



OPERATOR'S MANUAL



p/n: 2263-319
05/22, Rev. B

Actual vehicle appearance may vary

WARNING

The removal or modification of evaporative emission-related parts on this OHRV is illegal. Violators may be subject to civil and/or criminal penalties as provided under California and federal law.

WARNING



Operation of this ATV by children under the age of 10 increases the risk of severe injury or death.

Adult supervision required for children under age 16.

NEVER permit children under age 10 to operate this ATV.

Do not remove this Operator's Manual from this ATV according to the guidelines and agreement with the U.S. Consumer Product Safety Commission.

Alterra 90

Read this manual carefully.
It contains important safety information.

Your ATV can be hazardous to operate.

A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills or over obstacles, if you fail to take proper precautions. For your safety, it is important to understand and follow all of the warnings contained in this Operator's Manual and the labels on your ATV prior to riding.

Keep this Operator's Manual with this vehicle at all times. If you lose your manual, contact your authorized dealer for a replacement. The labels should be considered permanent parts of the vehicle. If a label comes off or becomes hard to read, contact your authorized dealer for a replacement. Contact the manufacturer for proper registration information.

FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH.

ALWAYS USE COMMON SENSE WHEN OPERATING THIS VEHICLE.

Children differ in skills, physical abilities, and judgment. Some children may not be able to operate an ATV safely. Parents should supervise their child's use of the ATV at all times. Parents should permit continued use only if they determine that the child has the ability to operate the ATV safely.

For your safety, it is important all operators be properly trained to operate an ATV. Training is available: U.S. owners, call 800-887-2887; Canadian owners, call 613-739-1535.

Particularly important information is distinguished in this manual by the following notations:



WARNING

CAUTION

■ **NOTE:**

The Safety Alert Symbol means **ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED.**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.

A NOTE provides key information to make procedures easier or more clear.

Foreword

Congratulations and thank you for purchasing an Arctic Cat All-Terrain Vehicle (ATV). It is designed to provide superior ride, comfort, utility, and dependable service.

This Operator's Manual is furnished to make the operator aware of proper operating procedures. It also includes information about the general care and maintenance of your ATV.

Carefully read the following pages. If you have any questions regarding this ATV, contact an authorized dealer for assistance. Remember, only authorized dealers have the knowledge and facilities to provide you with the best service possible.

Protect Your Sport

- Know all local, state/provincial riding laws,
- Respect your ATV,
- Respect the environment, and
- You will gain the respect of others.

We also advise you to strictly follow the recommended maintenance program as outlined. This preventive maintenance program is designed to ensure that all critical components on this ATV are thoroughly inspected at various intervals.

All information in this manual is based on the latest product data and specifications available at the time of printing. We reserve the right to make product changes and improvements which may affect illustrations or explanations without notice. Because the manufacturer constantly refines and improves its products, no retroactive obligation is incurred.

You have chosen a quality vehicle designed and manufactured to give dependable service. Be sure, as the owner/operator of this vehicle, to become thoroughly familiar with its basic operation, maintenance, and storage procedures.

Read and understand the entire Operator's Manual before operating this vehicle to ensure safe and proper use. Always operate the vehicle within your level of skill and current terrain conditions.

Division II of this manual covers important information, operator-related maintenance, and storage instructions. If major repair or service is ever required, contact an authorized dealer for professional service.

At the time of publication, all information and illustrations in this manual were technically correct. Some illustrations used in this manual are used for clarity purposes only and are not designed to depict actual conditions.

Parts and Accessories

When in need of replacement parts, oil, or accessories for your ATV, be sure to use only **GENUINE PARTS, OIL, AND ACCESSORIES**. **Only genuine parts, oil, and accessories are engineered to meet the standards and requirements of this vehicle. For a complete list of accessories, refer to the current ATV/ROV Accessory Catalog.**

To aid in service and maintenance procedures on this vehicle, a Service Manual is available through your authorized dealer.

Arctic Cat and the ATV Safety Institute (U.S.) recommend that all ATV operators ride the appropriate-sized ATV according to age.

Category	Age (Years)	Speed Limitations in mph (km/h)	NOTES
Y-10+	10 or Older	Limited — 15 (24) Maximum — 30 (48)	Operate Under Adult Supervision
T-14	14 or Older	Limited — 20 (32) Limited — 30 (48) Maximum — 38 (61)	Operate Under Adult Supervision
G & S	16 or Older	According to Local Regulations	—

TREAD LIGHTLY! **OFFICIAL SPONSOR**®
ON PUBLIC AND PRIVATE LAND

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Division I — Safety

AN ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE.

An ATV handles differently from other vehicles including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills or over obstacles, if you fail to take proper precautions. **SEVERE INJURY OR DEATH** can result if you do not follow these instructions:

- Parents: It is very important that your child or children understand and follow the instructions and warnings contained in this manual before operating this ATV under adult supervision. Also, it is very important that you take time to watch the Safety DVD (included in the Owner's Packet) with your child or children. It contains important operating and safety instructions.
- Read this manual and all labels carefully and follow the operating procedures described.
- Never operate an ATV without proper instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized dealer or call the ATV Safety Institute at 800-887-2887 (U.S.) or the Canada Safety Council at 613-739-1535 (Canada) to find out about the training course nearest you.
- Never allow anyone under 10 years of age to operate this ATV.
- Never allow a child to operate a Y-10+ ATV without adult supervision and never allow continued use of an ATV by a child if the child does not have the abilities to operate it safely.
- Some operators, even at the age of 10, may not be able to operate an ATV safely; parents should supervise such operator of the ATV at all times. Parents should permit continued use only if they determine that the operator has the ability to operate the ATV safely.
- Never carry a passenger.
- Never permit a guest to operate this ATV unless the guest has read this manual and all product labels and has completed a certified training course.
- Never operate an ATV on any paved surfaces, including sidewalks, drive-ways, parking lots, and streets.

- Never operate this ATV on any public street, highway, or road (even a dirt or gravel one).
- Never operate an ATV without wearing an approved helmet that fits properly. You should also wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket, and long pants.
- Never consume alcohol or drugs before or while operating this ATV.
- Never operate at excessive speeds. Always travel at a speed which is proper for the terrain, visibility and operating conditions, and your experience.
- Never attempt wheelies, jumps, or other stunts.
- Always inspect this ATV each time you use it to make sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- Always keep both hands on the handlebars and both feet on the footrests of the ATV during operation.
- Always go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.
- Never operate on excessively rough, slippery, or loose terrain.
- Always follow proper procedures for turning as described in this manual. Practice turning at slow speeds before attempting to turn at faster speeds. Do not turn at excessive speed.
- Always have the ATV checked by an authorized dealer if it has been involved in an accident.
- Never operate the ATV on hills too steep for the ATV or for your abilities. Practice on smaller hills before attempting larger hills.
- Always follow proper procedures for climbing hills as described in this manual. Check the terrain carefully before you start up any hill. Never climb hills with slippery or loose surfaces. Shift your weight forward. Never open the throttle suddenly. Never go over the top of any hill at high speed. Always follow proper procedures for going down hills and for braking on hills as described in this manual. Check the terrain carefully before you start down any hill. Shift your weight backward. Never go down a hill at high speed. Avoid going down a hill at an angle which would cause the ATV to lean sharply to one side. Go straight down the hill where possible.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

AN ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE.

- Always follow proper procedures for crossing the side of a hill as described in this manual. Avoid hills with slippery or loose surfaces. Shift your weight to the uphill side of the ATV. Never attempt to turn the ATV around on any hill until you have mastered the turning techniques described in this manual on level ground. Avoid crossing the side of a steep hill if possible.
- Always use proper procedures if you stall or roll backward when climbing a hill. To avoid stalling, maintain a steady speed when climbing a hill. If you stall or roll backwards, follow the special procedure for braking described in this manual. Dismount on the uphill side or to either side if pointed straight uphill. Turn the ATV around and mount following the procedure described in this manual.
- Always check for obstacles before operating in a new area. Never attempt to operate over large obstacles, such as large rocks or fallen trees. Always follow proper procedures when operating over obstacles as described in this manual.

- Always be careful of skidding or sliding. On slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.
- Never operate an ATV in fast-flowing water or in water deeper than the footrests. Remember that wet brakes may have reduced stopping capability. Test your brakes after leaving water. If necessary, apply them lightly several times to let friction dry out the pads.
- Always use the size and type tires specified in this manual. Always maintain proper tire pressure as described in this manual.
- Never improperly install or improperly use accessories on your ATV.
- Never install a twist grip throttle on this ATV.
- Never exceed the stated load capacity for this ATV. One operator only. No cargo, passengers, or towing.
- Remove the speed limiting safety device on this ATV at your own risk.

FOR MORE INFORMATION ABOUT ATV SAFETY, call the ATV Safety Institute at 800-887-2887 (U.S.) or Canada Safety Council at 613-739-1535 (Canada).



ATV Safety Alert

The U.S. Consumer Product Safety Commission has concluded that ALL-TERRAIN VEHICLES (ATVs) may present a risk of DEATH or SEVERE INJURY in certain circumstances:

- *** More than 2700 people, including many children, have died in accidents associated with ATVs since 2014.
- *** Many people have become severely paralyzed or suffered severe internal injuries as a result of accidents associated with ATVs.
- *** Every month thousands of people are treated in hospital emergency rooms for injuries received while riding an ATV.

You should be aware that AN ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE. An ATV handles differently from other vehicles, including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills and over obstacles, if you fail to take proper precautions.

TO AVOID DEATH OR SEVERE PERSONAL INJURY:

- * **NEVER ALLOW ANYONE UNDER 10 YEARS OLD TO OPERATE AN ARCTIC CAT Y-10+ ATV.**
- * Always read the Operator's Manual carefully and follow the operating procedures described. Pay special attention to the warnings contained in the manual and on all labels.
- * Never operate an ATV without proper instruction. Take a training course. Beginners should complete a training course.
- * Never carry a passenger or ride as a passenger on an ATV. Carrying a passenger may upset the balance of the ATV and may result in loss of control.
- * Every Arctic Cat-brand ATV is designed for a certain age group. Never ride an ATV that is not designed for your age group. The Operator's Manual and labels contain the age group for each ATV.
- * Never operate an Arctic Cat-brand youth ATV without parental supervision.

- * Never operate an ATV on pavement. The vehicle is not designed to be used on paved surfaces and may be difficult to control.
- * Never operate an ATV on a public road, even a dirt or gravel one, because you may not be able to avoid colliding with other vehicles. Also, operating an ATV on a public road may be against the law.
- * Never operate an ATV without an approved motorcycle helmet, eye protection, boots, gloves, long pants, and a long-sleeved shirt or jacket.
- * Never consume alcohol or drugs before or while operating an ATV.
- * Never operate an ATV at excessive speeds. Go at a speed which is proper for the terrain, visibility conditions, and your experience.
- * Never attempt to do wheelies, jumps, or other stunts.
- * Always be careful when operating an ATV, especially when approaching hills, turns, and obstacles and when operating on unfamiliar or rough terrain.
- * Never lend an ATV to anyone who has not taken a training course or has not been driving an ATV for at least a year.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Rider Training Course

The manufacturer sponsors a free Rider Training Course to teach ATV riding skills or to reinforce current riding skills. First-time purchasers without any previous ATV riding experience will receive a \$100.00 coupon from the manufacturer through the Specialty Vehicle Institute of America/ATV Safety Institute after completing the training course (U.S. owners only, one incentive). The manufacturer provides free rider training courses to appropriate immediate family members per ATV purchase. Others can take the training course for a small fee. See an authorized dealer for details or call 800-887-2887 for training course information.

In Canada, the Canada Safety Council (CSC) provides an ATV Rider's Course to teach safe ATV operating skills. They also provide a special ATV Rider's Course for children under 14 years of age with parental supervision. Call 613-739-1535 for more details. Also available are safety training materials from the Canadian Off-Highway Vehicle Distributors Council. Call toll-free at 877-470-2288.

FOR MORE INFORMATION ABOUT ATV SAFETY in the U.S., call the Consumer Product Safety Commission at 800-638-2772 or the ATV Safety Institute Safety Hotline at 800-852-5344. In Canada, call the Canada Safety Council at 613-739-1535.



Hangtags

This vehicle comes with hangtags containing important safety information. Anyone who rides the vehicle should read and understand this information before riding.



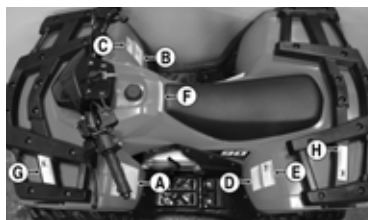
WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

Warning Labels

This vehicle comes with several labels containing important safety information. Anyone who rides the vehicle should read and understand this information before riding.

