure 4.

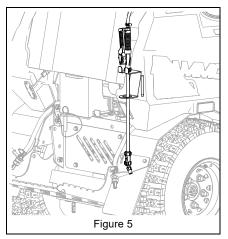
System filtration and system drain access.



# SPRAY WAND

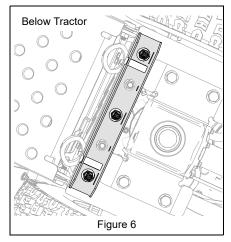
#### See Figure 5.

Sprays brine to concentrated areas. Used alone or along with nozzles.



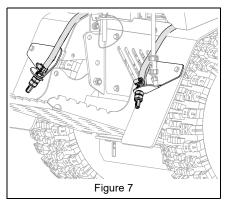
# CENTER SPRAY NOZZLE

See Figure 6. Directs flow of brine solution below tractor.



# SIDE SPRAY NOZZLE

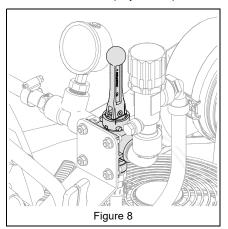
See Figure 7. Directs flow of brine solution on either side of tractor.



# CONTROL LEVER

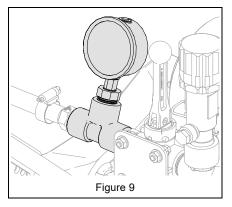
See Figure 8.

Controls nozzles and spray wand operation.



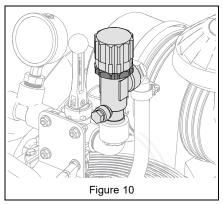
# PRESSURE GAUGE

See Figure 9. Displays system pressure.



# PRESSURE REGULATOR

See Figure 10. Adjusts nozzle application rate and spray pattern.

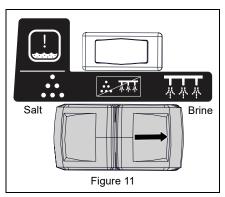


# SALT ON / OFF / BRINE ON SWITCH

See Figure 11.

Controls flow to spray wand and nozzles. Tractor must be in the on position and switch must be in the brine position to operate attachment. Move switch to the off position to stop flow of brine solution.

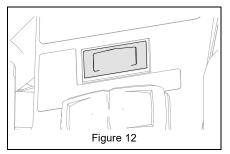
**IMPORTANT:** Salt switch position is for use with separate salt spreader attachment.



## LOW-BRINE LEVEL INDICATOR LIGHT

#### See Figure 12.

Illuminates when approximately 9 L (2 gal) or less of brine solution remains in tank.



# **BEFORE OPERATION**



**WARNING:** AVOID INJURY. Read and understand the *Safety* section before proceeding.

- 1. Fill brine tank with compatible brine solution. See *Compatible Brine Solutions* on page 13.
- 2. Ensure there are no bystanders near spraying area.
- 3. Adjust side nozzle spray width to the desired setting. See *Side Nozzle Spray Width Adjustment* on page 17.
- 4. Adjust nozzle spray pattern. See *Adjust Nozzle Spray Pattern* on page 16.

### **Best Practices**

- Spray brine solution on ground prior to snow fall.
- Apply brine solution during storm to prevent unmanageable levels of ice.
- Drive slower for a more concentrated application.
- Do not operate sprayer near pedestrians.
- · Adjust spray pattern to avoid vegetation.

# OPERATION



**WARNING:** AVOID INJURY. Read and understand the *Safety* section before proceeding.

Refer to Mammoth Tractor Operator's Manual for tractor-specific operation information and procedures.

**IMPORTANT:** All references to left, right, front or rear are given from the perspective of operator in operator's position, facing the direction of forward travel.

**NOTICE:** Place control lever in vertical (neutral) position for wand-only operation, storage and when brine system is not in use.

