



Lawn Edger

Owner/Operator Manual

Manuel Du Propriétaire/Utilisateur

Model

986101 – Edger

986103 – Edger



ENGLISH



Français

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INTRODUCTION

NON-ENGLISH MANUALS



Manuals in languages other than English may be obtained from your Dealer. Visit your dealer or www.ariens.com for a list of languages available for your equipment.

Manuals printed in languages other than English are also available as a free download on our website:

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THE MANUAL

Before operation of unit, carefully and completely read your manuals. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

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

ENGINE MANUAL

The engine on this unit is covered by a separate manual specific to the engine. This manual is included in the literature package that shipped with the unit. Refer to this manual for engine service recommendations. If the engine manual is not available, contact the engine manufacturer for a replacement manual.

MODEL AND SERIAL NUMBERS

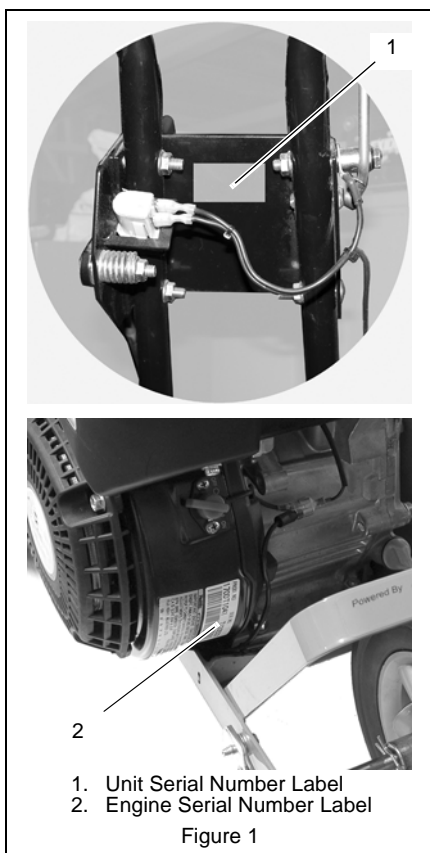
When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

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 (Figure 1).

- Record Unit Model and Serial numbers here.

- Record Engine Model and Serial numbers 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 the dealer does not register your product, please fill out, sign, and return the product registration card to Ariens.

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, and 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. To locate your nearest Ariens Dealer, go to www.ariens.com on the internet.

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. To locate your nearest Ariens Dealer, go to www.ariens.com on the internet.



WARNING: Improper assembly or adjustments can cause serious injury.

Before Attempting To Operate Your Unit:

1. Make sure all assembly has been properly completed.
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.
5. Review Limited Warranty Policy.
6. Fill out a product registration card and return the card to the Ariens Company or go to www.ariens.com.

DISCLAIMER

Ariens reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. 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.

SAFETY



WARNING: This cutting 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.

Slopes are a major factor related to loss-of-control and tip-over accidents. Operation on all slopes requires extra caution.

Tragic accidents can occur if the operator is not alert to the presence of children. Never assume that children will remain where you last saw them.

Gasoline is extremely flammable and the vapors are explosive, handle with care.

Disengage attachment, stop unit and engine, remove key, engage parking brake, and allow moving parts to stop before leaving operator's position.



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.

SAFETY DECALS AND LOCATIONS

ALWAYS replace missing or damaged Safety Decals. Refer to Figure 2 for Safety Decal locations.

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 symbol is used in decals and with this manual. Understand the safety message. It contains important information about personal safety.



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.



Figure 2

1. Danger!



AVOID INJURY. Stay clear of rotating parts.

2. Danger!



Read owner/operator's manual.



Always wear eye and hearing protection.



Keep children and others away from unit while operating.



Never direct discharge toward other people. Thrown objects can cause injury.



Always keep hands away from rotating parts.



Always keep feet away from rotating parts.

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 Company dealer or an authorized engine manufacturer's service center. Contact your Ariens Company equipment retailer concerning emission controls and component questions.

SAFETY RULES

Training

Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.

Never allow children or people unfamiliar with these instructions to use the edger. Local regulations may restrict the age of the operator.

Never edge while people, especially children, or pets are nearby.

Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

While edging, always wear eye and ear protection, substantial foot wear, and long trousers.

Thoroughly inspect the surface where the equipment is to be used and remove all stones, sticks, wires, bones and other foreign objects.



WARNING: Fuel is highly flammable. Take the following precautions:

1. Store fuel in containers specifically designed for this purpose.
2. Refuel outdoors only and do not smoke while refuelling.
3. Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
4. Avoid spillage: if fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
5. Tighten all fuel tank and container caps securely.

Replace faulty silencers.

Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.

Use only manufacturer-recommended replacement parts and accessories.

Operation

Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect. Breathing exhaust fumes can be fatal.

Edge only in daylight or in good artificial light.

Always be sure of your footing on slopes.

Walk, never run.

Use extreme caution when reversing or pulling the edger toward you.

Make sure the blade has stopped before crossing surfaces other than grass and when transporting the edger to and from the area to be edged.

Never operate the edger with defective, missing or incorrectly fitted guards.

Do not change the engine governor settings or overspeed the engine.

