

# 2017

## OPERATOR'S MANUAL



## ALTERRA TRV<sup>®</sup>

### **▲ WARNING**



Operating this ATV if you are under the age of 16 increases your chance of severe injury or death.

**NEVER** operate this ATV if you are under 16.

- Do not remove this Operator's Manual from this ATV according to the guidelines and agreement with the U.S. Consumer Product Safety Commission.
- Read this manual carefully. It contains important safety information.



**ARCTIC CAT<sup>®</sup>**  
SHARE OUR PASSION.<sup>™</sup>  
[www.arcticcat.com](http://www.arcticcat.com)

# Your 2-Up ATV Can Be Hazardous To Operate.

A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills or over obstacles, if you fail to take proper precautions.

For your safety and the safety of a passenger, it is important to understand and follow all the warnings contained in this Operator's Manual and the labels on your ATV prior to riding.

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

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

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

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

Pour votre sécurité, il est importante que tout opérateur est formé correctement pour opérer un VTT. Un cours d'instruction est disponible: pour les propriétaires canadiens, composez le 613-739-1535.

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**

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

**CAUTION**

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

■ **NOTE:**

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

## **California Proposition 65**



**WARNING**

**This product contains or emits chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**

# Foreword

Congratulations and thank you from Arctic Cat Inc. for purchasing an ARCTIC CAT® TRV. Built with American engineering and manufacturing know-how, it is designed to provide superior ride, comfort, and utility.

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

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

This Arctic Cat TRV 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 more than once, contact Arctic Cat Inc., Service Department, P.O. Box 810, Thief River Falls, MN 56701, for proper registration information.

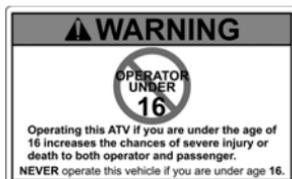
You have chosen a quality Arctic Cat TRV designed and assembled to give dependable service. Be sure, as the owner/operator of an Arctic Cat TRV, to become thoroughly familiar with its basic operation, maintenance, and storage procedures. Read, understand, and follow the entire Operator's Manual before operating the ATV to ensure safe and proper use of your new Arctic Cat ATV. Always operate the ATV within your level of skill and current terrain conditions.

## Protect Your Sport

- Know all local, state/provincial riding laws,
- Respect your ATV, and
- Respect the environment

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

All information in this manual is based on the latest product data and specifications available at the time of printing. Arctic Cat Inc. reserves the right to make product changes and improvements which may affect illustrations or explanations without notice.



2411-122A

## Parts and Accessories

When in need of replacement parts, oil, or accessories for your Arctic Cat TRV, 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 TRV. For a complete list of accessories, refer to the current Arctic Cat 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.

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

Category	Age (Years)	Speed Limitations (MPH)	Notes
Y-12+	12 or Older	15 - Limited 30 - Maximum	Operate Under Adult Supervision
T-14	14 or Older	20 - Limited 30 - Limited 38 - Maximum	Operate Under Adult Supervision
G & S	16 or Older	According to Local Regulations	—

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

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# **DIVISION I - SAFETY**

## **A 2-UP 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. Never operate up or down hills steeper than 25°.
- 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 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 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 this 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.
- No one under the age of 16 should operate this ATV. Some operators at the age of 16 may not be able to operate the ATV safely. Parents should supervise the use of the ATV at all times. Parents should permit continued use only if they determine that the operator has the ability to operate the ATV safely.

# A 2-Up ATV Is Not A Toy And Can Be Hazardous To Operate.

- Never carry a passenger who cannot place both feet on the footrests and who cannot securely hold onto the handholds.

**FOR MORE INFORMATION ABOUT TRV SAFETY, contact your local Arctic Cat ATV dealer or 1-613-739-1535 (Canada).**

## TRV PASSENGER INSTRUCTIONS

Operator, tell your passenger to:

- Hold firmly onto the handholds.
- Keep both feet on the footrests even when stopped.
- Stay directly behind you leaning as you lean.

## 2-Up ATV Safety Alert

You should be aware that A 2-Up ATV IS NOT A TOY AND CAN BE HAZARDOUS TO OPERATE. A TRV handles differently from other vehicles, including motorcycles and cars. A collision or roll-over 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 the ATV or ride as a passenger without proper instruction. Take a training course. Beginners should complete a training course.
- \* Never allow anyone under 16 years old to operate an Arctic Cat TRV.
- \* Never operate the ATV on pavement. The ATV is not designed to be used on paved surfaces and may be difficult to control.
- \* Never operate the ATV on a public road, even a dirt or gravel one, because you may not be able to avoid colliding with another ATV. Also, operating the ATV on a public road may be against the law.
- \* Never operate the ATV or ride as a passenger without an approved motorcycle helmet, eye protection, boots, gloves, long pants, and a long-sleeved shirt or jacket.
- \* Never consume alcohol or drugs before or while operating the ATV or riding as a passenger.
- \* Never operate the 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 the ATV, especially when approaching hills, turns, and obstacles and when operating on unfamiliar or rough terrain.
- \* Never lend the ATV to anyone who has not taken a training course.
- \* Always inspect the ATV each time you use it to make sure it is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in this manual.
- \* Always keep both hands on the handlebar grips (operator)/handholds (passenger) and both feet firmly planted on the footrests of the ATV during operation.

# Rider Training Course

Arctic Cat sponsors a free Rider Training Course to teach ATV riding skills or to reinforce current riding skills. First-time purchasers without any previous ATV riding experience will receive a \$100.00 coupon from Arctic Cat through the SVIA/ASI after completing the training course (U.S. owners only, one incentive, and free rider training courses for appropriate immediate family members per ATV purchase). See an authorized Arctic Cat ATV dealer for details or call (800) 887-2887 for training course information.

In Canada, the Canada Safety Council (CSC) provides an ATV Rider's Course to teach safe ATV operating skills. They also provide a special ATV Rider's Course for children under 14 years of age with parental supervision. Call the CSC at 1-613-739-1535 ext. 227 for more details. Also available is a bilingual computer-based safety training program on a CD-ROM from CATV - call toll-free at 1-877-470-2288.

Au Canada, le conseil canadien de la sécurité (CSC) offre un cours de conduite de VTT pour enseigner les habiletés d'opération sécuritaires de VTT. Un cours spécial de conduite de VTT est également offert aux enfants de moins de 14 ans avec la surveillance d'un parent. Communiquez avec le CSC en composant le: 1-613-739-1535, poste 227 pour de plus amples informations. Un programme de formation bilingue informatisé sur la sécurité est aussi disponible sur disque optique compact par CATV; composez sans frais le: 1-877-470-2288.

**FOR MORE INFORMATION ABOUT ATV SAFETY, in the U.S., call the Consumer Product Safety Commission at (800) 638-2772 or the ATV Distributors' Safety Hotline at (800) 852-5344 or in Canada, call the Canada Safety Council at 1-613-739-1535 ext. 227.**

Visit the Arctic Cat Inc. website at [www.arcticcat.com](http://www.arcticcat.com) for additional product information.



# Hangtags

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



2261-376

Pour commander des Etiquettes de Mise en Garde gratuites, voyez votre détaillant de autorisé VTT Arctic Cat pour le numéro de pièce 2436-519.

# 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 these two pages.

**A**

**⚠ WARNING**



**OPERATOR UNDER 16**

Operating this ATV if you are under the age of 16 increases the chances of severe injury or death to both operator and passenger.