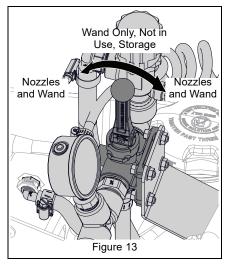
# START AND STOP BRINE SPRAYER

### Start Brine Sprayer

- 1. Turn tractor ignition to the on position.
- 2. Move brine / salt switch to the brine position. See Figure 11.

See Figure 13.

- Turn pressure regulator to the desired material application setting. See Adjust Brine Application Rate on page 16.
- 4. Operate brine system controls:
  - Move control lever forward or backward for both spray wand and nozzle operation.
  - Place control lever in vertical (neutral) position for wand-only operation. See *Spray Wand Operation* on page 13.

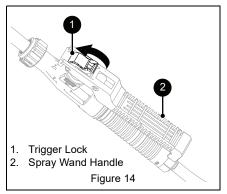


# Stop Brine Sprayer

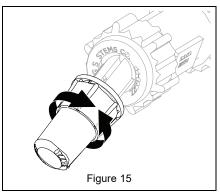
- 1. Move brine / salt switch to the off position.
- 2. Move control lever to the vertical (neutral) position.

# SPRAY WAND OPERATION

- 1. Point spray wand to a safe location.
- Squeeze handle to activate spray wand. For continuous application, squeeze handle and move trigger lock to the forward (upright) position. See Figure 14.



3. Adjust spray nozzle tip to achieve desired spray pattern and width. See Figure 15.



# COMPATIBLE BRINE SOLUTIONS

Contact your local brine distributor for brine solution options.

Solution	Average Effective Temperature Celsius (Fahrenheit)
Salt	-9.4° (15°) or higher
Salt Brine	-13.3° (8°) or higher
Calcium Chloride	-16.7° (2°) or higher
Magnesium Chloride	-16.7° (2°) or higher

# INSTALL BRINE ATTACHMENT

Refer to brine installation instructions (P/N 07900509).

# MAINTENANCE



**WARNING:** Read and understand the *Safety* section before proceeding.

Proper maintenance can prolong the life of the system. The following chart shows the recommended service schedule.

Your Ariens dealer can provide service and adjustments to keep your system operating at peak efficiency. Refer to Mammoth Tractor Operator's Manual for tractor-specific maintenance information and procedures.

**NOTICE:** Certain brine solutions have higher levels of sediment that can clog filters and cause performance issues. In these cases, we recommend cleaning sooner than 50 hours.

# MAINTENANCE SCHEDULE



**CAUTION:** When performing any maintenance procedures with the engine running, ensure vehicle is in a well ventilated area.

Service Performed	Daily	Every 50 hours	Every 100 hours / yearly
Clean Unit **			
Inspect Hoses and Clamps Condition	•		
Inspect Hoses and Connections for Leaks	•		
Check Nozzles Spray Pattern	•		
Inspect / Clean Spray Nozzles and Filter		•	
Inspect / Clean In-Line Strainer Filter		•	
Inspect / Clean Wand and Tip		•	

Flush and Condition System *		•
* During winter season, do not le system dry if brine solution was		
** See Short Term on page 17.		

# SERVICE PARTS

Refer to the parts catalogue to purchase service parts for your unit.

### CHECK FASTENERS, HOSES AND CLAMPS

Check for loose hardware, and damaged or leaking hoses.

# DRAIN SYSTEM

See Figure 16.

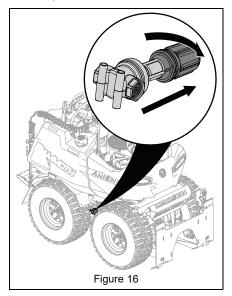
Drain brine solution system at the strainer / drain.

- 1. Move brine / salt switch to the off position.
- 2. Stop engine, remove key and wait for all moving parts to stop and for hot parts to cool.



