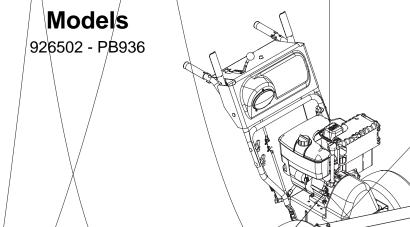


All Seasons Power Brush

Owner/Operator Manual



Transfer model & serial number label from product registration here.

Coller l'autocollant du modèle et du numéro de série dans cet encadré.

Transferir aquí la etiqueta del modelo y número de serie del registro del producto.









E ESPAÑOL

00437500 7/05 Printed in USA

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INTRODUCTION

THE MANUAL

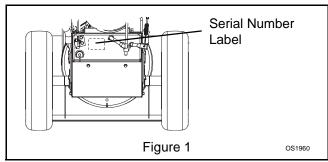
Before operation of unit, carefully and completely read your manuals. If used improperly, this unit could be dangerous and cause personal injury or property damage. The contents will provide you with safety instructions for the safe use of your unit during normal operation and maintenance.

All reference to left, right, front, or rear are given from operator standing in operation position and facing the direction of forward travel.

MODEL AND SERIAL NUMBERS

When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

Numbers are located on the product registration form in the unit literature package. They are printed on a serial number label, located on the frame of your unit.



- Record Unit Model and Serial number here.
- · Record Engine Model and Serial number here.

PRODUCT REGISTRATION

The Ariens dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

Customer Note: If Dealer does not register your product, please fill out, sign and return the product registration card to Ariens or go to www.ariens.com.

UNAUTHORIZED REPLACEMENT PARTS

Use only Ariens replacement parts. The replacement of any part on this unit with anything other than an Ariens authorized replacement part may adversely affect the performance, durability, or safety of this unit and may void the warranty. Ariens disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

For a brief list of replacement parts see *Service Parts* in this manual. To obtain a complete parts manual, find your model and serial number. Then go to www.ariens.com or call 1-920-756-4664.

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 within this manual may be optional. Some illustrations may not be applicable to your unit.

DELIVERY

Customer Note: If you have purchased this product without complete assembly and instruction by your retailer, it is your responsibility to:

 Read and understand all assembly instructions in this manual. If you do not understand or have difficulty following the instructions, contact your nearest Ariens Dealer for assistance. Make sure all assembly has been properly completed.

NOTE: To locate your nearest Ariens Dealer, call 1-920-756-4664 or go to www.ariens.com on the internet.



WARNING: Improper assembly or adjustments can cause serious injury.

- 2. Understand all Safety Precautions provided in the manuals.
- 3. Review control functions and operation of the unit. Do not operate the unit unless all controls function as described in this manual.
- 4. Review recommended lubrication, maintenance and adjustments.
- Review Limited Warranty Pφlicy.
- 6. Fill out Original Purchaser Registration Card and return the card to Ariens Company or go to www.ariens.com on the internet.

SAFETY



WARNING: To avoid injury to hands and feet, always disengage clutches, shut off engine, and wait for all movement to stop before unclogging or working on snow brush.

Keep hands and feet away from brush.

SAFETY ALERTS



Look for these symbols to point out important safety precautions. They mean:



Attention!
Personal Safety Is Involved!
Become Alert!
Obey The Message!

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



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



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



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

NOTATIONS

NOTE: General reference information for proper operation and maintenance practices.

IMPORTANT: Specific procedures or information required to prevent damage to unit or attachment.

PRACTICES AND LAWS

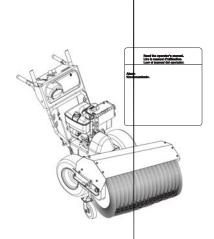
Practice usual and customary safe working precautions, for the benefit of yourself and others. Understand and follow all safety messages. Be alert to unsafe conditions and the possibility of minor, moderate, or serious injury or death. Learn applicable rules and laws in your area.

REQUIRED OPERATOR TRAINING

Original purchaser of this unit was instructed by the seller on safe and proper operation. If unit is to be used by someone other than original purchaser; loaned, rented or sold, ALWAYS provide this manual and any needed safety training before operation.

SAFETY DECALS AND LOCATIONS

ALWAYS replace missing or damaged Safety Decals. Refer to figure below for Safety Decal locations.



1. WARNING!

Read Owner/Operator Manual.

 Allow operation only by properly trained adult, never children.



Keep people away from unit while operating.



Never direct discharge towards persons or property that may be injured or damaged by thrown objects.



Stop engine, remove key, read manual before making any repairs, adjustments.



ONLY use clean-out tool to clear blockages. NEVER use your hands.



Wear appropriate hearing protection.

2. DANGER!

- · Read the Owner's Manual.
- Adjust brush height before operating.
- Engage traction drive clutch before attachment clutch.
- Operating on irregular terrain could cause the brush to dig in and drive the machine rearward.

3. CAUTION!

Engage traction drive clutch before attachment clutch.