**NEVER** operate this vehicle if you are under age 16.

---

**⚠ WARNING**

Improper use can result in SEVERE INJURY or DEATH






**ALWAYS USE AN APPROVED HELMET AND PROTECTIVE GEAR FOR DRIVER AND PASSENGER**

**NEVER USE ON PUBLIC ROADS**

**NEVER CARRY MORE THAN 1 PASSENGER**

**NEVER USE WITH DRUGS OR ALCOHOL**

**NEVER operate:**

- without proper ATV training or instruction
- at speeds too fast for your skills or the conditions
- on public roads - a collision can occur with another vehicle
- with a passenger unless passenger seat is securely in place

**THE OPERATOR MUST ALWAYS:**

- use proper riding techniques to avoid overturns on hills and rough terrain and in turns
- avoid paved surfaces - pavement may seriously affect handling and control
- reduce speed and use extra caution at all times when carrying a passenger - dismount passenger when conditions require
- make sure passenger reads and understands this label and passenger safety label

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

2411-299

**B**

**⚠ WARNING**

Improper tire pressure or overloading can cause loss of control. Loss of control can result in severe injury or death.

Cold tire pressure:

Front: 10.0 psi (68.9 kPa)  
Rear: 10.0 psi (68.9 kPa)  
Maximum weight capacity: 600 lbs (272 kg)

---

**⚠ WARNING**

**PASSENGER SAFETY**

To reduce the risk of SEVERE INJURY or DEATH.




**NEVER CARRY MORE THAN ONE PASSENGER**

**NEVER RIDE AFTER USING DRUGS OR ALCOHOL**

**NEVER** carry a passenger too small to firmly plant feet on footrests and securely grasp hand holds.

**THE PASSENGER MUST ALWAYS:**

- use an approved helmet and protective gear
- securely grasp hand holds and plant feet firmly on footrests while seated in the passenger seat
- tell operator to slow down or stop if uncomfortable - get off and walk if conditions require

5411-517

**D**

**⚠ WARNING**

Disengage brake lever lock before operating ATV.

1411-905

**E**

**⚠ WARNING**

**NEVER** exceed 10 MPH (16KPH) when the differential is in the **LOCKED** mode.

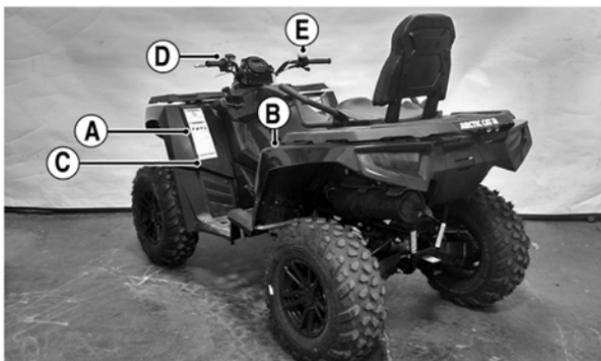
5411-699

**C**

**⚠ WARNING/AVERTISSEMENT**

THIS VEHICLE IS AN ALL-TERRAIN VEHICLE AND IS NOT INTENDED FOR USE ON PUBLIC HIGHWAYS.  
CE VÉHICULE EST UN VÉHICULE TOUT TERRAIN QUI N'EST PAS DESTINÉ À ÊTRE UTILISÉ SUR LES CHEMINS PUBLICS.

5411-514



XR228A

# Warning Labels & Information (cont)

**F**

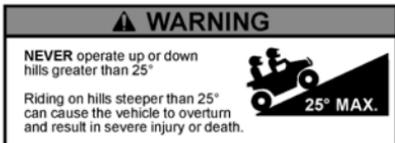


**WARNING**

NEVER ride as a passenger unless passenger's seat is installed and mounting latches are properly engaged.

4411-514

**I**



**WARNING**

NEVER operate up or down hills greater than 25°

Riding on hills steeper than 25° can cause the vehicle to overturn and result in severe injury or death.

25° MAX.

**WARNING**

Failure to stop vehicle completely before engaging reverse could result in your being thrown from the ATV.

**TO ENGAGE REVERSE:**

1. Stop vehicle completely.
2. Bring engine to idle. Apply brake.
3. Shift transmission to neutral.
4. Shift reverse lever fully toward rear while applying brakes.

Read operator's manual located under the seat for additional information. Write to Arctic Cat for free replacement if missing.

5411-515

**G**



**WARNING**

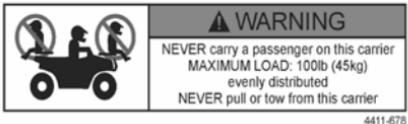
Never exceed vehicle's towing limit. Reduce speed when towing. Read operator's manual for details.

**MAXIMUM TONGUE WEIGHT:**  
35 lbs. (16 kg)

**MAXIMUM TOWING CAPACITY:**  
1050 lbs. (477 kg)

4411-550

**H**



**WARNING**

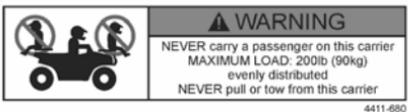
NEVER carry a passenger on this carrier

MAXIMUM LOAD: 100lb (45kg)  
evenly distributed

NEVER pull or tow from this carrier

4411-676

**J**



**WARNING**

NEVER carry a passenger on this carrier

MAXIMUM LOAD: 200lb (90kg)  
evenly distributed

NEVER pull or tow from this carrier

4411-680

**K**



**WARNING**

Do not run engine without this shield in place or with drive belt removed.

Do not attempt any adjustment with engine running.

0411-426



XR229A

# Warnings

■ **NOTE:** The 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**

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

## **WARNING**

### **POTENTIAL HAZARD**

Allowing anyone under age 16 to operate this ATV.

### **WHAT CAN HAPPEN**

Use of the ATV by children can lead to severe injury or death of the child. Children under the age of 16 may not have the skills, abilities, or judgment needed to operate the ATV safely and may be involved in a serious accident.

### **HOW TO AVOID THE HAZARD**

A child under 16 should never operate this ATV.

## **WARNING**

### **POTENTIAL HAZARD**

Operating this ATV on paved surfaces.

### **WHAT CAN HAPPEN**

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



### **HOW TO AVOID THE HAZARD**

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

## **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**

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

## **WARNING**

### **POTENTIAL HAZARD**

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

### **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.**

## **WARNING**

### **POTENTIAL HAZARD**

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

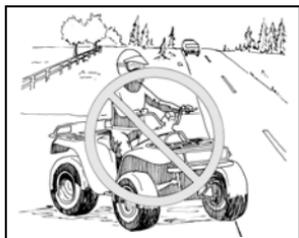
### **WHAT CAN HAPPEN**

You can collide with another vehicle.

### **HOW TO AVOID THE HAZARD**

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

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



## **WARNING**

### **POTENTIAL HAZARD**

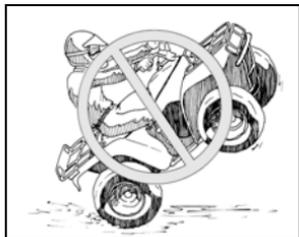
Attempting wheelies, jumps, and other stunts.

### **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**

Operating this ATV after or while consuming alcohol or drugs.

### **WHAT CAN HAPPEN**

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

### **HOW TO AVOID THE HAZARD**

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

## **⚠ WARNING**

### **POTENTIAL HAZARD**

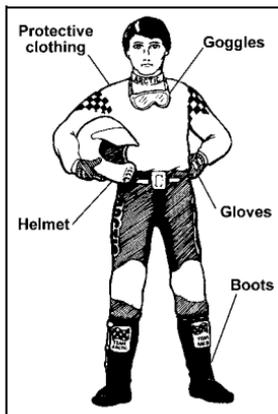
Operating or riding as a passenger on this ATV without wearing an approved helmet, eye protection, and protective clothing.

### **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**

Turning improperly.

### **WHAT CAN HAPPEN**

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

### **HOW TO AVOID THE HAZARD**

- Always follow proper procedures for turning as described in this Operator's Manual.
- Practice turning at slow speeds before attempting to turn at faster speeds.
- Do not turn at excessive speed.

**⚠ WARNING**

**POTENTIAL HAZARD**

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

**WHAT CAN HAPPEN**

Increases the possibility of an accident or equipment damage.