**CAUTION:** It may be necessary to use more than one container to fully drain the system.

- 3. Position a suitable container with sufficient capacity under the unit to catch drained solution.
- 4. Remove strainer cover and allow system to fully drain.



- Clean residual brine solution from tractor frame.
- 6. Reinstall strainer cover.
- 7. Flush the brine system. See *Flush System* on page 14.

# FLUSH SYSTEM

**NOTICE:** Complete system flush three times. Use only clean water and recommended neutralizers.

- Fill side and front brine tanks with water and replace filler cap.
- 2. Start tractor engine.
- 3. Move brine / salt switch to the brine position.
- Move control lever to forward or rearward position to start spraying. Point spray wand into a suitable container and move trigger lock to the forward (upright) position.
- Adjust pressure regulator to maximum pressure setting. Check spray nozzles and spray wand for correct spray pressure.
- 6. When both tanks are empty, close nozzles and stop engine.
- 7. Repeat process two additional times.
- 8. Condition the brine system. See *Condition System* on page 14.

# CONDITION SYSTEM

Condition after each system flush with propylene glycol non-toxic RV antifreeze containing corrosion inhibitor.

**NOTICE:** DO NOT use ethylene glycol base antifreeze, or propylene glycol with soluble alcohols (methanol, ethanol or isopropanol) or brines added.

- 1. After flushing, add 9 L (2 gal) of conditioner to brine tank.
- 2. Start tractor engine.
- 3. Move brine / salt switch to the brine position.
- 4. Circulate conditioner for a minimum of three minutes.
- 5. Position a suitable container with sufficient capacity under the unit to catch the sprayed solution.
- Move control lever to forward or rearward position to start spraying. Point spray wand into the container and move trigger lock to the forward (upright) position.
- 7. When system is empty, move control lever to vertical (storage) position.
- 8. Stop engine.

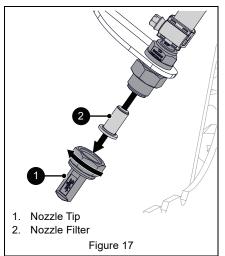
 Drain the propylene glycol back into original containers to be reused or dispose of the RV antifreeze according to your city guidelines.

## CLEAN NOZZLES & NOZZLE FILTERS

See Figure 17.

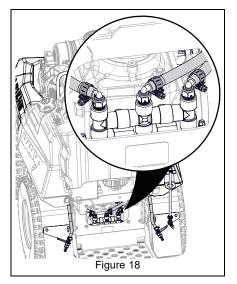
To clear a clogged nozzle:

- 1. Remove nozzle tip and filter.
- 2. Clean clogged debris using water and a slightly firm brush.



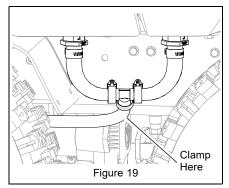
# SERVICE HOSES

**NOTICE:** If replacing or servicing hoses on 6-port manifold behind access panel, ensure hose clamp screw cages face downward to prevent contact with belt and parking brake. See Figure 18.



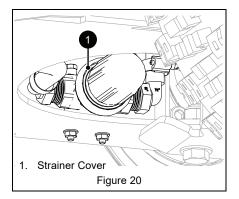
# CLEAN STRAINER FILTER ELEMENT

- 1. Move brine / salt switch to the off position.
- Stop engine, remove key and wait for all moving parts to stop and for hot parts to cool.
- 3. If brine is left in tanks, use hose clamp pliers at the Y fitting to prevent system from fully draining. See Figure 19.



See Figure 20.

- Position a suitable container with sufficient capacity below the strainer (between front and back wheels on right side of unit) to catch drained solution.
- 5. Remove strainer cover to release remaining brine solution.
- 6. Remove and retain strainer cover and filter.



- Rinse debris from filter using clean water. If material does not rinse off, use mild soap along with a brass (soft metal) or nylon bristle brush.
- 3. Reinstall filter and strainer cover. Ensure strainer cover seal is in place before reassembling filter and cover.