Start the engine or switch on the motor carefully according to instructions and with feet well away from the blade(s).

Do not tilt when starting the engine or switching on the motor, unless the edger has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator.

Do not start the engine when a bystander is standing in front of the blade(s).

Do not put hands or feet near or under rotating parts.

Always switch off the electric motor and disconnect from main or stop the fuel powered engine:

- before clearing blockages;
- before checking, cleaning or working on the blade(s);
- after striking a foreign object: inspect the blade(s) for damage and make repairs before restarting and operating the edger;
- if edger starts to vibrate abnormally (check immediately).

Stop the engine:

- whenever you leave the edger;
- before refuelling.

Reduce the throttle setting during engine run-out and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of edging.

Maintenance and storage

- a. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working conditions.
- b. Never store the equipment with petrol in the tank inside a building where fumes may reach an open flame or spark.
- c. Allow the engine to cool before storing in any enclosure.
- d. To reduce the fire hazard, keep the engine, silencer, battery compartment, and petrol storage area free of grass, leaves or excessive grease.
- e. Replace worn or damaged parts.
- f. If the fuel tank has to be drained, do this outdoors.
- g. Do not attempt to repair the machine unless you are competent to do so.
- h. Use only manufacturer-recommended replacement parts and accessories.

ASSEMBLY



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

Tools Required

- 1/2" Wrench
- Needle Nose Pliers

Unpack Unit

Remove unit and all other components from the shipping container. Push unit from container onto a level surface.

Assemble Handlebars

1. Rotate handlebars into the operating position and secure with the bolts and lock nuts.
2. Connect the depth control rod to the cutting height lever and to the cutting depth adjuster with two hairpins.

Check Engine Oil

1. Fill engine crankcase with oil. See engine manual.

Check Engine Fuel

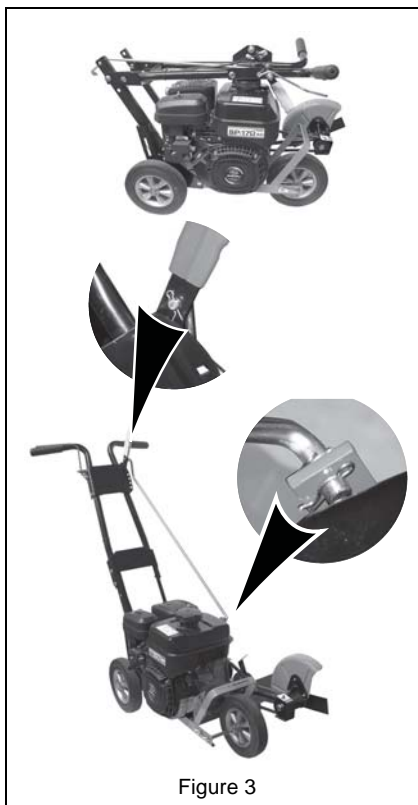
1. Fill fuel tank. **DO NOT OVERFILL!** See *Check Engine Fuel* on page 7.

Check Safety Interlock System

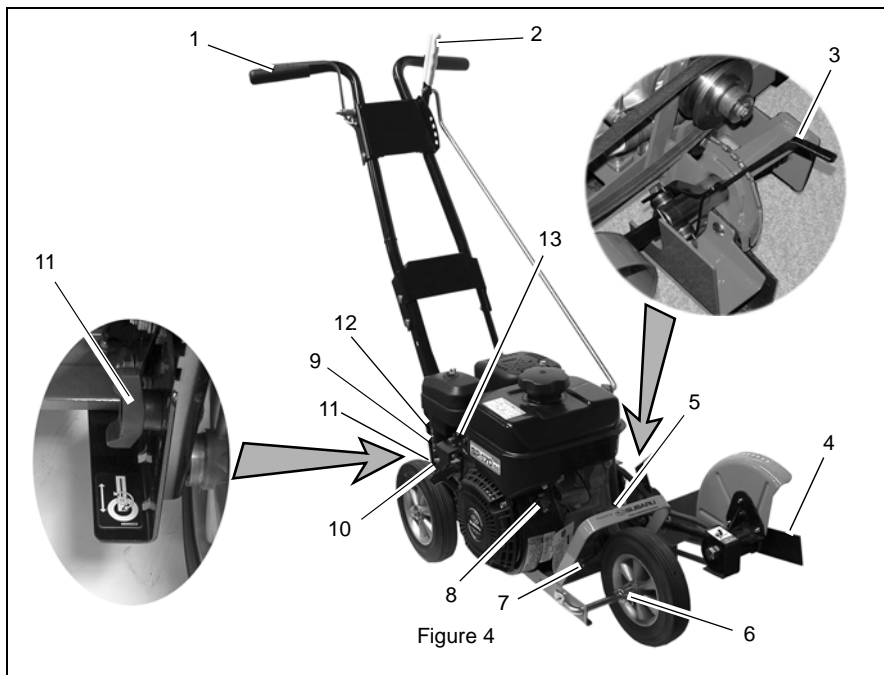


WARNING: Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

See *Operator Presence Control* on page 9.