**HOW TO AVOID THE HAZARD**

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

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

**⚠ WARNING**

**POTENTIAL HAZARD**

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**

Going down a hill improperly.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

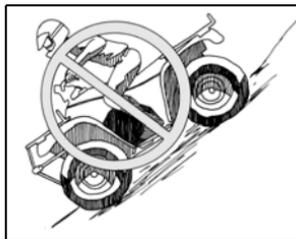
Always follow proper procedures for going down hills as described in this Operator's Manual.

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

Shift your weight backward.

Never go down a hill at high speed.

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



**⚠ WARNING**

**POTENTIAL HAZARD**

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

**WHAT CAN HAPPEN**

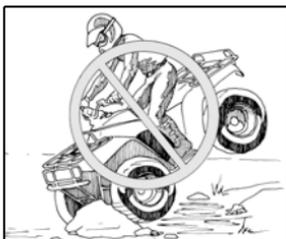
You can come upon hidden rocks, bumps, or holes without enough time to react.

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**

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

**WHAT CAN HAPPEN**

Could cause loss of traction or 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**

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 the ATV with improperly installed passenger seat.

**WHAT CAN HAPPEN**

The passenger seat could shift or separate from the ATV causing the passenger to fall from the vehicle resulting in serious injury or death.

**HOW TO AVOID THE HAZARD**

Always check the seat latches to make sure they are properly engaged and locked before operating the ATV.

**⚠ 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**

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 ATV or person could be on the other side of the hill.



**Never Operate Up Or Down Hills Steeper Than 25°.**



 **WARNING**

**POTENTIAL HAZARD**

Improperly operating over obstacles.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

Before operating in a new area, check for obstacles.

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

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

 **WARNING**

**POTENTIAL HAZARD**

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 tires or with improper or uneven tire pressure.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

Always use the size and type tires specified in this Operator's Manual for this ATV. Always maintain proper tire pressure as described in this Operator's Manual.

 **WARNING**

**POTENTIAL HAZARD**

Failure to release the brake lever lock before driving the ATV.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

Always release the brake lever lock before driving the ATV.

**⚠ 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:

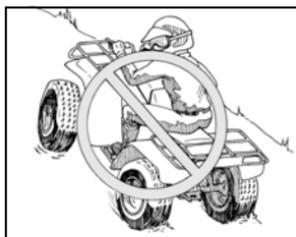
Keep weight uphill.

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**

Overloading the ATV or carrying or towing improperly.

**WHAT CAN HAPPEN**

Could cause changes in 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**

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**

**POTENTIAL HAZARD**

Application of excessive throttle.

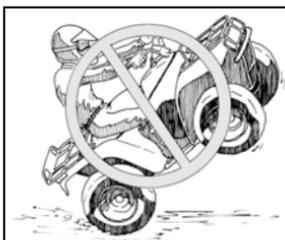
**WHAT CAN HAPPEN**

May cause wheelies, flip-overs, or loss of control resulting in serious injury or death.

**HOW TO AVOID THE HAZARD**

Do not accelerate rapidly or in an uncontrolled manner on any terrain. Use extra care when going uphill.

Slowly apply throttle in a controlled manner. Release throttle lever as necessary to maintain control.



**⚠ WARNING**

**POTENTIAL HAZARD**

Improperly crossing hills or turning on hills.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

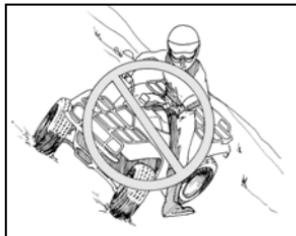
Avoid crossing the side of a hill or turning on a hill whenever possible. Never attempt to turn the ATV around on any hill until you have mastered the turning technique as described in this Operator's Manual. Practice first on level ground. Be very careful when turning on any hill.

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

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

Avoid hills with slippery or loose surfaces.

Shift your weight to the uphill side of the ATV.



 **WARNING**

**POTENTIAL HAZARD**

Operating the ATV with improper modifications.

**WHAT CAN HAPPEN**

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

**HOW TO AVOID THE HAZARD**

Never modify the ATV through improper installation or improper use of accessories. All parts and accessories added to this ATV should be genuine Arctic Cat 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**

Operating the ATV with differential lock engaged.

**WHAT CAN HAPPEN**

The increased steering effort and reduced maneuverability caused by the locked differential could result in loss of control and an accident.

**HOW TO AVOID THE HAZARD**

Never exceed 10 MPH (16 KPH) with the differential lock engaged. Always disengage the differential lock as soon as not needed for additional traction.

# Prevention

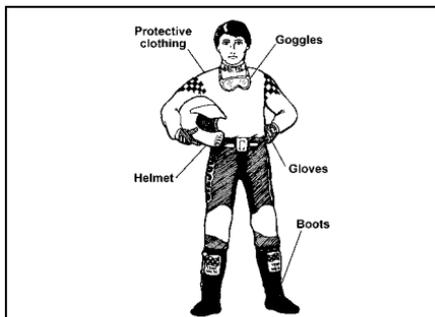
## Overview

When using this 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 (Operator and Passenger)

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



ATV-0004

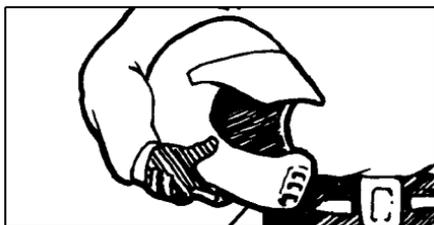
You'll find it important to dress correctly for riding in order to prevent scraped skin and serious head injuries. It's easy and could save you time in the long run not having to contend with an injury. Of course, it also makes sense to remember the seasons. Wear a hat under your helmet and a snowmobile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

## 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 current standards of the U.S. Department of Transportation (DOT), The Snell Memorial Foundation, or the American National Standards Institute (ANSI). Helmets that comply with one or more of these agency's standards have a sticker on the inside or outside of the helmet.

### Helmets should have one of these:

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



These helmets should provide full-face protection.

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

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

## Gloves

Your hands are targets for flying objects and branches. Along with providing skin protection, gloves will shield your hands from harsh weather. Wear gloves that are weather resistant and have a gripping surface to keep them from sliding off the handlebars. Off-road style gloves with knuckle pads are the best for comfort and protection.



**WARNING**

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

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## Boots/Ankle Protection

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

## 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 branches, long grass, airborne objects, or anything else that could scrape your skin. The more thick and durable the material, the better protection it'll provide. Riding pants with kneepads, a jersey, and shoulder pads provide the best protection.

## Pre-Operating Inspection

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 complete the Pre-Operating Inspection and check the following parts on your ATV before every ride.

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

## 1. TIRES AND WHEELS

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

- |   |
|---|
| <p><b>Check:</b></p> <ol style="list-style-type: none"><li>1. Tire pressure</li><li>2. Tire surface (tread and sidewalls)</li></ol> |
|---|

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

## 2. CONTROLS AND CABLE

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

- |   |
|---|
| <p><b>Check:</b></p> <ol style="list-style-type: none"><li>1. Park</li><li>2. Reverse</li><li>3. Neutral</li><li>4. High</li><li>5. Low</li></ol> |
|---|

### A. Brakes

Squeeze your 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.

- |   |
|---|
| <p><b>Check:</b></p> <ol style="list-style-type: none"><li>1. Hand brake lever</li><li>2. Rear foot brake</li><li>3. Brake lever lock</li></ol> |
|---|

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 the rear foot brake near the footrest is working; your brakes could fail during a ride if they're not maintained.

## B. Throttle

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

### Check:

1. Free, smooth range of motion

## 3. LIGHTS AND ELECTRICAL

Turn the hi-beam and lo-beam on and off to make sure they work. At the same time, verify the taillight and brakelight work. Also, check the status/warning indicators (reverse, neutral, and HI-LO beam) on the LCD when you start the ATV. Don’t drive the ATV unless all systems are working. Check the ignition switch and emergency stop switch.

