Razor

Owner/Operator Manual
Manuel du Propriétaire/Utilisateur



Models

911173 – LMP
(SN 028000 +)

911175 – LMSP
(SN 028000 +)

911177 – LMSP BBC
(SN 028000 +)

911179 – LMSPE
(SN 028000 +)

911188 – LMSP
(SN 000101 +)

911189 – LMSP BBC
(SN 000101 +)

911190 – LMSPE
(SN 000101 +)



The use of any gasoline exceeding 10% ethanol (E10) or 10% MTBE will void the product warranty.
L'utilisation d'une essence contenant plus de 10% d'éthanol (E10) ou de 10% de MTBE annulent la garantie.



EN ENGLISH
FR FRANÇAIS

04832200 • 11/14
Printed in USA

TABLE OF CONTENTS

SAFETY 4
ASSEMBLY 10
CONTROLS AND FEATURES 12
OPERATION 15
MAINTENANCE SCHEDULE 20
SERVICE AND ADJUSTMENTS 23
STORAGE 29
SERVICE PARTS 30
TROUBLESHOOTING 31
SPECIFICATIONS. 33
WARRANTY 34

INTRODUCTION

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 sitting in the operation position and facing the direction of forward travel.

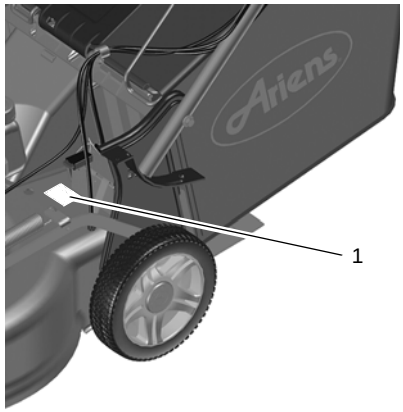
ENGINE MANUAL

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.

SERVICE AND REPLACEMENT PARTS

When ordering publications, 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 literature package. They are printed on a serial number label, located on the frame of your unit. See Figure Figure 1.



1. Serial Number Label

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 or go to www.ariens.com on the Internet.

UNAUTHORIZED REPLACEMENT PARTS

Use only Ariens replacement parts. The replacement of any part on this equipment with anything other than a 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 regarding warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

NOTE: To locate your nearest Ariens Dealer, go to www.ariens.com.

DISCLAIMER

Ariens reserves the right to discontinue, change, and improve its products at any time without public 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.

DEALER DELIVERY

Dealer should:

1. Fill out Original Purchaser Registration Card and return the card to Ariens.
2. Explain Limited Warranty Policy.
3. Explain recommended lubrication and maintenance. Advise customer on adjustments. Instruct customer on controls and operation of unit. Discuss and emphasize the Safety Precautions. Give customer this Owner/Operator and the engine manual. Advise customer to thoroughly read and understand them.

Customer Note: Your Dealer has been provided complete set-up and preparation instructions which must be completed prior to you taking delivery of this unit. The dealer is required to review important information in this manual with you before or upon delivery of the 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, including those that may restrict the age of the operator.

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.

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 components questions.

SAFETY

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

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.

SAFETY ALERT SYMBOLS

These are safety alert symbols. They mean:

- **ATTENTION!**
- **YOUR SAFETY IS INVOLVED!**

When you see this symbol:

- **BECOME ALERT!**
- **OBEY THE MESSAGE!**

SIGNAL WORDS

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

Read and understand all safety messages.

1. Danger

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

2. Warning

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

3. Caution

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

4. Notice

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

5. Important

IMPORTANT: Indicates general reference information worthy of special attention.

SAFETY DECALS

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

The safety decals on your machine are visual reminders of the important safety information found in this manual. All messages found on your unit must be fully understood and carefully followed. Safety decals found on the machine are explained below.

Always replace missing or damaged safety decals. Replacement decals can be found in the parts manual for your machine and ordered from your dealer.

See Figure 2 for safety decal locations.

Safety Decal Identification



Figure 2

Safety Decal Description

1. DANGER!



DANGER!



Read and understand the operator's manual before operating unit.

1.1 Amputation Hazard



To avoid amputation hazard do not put hands near rotating blades.



To avoid amputation hazard do not put feet near rotating blades.



To avoid amputation hazard do not put hands or feet near moving belts.



Keep hands and feet away from all rotating or moving parts.



Keep all guards and shields in place.

1.2 Discharge Hazard



Discharge Hazard – NEVER direct discharge toward people, pets or property. Thrown objects can cause injury or damage.



Keep children and others away from unit while unit is in operation.



Do not operate mower unless guards are in operating position or entire bagger is attached.

1.3 Tipping Hazard



SERIOUS INJURY OR DEATH MAY RESULT FROM MACHINE ROLLOVER

- Failure to follow these instructions could result in serious injury or death
- Do not operate machine on steep slopes or near drop offs
- Avoid sharp and/or quick turns



DO NOT operate on slopes.



Look down and behind before and while moving backward.

2. DANGER!



DANGER!



To avoid amputation hazard do not put hands or feet near rotating blades.



To avoid amputation hazard do not put hands or feet near rotating blades.

SAFETY RULES

This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

The following safety instructions are based on the B71.1 specifications of the American National Standards Institute in effect at the time of production.

Training

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

Be sure the area is clear of bystanders and pets before operating. Stop machine if anyone enters the area.

Improper use of power equipment can cause serous permanent injury or death to the operator or a bystander.

Understand:

- How to operate all controls
- The functions of all controls
- How to STOP in an Emergency

If the operator or the mechanic cannot read the manual, it is the owner's responsibility to explain it to them.

Always train any inexperienced operators and require them to read and understand all manuals and decals.

Only allow responsible adults, who are familiar with the instructions, to operate this machine.

Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Operator Age

Do not allow children under the age of 18 to operate any outdoor power equipment.

Local regulations may restrict the age of the operator.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

Be alert and turn mower off if a child enters the area.

Never allow children to operate the machine.

Use extreme care when approaching blind corners, shrubs, trees, or other objects that may block your view of a child.

Keep children out of the mowing area and in the watchful care of a responsible adult other than the operator.

Personal Protection

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

Wear adequate outer garments.

Wear adequate safety gear and protective gloves.

Do not operate machine barefooted or while wearing sandals. Always wear substantial footwear.

Always wear eye and ear protection when operating machine.

Before Operating

Keep all nuts and bolts tight to be sure the equipment is in safe working condition.

Maintain the machine to be in compliance with the maintenance schedule.

Clean grass and debris from unit, especially from around muffler and engine, to help prevent fires.

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

Ensure safety interlock system is functioning properly. Do not operate unit if safety interlock is damaged or disabled.

Never tamper with safety devices. Check their proper operation regularly. Never do anything to interfere with the intended function of a safety device or to reduce the protection provided by the safety device.

Keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris.

Operation
Models 911173, 175, 179, 188, 190: Releasing the operator presence control (OPC) handle stops engine and blade within 3 seconds. **Models 911177, 189:** Releasing the operator presence control / blade brake clutch (OPC / BBC) handle stops the blade only, not the engine. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust as necessary or have the unit inspected and repaired by an authorized Ariens dealer before using.
Be sure the area is clear of bystanders before operating. Stop machine if anyone enters the area.
Never operate machine in a closed or poorly ventilated area.
ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion.
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.
Do not operate machine while under the influence of alcohol or drugs.
Do not put hands or feet near rotating parts or under the machine. Keep clear of the discharge opening at all times.
DO NOT touch parts which are hot. Allow parts to cool.
Do not operate machine without the entire grass catcher, discharge guard, or other safety devices in place and working.
Always keep hands and feet away from all pinch points.
Never operate mower in wet grass. Always be sure of your footing; walk; never run.
Never direct discharged material toward anyone. Avoid discharging material against a wall or obstruction. Material may ricochet back toward the operator. Stop the blade(s) when crossing gravel surfaces.
Disengage the drive system, if so equipped, before starting the engine (motor).
If the machine should start to vibrate abnormally, stop the engine (motor) and check for the cause immediately. Vibration is generally a warning of trouble.
Keep safety devices or guards in place and functioning properly. Never modify or remove safety devices.
Do not pull machine backward unless absolutely necessary. Always look down and behind before and while moving backward.
Stop engine before removing grass catcher or unclogging chute.
If you strike a foreign object, stop and inspect the machine. Repair, if necessary, before restarting.
Never leave a running machine unattended.
Stop the engine (motor) and wait until the blade(s) comes to a complete stop before cleaning the machine, removing grass catcher, or unclogging the discharge guard.
On self-propelled models, wheel drive must be disengaged when starting engine.
On self-propelled models, releasing wheel drive control must stop mower's forward movement. If this feature fails to operate, disconnect spark plug wire and repair before using unit.

Operating Conditions
Watch for traffic when operating near or crossing roadways.
Clear the area of objects such as rocks, wire, toys, etc., which could be thrown by the blades. Stay behind the handle when the engine (motor) is running.
Use care when approaching blind corners, shrubs, trees or other objects that may obscure vision.
Dust, smoke, fog, etc. can reduce vision and cause an accident.
Operate machine only in daylight or good artificial light.
See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.