SAFETY RULES

Read, understand, and follow all safety practices in Owner/Operator Manual before beginning assembly or operating. Failure to follow instructions could result in personal injury and/or damage to unit.

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 unit and work area to understand:

 Work area
 Your unit
 All safety decals
 ALWAYS check overhead and side clearances carefully before operation. ALWAYS be aware of traffic when operating along streets or curbs.

Keep children and people away. Keep children out of work area and under watchful care of a responsible adult. NEVER allow children to operate or play on or near unit. Be alert and shut off unit if children enter area.

DO NOT allow adults to operate unit without proper training.

Keep area of operation clear of all toys, pets, and debris. Thrown objects can cause injury.

Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain. Stay alert for hidden hazards.

Avoid uneven and rough terrain. 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.

Falling snow, fog, etc. can reduce vision and cause an accident. Operate unit only when there is good visibility and light.

Only trained adults may operate unit.

Training includes actual operation.

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

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

DO NOT operate unit without wearing adequate outer garments. Wear adequate safety gear, including safety glasses with side shields, and protective gloves. Wear proper footwear to improve footing on slippery surfaces.

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

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

Avoid sharp edges. Sharp edges can cut. Moving parts can cut off fingers or a hand.

ALWAYS keep hands and feet away from all rotating parts during operation. Rotating parts can cut off body parts.

NEVER place your hands or any part of your body or clothing inside or near any moving part while unit is running.

ALWAYS keep hands away from all pinch points.

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

Never direct discharge towards persons or property that may be injured or damaged by thrown objects. Use extreme caution on gravel surfaces. Stay alert for hidden hazards or traffic.

Deflected materials can cause injury and property damage.

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

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

ALWAYS disengage attachment, stop unit and engine, remove key and allow moving parts to stop before leaving operator's position.

Read, understand, and follow all instructions in the manual and on the machine before starting.

Understand:

- · How to operate all controls.
- The functions of all controls.
- How to STOP in an emergency.

Before starting engine, disengage control(s).

Use only approved extension cords and receptacles when starting units equipped with electric starter. DO NOT connect electric starter cord to any wiring system that is not a three-wire grounded system.

ALWAYS allow unit and engine to adjust to outdoor temperatures before clearing snow.

Always be sure of your footing, especially when operating in reverse or leaving the operator's position. Walk, never run during operation.

DO NOT operate at too fast a rate.

Slow down and turn corners slowly.

Do not operate in reverse unless absolutely necessary. ALWAYS back up slowly. Always look down and behind before and while backing.

Disengage attachment drive when traveling from one work area to another.

Abnormal Vibrations are a warning of trouble. Striking a foreign object can damage unit. Immediately stop unit and engine. Remove key and wait for all moving parts to stop. Remove wire from spark plug. Inspect unit and make any necessary repairs before restart.

Before cleaning, removing clogs or making any inspections, repairs, etc.: disengage clutch(es), stop unit and engine, remove key, allow moving parts to stop. Allow hot parts to cool.

Run unit a few minutes after clearing snow to prevent freeze-up of attachment.

Disengage attachment when not in use. Never leave a running unit unattended. ALWAYS shut off engine before leaving unit. ALWAYS remove key to prevent unauthorized use.

Never carry passengers.

Adjust brush height before operating. Engage traction drive clutch before attachment clutch. If brush is set too low or if terrain is irregular brush can drive machine rearward.

DO NOT operate on steep slopes. DO NOT clear snow across the face of slopes. Keep all movement on slopes slow and gradual. DO NOT make sudden changes in speed or direction. 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.

ALWAYS shut off engine, remove key, and close fuel shut-off valve or drain fuel when transporting unit on a truck or trailer.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

DO NOT transport machine while engine is running.

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

This product is equipped with an internal combustion type 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 it is used, must be maintained in effective working order by operator.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use an approved fuel container.

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 containers inside a vehicle or on a truck 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 truck or 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 fueling is complete. Do not use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

Before tipping unit up onto housing, remove fuel so no spills will occur. Ensure unit is secure and will not tip over during maintenance.

Adjust brush height before operating. Refer to *Operation*.

Before separating brush attachment from unit frame, remove fuel so no spills will occur. Ensure unit is secure and will not tip over during maintenance.

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

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

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

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

Keep all hardware properly tightened.

Maintain or replace safety and instruction labels, as necessary.

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

Shut off fuel and allow engine to cool completely before storing in closed area or covering unit.

For extended storage, clean unit thoroughly. See Engine Manual for proper storage.

Use only attachments or accessories designed for your unit.

Check components frequently. If worn or damaged, replace with manufacturer's recommended parts.

ASSEMBLY



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

Tools Required:

- Open-End Wrenches: 3/8, 7/16, 1/2, 9/16" and/or Adjustable Wrench
- Tire Gauge

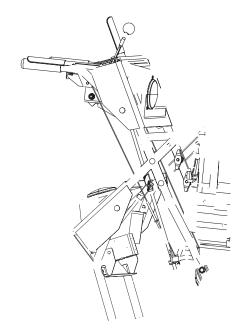
Unpacking Unit



WARNING: Dropping or tipping over boxed unit could result in personal injury or damage to unit.

