



• **MANUAL** •

THUNDERCAT / 1000 CRUISER
ZHDARCTAAT..... / *ZHDARCTABT.....*

Your ATV can be hazardous to operate.

This Arctic Cat Operator's Manual includes detailed instructions for certain Arctic Cat ATV's (see cover). Follow the guidelines for the type of ATV you have purchased and use sound judgment when determining whether or not carrying a passenger is permissible on **your** ATV.

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, understand and follow all the warnings contained in this Operator's Manual and the labels on your ATV.

Keep this Operator's Manual with your ATV at all times.

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

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



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

! WARNING

Failure to follow WARNING instructions could result in severe injury or death to the operator, a passenger, a bystander, or a person inspecting or repairing the ATV.

! CAUTION

A CAUTION indicates special precautions that must be taken to avoid damage to the ATV.

■ NOTE:

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

Introduction

Thank you for purchasing a high quality All-Terrain Vehicle (ATV) by ARCTIC CAT®. Be sure as the owner/operator of the ATV to become thoroughly familiar with its basic operation, maintenance, and storage procedures. Carefully read this Operator's Manual before starting your ATV.

Particularly important information is distinguished in this manual by the words Warning, Caution, and Note to emphasize important information. The symbol ! **WARNING** identifies personal safety-related information. Be sure to follow the directive because it deals with the possibility of severe personal injury or even death. The symbol ! **CAUTION** identifies unsafe practices which may result in ATV-related damage. Follow the directive because it deals with the possibility of damaging part or parts of the ATV. The symbol ■ **NOTE:** identifies supplementary information worthy of particular attention.

This manual contains instructions on how to start and operate the ATV as well as important information on how to store it in the season break. For major repairs or service, please contact an authorized Arctic Cat ATV dealer.

At the time of publication, all information and illustrations were technically correct. Some illustrations are used for clarity purposes only and are not designed to depict actual conditions. Because Arctic Cat constantly refines and improves its products, no retroactive obligation is incurred.

This Arctic Cat ATV Operator's Manual should be considered a permanent part of the ATV and must remain with the ATV at the time of resale. If the ATV changes ownership, please contact the warranty service department of the Company ARCTIC CAT GmbH, Industriestrasse 43, 5600 St. Johann/Pg., Austria to ensure proper registration. This manual was prepared by the service department of Arctic Cat.

PARTS AND ACCESSORIES

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

To aid in service and maintenance procedures on this ATV, a Service Manual and an Illustrated Parts Manual are available through your local Arctic Cat ATV dealer.

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

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DIVISION I - SAFETY

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

- 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 Arctic Cat ATV 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 or make sudden gear changes. 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.
- 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 be sure there are no obstacles or people behind you when you operate in reverse. When it is safe to proceed in reverse, go slowly. Avoid turning at sharp angles in reverse.
- 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 this ATV.
- Never install a twist grip throttle on this ATV.
- Never exceed the stated load capacity for an ATV. Cargo should be properly distributed and securely attached. Reduce speed and follow instructions in this manual for carrying cargo or pulling a trailer and allow greater distance for braking.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

ATV SAFETY ALERT

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:

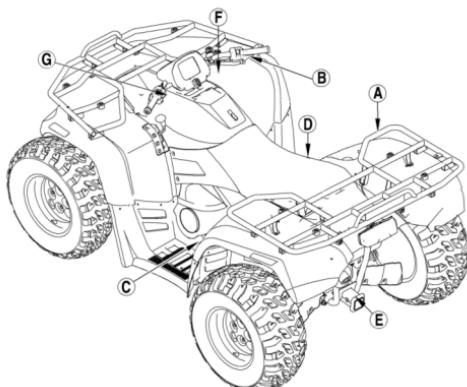
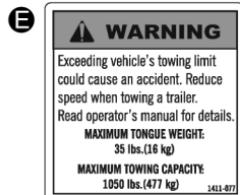
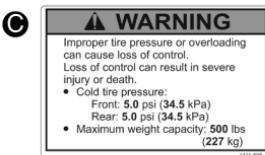
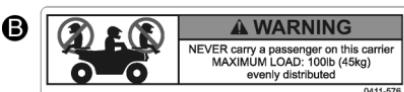
- * Always read the Operator's Manual carefully and follow the operating procedures described. Pay special attention to the warnings contained in the manual and on all labels.
- * Never operate an ATV without proper instruction. Take a training course. Beginners should complete a training course.
- * Never operate an ATV without an approved motorcycle helmet, eye protection, boots, gloves, long pants, and a long-sleeved shirt or jacket.
- * 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.

Warning Labels & Information

An Arctic Cat ATV comes with several labels containing important safety information. Anyone who rides the ATV should read and understand this information before riding.

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

■ **NOTE: The location and content of labels on the ATV you have purchased may differ from those shown on this page.**



739-545D

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Location of Parts and Controls



ACE-013A



ACE-016A

1. Shift Lever
2. LCD
3. Seat Latch
4. Storage Compartment
5. Hand Brake Lever (Left Side)
6. Horn Button
7. Headlight Switch
8. Ignition Switch
9. Throttle Lever
10. Hazard Lights Switch
11. Turn Signal Switch
12. Horn Button
13. Ignition Switch
14. Throttle Lever
15. 2WD/4WD Selector Switch
16. Turn Signals/Hazard Lights (Front)
17. Operator's Manual Location
18. Taillight/Brakelight/Turn Signals (Rear)
19. Battery
20. Power Distribution Module
21. Electrical Access Panel
22. Foot Brake Pedal (Main)
23. Throttle Limiter
24. Hand Brake Lever (Right Side)
25. Differential Lock

■ NOTE: The ATV you have purchased may differ slightly from those shown in the figures of this manual.

Warnings

■ NOTE: Some illustrations in this Warnings sub-section apply to an operator and a passenger even though some may show only the operator.

! WARNING

POTENTIAL HAZARD

Operating this ATV without proper instruction.

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.

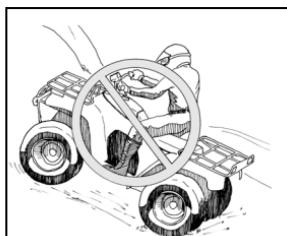
HOW TO AVOID THE HAZARD

All operators of this vehicle must read and understand this Operator's Manual and all warning and instruction labels prior to operating this vehicle.

! 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

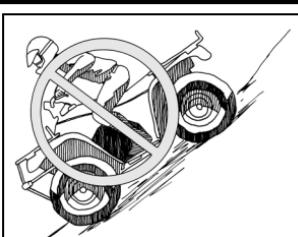
Never operate the ATV on hills too steep for the ATV or for your abilities.

Practice on smaller hills before attempting larger hills.

! WARNING

POTENTIAL HAZARD

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

Indicates a potential hazard that could result in a serious injury or death.

Warnings

! WARNING

POTENTIAL HAZARD

Overloading the ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Could cause changes in ATV handling, which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for the ATV.

Cargo should be properly distributed and securely attached.

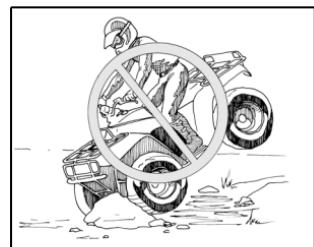
Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

Always follow the instructions in this Operator's Manual for carrying cargo or pulling a trailer.

! 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

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.

Warnings

! WARNING

POTENTIAL HAZARD

Removing hands from handlebar grips (operator)/handholds (passenger) or feet from the 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 the footrest, your foot or leg may come into contact with the wheels, which could injure you or cause an accident.

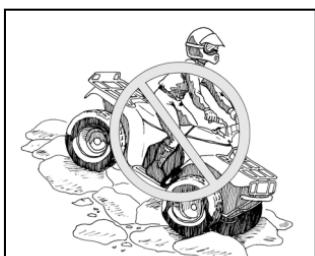
HOW TO AVOID THE HAZARD

Always keep both hands on the handlebar grips (operator)/handholds (passenger) and both feet on the footrests of your ATV during operation.

! 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 ATV control, which could result in an accident including a rollover.

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

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 pads.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Warnings

! WARNING

POTENTIAL HAZARD

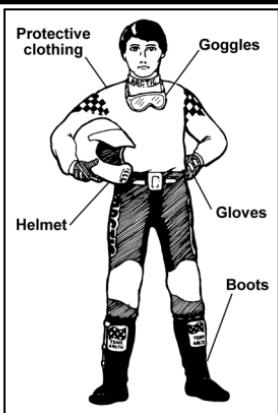
Operating or riding as a passenger on this ATV without wearing an approved helmet, eye protection, and protective clothing.

WHAT CAN HAPPEN

Operating or riding as a passenger on this ATV without an approved helmet increases your chances of a severe head injury or death in the event of an accident.

Operating or riding as a passenger on this ATV without eye protection can result in an accident and increases your chances of a severe injury in the event of an accident.

Operating or riding as a passenger on this ATV 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

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

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.

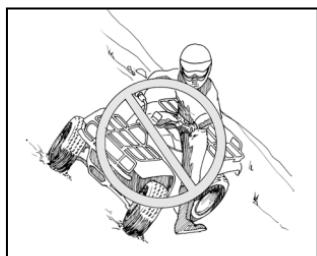
Avoid crossing the side of a steep hill, if possible.

When crossing the side of a hill:

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.



Warnings

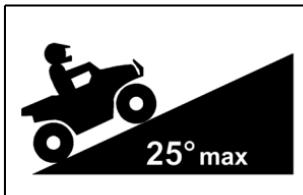
! WARNING

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.

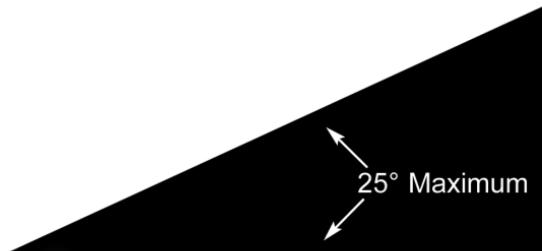
Never climb hills with slippery or loose surfaces.

Shift your weight forward.

Never open the throttle suddenly or make sudden gear changes. 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 HILLS STEEPER THAN 25°



! 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 the Service Booklet.

! WARNING

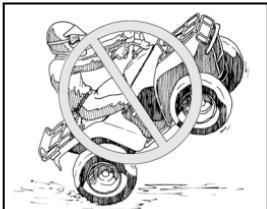
Indicates a potential hazard that could result in a serious injury or death.

Warnings

! WARNING

POTENTIAL HAZARD

Attempting wheelies, jumps, and other stunts.



WHAT CAN HAPPEN

Increases the chance of an accident including a rollover.

HOW TO AVOID THE HAZARD

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

! WARNING

POTENTIAL HAZARD

Improperly operating in reverse.

WHAT CAN HAPPEN

You could hit an obstacle or person behind you, resulting in serious injury.

HOW TO AVOID THE HAZARD

Before you engage reverse gear, make sure there are no obstacles or people behind you. When it is safe to proceed, go slowly.

! WARNING

POTENTIAL HAZARD

Operating this ATV at excessive speeds.

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 experience.

! 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

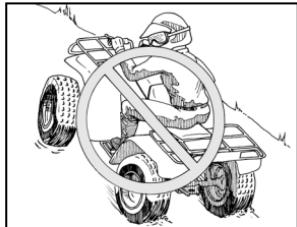
Indicates a potential hazard that could result in a serious injury or death.

Warnings

! 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 brake lever lock after you are stopped.

If you begin rolling backwards:

Keep weight uphill.

Apply the brakes while rolling backwards.

When fully stopped, engage the brake lever lock.

Have the passenger dismount on uphill side or to a side if pointed straight uphill; then the operator should 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

Carrying a passenger under the age of 12 on this TRV.