### Check:

1. Hi-beam
2. Lo-beam
3. LEDs (if equipped)
4. Taillight/brakelight
5. Status/warning indicators
6. Ignition switch
7. Emergency stop switch

## 4. 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

## 5. CHASSIS AND DRIVE TRAIN

Grass and leaves can gum-up your suspension and shocks. Clear and clean the suspension arms, shock springs, and fenders. Check smoothness by turning the handlebar full-left and full-right. Verify there is no binding, restrictions, free-play, or looseness in steering components.

### Check:

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

## 6. MISCELLANEOUS ITEMS

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

### Check:

1. 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

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

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



**WARNING**

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

## 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.

## Maps/GPS (Global Positioning System)

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

## Emergency Kit with Flashlight and First Aid Kit

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

### Carry these items:

1. Flashlight
2. Matches
3. Flares
4. First Aid Kit
5. Money



# Active Riding

## Overview

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

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



**WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury. **23**

# Sound Judgment

## Overview

You are not invincible. Knowing 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 the landscape you’re used to doesn’t change. Changes to landscape can happen at nearly any time. Fences can be constructed and excavations dug in a short period of time. Weather, climate, and development take their toll.

### Night Riding

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

### Paved Surfaces

Avoid whenever possible. The ATV isn’t designed for pavement. Its handling becomes more difficult on paved surfaces. If operating on paved surfaces is unavoidable, travel slowly (less than 10 MPH) and avoid sudden turns and stops.

## Trail Riding

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

Make yourself visible by using headlights and 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.

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.

**Trail Signs**

**SYMBOLS**

- TWO-WHEEL MOTOR VEHICLE
- HIGH CLEARANCE VEHICLE 4x4 & PICKUP
- SNOWMOBILE
- OPEN ROUTE (Not always used (refer to map).)
- SEDAN
- ATV
- Symbol with RED SLASH indicates activity not allowed.
- Symbol with YELLOW SLASH indicates activity not recommended.

**ENTERING MOTOR TRAVEL RESTRICTED AREA**

**LEAVING MOTOR TRAVEL RESTRICTED AREA**

**TRAVEL MANAGEMENT POSTER**

This Area is Open To:

- Horse
- ATV
- Motor Vehicle

CLOSED TO ALL OTHER USES

TO RETURN ROAD OR TRAIL TO ITS ORIGINAL CONDITION

**NATIONAL FOREST ROUTE MARKERS**

**13** Roads maintained for LOW clearance vehicles, such as passenger cars, motorhomes.

**214**

Roads maintained for HIGH clearance vehicles.

ATV-0068A

## Those Around You

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

### Passenger

Never carry a passenger who cannot place both feet on the footrests and who cannot securely hold onto the handholds.

You are responsible for the passenger and you must instruct the passenger on the correct procedures for riding.

### 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.

Riding with companions on several vehicles is not the same as riding one ATV with a passenger.

### Other Vehicles

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

### Hikers

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

### Animals and Nature

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

**Tread Lightly** and leave it as you found it.

## Equipment

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

### 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 Load Capacity Ratings chart. So if you and your passenger combined weigh in at over 600 lb (272 kg), leave some of that extra cargo at home. The combined weight limit, including you, your passenger, your rack cargo, and your trailer, is a specified amount, so consult the 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.

Cargo has such a huge affect on 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. Speed



**WARNING**

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

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# Load Capacity Ratings Chart

Item	Specifications	
	(lb)	(kg)
Max Load Capacity	600	272
Front Rack (Max)	100	45
Rear Rack (Max)	200	91
Tongue Weight (Max)	35	16
Towing Capacity (Max)	1050	477

**Max Load Capacity** - Total weight of operator and passenger, accessory weight, tongue weight, and cargo on the front and rear rack.

**Tongue Weight** - Weight on trailer tongue.

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

## Speedrack II

When installing Speedrack II accessories, make sure to read and carefully follow the instructions provided in each kit including all weight restrictions as noted on placards and decals.

■ **NOTE: Use extra caution when operating this ATV with additional loads such as passenger, 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 handling, which could lead to an accident.

### **HOW TO AVOID THE HAZARD**

Never exceed the stated load capacity.

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.

## **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.

## **Alcohol and Drug Consumption (Operator and/or Passenger)**

Alcohol is related to a high percentage of all hospital admissions due to accidents in the U.S. It's extremely dangerous to drink alcoholic beverages and ride.

### **Substances to avoid when riding:**

1. Alcohol
2. Over-the-counter or prescription drugs
3. Illegal/mood altering drugs

Be aware of prescription and over-the-counter medications. Drowsiness and impaired judgment can be caused by a wide variety of medications. The same is true of allergy, cold, flu, and headache medications. Your physical size and weight can't protect you... just one anti-histamine tablet can affect your judgment.

If your sense of adventure persuades you to do illegal drugs when you're riding your ATV, this is a reality check. Something to think about—there can be legal consequences that will take away all that freedom you love. Don't use alcohol or drugs before or during your ride.

## THE EFFECTS OF ALCOHOL\*

*The Number of Drinks that Impair Mental and Physical Abilities*

### 1-2 DRINKS

Mental processes such as restraint, awareness, concentration, and judgment affected; reaction time slowed; inability to perform complicated tasks.

### 3-4 DRINKS

Depth perception, glare recovery, eye movement, and focus affected; decreased judgment and control.

### 5+ DRINKS

Coordination deteriorates, loss of critical judgment, and impaired memory and comprehension.

\*According to the ATV Safety Institute.

## Your Physical Condition

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

### Don't ride:

1. When you're tired

## Reckless Riding

If you are involved in an 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 ignorance of the law is no defense. Your best defense is to check out your local, state, or provincial laws before riding. It'll also make sure 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 occasionally do crazier and riskier things in a group than they would consider doing by themselves. When you're riding with others and things start to get out of hand, decide whether you're willing to be injured or see your friends injured.



**WARNING**

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

**27**

# 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 you consider yourself a supervisor for all riders of your ATV. Whether you accept responsibility or not, the truth is you are responsible for others riding your ATV.

## Taking Responsibility

You're to the last letter in "PASS"... "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 riding an all-terrain ATV or taken a training course, it's your responsibility to keep them off your ATV. It can be dangerous (especially for under-aged children)—all the more reason for you to be firm.

## Experienced/Trained Riders

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

TRVs 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.**

**▲ WARNING**

**PASSENGER SAFETY**  
To reduce the risk of SEVERE INJURY or DEATH.



NEVER CARRY MORE THAN ONE PASSENGER



NEVER RIDE AFTER USING DRUGS OR ALCOHOL

**NEVER** carry a passenger too small to firmly plant feet on footrests and securely grasp hand holds.

THE PASSENGER MUST **ALWAYS**:

- use an approved helmet and protective gear
- securely grasp hand holds and plant feet firmly on footrests while seated in the passenger seat
- tell operator to slow down or stop if uncomfortable -get off and walk if conditions require