The labels should be considered as permanent parts of the vehicle. If a label comes off or becomes hard to read, contact your authorized dealer for a replacement.



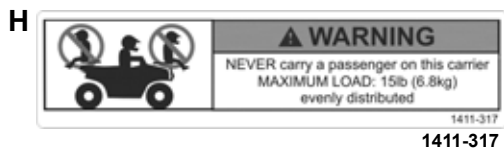
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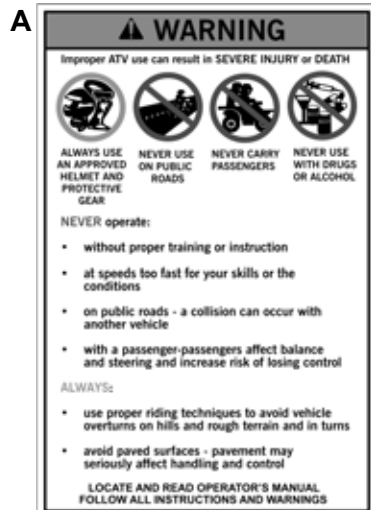
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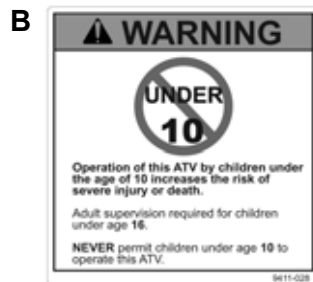
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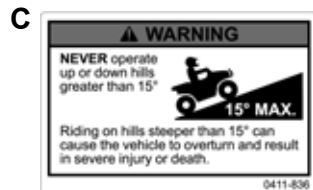
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Warnings

WARNING

POTENTIAL HAZARD

Operating this ATV without proper instruction and supervision.

WHAT CAN HAPPEN

The risk of an accident is greatly increased if the operator does not know how to operate the ATV properly in different situations and on different types of terrain.

HOW TO AVOID THE HAZARD

Beginning and inexperienced operators should complete the certified training course offered. They should then regularly practice the skills learned in the course and the operating techniques described in this Operator's Manual.

For more information about the training course, contact an authorized dealer or call 1-800-887-2887 (U.S.) or 613-739-1535 (Canada).

WARNING

POTENTIAL HAZARD

Allowing anyone under age 10 to operate this ATV.

WHAT CAN HAPPEN

Use of an ATV by children can lead to severe injury or death of the child. Children may not have the skills, abilities, or judgment needed to operate the ATV safely and may be involved in a serious accident.

HOW TO AVOID THE HAZARD

A child under 10 should never operate this ATV. A child lacking the skills, abilities, or judgment needed to operate the ATV safely should never operate this ATV. A child under the age of 16 should never operate this ATV without parental supervision.

WARNING

POTENTIAL HAZARD

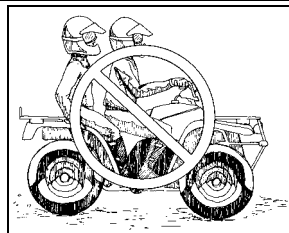
Carrying a passenger on this ATV.

WHAT CAN HAPPEN

Greatly reduces your ability to balance and control this ATV. Could cause an accident, resulting in injury or death to you and/or your passenger.

HOW TO AVOID THE HAZARD

Never carry a passenger. The long seat is to allow the operator to shift positions as needed during operation. It is not for carrying passengers.



WARNING

POTENTIAL HAZARD

Operating this ATV on paved surfaces.

WHAT CAN HAPPEN

The ATV's tires are designed for off-road use only, not for use on pavement. Paved surfaces may seriously affect handling and control of the ATV and may cause the ATV to go out of control.

HOW TO AVOID THE HAZARD

Whenever possible, avoid operating the ATV on any paved surfaces including sidewalks, driveways, parking lots, and streets. If operating on paved surfaces is unavoidable, travel slowly (less than 10 mph [16 km/h]) and avoid sudden turns and stops.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ WARNING

POTENTIAL HAZARD

Operating this ATV on public streets, roads, or highways.

WHAT CAN HAPPEN

You can collide with another vehicle.

HOW TO AVOID THE HAZARD

Never operate this ATV on any public street, road, or highway, even a dirt or gravel one.

In many states it is illegal to operate an ATV on public streets, roads, or highways.



⚠ WARNING

POTENTIAL HAZARD

Operating this ATV after or while consuming alcohol or drugs.

WHAT CAN HAPPEN

Could seriously affect your judgment.
Could cause you to react more slowly.
Could affect your balance and perception.
Could result in an accident.

HOW TO AVOID THE HAZARD

Never consume alcohol or drugs before or while driving this ATV.

⚠ WARNING

POTENTIAL HAZARD

Operating this ATV without wearing an approved motorcycle helmet, eye protection, and protective clothing.

WHAT CAN HAPPEN

Operating without an approved helmet increases your chances of a severe head injury or death in the event of an accident.

Operating without eye protection can result in an accident and increases your chances of a severe injury in the event of an accident.

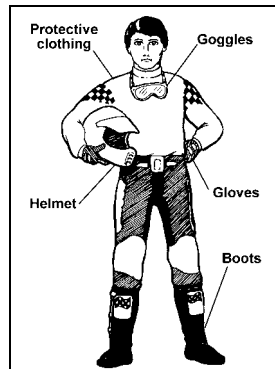
Operating without protective clothing increases your chances of severe injury in the event of an accident.

HOW TO AVOID THE HAZARD

Always wear an approved helmet that fits properly.

You should also wear:

Eye protection (goggles or face shield)
Gloves
Boots
Long sleeved shirt or jacket
Long pants



⚠ WARNING

POTENTIAL HAZARD

Operating this ATV at excessive speeds or removing the speed limiting device from the ATV.

WHAT CAN HAPPEN

Increases your chances of losing control of the ATV, which can result in an accident.

HOW TO AVOID THE HAZARD

Always ride at a speed that is proper for the terrain, visibility and operating conditions, and your age and experience.

⚠ WARNING

POTENTIAL HAZARD

Attempting wheelies, jumps, and other stunts.

WHAT CAN HAPPEN

Increases the chance of an accident including an overturn.

HOW TO AVOID THE HAZARD

Never attempt stunts, such as wheelies or jumps. Don't try to show off.



⚠ WARNING

POTENTIAL HAZARD

Failure to inspect the ATV before operating.
Failure to properly maintain the ATV.

WHAT CAN HAPPEN

Increases the possibility of an accident or equipment damage.

HOW TO AVOID THE HAZARD

Always inspect your ATV each time you use it to make sure the ATV is in safe operating condition.

Always follow the inspection and maintenance procedures and schedules described in this Operator's Manual.

⚠ WARNING

POTENTIAL HAZARD

Failure to use extra care when operating the ATV on unfamiliar terrain.

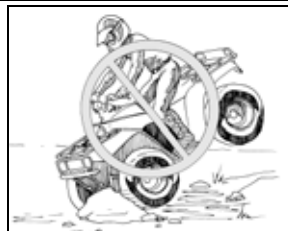
WHAT CAN HAPPEN

You can come upon hidden rocks, bumps, or holes without enough time to react.

Could result in the ATV overturning or going out of control.

HOW TO AVOID THE HAZARD

Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the ATV.



⚠ WARNING

POTENTIAL HAZARD

Removing hands from handlebar or feet from footrests during operation.

WHAT CAN HAPPEN

Removing even one hand or foot can reduce your ability to control the ATV or could cause you to lose your balance and fall off the ATV. If you remove a foot from a footrest, your foot or leg may come into contact with the wheels, which could injure you or cause an accident.

HOW TO AVOID THE HAZARD

Always keep both hands on the handlebar and both feet on the footrests of your ATV during operation.

⚠ WARNING

POTENTIAL HAZARD

Operating on steep hills.

WHAT CAN HAPPEN

The ATV can overturn more easily on steep hills than on level surfaces or small hills.

HOW TO AVOID THE HAZARD

Never operate the ATV on hills too steep for the ATV or for your abilities. Practice on smaller hills before attempting larger hills.



⚠ WARNING

POTENTIAL HAZARD

Turning improperly.

WHAT CAN HAPPEN

ATV could go out of control, causing a collision or rollover.

HOW TO AVOID THE HAZARD

Always follow proper procedures for turning as described in this Operator's Manual.

Practice turning at slow speeds before attempting to turn at faster speeds.

Do not turn at excessive speed.

⚠ WARNING

POTENTIAL HAZARD

Failure to use extra care when operating on rough, slippery, or loose terrain.

WHAT CAN HAPPEN

Could cause loss of traction or control of the ATV, which could result in an accident including an overturn.

HOW TO AVOID THE HAZARD

Do not operate on rough, slippery, or loose terrain until you have learned and practiced the skills necessary to control the ATV on such terrain.

Always be especially cautious on these kinds of terrain.



⚠ WARNING

POTENTIAL HAZARD

Climbing hills improperly.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Always follow proper procedures for climbing hills as described in this Operator's Manual.

Always check the terrain carefully before you start up any hill.

Never climb hills with slippery or loose surfaces.

Shift your weight forward.

Never open the throttle suddenly. The ATV could flip over backwards.

Never go over the top of any hill at high speed. An obstacle, a sharp drop, or another vehicle or person could be on the other side of the hill.



**NEVER OPERATE UP OR DOWN
INCLINES STEEPER THAN 15°**



⚠ WARNING

POTENTIAL HAZARD

Going down a hill improperly.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

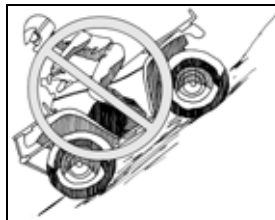
Always follow proper procedures for going down hills as described in this Operator's Manual.

Always check the terrain carefully before you start down any hill.

Shift your weight backward.

Never go down a hill at high speed.

Avoid going down a hill at an angle that would cause the ATV to lean sharply to one side. Go straight down the hill where possible.



⚠ WARNING

POTENTIAL HAZARD

Operating the ATV through deep or fast-flowing water.

WHAT CAN HAPPEN

Tires may float, causing loss of traction and loss of control, which could lead to an accident.

HOW TO AVOID THE HAZARD

Never operate the ATV in fast-flowing water or in water deeper than the footrests.

Remember that wet brakes may have reduced stopping capability.

Test your brakes after leaving water. If necessary, apply them several times to dry out the brakes.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **13**

⚠ WARNING

POTENTIAL HAZARD

Stalling, rolling backwards, or improperly dismounting while climbing a hill.

WHAT CAN HAPPEN

Could result in the ATV overturning.

HOW TO AVOID THE HAZARD

Use proper gear and maintain steady speed when climbing a hill.

If you lose all forward speed:

Keep weight uphill.

Apply the brakes.

Engage the parking brake after you are stopped.

If you begin rolling backwards:

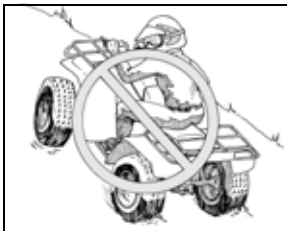
Keep weight uphill.

Gradually apply the brakes while rolling backwards.

When fully stopped, engage the parking brake.

Dismount on uphill side or to a side if pointed straight uphill.

Turn the ATV around and mount following the procedure described in this Operator's Manual.



⚠ WARNING

POTENTIAL HAZARD

Operating the ATV with improper tires or with improper or uneven tire pressure.

WHAT CAN HAPPEN

Use of improper tires on the ATV, or operation of the ATV with improper or uneven tire pressure, may cause loss of control increasing your risk of accident.

HOW TO AVOID THE HAZARD

Always use the size and type tires specified in this Operator's Manual for this ATV.

Always maintain proper tire pressure as described in this Operator's Manual.

⚠ WARNING

POTENTIAL HAZARD

Skidding or sliding.

WHAT CAN HAPPEN

You may lose control of the ATV.

You may also regain traction unexpectedly, which may cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Learn to safely control skidding or sliding by practicing at slow speeds and on level, smooth terrain.

On extremely slippery surfaces, such as ice, go slowly and be very cautious in order to reduce the chance of skidding or sliding out of control.

⚠ WARNING

POTENTIAL HAZARD

Improperly operating over obstacles.

WHAT CAN HAPPEN

Could cause loss of control or a collision. Could cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Before operating in a new area, check for obstacles.

Never attempt to ride over large obstacles, such as large rocks or fallen trees.

When you go over obstacles, always follow proper procedures as described in this Operator's Manual.