WHAT CAN HAPPEN

Could cause an accident, resulting in injury or death to you and/or your passenger.

HOW TO AVOID THE HAZARD

Never carry a passenger under the age of 12. The passenger must allow the operator to shift positions as needed during operation, must always keep feet on the footrests, and must always keep hands on handholds.



NEVER CARRY MORE THAN ONE PASSENGER.

Warnings

! 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

Operating the ATV with improper modifications.

WHAT CAN HAPPEN

Improper installation of accessories or modification of the ATV may cause changes in handling which, in some situations, 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 genuine Arctic Cat ATV components designed for use on the ATV and should be installed and used according to instructions. Never install a twist grip throttle. If you have questions, consult an authorized Arctic Cat ATV dealer.

! 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

Indicates a potential hazard that could result in a serious injury or death.

Prevention

Overview

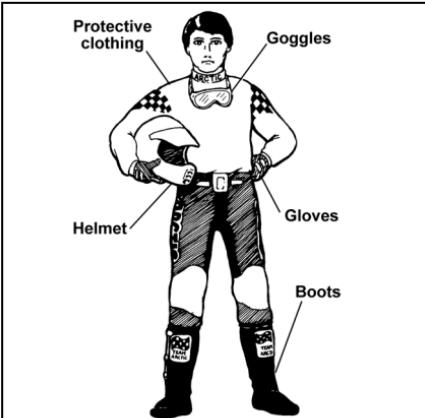
When using an ATV, prevention is the name of the game. “Had you only known” something could go wrong, you would have prevented it. If you don’t notice your conditions and surroundings before riding your ATV, you give up control over the situation. Using ATV prevention techniques helps you forecast potential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

Safe Riding Clothing and Gear

Always wear clothing suited to the type of riding you are doing. ATV riding requires special protective clothing which will make you feel more comfortable and reduce chances of injury.

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. Following is the minimum protection you need to wear during every ride.



Gloves

Your hands are targets for flying objects. 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 handlebars. Off-road style gloves with knuckle pads are the best for comfort and protection.

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 flying debris.

Prevention

Helmet

Your helmet is the most important piece of protective gear for safe riding. A helmet can prevent a severe head injury. There are several types of helmets on the market, but make sure you wear a helmet that complies with the standards of the E code. E code represents that of European approved. Helmets that comply with European standards have a sticker on the inside or outside of the helmet.

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. Do not depend on sunglasses for proper eye protection. 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 airborne objects or anything else that could scrape your skin. The more thick and durable the material, the better protection it'll provide.

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. Brakes
2. Throttle
3. Tires and Wheels
4. Fluids
5. Lights and Electric
6. Controls and Cables
7. Chassis and Suspension
8. Miscellaneous Items

One easy way to remember what parts you need to check is by using the acronym "T-CLOC." It stands for:

T	C	L	O	C
TIRES AND WHEELS	CONTROLS AND CABLES	LIGHTS AND ELECTRIC	OIL AND FUEL	CHASSIS

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Prevention

TIRES AND WHEELS

Correct tire pressure is crucial. Consult the Specifications 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.

CONTROLS AND CABLES

With the engine running and brake applied, check all transmission positions: forward, neutral, and reverse.

Check:

1. Forward
2. Neutral
3. Reverse

A. Brakes

Squeeze the hand brake lever. If it feels soft or "squishy," it could be low on fluid or have a leak — refer to the General Maintenance section of this Operator's Manual for instructions. Don't use the ATV until the brakes are operating normally.

Test the brake lever lock and see if it locks the hand brake lever into position; then disengage it to release the brake. Be sure that the foot brake is working; your brakes could fail during a ride if they're not maintained.

Check:

1. Hand brake lever
2. Foot brake pedal
3. Brake lever lock

B. Throttle

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

LIGHTS AND ELECTRIC

Turn the hi-beam and lo-beam on and off to make sure they work. At the same time, check that the taillight, brakelight, turn signals, and hazard lights work. Also, check the status/warning indicators (reverse, neutral, hi-lo beam, turn, and hazard) on the handlebars when you start the ATV. Don't drive the ATV unless all systems are working. Check the ignition switch.

Check:

1. Hi-beam
2. Lo-beam
3. Taillight/brakelight
4. Status/warning indicators
5. Hydraulic/mechanical parking and emergency w/brake lever lock
6. Ignition switch

OIL AND FUEL

Start with a full tank of gas before every ride, and while you're at it, top off the oil. Don't forget to check for fluid leaks around the ATV.

Check:

1. Gas
2. Oil
3. Fluid leaks

Prevention

CHASSIS

Excessive road dirt and dust 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:

1. Suspension arms
2. Shock springs
3. Fenders
4. Steering

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

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
- Safety Jacket
- Warning Triangle
- Registration Paper

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

- Cellular Phone
- Maps
- Emergency Kit with Flashlight and First Aid Kit

Tools

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

Carry these items on your ATV:

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

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.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Prevention

Maps

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

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

Safety Jacket

If you have an accident or your ATV has a break-down on the highway or freeway and you climb down from your ATV, you must wear a safety jacket.

Warning Triangle

If you have an accident or your ATV has a break-down on the highway or freeway, you must place the warning triangle in a certain distance in front of the scene of accident or break-down.

Registration Paper

If you're stopped by police, you may need to show them your driving license and registration paper. The registration paper proves that you're allowed to drive on streets, who the owner of the ATV is, and that they have vehicle insurance.

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. For example, when you drive a car quickly into a sharp turn, your body is pulled to the outside of the vehicle by centrifugal force. Although a car is relatively stable, enough centrifugal force can cause an ATV to overturn. Constantly shifting your weight is one major difference between driving a car and riding an ATV. Knowing how to shift your weight is necessary to avoid rolling or flipping the ATV.

Basic Operating Maneuvers

Active riding and basic maneuvers are the foundation of your ATV ride. Without basic skills, it’s impossible to move to this level—active riding. These are your basic maneuvers:

- Mounting the ATV (Operator)
- Mounting the TRV (Passenger)
- Starting the Engine
- Starting a Cold Engine
- Shifting
- Braking/Stopping
- Parking
- Dismounting the ATV

Mounting the ATV (Operator)

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.

Mounting the TRV (Passenger)

1. After the operator is seated and has the brake firmly applied, with your left hand, grasp the left shoulder of the operator, and with your right hand grasp the backrest; then swing your leg over the seat and set your right foot down on the right-side footrest.
2. Get seated in a comfortable position and keep hands firmly on the handholds.
3. 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. Climb up onto the ATV and sit down.
2. Engage the parking brake.
3. Shift into neutral.
4. Turn on the ignition.
5. Press the starter button.
6. Let the engine warm up.

Active Riding

Another way to remember the starting procedure is by using the acronym "BONE-C." It stands for:

B	O	N	E	C
BRAKES LOCKED	IGNITION SWITCH ON	NEUTRAL TRANSMISSION	ENGINE SWITCH	AUTOMATIC CHOKE

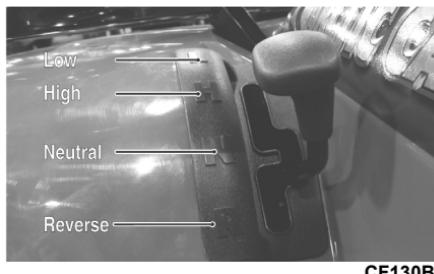
Starting A Cold Engine

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

1. Turn off all electrical accessories (hand warmer, lights, etc.); then rotate the ignition switch key to the first position (ON) leaving the headlights OFF. Note that the N is indicated on the LCD.
2. Press on the starter button for a maximum eight seconds.
3. Allow the engine to warm up for approximately 2-3 minutes or until the ATV will accelerate without hesitating.

Shifting

The Arctic Cat ATV with an automatic transmission has a dual-range transmission with reverse. To shift the ATV, follow these steps:



1. To engage the high range from neutral, move the shift lever forward.

2. To engage the low range from high range, move the shift lever outward and forward.

■ **NOTE:** The high range is for normal riding with light loads. The low range is for carrying heavy loads or trailer towing. Compared to HIGH range, the LOW range position provides slower speed and greater torque to the wheels.

! CAUTION

Always shift into low range when operating on wet or uneven terrain, when towing or pushing heavy loads, and when using a plow. Failure to follow this caution may result in premature V-belt failure or in damage to related drive system components.

3. To engage reverse gear from neutral, move the shift lever outward and rearward into the R position.

! CAUTION

Always come to a complete stop before attempting to shift from one range to the other or into reverse. Always shift on level ground, or engage the hand brake lever before shifting into another range or into reverse.

! WARNING

Do not start the engine or operate this ATV with the clutch shield removed. Severe injury could result.

Active Riding

Braking/Stopping

Always allow plenty of room and time to stop safely. Sometimes quick stops are inevitable, so always be prepared. Whether you're stopping slowly or stopping quickly, do this:

1. Depress the foot brake pedal 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 brake. Even maintaining minimal pressure on the brake lever will cause the brake pads to drag on the disc and may overheat the brake fluid.

! WARNING

Excessive repetitive use of the hydraulic brake for high speed stops will cause overheating of the brake fluid and premature brake pad wear which will result in an unexpected loss of brakes.

! WARNING

Use only Arctic Cat approved brake fluid. Never substitute or mix different types or grades of brake fluid. Brake loss can result. Check brake fluid level and pad wear before each use. Brake loss can result in severe injury or even death.

Parking

Parking involves following the previous rules for braking; then:

1. After the ATV stops, shift into neutral.
2. Stop the engine using the ignition switch.
3. If you have to park on a hill, shift the ATV into low gear; otherwise, try to park only on level surfaces.

4. Engage the parking brake.

Dismounting the ATV

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

1. The operator should double check that the brake lever lock is engaged.
2. The passenger should grasp the left shoulder of the operator with the right hand and with the left hand grasp the left-side handhold; then swing the right leg over the seat and step to the ground on the left side of the ATV.
3. The operator should swing the right leg over to the left side of the seat.
4. The operator should step to the ground on the left side of the ATV.

How to Handle 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 show 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.

Safe riding techniques include:

- Starting
- Leaning, Weight Shift, and Balance
- Wide Turns
- Sharp Turns
- Quick Turns
- K-Turns
- Riding Uphill
- Riding Downhill
- Sidehilling/Traversing
- Swerving

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Active Riding

Starting

Once the engine has warmed up, the ATV is ready to go.



ATV-0012



ATV-0024

1. Keep your feet on the footrests and both hands on the handlebar.
2. Hold the brake lever, and release the parking brake lock.
3. Shift into desired gear.
4. Release the brake slowly and apply the throttle.

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 and the passenger 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 and passenger's body weight to the side that's lifting, and make the turn wider if possible.



ATV-0013



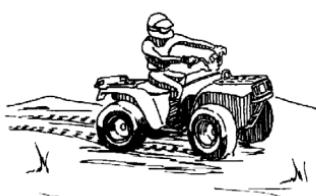
ATV-0025

Wide Turns

Many 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:

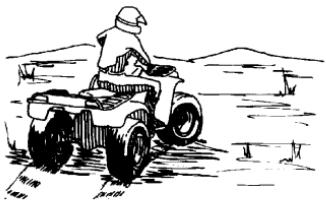


ATV-0046



ATV-0045

Active Riding



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

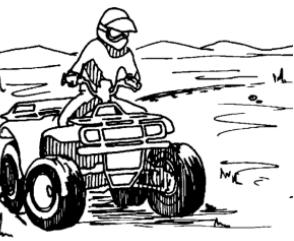
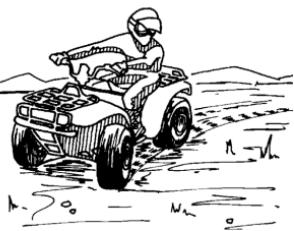


ATV-0040

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 handlebar as much as you can.
5. Gradually increase your speed as you come out of the turn.