CONTROLS AND FEATURES



- | | |
|------------------------------|--------------------------------|
| 1. Operator Presence Control | 8. Engine Shut Off Switch |
| 2. Cutting Depth Adjuster | 9. Recoil Starter |
| 3. Cutting Angle Adjuster | 10. Fuel Shut Off |
| 4. Blade | 11. Rear Wheel Height Adjuster |
| 5. Oil Fill/Dipstick | 12. Choke |
| 6. Front Wheel Adjuster | 13. Throttle |
| 7. Oil Drain Plug | |

OPERATION



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

CONTROLS AND FEATURES

See Figure 4 for all controls and features locations.

Operator Presence Control



WARNING: Safety interlock failure and improper operation of unit can result in death or serious injury. Check system before each use to make sure it is functioning properly.

Perform the following tests to ensure the safety interlock system is working properly. If the unit does not perform as stated contact your Ariens dealer for repairs.

Engine must not start with the cutting depth adjuster out of the neutral position.

With the engine running and the blade engaged, the engine must shut off when the operator presence control lever is released.

To Test:

With the engine off, set the depth adjuster for a shallow cut. Try to start the engine without holding the operator presence control against the handlebar. The engine must not start.

With the engine running, and the blades engaged, release the operator presence control. Engine must shut off.

Cutting Depth Adjuster

(Figure 5)

Controls how deeply the blade cuts into grass.

1. Pull the lever slightly to disengage the lock pin from the bracket and then pull the lever back to raise the cutting head and cut a shallower groove.
2. Pull the lever slightly to disengage the lock pin from the bracket and then push the lever forward to lower the head and cut more deeply.

IMPORTANT: The depth adjuster also engages and disengages the blade. It must be in the neutral position to start the engine.

NOTE: Pull the lever all the way back to raise the blades entirely when starting the unit, traveling between work areas, transporting the unit, for storage or for maintenance.

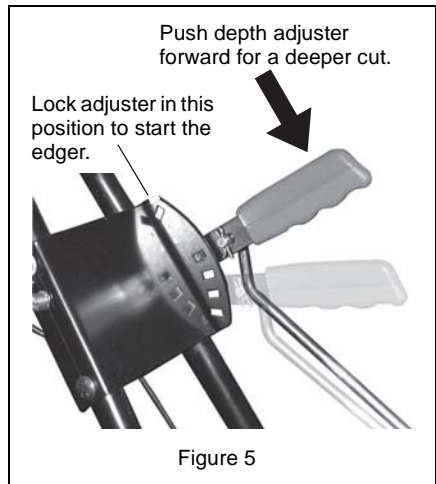


Figure 5

Cutting Angle Adjuster

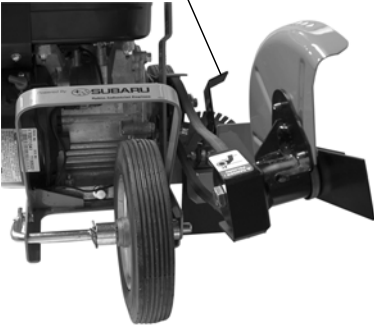
(Figure 7)

Controls the cutting angle of the blade for decorative edging.

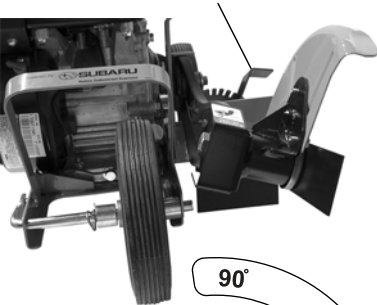
1. Push the lever forward to unlock the head and then rotate it left or right to set the desired edging angle.

NOTE: The head pivots from about 70 degrees to 180 degrees.

Push the lever forward slightly to unlock the head.



Rotate the head to the desired angle. Make sure the lever locks into place.



The head pivots from about 70 degrees to 180 degrees.

Figure 6

Sets the rear wheel height to support the edger when working along curbs or other uneven terrain.

1. Loosen the knob and position the wheel so it supports the unit level when operating, and then securely tighten the knob.

NOTE: Set the wheel height before starting the engine or engaging the blades.

Loosen knob, position wheel at the desired height and replace the knob.

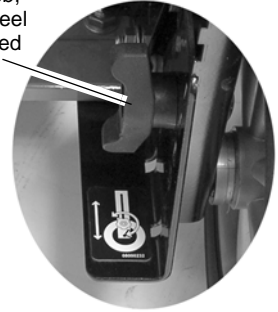


Figure 7

Front Wheel Adjuster

(Figure 8)

Positions the front wheel on the axle to balance the unit when working along curbs or other uneven terrain.

NOTE: Make sure the front wheel rolls on the work surface.

IMPORTANT: Make sure the cutting blade will not contact wheel before starting the engine.

1. With the engine shut off, remove the pin from the axle and position the front wheel on the right or left side of the axle as needed, and secure in position with the hair pin.

Position the wheel away from the blade when bevel cutting or trimming.