Slope Operation
Slopes are a major factor related to loss of control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution. If you feel uneasy on it, do not mow it.
Mow across slopes, never up and down. Exercise caution when changing direction on slopes.
Watch for holes, ruts, bumps, rocks, or other hidden objects. Uneven terrain could cause a slop and fall accident. Tall grass can hide obstacles.
Do not mow wet grass or excessive steep slopes. Poor footing could cause a slip and fall accident.
DO NOT operate near drop-offs, ditches, or embankments. You could lose your footing or balance.

Fuel
To avoid personal injury or property damage, use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive.
Ethanol blends must not exceed E10. Higher ethanol content may cause your machine to run hotter and damage your engine.
Replace fuel cap securely and clean up spilled fuel before starting engine.
Extinguish all cigarettes, cigars, pipes, and other sources of ignition.
Use only an approved gasoline container.
Never store the machine or fuel container where there is an open flame, spark, or pilot light such as on a water or space heater or other appliances.
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.
Never fuel the machine indoors.
Never remove gas cap or add fuel with the engine running. Allow engine to cool before fueling.
Fuel is highly flammable and its vapors are explosive. Handle with care. Use only an approved gasoline container with an appropriately sized dispensing spout. NO smoking, NO sparks, NO flames.
Remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment 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 the fueling is complete. Do not use a nozzle lock-open device.
Never overfill fuel tank. Replace gas cap and tighten securely.
If fuel is spilled on clothing, change clothing immediately.

Accessories
Check grass catcher components and the discharge guard frequently and replace with the manufacturer’s recommended parts when necessary.
Use only Ariens Company-recommended attachments that are appropriate to your use and can be used safely in your application.

Batteries
Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.
No flames, No sparks, No smoking near battery.
ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.
ALWAYS keep batteries out of reach of children.
Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.
Reverse connections may result in sparks which can cause serious injury. Always connect positive (+) lead of harness to positive (+) terminal and negative (–) lead to negative (–) terminal.
A frozen battery can explode and result in death or serious injury. DO NOT charge or jump start a battery containing frozen fluid. Thaw the battery before putting on a charger or jump starting.

Service
Maintain or replace safety and instruction labels, as necessary.
Keep unit free of debris. Clean up oil or fuel spills.
Do not change engine governor setting or overspeed the engine.
Never make any adjustments or repairs with the engine (motor) running. *Disconnect the spark plug wire and ground against engine to prevent unintended starting.
Allow engine to cool before servicing.
Moving parts can cut or amputate fingers or a hand. On multiblade mowers, rotation of one blade will cause all blades to rotate.
Never weld or straighten mower blades.
Mower blades are sharp. Wrap the blade or wear gloves, and use extra caution when servicing them.

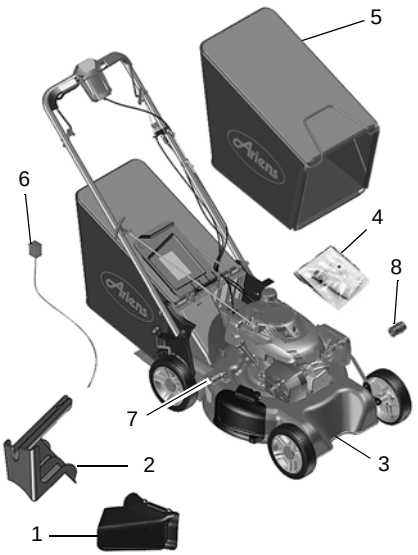
Transporting Unit
Use extra care when loading or unloading the machine onto a truck or into a trailer.
Secure unit chassis to transport vehicle. Never secure from rods or linkages that could be damaged.
Do not transport machine while engine is running.
ALWAYS stop engine and shut off fuel when transporting unit.

Storage
NEVER store unit with fuel in fuel tank, inside a building where any ignition sources are present.
Keep machine free of grass, leaves, or other debris build-up. Clean up oil or fuel spillage and remove any fuel-soaked debris. Allow machine to cool before storing.
For extended storage, shut off fuel and clean unit thoroughly. See engine manual for proper storage.

ASSEMBLY

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

CARTON CONTENTS



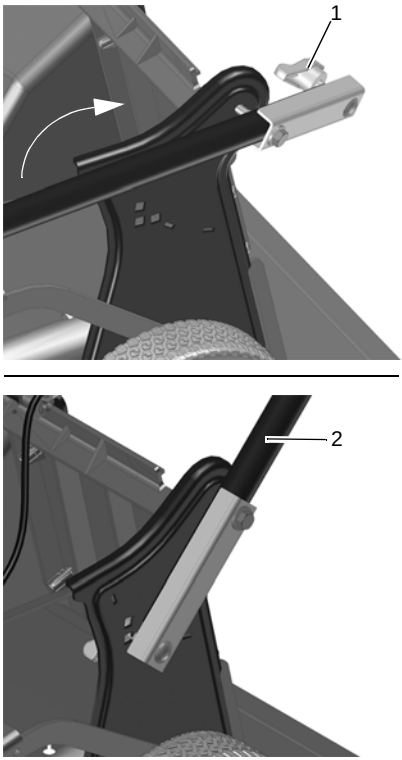
1. Side Discharge Chute
2. Mulch Plug
3. Mower Unit
4. Literature Pack
5. Grass Bag
6. Battery Charger (Models 911179, 190)
7. Washout Port
8. Hose Coupling

Figure 3

ASSEMBLY

1. Remove mower and grass bag from carton.
2. **Model 911173:** Remove handlebar mounting hardware, rotate handlebar to desired position and secure with mounting hardware. See Figure 4.

Model 911173

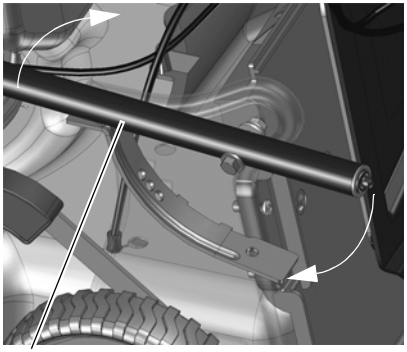


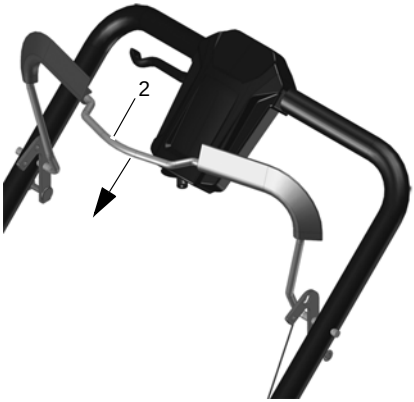
1. Hardware
2. Handlebar

Figure 4

3. **Models 911175, 177, 179, 188, 189, 190:** Pull handlebar to upright position. Push operator presence control handle (operator presence control / blade brake clutch handle on Models 911177, 189) forward and rotate handlebar to desired position. See Figure 5.

Models 911175, 177, 179, 188, 189, 190





1. Handlebar
2. Operator Presence Control Handle (Operator Presence Control / Blade Brake Clutch Handle on Models 911177, 189)

Figure 5

4. Check engine oil level and add if necessary. See engine manual.
5. Set up mower for bagging, side discharge or mulching. See *MOWER SET-UP* on page 15.
6. Fill fuel tank. See *FILLING FUEL TANK* on page 15.
7. **Models 911179, 190:** Connect the battery. See *BATTERY* on page 28.
8. Connect spark plug wire.
9. **Models 911173, 175, 179, 188, 190:** Check the operator presence control feature (operator presence control / blade brake clutch feature on Models 911177, 189). Try starting the engine *without* the handle held against the handlebar. Engine must not start. If engine starts, stop engine by disconnecting spark plug while wearing gloves. Contact an authorized Ariens dealer for adjustment or repair. See *Operator Presence Control (OPC) Handle* on page 13.
10. **Models 911177, 189:** Check throttle / engine stop control. Try starting engine with throttle in the Off position (stop sign). Engine must not start. If engine starts, stop engine by disconnecting spark plug while wearing gloves. Contact an authorized Ariens dealer for adjustment or repair. See *Operator Presence Control (OPC) Handle* on page 13.