Quick Turns

Quick turns are the most difficult turns and should only be done after you are experienced with your ATV.



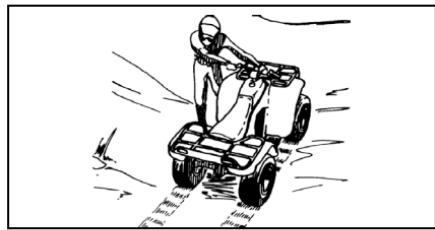
ATV-203

! WARNING

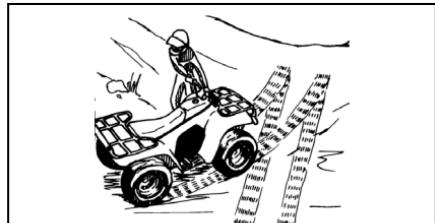
Indicates a potential hazard that could result in a serious injury or death.

Active Riding

1. Ease off the throttle as you approach the turn to slow down.
2. Turn the handlebar and shift weight and balance at the same time as you enter the turn (use the principles of leaning, weight shifting, and balancing—shift your body weight and passenger's body weight to the inside of the turn).
3. Follow this with slight acceleration.
4. For multiple turns, repeat this movement as needed.
5. To make your turn quicker, try raising yourself off the seat a few inches as you shift your weight.



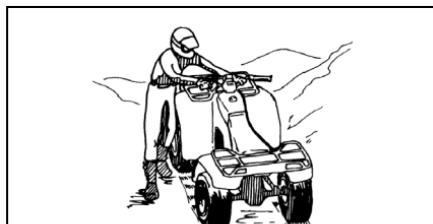
ATV-0035



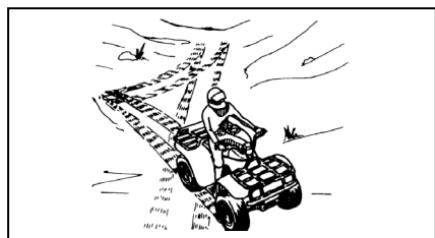
ATV-0036

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.

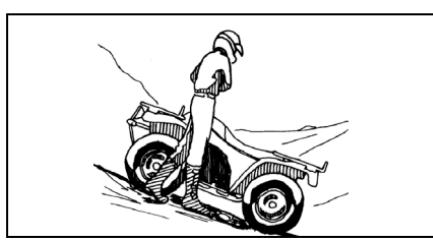


ATV-0020



ATV-0037

1. Stop where you are, apply the brakes, and shift to neutral.
2. Shut off the engine.
3. Keep your body weight shifted forward.
4. Ask the passenger to dismount.
5. Get off the ATV on the uphill side.
6. If you're to the left of the ATV, turn the handlebar all the way left.
7. Partially release the brake, but lightly hold the brake lever.
8. Let the ATV roll to your right side until it faces slightly downhill.
9. Reapply the brakes.



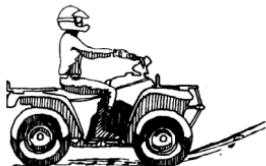
ATV-0034

Active Riding

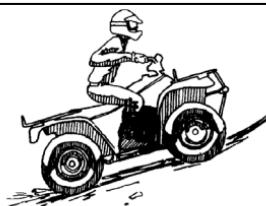
10. Get back on the ATV from the uphill side, have your passenger mount the ATV from the uphill side, and keep your body weight and the passenger's body weight shifted uphill when you sit down.
11. Start the engine and follow the method for riding downhill.

Riding Uphill

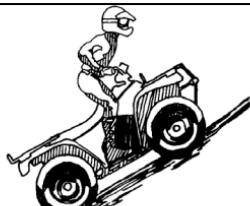
Many accidents happen while riding on hills and as a result of the ATV rolling or flipping. So, obviously, use extreme caution and follow this method for riding uphill.



ATV-0019



ATV-0032

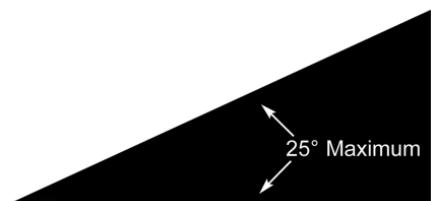


ATV-0033

1. Accelerate before you start climbing; then maintain a steady pace.
2. Both the operator and the passenger should lean as far forward as possible. For steeper hills, the operator should come off the seat to stand and lean forward.

3. If you lose speed, 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 25°



Riding Downhill

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

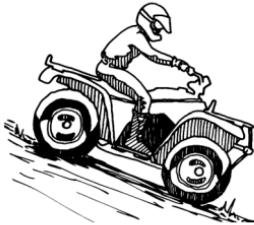
1. Shift your body weight and passenger's body weight as far back on the seat as possible.
2. Keep it in a gear; stay out of neutral.
3. Lightly apply the brake and ease up on the throttle.



ATV-0018

! WARNING Indicates a potential hazard that could result in a serious injury or death.

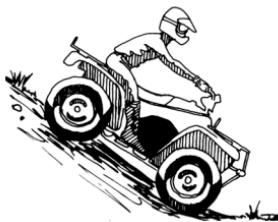
Active Riding



ATV-0030



ATV-0029



ATV-0031

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 sidehill, follow this method:



ATV-0017



ATV-0028

1. Keep your speed low and consistent.
2. Shift all your body weight and passenger's body weight to the uphill side of the seat; also, support 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. Have the passenger dismount on the uphill side first; then you should dismount on the uphill side.

Swerving

Swerving is usually an emergency reaction to avoid an obstacle but is similar to quick turns. The difference is that quick turns involve slight acceleration in the turn; don't accelerate if you swerve.



ATV-0043

Active Riding



ATV-0042



ATV-0041

1. Ease off the throttle as you approach the obstacle.
2. Turn the handlebar. At the same time, shift weight and balance as you swerve. Use the principles of leaning, weight shifting, and balancing—shift your body weight and the passenger's body weight to the inside of the turn.
3. Keep your hand off the brake until the emergency is over and you're back in control.

Tips

Driving an ATV and a car have some similarities; however, there are a few situations that require special attention:

- Reversing
- Skidding or Sliding
- Parking on a Hill
- Stalling on a Hill
- Crossing Water
- Driving in Cold Weather
- Stopping the ATV
- Stopping the Engine

Reversing

It's tough to see things behind you.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

1. Go slowly. It's hard to see behind you.
2. Keep your handlebar straight.
3. Backing down hills is a bad idea; do a U-turn or K-turn instead to turn around.

Skidding or Sliding

If you lose control after hitting sand, ice, mud, or water:

1. Turn your handlebar into the direction of the slide.
2. Keep your hand off the brakes until you're out of the skid.
3. Shift your weight forward.

Sometimes your ATV may not respond and goes straight ahead instead of letting you turn. Here's how to handle it:

1. Slow down.
2. Move forward on the seat.
3. Lean to inside of turn and have your passenger lean to the inside of the turn.
4. Turn handlebar.

Parking on a Hill

This shouldn't be necessary, but if it is:

1. Keep it in gear.
2. Engage the brake lever lock.
3. Find something to block the rear tires.

Stalling on a Hill

If you use the right method for riding uphill, this shouldn't happen. But if you have a problem, do this:

1. If the ATV hasn't started rolling backwards yet, follow the procedure for the K-turn, **OR**

Active Riding

2. If the ATV is already rolling backward, both the operator and the passenger should lean as far forward as possible and the operator can be standing up on the footrests.
3. Nice and easy, apply the hand brake lever.
4. When you come to a stop, follow the procedure for the K-turn.

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. Tires can be buoyant, so if the water is too deep, you might find the ATV suddenly afloat.

! CAUTION

Riding through water deeper than the footrests may lead to severe engine damage due to water ingestion.

■ NOTE: Engine damage caused by water ingestion or immersion will not be covered by Arctic Cat warranty.

1. Physically check the depth and current of the water, especially if you can't see the bottom. You're also checking for 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.

Driving In Cold Weather

■ NOTE: Check that all control levers move freely. Make sure that the footrest, shift lever, and mechanical brake pedal are free of ice and snow.

! WARNING

For your personal safety, it is very important to wear the type and amount of cold-weather clothing according to the coldest anticipated temperatures.

1. With the transmission in neutral, move the ATV forward and backward to check that the wheels roll freely. If the ATV will not roll, the tires may be frozen to the ground or the brake pads may be frozen to the discs.
2. If the tires are frozen to the ground, pour warm water around them to melt the ice.

! CAUTION

Before riding, manually move the ATV forward and backward to make certain that all wheels roll freely.

3. If the brakes are frozen, take the ATV to a warmer area to thaw out the brakes.

! WARNING

Do not attempt to free frozen brakes by pouring warm water on the brake pads and housings.

■ NOTE: After the brakes thaw, dry them by applying them several times while riding slowly.

Active Riding

■ NOTE: After riding through water, mud, snow, or slush, it is important to dry both brake systems before parking the ATV.

! WARNING

Go slowly and be extra careful when riding on snow-covered or ice-covered terrain. Always be alert to changing terrain conditions when operating the ATV.

4. Practice driving in an open snow-covered or ice-covered area at slow speeds before driving on snow-covered or ice-covered roads.

5. Learn how the ATV responds to steering and braking on the type of terrain to be encountered on the ride.

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 to the OFF position.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Sound Judgment

Overview

You are not invincible. Knowing that the first “S” in “P.A.S.S.” stands for “Sound Judgment” means you need to use yours.

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. Weather, climate, and development take their toll.

The thing about terrain is that sometimes you don’t know it’s changed until you get there. Whether it’s familiar or not, check out your surroundings before and during your ride.

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 taillights, and pull completely off the trail if you need to stop.

Outsloped trails (trails that slant to allow rain to run off) make trail riding a bit more challenging. Accepting that challenge means keeping your weight shifted into the slope. Denying the challenge means sliding off the trail.

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

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.

Other Vehicles

Depending on where you’re riding, you might encounter other ATV’s, bikes, or motor vehicles. Respect the presence of cars 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.

Equipment

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

Sound Judgment

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 Arctic Cat ATV dealer for inspection and adjustment or repair.

Cargo Limitations

Limit the ATV to the load capacity ratings identified in the following chart. So if you're weighing in at over 200 lb (91 kg) when you ride, leave some of that extra cargo at home. The combined weight limit, including you, your rack cargo, and your trailer, is a specified amount, so consult the Load Capacity Ratings Chart and monitor it carefully.

Extra weight on the ATV will also throw you off balance if it's not distributed evenly, side-to-side and front-to-rear. If you have 200 lb (91 kg) on the rear rack only and you're heading up an incline, shifting your own weight forward isn't going to do enough to compensate for that cargo sitting over the back tires.

Cargo has such a huge affect on ATV handling that you need to pay a lot of attention to your speed. Even on really level areas, you should keep it under 10 mph (16 kph) if you've got a trailer attached. Avoid uneven terrain. Also, consider that your braking distance is going to increase with the more weight you carry.

Think about these when dealing with cargo:

1. Rack weight limit
2. Trailer weight limit
3. Weight distribution
4. ATV speed

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.

Load Capacity Ratings Chart

Arctic Cat ATV Load Capacity Ratings		
Item	Specifications	
	(lb)	(kg)
Max Load Capacity	386	175
Front Rack (max)	100	45
Rear Rack (max)	200	91
Storage Box (max)	35	16
Tongue Weight	35	16
Tongue and Rear Cargo Weight (max)	200	91
Towing Limit	353	160

Max Load Capacity - Total weight of rider, passenger, tongue weight, and cargo on front and rear racks.