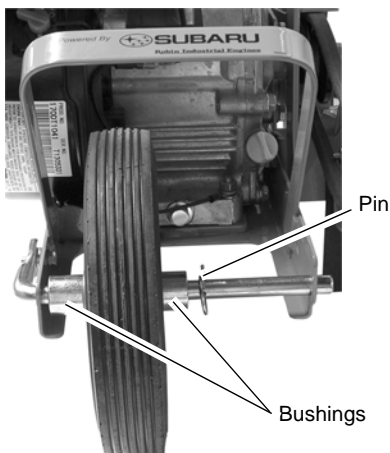
Position the wheel nearer the blade for edging.

IMPORTANT: Make sure the front wheel does not contact the blade when angling the blade for a beveled edge.

Rear Wheel Height Adjuster

(Figure 7)

Position wheel away from the blade for bevel cutting or trimming.



Position wheel nearer the blade for edging.

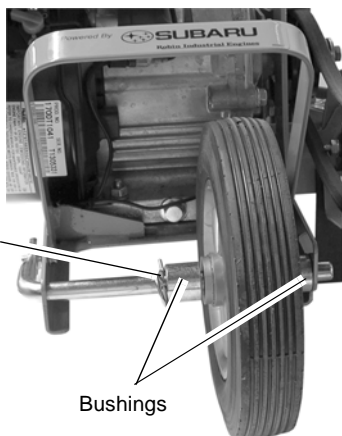


Figure 8

Engine Controls

Throttle

(Figure 9)

Throttle controls engine speed.

1. Set the throttle to slow (turtle) to start the unit and when traveling between work areas.
2. Set the throttle to fast (rabbit) when edging.

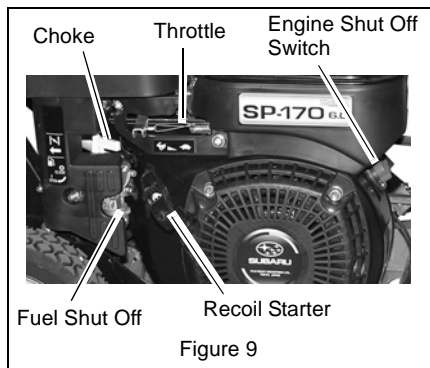


Figure 9

Choke

Controls the air-fuel mixture in the carburetor.



1. Close the choke when starting a cold engine.
2. Once the engine starts and begins to warm, open the choke for operation.

NOTE: Do not choke a warm engine.

Fuel Shut Off

1. Push the lever down to close the fuel shut off valve for transporting, servicing or storing the unit.
2. Pull the lever up to open the fuel shut off valve for operating the unit.

Engine Shut Off Switch

1. Set the engine shut off switch to the On position to start and operate the engine.
2. Set the engine shut off switch to the Off position to shut off a running engine.

Recoil Starter

Start the engine with the recoil starter.

Oil Fill/Dipstick

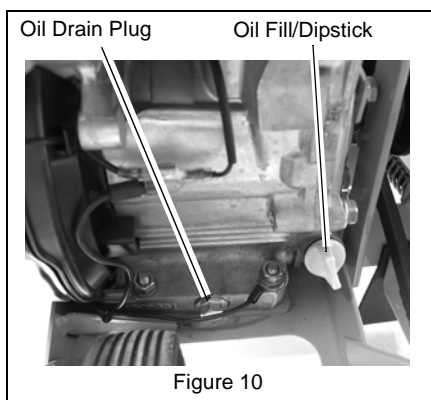
Check the engine oil level (Figure 10).

Oil Drain Plug

(Figure 10)

Oil drain plug provides a convenient location to drain oil.

1. Place a pan under the opening in the unit frame, remove the plug, remove the oil fill cap/dipstick and allow the oil to drain completely.
2. Replace the plug and then fill engine with appropriate engine oil for your conditions. See Engine Manual for types of oil and operating ranges. Do not overfill.



GASOLINE

IMPORTANT: ALWAYS use gasoline that meets the following guidelines:

- Clean, fresh gasoline.
- A minimum of 87 octane/87 AKI (91 RON). High altitude use may require a different octane. Consult your engine manual.
- Gasoline with up to 10% ethanol (gasohol) or up to 15% MTBE (methyl tertiary butyl ether) is acceptable.
- Use of any gasoline other than those approved above may void the engine warranty. If the pumps are not marked for the content of alcohol or ethers, check ethanol and MTBE levels with the fuel supplier.
- Do not modify the fuel system to use different fuels.
- Never mix oil and gasoline.

NOTE: All gasoline is not the same. If the engine experiences starting or performance problems after using a new gasoline, switch to a different fuel provider or fuel brand.

IMPORTANT: Excessively oxygenated or reformulated fuels (fuels blended with alcohols or ethers) can damage the fuel system or cause performance problems. If any undesirable operating problems occur, use a gasoline with a lower percentage of alcohol or ether.

Fuel Stabilizer

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

FILLING FUEL TANK



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

1. Clean fuel cap and surrounding area to prevent dust, dirt, and debris from entering fuel tanks.
2. Remove fuel cap.

IMPORTANT: See Engine Manual for correct type and grade of fuel. **DO NOT OVERFILL!**

3. Fill fuel tank to 1-1/2 in. (3.5 cm) below bottom of filler neck. See *SPECIFICATIONS* on page 18 for capacity of fuel tank.