Unfold Handlebar (Figure 3)

- 1. Remove the lower and loosen the upper wing knobs on the handlebar assembly.
- 2. Loosen the wing nuts on the shift rod.
- 3. Put the speed selector lever in the first forward position.
- 4. Rotate the handlebars into operating position.
- 5. Install and tighten all wing knobs and wing nuts on the handlebar assembly and shift rod.



Check Function of Dual Handle Interlock

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage. If they do not, contact your dealer for repairs.

Check Tire Pressure

Check tire pressure and adjust to the pressure listed on tire sidewall.

Check Engine Crankcase Oil

IMPORTANT: Engine is shipped with 5W-30 oil in crankcase. Refer to Engine Manual for detailed instructions.

Fill Engine Fuel Tank

Refer to Engine Manual for proper type and capacity.

Check Function of all Controls

Ensure unit runs and performs properly. Refer to *Operation*.

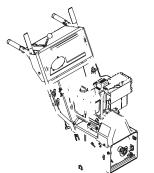
Run-in Attachment Belt

- 1. Start unit in a well-ventilated area according to *Starting and Shut Off* on page 10.
- 2. Engage attachment clutch lever and run attachment for about 15 minutes.
- 3. Stop unit, wait for all moving parts to stop, and remove spark plug wire.
- 4. Adjust belt finger, if necessary. See *Attachment Drive Belt Replacement* on page 16.
- 5. Adjust clutch idler according to *Attachment Clutch/Brake Adjustment* on page 14.

CONTROLS AND FEATURES

- 1. Traction Drive Clutch Lever
- 2. Heated Handles Switch
- 3. Speed Selector Lever
- 4. Attachment Clutch Lever
- 5. Recoil Starter Handle
- 6. Engine Shut Off Switch
- 7. Throttle
- 8. Oil Fill/Dipstick
- 9. Brush Guard
- 10. Brush
- 11. Height Adjustment Wheels
- 12. Fuel Shut Off Valve
- 13. Fuel Fill Cap
- 14. Remote Differential Lock
- 15. Choke
- 16. Engine Air Cleaner (Climate Guard)
- 17. Oil Drain Plug
- 18. Heated Handles





OPERATION



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



WARNING: To avoid injury to hands and feet, always disengage clutches, shut off engine, and wait for all movement to stop before unclogging or working on snow brush.

Keep hands and feet away from brush.

STANDARD CONTROLS

See 4 for all Controls and Features locations.

Traction Drive Clutch - Left Hand Lever



Squeeze the Traction Drive Clutch Lever against the Handlebar (1) to engage wheel drive for propelling unit.

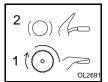
Release lever (2) to stop movement.

NOTE: When traveling to or from the

area to be cleared, press down on the handlebars enough to raise the front of the unit slightly off the surface. Engage the traction drive clutch without engaging the attachment drive clutch.

NOTE: Traction drive clutch should be engaged before the attachment clutch when brushing.

Attachment Drive Clutch - Right Hand Lever



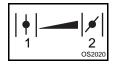
Squeeze Attachment Clutch Lever against Handlebar (1) to engage brush. Release clutch lever (2) to disengage power and apply brake to brush.

IMPORTANT: If the belt squeals when the attachment clutch lever is engaged, the attachment drive may be frozen. Immediately release the attachment clutch lever and move the unit into a heated area to thaw.

Dual Handle Interlock

When Attachment Clutch and then Traction Drive Clutch are engaged, the Attachment Clutch will remain engaged (lever down) if released. To stop brush, release Traction Drive Clutch and both clutches will disengage.

Choke Control



Move choke control right to close choke (2). A closed choke reduces air to engine for easier start. Move choke control to the left to open choke for normal operation (1).

IMPORTANT: Gradually open choke after engine starts.

Engine Shut Off Switch



Press the switch to "O" (off) to stop the engine. The switch must be pressed to "I" (on) to start the engine.

- 1. On
- 2. Off

Throttle

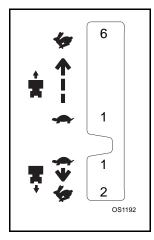


The Throttle controls the engine speed. To increase or decrease the engine speed, adjust to:

- 1. Fast (normal or warm starts)
- 2. Part-Throttle
- 3. Slow (cold weather starts)

Speed Selector

Position the Speed Selector in the appropriate speed notch to control forward and reverse travel.



Forward:

- (6) Fastest
- (1) Slowest

Reverse:

- (1) Slow
- (2) Fast

IMPORTANT: DO NOT change motion from forward to reverse with clutch engaged. Forward speed can be changed without declutching.

Recoil Starter Handle

When pulled, handle will turn engine over.

Headlight

The headlight operates only when the engine is running.