Tongue Weight - Weight on trailer tongue.

Tongue and Accessory Weight - Must be included as part of the front and rear rack weights.

Tongue and Rear Cargo Weight - Total weight on trailer tongue and rear rack capacity.

Towing Limit - Total weight of trailer and all cargo in the trailer.

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

Sound Judgment

Speedrack

When installing Speedrack accessories, make sure to read and carefully follow the instructions provided in each kit.

■ **NOTE:** Use extra caution when operating an ATV with additional loads such as accessories and/or cargo. Handling of the ATV may be adversely affected. Reduce speed when adding additional loads.

! WARNING

POTENTIAL HAZARD

Overloading the ATV or carrying or towing cargo improperly.

WHAT CAN HAPPEN

Could cause changes in ATV handling, which could lead to an accident.

HOW TO AVOID THE HAZARD

Never exceed the stated load capacity for the ATV.

Cargo should be properly distributed and securely attached.

Reduce speed when carrying cargo or pulling a trailer. Allow greater distance for braking.

Always follow the instructions in this Operator's Manual for carrying cargo or pulling a trailer.

Don't ride:

1. When you're tired

Reckless Riding

If you are involved in an ATV accident when you're speeding, you have a 25% chance of landing yourself in the hospital. The faster you go, the more likely you are to destroy your head and internal organs, and skip the wheelies, jumps, stunts, and any other showboating.

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 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

People always do crazier and riskier things in a group than they would consider doing by themselves. When you're ATV riding with others and things start to get out of hand, decide whether you're willing to be injured or see your friends injured.

SIPDE

By themselves, none of these safe behaviors and sound judgments will go very far. But when you put them all together... when you're paying attention to how you feel, when you're monitoring the movements of your ATV, and when you're constantly evaluating your environment, then you're practicing SIPDE. SIPDE is an acronym that stands for:

S	I	P	D	E
SCAN/ SEARCH	IDENTIFY HAZARDS	PREDICT WHAT WILL HAPPEN	DECIDE WHAT TO DO	EXECUTE THE DECISION

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, it's your responsibility to keep them off your ATV. It can be dangerous - all the more reason for you to be firm.

Experienced Riders

If anyone is going to borrow your ATV, you are responsible for their supervision. Before they ride, have them read the Operator's Manual. You train them. It doesn't matter how you do it, as long as you do it.

TRV's are a little different from the handling to the stability to the controls. So regardless of how much experience your family members have, 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 16 operate your ATV.



SOUND
JUDGMENT

! WARNING

Indicates a potential hazard that could result in a serious injury or death.

DIVISION II - OPERATION/ MAINTENANCE Specifications*

ENGINE AND DRIVE	Thunder Cat H2	1000 Cruiser H2
Type	Four-Cycle/ Liquid Cooled OHC	Four-Cycle/ Liquid Cooled OHC
Bore x Stroke	92 mm x 71.6 mm	92 mm x 71.6 mm
Displacement	951 cc	951 cc
Spark Plug Type	NGK CPR8E	NGK CPR8E
Spark Plug Gap	0.7-0.8 mm	0.7-0.8 mm
Brake Type	Hydraulic/mechanical parking and emergency w/brake lever lock	Hydraulic/mechanical parking and emergency w/brake lever lock
CHASSIS		
Length (Overall)	215.4 cm	236 cm
Height (Overall)	126 cm	126 cm
Width (Overall)	121 cm	121 cm
Suspension Travel	25.4 cm	25.4 cm
Tire Size (Front)	25 x 8-12	25 x 8-12
Tire Size (Rear)	25 x 10-12	25 x 10-12
Tire Inflation Pressure	0.35 kg/cm ² (5.0 psi)	0.35 kg/cm ² (5.0 psi)
MISCELLANY		
Dry Weight (Approx)	330 kg (728 lb)	330 kg (728 lb)
Gas Tank Capacity (Rated)	24.6 L (6.5 U.S. gal.)	20.8 L (5.5 U.S. gal.)
Differential Capacity	275 ml (9.3 fl oz)	275 ml (9.3 fl oz)
Rear Drive Capacity	250 ml (8.5 fl oz)	250 ml (8.5 fl oz)
Engine Oil Capacity	2.8 L (3 U.S. qt)	2.8 L (3 U.S. qt)
Gasoline (Recommended)	EU Unleaded 91 Octane	EU Unleaded 91 Octane
Engine Oil (Recommended)	Arctic Cat ACX All Weather (Synthetic)	Arctic Cat ACX All Weather (Synthetic)
Front Differential Lubricant	SAE Approved 80W-90 Hypoid	SAE Approved 80W-90 Hypoid
Rear Drive Lubricant	SAE Approved 80W-90 Hypoid	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	12V/8W/27W	12V/8W/27W
Headlight	12V/35W/35W	12V/35W/35W
License Plate Light	12V/5W	12V/5W
Turn Signal - Front	12V/27W	12V/27W
Turn Signal - Rear	12V/10W	12V/10W
Starting System	Electric	Electric

* Specifications subject to change without notice.

GENERAL INFORMATION

IDENTIFICATION NUMBERS

The Arctic Cat ATV has two identification numbers: Vehicle Identification Number (VIN) and Engine Serial Number (ESN).

The VIN is located on the frame support rail.



AF968B

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



GZ001A

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

Always provide the ATV name, Vehicle Identification Number, and Engine Serial Number when contacting an authorized Arctic Cat ATV dealer for parts, service, accessories, or warranty. If a complete engine must be replaced, ask the dealer to notify Arctic Cat for correct registration information.

IGNITION SWITCH KEY

Two keys come with the ATV. Keep the spare key in a safe place. An identifying number is stamped on each key. Use this number when ordering a replacement key. Two keys are provided for the steering lock.

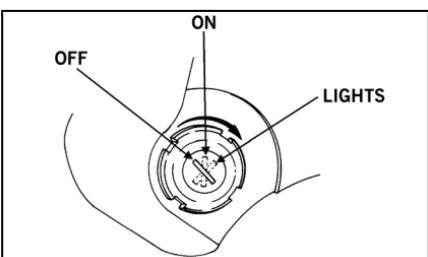


ATV-0055

CONTROL LOCATIONS AND FUNCTIONS

Ignition Switch

The ignition switch has three positions.



ATV-0056

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

■ NOTE: The accessory plug is powered by the battery at all times.

ON position — The ignition circuit is complete and the engine can run. The key cannot be removed in this position.

LIGHTS position — The ignition circuit is complete and the headlights and taillights are on. The key cannot be removed in this position.

! CAUTION

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

Steering Lock

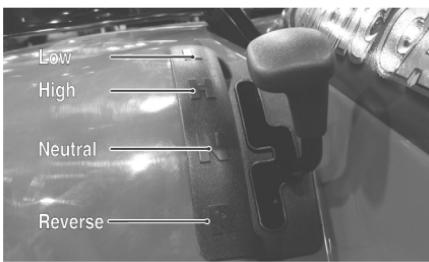


ACE-019A

This model is equipped with a steering lock, to lock the steering, turn the handlebar fully left, insert the key into the lock, plug the lock into the right end of the handlebar and turn key counter-clockwise; then remove the key. To unlock the steering, insert the key into the lock and turn the key clockwise; then remove the lock and plug it in the initial position.

■ NOTE: Make sure the key is removed after locking the steering.

Shift Lever



CF130B

This ATV has a dual-range automatic transmission with reverse. To shift the ATV, follow these steps:

1. To engage the high range from neutral, move the shift lever forward.

2. To engage the low range from high range, move the shift lever outward and forward.

■ NOTE: The high range is for normal riding with light loads. The low range is for carrying heavy loads or trailer towing. Compared to HIGH range, the LOW range position provides slower speed and greater torque to the wheels.

! CAUTION

Always shift into low range when operating on wet or uneven terrain, when towing or pushing heavy loads, and when using a plow. Failure to follow this caution may result in premature V-belt failure or in damage to related drive system components.

3. To engage reverse gear from neutral, move the shift lever outward and rearward into the R position.

! CAUTION

Always come to a complete stop before attempting to shift from one range to the other or into reverse. Always shift on level ground, or engage the brake before shifting into another range or into reverse.

2WD/4WD Selector Switch



ACE-005B

The 2WD/4WD selector switch allows the operator to operate the ATV in either two-wheel drive (rear wheels) or four-wheel drive (all wheels). For normal riding on flat, dry, hard surfaces, two-wheel drive should be sufficient. In situations of aggressive trail conditions, four-wheel drive would be the desired choice.

To either engage or disengage the front wheels, move the switch to the 4WD position or to the 2WD position.

! CAUTION

Do not attempt to either engage or disengage the front differential while the ATV is moving.

Differential Lock

The differential lock allows the operator to mechanically lock the differential to apply equal power to both front wheels.

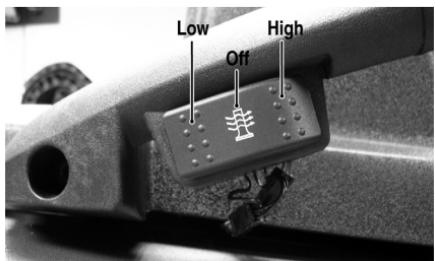
Handwarmers/ Thumbwarmer (Cruiser)

The operator's handwarmers/thumbwarmer are controlled by a rocker-type switch on the instrument pod. There are three positions on the switch (Low/Off/High).



CR027A

The passenger's handwarmers are controlled by a rocker-type switch located beneath the right-side handgrip. There are three positions on the switch (Low/Off/High).



CR009A

■ NOTE: Operating handwarmers, lights, and/or other accessories at low engine RPM for extended time may cause excessive battery discharge resulting in erratic engine operation.

! CAUTION

Always charge a discharged battery prior to storage or severe battery damage may occur (See GENERAL MAINTENANCE - BATTERY in this manual).

Foot Brake Pedal (Main Brake)

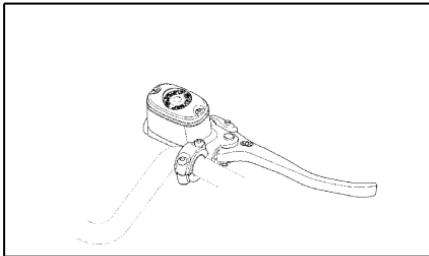


CF117

Pressing the foot brake pedal downward will apply brakes to all wheels.

The main brake should be applied whenever a braking situation is needed.

Hand Brake Lever



738-420B

Compressing the right brake lever toward the handlebar will apply brakes to the front wheels.

Emergency/Parking Brake



ACE-003

To engage and release the emergency/parking brake, use the following procedure.

1. While squeezing the left-side brake lever, squeeze the emergency/parking brake aligning the pin on the brake assembly with the groove in the emergency/parking brake.

■ NOTE: It will click as it engages and the brake lever will not return to its released position.

2. Release the emergency/parking brake by squeezing the brake lever. It will return to its released position.

Check to make sure the emergency/parking brake engages properly and that the brake (when engaged) locks rear the wheels.

1. Engage the emergency/parking brake.

2. Attempt to push the ATV.

■ NOTE: The emergency/parking brake must lock the wheels. If it doesn't, take the ATV to an authorized Arctic Cat ATV dealer for service.

! WARNING

Always check to be sure that the emergency/parking brake has been disengaged before operating the ATV. An accident could result if the emergency/parking brake is left engaged while the ATV is operated. This could cause an accident.

Headlight Switch



ACE-004A

Use the headlight switch to select the high or low headlight beam. When the switch is in the HI position, the high beam will illuminate. When the switch is in the LO position, the low beam will illuminate.

Turn Signal Switch



ATV-004B

To activate the turn signals, slide the turn signal switch to the direction of the desired turn. When the turn is completed, return the switch to the center (OFF) position.