IMPORTANT: **DO NOT OVERFILL!** This equipment and/or its engine may include evaporative emissions control system components, required to meet EPA and/or CARB regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

4. Replace fuel cap and tighten.
5. ALWAYS clean up spilled fuel.

STOPPING IN AN EMERGENCY

1. Release the operator presence control lever.
2. Wait for all moving parts to stop before leaving the operator's position.

STARTING AND SHUTTING OFF ENGINE

Shutting Off the Engine

1. Stop unit.
2. Disengage blade.
3. Release the operator presence control.
4. Wait for all moving parts to stop before leaving the operator's position.
5. Turn off engine shut off switch.
6. Close the fuel shut off valve.

Starting the Engine



WARNING: AVOID INJURY.

If the cutting head is engaged, the blade will rotate when engine cranks or starts.

Always make sure the cutting head is disengaged before attempting to start the unit.

IMPORTANT: Let the engine warm up several seconds to several minutes depending on outside temperature.

1. Make sure the cutting head is disengaged.
2. Turn on the engine shut off switch.
3. Open the fuel shut off valve.
4. Set the choke to the closed position and the throttle to the fast position.
5. Slowly pull the recoil starter until engine compression makes pulling difficult. Let the starter rewind a little, and then pull smoothly and quickly to start the engine. Repeat as needed.
6. Close the choke when the engine starts and set the throttle to full fast before operating the unit.

OPERATING EDGER

1. Set the rear wheel to the appropriate height and the front wheel to appropriate location on the axle for the job.
2. Set the blade angle required for the job.
3. Start the engine with the cutting head in the disengaged (fully raised) position.
4. Slowly lower the cutting head into the turf and lock it in the desired depth.
5. Walk forward slowly and follow the desired cutting path.
6. Raise the cutting head all the way up at the end of the path.
7. Stop engine and wait for all moving parts to stop when traveling between work areas or resetting the wheel height and position.

TRANSPORTING UNIT

ALWAYS shut off engine, and close fuel shut-off valve or drain fuel when transporting unit on a truck or trailer. Tie unit down securely. Do not tie down by linkages, guards, cables or other parts that may be damaged.

FOR BEST PERFORMANCE

Whenever possible keep the wheels on a hard, flat surface.

Edge thawed ground. Frozen or rocky ground can damage blade.

Dry, hard surfaces will raise a lot of dust. When possible edge ground that is moist but not muddy or saturated.

MAINTENANCE SCHEDULE



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

IMPORTANT: Proper maintenance can prolong the life of unit. The following chart shows the recommended service schedule. Refer to the maintenance instructions in the Engine Manual for additional information.

Interval	Task	Action
Each Use	Check Safety Interlock System	WARNING: Safety interlock system failure and improper operation of unit can result in death or serious injury. Test this system each time the unit is operated. If this system does not function as described, do not operate until repairs are made. See <i>Operator Presence Control</i> on page 9.
	Clean Unit	Remove all dirt, grease, leaves, etc.
	Check Tires	Make sure the tires are positioned correctly for the intended job and are securely fastened. See <i>Make sure the front wheel does not contact the blade when angling the blade for a beveled edge.</i> on page 10 and <i>Front Wheel Adjuster</i> on page 10.
	Check Edger Blade and Mounting Hardware	Make sure the blade is free of nicks, broken ends, thinned metal or other damage. Make sure the hardware is tightened to 30 – 62 lbf-ft. (40.7 – 84.0 N•m). See <i>Blade Change</i> on page 15.
	Check Guards and Mounting Hardware	Make sure all guards are securely fastened and are in good repair.
	Check Engine Oil Level	Check the engine oil level according to instructions provided in the engine owner's manual.
	Check Engine Air Filter	Check the engine air filter for dirt and debris according to instructions provided in the engine owner's manual. Clean or replace as needed.
25 Hours or Every Season	Lubrication	Apply a light oil to the pivot shaft and all sliding joints, to the front axle shaft and to the wheel bushings. Change engine oil according to instruction provided in the engine owner's manual.
	Check Belt	Check the belt for cuts, nicks or abrasions. Replace worn or damaged belts. See <i>Belt Change</i> on page 15.
50 Hours or Every Season	Check Spindle Bearings	Check the spindle bearings for wear or damage. Replace as needed.

SERVICE AND ADJUSTMENTS



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

Blade Change

(Figure 11)



WARNING: Blades are sharp
and can cut you. Wear sturdy
gloves warning

1. Stop engine, wait for all moving parts to stop and hot parts to cool. Make sure the engine shut off switch is in the off position.
2. Block the blade with a wooden block.
3. Remove the mounting hardware and blade from the unit.
4. Install the new blade with the original mounting hardware, and tighten the lock nut to 30 – 62 lbf-ft. (40.7 – 84.0 N•m).