⚠ WARNING

POTENTIAL HAZARD

Operating the ATV with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modification of the ATV may cause changes in handling which could lead to an accident.

HOW TO AVOID THE HAZARD

Never modify the ATV through improper installation or improper use of accessories. All parts and accessories added to this ATV should be approved components designed for use on the vehicle and should be installed and used according to instructions. Never install a twist grip throttle. If you have questions, consult an authorized dealer.

⚠ WARNING

POTENTIAL HAZARD

Improperly crossing hills or turning on hills.

WHAT CAN HAPPEN

Could cause loss of control or cause the ATV to overturn.

HOW TO AVOID THE HAZARD

Avoid crossing the side of a hill or turning on a hill whenever possible. Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in this Operator's Manual. Practice first on level ground. Be very careful when turning on any hill.

If crossing the side of a hill or turning on a hill is unavoidable:

Always follow proper procedures as described in this Operator's Manual. Avoid hills with slippery or loose surfaces. Shift your weight to the uphill side of the ATV.



⚠ WARNING

POTENTIAL HAZARD

Failure to release the parking brake before driving the ATV.

WHAT CAN HAPPEN

Driving the ATV with the parking brake engaged could cause a change in handling or loss of brakes and cause an accident.

HOW TO AVOID THE HAZARD

Always release the parking brake before driving the ATV.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **15**

Prevention

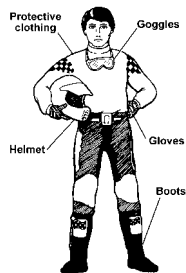
Overview

When using an ATV, prevention is the name of the game. “Had you only known” something could go wrong, you would have prevented it. If you don’t notice your conditions and surroundings before riding your ATV, you give up control over the situation. Using ATV prevention techniques helps you forecast potential hazards before they injure you or damage your ATV.

Following the safety instructions and warnings in this manual will help you “P.A.S.S.” the safety test. P.A.S.S. stands for “**P**revention,” “**A**ctive Riding,” “**S**ound Judgment,” and “**S**upervision.” Remembering P.A.S.S. and what it stands for will help you have a safe, predictable ride every time you go out on your ATV.

Clothing and Gear

You’ll find it important to dress correctly for ATV riding in order to prevent scraped skin and serious head injuries. It’s easy and could save you time in the long run not having to contend with an injury. Of course, it also makes sense to remember the seasons. Wear a hat under your helmet and a snowmobile suit in the winter and lighter, protective clothing in the summer.



ATV-0004

Helmet

There are several types of helmets on the market, but make sure you wear a helmet that complies with the current standards of the U.S. Department of Transportation (DOT), The Snell Memorial Foundation, or the American National Standards Institute (ANSI). Helmets that comply with one or more of these agency’s standards have a sticker on the inside or outside of the helmet.

These helmets should provide full-face protection.

If you drop or damage your helmet, get a new one immediately. Your helmet may not protect your head from injury if it has cracks, fissures, or other damage to its outside or core padding.

Remember, your helmet won’t do you any good if the chin strap isn’t fastened.

Eye Protection

Wear eye protection, such as goggles, to completely surround your eyes to prevent getting dirt or other items in your eyes. Sunglasses are not recommended; they don’t prevent objects from flying in through the sides.

Long Pants and Long-Sleeved Shirt

The goal is to protect your body from branches, long grass, airborne objects, or anything else that could scrape your skin. The more thick and durable the material, the better protection it’ll provide.

Helmets should have one of these:

1. DOT label
2. Snell label
3. ANSI Z90.1 label



Gloves

Your hands are targets for flying objects and branches. Along with providing skin protection, gloves will shield your hands from harsh weather. Wear gloves that are weather resistant and have a gripping surface to keep them from sliding off the handlebar.

Boots/Ankle Protection

Wear a boot that covers the largest possible area of your leg (preferably up to your knee) and can handle significant impact. Choosing boots with low heels and a good tread will help prevent your feet from slipping off the footrests in wet or rugged conditions or getting hurt if they get hit by rocks, dirt, or branches.

Condition of the ATV

The second step in Prevention is checking the condition of your ATV. Chances are good that you'll be using your ATV in some rough terrain, and there's no way you want your brakes to go out when riding downhill. You need to check the following parts on your ATV before every ride.

1. Tires and Wheels
2. Controls and Cable
3. Lights and Electrical System
4. Oil and Fuel
5. Chassis
6. Miscellaneous Items

1. Tires and Wheels

Correct tire pressure is crucial. Consult the General Maintenance section of this Operator's Manual for tire pressure guidelines. Incorrect tire pressure can cause poor handling, instability, and a loss of ATV control.

Check:

1. Tire pressure
2. Tire surface (tread and sidewalls)

While checking the tire pressure, inspect the tread and sidewalls of the tires for cracks, cuts, or other damage that could indicate they need to be replaced.

2. Controls and Cable

A. Brakes

Squeeze your hand brake levers. If they feel soft or "squishy," the brakes may need adjustment. Check the maintenance section of this Operator's Manual for instructions. Don't use the ATV until the brakes are operating normally.

Check:

1. Hand brake levers
2. Parking brake

Test the parking brake and see if it locks the rear wheels; then disengage it to release the brake. Ensure that the hand brakes are working properly; your brakes could fail during a ride if they're not maintained.

B. Throttle

Before starting the ATV, push the throttle lever several times. The throttle should have a free, smooth range of motion. If it seems to "stick" at any point, refer to the General Maintenance section of this Operator's Manual for instructions. Driving your ATV with a sticking throttle can turn your leisurely ride into an unwelcome accident. Don't drive your ATV if the throttle sticks.

Check:

1. Free, smooth range of motion

3. Lights and Electrical System

Check that the brake light and headlights work. Don't drive the ATV unless all systems are working. Check the ignition switch and emergency stop switch.

Check:

1. Brake light
2. Headlights
3. Ignition switch
4. Emergency stop switch



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **17**

4. Oil and Fuel

Start with a full tank of gas and check engine oil before every ride. Don't forget to check for fluid leaks around the ATV.

5. Chassis

Grass and leaves can gum-up your suspension and shocks. Clear and clean the suspension arms, shock springs, and fenders. Check smoothness by turning the handlebar full-left and full-right. Check that there is no binding, restrictions, free-play, or looseness in steering components. Check and clear the drive chain and sprockets of foreign materials and debris. Check drive chain adjustment.

6. Miscellaneous Items

Inspect your air filter. Look for debris or damage that may indicate you need to replace it. A clogged filter can stop an engine. Check your battery terminals for corrosion. Also, be sure to tighten any loose parts, nuts, or bolts.

Check:

1. Gas
2. Oil
3. Fluid leaks

Check:

1. Suspension arms
2. Shock springs
3. Fenders
4. Steering
5. Drive chain

Check:

1. Air filter
2. Battery
3. Tighten parts, nuts, and bolts

For rides that are longer in duration and distance, the following additional items are recommended:

- Cellular Phone
- Maps/GPS
- Emergency Kit *with Flashlight and First-Aid Kit*

Tools

Routine maintenance will generally eliminate the need for emergency repairs. Riding on rough terrain could loosen nuts, bolts, and fasteners. Especially on long rides, carrying the right tools can prevent an inconvenience from becoming a crisis.

Water

Water is so important that you need to carry it regardless of the duration of your ride. Heat exhaustion and heat stroke can creep up suddenly and can take you out of commission. If you become dehydrated, you could find yourself physically unable to safely operate your ATV.

Identification

If something does happen to you, the emergency personnel will want to know who you are and whom to contact. It's possible you may be in no condition to give them that information. Put your I.D. in your pocket before you ride. Without it, you're anonymous.

Cellular Phone

It may be necessary to make an urgent phone call.

Maps/GPS (Global Positioning System)

Maps may be unnecessary when you're familiar with the area. But when you're riding on unfamiliar trails, it's good to know where you are, what's coming up, and how to get back.

Carry these items on your ATV:

1. Bulbs
2. Duct tape
3. Rope
4. Spark plugs
5. Spare parts
6. Tool kit

First Aid and Survival

You need to prepare for the unexpected. Emergencies and accidents are traumatic enough, but they're even worse when you're not prepared for them. At the minimum during every ATV ride, you should have the following items on board:

- Tools
- Water
- Identification
- First-Aid Kit



Emergency Kit with Flashlight and First-Aid Kit

You'll need several items in your emergency kit including a flashlight. The matches will come in handy if you need to start a fire to stay warm. Flares are appropriate for signaling help. A first-aid kit is very important if an injury of some type should happen. A good first-aid kit should include bandages, antiseptic spray, gauze, tape, etc.

Carry these items:

1. Flashlight
2. Matches
3. Flares
4. First-aid kit
5. Money

Active Riding Overview

“Active Riding” is the second part of P.A.S.S. It involves an understanding of how your body weight, balance, gravity, and physical forces affect the handling of the ATV. Knowing how to shift your weight is necessary to avoid rolling or flipping the ATV.

For complete operating instructions, see the ATV Operation section in this manual.



Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **19**

Sound Judgment

Those Around You

People do all kinds of things that you can't predict or control.

Riding Companions

Leave a lot of space between you and other riders, especially in dusty and dirty conditions, because it'll be difficult to see the riders in front of you stopping.

Do not carry a passenger on any ATV designed for single-rider use. These ATVs do not have appropriate equipment (handholds, footrests, etc) to accommodate riders. Additionally, the added weight and weight shift can make the vehicle difficult to control.

Other Vehicles

Depending on where you're riding, you might encounter other ATVs, bikes, or motor vehicles on public lands. Respect the presence of cars if you're crossing roads or riding in public areas and make yourself be seen. If you can't see other vehicles coming, that means you're invisible, too.

Hikers

With the renewed interest in hiking, camping, and other outdoor activities, people can show up in remote areas where you would never expect them. For their sake, keep your eyes open.

Animals and Nature

Respect the outdoors that you love. Don't use your ATV to chase animals or birds. Drive around young trees rather than over them. Keep clear of streams and ditches with standing water.

Tread Lightly and leave it as you found it.

Environment

The environment you operate an ATV in is often harsh and sometimes dangerous if you don't take proper precautions.

Weather

You need to consider the weather. It is dangerous to ride your ATV when the weather is bad or potentially bad. Keep abreast with weather forecasts.

Terrain

Always pay close attention to the terrain you're on even if it is familiar to you. You can't assume that the landscape you're used to doesn't change. Changes to landscape can happen at nearly any time. Fences can be constructed and excavations dug in a short period of time. Weather, climate, and development take their toll.

Constantly be aware of your surroundings before and during your ride.

Night Riding

Riding at night can be very hazardous. Obstacles and other hazards (that are easily identified during daytime) are much more difficult to see and avoid. When night riding, make sure the lights are properly adjusted and in good working order. Reduce speed; do not over-drive the headlights. Never travel in an unfamiliar area or blaze a new trail at night. Always carry a flashlight or flare for signaling an emergency.

Paved Surfaces

Avoid whenever possible. The ATV isn't designed for pavement. Its handling becomes more difficult on paved surfaces. If operating on paved surfaces is unavoidable, travel slowly (less than 10 mph [16 km/h]) and avoid sudden turns and stops.

Trail Riding

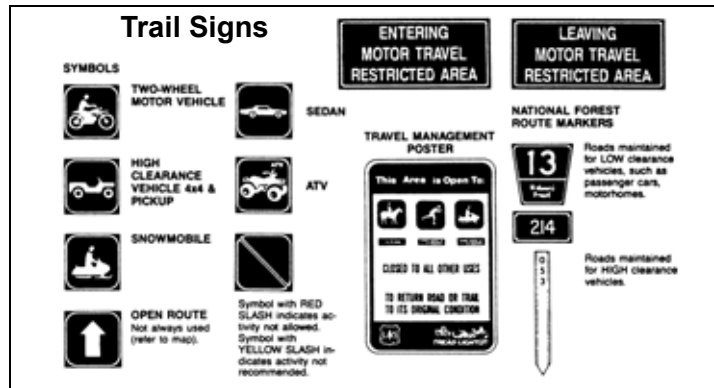
Use sound judgment when trail riding; that means riding on a trail that fits your ability level. If the trail is pretty rugged, standing up on your footrests will make it easier for you to endure the rough terrain.

Make yourself visible by using headlights and taillight and pull completely off the trail if you need to stop.

Keep your weight shifted into the slope.



It also helps to know which trails you can legally ride and who else might be on those same trails. These are signs currently used in some areas to designate trail types and restrictions.



ATV-0068

Equipment

The last thing you expected was that your ATV would break down in the middle of the field ... it's usually so reliable that sometimes you forget the ATV has its limits.