Hazard Lights Switch



ATV-004C

To activate the hazard lights, press and release the hazard light switch. To deactivate the hazard lights, press and release the hazard light switch again.

Winch Switch



ACE-017

To release the cable, slide the toggle switch to the left; to spool-in the cable, slide the switch to the right.

Horn Button



ATV-004D

To activate the horn, press the horn button.

Reverse Override Button



ATV-004D

This ATV is equipped with a reverse speed limiter system. When additional RPM is needed in reverse, depress and hold the override button.

■ **NOTE: The reverse override button is active in 4WD only.**

Starter Button

Pushing this button activates the starter motor. Before starting the engine, make sure the ignition switch is in the ON position, the transmission is in neutral, and the brake lever lock is engaged.

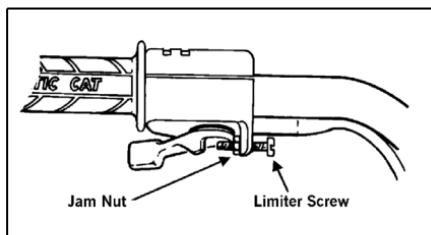
■ **NOTE: This ATV has safety interlock switches which prevent the starter motor from activating when the transmission is not in neutral.**

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



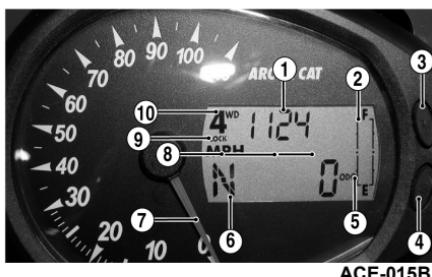
Throttle lever travel may be limited by adjusting the throttle limiter screw. The throttle limiter should be adjusted according to the operator's skill and experience. To adjust the throttle limiter, use the following procedure.

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

■ NOTE: The ATV is equipped with an RPM limiter that retards ignition timing when maximum RPM is approached. When the RPM limiter is activated, it could be misinterpreted as a high-speed misfire.

Speedometer/LCD

■ NOTE: All segments of the LCD will activate for approximately two seconds when the ignition switch is rotated to the ON position.



1. **Clock/Engine Hour Meter** - The clock function indicates time in the 12-hour mode; the hour meter indicates the total time the ATV has run and cannot be reset to zero. To set the clock, use the following procedure.

- A. With the ignition switch ON, press and release the Mode Button (3) until the Clock/Engine Hour Meter (1) is displayed; then (if necessary) press and release the Set/Reset Button (4) to select the clock display.
- B. Press and hold the Set/Reset Button (4) until the minutes stop scrolling and the hour display starts to scroll. Momentarily release when the correct hour is displayed; then repeatedly press and release the Set/Reset Button (4) until the correct minutes are displayed.



■ **NOTE: Clock memory power is supplied through the 15-amp accessory fuse and verified during gauge "power-up" and reset. In the event of clock memory power failure (blown fuse, etc.), the gauge will "power-up," reset, and shut down repeatedly until clock memory power is restored. Always check the 15-amp accessory fuse if this gauge condition is noted.**

■ **NOTE: The engine hour meter will not activate until engine speed exceeds 500 RPM.**

2. Fuel Level Indicator - Indicates approximate amount of gasoline in the gas tank.

■ **NOTE: When the bottom segment flashes, approximately 3.5 L (0.92 U.S. gal.) of gasoline remains in the tank.**

3. Mode Button - Shifts the gauge through three set-up modes: speedometer/tachometer, distance, and time.

■ **NOTE: The Mode Button must be pressed and released to shift modes. Approximately two seconds after the Mode Button is released, the digital gauge will return to full display.**

4. Set/Reset Button - In conjunction with the Mode Button, sets and resets various displays on the digital gauge. Also used to shift from speedometer function to tachometer function on the speedometer/tachometer gauge.

5. Odometer/Trip Meter (T1 and T2) - Odometer registers the total distance the vehicle has traveled. Trip meters can register two distances (for instance, T1 could register trip distance and T2 could register distance between stops). The trip meters can be reset while the odometer only registers accumulated miles/kilometers and the odometer cannot be reset to zero.

All distances correspond to speedometer function selected (MPH or km/h).

■ **NOTE: To select the odometer (ODO), trip #1 (T1), or trip #2 (T2), press the Mode Button (3) to select the distance mode; then press the Set/Reset Button (4) to select the desired display. Hold the Set/Reset button down to reset trip meters.**

6. Gear Position Indicator - Indicates which gearshift position is selected.
 - R (reverse)/N (neutral)/ L (low range)/ H (high range).

■ **NOTE: An E will be displayed if there is an error caused by a no-shift position signal.**

7. Speedometer/Tachometer - A needle indicates approximate vehicle speed in mph or km/h when speedometer function is selected or rpm when tachometer function is selected.
8. Needle Indicator Display - Displays which speedometer function (MPH or km/h) or tachometer function (RPM) is selected.

■ **NOTE: The speedometer and tachometer functions may be switched by pressing the Set/Reset Button.**

9. Differential Lock Indicator - Displays LOCK when the differential lock has been engaged.

10. Drive Select Indicator - Displays 4WD when selected by the 2WD/4WD selector switch or when the differential lock is engaged. The display is blank when in 2WD.
11. Battery Condition Indicator - The speedometer/tachometer needle will not function and the LCD will go blank except the word VOLT will flash on the LCD whenever a low voltage (< 9 DC volts) or high voltage (> 16 DC volts) is detected. When voltage returns to normal, the gauge must be reset by turning the ignition key to OFF; then back to ON.
12. Temperature Indicator - The speedometer/tachometer needle will sweep full scale and the LCD will go blank except the high temperature icon will flash. After 30 seconds, the speedometer/tachometer needle and LCD will return to normal, but the temperature icon will continue to flash. The icon should not be visible during normal operation.
13. Right/Left Turn Signal and hazard warning signal - Will be displayed when the right turn/hazard warning signal is selected.
14. Lights Indicator - The Lights icon will appear when the key switch is on Lights position.
15. Hi Beam Indicator - The High Beam icon will appear when the headlights are on high beam.

Condition Warning Display - Uses odometer/trip meter display of the LCD to warn of a system error condition requiring attention.

- A. Volt - The LCD will go blank except the word VOLT will flash on the LCD whenever a low voltage (< 9 DC volts) or a high voltage (> 16 DC volts) is detected. When voltage returns to normal, the gauge must be reset by turning the ignition key to the OFF position and then to the ON position.
- B. EFI - The LCD will go blank except the letters EFI will flash on the LCD whenever an electronic fuel injection error is detected. After 30 seconds, the LCD will return to normal; however, the letters EFI will continue to flash until the cause of the error is corrected.

! CAUTION

Continued operation with high engine temperature may result in engine damage or premature wear.

■ **NOTE:** High engine RPM, low vehicle speed, or heavy load can raise engine temperature. Decreasing engine RPM, reducing load, and selecting an appropriate transmission gear can lower the temperature.

■ **NOTE:** Debris in front of the engine (or packed between the cooling fins of the radiator) can reduce cooling capacity. Using a hose, pressure-wash the radiator and the engine to remove any debris restricting air flow.

■ **NOTE:** Take the ATV to an authorized Arctic Cat ATV dealer to have the EFI error corrected and to have the ECU reset as soon as possible.

ELECTRIC FUEL PUMP

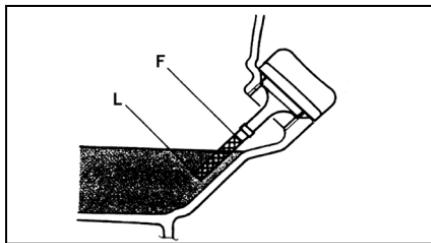
An electric fuel pump is incorporated in the gas tank to deliver gasoline to the fuel injector. The fuel pump is activated when the ignition switch is in the ON position.

■ **NOTE:** Both the ignition and fuel pump functions will be interrupted by the Tilt Sensor if the ATV tips over past 60°-70°. Righting the ATV will reactivate the ignition and fuel pump.

GAS HOSE

Replace the gas hose every two years. Damage from aging may not always be visible.

OIL LEVEL STICK



ATV-0100AA

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.
2. Install the oil level stick and thread it into the engine case.
3. Remove the oil level stick; the engine oil level should be above the "L" mark but not higher than the "F" mark.

! CAUTION

Do not overfill the engine with oil. Always make sure the oil level is above the "L" mark but not higher than the "F" mark.

WINDSHIELD (Cruiser)

! CAUTION

Remove the windshield before trailering the ATV or damage to the windshield may occur.

To remove the windshield, loosen the left and right plastic knobs and remove the windshield assembly. Tighten the knobs securely or remove them completely to prevent loss.



CR003

To install the windshield, loosen the left and right plastic knobs; then install the tapered windshield pins into the mounts and tighten knobs securely.

MIRRORS

The mirrors can be adjusted to the desired viewing angle or moved to a stowed position when operating in trees or brush.

! WARNING

Always adjust the mirrors to a position that will not catch tree branches or under-brush which could cause a loss of control and severe injury or death.

REAR SEAT LOCK

1. To remove the rear seat, pull the two latch handles to the rear and rotate them to the vertical position.

Cruiser



CR017D



CR010A

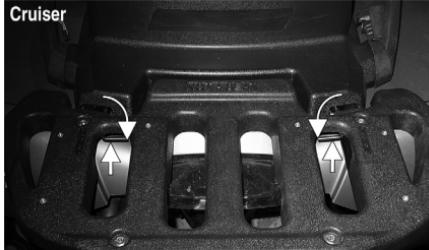
2. Lift the rear of the seat up; then pull slightly to the rear and lift the seat off the mountings.
3. To lock the seat into position, engage the two front mounting lugs into the mounting rack; then, holding down firmly on the front of the seat, push the seat forward until the rear tabs engage the rear mounting latches.
4. Lock the seat into position by rotating the latch handles to the horizontal position; then push the handles forward to lock.

1. To remove the front seat, pull the seat lock lever up (located at the rear of the seat). Raise the rear end of the seat and slide it rearward.
2. To lock the seat into position, slide the front of the seat into the seat retainers and push down firmly on rear 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.

Cruiser



CR017E

! WARNING

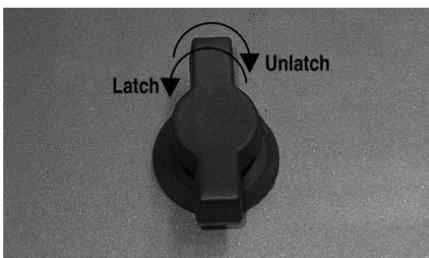
Make sure the seat is secure before mounting the ATV. Severe personal injury may result if the seat is not properly secured.

FRONT SEAT LOCK

■ **NOTE:** On the Cruiser model, it is necessary only to elevate the front of the rear seat.

STORAGE BOX (Cruiser)

To open the storage box, rotate the top latch knob clockwise; then turn the key lock clockwise, pull the lid to the rear, and lift to the open position. Pull slightly to the rear to latch.



CR013A



CR011A

To close the storage box, lift the lid and push forward; then lower and push slightly forward and close completely. Rotate the top latch counterclockwise and the key lock counterclockwise and remove the key.

! CAUTION

Do not operate or trailer the ATV with either lock unlocked or damage to the box will occur.

SAFETY FLAG BRACKET

A bracket is provided for mounting a flag at the rear of the ATV.

RACK LOADING (Front and Rear)

The front rack and rear rack are designed to carry specified load capacities. Always refer to the ATV Load Capacity Ratings Chart for proper capacities.

! WARNING

Make sure the loads on the front and rear racks will not interfere with the ATV controls or obstruct the view of the operator. Also, make sure the loads are evenly distributed, properly secured, and will not shift while operating the ATV.