Remote Differential

Squeeze and hold the remote differential lever to lock differential so both wheels drive and provide better traction. Release the remote differential lever to allow easier steering.

Heated Handles



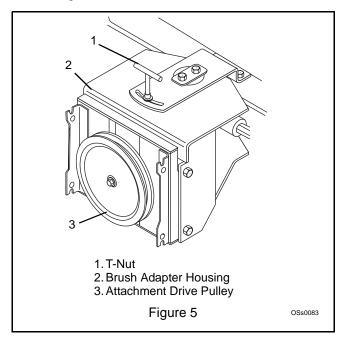
Turn the heated handles switch to the ON (1) position to activate. Turn the switch to the OFF (2) position to deactivate.

IMPORTANT: Do not activate heated handles when using brush in warm weather.

BRUSH ANGLE ADJUSTMENT

To change the angle of the brush:

- Release the attachment clutch and then the traction clutch.
- 2. Loosen the T-nut on top of the adapter frame and turn the brush as needed. See Figure 5.
- 3. Retighten the T-nut.



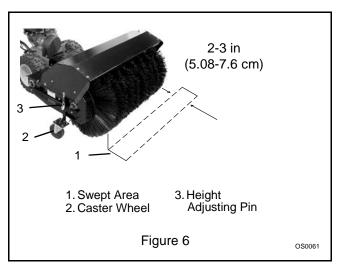
BRUSH HEIGHT ADJUSTMENT

IMPORTANT: If brush height is set too low, brush can drive machine rearward when attachment clutch is engaged. Engage brush slowly with brush set at proper height.

Adjust caster wheels to the hole nearest 1/8-1/4 inch (3-6 mm) above surface. For hard surfaces, adjust the caster wheels so that brush just touches surface. The brush works best with the brush properly leveled. To adjust the brush height:

1. Move the brush to a dusty, flat surface. Leave the engine running.

- 2. Start the brush at a slow speed. Run the brush in a stationary position for 30 seconds.
- 3. Lift the brush head assembly off the ground and reverse the unit to move it away from the swept area.
- 4. Stop engine and allow all moving parts to stop.
- 5. Check the width of the swept area. The brush pattern should be 2-3 inches (5.08-7.6 cm) wide, running the length of the brush. (See Figure 6).
- 6. To adjust, remove the caster wheel support pins (one each side). Slide caster wheel supports up or down as required. Align the holes in the outer sleeve with the holes in the wheel supports.
- 7. Reinstall the adjustment pins at the new position.
- 8. Repeat steps 1-7 until proper adjustment is attained.



FUEL SHUT-OFF VALVE

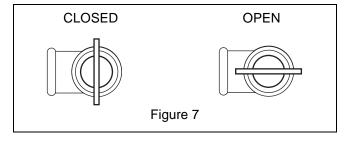


WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

IMPORTANT: The fuel shut-off valve MUST be in the closed position prior to transporting the unit.

The fuel shut-off valve has two positions:

- Closed Position: Use this position to service, transport, or store the unit.
- Open Position: Use this position to run the unit.



FILLING FUEL TANK

To add fuel to the tank:

- ALWAYS place unit in an open, well- ventilated area.
- 2. Stop engine and allow to cool.



WARNING: FLAMMABLE FUEL and its EXPLOSIVE VAPORS can result in death or serious injury. Handle fuel with extreme care. ALWAYS use an approved fuel container. NO Smoking! NO Lighted Materials! No Open Flames! Allow engine to cool before any service.

- 3. Clean fuel cap and surrounding area to prevent dirt from entering the fuel tank.
- 4. Remove cap.

IMPORTANT: See engine manual for correct type and grade of fuel to use.

- 5. Fill fuel tank to within 1/2 inch (1.27 cm) below bottom of filler neck. Tank capacity is 4.0 qts (3.8 liters).
- 6. Replace fuel cap and tighten.
- 7. ALWAYS clean up any spilled fuel.

PRE-START

1. Check Engine Air Cleaner Position (Climate Guard)

IMPORTANT: See Engine Manual for correct orientation of air cleaner cover prior to starting engine.



This side out for use ABOVE 32°F (0°C).



This side out for use BELOW 32°F (0°C).

2. Check Function of Clutches

Brush must stop quickly when attachment clutch lever is released.

Wheels must stop quickly when traction drive clutch lever is released.

If clutches do not engage or disengage properly, adjust or repair before operation (see Service and Adjustments).

3. Check Dual Handle Interlock

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage.

If clutches do not engage or disengage properly, adjust or repair before operation (see *Service and Adjustments*).

4. Check Remote Differential

Test the remote differential lock before starting. Squeeze and hold the remote differential lever to lock differential so both wheels drive and provide better traction. Release the remote differential lever to allow easier steering.

5. Adjust Brush

Adjust brush height and angle before operation. See *Brush Adjustments.*

6. Check Engine Fuel and Crankcase Oil



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

Check and add fuel if required. Check that the engine crankcase oil is full using dipstick. Refer to Engine Manual for detailed instructions.