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5411-517A

# DIVISION II - OPERATION/MAINTENANCE

## TRV Specifications

<b>ENGINE/DRIVE</b>	
Type	Four-Cycle/Liquid Cooled
Bore x Stroke	89 mm x 71.2 mm (3.56 x 2.80 in.) - 500 92 mm x 82 mm (3.62 x 3.22 in.) - 550 102 mm x 85 mm (4.01 x 3.35 in.) - 700 92 mm x 71.5 mm (3.62 x 2.81 in.) - 1000
Displacement	443 cc (27.03 cu in.) - 500 545 cc (33.26 cu in.) - 550 695 cc (42.41 cu in.) - 700 950.6 cc (58.01 cu in.) - 1000
Spark Plug Type	CR7E - 500 NGK CPR8E - 550/700/1000
Spark Plug Gap	0.8 mm (0.0314 in.) - 500 0.5-0.6 mm (0.019-0.024 in.) - 550/700/1000
Brake Types	Hydraulic w/Brake Lever Lock and Rear Foot Brake
<b>CHASSIS</b>	
Length (Overall)	231.5 cm (91.1 in.)
Height (Overall)	121.5 cm (47.8 in.)
Width (Overall)	145.8 cm (57.4 in.)
Suspension Travel	25.4 cm (10.0 in.)
Tire Size (Front)	AT25 x 8-12
Tire Size (Rear)	AT25 x 10-12
Tire Inflation Pressure	68.9 kPa (10 psi)
<b>MISCELLANY</b>	
Dry Weight (Approx)	328.9 kg (725 lb) - 500/550 350.2 kg (772 lb) - 700 364.7 kg (804 lb) - 1000
Gas Tank Capacity	20.1 L (5.3 U.S. gal.)
Coolant Capacity	1.97 L (2.08 U.S. qt) - 500/550/700 3.02 L (3.19 U.S. qt) - 1000
Differential Capacity	269 ml (9.1 fl oz)
Rear Drive Capacity	269 ml (9.1 fl oz)
Engine Oil Capacity (Approx)	2.4 L (2.53 U.S. qt) - 500 2.2 L (2.32 U.S. qt) - 550/700 2.6 L (2.75 U.S. qt) - 1000
Gasoline (Recommended)	87 Octane Regular Unleaded
Engine Oil (Recommended)	Arctic Cat ACX All Weather (Synthetic)
Front Differential/Rear Drive Lubricant	SAE Approved 80W-90 Hypoid
Taillight/Brakelight	LED
Brake Fluid	DOT 4
Headlight	12V/55W/60W - 500 12V/55W/60W w/LED - 550/700/1000
Starting System	Electric

\*Specifications subject to change without notice.

## Location of Parts and Controls



XR230A



XR231A



XR232A

1. Battery
2. Headlights
3. Hand Brake Lever
4. DC Outlet
5. Override Switch
6. Seat Lock Lever
7. Front Storage Compartment
8. Rear Foot Brake
9. Taillight/Brakelight
10. Brake Lever Lock
11. Key Switch
12. Shift Lever
13. Throttle Limiter
14. Throttle Lever
15. Operator's Manual Location
16. Drive Select Switch
17. Speedometer/LCD
18. Headlight HI/LO Switch
19. Starter Button
20. Emergency Stop Switch
21. Rear Storage Compartment

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

# ATV Operation

## Basic Operating Maneuvers

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

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

## Mounting the TRV (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. Mount the ATV and sit down.
2. Engage the brake lever lock.
3. Turn on the ignition.
4. Shift into neutral.
5. Move the emergency stop switch to RUN.
6. Press the starter button.

### CAUTION

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

7. Let the engine warm up.

## 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 with the transmission in the neutral position, 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 the starter button.

### CAUTION

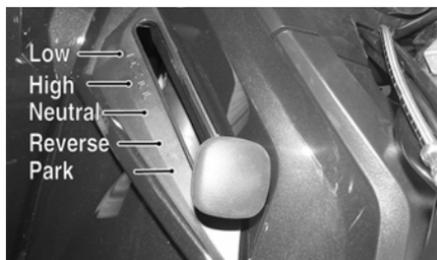
**Do not run the starter motor for more than eight seconds per starting attempt. The starter motor may over-heat causing severe starter motor damage. Allow 15 seconds between starting attempts to allow the starter motor to cool.**

**■ NOTE: Do not touch the throttle lever until the engine has run for at least 3 minutes.**

3. If the engine does not start, press the starter button again for eight seconds.
4. Allow the engine to warm up for approximately 2-3 minutes or until the ATV will accelerate without hesitating.

## Shifting

1. To engage any gear position from park, move the shift lever upward to the desired position: R (reverse), N (neutral), H (high range), or L (low range).



XR004A

2. To engage the P (park), come to a complete stop; then shift the transmission into park.

**■ 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.

## 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. Squeeze the brake lever on the left handlebar to apply both the front and rear brakes.
2. If your wheels lock, release them for a second; then apply them again.

### 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.

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

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 engine stop switch.
3. Turn off the ignition.
4. If you have to park on a hill, shift the ATV into park; otherwise, try to park only on level surfaces.
5. Engage the brake lever lock.

## Dismounting the TRV

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.

- 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.
- The operator should swing the right leg over to the left side of the seat.
- The operator should step to the ground on the left side of the ATV.

- 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.

### Handling the TRV (Active Riding Techniques)

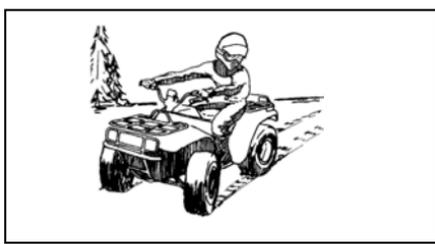
Active riding involves moving your body. You and your passenger must learn to lean and shift body weight into turns to maintain control.

Safe riding techniques include:

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

### Riding

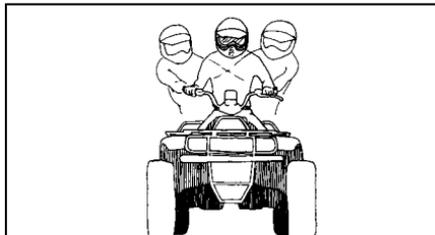
Once the engine's warm, the ATV is ready to go.



ATV-0013



ATV-0024



ATV-0012

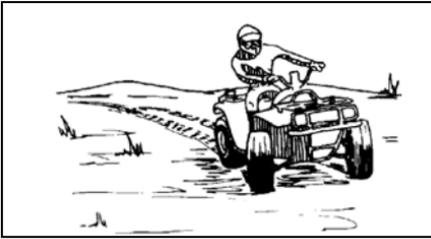


ATV-0025

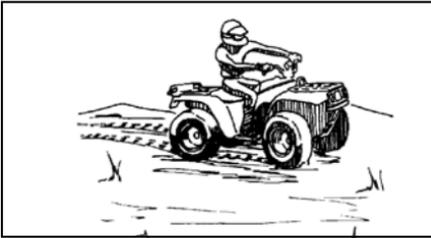
- Keep your feet on the footrests and both hands on the handlebar.
- Hold the brake lever, and release the brake lever lock.
- Shift into gear.

## Wide Turns

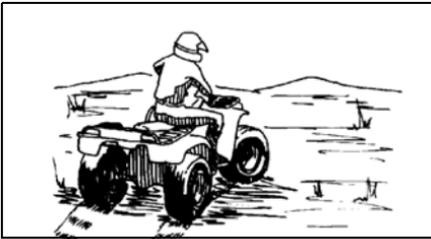
Many accidents happen during turns. If you don't understand turning techniques, it's easy for the ATV to get away from you by losing traction, plowing, or tipping. Use this method for wide turns:



ATV-0046



ATV-0045

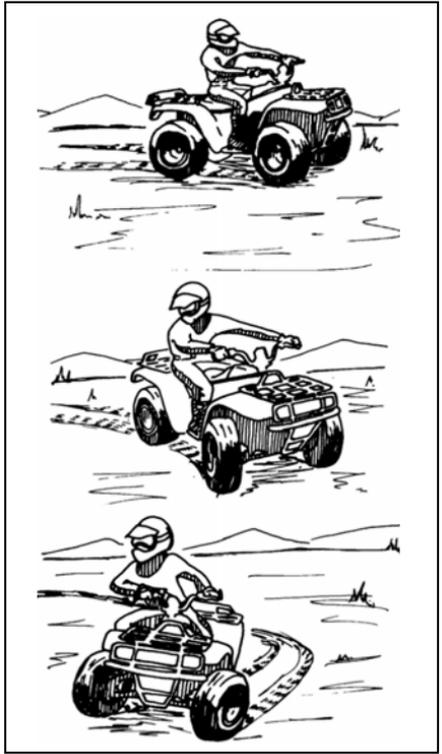


ATV-0044

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 and passenger's 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.