TRAILERING AND TOWING

! WARNING

Never use the racks as a towing or trailering point.

This ATV is equipped with a frame-mounted receiver and a standard 5.1 cm (2 in.) receiver hitch.



ACE-018

When loading a trailer properly, two items are critical: Gross Trailer Weight (the weight of the trailer plus cargo) and Trailer Tongue Weight.

! WARNING

Make sure that the load in the trailer is properly secured and will not shift while moving. Also, do not overload the trailer.

! WARNING

Never exceed any of the ATV weight restrictions.

Trailer Tongue Weight is the downward force exerted on the hitch by the trailer coupler when the trailer is fully loaded and the coupler is at its normal towing height. Refer to the Load Capacity Ratings Chart for tongue weight information.

Always maintain a slow speed when trailering and towing and avoid sudden accelerations, quick maneuvers, and sudden stops. Braking distance will be affected when towing a trailer. When towing a trailer, always maintain slow speed and allow more stopping distance than when not towing a trailer.

! WARNING

Riding an ATV without extra caution when towing a trailer will be hazardous. Trailer towing can affect the handling and braking of the ATV. Avoid sudden accelerations and stopping of the ATV. Do not make quick maneuvers. Avoid uneven surfaces and do not tow on hills. Never carry passengers in a trailer unless the trailer is designed for such use and has a rigid tow bar. Allow more stopping distance than when not towing a trailer.

TRANSPORTING ATV

When transporting the ATV, Arctic Cat recommends that the ATV be in its normal operating position (on all four wheels) and the following procedure be used.

1. Engage the emergency/parking brake and place the transmission in gear.
2. Secure the ATV with load rated hold-down straps.

■ NOTE: Suitable hold-down straps are available from your Arctic Cat ATV 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.

! CAUTION

When transporting the ATV, make sure the emergency/parking brake is engaged, the transmission is in gear, and the ATV is properly secured.

GASOLINE-OIL-LUBRICANT

Recommended Gasoline

The recommended gasoline to use in this ATV is EU unleaded 91 octane. In some areas, oxygenates (either ethanol or MTBE) are added to the gasoline. Oxygenated gasolines containing up to 10% ethanol, 5% methane, or MTBE 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 Arctic Cat approved gasoline additives should be used.

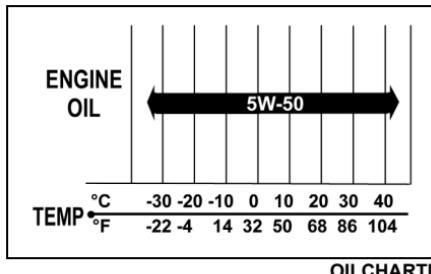
Recommended Engine/Transmission Oil

■ NOTE: Arctic Cat recommends the use of genuine Arctic Cat lubricants.

! 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 Arctic Cat ACX All Weather synthetic engine oil, which has been specifically formulated for use in this Arctic Cat engine. Although Arctic Cat ACX All Weather synthetic engine oil is the only oil recommended for use in this engine, use of any API certified SM 5W-50 oil is acceptable.



Recommended Front Differential/Rear Drive Lubricant

■ NOTE: Arctic Cat recommends the use of genuine Arctic Cat lubricants.

The recommended lubricant (front differential and rear drive when applicable) is SAE approved 80W-90 hypoid. This lubricant meets all of the lubrication requirements of the Arctic Cat ATV.

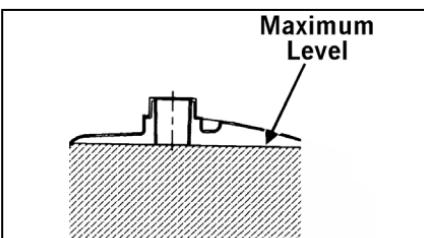
! CAUTION

Any lubricant used in place of the recommended lubricant could cause serious front differential/rear drive damage.

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.



ATV0049D

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 over-flow gasoline when filling the gas tank. A fire hazard could materialize. Always allow the engine to cool before filling the gas tank.

! WARNING

Do not overfill the gas tank.

Tighten the gas tank cap securely after filling the tank.

BREAK-IN PROCEDURE

New ATV's 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 assure maximum life and performance from the ATV.

During the first 10 hours of operation, always use less than $\frac{1}{2}$ throttle. Varying the engine RPM during the break-in period allows the components to "load" (aiding the engine/transmission 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. Do not pull a trailer during the break-in period.

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.

! CAUTION

BRAKE PADS MUST BE BURNISHED TO ACHIEVE FULL BRAKING EFFECTIVENESS.

Braking distance will be extended until brake pads are properly burnished.

TO PROPERLY BURNISH THE BRAKES, USE FOLLOWING PROCEDURE:

- Choose an area sufficiently large to safely accelerate ATV to 48 km/h (30 mph) and to brake to a stop.
- Accelerate to 48 km/h (30 mph); then compress brake lever to decelerate to 0-8 km/h (0-5 mph).
- Repeat procedure 5 times.

! WARNING

Do not attempt sudden stops or put yourself into a situation where a sudden stop will be required until the brake pads are properly burnished.

After the completion of the break-in period, the engine oil and oil filter should be changed. Other 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 Arctic Cat ATV 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 instructions/information.

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 Arctic Cat ATV dealer for inspection and adjustment or repair.

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

■ **NOTE:** The following instructions and information refer to specific items in the maintenance and care of the ATV.

LIQUID COOLING SYSTEM

■ **NOTE:** Debris in front of the engine or packed between the cooling fins of the radiator can reduce cooling capability. Using a hose, wash the radiator to remove any debris preventing air flow.

The cooling system capacity can be found in the specifications chart. The cooling system should be inspected daily for leakage and damage. If leakage or damage is detected, take the ATV to an authorized Arctic Cat ATV dealer for service. Also, the coolant level should be checked periodically.

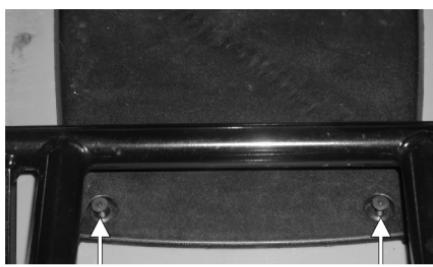
! CAUTION

Continued operation of the ATV with high engine temperature may result in engine damage or premature wear.

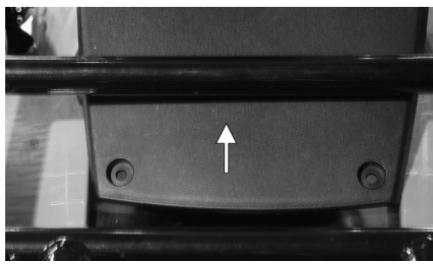
■ **NOTE:** High engine RPM, low vehicle speed, or heavy load can raise engine temperature. Decreasing engine RPM, reducing load, and selecting an appropriate transmission gear can lower the temperature.

To check/add coolant, use the following procedure.

1. Remove the two reinstallable rivets from the front of the radiator access panel.



2. Lift the front of the access panel; then slide the panel forward to disengage the two rear tabs.
3. Move the panel rearward until free of the rack.

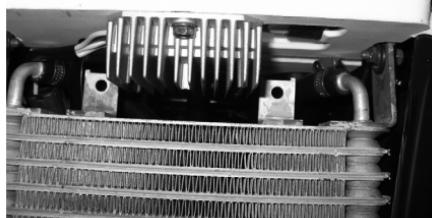


4. Carefully rotate the radiator cap counterclockwise to release pressure; then remove the cap.



CF142A

OIL COOLER



KC0083

5. Add coolant as necessary; then install the radiator cap and access panel.

When filling the cooling system, use a coolant/water mixture which will satisfy the coldest anticipated weather conditions of the area in accordance with the coolant manufacturer's recommendations. While the cooling system is being filled, air pockets may develop; therefore, run the engine for five minutes after the initial fill, shut the engine off, and then fill the cooling system to the bottom of the stand pipe in the radiator neck.

■ **NOTE:** Use a good quality, biodegradable glycol-based, automotive-type antifreeze.

! WARNING

Never check the coolant level when the engine is hot or the cooling system is under pressure.

! CAUTION

After operating the ATV for the initial 5-10 minutes, stop the engine, allow the engine to cool down, and check the coolant level. Add coolant as necessary.

■ **NOTE:** Dirt and debris must be cleaned from the cooling fins regularly to ensure proper engine oil cooling.

! CAUTION

Continued operation of the ATV with high engine temperature may result in engine damage or premature wear.

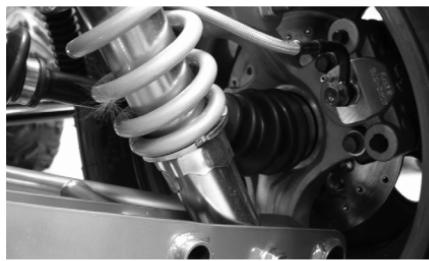
■ **NOTE:** High engine RPM, low vehicle speed, or heavy load can raise engine temperature. Decreasing engine RPM, reducing load, and selecting an appropriate transmission range can lower the temperature.

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. The shock absorber has a spring force adjustment sleeve with five adjustment positions to allow the spring to be adjusted for different riding and loading conditions. If the spring action is too soft or too stiff, adjust it according to the chart.



KC0102

■ **NOTE:** Use a spanner wrench to adjust the sleeve to the desired position.

Position	Spring Force	Setting	Load
1	↓	Soft	Light
2		↑	↑
3		↓	↓
4		Stiff	Heavy
5		Stronger	Heavy

GENERAL LUBRICATION

Cables

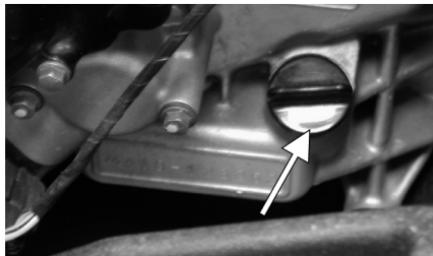
None of the cables require lubrication; however, it is advisable to lubricate the ends of the cables periodically with a good cable lubricant.

Engine/Transmission Oil and Filter

■ **NOTE:** Refer to the recommended oil viscosity chart (on page 49) in this manual for the proper engine oil.

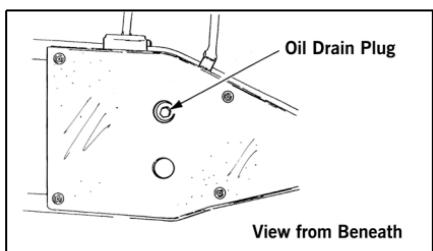
Change the engine oil and oil filter at the scheduled intervals. The engine should always be warm when the oil is changed so the oil will drain easily and completely.

1. Park the ATV on level ground.
2. Remove the oil level stick. Be careful not to allow contaminates to enter the opening.



CF109M

3. Remove the drain plug from the bottom of the engine and drain the oil into a drain pan.



733-441A

4. Remove the oil filter plug from the filter mounting boss (located on the front-right side of the transmission case) and allow the filter to drain completely.
5. Using the oil filter wrench and a ratchet handle (or a socket or box-end wrench), remove the old oil filter and dispose of properly. Do not re-use oil filter.

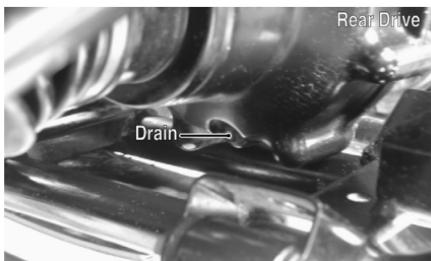
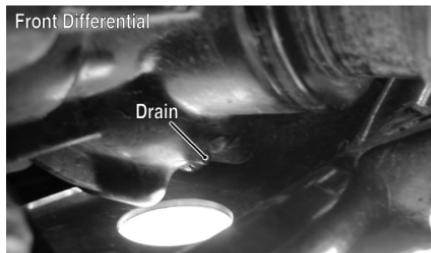
■ **NOTE:** Clean up any excess oil after removing the filter.