# ADJUSTMENTS

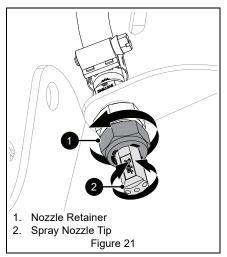


**WARNING:** Read and understand the *Safety* section before proceeding.

# ADJUST NOZZLE SPRAY PATTERN

See Figure 21.

- 1. Loosen nozzle retainer.
- 2. Adjust spray nozzle tip to set desired spray pattern.



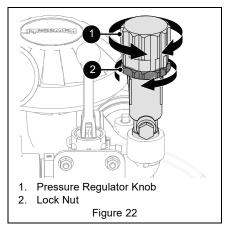
3. Tighten nozzle retainer.

# ADJUST BRINE APPLICATION RATE

See Figure 22.

Use pressure gauge to monitor application required to achieve the desired spray rate and pattern.

- 1. Move selection switch to brine position. See Figure 11.
- 2. Adjust pressure regulator:
  - Turn pressure regulator clockwise to increase pressure.
  - Turn pressure regulator counterclockwise to decrease pressure.
- 3. Tighten lock nut against pressure regulator knob to lock knob in the desired position.



### Flow Rate

Approximate time to deplete full tanks when operating nozzles only at select pressure settings.

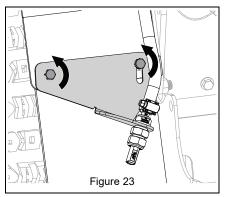
**IMPORTANT:** To avoid excessive concentration of brine solution, reduce pressure when operating at slow speeds.

Pressure Setting	Time to Empty
15	15 – 16 minutes
30	9 – 10 minutes
40	8 – 9 minutes

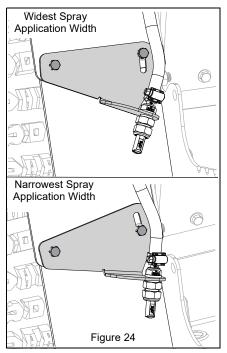
# Side Nozzle Spray Width Adjustment

Side nozzles are adjusted based on the overall width of spray pattern required.

1. Loosen but do not remove bracket hardware. See Figure 23.



 Adjust bracket up or down to achieve desired spray application width. See Figure 24.



 Adjust pressure regulator while monitoring system pressure on gauge. Approximate pressure settings and side nozzle positions based on 12.9 kph (8.0 mph) speed.

Side Nozzle Position	Pressure Setting	Spray Width cm (in)
Down	40	106.7 (42)
Up	40	86.4 (34)
Down	30	101.6 (40)
Up	30	86.4 (34)
Down	15	99.1 (39)
Up	15	78.7 (31)

4. Tighten hardware.

# STORAGE



**WARNING:** AVOID INJURY. Read and understand the *Safety* section before proceeding.

Refer to Mammoth Tractor Operator's Manual for tractor-specific storage information and procedures.

# BETWEEN USES

- Clean attachment thoroughly with mild soap and low-pressure water to remove any corrosive material and prevent corrosion buildup.
- 2. Clean any brine overspray or residue from the tractor and brine system.
- Clean spray nozzle and strainer filters. If material does not rinse off, use mild soap along with a brass (soft metal) or nylon bristle brush.

# SHORT TERM

- 1. Perform between-uses storage procedure.
- Drain, flush and condition system. See Drain System on page 14, Flush System on page 14 and Condition System on page 14.
- 3. Tighten all hardware and hose clamps to specifications.
- 4. Inspect unit for visible signs of wear or damage. Repair as needed.
- 5. Apply a light layer of oil or anti-corrosion compound to bare metal areas.
- 6. Store unit in a cool, dry, protected area. Do not store unit outdoors.