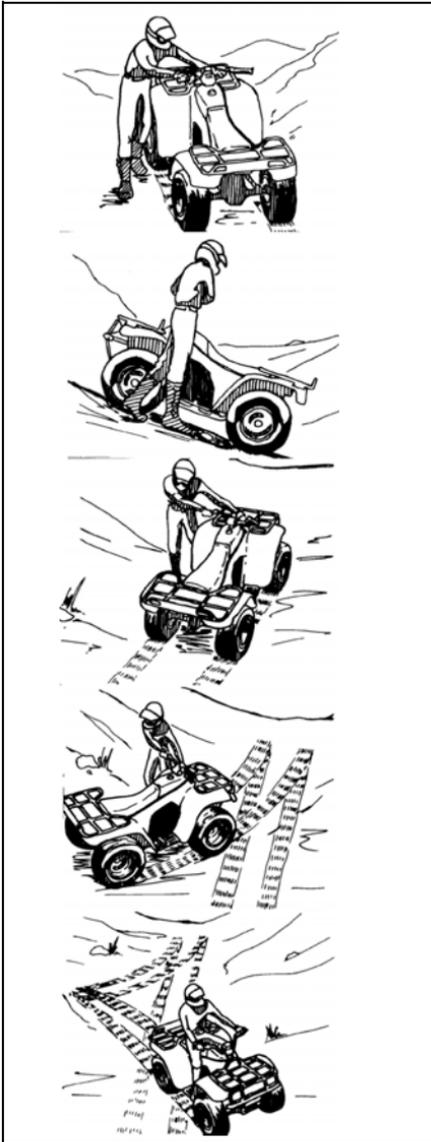


ATV-202

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 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.

## 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.



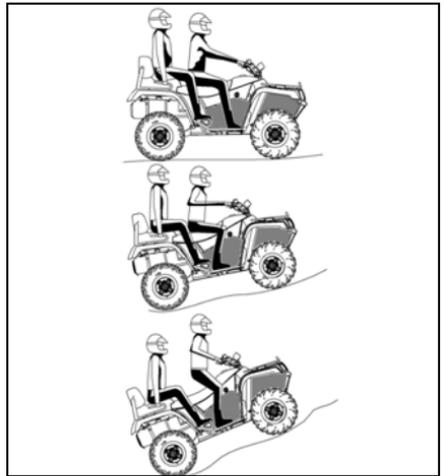
ATV-204

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.
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-207

1. Accelerate before you start climbing; then maintain a steady pace.
2. Both the operator and 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.

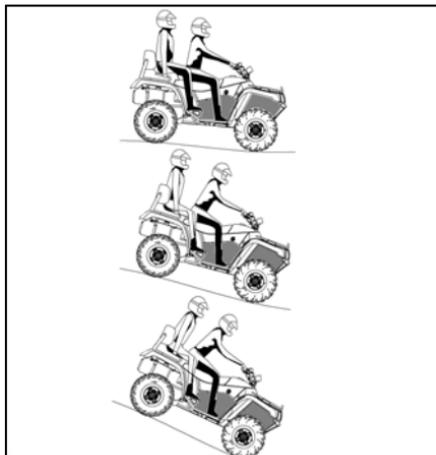
### Never Operate Up Or Down Hills Steeper Than 25°



### 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.



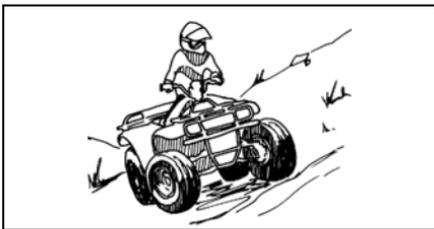
ATV-208

### 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

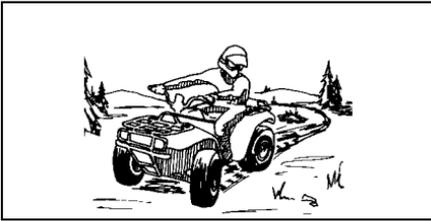


ATV-0029

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.



ATV-0043



ATV-0042

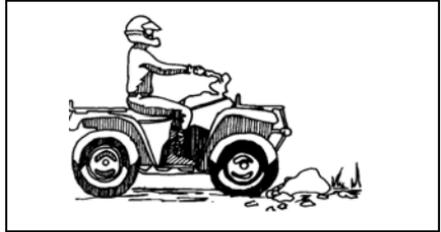


ATV-0041

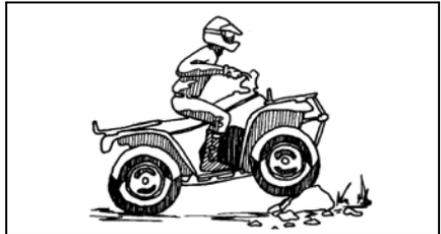
1. Ease off the throttle as you approach the obstacle.
2. Turn the handlebar. At the same time, shift weight and balance as you swerve. Use the principles of leaning, weight shifting, and balancing—shift your body weight and the passenger's body weight to the inside of the turn.
3. Keep your hand off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

## Crossing Obstacles

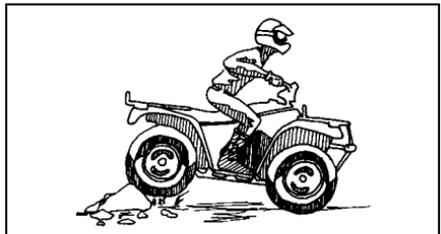
Crossing obstacles is risky; avoid it if possible. Riding over logs, rocks, and ruts means combining all the active riding skills into one big motion. Your ATV will respond differently for different obstacles (logs, ruts, etc.), but these are general guidelines for overcoming two-track (both tires contacting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



ATV-0016



ATV-0026



ATV-0027

1. Stop the ATV.
2. Have the passenger dismount.
3. Keep your speed way down; less than 5 mph.
4. Approach the obstacle head-on.
5. Come up off the seat.
6. Keep your weight on the footrests.
7. Apply a little throttle when the front tires make contact with the obstacle.

8. Lean forward and release the throttle when the front tires clear the obstacle.
9. Keep your body loose to absorb any shock.
10. If the ATV starts tipping, shift your body weight to keep it in balance.

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

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

## Tips

Driving an ATV and a car have some similarities; however, there are always exceptions to the rules. Here are a few situations that require special attention:

- Reversing
- Skidding or Sliding
- Parking on a Hill
- Stalling on a Hill
- Crossing Water
- Crossing Roads
- Stopping the ATV
- Stopping the Engine

## Reversing

It's tough to see things behind you.

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.

## WARNING

**Never activate the override while the throttle is open as a loss of control may result. Use caution when using the override switch as reverse speed can greatly increase.**

## 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**
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

This 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.

1. Physically check the depth and current of the water, especially if you can't see the bottom. You're also checking for boulders, logs, or any other hidden obstacles.
2. Keep ATV 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.
3. Crossing near a blind corner or intersection is dangerous; don't do it.
4. Drive straight across to the opposite shoulder.
5. Take into account that your ATV could stall while crossing; give yourself and your passenger enough time to get off the road.
6. You have to assume that oncoming cars don't see you, and if they do, they won't be able to predict your actions.
7. It's illegal to cross public roads in some places. Know your local laws.

### **WARNING**

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

### **Crossing Roads**

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

1. Stop completely on the shoulder of the road.
2. Check both directions for traffic.

### **Stopping The ATV**

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

### **Stopping The Engine**

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

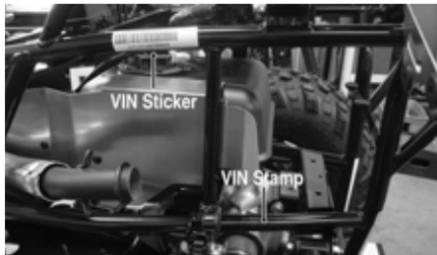
**■ NOTE:** Leaving the ignition switch key in the ON position could result in a discharged battery.