CONTROLS AND FEATURES

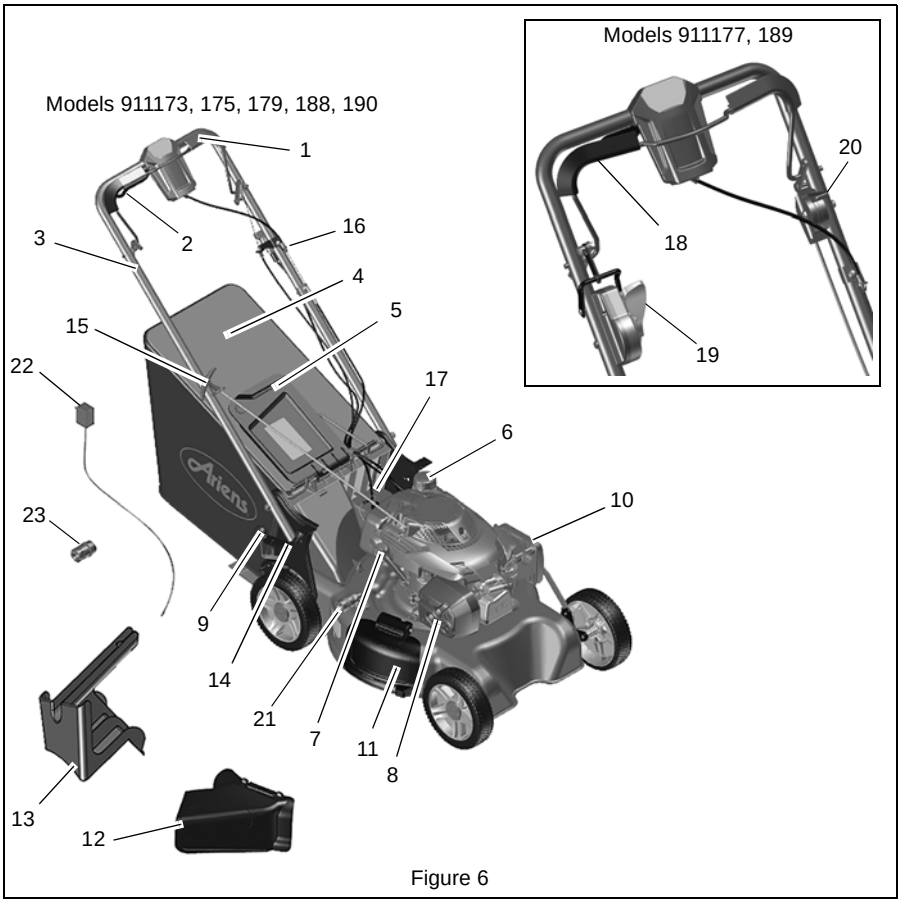


Figure 6

1. Operator Presence Control (OPC) Handle (Models 911173, 175, 179, 188, 190)
2. Wheel Drive Control Lever (Models 911175, 177, 179, 188, 189, 190)
3. Handlebar
4. Grass Bag
5. Rear Door
6. Fuel Tank and Cap
7. Oil Fill/Dipstick
8. Muffler and Muffler Guard
9. Cutting Height Lever
10. Air Filter
11. Side Discharge Cover
12. Side Discharge Chute
13. Mulch Plug
14. Handlebar Adjustment Holes
15. Recoil Starter Handle
16. Ignition Switch (Models 911179, 190)
17. Battery (Models 911179, 190)
18. Operator Presence Control / Blade Brake Clutch (OPC / BBC) Handle (Models 911177, 189)
19. Blade Brake Clutch Lever (Models 911177, 189)
20. Throttle/Engine Stop Control Lever (Models 911177, 189)
21. Washout Port
22. Battery Charger (Models 911179, 190)
23. Hose Coupling

CONTROLS AND FEATURES

See Figure 6 for locations.

WARNING: Improper operation can lead to injury. Learn what the controls do and how they work. Thoroughly read and understand entire Operator Manual.

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

Operator Presence Control (OPC) Handle

Models 911173, 175, 179, 188, 190

See Figure 7.

CAUTION: Check function of operator presence control handle regularly. Improper function could cause injury.

The OPC handle must be held against the handlebar to start the engine and blade.



Figure 7

IMPORTANT: Releasing the operator presence control handle stops engine and blade within 3 seconds. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust as necessary or have the unit inspected and repaired by an authorized Ariens dealer before using.

Operator Presence Control / Blade Brake Clutch (OPC / BBC) Handle

Models 911177, 189

CAUTION: Check function of operator presence control / blade brake clutch handle regularly. Improper function could cause injury.

The OPC / BBC handle must be held against the handlebar to start the engine.

IMPORTANT: Releasing the operator presence control / blade brake clutch handle stops the blade only, not the engine. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust as necessary or have the unit inspected and repaired by an authorized Ariens dealer before using.

Handlebar

Adjust handlebar to a safe and comfortable height. See *ADJUST HANDLEBAR HEIGHT* on page 23.

Recoil Starter Handle

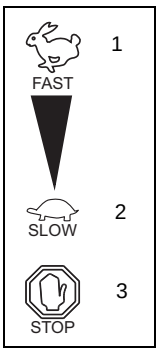
When pulled, handle will turn engine over.

Cutting Height Lever

Move lever to adjust cutting height. See *ADJUSTING CUTTING HEIGHT* on page 16.

Throttle/Engine Stop Control Lever

Models 911177, 189



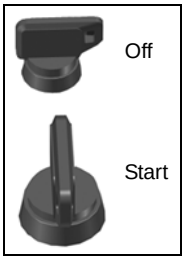
Move throttle lever to FAST (1) to increase engine speed.

Move throttle lever to SLOW (2) to decrease engine speed.

Move throttle lever to STOP (3) to shut off engine.

Ignition Switch

Models 911179, 190



A removable key operates the ignition switch. Turn key 90° clockwise from the off position until engine starts. Release key.

Washout Port

Wash the underside of the mower after each use to prevent grass buildup and improve mulch action and clipping dispersal. See *Washout Port* on page 18.

Wheel Drive Control Lever

Models 911175, 177, 179, 188, 189, 190

> **CAUTION:** Unit will move forward at engine start if wheel drive control is engaged. ALWAYS release wheel drive control before starting unit.

NOTICE: Engine must be running for wheel drive to propel unit.

See Figure 8.

To drive forward:

Slowly squeeze the wheel drive control lever toward the handlebar until you reach a comfortable ground speed. Hold the lever against the handlebar for full speed.

To stop:

Release wheel drive control lever.

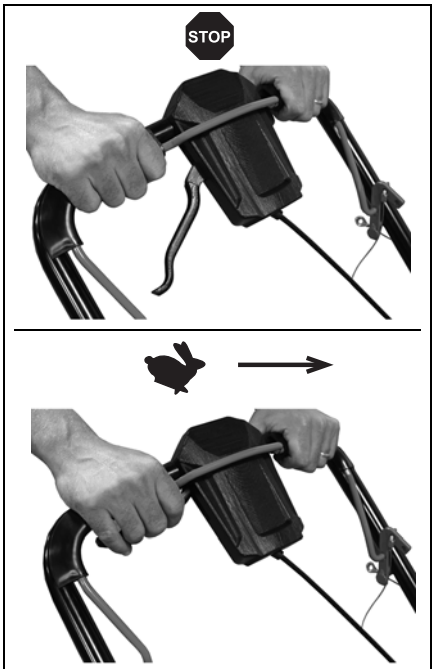


Figure 8

Blade Brake Clutch (BBC) Lever

Models 911177, 189

Once the engine is started, the blade must be engaged to mow. See Figure 9.

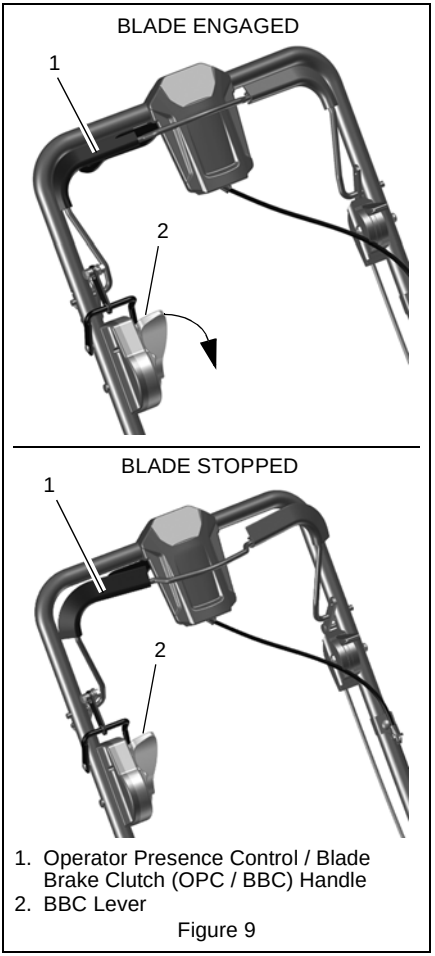
To engage blade:

1. Hold the operator presence control / blade brake clutch (OPC / BBC) handle against the handlebar.
2. Push the BBC lever forward until it latches into location.

To stop blade:

1. Release OPC / BBC handle.

IMPORTANT: Releasing the operator presence control / blade brake clutch handle stops the *blade only* within 3 seconds. Check this feature frequently. If feature fails to operate, disconnect spark plug wire and adjust as necessary or have the unit inspected and repaired by an authorized Ariens dealer before using.



1. Operator Presence Control / Blade Brake Clutch (OPC / BBC) Handle
2. BBC Lever

Figure 9

OPERATION

FILLING FUEL TANK

To add fuel to the fuel tank:

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

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

3. Fill fuel tank to the bottom of filler neck. See SPECIFICATIONS on page 32 for fuel tank capacity.

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.

MOWER SET-UP

CAUTION: DO NOT operate mower unless grass bag, side discharge cover or side discharge deflector is installed. Thrown objects may cause damage or injury. Never operate unit with rear door open unless grass bag is in place.

CAUTION: If clog or obstruction prevents grass flow, release the control lever handle and disconnect spark plug wire before attempting to clear any clogs.

Bagging Clippings

CAUTION: Grass bag material is subject to wear and deterioration under normal usage. Check bag frequently for necessary replacement. Replace worn or damaged bag with Ariens original equipment replacement bag only.

See Figure 10.