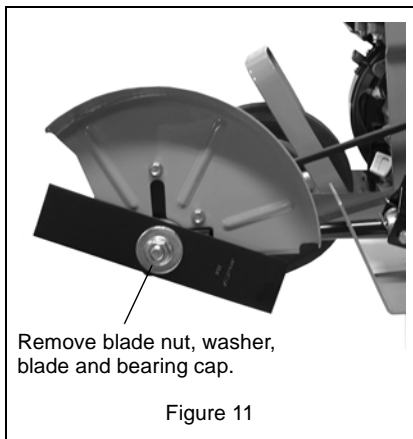


Figure 11

Belt Change

(Figure 12 & 13)

1. Stop engine, wait for all moving parts to stop and hot parts to cool. Make sure the engine shut off switch is in the off position.
2. Raise the cutting head all the way up.
3. Remove the belt finger from the engine.
4. Remove the blade and mounting hardware.

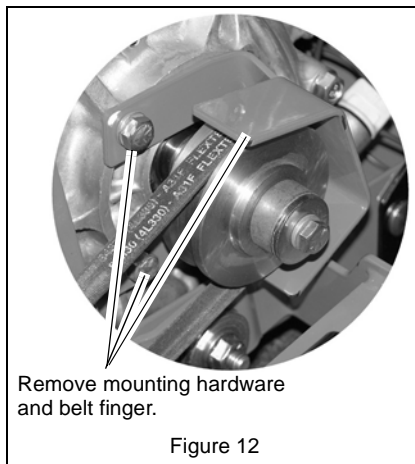


Figure 12

5. Remove the belt from the front (cutter) pulley and from the engine pulley.

NOTE: The belt is spring-loaded. Push the cutter head back towards the engine to slacken and remove belt.

6. Install a new belt on the engine pulley and on the front pulley. Make sure there are no twists or kinks in the belt.

Remove blade and then remove belt from front pulley and engine pulley.

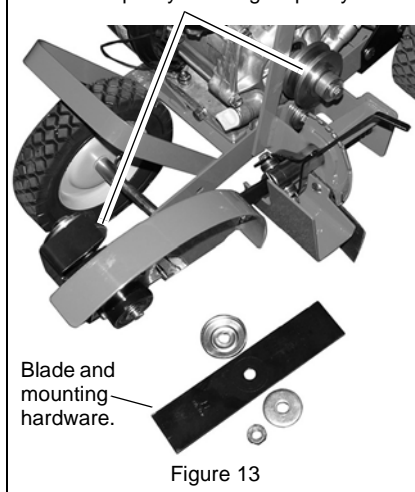


Figure 13

7. Replace the blade and mounting hardware and tighten the blade mounting hardware to 30 – 62 lbf-ft. (40.7 – 84.0 N•m).
8. Replace the belt finger.

Oil Change

NOTE: Follow instructions provided in the engine owner's manual.

1. Stop engine, wait for all moving parts to stop and hot parts to cool. Make sure the engine shut off switch is in the off position.
2. Place an appropriate pan under the oil drain opening, and remove oil drain plug from engine.
3. After all oil has drained, replace the drain plug.
4. Fill engine with appropriate engine oil for your conditions. See Engine Manual for types of oil and operating ranges. Do not overfill.

STORAGE

Short Term Storage

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

Remove all dirt, grease, leaves, etc. Store in a clean dry area.

Inspect unit for signs of wear or damage. Ensure all fasteners are properly tightened.

Long Term Storage

Follow all instructions under *Short Term Storage*.

Store in a clean dry area.

Drain fuel from fuel tank.

Refer to Engine Manual for the proper engine storage procedures.

Touch up all scratched or chipped paint surfaces.

Fuel System

Gasoline left in the fuel system for extended periods without a stabilizer will deteriorate, resulting in gum deposits in the system. These deposits can damage the carburetor and the fuel hoses, filter and tank. Prevent deposits from forming in the fuel system during storage by adding a quality fuel stabilizer to the fuel. Follow the recommended mix ratio found on the fuel stabilizer container.

To treat the fuel system for storage:

1. Add fuel stabilizer according to manufacturers's instructions.
2. Run engine for at least 10 minutes after adding stabilizer to allow it to reach the carburetor.

NEVER store the engine with fuel in the fuel tank inside of a building with potential sources of ignition.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTION
Engine Won't Start	<ol style="list-style-type: none"> 1. Engine start switch turned off. 2. Fuel tank empty. 3. Blade engaged. 	<ol style="list-style-type: none"> 1. Turn switch on. See <i>Starting the Engine</i> on page 13. 2. Fill engine with appropriate fuel. See engine owner's manual for fuel type and capacity. 3. The cutting depth adjuster is out of the neutral position. See <i>Cutting Depth Adjuster</i> on page 9.
Blade Won't Rotate	<ol style="list-style-type: none"> 1. Loose or damaged belt. 2. Seized bearings. 3. Sliding shaft seized. 	<ol style="list-style-type: none"> 1. Replace belt. 2. Replace blade bearings. 3. Lubricate the sliding pivot shaft.
Wheels Squeak	<ol style="list-style-type: none"> 1. Bushings dry. 	<ol style="list-style-type: none"> 1. Lubricate the wheel bushings with a light oil.
Front Wheel Does Not Slide	<ol style="list-style-type: none"> 1. Front wheel bushings dry. 	<ol style="list-style-type: none"> 1. Lubricate the wheel bushings with a light oil.