# General Information

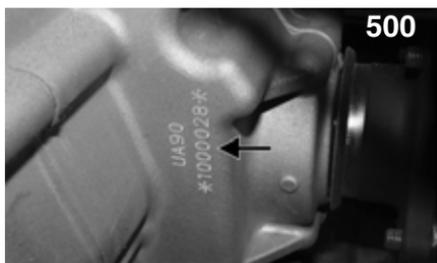
## ATV Identification Numbers

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.



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



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

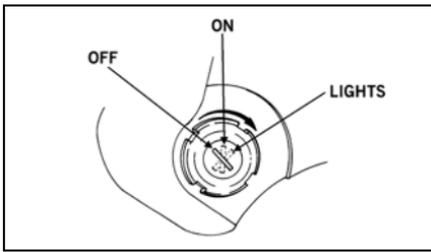
Two keys come with the ATV. Keep the spare key in a safe place. An identifying number is stamped on each key. Use this number when ordering a replacement key.



## 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.**

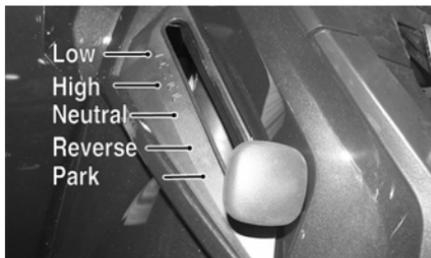
**ON position** — The ignition circuit is complete and the engine can run. The key cannot be removed in this position.

**LIGHTS position** — The ignition circuit is complete and front (if equipped) and rear running lights are on. The left control switch can be moved to illuminate the HI/LO headlights. The key cannot be removed in this position.

### CAUTION

Leaving the ignition switch in the ON or 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.

### Shift Lever



XR004A

This ATV has a dual-range automatic transmission with reverse and park.

### Drive Select Switch



XR068B

This 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 4WD lock while the ATV is moving.**

The 4WD lock allows the operator to mechanically lock the front differential to apply equal power to both front wheels. To engage the lock from 4WD, slide the switch up and move fully to the left. To disengage the lock, move the switch lever to the right.

### WARNING

The 4WD lock is intended for use where minimum traction is available. **NEVER EXCEED 10 MPH (16 kph)** with the lock engaged. Maneuverability and handling characteristics will differ with the lock engaged.

## Hand Brake Lever/Brake Lever Lock



CF301A

The hand brake is considered to be the normal operating (main) brake. It should be applied whenever a braking situation is needed.

Apply the brake by compressing the brake lever toward the handlebar.

To engage and release the brake lever lock, use the following procedure.

1. Squeeze the hand brake two or three times and release it.
2. Depress and hold the brake lever lock.
3. While holding in on the brake lever lock, squeeze the brake lever.

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

4. Release the brake lever lock by squeezing the brake lever. It will return to its released position.

Check to make sure the brake lever lock engages properly and that the brake (when engaged) locks the wheels.

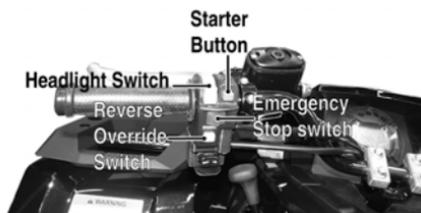
1. Pump the brake lever 2 or 3 times.
2. Engage the brake lever lock.
3. Attempt to push the ATV.

**NOTE: The brake lever lock 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 brake lever lock has been disengaged before operating the ATV. An accident could result if the brake lever lock is left engaged while the ATV is operated. The brake may relax if left engaged for a long period of time. This could cause an accident; therefore, do not leave the ATV on a hill depending on the brake lever lock. Always block the downhill side of the wheels if leaving the ATV on a hill or park the ATV in a sidehill position.

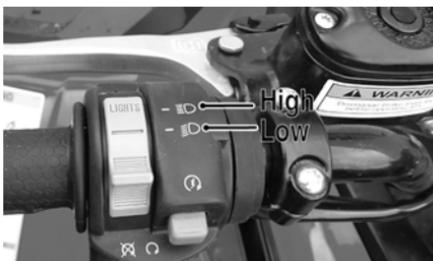
## Headlight Switch



XR064C

### 500

With the ignition switch in the LIGHTS position, use the headlight switch to select the high or low headlight beam.



XR071A

### 550/700/1000

With the ignition switch in the LIGHTS position, use the headlight switch to select light bar, light bar with low beam, or light bar with high beam.



XR070A

## Engine Stop Switch

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

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

## Starter Button

Pushing in on this button activates the starter motor. Before starting the engine, make sure the ignition switch is in the ON position, 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. To start the ATV while in gear, depress the rear foot brake or compress the brake lever; then depress the starter button.

## Override Switch

### **WARNING**

**Never activate the override switch while the throttle is open as a loss of control may result.**

### **500/550/700**

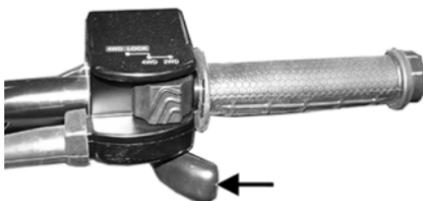
This ATV is equipped with a speed limiter system. When additional RPM is needed in reverse, depress and hold the override switch.

■ **NOTE:** The override switch is active in reverse only.

## 1000

This ATV is equipped with a speed limiter system. To override the system, depress and hold the override switch. The override switch can be activated while the vehicle is in reverse, or while hi or low gear is selected and the drive select switch is in the 4WD LOCK position.

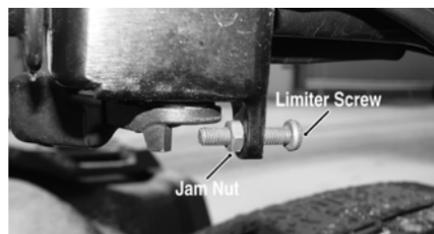
## Throttle Lever



XR068A

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



XR233A

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.

### Rear Foot Brake

Pressing the rear foot brake downward will apply the brake to the rear wheels.

### Power Steering (550/700/1000)

This ATV was produced with an Electronic Power Steering (EPS) system to reduce steering effort and driver fatigue over a broad range of operating conditions.

The EPS system engages when the ignition switch is turned to the ON position and disengages after approximately five minutes (to conserve battery power) if the engine is not running.

This system is entirely maintenance-free; no adjustment or servicing is required. There are no fluids to check or change, and the EPS system is entirely self-contained and sealed to protect it from the elements.

The EPS system is battery system powered; therefore, the battery must be in good condition and fully charged. Power delivery and overload protection is provided by an EPS relay and 30-amp fuse located under the passenger seat in the Power Distribution Module (PDM).

The system is self-monitored and will display a malfunction code on the LCD gauge/speedometer should an EPS system control circuit problem occur. Do not operate the vehicle with an EPS malfunction code displayed.