To install grass bag:

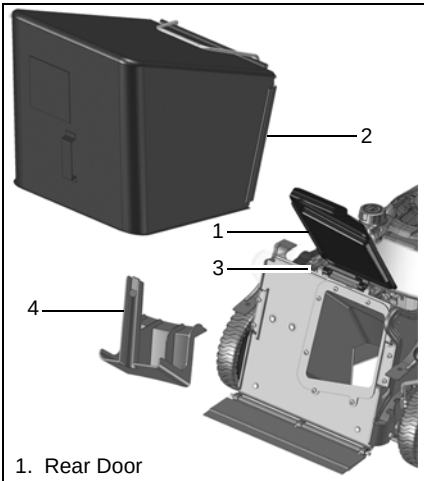
1. Shut off unit.
2. Make sure side discharge is closed.
3. Lift rear door and remove mulch plug, if necessary.
4. Hook grass bag frame onto bag mount.

NOTICE: There should be no openings between bagger and mounting surface after installing bag. If necessary, clear debris from bag mounting surfaces.

To remove grass bag:

1. Shut off unit (or disengage blade on Models 911177, 189).
2. Use handle to lift and remove grass bag.
3. Install mulch plug.
4. Close rear door.

NOTICE: Empty grass bag and clean mower pan after each use. DO NOT allow grass clumps or a grass coating to collect inside of grass bag or mower pan. Remove grass bag from mower, wash bag with hose and allow to dry.



1. Rear Door
2. Bagger
3. Bag Mount
4. Mulch Plug

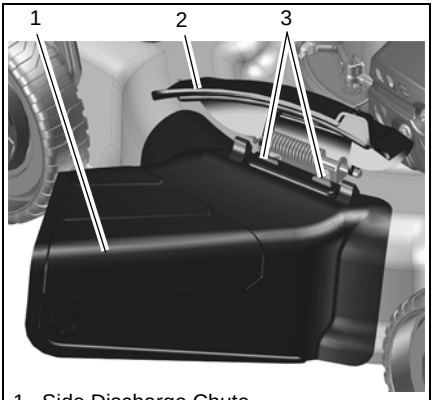
Figure 10

Side Discharging Clippings

See Figure 11.

To install side discharge chute:

1. Shut off unit.
2. Remove grass bag.
3. Lift rear door and install mulch plug (see Figure 10). Make sure mulch plug is locked by pulling on the handle near the bottom of the plug.
4. Open the side discharge.
5. Align side discharge chute onto the mower tabs. Make sure chute covers discharge opening.
6. Rest side discharge on chute to secure.



1. Side Discharge Chute
2. Side Discharge
3. Tabs

Figure 11

To remove side discharge chute:

1. Lift side discharge cover.
2. Lift side discharge chute off of tabs to release from mower and remove chute.

Mulching Clippings

See Figure 10 and Figure 11.

1. Shut off unit.
2. Remove grass bag or side discharge chute, if installed.
3. Make sure side discharge cover is closed.
4. Lift rear door and insert mulch plug. Make sure lock snaps in place.

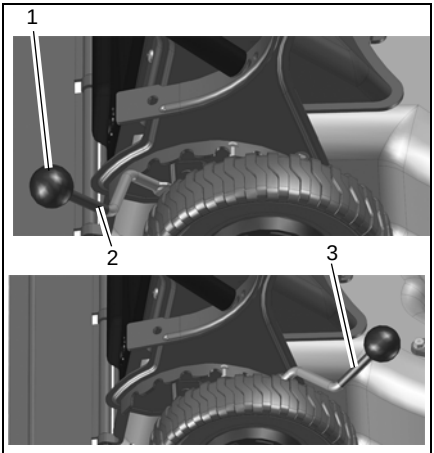
   There should be no openings between mulch plug and mounting surface of the deck.
5. Close rear door. Door must fit tightly against frame.

ADJUSTING CUTTING HEIGHT

DANGER: Avoid injury from rotating blade.
ALWAYS shut off engine before adjusting cutting height.

To change cutting height, move cutting height lever one notch at a time to set desired height (Figure 12).

Cutting Height Settings Chart	
Notch	Cut grass length
1	1" (25 mm)
2	1-1/2" (38 mm)
3	2" (51 mm)
4	2-1/2" (64 mm)
5	3" (76 mm)
6	3-1/2" (89 mm)
7	4" (102 mm)



1. Cutting Height Lever
2. Lowest Position
3. Highest Position

Figure 12

EMERGENCY STOPPING

To stop the mower in an emergency:

1. Release the operator presence control / blade brake clutch handle.
2. Release the wheel drive control lever (self-propelled models).
3. **Models 911177, 189:** Move throttle control to stop position to shut off engine.
4. Allow all moving parts to stop before leaving operator's position.

STARTING AND SHUT OFF

WARNING: Improper operation can lead to injury. Learn what the controls do and how they work. Thoroughly read and understand entire Operator Manual.

NOTICE: Start engine on a level surface that is free of debris.

Manual Start

1. Check each item in the Before Each Use section of the *MAINTENANCE SCHEDULE* on page 20.
2. For engines with a throttle, place throttle control lever in the mid-throttle position. Once the engine has started, place throttle lever in the high speed position.
3. **Models 911173, 175, 179, 188, 190:** Hold operator presence control handle against the handlebar.
4. Grasp starter handle and pull rope slowly until it pulls harder. This is the compression stroke. Let rope rewind slowly.
5. Pull rope with rapid continuous full arm stroke to start engine. Allow rope to rewind slowly.

IMPORTANT: DO NOT let starter handle snap against bracket.

6. Repeat Step 4 and 5 until engine starts. (If engine does not start, see *TROUBLESHOOTING* on page 31.)

Electric Start

Models 911179, 190

Recoil handle may also be used to start the engine. See *Manual Start* above.

IMPORTANT: DO NOT start engine while the charger is connected to wiring harness.

1. Check each item in the Before Each Use section of the *MAINTENANCE SCHEDULE* on page 20.
2. With operator presence control handle held against the handlebar, turn key to start position to crank engine. Release key when engine starts.

IMPORTANT: Do not run starter continuously for more than fifteen seconds. If the engine does not start after several attempts, see *TROUBLESHOOTING* on page 31.

Shut Off

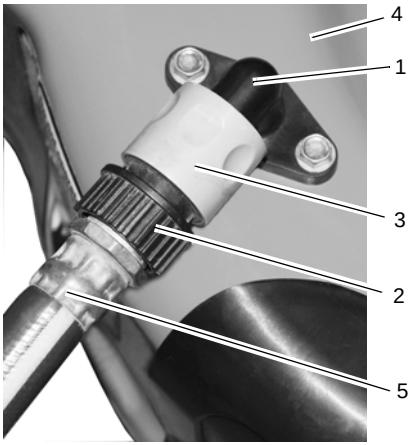
1. Release wheel drive control lever and allow unit to stop completely (self-propelled models).
2. Release operator presence control / blade brake control handle.
3. **Models 911179, 190:** Turn key to off position and then remove key.
4. **Models 911177, 189:** Move throttle control lever to stop position.

WASHOUT PORT

See Figure 13.

> **WARNING:** A broken or missing deck port can result in exposure to harmful thrown objects or blade contact.
>
> Replace broken or missing deck port before using unit.
>
> NEVER put your hands or feet under the mower or through openings in the mower.

NOTICE: Wash the underside of the mower after each use to prevent grass buildup and improve mulch action and clipping dispersal.



1. Deck Port
2. Hose Coupling
3. Lock Collar
4. Mower Deck
5. Standard Garden Hose

Figure 13

1. Park unit on a level surface, within reach of hose and in a location where the dispersal of wet grass clippings is acceptable.
2. Stop engine and allow unit to cool for at least 30 minutes.

IMPORTANT: Do not wash unit with water when unit is warm from operation. Water can seep into bearings and cause damage.

3. Attach hose coupling to a standard garden hose connected to a water supply.
4. Pull back the lock collar of hose coupling and push coupling onto the deck port until coupling is tightly in place. Release the lock collar to lock coupling to deck port.

NOTICE: Apply petroleum jelly to washout fitting O-ring to allow the coupling to easily slide on and to protect the O-ring.

NOTICE: The coupling contains a valve that will not allow water flow unless coupling is attached to washout fitting. Turn water supply off before attaching coupling to the fitting.

5. Lower deck to lowest cutting height.
6. Turn water supply on high.

NOTICE: If water leaks excessively from hose coupling onto top of deck, coupling may not be fully seated onto washout port. Turn off water supply and repeat steps 4 and 6. Use firm pressure while installing coupling onto washout port. DO NOT use in bagging mode.

> **WARNING:** When using the deck wash system, NEVER engage the deck from any position other than the operator's position.
>
> DO NOT engage deck in the presence of ANY bystander.

7. Start engine. Allow unit to run as needed, typically 2 – 3 minutes.

NOTICE: Water spraying from discharge chute will change from green to clear when deck is clean.

8. Release operator presence control / blade brake clutch handle and wait for all moving parts to stop.
9. Turn water supply off and remove coupling from the washout fitting.

NOTICE: If mower deck is not clean after one washing, soak it and let stand for 30 minutes; repeat process.

10. After cleaning mower deck, run unit again for 2 – 3 minutes to remove excess water.

MOWING TIPS

Cut grass when it is dry.

Keep mower blades sharp.

Do not set cutting height too low. For tall grass, mow twice.

Do not mow too fast.

Mow with engine at full throttle. Discharge clippings into areas already cut.

Vary cutting pattern with each mowing.

NOTICE: To prevent dirt and grass from collecting on mower pan, avoid operating over bare ground with only patches of grass.

MULCHING TIPS

For best mulching performance, cut no more than 1 inch (2.54 cm) of grass per cutting.