SERVICE PARTS

See your authorized Ariens dealer for Genuine OEM service parts.

Part No.	Qty	Description
03789800	1	Blade
07200507	1	Belt
20020001	1	Spark Plug (986101)
20020002	1	Air Filter (986101)
00592900	1	Gas Stabilizer (4 oz.)
07100827	1	Front/Rear Wheel

SPECIFICATIONS

Model	986101	986103
Description	Edger	
Engine	Subaru OHC SP170	LCT
Displacement - in³ (cc)	10 (169)	(136)
Fuel Capacity - gal. (L)	.90 (3.4)	.71 (2.7)
Engine Oil - oz. (L)	20 (0.60) See Engine Manual for Type	
Blade	9" Blade	
Cutting Positions	4	
Cutting Angle	70 - 180 degrees	
Length- in. (cm)	44.75 (113.7)	
Width- in. (cm)	19.75 (50.2)	
Height - in. (cm)	38.0 (96.5)	
Weight - lbs (kg)	72.0 (32.7)	
Warranty	Two-Year Consumer	



Two-Year Limited Lawn and Garden Warranty

This warranty statement applies only to 21-Inch Walk Behind Lawn Mowers, Wide Area Walks, AMP Wide Area Walks, Tillers, String Trimmers, Log Splitters, Edgers and Power Brushes

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens, Countax and Gravely brand consumer products manufactured and sold by Ariens will be free from defects in material and workmanship for a period of two years after the date of purchase. An authorized Ariens dealer (Ariens brand products), Countax dealer (Countax brand products) or Gravely dealer (Gravely brand products) 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.

Two-Year Limited Warranty on AMP™ Series Battery Packs and Subassemblies

The battery pack and/or battery subassemblies on AMP series electric mowers is/are warranted to the **original purchaser** for two years from the date of purchase. Ariens will replace, free of charge to the original purchaser, any battery pack and/or battery subassembly that fails due to defect in material or workmanship for one year after the date of purchase. For the next 12 months, Ariens will cover the pro-rated cost of replacing a battery pack and/or battery subassembly that fails due to defect in material or workmanship. This warranty does not apply to battery packs or battery subassemblies that fail due to accident, neglect, abuse, improper maintenance, improper storage or improper charging procedures.

One-Year Limited Warranty on Professional/Commercial 21-inch Walk-Behind Lawn Mowers

21-inch walk-behind lawn mowers labeled or designated by Ariens as a Professional/Commercial product put to any business use, agricultural, commercial, or industrial, are warranted to the **original purchaser** to be free from defects in material and workmanship for a period of one year after the date of purchase.

90-Day Limited Warranty on Service Parts and Accessories

Genuine Ariens, Countax or Gravely brand service parts and accessories are warranted to be free from defects in material and workmanship for a period of 90 days after the date of purchase. An authorized Ariens, Countax or Gravely dealer will repair or replace any such part or accessory free of charge, except for labor, during that period.

Except for 21-inch walk-behind lawn mowers labeled or designated by Ariens as a Professional/Commercial product, the duration of all warranties herein applies only if the product is put to personal use around a household or residence. If the product is put to any business use, agricultural, commercial, or industrial, then the duration of these warranties shall be 90 days after the date of purchase. If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

Exceptions, Limitations, Exclusions

Customer Responsibilities

Register the product immediately at the time of sale. If the dealer does not register the product, the customer must complete the product registration card in the literature package and return it to the Ariens Company, or register the unit online at www.ariens.com, www.countax.com or www.gravely.com.

To obtain warranty service, the **original purchaser** must:

- Perform the maintenance and minor adjustments explained in the owner's manual.
- Promptly notify Ariens or an authorized Ariens, Gravely or Countax service representative of the need for warranty service.
- Transport the product to and from the place of warranty service.
- Have the warranty service performed by an authorized Ariens, Gravely or Countax service representative.

To find an Ariens or Gravely authorized service representative, contact Ariens at:

655 W. Ryan Street
Brillion, WI 54110
(920) 756 - 4688
www.ariens.com
www.gravely.com

To find a Countax authorized service representative, contact Countax at:

Countax Ltd
Countax House
Great Haseley
Oxfordshire
OX44 7PF
0800 597 7777
www.countax.com

Exceptions and Limitations

- Batteries are warranted only for a period of 12 months after date of purchase, on a prorated basis. For the first 90 days of the warranty period, a defective battery will be replaced free of charge. If the applicable warranty period is more than 90 days, Ariens will cover the prorated cost of any defective battery, for up to 12 months after the date of purchase. This battery limited warranty does not apply to the battery packs on AMP series products.

Exclusions – Items Not Covered by This Warranty

- Engines and engine accessories are covered only by the engine manufacturer's warranty and are not covered by this warranty.
- Parts that are not genuine Ariens, Gravely or Countax service parts are not covered by this warranty.
- The following maintenance, service and replacement items are not covered by this warranty unless they are noted in the Limitations section above: lubricants, spark plugs, oil, oil filters, air filters, fuel filters, brake linings, brake arms, brake shoes, runners, scraper blades, shear bolts, mower blades, mower vanes, tines, brushes, headlights, light bulbs, knives, cutters.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.