TO STOP IN AN EMERGENCY

Immediately release both control levers to stop unit in an emergency. Stop engine and wait for all rotating parts to stop before leaving operator's position.

STARTING AND SHUT OFF

IMPORTANT: At start-up, allow unit and engine to adjust to the outside temperature before operating. Before shut-off, run unit a few minutes to prevent freeze-up.

NOTE: Try out each control without the engine running to see how they work and what they do.

Manual Start

- 1. Make sure that the traction clutch and attachment clutch levers are fully disengaged.
- 2. Turn on engine shut-off switch ("I").
- 3. If engine is cold, apply choke. A warm engine requires less choking than a cold engine. See Engine Manual for detailed instructions.
- 4. Set throttle to proper starting position.
- 5. Pull rope with a rapid continuous full arm stroke. Let rope rewind slowly.

IMPORTANT: DO NOT let Starter Handle snap against Starter.

- 6. Repeat until engine starts. (If engine does not start, refer to *Troubleshooting*.)
- 7. Adjust choke as needed.
- 8. Set throttle to Part Throttle or Slow position for adaptation to outside temperature or travel. Set throttle to Fast position for normal operation.

Shut Off

- 1. Release attachment clutch lever and wait for all moving parts to come to a complete stop.
- 2. Release traction drive clutch lever and allow unit to come to a complete stop.
- 3. Run unit a few minutes after use to prevent freeze-up.
- 4. Move throttle to Part Throttle or Slow position.
- 5. Turn off engine shut-off switch ("O").

USING THE BRUSH

After proper Pre-Start and Starting:

1. Select speed control position and direction.

IMPORTANT: DO NOT overload unit capacity by sweeping at too fast a rate.

- 2. Engage the traction drive clutch first.
- 3. Engage the attachment clutch next.

Tips for Sweeping

To clear an area, run unit in an overlapping series of paths. For large areas, start in the middle and sweep debris to each side, so it is not cleared more than once.

ALWAYS direct discharge away from area to be cleared and with direction of the wind.

Snow is best removed as soon as possible after snow fall.

Tips for Dethatching

Dethatch in the spring to clear winter undergrowth.

Adjust brush height so it just touches the grass.

Set the brush angle full left or full right so thatch gets cleared only once.

Dethatch dry grass.

Use a slow speed to clear thatch without damaging the lawn.

TRAVELING

To travel from one work area to another:

- 1. Set throttle to SLOW position or slightly higher.
- 2. Press down the handlebars enough to raise the front of the unit slightly off the surface.
- 3. Engage traction clutch without engaging the attachment drive clutch.

TRANSPORT

ALWAYS shut off engine and close fuel shut-off when transporting unit on a truck or trailer.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged. DO NOT transport machine while engine is running.

STORAGE



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

SHORT TERM

IMPORTANT: NEVER spray unit with high-pressure water or store unit outdoors.

Run unit a few minutes after each use to free unit of any debris.

Inspect unit for visible signs of wear, breakage or damage.

Keep all nuts, bolts and screws properly tightened and know unit is in safe working condition.

Close fuel shut-off valve.

Store unit in a cool, dry protected area.

LONG TERM

Clean unit thoroughly with mild soap and low pressure water and lubricate (see *Maintenance*). Touch up all scratched painted surfaces.

Remove weight from wheels by putting blocks under frame or axle.

When storing unit for extended periods of time, remove all fuel from tank and carburetor (run dry). Refer to Engine Manual.

MAINTENANCE

Ariens Dealers will provide any service or adjustments which may be required to keep your unit operating at peak efficiency. Should engine service be required, contact an Ariens dealer or an authorized engine manufacturer's service center.



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

SERVICE POSITION

IMPORTANT: DO NOT tip unit up onto brush. Remove the brush if maintenance requires tipping the unit forward. Ensure unit is secure and will not tip over. Strap or clamp unit onto bench if required.

To access components in the unit frame:

- 1. Shut off engine and allow unit to cool completely. Place unit on a flat level surface.
- 2. Remove belt cover (Figure 8).
- Remove the rear cap screws from the bottom cover. Loosen the side cap screws and remove the bottom cover before separating unit.
- 4. Loosen cap screws and carefully rotate belt fingers away from belt and sheave (Figure 8).

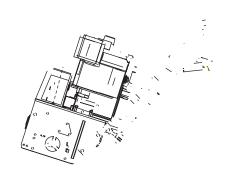
IMPORTANT: Use care when rotating the belt fingers. DO NOT bend belt fingers out of shape.

5. Remove attachment drive belt from engine sheave (it may be necessary to turn engine sheave using recoil starter handle).



CAUTION: Always support unit frame and brush attachment when loosening the cap screws holding them together.

- 6. Support unit frame and brush attachment.
- 7. Remove cap screws securing attachment to unit frame (one on each side). Tip attachment and frame apart on pivot rod.
- 8. Remove attachment belt from attachment pulley.
- 9. Separate frame from brush.