MAINTENANCE

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

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

MAINTENANCE SCHEDULE

NOTICE: Some working conditions (heavy loads, high ambient temperatures, dusty conditions, or airborne debris) may require more frequent service.

See engine manual for further maintenance and troubleshooting information.

MAINTENANCE SCHEDULE			
Service Performed	Before Each Use	25	100
Check Operator Presence Control / Blade Brake Clutch Handle	•		
Check Wheel Drive Control	•		
Check Blade Brake Clutch Lever	•		
Check Grass Bag	•		
Clean Unit	•		
Check Engine Oil	•		
Check Mower Blade	•		
Check Drive Belt	•		
Check Fasteners	•		
Check Air Cleaner		•	
Change Engine Oil*			
General Lubrication		•	
Check Blade Control Adjustment		•	
Check Spark Plug *			
Check Engine Cooling			•
Check Muffler			•

* Refer to engine manual for detailed instructions.

CHECK OPERATOR PRESENCE CONTROL (OPC) HANDLE

Models 911173, 175, 179, 188, 190

The engine and blade must stop within 3 seconds after releasing OPC handle. If the engine and blade continue to run, have the unit inspected and repaired before using.

CHECK OPERATOR PRESENCE CONTROL / BLADE BRAKE CLUTCH (OPC / BBC) HANDLE

Models 911177, 189

The blade must stop within 3 seconds after releasing OPC / BBC handle. If the blade does not stop, adjust as necessary or have the unit inspected and repaired by an authorized Ariens dealer before using.

CHECK WHEEL DRIVE CONTROL

The unit must stop quickly and completely when the wheel drive control lever is released. Adjust or repair if necessary. See *ADJUST WHEEL DRIVE CONTROL* on page 29.

CHECK GRASS BAG

Check grass bag frequently for wear or deterioration. Replace worn or damaged bag with Ariens original equipment replacement bag only.

CLEAN UNIT

Before each use clean unit, muffler and engine surfaces of debris, oil or fuel spills to ensure proper cooling and prevent fires.

Clean unit of all dirt and debris. Do not use solvents, hard cleaners, or abrasives. For deck cleaning instructions, see Washout Port on page 18.

NOTICE: Protect painted surfaces with automotive type wax.

IMPORTANT: Do not spray the unit with water, especially when the unit is warm from operation.

CHECK ENGINE OIL

IMPORTANT: Maintain proper oil level at all times or engine damage will result.

Check the level of the engine crankcase oil before each use.

Make sure engine is level when checking oil. See engine manual for instructions.

CHECK MOWER BLADE

Check blade mounting and make sure blade is secure.

Models 911173, 175, 179, 188, 190: Torque bolt to 37.5 – 50 lbf-ft (51 – 68 N•m).

Models 911177, 189: Torque bolts to 38 lbf-ft (52 N•m).

Check blade for nicks and dull cutting edges. Sharpen if necessary. See *Sharpen Blade* on page 21.

Check blade for rounded or broken ends, thinned metal or other damage. Replace if necessary.

SERVICE MOWER BLADE

CAUTION: Mower blades are sharp and can cut you. Wrap the blades or wear gloves, and use extra caution when servicing them.

Remove Blade

1. Stop engine, wait for all moving parts to stop, and disconnect spark plug wire.
2. Block blade to prevent rotation.
3. **Models 911173, 175, 179, 188, 190:** Remove bolt, lock washer, flat washer and blade from shaft.
4. **Models 911177, 189:** Remove two bolts and blade from blade brake clutch.

Install Blade

1. **Models 911173, 175, 179, 188, 190:** Replace blade, flat washer, lock washer and bolt on shaft. Torque bolt to 37.5 – 50 lbf-ft (51 – 68 N•m). Bolt must fully compress lock washer.
2. **Models 911177, 189:** Replace blade and two bolts on blade brake clutch. Torque bolts to 38 lbf-ft (52 N•m).
3. Connect spark plug wire.

Sharpen Blade

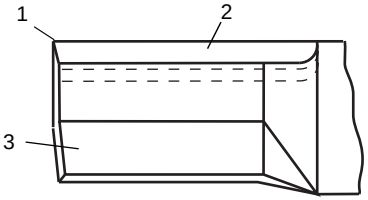
CAUTION: DO NOT sharpen mower blades while on unit. An imbalanced mower blade will cause excessive vibration and eventual damage to unit. Check mower blade balance before reinstalling blades.

NEVER weld or straighten bent blades.

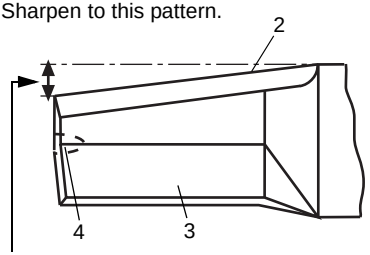
1. Remove mower blade from unit. Discard mower blade if:
   - More than 1/2" (1.27 cm) of metal is removed.
   - Air lifts become eroded.
   - Blade is bent or broken.

Sharpen mower blade by removing an equal amount of material from each end of mower blade. DO NOT change angle of cutting edge or round the corner of the mower blade. See Figure 14.

DO NOT sharpen to this pattern.



Sharpen to this pattern.



DISCARD if more than 1/2" (1.27 cm).

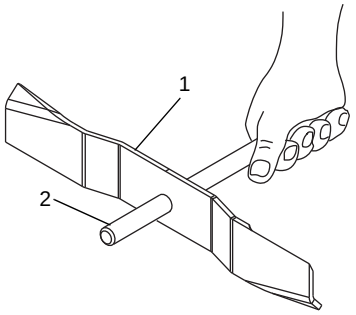
1. Square Corner
2. Cutting Edge
3. Air Lift
4. Air Lift Erosion

Figure 14

2. Check mower blade balance.

   Slide mower blade on an unthreaded bolt. A balanced blade should remain in a horizontal position. If either end of mower blade moves downward, sharpen the heavy end until blade is balanced (Figure 15).
3. Install mower blade on unit.
4. For Models 911173, 175, 179, 188, 190 torque bolt to 37.5 – 50 lbf-ft (51 – 68 N•m).

   For Models 911177, 189 torque bolts to 38 lbf-ft (52 N•m).



1. Blade
2. Bolt

Figure 15

CHECK DRIVE BELT

Models 911175, 177, 179, 188, 189, 190

Check drive belt and replace if worn or damaged. See REPLACE DRIVE BELT on page 24.

CHECK FASTENERS

Check all fasteners for proper tightness. Pay special attention to blade hardware and all guards, shields and safety devices.

CHECK AIR CLEANER

See engine manual for specific information.

NOTICE: Cutting height must be set to lowest position to remove air cleaner cover. See Figure 12.

CHANGE ENGINE OIL

Refer to engine manual for detailed instructions.

NOTICE: Run engine just prior to changing oil, warm oil will flow more freely and carry away more contaminants.

GENERAL LUBRICATION

NOTICE: The mower transmission is lubricated and sealed at the factory. It should need no routine lubrication. If the transmission leaks grease, bring the mower to your local Ariens dealer for repair.

CHECK OPERATOR PRESENCE CONTOL / BLADE BRAKE CLUTCH (OPC / BBC) CABLE

Models 911177, 189

Check the OPC / BBC cable for proper tension every 25 hours of operation. See ADJUST OPERATOR PRESENCE CONTROL / BLADE BRAKE CLUTCH (OPC / BBC) CABLE on page 27.

CHECK SPARK PLUG

Refer to engine manual for detailed instructions.

NOTICE: Loose spark plug wire terminals can cause sparking. Replace terminal if damaged.

CHECK ENGINE COOLING

WARNING: HOT SURFACES can cause death or serious injury. DO NOT TOUCH parts which are hot from operation. ALWAYS allow parts to cool.

To prevent overheating, air must circulate freely around the cooling fins, cylinder head and block.

Every 100 hours of operation or yearly (more often if conditions require) clean cooling fins. See engine manual for instructions.

CHECK MUFFLER

Check muffler for debris, cracks, wear or other damage.

CAUTION: Replace damaged muffler immediately. Continued use could result in fire or explosion.

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

SERVICE POSITION

Put unit into service position for easy access to bottom of deck.

CAUTION: Avoid fuel spills. Follow steps below to help prevent fuel spills. If fuel leaks into air cleaner, replace air cleaner. ALWAYS clean up any spilled fuel.

1. Place unit on a flat, level surface.
2. Disconnect spark plug wire.
3. Remove fuel cap.
4. Place a piece of plastic bag over the opening and tighten cap securely.
5. Remove discharge chute, if installed.
6. Tip unit onto right side. Make sure unit is secure and will not tip over.

IMPORTANT: Remove plastic from fuel cap after unit is upright and service is complete.

ADJUST HANDLEBAR HEIGHT

Model 911173

To adjust handlebar height:

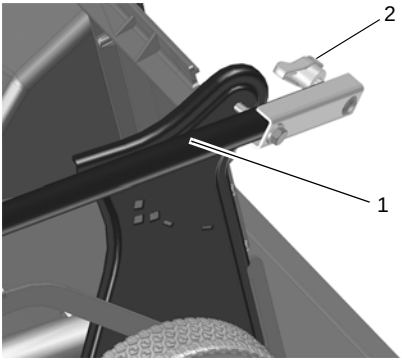
See Figure 16.