ATV Maintenance

You have to maintain your ATV. The General Maintenance section of this Operator's Manual tells you about taking care of your ATV. If, at any time, abnormal noises, vibrations, or improper functioning of any component of this ATV is detected, DO NOT OPERATE THE ATV. Take the ATV to an authorized dealer for inspection and adjustment or repair.

Load Capacity Ratings Chart

Item	Specifications	
	(lb)	(kg)
Maximum Load Capacity	175	79
Front Rack (max)	10	4.5
Rear Rack (max)	15	6.8

Maximum Load Capacity — Total weight of operator, accessories, and cargo on front and rear racks.

Personal Choices

A safe, enjoyable ride is dependent on many personal choices. An ATV, like all motorized vehicles, can be dangerous to operate if you choose to ignore safety precautions, take unnecessary chances, or ride beyond your ability or your vehicle's capability. Don't allow the thrill of freedom or adventure to affect your ability to make good, safe choices.

Your Physical Condition

Your physical condition is critical to safe ATV operation. Don't ride when tired and consider your health when planning longer rides.

Don't ride:

1. When you're tired

Reckless Riding

Where excessive or high speed is a factor, the potential for personal injury is greatly increased. Ride within reason and your skill level. Avoid maneuvers that are reckless. Don't show off.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **21**

Laws and Regulations

Any police officer will tell you that ignorance of the law is no defense. Your best defense is to check out your local, state, or provincial ATV laws before riding. It'll also make sure that you can continue to ride in your favorite areas. The quickest way to have a land area closed is by riding over the regulations.

Group Behavior

When riding in a group, it is human nature to try to keep up with or outdo those around you. We can all be competitive and that can lead to risk taking resulting in serious injury or equipment damage. Know your limitations and don't be afraid to slow the pace down.



Supervision

Overview

You're responsible for supervising those who ride your ATV. Your wisdom is valuable ... it'll bring them all back safely — your friends, your family, your relatives, and your ATV. It's crucial that you consider yourself a supervisor for all riders of your ATV. Whether you accept responsibility or not, the truth is that you are responsible for others riding your ATV.

Taking Responsibility

You're to the last letter in P.A.S.S.: "Supervision." You've just gone through the manual, and you've seen what's involved. That puts you in a good position to be confident about what you know. So now it's time to use your knowledge and supervise others who ride your ATV.

Inexperienced/Untrained Riders

You can't let people ride your ATV who don't know what they're doing. Unless they've had over a year of experience with ATV riding or taken an ATV training course, it's your responsibility to keep them off your ATV. It can be dangerous (especially for underaged children) — all the more reason for you to be firm.

Experienced/Trained Riders

If anyone is going to borrow your ATV, you are responsible for their supervision. Before they ride, have them take the training course, have them watch the safety video, have them read the Operator's Manual, and train them.

ATVs are all a little different from the handling to the stability to the controls. So regardless of how much experience your family members have with ATVs, they don't have experience with **your** ATV. Let experienced riders get familiar with your ATV — show them the basics before they take off. You don't want it on your conscience that someone got hurt because you didn't tell them how to use your ATV.

Remember that regardless of experience, you should never let anyone under the age of 10 operate your ATV.

The manufacturer and the ATV Safety Institute (U.S.) recommend that all ATV operators ride the appropriate-sized ATV according to age.

Category	Age (Years)	Speed Limitations in mph (km/h)	NOTES
Y-10+	10 or Older	Limited — 15 (24) Maximum — 30 (48)	Operate Under Adult Supervision
T-14	14 or Older	Limited — 20 (32) Limited — 30 (48) Maximum — 38 (61)	Operate Under Adult Supervision
G & S	16 or Older	According to Local Regulations	—



WARNING

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Division II — Operation/ Maintenance Specifications

ENGINE	
Type	Four-Cycle/OHC/Air Cooled
Bore x Stroke	47 x 51.8 mm (1.85 x 1.62 in)
Displacement	89.9 cc (5.5 cu in)
Spark Plug Type	CR7HSA
Spark Plug Gap	0.6 – 0.7 mm (0.024 – 0.028 in)
CHASSIS	
Length (Overall)	146.8 mm (57.8 in)
Height (Overall)	96.3 mm (37.9 in)
Width (Overall)	87.6 mm (34.5 in)
Tire Size (Front)	AT20 x 7-8
Tire Size (Rear)	AT19 x 8-8
Tire Inflation Pressure	27.6 kPa (4.0 psi)
Brake Type	Front Double Drum/Rear Hydraulic Disc w/Parking Brake
MISCELLANEOUS	
Dry Weight (Approx.)	120 kg (265 lb)
Gas Tank Capacity (Rated)	5.7 L (1.5 U.S. gal)
Reserve Capacity	1.3 L (0.34 U.S. gal)
Transmission Lubricant (Recommended)	SAE 80W-90 Hypoid
Transmission Lubricant Capacity	250 mL (8.4 fl oz)
Engine Oil Capacity (Approx.)	0.8 L (0.84 U.S. qt)
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	0W-40 ACX All Weather (Synthetic)
Headlights	12 V — 15 W
Brake Light	12 V — P21, 5 W
Starting System	Electric w/Kick Start (Emergency)

Specifications subject to change without notice.

Location of Controls

1. Battery
2. Front Brake Lever
3. Fuel Valve
4. Seat Lock Lever
5. Tool Storage
6. Parking Brake
7. Key Switch
8. Throttle Limiter
9. Throttle Lever
10. Taillight/Brake Light
11. Kick Start Lever
12. Emergency Stop Switch
13. Starter Button
14. Rear Brake Lever
15. Oil Level Stick
16. Shift Lever

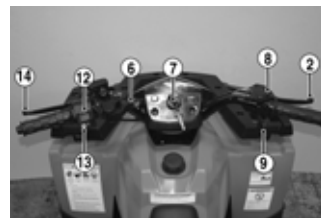
■ **NOTE:** Your ATV may differ slightly from the illustrations shown in this manual.



KM961A



KM962A



KM963A

ATV Operation

Basic Operating Maneuvers

Active riding and basic maneuvers are the foundation of your ATV ride. Without basic skills, it's impossible to execute active riding. These are your basic maneuvers:

- Mounting the ATV
- Starting the Engine
- Emergency Starting
- Starting a Cold Engine
- Braking/Stopping
- Parking
- Dismounting the ATV

Mounting the ATV

1. From the left side, grab the left-side handlebar, apply the brake, and put your left foot on the footrest.
2. Grab the right-side handlebar.
3. Swing your leg over the seat and set your right foot down on the right-side footrest.
4. Get seated in a comfortable position.
5. Always keep your feet planted on the footrests.

Starting the Engine

Always start with the ATV on a flat, level surface. Carbon monoxide poisoning can kill you, so keep your ATV outside while it's running. Follow these steps to start it up:

1. Engage the parking brake.
2. Mount the ATV and sit down.
3. Turn on the fuel valve.
4. Turn on the ignition.
5. Shift into neutral.
6. Move the emergency stop switch to RUN.

CAUTION

Do not run the starter motor for more than eight seconds per starting attempt. The starter motor may overheat causing severe starter motor damage. Allow 15 seconds between starting attempts to allow the starter motor to cool.

7. Squeeze and hold either hand brake lever.
8. Press the starter button.
9. Let the engine warm up.

Emergency Starting

This ATV has an emergency kick starter to use if the electric starter becomes inoperative. To use the starter, follow this procedure:

⚠ WARNING

Ensure the parking brake is engaged when using the emergency kick starter.

1. Push down on the kick starter until resistance is felt; then with a short, quick, downward stroke, start engine.
2. Repeat until the engine starts.
3. After making sure that the engine is warm, apply the front brakes and release the parking brake.



KM002

Starting a Cold Engine

■ **NOTE:** It is very important not to touch or compress the throttle lever during the starting procedures.

1. Rotate the ignition switch key to the first position (ON).

2. Compress the left-hand brake lever; then press on the starter button.

CAUTION

Do not run the starter motor for more than eight seconds per starting attempt. The starter motor may overheat causing severe starter motor damage. Allow 15 seconds between starting attempts to allow the starter motor to cool.

3. Allow the engine to warm up for approximately 2 to 2-1/2 minutes. Do not touch the throttle lever until the engine has run for at least 3 minutes.
4. Run the engine for at least 10 minutes so it is thoroughly warmed up. If the engine is run for a shorter period of time, the spark plug may not have reached a high enough temperature to burn off the excess fuel in the combustion chamber.

CAUTION

If unburned fuel is collected in the combustion chamber due to lack of running time, spark plug fouling will occur more easily during the next starting attempt.

Braking/Stopping

Coming to a stop should be a slow, easy process. Always allow plenty of room and time to stop smoothly. Sometimes quick stops are inevitable, so always be prepared. Whether you're stopping slowly or stopping quickly, do this:

1. Compress both right and left brake levers on the handlebars to apply both the front and rear brakes.
2. If your wheels lock, release them for a second; then apply them again.
3. Never "ride" the brakes. Even maintaining minimal pressure on a brake lever will cause the brake shoes to drag on the drums and overheat the brake system.

Parking

Parking involves following the previous rules for braking; then:

1. After the ATV stops, shift into neutral.
2. Stop the engine using the emergency stop switch.
3. Turn off the ignition.
4. Engage the parking brake.



WARNING

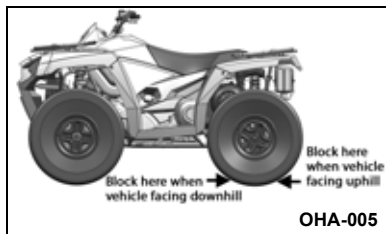
Parking on any incline can allow the vehicle to move, causing injury or damage.

CAUTION

Parking on any incline puts excessive loads on shifting mechanisms and can cause hard shifting and/or stress on parts.

If parking on a hill or any incline is the only alternative, use caution and follow these procedures after the vehicle stops:

1. Engage the parking brake.
2. Shift into forward gear.
3. Turn off the ignition.
4. Verify ATV is in gear before dismounting.



5. Block rear wheels on the downhill side.

Dismounting the ATV

After you've followed the procedure for parking, it's time to dismount.

1. Verify the parking brake is engaged.
2. Swing your right leg over to the left side of the seat.
3. Step to the ground on the left side of the ATV.

Handling the ATV (Active Riding Techniques)

Active riding involves moving your body. You must learn to lean and shift your weight into your turns to maintain control.

Your safety depends on using safe riding techniques. Statistics from the U.S. Consumer Product Safety Commission (CPSC) say that inexperienced riders who don't use safe riding techniques are **13 times more likely to have an ATV accident** than riders who have over 1 month of experience.

Tips

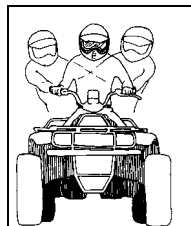
Safe riding techniques include:

- Riding
- Leaning, Weight Shift, and Balance
- K-Turns
- Riding Uphill
- Sidehilling/Traversing
- Riding Downhill
- Wide Turns
- Sharp Turns
- Crossing Obstacles

Riding

Once the engine's warm, the ATV is ready to go.

1. Keep your feet on the footrests and both hands on the handlebar.
2. Hold the brake levers, and release the parking brake.
3. Release the brakes slowly and apply the throttle.



ATV-0012

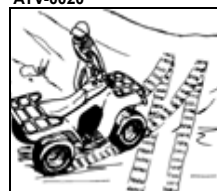
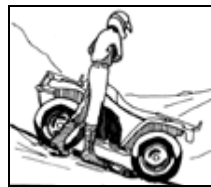
Leaning, Weight Shift, and Balance

When you turn, the trick is to move forward and slide over to the side of the seat that's on the inside of the turn. Support your body weight on the outside footrest. At the same time, lean your body to the inside of the turn. Pay attention to the handling — if you feel the tires coming off the ground, reduce speed, shift more of your body weight to the side that's lifting, and make the turn wider if possible.



K-Turns

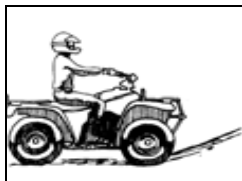
Use K-turns if you accidentally stall while riding uphill; you need to take action before the ATV rolls backward down the hill.



1. Stop where you are, apply the brakes.
2. Shut off the engine.
3. Keep your body weight shifted forward.
4. Get off the ATV on the uphill side.
5. If you're to the left of the ATV, turn the handlebar all the way left.
6. Partially release the brake, but lightly hold the brake lever.
7. Let the ATV roll to your right side until it faces slightly downhill.
8. Reapply the brakes.
9. Get back on the ATV from the uphill side, and keep your weight shifted uphill when you sit down.
10. Start the engine and follow the method for riding downhill.