Disclaimer

Ariens Company may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Ariens 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

Ariens Company's 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. Ariens 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.

DISCLAIMER OF FURTHER WARRANTY

Ariens Company 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 Ariens Company, 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 area to area.

CALIFORNIA AND EPA (UNITED STATES ENVIRONMENTAL PROTECTION AGENCY) EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The CARB (California Air Resources Board), the EPA, and Ariens Company are pleased to explain the evaporative emission control system's warranty on your 2011 model year small off-road equipment. In California, new equipment that uses small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Ariens Company must warrant the evaporative emission control system on your small off-road equipment for the period listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your evaporative emission control system may include parts such as: fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated components.

MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Ariens Company.

OWNER'S WARRANTY RESPONSIBILITIES:

- As the small off-road equipment owner, you are responsible for the performance of the required maintenance listed in your Owner's Manual. Ariens Company recommends that you retain all receipts covering maintenance on your small off-road equipment, but Ariens Company cannot deny warranty solely for the lack of receipts.
- As the small off-road equipment owner, you should however be aware that the Ariens Company may deny you warranty coverage if your evaporative emission control system part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road equipment to an authorized Ariens, Gravely, or Parker service representative as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact Ariens Company Technical Service Center at 1-920-756-2141.

DEFECTS WARRANTY REQUIREMENTS:

- (a.) The warranty period begins on the date the small off-road equipment is delivered to an ultimate purchaser.
- (b.) General Evaporative Emissions Warranty Coverage. Ariens Company warrants to the ultimate purchaser and any subsequent owner that the evaporative emission control system when installed was:
 - (1.) Designed, built, and equipped so as to conform with all applicable EPA and CARB regulations; and
 - (2.) Free from defects in materials and workmanship that causes the failure of a warranted part for a period of two years.
- (c.) The warranty on evaporative emissions-related parts will be interpreted as follows:
 - (1.) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions must be warranted for the warranty period defined in subsection (b)(2). If any such part fails during the period of warranty coverage, it must be repaired or replaced by the Ariens Company. Any such part repaired or replaced under the warranty must be warranted for a time not less than the remaining warranty period.
 - (2.) Any warranted part that is scheduled only for regular inspection in the written instructions must be warranted for the warranty period defined in subsection (b)(2). A statement in such written instructions to the effect of "repair or replace as necessary" will not reduce the period of warranty coverage. Any such part repaired or replaced under warranty must be warranted for a time not less than the remaining warranty period.
 - (3.) Any warranted part that is scheduled for replacement as required maintenance in the written instructions must be warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part must be repaired or replaced by the Ariens Company. Any such part repaired or replaced under warranty must be warranted for a time not less than the remainder of the period prior to the first scheduled replacement point for the part.

- (4.) Repair or replacement of any warranted part under the warranty provisions of this article must be performed at no charge to the owner at an authorized Ariens, Gravely, or Parker service representative.
- (5.) Notwithstanding the provisions of subsection (4) above, warranty services or repairs must be provided at authorized Ariens, Gravely, or Parker service representatives that are franchised to service the subject small off-road equipment.
- (6.) The owner must not be charged for diagnostic labor that leads to the determination that a warranted part is in fact defective, provided that such diagnostic work is performed at an authorized Ariens, Gravely, or Parker service representative.
- (7.) Throughout the evaporative emission control system's warranty period set out in subsection (b)(2), the Ariens Company must maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
- (8.) Manufacturer-approved replacement parts must be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of the manufacturer issuing the warranty.
- (9.) The use of any add-on or modified parts will be grounds for disallowing a warranty claim made in accordance with this article. The manufacturer issuing the warranty will not be liable under this Article to warrant failures of warranted parts caused by the use of an add-on or modified part.

Evaporative Emission Warranty Parts List

The following parts are considered emission-related components for evaporative emissions:

- Fuel Tank, Fuel Cap and Tether
- Fuel Line, Fuel Line Fittings, Clamps*
- Pressure Relief Valves, Control Valves*
- Control Solenoids*, Electronic Controls*
- Vacuum Control Diaphragms*
- Control Cables*, Control Linkages*
- Purge Valves
- Vapor Hoses, Liquid/Vapor Separator
- Carbon Canister, Canister Mounting Brackets
- Carburetor Purge Port Connector

* As related to the evaporative emission control system

Disclaimer

New equipment sold in the state of California that uses small off-road engines must be exclusively certified and appropriately labeled for sale in California. Some equipment covered by this Owner's Manual may not be certified for sale in California and the presence of the preceding CARB and EPA Warranty Statement does not by its existence indicate which, if any, of the equipment covered by this Owner's Manual may be sold in California.

Some equipment covered by this Owner's Manual may have been manufactured prior to certain affectivity dates requiring the inclusion of evaporative emission control systems. Therefore some equipment covered by this Owner's Manual may not include the evaporative emission control systems referred to in the preceding CARB and EPA Warranty Statement.



Ariens Company
655 West Ryan Street
Brillion, WI 54110
920-756-4688
Fax 920-756-2407
www.ariens.com



WARNING



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

An *Ariens* Company Brand