1. Remove hardware from lower handlebar mounting holes.
2. Rotate handlebar to desired position.
3. Align mounting holes with holes in the handlebar mount and secure handlebar with hardware removed earlier.

To position handlebar for storage:

See Figure 18.

1. Remove hardware from lower handlebar mounting holes.
2. Rotate handlebar forward.
3. Secure handlebar with hardware removed earlier.



1. Handlebar
2. Mounting Hardware

Figure 16

Models 911175, 177, 179, 188, 189, 190

See Figure 17.

To adjust handlebar height:

1. Push operator presence control handle (operator presence control / blade brake clutch handle on Models 911177, 189) forward and rotate handlebar to desired position.



1. Operator Presence Control Handle (Operator Presence Control / Blade Brake Clutch Handle on Models 911177, 189)

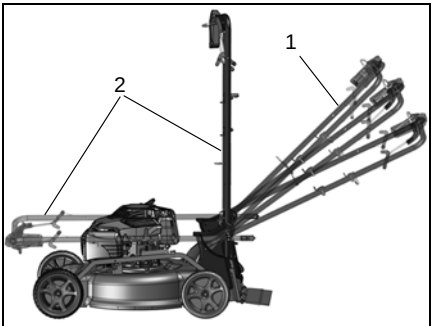
Figure 17

To position handlebar for storage:

See Figure 18.

1. Push the operator presence control handle (operator presence control / blade brake clutch handle on Models 911177, 189) forward and rotate handlebar to desired position.

WARNING: DO NOT operate unit with handlebar in storage position. Place handlebar in operating position before using.



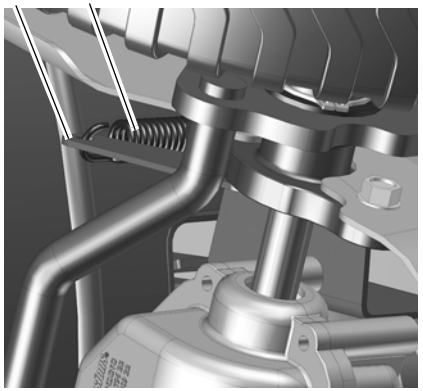
1. Operating Positions
2. Storage Positions

Figure 18

REPLACE DRIVE BELT

Remove Drive Belt Models 911173, 175, 179, 188, 189, 190

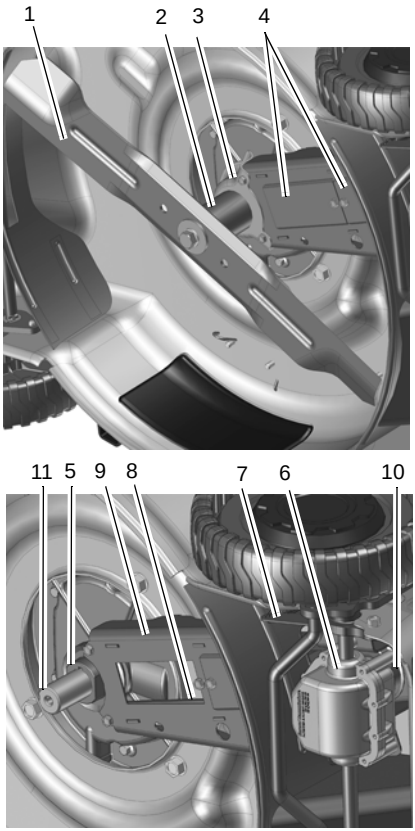
1. Disconnect spark plug wire.
2. Move cable adjuster to loosen wheel drive cable.
3. Disconnect the drive cable spring from the transmission bracket. See Figure 19.



1. Drive Cable Spring
2. Transmission Bracket

Figure 19

4. Remove blade and blade adapter from the crankshaft.
5. Remove drive pulley guide, belt channel guides and engine pulley with key.
6. Pull belt over end of crankshaft to allow belt to slide out through belt channel.
7. Rotate transmission backward to remove hardware, then adjust to loosen belt.
8. Remove belt and pull through the belt channel. See Figure 20.

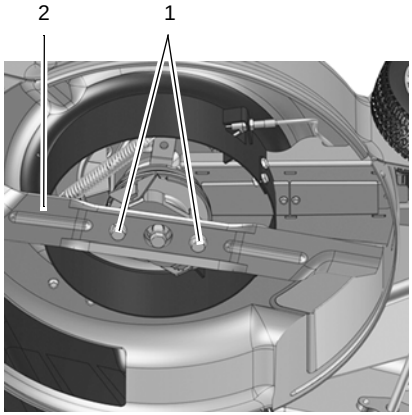


1. Blade
2. Blade Adapter
3. Drive Pulley Guide
4. Belt Channel Guides
5. Engine Pulley with Key
6. Transmission
7. Transmission Bracket
8. Belt
9. Belt Channel
10. Transmission Pulley
11. Crankshaft

Figure 20

Remove Drive Belt
Models 911177, 189

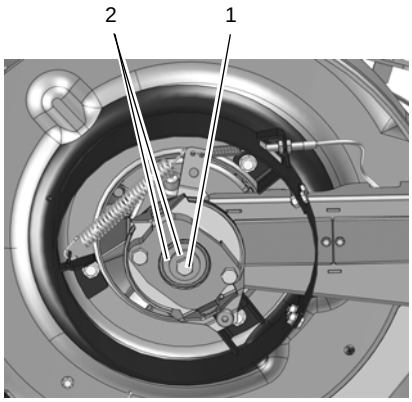
1. Remove two bolts from blade and remove blade. See Figure 21.



1. Blade Bolts
2. Blade

Figure 21

2. Remove center bolt and two washers. See Figure 22.

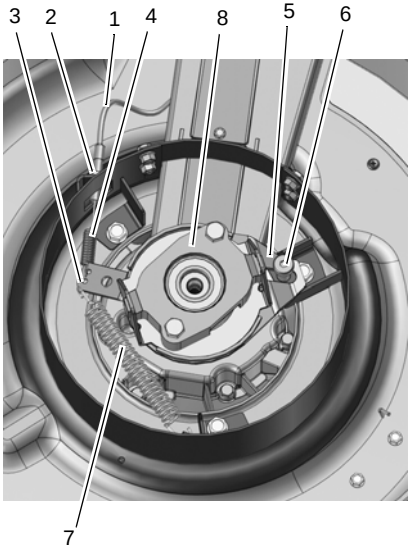


1. Center Bolt
2. Washers

Figure 22

3. Loosen adjustment nuts on BBC engagement cable. Loosen front nut until threads are no longer engaged and nut is loose on the cable. See Figure 23.

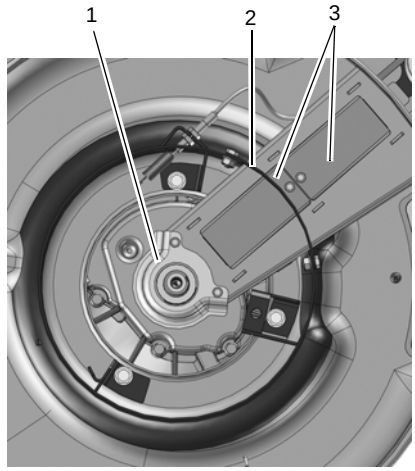
4. Insert a 1/4" (6 mm) prybar or similar tool into the hole in the clutch actuating lever. Pry lever to the right (clockwise) and disconnect cable spring from clutch lever. See Figure 23.
5. While holding anti-rotation arm in position with prybar, remove anti-rotation shoulder bolt. Gradually release the spring tension and allow the anti-rotation arm to rotate counter-clockwise. See Figure 23.
6. Remove BBC spring. See Figure 23.
7. Remove blade brake clutch and washers from engine shaft. See Figure 23.



1. BBC Engagement Cable
2. Front Adjustment Nut
3. Clutch Actuating Lever
4. Cable Spring
5. Anti-rotation Arm
6. Anti-rotation Shoulder Bolt
7. BBC Spring
8. Blade Brake Clutch

Figure 23

8. Remove two tapping screws retaining crankshaft belt guide and remove guide. See Figure 24.
9. Remove BBC baffle. See Figure 24.
10. Remove two tapping screws retaining inner belt guides and remove guides. See Figure 24.



1. Crankshaft Belt Guide
2. BBC Baffle
3. Inner Belt Guide

Figure 24

11. Remove belt from engine sheave and remove belt.

Install Drive Belt

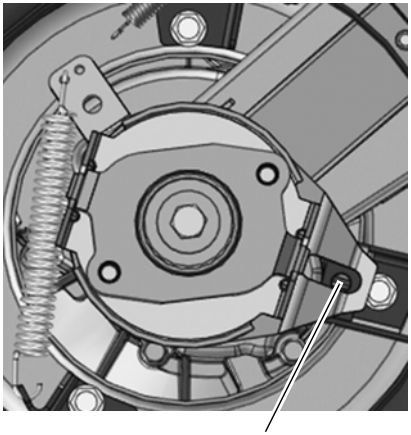
Models 911173, 175, 179, 188, 189, 190

See Figure 20.

1. Route new belt through belt channel.
2. Route belt around transmission pulley and reinstall transmission bracket and hardware. Rotate transmission back into location. Loop belt over crankshaft end. Install engine pulley with key.
3. Install belt channel guides and drive pulley guide.
4. Install blade adapter and blade. Make sure the blade hardware is tightened to the proper torque. See *Install Blade* on page 21.
5. Connect the wheel drive cable spring to the transmission bracket and rotate drive cable adjuster to properly adjust drive cable See *ADJUST WHEEL DRIVE CONTROL* on page 29.
6. Connect spark plug wire.