Riding Uphill

Many accidents happen while riding on hills and as a result of the ATV rolling or flipping. So, obviously, use extreme caution and follow this method for riding uphill.



ATV-0019



ATV-0032



ATV-0033

1. Accelerate before you start climbing; then maintain a steady pace.
2. Lean as far forward as possible. For steeper hills, come off your seat to stand and lean forward.
3. If you lose speed, quickly release the throttle (so your front tires don't lift), **OR**
4. If that doesn't work and you still have forward motion and the terrain permits, do a U-turn, go back down, and try climbing again, **OR**
5. If you have lost all forward motion, follow the K-turn procedure.

**NEVER OPERATE UP
OR DOWN HILLS
STEEPER THAN 15°**



Sidehilling/Traversing

Sidehilling is considered an advanced skill; it's really tricky and unpredictable. So, whether your skills are advanced or not, try to avoid this kind of riding. If you're in a situation where you absolutely have to side-hill, follow this method:



ATV-0017



ATV-0028

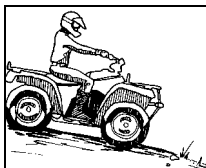


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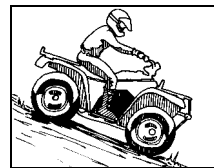
1. Keep your speed low and consistent.
2. Shift all your body weight to the uphill side of the seat; also, support your weight on the uphill footrest.
3. Steer like you're driving into the hill.
4. If the ATV feels like it's tipping, turn the handlebar downhill. If that's not possible because of the terrain or other conditions or if it just doesn't work, stop and get off. Dismount the ATV on the uphill side.

Riding Downhill

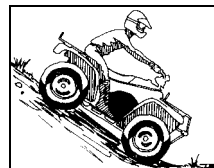
Success in riding downhill depends on how well you know your brakes - take it easy on them, or you could flip over.



ATV-0018



ATV-0030



ATV-0031

1. Shift your body weight as far back on the seat as possible.
2. Lightly apply the brakes and ease up on the throttle.

Wide Turns

Many ATV accidents happen during turns. If you don't understand turning techniques, it's easy for the ATV to get away from you by losing traction, plowing, or tipping. Use this method for wide turns:



ATV-0046



ATV-0045



ATV-0044

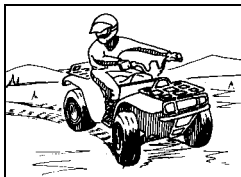
1. Ease off the throttle as you approach the turn to slow down.
2. Use the principles of leaning, weight shifting, and balancing — shift your body weight to the inside of the turn.
3. Gradually increase your speed as you come out of the turn.

Sharp Turns

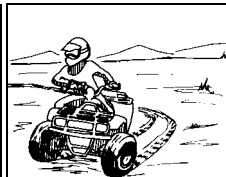
After mastering wide turns, practice the advanced skill of sharp turns.



ATV-0038



ATV-0039



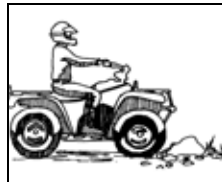
ATV-0040

1. Ease off the throttle as you approach the turn to slow down.

2. Use the principles of leaning, weight shifting, and balancing — shift your body weight to the inside of the turn.
3. You might have to lean into the turn more than you do in a wide turn.
4. If shifting your weight and balance aren't enough to keep the ATV tires on the ground, straighten out the handlebars as much as you can.
5. Gradually increase your speed as you come out of the turn.

Crossing Obstacles

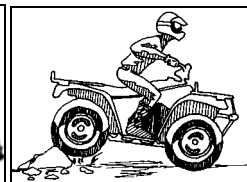
Crossing obstacles is risky; avoid it if possible. Riding over logs, rocks, and ruts means combining all the active riding skills into one big motion. Your ATV will respond differently for different obstacles (logs, ruts, etc.), but these are general guidelines for overcoming two-track (both tires contacting the obstacle at the same time) obstacles:



ATV-0016



ATV-0026



ATV-0027

1. Keep your speed way down; less than 5 mph (8 km/h).
2. Approach the obstacle head-on.
3. Come up off the seat.
4. Keep your weight on the footrests.
5. Apply a little throttle when the front tires make contact with the obstacle.
6. Lean forward and release the throttle when front tires clear the obstacle.

7. Keep your body loose to absorb any shock.
8. If the ATV starts tipping, shift your weight to keep it in balance.

To clear a single-track (only one tire contacts) obstacle, follow the same rules except:

1. Use the ATV's momentum to clear the obstacle.
2. Don't pull up on the handlebar.
3. Don't apply the throttle.

Crossing Water

Your ATV can only handle water up to its footrests. Any more than that and you risk engine damage and/or personal injury. Stay away from fast moving rivers. ATV tires can be buoyant, so if the water is too deep, you might find the ATV suddenly afloat.

1. Physically check the depth and current of the water, especially if you can't see the bottom. You're also checking for boulders, logs, or any other hidden obstacles.
2. Keep your speed slow.
3. Make sure you have a way out on the other side of the water.
4. If you get stuck in the sludge or mud, try rocking the ATV from side to side.
5. Once you've cleared the water, briefly apply the brakes to make sure they work.

WARNING

Do not operate this vehicle on a frozen body of water unless you have first verified the ice is sufficiently thick to support the vehicle, cargo, and participants. The vehicle could break through the ice causing serious injury or death.

Crossing Roads

Crossing roads on your ATV is also a bad idea, so avoid it. If you can't:

1. Stop completely on the shoulder of the road.
2. Check both directions for traffic.
3. Crossing near a blind corner or intersection is dangerous; don't do it.
4. Drive straight across to the opposite shoulder.
5. Take into account that your ATV could stall while crossing; give yourself enough time to get off the road.
6. You have to assume that oncoming cars don't see you, and if they do, they won't be able to predict your actions.
7. It's illegal to cross public roads in some places. Know your local laws.

Stopping the ATV

To stop the ATV, first release the throttle lever. Next, apply the brake.

Stopping the Engine

To stop the engine, turn the ignition switch key to the OFF position or set the emergency stop switch to the OFF position.

■ **NOTE: Leaving the ignition switch key in the ON position could result in a discharged battery.**

General Information

Control Locations and Functions

Ignition Switch Key

Two keys come with the ATV. Keep the spare key in a safe place.

Ignition Switch

The ignition switch has two positions.

OFF position — All electrical circuits are off. The engine will not start. The key can be removed in this position.

ON position — The ignition circuit is complete, the engine can be started with either hand brake compressed.



KM964

CAUTION

Always turn the ignition switch off when the engine is not running. Leaving the ignition switch in the ON position for a long period of time when the engine is not running may cause the battery to discharge.

Hand Brakes

The hand brakes should be applied whenever a braking situation is needed.

Apply the brakes by compressing the brake levers toward the handlebar.

Parking Brake

To engage and release the parking brake, use the following procedure:

1. Rotate the parking brake lever to the left to engage the brake.
2. Release the parking brake by turning the lever to the right.

Check to make sure the parking brake engages properly and that when engaged it locks the rear wheels.

1. Engage the parking brake.
2. Attempt to push the ATV.

■ **NOTE:** The parking brake must lock the rear wheels. If it doesn't, the rear brake system must be serviced.



KM965

⚠ WARNING

Always verify the parking brake has been disengaged before operating the ATV. An accident could result if the parking brake is left engaged while the ATV is operated. The brake may relax if left engaged for a long period of time. This could cause an accident. Always block the downhill side of the wheels if parking the ATV on an incline.

Headlights

The headlights will automatically illuminate when the engine is running.

Emergency Stop Switch

This switch will stop the engine. The engine can be started again by pressing the starter button.

OFF position — The ignition circuit is off. The engine cannot be started or will not run. If the switch is used to stop the engine without turning off ignition switch, the battery may discharge.

RUN position — The ignition circuit is on. The engine can start and run.

In an emergency, slide the switch to the OFF position to stop the engine. Apply the brakes to stop the wheels.

Electric Starter Button

Pushing in on this button activates the starter motor. Before starting the engine, make sure the ignition switch is in the ON position and the parking brake is engaged.



KM063B



KM064A

Throttle Lever

Control engine RPM with the position of the throttle lever. Operate this lever with the thumb. Pushing it forward increases engine RPM and allowing it to retract decreases engine RPM.

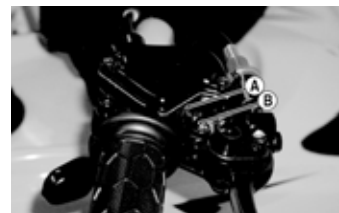
Throttle Limiter Screw

Throttle lever travel may be limited by adjusting the throttle limiter screw. The throttle limiter should be adjusted according to the operator's skill and experience. To adjust the throttle limiter, use the following procedure:

1. Loosen the jam nut (A).
2. Turn the throttle limiter screw (B) clockwise to decrease engine RPM maximum or counterclockwise to increase engine RPM maximum.
3. Tighten the jam nut (A) securely.



KM027A



KM028A

Fuel Valve

The fuel valve is incorporated in-line with the gas tank. There are three positions: ON, RES, and OFF.

In the OFF position, the valve will not allow gasoline to flow to the carburetor. In the ON position (the normal operating position), gasoline will flow from the tank to the carburetor. In this position, 1.3 L (0.34 U.S. gal) will remain in the tank as a reserve quantity.



KM043A

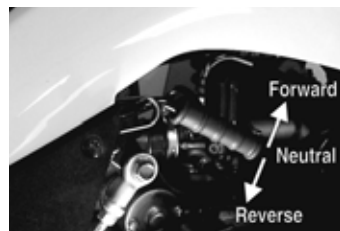
Moving the valve to the reserve (RES) position will allow the operator to use the remaining gasoline in the tank. When turning the valve to any of the three positions, be sure the indicator is pointed directly at the position desired.

⚠ WARNING

Never leave the valve in the ON or RES position when the engine is not running.

Shift Lever

1. To shift into forward gear, pull out and upward on the shift lever until the transmission engages in the forward gear.
2. To shift into reverse gear, pull out and push downward on the shift lever until the transmission engages the reverse gear. When in reverse with the ignition switch in the ON position, the reverse indicator light will illuminate.
3. To shift into neutral from either forward or reverse gear, push or pull the lever to the center position. When in neutral with the ignition switch in the ON position, the neutral indicator light will illuminate.



KM914A



KM966A



KM966B

WARNING

Always come to a complete stop with the engine at idle before moving the shift lever. Changing gears while moving or shifting from neutral with the engine above idle could cause sudden change of direction resulting in loss of control or being thrown from the ATV causing severe injury or death.

Carburetor Float Bowl Drain

Periodically, the float bowl should be drained to remove condensation. To drain the float bowl, use the following procedure:

1. Place a suitable container beneath the float bowl drain hose.
2. Loosen the drain screw and allow the gasoline and condensation to flow out.
3. Tighten the drain screw securely.



KM065

Oil Level Stick

There is an oil level stick for checking the engine oil level. To check the oil level, use the following procedure:

■ **NOTE:** The ATV should be on level ground when checking the engine oil level.

1. Unscrew the oil level stick and wipe it with a clean cloth.

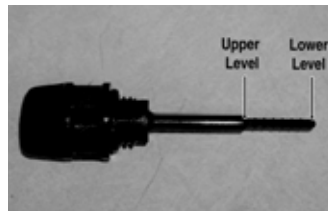


KM021A

2. Install the oil level stick completely into the engine crankcase.

■ **NOTE:** The oil level stick should be threaded into the engine crankcase for checking purposes.

3. Remove the oil level stick; the engine oil level should be between the lower level and upper level on the stick.



KM022A

CAUTION

Do not overfill the engine with oil. Always make sure the oil level is between the lower and upper levels on the stick.

Seat Lock

1. To remove the seat, pull the seat lock lever rearward (located at the rear of the ATV under the seat). Raise the rear end of the seat and slide it rearward.



KM013B

2. To lock the seat into position, slide the front of the seat into the seat retainers and push down firmly on back of seat. The seat should automatically lock into position.

WARNING

Make sure the seat is secure before mounting the ATV. Severe personal injury may result if the seat is not properly secured.

Safety Flag/Bracket

A bracket is provided for mounting a flag at the rear of the ATV. The flag should be displayed to make the ATV more visible.

Transporting ATV

When transporting the ATV, the ATV must be in its normal operating position (on all four wheels) and the following procedure must be used:

1. Engage the parking brake and place the transmission in gear.

CAUTION

Failure to engage the parking brake and place the transmission in gear could result in the ATV rolling off the trailer in the event of tie-down strap failure.