# LONG TERM

- 1. Perform between-uses and short-term storage procedure.
- 2. Touch up all scratched painted surfaces.

	TROUBLESHOOTING				
Problem	Probable Cause	Correction			
	Debris clogged in nozzle tip.	Clear debris from nozzle tip. See <i>Clean</i> <i>Nozzles &amp; Nozzle Filters</i> on page 15.			
Liquid dripping from spray nozzle tips with	Internal nozzle filter blockage.	Clean filter. See <i>Clean Nozzles &amp; Nozzle Filters</i> on page 15.			
pump running.	Nozzle assembly is improperly installed or not fully tightened.	Ensure nozzle assembly is properly installed.			
		Check hose connections.			
Inconsistent pressure.	Air is being introduced to system.	Check in-line strainer.			
pressure.		Check brine fluid level.			
Pump does not	Loose or disconnected wire harness connection.	Inspect and ensure all accessory wire harness connectors are fully seated.			
run.	Blown fuse.	Replace auxiliary 15A or control 10A fuse.			
	Frozen brine in pump or hoses.	Move unit to warm area to thaw.			

SPECIFICATIONS			
Model Number 851005			
Description	Brine Spreader Attachment		
Brine Capacity – L (gal)	90.9 (20)		
Spray Width – cm (in) 68.6 – 119.4 (27 – 47)			
Weight (does not include tanks)			
Weight (Empty) – kg (lb)	10.7 (23.5)		



AriensCo warrants to the **original purchaser** that Ariens brand products purchased on or after 1/1/2021 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered "Residential Use." Equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered "Commercial Use." If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

An authorized Ariens dealer will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge (labor and parts) to the original purchaser; except as noted below. Pick-up and delivery are at the owner's expense.

The warranty code is found on the model and serial number identification label on the unit.

Warranty Code	Product Group	Warranty Period
AA	Serialized Attachments	1 Year.
СН	Zenith Mowers (Non-European Models)	4 Years or 750 Hours.*
CQ	Zenith Mowers (European Models)	2 Years.
HD	LM-Series Walk-Behind Mowers	3 Years Residential Use. 90 Days Commercial Use.
HE	Edge Mowers	2 Years or 150 Hours.*
HF	Ikon-XD Mowers	3 Years or 300 Hours.*
НН	Apex Mowers	4 Years or 500 Hours.*
PA	921-Series Brushes	3 Years Residential Use. 90 Days Commercial Use.
PB	926-Series Brushes	3 Years Residential Use. 1 Year Commercial Use.
SA	Professional Sno-Thro	3 Years Residential Use. 1 Year Commercial Use.
SB	Compact, Deluxe and Platinum Sno-Thro and Path-Pro	3 Years Residential Use. 90 Days Commercial Use.
SC	S18	2 Years Residential Use. 90 Days Commercial Use.
SD	Deluxe and Platinum EFI Sno-Thro	3 Years Residential Use. 90 Days Commercial Use.
SE	920-Series Classic Sno-Thro, Crossover	3 Years Residential Use. 90 Days Commercial Use.
SF	Mammoth Tractor	2 Years or 500 Hours.*

\* Whichever comes first.

#### Special Extensions

The chart below details special **extensions** to warranty terms. Warranty terms are total time periods covered. If any product is rented or leased, there are no extensions to the 90-day warranty.

Warranty Code	Warranty Term Extension	Warranty Period
SA	Cast Iron Auger Gear Case	5 Years.
SB, SD	Cast Iron Auger Gear Case	5 Years Residential Use. 1 Year Commercial Use.



#### **Exclusions and Limitations**

The charts below detail special exclusions and limitations to this warranty.

Warranty Term Exclusions	Warranty Period
Air filters, auger paddles, brake arms, brake linings, brake shoes, brushes, cutters, fuel filters, halogen headlights, knives, halogen light bulbs, lubricants, mower blades, oil, oil filters, spark plugs, scraper blades, shear bolts and skid shoes.	Components are not covered under warranty.