Install Drive Belt
Models 911177, 189

1. Route new belt through belt channel.
2. Route belt around transmission pulley and reinstall transmission bracket and hardware. Rotate transmission back into location. Loop belt over crankshaft end. Install engine pulley with key.
3. Install belt channel guides and drive pulley guide.
4. Install washers and BBC assembly on engine shaft. Ensure that key in BBC is aligned with keyway on engine shaft.
5. Reinstall BBC spring.
6. Using prybar, rotate BBC assembly clockwise until anti-rotation arm is aligned with shoulder bolt bracket. Install bolt and fully tighten. See Figure 25.



Align anti-rotation arm with shoulder bolt bracket here.

Figure 25

7. Reattach cable spring to clutch actuating lever. See Figure 23.
8. Gradually release spring tension until prybar is loose and can be removed.
9. Reinstall front lock nut on BBC engagement cable. Thread far enough to allow only a minor amount of slack on inner cable. See Figure 23.
10. Check cable adjustment and adjust as necessary. See *ADJUST OPERATOR PRESENCE CONTROL / BLADE BRAKE CLUTCH (OPC / BBC) CABLE* on page 27.
11. Check cable adjustment and adjust as necessary. See *CHECK OPERATOR PRESENCE CONTROL / BLADE BRAKE CLUTCH (OPC / BBC) HANDLE* on page 20.
12. Install center bolt and washer. Torque bolt to 55 lbf-ft (75 N•m). See Figure 22.

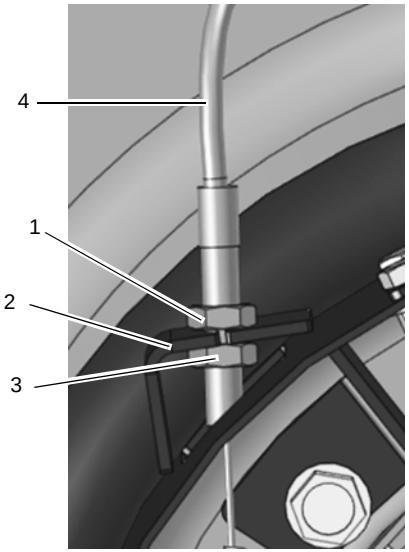
ADJUST OPERATOR PRESENCE CONTROL (OPC) HANDLE

NOTICE: The operator presence control handle (operator presence control / blade brake clutch handle on Models 911177, 189) has no user-serviceable adjustments. If releasing the handle does not stop the engine or blade within 3 seconds, take the unit to an authorized Ariens dealer for repairs.

ADJUST OPERATOR PRESENCE CONTROL / BLADE BRAKE CLUTCH (OPC / BBC) CABLE

Models 911177, 189

1. Place unit in service position. See *SERVICE POSITION* on page 23.
2. Loosen the front and rear adjustment nuts. See Figure 26.
3. Pull on the cable to allow only a slight amount of slack and hand tighten front adjustment nut against the cable bracket. Tighten the rear adjustment nut. See Figure 26.
4. Return unit to operating position.
5. Squeeze and hold the OPC / BBC handle to the handlebar.
6. Push the BBC control lever forward until it engages. The control should stay engaged until the OPC / BBC handle is released.



1. Front Adjustment Nut
2. Cable Bracket
3. Rear Adjustment Nut
4. Cable

Figure 26

BATTERY

Models 911179, 190

See Figure 27.

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

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

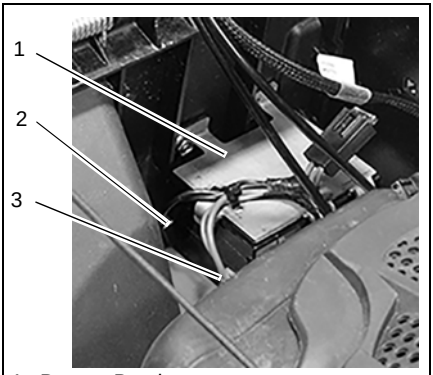
NOTICE: Unit comes equipped with a maintenance-free battery that requires no regular maintenance except charging and cleaning the terminals.

To remove battery:

1. Disconnect battery connectors.
2. Remove battery bracket and battery. Save bracket and mounting hardware for reinstallation.

To install battery:

1. Reinstall battery into unit.
2. Connect black, negative (–) connector to black, negative (–) battery terminal.
3. Connect red, positive (+) connector to red, positive (+) battery terminal.



1. Battery Bracket
2. Black, Negative (–) Connector and Battery Terminal
3. Red, Positive (+) Connector and Battery Terminal

Figure 27

Charge Battery

NOTICE: Engine does not charge the battery. Battery will require periodic charging to ensure proper starting. It is recommended to charge battery on a monthly basis for 6 hours even if mower is not used.

IMPORTANT: DO NOT attempt to jump start mower.

IMPORTANT: DO NOT start engine while the charger is connected to wiring harness.

1. Connect battery charger to the wiring harness. See Figure 27.
2. Plug charger into 120 VAC outlet.

IMPORTANT: Battery charger supplied with unit is for 120 volt Alternating Current (AC) outlets only.

3. Charge for 16 – 24 hours.

IMPORTANT: DO NOT overcharge battery. Disconnect battery after 24 hours.

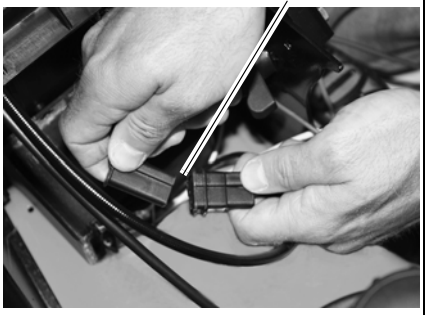


Figure 28

ADJUST WHEEL DRIVE CONTROL

Models 911175, 177, 179, 188, 189, 190

See Figure 29.

The unit should stop immediately when the wheel drive control lever is released and not creep forward when the wheel drive control lever is disengaged with the engine running.

The unit's forward speed should increase as the wheel drive control lever is moved closer to the handlebar. If the unit does not accelerate smoothly or seems to slip under load, adjust the wheel drive control cable.

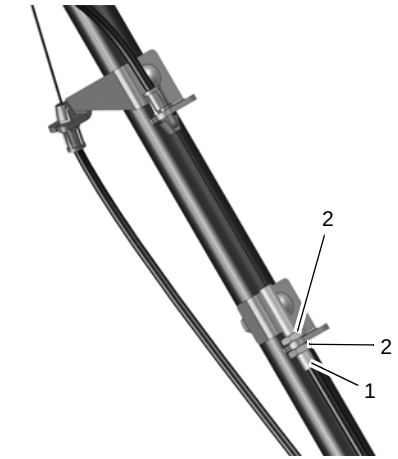
IMPORTANT: DO NOT adjust the cable so the transmission does not return to neutral and stop the unit when the wheel drive control is released.

To Adjust:

1. Stop engine and wait for all moving parts to completely stop.
2. Clean any dirt or debris from the drive components.
3. Make sure the return spring is properly connected to transmission bracket.
4. On the handlebar, loosen cable nuts away from bracket. See Figure 29.
5. Move the wheel drive cable adjuster up or down the handlebar. See Figure 29.

   To increase speed, move the cable adjuster down the handlebar.

   To decrease speed, move the cable adjuster up the handlebar.



1. Cable Adjuster
2. Cable Nuts

Figure 29

6. Check the adjustment.
   A. Start the engine.
   B. Slowly squeeze the wheel drive control lever against the handlebar. The unit should move forward smoothly and increase in speed as handle is moved closer to handlebar.
   C. Release the wheel drive control lever. The unit should stop immediately and not creep forward.

STORAGE

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

IMPORTANT: NEVER spray unit with high-pressure water or store unit outdoors. Store mower in a cool, dry, protected location.

Cleaning

Allow unit to cool. Clean unit thoroughly with mild soap and low pressure water. Brush off dirt and debris from all surfaces. Touch up all scratched surfaces to prevent rust. Matching touch-up paint is available from your Ariens Dealer. Do not use abrasives, solvents, or harsh cleaners.

Inspection

Inspect mower and repair or replace worn or damaged parts to avoid delays when beginning use again.

Regularly check all hardware and keep fasteners tight. Know unit is in safe working condition.

Grass Bag

Wash out grass bag and allow to dry before storage. Grass bag may be stored in position on mower.

Engine

Refer to engine manufacturer's recommendations for storage.

Handlebar

See ADJUST HANDLEBAR HEIGHT on page 23 and Figure 17.

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 manufacturer'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.

SERVICE PARTS

Always use genuine Ariens parts to keep your mower running like new.