MAINTENANCE SCHEDULE

The chart below shows the recommended maintenance schedule that should be performed on a regular basis. More frequent service may be required due to working conditions (heavy loads, high ambient temperatures, dusty conditions, or airborne debris).

MAINTENANCE SCHEDULE						
Service Performed	Each Use	Every 5 hrs.	Every 25 hrs.	Yearly		
Check Dual Handle Interlock	•					
Check Fasteners	•					
Check Clutch Operation	•					
Check Clutch Spring Adjustments		*	•			
Clean Engine	•					
Check Engine Oil		•				
Change Engine Oil		**	•			
Check Tire Pressure			•			
General Lubrication		***	•	•		

^{*} After first five hours of operation.

^{**} After first two hours of operation.

^{***} Grease universal joint after first 16 hours of operation and every 8 hours thereafter.

CHECK DUAL HANDLE INTERLOCK

Without the engine running, press down (engage) both clutch levers. Release attachment clutch lever. Attachment clutch should remain engaged until traction clutch lever is released, then both clutches *must* disengage.

CHECK FASTENERS

Make sure all hardware is tightened properly.

CHECK CLUTCH OPERATION

Brush must stop quickly when attachment clutch lever is released.

Wheels must stop quickly when traction drive clutch lever is released.

If clutches do not engage or disengage properly, adjust or repair before operation (see *Service and Adjustments*).

CHECK CLUTCH SPRING ADJUSTMENT

Make sure the attachment clutch and traction drive clutch are adjusted to the range specified in *Attachment Clutch/Brake Adjustment* on page 14 and in *Traction Drive Clutch Adjustment* on page 15.

CLEAN ENGINE

Refer to Engine Manual for detailed instructions.

CHECK ENGINE OIL

The engine crankcase oil should be checked every 5 hours of operation. Oil level MUST be maintained in safe operating range on dipstick at all times or engine damage will result (see Engine Manual).

Park unit on a level surface. Refer to Engine Manual for detailed instructions.

CHANGE ENGINE OIL

Change oil after first 2 hours of operation, thereafter change oil every 25 hours (more often if required). Refer to Engine Manual for detailed instructions.

Run engine just prior to changing oil. Warm oil will flow more freely and carry away more contamination.

CHECK TIRE PRESSURE

Keep tires at pressure listed on the tire sidewall.

GENERAL LUBRICATION

Brush

 Follow the instructions for removing the brush attachment from unit frame. See Service Position.

IMPORTANT: Wipe each lube fitting clean before and after lubrication. DO NOT allow grease or oil to get on the friction disc, drive disc or belts.

2. Apply grease to lube fitting on universal joint after the first 16 hours of use and every 8 hours thereafter.

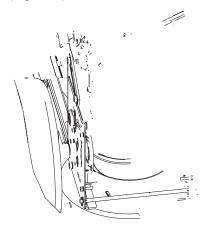
NOTE: Apply Stens Mix Hi-Temp Grease or equivalent.

- 3. Apply a few drops of oil to the chain, idler pivot and other pivot points at the beginning of the season or every 25 operating hours.
- 4. Attachment gear box is lubricated at the factory and should not require additional lubrication.

Drive

IMPORTANT: Wipe each lube fitting clean before and after lubrication. DO NOT allow grease or oil to get on the friction disc, drive disc or belts.

NOTE: Apply Stens Mix Hi-Temp Grease or equivalent to the lube fittings (Figure 9).



SERVICE AND ADJUSTMENTS

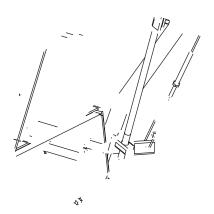


WARNING: AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

SPEED SELECTOR ADJUSTMENT

To adjust (Figure 10):

- 1. Place unit into service position.
- 2. Disconnect adjustment pivot pin from speed selector lever.
- 3. Place the speed selector in the fastest forward speed position.
- 4. Turn the speed selector lever straight down towards the ground as far as it will go.
- 5. Thread the adjustment pivot pin along the shift rod until it aligns with the mating hole on the speed selector lever. Insert the pivot pin into hole.
- 6. Secure adjustment pivot pin with hairpin.
- 7. Make sure the speed selector shifts into each speed position.

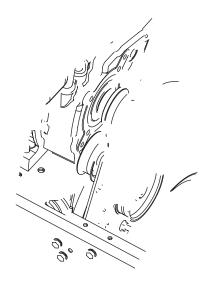


ATTACHMENT CLUTCH/BRAKE ADJUSTMENT (Figures 11 and 12)

- 1. Measure spring extension.
 - a. Measure the length of the clutch cable spring.
 - b. While holding the attachment clutch lever against the handlebar, measure the length of the spring again. The spring should be 1/2-11/16 in. (12.7-17.5 mm) longer when the lever is engaged.