#### Hydro-Gear Transaxle Limitation

See Hydro-Gear warranty. The warranty is administrated by AriensCo. Refer to www.ariens.com for warranty statement.

Warranty Term Limitations	Warranty Period
Cloth, Plastic and Rubber Components. Mufflers, Tires and Belts.	Components are covered for manufacturer's defect only, not wear.
Parker Actuators	1 Year.

#### Exclusions – Items Not Covered by This Warranty

- Parts that are not genuine Ariens service parts are not covered by this warranty and may void the warranty if the parts result in premature wear or damage to the product.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by AriensCo for use with product(s) identified herein are not covered by this warranty.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- Repairs or adjustments required due to failure to use fresh fuel or failure to properly prepare the unit for periods of non-use.
- Use of gasoline blends exceeding 10% ethanol voids any and all warranties.
- Any tampering with the hour meter voids any and all warranties.
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. AriensCo does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the AriensCo dealer for warranty policies that govern within your country. Rights may vary from country to country and within any one country.

#### Evaporative Emissions Control Warranty Exception

As required by the California Air Resources Board (CARB) and the US Environmental Protection Agency (EPA) the evaporative emissions control system is warranted to the ultimate purchaser, and any subsequent owner, for two years.

The CARB and EPA evaporative emissions control system warranty is described in a separate evaporative emission control warranty statement.

#### **Battery Warranty**

Battery warranty is one year. Units used for rental or lease have no exceptions to the 90-day warranty. Total battery claim reimbursement will not exceed 45.00 USD.



#### Engines

The chart below details engine warranty information. Engine warranty terms may vary from the specific terms of this warranty. If inconsistent, the terms of the engine warranty shall apply to the engine and its component parts.

Engine Manufacturer	Detail	
Ariens AX	Ariens-branded engines are warranted by the manufacturer and the warranty is administrated by AriensCo. Refer to the engine manual or www.ariens.com for warranty statements.	
Briggs & Stratton, Kawasaki, Kohler	Covered by the engine manufacturer's warranty. Refer to the engine manufacturer's warranty statements.	

#### Parts and Accessories

Service replacement parts and non-serialized accessories are warranted for 90 days from date of purchase. Labor is not included.

#### **Customer Responsibilities**

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must register the unit on-line at www.ariens.com.

To obtain warranty service, the original purchaser must:

- Ensure that the maintenance and adjustments explained in the Operator's Manual are routinely completed.
- Promptly notify AriensCo or an authorized Ariens service representative of the need for warranty service.
- Transport the product to and from the place of warranty service at owner's expense.
- · Have the warranty service performed by an authorized Ariens service representative.

To find an authorized dealer use the dealer locator on our websites, or contact us by mail or phone.

Globally (Except Australia or New Zealand):	Australia:	New Zealand:
AriensCo 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.ariensco.com	Masport Australia Pty Ltd 27 Commercial Drive Dandenong South Victoria 3175 Australia Phone: 1300 366 225 www.masport.com.au	Masport Ltd 320 Ti Rakau Drive East Tamaki Auckland 2013 New Zealand Phone: 0800 627 7678 www.masport.co.nz



#### Disclaimer

AriensCo may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating the AriensCo to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

#### Limitation of Remedy and Damages

AriensCo liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. AriensCo shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

AriensCo shall not be held liable for damages, including premature wear and tear, or injuries caused by installation of unauthorized parts and accessories or for parts and accessories not installed by an authorized Ariens dealer.

#### Australian Consumer Law

The following applies solely to warranties subject to Subsection 102(1) of the Australian Consumer Law: Our goods come with guarantees that cannot be excluded by the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

#### Disclaimer of Further Warranty

AriensCo makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to AriensCo, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from region to region.





655 West Ryan Street Brillion, WI 54110

www.ariens.com



parts.ariens.com