6. Apply oil to the new filter O-ring and check to make sure it is positioned correctly; then install the new oil filter. Tighten securely.
7. Install the oil filter drain plug and tighten securely.
8. Install the engine drain plug and tighten it securely. Pour the recommended oil in the filler hole. Install filler plug.
9. Start the engine (while the ATV is outside on level ground) and allow it to idle for a few minutes.
10. Turn the engine off and wait approximately one minute. Recheck the oil level.
11. Inspect the area around the drain plug and oil filter for leaks.

Front Differential And Rear Drive Gear Lubricant (Inspecting/Changing)

Inspect and change the gear lubricant in each according to the Maintenance Schedule. When changing the lubricant, use approved SAE 80W-90 hypoid oil and use the following procedure.

1. Place the ATV on level ground.
2. Remove each oil filler plug.
3. Drain the oil into a drain pan by removing in turn the drain plug from each.



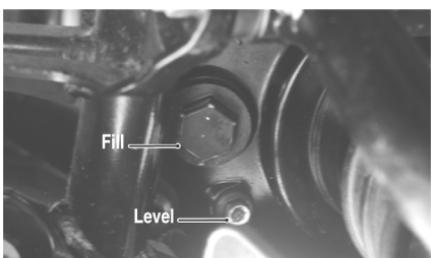
4. After all the oil has been drained, install the drain plugs and tighten securely.

! CAUTION

Inspect the oil for any signs of metal filings or water. If found, take the ATV to an authorized Arctic Cat ATV dealer for servicing.

5. Pour recommended oil into each filler hole.

■ NOTE: If the gear case has a level plug, fill to the threads of the level plug. If the gear case has only a fill plug, fill to within 2.5 cm (1 in.) of the threads of the fill plug.

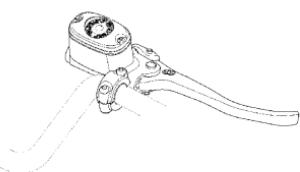


■ NOTE: Arctic Cat recommends the use of genuine Arctic Cat lubricants.

6. Install the fill plugs and level plugs.

■ BRAKE SYSTEMS

■ Hand Brake Lever (Hydraulic)



738-420B

! WARNING

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

■ Brake Fluid

Check the brake fluid level in the brake fluid reservoir. If the level in the reservoir is not visible in the sight glass, add DOT 4 brake fluid.



738-420A

■ NOTE: If the sight glass appears dark, there is a sufficient amount of fluid in the reservoir.

! CAUTION

Be careful not to spill any fluid when filling the brake fluid reservoir. Wipe away spilled fluid immediately.

■ Foot Brake Pedal (Main)

The foot brake must be maintained to be fully functional.

! WARNING

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

1. Check the brake fluid level in the reservoir. The fluid level must be maintained between the MAX and MIN level marks. If the level in the reservoir is low, add DOT 4 brake fluid.
2. Press the foot brake pedal several times to check for firmness.
3. If the pedal is not firm, the system must be bled.
4. Check the brake cable, which connects the brake pedal with the hand brake lever, if necessary adjust it.

■ NOTE: Take the ATV to an authorized Arctic Cat ATV dealer for this service.

■ Emergency/Parking Brake

Check to make sure the emergency/parking brake engages properly and that the brake (when engaged) locks the wheels.

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

■ NOTE: The emergency/parking brake must lock the wheels. If it doesn't, take the ATV to an authorized Arctic Cat ATV dealer for service.

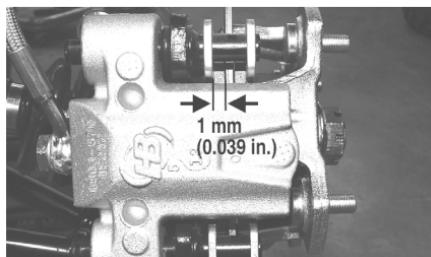
Brake Hoses

Carefully inspect the hydraulic brake hoses for cracks or other damage. If found, take the ATV to an authorized Arctic Cat ATV dealer to have the brake hoses replaced.

Brake Pads

The clearance between the brake pads and brake discs is adjusted automatically as the brake pads wear. The only maintenance that is required is replacement of the brake pads when they show excessive wear. Check the thickness of each of the brake pads as follows:

1. Remove a front wheel.
2. Measure the thickness of each brake pad.
3. If thickness of either brake pad is less than 1.0 mm (0.039 in.), take the ATV to an authorized Arctic Cat ATV dealer to have brake pads replaced.



PR376B

4. Install the wheel and tighten to 40 ft-lb.

PROTECTIVE RUBBER BOOTS

The protective boots should be inspected periodically according to the Maintenance Schedule.

Ball Joint Boots (Upper and Lower/Right and Left)



CC791

1. Secure the ATV on a support stand to elevate the front wheels.
2. Remove both front wheels.
3. Inspect the four ball joint boots for cracks, tears, or perforations.
4. Check the ball joint 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 ball joint free-play seems excessive, contact an authorized Arctic Cat ATV dealer for service.

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



CC792

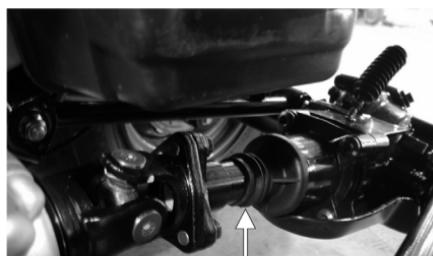
1. Secure the ATV on a support stand to elevate the front wheels.
2. Remove both front wheels.
3. Inspect the four tie rod boots for cracks, tears, or perforations.

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 Arctic Cat ATV dealer for service.

Drive Axle Boots



CC793



CF125A

1. Inspect all drive axle boots for cracks, tears, or perforations.
2. If boot damage is present, contact an authorized Arctic Cat ATV dealer for service.

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 procedures are recommended for cleaning and maintaining sealed batteries. Always read and follow instructions provided with battery chargers and battery products.

■ **NOTE:** Battery maintenance can be performed by the ATV owner if qualified to do so. If the owner does not feel qualified, take the ATV to an authorized Arctic Cat ATV dealer for this service. This service is at the discretion and expense of the ATV owner.

! WARNING

Anytime 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.

1. Remove the battery hold-down; then disconnect the battery cables (negative cable first).
2. Remove the battery from the battery compartment; then thoroughly wash the battery and battery compartment with soap and water.

■ **NOTE:** If battery posts, cable ends, or the battery case has a build-up of white/green powder residue, apply water and baking soda to neutralize acid; then flush off with warm soapy water.

3. Using a wire brush, clean the battery posts and cable ends removing all corrosive buildup. Replace damaged cables or cable ends.
4. Add clean distilled water to bring fluid level to the UPPER level line.

! WARNING

Battery acid is harmful if it contacts eyes, skin, or clothing. Care must be taken whenever handling a battery.

! CAUTION

Do not remove a seal strip.

5. Using a multimeter, test the battery voltage. The meter must read at least 12.5 DC Volts for a fully charged battery.

■ **NOTE: At this point, if the meter reads as specified, the battery may be returned to service (see step 9).**

6. If the meter reads less than specified voltage, charge the battery using the following guidelines.

- A. When using an automatic battery charger, always follow the charger manufacturer's instructions.
- B. When using a constant-current battery charger, use the following Battery Charging Chart.

! CAUTION

Never exceed the standard charging rate.

! WARNING

An overheated battery could explode causing severe injury or death. Always monitor charging times and charge rates carefully. Stop charging if the battery becomes very warm to the touch. Allow it to cool before resuming charging.

Battery Charging Chart (Constant-Current Charger)

Battery Voltage (DC)	Charge State	Charge Time Required (at 1.5-2.0 Amps)
12.5 or more	100%	None
12.2-12.4	75%-99%	3-6 hours
12.0-12.2	50%-74%	5-11 hours
11.0-11.9	25%-49%	13 hours (minimum)
11.5 or less	0-24%	20 hours (minimum)

■ **NOTE: If the battery voltage is 11.5 DC Volts or less, some chargers may "cut off" and fail to charge. If this occurs, connect a fully charged booster battery in parallel (positive to positive and negative to negative) for a short period of time with the charger connected. After 10-15 minutes, disconnect the booster battery leaving the charger connected and the charger should continue to charge. If the charger "cuts off," replace the battery.**

7. After charging the battery for the specified time, remove the battery charger and allow the battery to sit for 1-2 hours.
8. Connect the multimeter and test the battery voltage. The meter should read at least 12.5 DC Volts. If the voltage is as specified, the battery is ready for service.

■ **NOTE: If voltage in step 8 is below specifications, charge the battery an additional 1-5 hours; then retest. Recheck electrolyte level and the battery is ready for service.**

9. Place the battery in the battery compartment; then coat the battery posts and cable ends with a light coat of multi-purpose grease.

! CAUTION

Before installing the battery, make sure the ignition switch is in the OFF position.

10. Connect the battery cables (positive cable first); then install the battery hold-down.

! CAUTION

Connecting cables in reverse (positive to negative and negative to positive) can cause serious damage to the electrical system.

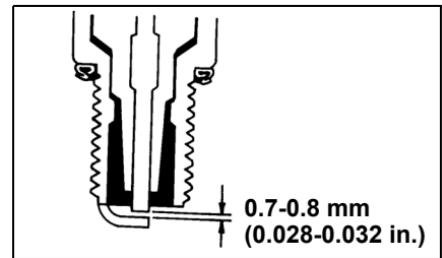
SPARK PLUG

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. Consult an authorized Arctic Cat ATV 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 0.7-0.8 mm (0.028-0.032 in.) for proper ignition. Use a wire-type feeler gauge to check the gap.



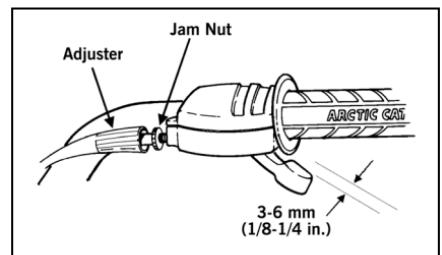
ATV-0052

When installing the spark plug, be sure to tighten it securely. 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.

THROTTLE CABLE ADJUSTMENT

To adjust the throttle cable free-play:

1. Loosen the jam nut from the throttle cable adjuster.
2. Slide the rubber boot away and turn the adjuster until the throttle lever has the proper free-play of 3-6 mm (1/8-1/4 in.).



ATV-0047

3. Tighten the knurled nut against the throttle cable adjuster securely; then slide the rubber boot over the adjuster.

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 in the Maintenance Schedule. 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. Raise the storage compartment cover; then slide the cover forward and off the compartment. Remove the storage compartment.



CD669



CD671

2. Remove the wing nuts securing the air filter housing cover and the air filter/frame assembly.

3. Remove the foam element from the frame making sure not to tear the element.



CD674

4. Fill a wash pan larger than the element with a non-flammable solvent; then dip the element in the solvent and wash it.

■ NOTE: Foam Air Filter Cleaner and Foam Air Filter Oil are available from Arctic Cat.

5. Squeeze the element by pressing it between the palms of both hands to remove excess solvent. Do not twist or ring the element or it will develop cracks.
6. Dry the element.
7. Put the element in a plastic bag; then pour in air filter oil and work the oil into the element.
8. Squeeze the element to remove excess oil.