Description	Part Number
Air Filter	21100120 (Models 911188, 189, 190)
Air Filter	21100121 (Models 911173, 175, 179)
Spark Plug	21100122 (Models 911188, 189, 190)
Spark Plug	21100123 (Models 911173, 175, 179)
Blade	04692700 (Models 911177, 189)
Blade	04544400 (Models 911173, 175, 179, 188, 190)
Battery	04765800 (Models 911179, 190)
Battery Charger	04537000 (Models 911179, 190)
Transmission Belt	07200633 (Models 911175, 177, 179, 188, 189, 190)

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	CORRECTION
Engine will not start	1. Fuel tank empty or low. 2. Spark plug wire loose or off. 3. Operator presence control cable (operator presence control / blade brake clutch cable on Models 911177, 189) detached, broken, or not adjusted properly.	1. Check fuel level. Fill tank if necessary. 2. Check connection. 3. Check cable. Adjust, repair or replace as necessary.
Engine is difficult to restart	1. Mower clogged with grass.	1. Clear clippings from under mower. (Allow the mower to clear clippings before shutting off engine.)
Poor cut quality	1. Worn blade. 2. Too much grass is being removed per cutting. 3. Grass is too wet. 4. Mowing speed is too fast.	1. Check blade (see *CHECK MOWER BLADE* on page 21). 2. Raise cutting height. 3. Allow grass to dry. 4. Mow slower.
Grass does not disperse evenly	1. Too much grass is being removed per cutting. 2. Grass is too wet. 3. Mowing speed is too fast.	1. Raise cutting height. 2. Allow grass to dry. 3. Mow slower.
Mower does not bag clippings	1. Grass bag is overfilled. 2. Mulching plug is installed.	1. Empty grass bag and do not allow it to overfill. 2. Remove mulching plug.
Wheel drive does not engage (Models 911175, 177, 179, 188, 189, 190)	1. Wheel drive control not engaged. 2. Drive belt out of position. 3. Drive belt worn or damaged. 4. Wheel drive control cable detached or broken. 5. Bearings damaged. 6. Debris in gear set. 7. Drive belt slips or speed is too slow.	1. Engage wheel drive control. 2. Check drive belt. Adjust as necessary (see *CHECK DRIVE BELT* on page 22). 3. Replace belt (see *CHECK DRIVE BELT* on page 22). 4. Check wheel drive control cable. Adjust or replace as needed. See *CHECK WHEEL DRIVE CONTROL* on page 20. 5. Contact your Dealer. 6. Contact your Dealer. 7. See *ADJUST WHEEL DRIVE CONTROL* on page 29.

SPECIFICATIONS				
Model Number	**911173**	**911175**	**911177**	**911179**
Model	Razor			
Description	Push	Self-Propelled	Self-Propelled Blade Brake Clutch	Self-Propelled Electric Start
Length – in. (cm)	70 (177.8)			
Height – in. (cm)	47 (119.4)			
Width – in. (cm)	21.5 (54.6)			
Actual Weight – lbs (kg)	91 (43.1)	94 (42.6)	100 (45.4)	
Cutting Width – in. (cm)	21 (53.3)			
Cutting Height – in. (cm)	1 – 4 (2.5 – 10.2)			
Engine, 4 cycle	Ariens			
Max Rotation Speed of Cutting Edge – RPM	3,300			
Governed RPM (May be different from maximum rpm.)	3,200 ± 100			
Displacement – Cu. In. (cc)	9.7 (159)			
Cylinder Bore	Cast Iron			
Engine Oil Type	See engine manual.			
Crank Case Capacity – oz. (Liter)	18 (0.53)			
Oil System	Splash			
Engine Oil Filter	N/A			
Spark Plug Gap – in. (mm)	See engine manual.			
Fuel Type	Unleaded			
Fuel Tank Capacity – qt. (Liter)	1.1 (1)			
Air Cleaner	Paper Element			
Starting	Recoil			Electric/Recoil
Variable Speeds – MPH (km/hr)	N/A	0 – 3.2 (0 – 5.1)		
Mower Deck	14 Gauge – Stamped Steel			
Wheel Diameter – in. (cm)	8.38 (21.3)			

SPECIFICATIONS			
Model Number	**911188**	**911189**	**911190**
Model	Razor		
Description	Self-Propelled	Self-Propelled Blade Brake Clutch	Self-Propelled Electric Start
Length – in. (cm)	70 (177.8)		
Height – in. (cm)	47 (119.4)		
Width – in. (cm)	21.5 (54.6)		
Actual Weight – lbs (kg)	98 (44.5)	104 (47.2)	
Cutting Width – in. (cm)	21 (53.3)		
Cutting Height – in. (cm)	1 – 4 (2.5 – 10.2)		
Engine, 4 cycle	Subaru EA175		
Max Rotation Speed of Cutting Edge – RPM	3,300		
Governed RPM (May be different from maximum rpm.)	3,200 ± 100		
Displacement – Cu. In. (cc)	10.7 (175)		
Cylinder Bore	Cast Iron		
Engine Oil Type	See engine manual.		
Crank Case Capacity – oz. (Liter)	20 (0.59)		
Oil System	Splash		
Engine Oil Filter	N/A		
Spark Plug Gap – in. (mm)	See engine manual.		
Fuel Type	Unleaded		
Fuel Tank Capacity – qt. (Liter)	1.3 (1.2)		
Air Cleaner	Paper Element		
Starting	Recoil		Electric/Recoil
Variable Speeds – MPH (km/hr)	0 – 3.2 (0 – 5.1)		
Mower Deck	14 Gauge – Stamped Steel		
Wheel Diameter – in. (cm)	8.38 (21.3)		

Consumer Mowing Equipment Limited Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens, Gravely and Countax brand lawn and garden consumer products purchased on or after 1/1/2013 will be free from defects in material and workmanship for the time period noted in the chart below. Equipment put to personal use around a single household or residence is considered “Consumer Use”; equipment put to any business use (agricultural, commercial, or industrial) or used at multiple locations is considered “Commercial Use.” If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

An authorized Ariens dealer (Ariens brand products), Gravely dealer (Gravely brand products), or Countax dealer (Countax 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.

Warranty Code	Product Group	Warranty Period Consumer Use	Warranty Period Commercial Use
HA	Zoom & ZT Zero-Turn Riders; AMP™ Rider	3 Years	90 Days
HB	Max Zoom & ZT HD Zero-Turn Riders	3 Years	1 Year
HC	Tractors, "961" Series Walk-Behind Mowers	2 Years	90 Days
HD	Classic LM Series Mowers; Wide Area Walk Mowers; Razor, XD3	3 Years	90 Days
N/A	Service (replacement) Parts	90 Days (no labor)	90 Days (no labor)

Special Extensions

The chart below details special extensions to this warranty:

Warranty Code	Warranty Exception	Warranty Period	Use	Detail
HA, HB	Mower Deck Shell on Zero-Turn Riders	5 Years	Consumer	3 years parts and labor Additional 2 years parts only
HA, HB	Main Frame on Zero-Turn Riders	5 Years	Consumer	3 years parts and labor Additional 2 years parts only
HA	Batteries for AMP™ Rider	2 Years	Consumer	100% first year; prorated second year

Exceptions and Limitations

The chart below details special exceptions to this warranty:

Warranty Code	Warranty Exception	Warranty Period	Use	Detail
All	Batteries	1 Year	Consumer	Prorated
All	Belts, Muffler, Tires	None	Commercial	These components are not covered when used commercially.
All	Cloth, Plastic, and Rubber Components (Including Belts and Cables)	Maximum 2 Years	All	Warranty is limited to 2 years for consumer use. Except as noted above, these components are covered for defect, not for wear.
All	Engines	See Engine Manufacturer’s Warranty	All	Engines are covered by engine manufacturer’s warranty. Refer to engine manufacturer’s warranty statement.

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.gravely.com, www.countax.com.
To obtain warranty service, the **original purchaser** must:

- Perform the maintenance and 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 at owner's expense.
- Have the warranty service performed by an authorized Ariens, Gravely or Countax service representative.

To Find an Authorized Service Representative:

In the U.S. and Canada:		
Use the dealer locator on our websites: www.ariens.com • www.gravely.com		
Or contact us by mail or by phone:		
In the U.S., Canada, Mexico, Caribbean, Central and South America:	**In Europe, Asia, Africa or the Middle East:**	**In Australia or New Zealand:**
Ariens Company 655 W. Ryan Street Brillion, WI 54110 Phone: (920) 756 - 4688 www.ariens.com	Countax Ltd, Countax House Great Haseley, Oxfordshire, OX44 7PF Phone: 0800 597 7777 www.countax.com	Ariens Company Building 2 6 Wedgewood Rd. Hallam, Victoria 3803 Australia Phone: (03) 9796 4244 1800 335 489 www.ariens.com.au

Exclusions – Items Not Covered by This Warranty

- Parts that are not genuine Ariens, Gravely or Countax service parts are not covered by this warranty and may void the warranty.
- Damages resulting from the installation or use of any part, accessory, or attachment which is not approved by the Ariens Company for use with product(s) identified herein 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, skid shoes, scraper blades, shear bolts, mower blades, mower vanes, 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.
- **Use of gasoline blends exceeding 10% ethanol voids any and all warranties.**
- Products are designed to the specifications in the area that the product was originally distributed. Different areas may have significantly different legal and design requirements. This warranty is limited to the requirements in the area in which the unit was originally distributed. Ariens Company does not warrant this product to the requirements of any other area. Warranty service is limited to service within the area originally distributed.
- In countries other than the United States and Canada, contact the Ariens Company dealer for warranty policies that govern within your country. Rights may vary from country to country and within any one country.

Disclaimer

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

AUSTRALIAN CONSUMER LAW

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

DISCLAIMER OF FURTHER WARRANTY

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 region to region.

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

⚠ 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