2. Turn the fuel valve OFF.
3. Secure the ATV with load rated hold-down straps.

■ **NOTE:** Suitable hold-down straps are available from your authorized dealer. Ordinary rope is not recommended because it can stretch under load.

CAUTION

When using hold-down straps, care must be taken not to damage the ATV.

Gasoline — Oil — Lubricant

Filling Gas Tank

WARNING

Always fill the gas tank in a well-ventilated area. Never add gasoline to the ATV gas tank near any open flames or with the engine running or hot. DO NOT SMOKE while filling the gas tank.

Since gasoline expands as its temperature increases, the gas tank must be filled to its rated capacity only. Expansion room must be maintained in the tank particularly if the tank is filled with cold gasoline and then moved to a warm area.

Allow the engine to cool before filling the gas tank. Care must be taken not to overfill the tank. If overfilled, gas may leak onto the engine creating a fire hazard.

WARNING

Do not overfill or over-flow gasoline when filling the gas tank. A fire hazard could materialize. Always allow the engine to cool before filling the gas tank.

Tighten the gas tank cap securely after filling the tank.

Recommended Gasoline

The recommended gasoline to use in this ATV is 87 minimum octane regular unleaded. In many areas, oxygenates are added to the gasoline. Oxygenated gasolines containing up to 10% ethanol or 5% methanol are acceptable gasolines.

When using ethanol-blended gasoline, it is not necessary to add a gasoline antifreeze since ethanol will prevent the accumulation of moisture in the fuel system.

CAUTION

Do not use white gas. Only approved gasoline additives should be used.

Recommended Engine Oil

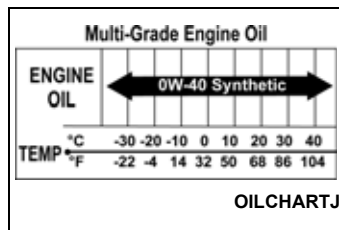
CAUTION

Any oil used in place of the recommended oil could cause serious engine damage. Do not use oils which contain graphite or molybdenum additives. These oils can adversely affect clutch operation. Also, not recommended are racing, vegetable, non-detergent, and castor-based oils.

The recommended oil to use is ACX All Weather Synthetic engine oil, which has been specifically formulated for use in this engine. Although ACX All Weather Synthetic engine oil is the only oil recommended for use in this engine, use of any API-certified SM 0W-40 oil is acceptable.

Recommended Transmission Lubricant

■ **NOTE:** The manufacturer recommends the use of genuine lubricants.



The recommended transmission lubricant to use is SAE 80W-90 hypoid.

CAUTION

Any lubricant used in place of the recommended one could cause serious transmission damage.

Engine Break-In

New ATVs and renewed ATV engines require a “break-in” period. The first month is most critical to the life of this ATV. Proper operation during this break-in period will help ensure maximum life and performance from the ATV.

During the first 3 hours of operation, always use less than 1/2 throttle. Varying the engine RPM during the break-in period allows the components to “load” (aiding the engine component mating process) and then “unload” (allowing components to cool). Although it is essential to place some stress on the engine components during break-in, care should be taken not to overload the engine too often.

When the engine starts, allow it to warm up properly. Idle the engine several minutes until the engine has reached normal operating temperature. Do not idle the engine for excessively long periods of time.

Maintenance after break-in should include checking of all prescribed adjustments and tightening of all fasteners. At the discretion and expense of the owner/operator, the ATV may be taken to an authorized dealer for this initial service.

General Maintenance

■ **NOTE:** Proper maintenance of the ATV is important for optimum performance. Follow the Maintenance Schedule and all ensuing maintenance and care instructions/information.

■ **NOTE:** Proper maintenance procedures for each item can be found on the corresponding page indicated.

If, at any time, abnormal noises, vibrations, or improper functioning of any component of this ATV is detected, DO NOT OPERATE THE ATV. Take the ATV to an authorized dealer for inspection and adjustment or repair.

A repair shop or person of the owner's choosing may maintain, replace, or repair emission-control devices and systems.

If the owner/operator does not feel qualified to perform any of these maintenance procedures or checks, take the ATV to an authorized dealer for professional service.

Maintenance Schedule					
Item	Page	Initial Service (100 mi./160 km)	Monthly	Quarterly	Annually
Air filter	46	I		I	
Battery	42	I	I	I	
*Brake components	40	I	Inspect every time before riding		
Brake light/headlights	47	I	Inspect every time before riding		
Carburetor float bowl	35	I	C		
Chassis	—			C, L	I
Chassis nuts and bolts	—	I	T	T	T
*Drive chain	—	I		I	
Electrical connections	—	I			I
Engine oil	39	R		R**	I
Fuel filter/tube	—	I		I	
Idle RPM	45	I			I
Parking brake	41	I	I, A		
Shock absorbers	39		I		
Spark plug	45			C	
*Steering	—	I	Inspect every time before riding		
*Suspension (Front tie rods/protective boots)	41	I	Inspect every time before riding		
Throttle cable	46	I	Inspect every time before riding		
Tires/air pressure	24,47	I	Inspect every time before riding		
Tire wear	47	I	I		
Transmission lubricant	40	R			I

I = Inspect and clean, adjust, lubricate, replace as necessary; C = Clean;

L = Lubricate; R = Replace; T = Tighten; A = Adjust

* = Dealer maintenance ** = When using ACX All Weather Synthetic oil, oil change interval can be increased to every 1000 miles (1609 km) or every year.

Shock Absorbers

Each shock absorber should be visibly checked weekly for excessive fluid leakage (some seal leakage may be observed but it does not indicate the shock is in need of replacement), cracks or breaks in the lower case, or a bent shock rod. If any one of these conditions is detected, replacement is necessary.

■ **NOTE:** When the ATV is operated in extremely cold weather (-23° C/-10° F or colder), a small amount of leakage may be present. Unless the leakage is excessive, replacement is not necessary.

Ramp-style adjusters are used to adjust shock preload. Rotate the adjuster toward the right to decrease preload or the left to increase preload.

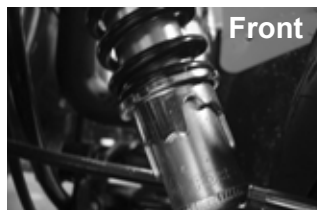
General Lubrication

Cables

None of the cables require lubrication; however, it is advisable to lubricate the ends of the cables periodically with a good cable lubricant.



KM967



KM968

Engine Oil

Change the engine oil at the scheduled intervals. The engine should always be warm so the oil will drain easily and completely.

1. Park the ATV on level ground.
2. Remove the oil level stick. Be careful not to allow contaminants to enter the opening.
3. Remove the oil drain plug from the left side of the engine; then remove the oil screen/filter cap from under the right-front of the engine and clean the screen.
4. Install the screen/filter cap, spring, and screen. Tighten to 11 ft-lb (15 N-m).
5. Install the drain plug and tighten to 22 ft-lb (29.9 N-m). Pour ACX All Weather Synthetic oil in the fill hole. Install oil level stick.
6. Start the engine (while the ATV is outside on level ground) and allow it to idle for a few minutes.



KM021A

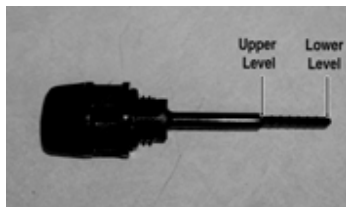


KM041A



KM040A

7. Shut the engine off; then allow oil to drain into the crankcase for approximately three minutes. Remove the oil level stick and check for proper oil level.



KM022A

Transmission Lubricant

Change the transmission lubricant at the scheduled intervals. The transmission should always be warm when the lubricant is changed so the lubricant will drain easily and completely.

1. Park the ATV on level ground.
2. Remove the fill plug. Be careful not to allow contaminants to enter the opening.
3. Remove the drain plug from the bottom of the transmission and drain the lubricant into a drain pan.
4. Install the drain plug and tighten to 18 ft-lb (24.5 N-m). Pour the recommended lubricant in the fill hole. Install the fill plug.



KM969A



KM970A

5. Remove the level plug and verify oil is at the plug threads. Install the level plug and tighten to 16 ft-lb (21.8 N-m).
6. Inspect the area around the drain plug for leaks.

Hand Brake System

WARNING

Be sure to inspect the hand brake system before each use. Always maintain brakes according to the Maintenance Schedule.

Adjusting Brakes

Checking/Adjusting Front Wheel Brake System

1. Raise ATV enough to allow the wheels to spin freely.
2. On the brake lever/cable assembly, loosen both jam nuts. Turn both cable adjusters counter-clockwise until both front wheels do not spin freely.
3. Turn both cable adjusters in 1/4-turn increments (clockwise) until wheels spin with a very slight amount of drag. Tighten the jam nuts.
4. Lower ATV, push ATV forward, and compress brake lever.
5. If front wheels lock, adjustment is correct.
6. If front wheels do not lock, additional adjustment is necessary.



KC555B

Checking/Adjusting Rear Wheel Hydraulic Brake System

The rear wheel hydraulic brake system should be checked for proper operation before every time the ATV is ridden.

CAUTION

Check through the rear brake reservoir sight glass that the fluid level is above the LOWER level line. If below the line, take the ATV to an authorized dealer for service.

■ **NOTE:** The rear wheels should spin freely when the left handlebar lever is not compressed.

1. Push the ATV forward and compress the left handlebar brake lever.
2. If the rear wheels lock, the hydraulic brake system is operating properly. If they do not lock, service is necessary.

Checking Parking Brake

1. With engine turned off and with the parking brake locked, attempt to move the ATV.
2. If rear wheels are locked, brake is operating properly.
3. If rear wheels are not locked, adjust the parking brake.

■ **NOTE:** The rear wheels should spin freely with the parking brake released.



Adjusting Parking Brake

■ **NOTE:** The parking brake lever must be in the off position when adjusting the parking brake cable.

1. Loosen the jam nut (A); then finger tighten the adjuster bolt (B) until resistance is felt.
2. Loosen the adjuster bolt (B) 1/8-1/4 turn.
3. While holding the adjuster bolt (B), tighten the jam nut (A) securely.



■ **NOTE:** There should be no resistance on the brake disc from the brake pads after adjusting.

Gas/Vent Hoses

Do not bend or obstruct the routing of the carburetor vent hose. Make certain that the vent hose is securely connected to the carburetor and hose holder and the opposite end is always open.

Protective Rubber Boots

The protective boots should be inspected periodically.

Suspension/Steering Arm Assembly (Right and Left)

1. Secure the ATV on a support stand to elevate the front wheels.
2. Remove both front wheels.
3. Inspect the suspension/steering arm assembly boots for cracks, tears, or perforations.

4. Check the bushing for free-play by grasping the steering knuckle and turning it from side to side and up and down.
5. If boot damage is present or bushing free-play seems excessive, contact an authorized dealer for service.



MD0040

Tie Rod Boots (Inner and Outer/Right and Left)

1. Secure the ATV on a support stand to elevate the front wheels.
2. Remove both front wheels.
3. Inspect the four tie rod boots for cracks, tears, or perforations.
4. Check the tie rod end free-play by grasping the tie rod near the end and attempting to move it up and down.
5. If boot damage is present or tie rod end free-play seems excessive, contact an authorized dealer for service.



MD0041

Battery

The battery is located under the seat.

After being in service, batteries require regular cleaning and recharging in order to deliver peak performance and maximum service life. The following procedure is recommended for cleaning and maintaining a sealed battery. Always read and follow instructions provided with battery chargers and battery products.

■ **NOTE:** Refer to all warnings and cautions provided with the battery or battery maintainer/charger.

Loss of battery charge may be caused by ambient temperature, ignition OFF current draw, corroded terminals, self discharge, frequent start/stops, and short engine run times. Frequent winch usage, snowplowing, extended low RPM operation, short trips, and high amperage accessory usage are also reasons for battery discharge.

Charging/ Maintenance Charging

■ **NOTE:** Use of the CTEK Multi US 800 for charging or the CTEK Multi US 3300 for maintenance charging is recommended. Maintenance charging is required on all batteries not used for more than two weeks or as required by battery drain.



800A

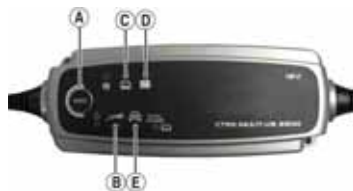
■ **NOTE:** When charging a battery in the vehicle, be sure the ignition switch is in the OFF position.