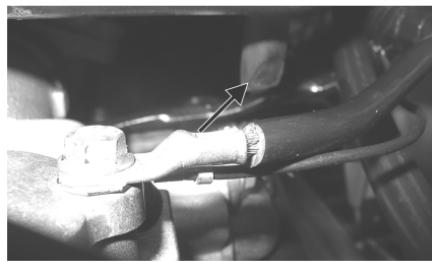
! CAUTION

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

9. Clean any dirt or debris from inside the air cleaner.
10. Install the air filter/frame assembly and cover.
11. Install the storage compartment and cover.

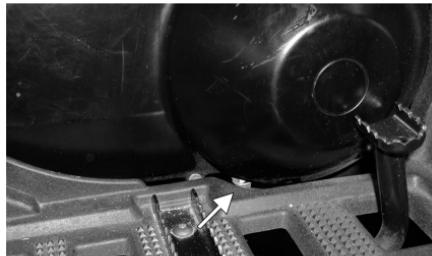
AIR FILTER HOUSING DRAIN

Inspect the “duck bill” drain in front of the main housing for debris and for proper sealing.



GZ018A

DRAINING V-BELT COVER



CF110A

■ NOTE: If the ATV has been driven through water, the V-belt cover must be drained of any water.

1. Place the ATV on a level surface.
2. Remove the drain bolt from the cover and allow the water to drain out.
3. Shift the range lever to the neutral position; then start the engine.
4. Increase and decrease engine RPM several times to “blow out” any water; then stop the engine.
5. Install the drain bolt and tighten securely.

■ NOTE: The V-belt and pulleys should be inspected every 500 km and the belt replaced (if necessary).

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 4 mm (5/32 in.). Be sure to replace the tires before reaching this minimum specification.



732-649A

! 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. Air is sealed by the contact surfaces of the inner wheel rim and the tire bead. If either the inner wheel rim or tire bead is damaged, air may leak. Be extremely careful not to damage these areas when replacing tires.

It is very important to use the proper tools when repairing or replacing tires to prevent damage to the tire bead or wheel rims. If proper tools and related items are not available, have this maintenance performed by an authorized Arctic Cat ATV dealer or a qualified tire repair station.

! CAUTION

When breaking the tire bead loose from the wheel, be extremely careful not to damage the inner wheel surface or the tire bead.

! WARNING

Use only Arctic Cat 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 lock.
2. Loosen the lug nuts on the wheel to be removed.
3. Elevate the ATV by placing a jack under the axle.
4. Remove the lug nuts.
5. Remove the wheel.
6. Install the wheel and install the lug nuts.
7. Tighten the nuts in a crisscross pattern to 4.4 kg-m (32 ft-lb).
8. Remove the jack.

! WARNING

Failure to tighten the lug nuts to specified torque value can be hazardous. If the nuts are not properly tightened, the wheel can come off causing an accident and possible severe injury.

LIGHT BULB REPLACEMENT

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

Headlight	12V/35W/35W
Taillight/Brakelight	12V/8W/27W
License Plate Light	12V/5W
Turn Signal - Front	12V/27W
Turn Signal - Rear	12V/10W

! CAUTION

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

Headlight

■ 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.

! WARNING

Do not attempt to remove the bulb when it is hot. Severe injury may result.

To replace the headlight bulb, use the following procedure.

1. Remove the rubber boot from the back of the headlight housing; then remove the three-wire connector from the bulb.
2. Release the two ends of the spring clip from the headlight housing making sure not to bend or deform the clip; then remove the bulb from the housing.
3. Install the new bulb into the housing; then secure with the spring clip.

4. Connect the three-wire connector to the bulb; then install the rubber boot.

! 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.

License Plate Light

To replace the license plate bulb, use the following procedure.

1. Pull out the socket.
2. Pull the bulb straight out of the socket.
3. Install the new bulb by pushing it in.
4. Install the socket by pushing it in.

Turn Signal Light Front/ Taillight/Brakelight

To replace the turn signal light front/taillight/brakelight bulb, use the following procedure.

1. Rotate the socket counterclockwise and remove it from the housing.
2. To remove the bulb from the socket, pull it straight out of the socket.
3. To install the bulb, push it straight into the socket.
4. Insert the socket into the housing and rotate it clockwise.

Turn Signal Light Rear

To replace the turn signal light bulb, use the following procedure.

1. Remove the screw and the lens.
2. To remove the bulb from the socket, push in and rotate counterclockwise.
3. To install the bulb, push in and turn clockwise.
4. Install lens and tighten the screw.

FUSES

The fuses are located in a power distribution module under the seat, the fuse for the turn signal is located under the seat next to the battery (fuse size 7,5A). If there is any type of electrical system failure, always check the fuses first.

■ NOTE: To remove the fuse, compress the locking tabs on either side of the fuse cover and lift off; then remove and replace the fuse.

Thunder Cat



1411-526

Cruiser



1411-940

! 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 Arctic Cat ATV dealer immediately.

STORAGE COMPARTMENT/TOOLS

A basic tool kit is provided with the ATV. Maintain the tool kit with the ATV at all times. The tool kit is located under the seat.

The storage compartment is above the engine in front of the seat.

PREPARATION FOR STORAGE

! CAUTION

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

Arctic Cat recommends the following procedure to prepare the ATV for storage. An authorized Arctic Cat ATV dealer should perform this service; however, the owner/operator may perform this service if desired.

1. Clean the seat cushion (cover and base) with a damp cloth and allow to dry.
2. 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.
3. Either drain the gas tank or add a fuel stabilizer to the gas in the gas tank. Remove the air filter housing cover and air filter. Start the engine and allow it to idle; then using Arctic Cat Engine Preserver, rapidly inject the preserver into the air filter opening for a period of 10 to 20 seconds. Install the air filter and housing cover.

! CAUTION

If the interior of the air filter housing is dirty, clean the area before starting the engine.

4. Plug the hole in the exhaust system with a clean cloth.
5. Apply light oil to the upper steering post bushing and plungers of the shock absorbers.
6. 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.
7. Fill the cooling system to the bottom of the stand pipe in the radiator neck with properly mixed coolant.
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.
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 assure many miles and hours of trouble-free riding. Arctic Cat recommends the following procedure to prepare the ATV.

1. Clean the ATV thoroughly.
2. Clean the engine. Remove the cloth from the exhaust system.
3. Check all control wires and cables for signs of wear or fraying. Replace if necessary.
4. Change the engine/transmission oil and filter.
5. Check the coolant level and add properly mixed coolant as necessary.
6. Charge the battery; then install. Connect the battery cables making sure to connect the positive cable first.
7. Check the entire brake systems (fluid level, pads, etc.), all controls, headlights, taillight, brakelight, license plate light, front and rear turn signals, and headlight aim; 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. Follow the recommendations found in the Starting the Engine sub-section in this manual.

! CAUTION

Before installing the battery, make sure the ignition switch is in the OFF position.

NOTES

LIMITED WARRANTY

Arctic Cat extends legal warranty on each new Arctic Cat ATV and each part and accessory manufactured or sold by Arctic Cat. Warranty claims can be made only for parts and accessories sold by an authorized Arctic Cat ATV dealer. Warranty is extended to the original retail purchaser; however, against a fee of EUR 25, the balance of the unused warranty may be transferred to a second party.

Warranty claims become invalid when anything other than genuine Arctic Cat parts are used. Arctic Cat does not assume any liability for consequential damages.

Arctic Cat assumes the costs for all parts that are found to be warrantable. The repair work MUST be done by an authorized Arctic Cat ATV dealer. No transportation or rental charges (for rented vehicles) will be paid by Arctic Cat. The warranty is validated upon examination of said parts by Arctic Cat or an authorized Arctic Cat dealer. Arctic Cat reserves the right to inspect such parts at its factory.

The warranty periods are as follows:

1. 24 months from date of sale for ATV's.
2. Six months from date of sale for batteries.
3. Thirty days from date of sale for all parts and accessories.

Excluded from this warranty are:

1. Defects due to abuse of the vehicle or spare parts and accessories.
2. Parts subject to normal wear.

The following will VOID warranty:

1. Failure to perform the proper break-in procedure and all related maintenance and storage procedures.
2. Repair by anyone other than an authorized Arctic Cat ATV dealer.
3. Improper use.
4. Use of improper carburetor jets and other accessories.
5. Use of improper gasoline, lubricating oils, or spark plug.
6. An accident or subjecting the ATV to misuse, abuse, or negligent operation.
7. Modification or removal of parts (e.g. muffler, carburetor boot, etc.) unless instructed to do so by Arctic Cat.
8. Use of the ATV in any way for racing purposes.
9. Removal of the engine for use in another vehicle.
10. Removal or mutilation of the Vehicle Identification Number or Engine Serial Number.
11. Use of parts not sold by Arctic Cat.
12. Damage due to improper transportation.
13. Failure to perform the prescribed services:
 - a. Service after 500 km,
 - b. Service after 1500 km,
 - c. Service after 5000 km,
 - d. Afterwards every 5000 km or after 1 year respectively (whichever comes first).
14. Inappropriate modifications not expressly authorized by the manufacturer.

In consideration of the foregoing, any warranty claim is limited in duration to the various warranty periods set forth.

WARRANTY PROCEDURE/ OWNER RESPONSIBILITY

At the time of purchase of a new Arctic Cat ATV, you receive a registration card which should be completed and sent to: Arctic Cat GmbH, Industriestrasse 43, 5600 St. Johann/Pg., Austria. One copy remains with your Arctic Cat ATV dealer.

Apart from that, the customer receives a vehicle registration certificate which must be presented in occasion of each warranty claim.

Only an authorized Arctic Cat ATV dealer has the right to perform the warranty repair work.

If a warrantable condition appears to exist, the Arctic Cat ATV dealer examines the ATV and will repair or replace, free of charge, all damaged parts. The customer is then asked to sign a warranty form to ensure that warranty work (repair or replacement of the warrantable part respectively) was actually performed.

It is the owner's responsibility to maintain and service the ATV in accordance with Arctic Cat's recommendations in the Operator's Manual. **Arctic Cat will not warrant 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 Arctic Cat dealer.

CHANGE OF ADDRESS, OWNERSHIP, OR WARRANTY TRANSFER

Arctic Cat keeps on file the current address of the owner of this ATV. This will allow Arctic Cat to reach the current owner with any important safety information. For this reason, we ask you to inform Arctic Cat immediately if you move or if the ATV is sold to another party. Please fill out this form completely and send it to: Arctic Cat GmbH, Industriestrasse 43, 5600 St. Johann/Pg., Austria.

This form may also be used to transfer the unused portion of the original warranty to a second party. Fill out this form completely and send it to Arctic Cat enclosing a copy of the vehicle registration certificate and an account-only cheque in the amount of EUR 25. Arctic Cat will then process the application and issue a new vehicle certificate for the remaining period of the warranty.

Address Change	<input type="radio"/>
Ownership Change	<input type="radio"/>
Warranty Transfer	<input type="radio"/>

CHANGE OF ADDRESS/OWNERSHIP/ WARRANTY TRANSFER TO:

Name _____

Address _____

City/State (Province)/Zip Code (Postal Code) _____

Phone # () _____

Year and Model ATV _____

Vehicle Identification Number (VIN) _____

Fold Back

Place
Stamp
Here

CHANGE OF ADDRESS/OWNERSHIP

**Arctic Cat GmbH
Industriestrasse 43
5600 St. Johann/Pg., Austria**

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MAINTENANCE RECORD

Identification Numbers Record

! WARNING

Indicates a potential hazard that could result in serious injury or death.



1. KEY IDENTIFICATION NUMBER:

The key identification number is stamped on the key as shown in the illustration. Record this number in the space provided for reference if you ever need a new key.

2. VEHICLE IDENTIFICATION NUMBER:

3. ENGINE SERIAL NUMBER:

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

Version 1

Effective Date:
August, 2009