- 2. Reposition the idler on the attachment belt idler arm to adjust the spring extension, if necessary.
 - a. Remove belt cover and loosen idler adjustment nut.
 - b. To increase spring extension, move idler closer to the engine sheave.
 - c. To decrease spring extension, move idler farther from the engine sheave.
 - d. Tighten the idler adjustment nut.

NOTE: Moving the idler approximately 1/8 in. (3 mm) will change the spring extension approximately 1/8 in. (3 mm).



3. Check brake.

When the clutch lever is disengaged, the brake must contact attachment belt.

When the clutch lever is engaged, the brake must be more than 1/16 in. (1.6 mm) away from the belt (Figure 13).

4. Repeat steps 1 - 3 until spring extension and brake clearance are within specified range.

- Check belt finger clearance (Figure 15).
 With clutch lever engaged, belt finger on the side opposite the belt idler should be 1/16 1/8 in.
 (1.6 –3 mm) from belt. Adjust belt finger as necessary.
- 6. Replace bottom cover.
- 7. Replace belt cover.

TRACTION DRIVE CLUTCH ADJUSTMENT

If drive slips, adjust traction clutch to compensate for friction disc wear.

To adjust traction clutch:

- 1. Place speed selector in fastest forward speed.
- 2. Place unit in service position.
- 3. Measure the length of the traction drive clutch spring at the top of the traction cable. See Figure 14.
- 4. Engage and hold the traction drive clutch lever and measure the spring again. The spring should be 1/2 -11/16 in. (12.7-17.5 mm) longer when the lever is engaged.

- 5. Adjust spring extension.
 - a. With the traction drive clutch lever disengaged, loosen the jam nut on the cable adjuster.
 - b.Turn the adjuster body up the cable for more spring extension.
 - c.Turn the adjuster body down the cable for less spring extension.

- d.Finger tighten the jam nut, and then hold the adjuster body with pliers and tighten the jam nut with wrench.
- 6. Measure the extension of the traction drive clutch spring.
- 7. Repeat step 5 until traction drive clutch spring lengthens 1/2 -11/16 in.(12.7-17.5 mm) when the traction drive clutch lever is engaged.
- 8. With the clutch disengaged, check that there is more than 1/32 in. (0.8 mm) clearance between friction disc and drive plate assembly.

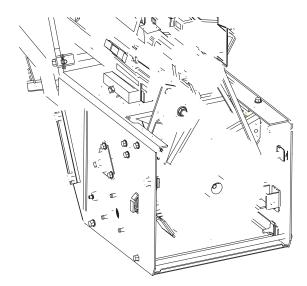
IMPORTANT: If spring length cannot be adjusted within specified range, see your Dealer for repairs.

ATTACHMENT DRIVE BELT REPLACEMENT

Remove old attachment drive belt:

IMPORTANT: To avoid bending bottom cover when tipping unit apart, support handlebars firmly and remove bottom cover by removing six cap screws before separating unit.

- 1. Follow the instructions for removing the brush attachment from the unit frame under *Service Position*.
- 2. Remove attachment drive belt from engine sheave (it may be necessary to turn engine sheave using recoil starter handle).



Install new attachment drive belt:

1. Place new attachment belt onto attachment pulley.

NOTE: Holding down the attachment clutch lever will make it easier to reconnect the housing and frame.

- 2. Tip attachment and frame back together and secure with cap screws.
- 3. Place belt onto engine sheave.
- 4. Reposition and secure belt fingers.

IMPORTANT: Make sure belt fingers are 1/16 to 1/8 in (1.6-3 mm) from belt when attachment clutch is engaged.

- 5. Check clutch adjustment (see *Attachment Clutch Adjustment*).
- 6. Replace belt cover.

TRACTION DRIVE BELT REPLACEMENT

IMPORTANT: To avoid bending bottom cover when tipping unit apart, support handlebars firmly and remove bottom cover by removing six cap screws before separating unit.

- 1. Follow the instructions for removing the brush attachment from the unit frame under *Service Position*.
- 2. Remove attachment drive belt (see *Attachment Drive Belt Replacement* on page 16).
- 3. To gain belt clearance, back out the stop bolt from the frame until the drive plate assembly can swing past it (Figure 16).
- 4. Pull idler away from traction drive belt and remove belt from idler pulley, engine sheave and driven pulley (it may be necessary to turn engine pulley using recoil handle).
- 5. Install new traction drive belt onto attachment pulley and engine sheaves.
- 6. Pull the drive plate assembly toward the friction disc and tighten the stop bolt.

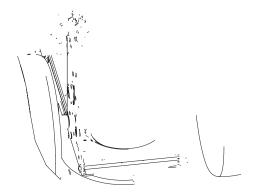
NOTE: Make sure the drive plate assembly return spring remains connected to the frame.

7. Replace attachment drive belt (See *Replace Attachment Drive Belt*).

FRICTION DISC REPLACEMENT

- 1. Place unit into service position.
- 2. Remove bottom cover by removing six hex bolts.
- With axle locked, hold one wheel so friction disc will not rotate and remove three cap screws holding friction disc to carrier.
- 4. Remove both wheels.
- 5. Remove right and left bearing flanges from frame.
- 6. Slide hex shaft to the left enough to remove pinion sprocket from hex shaft.