1. Clean the battery terminals with a solution of baking soda and water.
- **NOTE:** The sealing strip should NOT be removed and NO fluid should be added.
2. Be sure the charger and battery are in a well-ventilated area. Be sure the charger is unplugged from the 110-volt electrical outlet.
3. Connect the red terminal lead from the charger to the positive terminal of the battery; then connect the black terminal lead of the charger to the negative terminal of the battery.

■ **NOTE:** Optional battery charging adapters are available from your authorized dealer to connect directly to your vehicle from the recommended chargers to simplify the maintenance charging process. Check with your authorized dealer for proper installation of these charging adapter connectors.

4. Plug the battery charger into a 110-volt electrical outlet.

5. If using the CTEK Multi US 800, there are no further buttons to push. If using the CTEK Multi US 3300, press the Mode button (A) at the left of the charger until the Maintenance Charge Icon (B) or Normal Charge Icon (E) at the bottom illuminates. The Normal Charge Indicator (C) should illuminate on the upper portion of the battery charger.



3300C

■ **NOTE:** For optimal charge and performance, leave the charger connected to the battery for a minimum 1 hour after the Maintenance Charge Indicator (D) illuminates. The maintainer/charger will charge the battery to 95% capacity at which time the Maintenance Charge Indicator (D) will illuminate and the maintainer/charger will change to pulse/float maintenance. If the battery falls below 12.9 DC volts, the charger will automatically start again at the first step of the charge sequence. If the battery becomes hot to the touch, stop charging. Resume after it has cooled.

■ **NOTE:** Not using a battery charger with the proper float maintenance will damage the battery if connected over extended periods.

6. Once the battery has reached full charge, unplug the charger from the 110-volt electrical outlet.

■ **NOTE:** If, after charging, the battery does not perform to operator expectations, bring the battery to an authorized dealer for further troubleshooting.

Jump-Starting

■ **NOTE:** Jump-starting a vehicle with a dead battery is not recommended but rather removing the battery, servicing it, and correctly charging it; however, in an emergency, it may be necessary to jump-start a vehicle. If so, use the following procedure to carefully and safely jump-start a vehicle.

WARNING

Improper handling or connecting of a battery may result in severe injury including acid burns, electrical burns, or blindness as a result of an explosion. Always remove rings and watches.

1. On the vehicle to be jump-started, remove the battery cover and any terminal boots.

WARNING

Any time service is performed on a battery, the following must be observed: keep sparks, open flame, cigarettes, or any other flame away. Always wear safety glasses. Protect skin and clothing when handling a battery. When servicing battery in enclosed space, keep the area well-ventilated. Make sure battery venting is not obstructed.

2. Inspect the battery for any signs of electrolyte leaks, loose terminals, or bulging sides. Leaking or bulging battery cases may indicate a frozen or shorted battery.

⚠ WARNING

If any of these conditions exist, DO NOT attempt a jump-start, boost, or charge the battery. An explosion could occur causing serious injury.

3. Inspect the vehicle to be used for jump-starting to determine if voltage and ground polarity are compatible. The vehicle must have a 12-volt DC, negative ground electrical system.

CAUTION

Always make sure the electrical systems are of the same voltage and ground polarity prior to connecting jumper cables. If not, severe electrical damage may occur.

4. Move the vehicle to be used for the jump-start close enough to ensure the jumper cables easily reach; then shift into neutral, engage the parking brake, shut off all electrical accessories, and turn the ignition switch OFF.

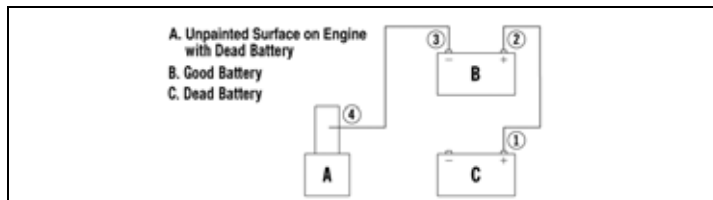
■ NOTE: Make sure all switches on the vehicle to be jump-started are turned OFF.

5. Disconnect all external accessories such as cell phones, GPS units, and radios on both vehicles.

CAUTION

Failure to disconnect electronic accessories during jump-starting may cause system damage due to power spikes.

6. Attach one clamp of the positive (red) jumper cable to the positive (+) terminal (1) of the dead battery (C) being careful not to touch any metal with the other clamp; then attach the other clamp of the positive (red) jumper cable to the positive (+) terminal (2) of the good battery (B).



0744-527

■ NOTE: Some jumper cables may be the same color but the clamps or ends will be color-coded red and black.

7. Attach one clamp of the negative (black) jumper cable to the negative (-) terminal (3) of the good battery (B); then attach the other clamp of the negative (black) jumper cable (4) to an unpainted metal surface (A) on the engine or frame well away from the dead battery and fuel system components.

⚠ WARNING

Never make the final connection to a battery as a spark could ignite hydrogen gases causing an explosion of the battery resulting in acid burns or blindness.

8. Stand well away from the dead battery and start the vehicle with the good battery. Allow the vehicle to run for several minutes applying some charge to the dead battery.
9. Start the vehicle with the dead battery and allow it to run for several minutes before disconnecting the jumper cables.

10. Remove the jumper cables in opposite order of hook-up (4, 3, 2, 1). Be careful not to short cables against bare metal.

■ **NOTE:** Have the battery and electrical system checked prior to operating the vehicle again.

Spark Plug

The ATV comes equipped with a specified spark plug. See the specifications chart for the correct spark plug. A light brown insulator indicates that the plug is correct. A white or dark insulator indicates that the engine may need to be serviced or the carburetor may need to be adjusted.

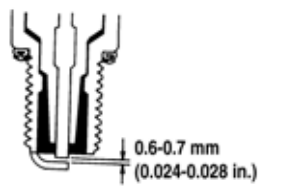


Consult an authorized dealer if the plug insulator is not a light brown color. To help prevent cold weather fouling, make sure to thoroughly warm up the engine before operating.

To maintain a hot, strong spark, keep the plug free of carbon.

Before removing the spark plug, be sure to clean the area around the spark plug. If you do not, dirt could enter engine when removing or installing the spark plug.

Adjust the gap to 0.6-0.7 mm (0.024-0.028 in) for proper ignition. Use a feeler gauge to check the gap.



A new spark plug should be tightened 1/2 turn once the washer contacts the cylinder head. A used spark plug should be tightened 1/8-1/4 turn once the washer contacts the cylinder head.

Engine Idle RPM Adjustment

To properly adjust the idle, a tachometer is necessary. If one is not available, take the ATV to an authorized dealer.

WARNING

Adjust the idle to the correct RPM. Make sure the engine is at normal operating temperature before adjusting the idle RPM.

1. Start the engine and warm it up to normal operating temperature.
2. Turn the idle adjustment screw in or out until the engine idles at 1700 RPM.

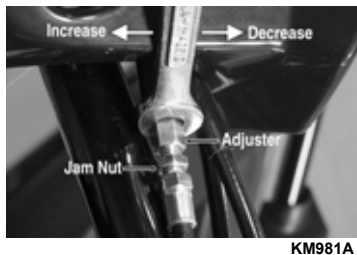


KM004A

Throttle Cable Adjustment

The throttle has been adjusted at the factory, and no adjustment should be necessary.

1. Pull back rubber boots to access cable adjustment nut.
2. Loosen jam nut to allow cable adjustment nut to be adjusted.
3. Turn cable adjustment nut clockwise to decrease free-play in the cable. Turn the adjustment nut counterclockwise to increase free-play in the cable.
4. There should be approximately 6 mm (1/4 in) free-play in the cable.
5. Tighten the jam nut to secure the adjustment.



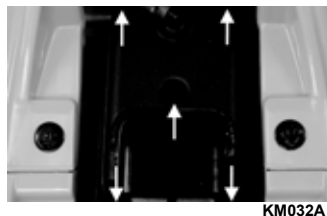
Air Filter

The air filter inside the air filter housing must be kept clean to provide good engine power and gas mileage. If the ATV is used under normal conditions, service the filter at the intervals specified. If operated in dusty, wet, or muddy conditions, inspect and service the filter more frequently. Use the following procedure to remove the filter and inspect and/or clean it:

CAUTION

Failure to inspect the air filter frequently if the ATV is used in dusty, wet, or muddy conditions can damage the engine.

1. Remove the seat; then remove the five screws securing the air filter housing cover.
2. Remove the air filter housing cover; then pull the filter out.
3. Place the element in a pan larger than the element and spray all sides generously with cleaning solvent, let sit approximately three minutes.
4. In a pan larger than the element, with a mild detergent (dish soap) and water, wash all the dirt and oil off by squeezing the element not twisting it (wringing out or twisting the filter can cause damage).



■ **NOTE: Foam Air Filter Cleaner and Foam Air Filter Oil Aerosol are available.**

5. Rinse off any remaining soap.
6. Remove any excess water from the element by matting with a towel.
7. Allow the element to dry completely.
8. Spray oil generously onto air filter and work the oil into the element.
9. Squeeze the element to remove excess oil.

CAUTION

A torn air filter can cause damage to the ATV engine. Dirt and dust may get inside the engine if the filter is torn. Carefully examine the filter for tears before and after cleaning it. Replace the filter with a new one if it is torn.

10. Clean any dirt or debris from inside the filter housing.
11. Inspect the drain cap beneath the main housing for debris and for proper sealing.
12. Install the air filter and secure with the clamp.

Tires

WARNING

Always use the size and type of tires as specified. Refer to the specifications chart for proper tire inflation pressure, and always maintain proper tire inflation pressure.

Tire Tread Condition

The use of worn-out tires on an ATV is very dangerous. A tire is considered to be worn out when the depth of the tread is less than 3 mm (1/8 in). Be sure to replace the tires before reaching this minimum specification.



0732-649

WARNING

The use of worn-out tires can be dangerous and can increase the risk of an accident.

Tire Replacement

The ATV has low-pressure tubeless tires. Have this maintenance performed by an authorized dealer or a qualified tire repair station.

WARNING

Use only approved tires when replacing tires. Failure to do so could result in unstable ATV operation.

Tubeless Tire Repair

Should a leak or flat tire occur due to a puncture, the tire may be repaired using a plug-type repair. If the damage is from a cut or if the puncture cannot be repaired using a plug, the tire must be replaced. When operating the ATV in areas where transportation or service facilities are not readily available, it is strongly recommended to carry a plug-type repair kit and a tire pump along.

Wheels

1. Park the ATV on level ground and engage the parking brake.
2. Loosen the wheel nuts on the wheel to be removed.
3. Elevate the ATV.
4. Remove the wheel nuts.
5. Remove the wheel.
6. Install the wheel and install wheel nuts.
7. Tighten in a crisscross pattern to 30 ft-lb (40.8 N-m).
8. Remove the jack.

Bulb Replacement

The wattage rating of the bulb is shown in the chart. When replacing a burned bulb, always use the same wattage rating.

Headlights	12 V — 15 W
Brake Light	12 V — P21, 5 W

CAUTION

Use only specified bulb indicated in the chart as replacement bulb.

■ **NOTE:** The bulb portion of the headlight is fragile. **HANDLE WITH CARE.** When replacing the headlight bulb, do not touch the glass portion of the bulb. If the glass is touched, it must be cleaned with a dry cloth before installing. Skin oil residue on the bulb will shorten the life of the bulb.

To replace the headlight bulb, use the following procedure:

1. Remove the rubber boot from the back of the headlight housing; then rotate the socket counterclockwise. Remove the bulb.
2. Install the new bulb into the housing; then secure the socket by turning clockwise.



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CAUTION

When replacing the headlight bulb, be careful not to touch the glass portion of the bulb. Grasp the new bulb with a clean cloth.

To replace the taillight/ brake light bulb, use the following procedure:

1. Remove the rubber boot and turn the socket counterclockwise. Account for the O-ring.
2. Push the bulb in and turn it counterclockwise.
3. Install the new bulb by turning it clockwise while pushing in.
4. Install the socket by turning it clockwise into the housing. Install the rubber boot.

Fuse

The main (7 amp) fuse is located in a fuse holder near the battery under the seat.

■ **NOTE:** To replace the fuse, open the holder and remove the fuse; then install the new fuse. A spare fuse is located within the holder.



KM031A

If there is any type of electrical system failure, always check the fuse first.

CAUTION

Always replace a blown fuse with a fuse of the same type and rating. If the new fuse blows after a short period of use, consult an authorized dealer immediately.

Storage Compartment/Tools

A basic tool kit is provided with the ATV. It is located under the seat.

Maintain the tool kit with the ATV at all times.



KM972

Preparation for Storage

CAUTION

Prior to storing the ATV, it must be properly serviced to prevent rusting and component deterioration.

Use the following procedure to prepare the ATV for storage:

1. Clean the ATV thoroughly by washing dirt, oil, grass, and other foreign matter from the entire ATV. Allow the ATV to dry thoroughly. DO NOT get water into any part of the engine or air intake.
2. Either drain the gas tank or add a fuel stabilizer to the gas in the gas tank.
3. Clean the interior of the air filter housing.
4. Drain the carburetor float chamber.
5. Plug the hole in the exhaust system with steel wool.

6. Apply light oil to the upper steering post bushing and plungers of the shock absorbers.
7. Tighten all nuts, bolts, cap screws, and screws. Make sure rivets holding components together are tight. Replace all loose rivets. Care must be taken that all calibrated nuts, cap screws, and bolts are tightened to specifications.
8. Disconnect the battery cables (negative cable first); then remove the battery, clean the battery posts and cables, and store in a clean, dry area.

■ **NOTE: For storage, use a battery maintainer or make sure the battery is fully charged (see Battery section in this manual).**

9. Store the ATV indoors in a level position.

CAUTION

Avoid storing outside in direct sunlight and avoid using a plastic cover as moisture will collect on the ATV causing rusting.

Preparation after Storage

Taking the ATV out of storage and correctly preparing it will ensure many hours of trouble-free riding. Use the following procedure:

1. Clean the ATV thoroughly.
2. Remove the steel wool from the exhaust system.
3. Check all control wires and cables for signs of wear or fraying. Replace if necessary.
4. Change the transmission lubricant.
5. Charge the battery; then install.
6. Connect the battery cables making sure to connect the positive cable first.
7. Check the entire brake system (cables, shoes, etc.), all controls, and brake light; adjust or replace if necessary.
8. Check the tire pressure. Inflate to recommended pressure as necessary.
9. Tighten all nuts, bolts, cap screws, and screws making sure all calibrated nuts, cap screws, and bolts are tightened to specifications.
10. Make sure the steering moves freely and does not bind.
11. Check the spark plug. Clean or replace as necessary.
12. Check the air filter and the air filter housing. Clean or replace as necessary.

Warranty Procedure/Owner Responsibility

At the time of sale, an ATV Rider Training Certificate and Owner Registration form must be completed by the selling dealer and consumer. The receipt of the form by Textron Specialized Vehicles (TSV) is a condition precedent to warranty coverage. It is the selling dealer's responsibility to retain and/or submit appropriate copies of the form to the appropriate place(s) to initiate warranty coverage.

The dealer will furnish to the consumer a signed copy of the form which must be presented to a dealer when requesting warranty service. The registration form is the consumer's proof of ownership and warranty eligibility. The form is used by the dealer to validate the warranty claim. You, the owner, should retain your copy of the form and keep it in a safe place.

When the need for warranty repair is suspected, the ATV should be taken to the selling dealer, if possible, who has the primary responsibility to perform warranty repairs. Subject to the limitations set forth in the Limited Warranty, in the event the selling dealer has ceased to do business, you have moved, or you are in a location away from your selling dealer, warranty may be performed by any authorized dealer.

The authorized dealer will examine the ATV or part to determine if, in its opinion, a warrantable condition exists. If a warrantable condition appears to exist, the dealer will repair or replace, at our option, free of charge, including any related labor costs, all parts that are found to be warrantable and any other parts which the warrantable part caused to be damaged. You, the owner, will then be asked to sign a warranty form to ensure TSV that the warranty work was actually performed.

It is the owner's responsibility to maintain and service the vehicle in accordance with this Operator's Manual. To protect yourself and your ATV, follow all safety and service tips. We will NOT warrant non-emissions related repairs required as a result of not performing standard operator maintenance, storage procedures, and service as outlined in the Operator's Manual.

Should you have any questions concerning the warranty, contact an authorized dealer.

U.S. EPA Emission Control Statement/Warranty Coverage (U.S. Only)

STATEMENT/WARRANTY

Textron Specialized Vehicles (TSV) warrants to the original retail purchaser, and each subsequent purchaser, that all U.S. EPA-certified TSV vehicles are designed, built, and equipped to conform to all U.S. EPA Emission Control Regulations. Please read the following information completely.

Your authorized dealer will repair or replace any defective emission-related component at no cost to you during the warranty period. You may have non-warranty service performed by any repair establishment that uses equivalent components. The regulations provide significant civil penalties for tampering that causes your vehicle to no longer meet U.S. EPA emission standards.

TSV further warrants that the engine and its emission-related components are free from defects in materials or workmanship that could cause the engine to fail to comply with applicable regulations during the warranty period.

If you have any questions about this information, or the emission warranty coverage statement, contact your authorized dealer.

WARRANTY PERIOD

The emission warranty period for this vehicle begins on the same date as the standard warranty coverage and continues for 30 months, 5000 kilometers (3107 miles), or 500 hours, whichever comes first.

OWNER'S RESPONSIBILITIES

The owner of any vehicle warranted under this Emission Control Statement is responsible for the proper maintenance and use of the vehicle as stated in the Operator's Manual. Proper maintenance generally includes replacement and service, at the owner's choosing, such items as air filter, oil and oil filter, or any other part, item, or device related to emissions control as specified in the Operator's Manual. It is the owner's responsibility to ensure that the vehicle is used in a manner for which it was designed.

COMPONENTS COVERED

I. For exhaust emissions, emission-related components include any engine parts related to the following systems:

Air-induction system.	Fuel system.
Ignition system.	Exhaust gas recirculation systems.

II. The following parts are also considered emission-related components for exhaust emissions:

Aftertreatment devices.	Crankcase ventilation valves.
Sensors.	Electronic control units.

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

Fuel Tank.	Fuel Cap.
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.

For U.S. EPA Emission Control Warranty coverage questions, contact Textron Specialized Vehicles at 218-681-9851.

California Emission Control Statement/Warranty Coverage — OHRV (U.S. Only)

STATEMENT/WARRANTY

The California Air Resources Board is pleased to explain the emission control system warranty on your OHRV. In California, new off-highway recreational vehicles must be designed, built and equipped to meet the State's stringent anti-smog standards. Textron Specialized Vehicles (TSV) must warrant the emission control system on your OHRV for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your OHRV.

Your emission control system may include parts such as the carburetor or fuel-injection system, fuel tank, fuel hoses, carbon canister, and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, TSV will repair your OHRV at no cost to you including diagnosis, parts and labor.

WARRANTY PERIOD

For 30 months, or 2500 miles, or 250 hours, whichever comes first, except for evaporative components over the OHRV high-priced warranty value, which are covered for 60 months, or 5000 miles, or 500 hours, whichever comes first.

If any emission-related part on your OHRV is defective, the part will be repaired or replaced by TSV.

OWNER'S RESPONSIBILITIES

As the OHRV owner, you are responsible for the performance of the required maintenance listed in your owner's manual. TSV recommends that you retain all receipts covering maintenance on your OHRV, but TSV cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of a scheduled maintenance.

As an owner you are responsible for presenting your OHRV to an authorized dealership as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

As an OHRV owner, you should also be aware that TSV may deny you warranty coverage if your OHRV or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Textron Specialized Vehicles at 218-681-9851 or the California Air Resources Board at 9528 Telstar Avenue, El Monte, CA 91731.

■ **NOTE: An add-on or modified part must be compliant with applicable ARB evaporative emission control standards. A violation of this requirement is punishable by civil and/or criminal punishment.**

U.S. Consumer Product Safety Commission (CPSC)

Children's Product Certificate

(U.S. Only)

1. Identification of the product covered by this certificate:

Youth ATV; Model: 2023 Alterra 90.

2. Citation to each CPSC product safety regulation to which this product is being certified:

This product is exempt from total lead content testing under 15 USC §1278a pursuant to Public Law 112-28.

16 CFR Part 1420, Requirements for All-Terrain Vehicles (ATVs). This rule requires that each ATV comply with all applicable provisions of the American National Standard for Four-Wheel All-Terrain Vehicles, ANSI/SVIA 1-2017. In addition to complying with the ANSI standard, each manufacturer or importer must have an "ATV action plan" on file with the CPSC and approved by the Commission before importing or selling ATVs in the United States. Section 2 of a Children's Product Certificate (CPC) (if a children's ATV) or a General Certificate of Conformity (GCC) (if a general-use/adult ATV) requires a list of applicable citations for the product being certified.

3. Identification of the importer or domestic manufacturer certifying compliance of the product:

Textron Specialized Vehicles
601 Brooks Ave. S., Thief River Falls, MN 56701
218-681-9799

4. Information for the individual maintaining records of test results:

Anna Connelly, Compliance Engineer
Textron Specialized Vehicles, 601 Brooks Ave. S., Thief River Falls, MN 56701
218-681-9799, ext. 2746

5. Date and place where this product was manufactured:

The date of manufacture is located on the Vehicle Identification Number (VIN) label, which is located on the vehicle chassis.

Manufacturing Location:

Kwang Yang Motor Co., Ltd., Kaohsiung City, Taiwan

6. Date and place where this product was tested for compliance with the regulation(s) cited above:

This product is exempt from total lead content testing under 15 USC §1278a pursuant to Public Law 112-28.

June 2021; MSR Laboratories, Lakeville, Massachusetts

7. Third party, accredited laboratory (accepted by the CPSC) for compliance with the regulation cited above:

MSR Laboratories, 384 Bedford St., Lakeville, MA 02347
774-634-8175

Maintenance Record

DATE	ODOMETER	SERVICE PERFORMED/NOTES

Maintenance Record

DATE	ODOMETER	SERVICE PERFORMED/NOTES

Change of Address, Ownership, or Warranty Transfer

Arctic Cat keeps on file the current name and address of the owner of this vehicle. This allows us to reach the current owner with any important safety information which may be necessary to protect customers from personal injury or property damage. Please make sure a copy of this form is completed and returned to us if you move or if the vehicle is sold to another party.

This form may also be used to transfer the unused portion of the original warranty to a second party. In order to transfer warranty, fill out this form completely; then return a copy of this form to us. We will then process the application and issue warranty for the balance of the time remaining of the original warranty. Warranty coverage is only available in the country in which the original retail purchase occurs to the original retail purchaser resident in that country or to a transferee resident in that country of the balance of the remaining warranty.



Address Change



Ownership Change



Warranty Transfer

CHANGE OF ADDRESS/OWNERSHIP/ WARRANTY TRANSFER TO:

Name _____

Address _____

City/State (Province) _____

Zip Code (Postal Code) _____

Phone () _____

Email _____

Year and Model _____

Vehicle Identification Number (VIN) _____

Fold Back

CHANGE OF ADDRESS/OWNERSHIP

Place
Stamp
Here

ARCTIC CAT
PRODUCT SERVICE AND WARRANTY DEPT.
PO BOX 810
THIEF RIVER FALLS MN 56701

Identification Numbers Record

This ATV has two identification numbers: Vehicle Identification Number (VIN) and Engine Serial Number (ESN)

These numbers are required by the dealer to complete warranty claims properly. No warranty will be allowed if the VIN or ESN is removed or mutilated in any way.

Always provide the ATV name, VIN, and ESN when contacting an authorized dealer for parts, service, accessories, or warranty. If a complete engine must be replaced, ask the dealer to notify the manufacturer for correct registration information.

Record the Vehicle Identification Number and Engine Serial Number in the spaces provided to assist you in ordering parts from your authorized dealer or for reference in case the ATV is stolen.

1. VEHICLE IDENTIFICATION NUMBER:

The VIN is located on the horizontal frame bar on the front fender frame.



KM973

2. ENGINE SERIAL NUMBER:

The ESN is located on the left side of the engine crankcase.



KM037A



ALWAYS USE
AN APPROVED
HELMET AND
PROTECTIVE
GEAR



NEVER
CARRY
PASSENGERS



NEVER USE
ON PUBLIC
ROADS



NEVER USE
WITH DRUGS
OR ALCOHOL

WARNING

Improper ATV use can result in SEVERE INJURY or DEATH

NEVER operate:

- without proper training or instruction.
- at speeds too fast for your skills or the conditions.
- on public roads - a collision can occur with another vehicle.
- with a passenger - passengers affect balance and steering and increase risk of losing control.

ALWAYS:

- use proper riding techniques to avoid vehicle overturns on hills and rough terrain and in turns.
- avoid paved surfaces - pavement may seriously affect handling and control.

**LOCATE AND READ OPERATOR'S MANUAL
FOLLOW ALL INSTRUCTIONS AND WARNINGS**



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