- 7. Slide hex shaft to the right enough to remove friction disc.
- 8. Slide new friction disc onto hex shaft.
- 9. Install pinion sprocket and chain on hex shaft, then replace bearing flanges.
- 10. Hold wheel so friction disc will not rotate and secure new friction disc to carrier with three hex screws removed in step 3.
- 11. Replace wheels.
- 12. Replace bottom cover.
- 13. Adjust traction drive clutch (see *Traction Drive Clutch Adjustment* on page 15).



SPECIFICATIONS				
Model Number	926502			
Engine-Tecumseh	OH318EA-222719E			
Max-HP (kw/min ⁻¹)	9 (6.7)			
Fast Idle Speed-RPM	3600±150			
Electric Start	Optional			
Fuel	See Engine Manual			
Tank Capacity-qts. (L)	4 (3.8)			
Clearing Width-in (cm)	36 (91.4)			
Brush Diameter-in (cm)	24 (61)			
Brush Rotation Speed-RPM	190			
Drive	Disc-O-Matic			
Drive Speeds	6 Forward 2 Reverse			
Pneumatic Tires-in (cm)	16/6.5 x 8			
	(40.6/16.5 x 20.3)			
Brush Rotation Angle	40°			
Size Length-in (cm)	76.5 (194.3)			
Height-in (cm)	43 (109.2)			
Width-in (cm)	44 (111.8)			
Weight-lbs. (Kg)	319 (144.7)			

ACCESSORIES		
See your authorized Ariens dealer to add these optional accessories to your unit.		
Part No.	Description	
72403600	120V Electric Starter	

SERVICE PARTS				
Order the following parts through your Dealer:				
Part No.	Description			
07211200	Traction Drive Belt			
07200020	Attachment Drive Belt			
21533500	Spark Plug			
00170800	Friction Disc			
00036800	Stens Mix Hi-Temp Grease (Three 3 oz. cartridges)			

To obtain a complete parts manual, find your model and serial number. Then go to www.ariens.com or call 1-920-756-4664.



Ariens Limited GRAVER



Warranties

2-Year Limited Lawn and Garden **Consumer Warranty**

Ariens Company (Ariens) warrants to the original purchaser that Ariens and Gravely brand consumer products manufactured by Ariens Company will be free from defects in material and workmanship for a period of two (2) years after the date of purchase, and that Ariens 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 to the original purchaser (labor and parts), except as noted below.

The two-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use such as, but not limited to, commercial landscaping, mowing or snow removal services, or golf course or park maintenance, or agricultural or farmstead use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

2-Year Limited Lawn and Garden **Commercial Warranty**

The Ariens Company (Ariens) warrants to the original purchaser that all Gravely Pro and ProMaster products manufactured by Ariens will be free from defects in material and workmanship for a period of two (2) years after the date of purchase or 1000 hours of use, whichever comes first. An authorized Gravely 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 to the original purchaser (labor and parts), except as noted

The duration of this warranty shall be ninety (90) days after the date of purchase or 1000 hours of use, whichever comes first, if any product is rented or leased.

3-Year Limited Sno-Thro Warranty

Ariens Company (Ariens) warrants to the original purchaser that Sno-Thro products manufactured by Ariens Company will be free from defects in material and workmanship for a period of three (3) years after the date of purchase, and 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 to the original purchaser (labor and parts), except as noted below.

The three-year duration of this warranty applies only if the product is put to ordinary, reasonable, and usual personal, family, or household uses. If the product is put to any business, commercial, or industrial use, then the duration of this warranty is ninety (90) days after the date of purchase, or one (1) year after the date of purchase if the product is labeled as a Professional/Commercial Product. The duration of this warranty shall be ninety (90) days after the date of purchase if any product is rented or leased.

DURA-CLEAN™ Auger Limited Lifetime Warranty

Ariens Company (Ariens) warrants to the original purchaser that the rubber components of the DURA-CLEAN™ Auger manufactured by Ariens Company will be free from defects in material and workmanship and will not wear out for the life of the Sno-Thro, except as noted below.

Ariens Company will provide for the replacement of any of the rubber components of the DURA-CLEAN™ Auger found upon examination by the Ariens Company to be defective or worn out. Replacements will be supplied free of charge. Labor is not included after two (2) years from the date of purchase of the Sno-Thro.

The lifetime limited warranty shall apply if the product is put to ordinary, reasonable, and usual personal household use. If the product is put to any business, commercial, industrial, rental, or leased use, the warranty shall be against defects in material and workmanship for ninety (90) days following the date of purchase.

Exceptions, Limitations, Exclusions	
Ariens Company • 655 W. Ryan St, P.O. Box 157 • Brillion, WI 54110-0157• (920) 756-2141 • www.ariens.com	ALW2 - 71505



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▲ WARNING **▲**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.