Code	Fault Description
C1301	Over Current
C1302	Excessive Current Error
C1303	Torque Sensor Range Fault
C1304	Torque Sensor Linearity Fault
C1305	Rotor Position Encoder
C1306	System Voltage Low
C1307	System Voltage High
C1308	Temperature Above 110° C
C1309	Temperature Above 120° C

Code	Fault Description
C1310	Vehicle Speed High
C1311	Vehicle Speed Low
C1312	Vehicle Speed Faulty
C1313	Engine RPM High
C1314	Engine RPM Low
C1315	Engine RPM Faulty
C1316	EEPROM Error
C1317	CAN Bus Error
C1318	Internal CRC Error
C1319	Boot Counter Exceeded
C1320	Incorrect Vehicle Speed-to-RPM Ratio
C1321	Vehicle Speed Erratic
C1322	Engine RPM Lost
C1323	"EPS OFF" Gauge Display
C1324	Loss of CAN communication with EPS unit
C1325	Dual Loss
C1326	Rotor Position Encoder
C1327	Voltage Converter Error (Low)
C1328	Voltage Converter Error (High)
C1329	Internal Data Error

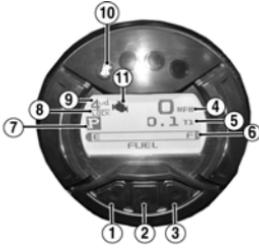
■ **NOTE:** Turn the key switch to the OFF position then back to the ON position to reset the malfunction code. If the code continues to be displayed, take your ATV to an authorized Arctic Cat Dealer for EPS system servicing before resuming operation.

### CAUTION

**Never operate this ATV with an EPS code indicated on the LCD gauge/speedometer. This indicates a malfunction in the EPS system control circuit and could result in a loss of power steering assist.**

In the event of electrical power failure, the EPS system becomes disabled (similar to an automobile with the engine shut off). Steering effort increases but steering control can be maintained.

# Speedometer/LCD Gauge



WT103B

1. Left Button - Shifts top display through speedometer, RPM, and clock.
2. Middle Button - Shifts middle display through speedometer, RPM, clock, odometer, trip 1, trip 2, and engine hours.
3. Right Button - Shifts bottom display through coolant temperature, battery voltage, intake air temperature, fuel level, and tachometer.
4. Speedometer/Tachometer/Clock Display - Indicates approximate vehicle speed in MPH or KM/H when speedometer function is selected, RPM when tachometer function is selected, or time when clock is selected. Press the Left Button to change which parameter is being displayed. With speedometer selected, press and hold the Left Button to shift between standard (MPH/miles/Fahrenheit) and metric (km/h/kilometers/Celsius).

To set the clock, use the following procedure.

- A. With the clock mode selected, press and hold the Middle Button to set the clock. Press the Left or Right Button to alternate between 12-hour or 24-hour modes.
- B. Press the Middle Button to set the hours. Press the Left button to decrease the hours or the Right Button to increase the hours.

- C. Press the Middle Button to set the minutes. Press the Left Button to decrease the minutes or the Right Button to increase the minutes.
- D. When the proper time has been set, press the Middle Button to return to the main gauge display.

5. Engine Hour Meter/Odometer/Trip Meter/Speedometer/Tachometer/Clock Display - Displays engine hours, odometer, trip meter, speedometer, tachometer, or clock. Press the Middle Button to change which parameter is being displayed. The Engine Hour Meter and Odometer cannot be reset. To reset the trip meter, select the Trip Meter; then press and hold the Middle Button until the trip meter display reads 0.

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

■ **NOTE: An item can only be displayed in this position if it is not already being displayed in the top display. To set the clock when the clock is in this position, press and hold the Middle Button; then use the procedure found in 4.**

6. Coolant Temperature/Battery Voltage/Intake Air Temperature/Fuel Level Display - Displays coolant temperature, battery voltage, intake air temperature, fuel quantity, and RPM's. Press the Right Button to change which parameter is being displayed. Press and hold the Right Button to see the actual values associated with the mode selected.

## 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 the engine compartment (or packed between the cooling fins of the radiator) can reduce cooling capacity. Using a garden hose, wash the radiator and the engine to remove any debris preventing air flow.



WT114A

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

## CAUTION

Arctic Cat does not recommend using a pressure washer to clean the radiator core. The pressure may bend or flatten the fins causing restricted air flow, and electrical components on the radiator could be damaged. Use only a garden hose with spray nozzle at normal tap pressure.

7. Gear Position Indicator - Indicates which gear is selected.
8. Differential Lock Indicator - Displays LOCK when the differential lock has been engaged.
9. Drive Select Indicator - Displays 4WD when selected by the drive select switch or when the differential lock is engaged.
10. Seat Belt Reminder Indicator - Each time the ignition switch is turned ON, the indicator will illuminate on the speedometer for 8-10 seconds to remind occupants to secure their seat belts.

## ⚠ WARNING

The seat belt indicator is only a reminder and automatically extinguishes after 8-10 seconds. It does not indicate that seat belts are properly secured. It is the operator's responsibility to ensure all vehicle occupants are properly seated with seat belts secure and doors are properly latched. Serious injury or death could occur as a result of falling outside a moving vehicle.

11. EFI Malfunction Indicator - A diagnostic code (see list below) and engine icon will be displayed on the LCD whenever an EFI error is detected. The LCD will be normal, but the code and engine icon will continue to be displayed on the LCD until the error is corrected.

## Diagnostic Trouble Codes

Display	Fault Description
C0063	Tilt Sensor Circuit High
C0064	Tilt Sensor Circuit Low/SG/Open
C1263	Backup/Reverse-Light Circuit Open
C1264	Backup/Reverse-Light Circuit High
C1265	Backup/Reverse-Light Circuit Low/SG
C1400	Fuel Level Sender Open
C1418	Memory Power Failure
P0030	O2 Heater Intermittent/Open
P0031	O2 Heater Low/SG
P0032	O2 Heater High/SP
P0107	MAP Sensor Circuit Low/SG/Open
P0108	MAP Sensor Circuit High/SP
P0112	Intake Air Temp Sensor Circuit Low/SG
P0113	Intake Air Temp Sensor Circuit High/Open
P0114	Intake Air Temp Sensor Circuit Intermittent
P0116	Engine Coolant Temp Sensor Circuit Range/Performance
P0117	Engine Coolant Temp Sensor Circuit Low/SG
P0118	Engine Coolant Temp Sensor Circuit High/Open/SP
P0119	Engine Coolant Temp Sensor Circuit Intermittent
P0121	Throttle Position Sensor Range/Performance
P0122	Throttle Position Sensor Circuit Low/SG
P0123	Throttle Position Sensor Circuit High
P0130	O2 Sensor Intermittent/Open
P0131	O2 Sensor Low/SG or Air-Leak
P0132	O2 Sensor High/SP

Display	Fault Description
P0171	O2 Feedback Below Minimum Correction
P0172	O2 Feedback Exceeds Maximum Correction
P0219	Engine Over-Speed Condition
P0231	Fuel Pump Relay Circuit Low/SG/Open
P0232	Fuel Pump Relay Circuit High
P0233	Fuel Pump Relay Circuit
P0261	Cylinder #1 Fuel injector Circuit Low/SG
P0262	Cylinder #1 Fuel injector Circuit High
P0263	Cylinder #1 Fuel injector Balance/Open
P0264	Cylinder #2 Fuel injector Circuit Low/SG
P0265	Cylinder #2 Fuel injector Circuit High
P0266	Cylinder #2 Fuel injector Balance/Open
P0336	Crankshaft Angle Sensor Synchronization
P0337	Crankshaft Angle Sensor Circuit/SG
P0339	Crankshaft Angle Sensor Intermittent/Erratic
P0340	Camshaft Angle Sensor Synchronization
P0341	Camshaft Angle Sensor Circuit/SG
P0342	Camshaft Angle Sensor Intermittent/Erratic
P0480	Fan-Primary/Right Relay Control Circuit
P0481	Fan-Secondary/Left Relay Control Circuit High
P0482	Fan-Secondary/Left Relay Control Circuit Low/SG/Open
P0483	Fan-Secondary/Left Relay Control Circuit
P0484	Fan-Primary/Right Relay Control Circuit High
P0485	Fan-Primary/Right Relay Control Circuit Low/SG/Open
P0500	Vehicle Speed-Sensor
P0508	Idle Air Control System Circuit Low/SG
P0509	Idle Air Control System Circuit High/Open
P0520	Engine Oil Sensor/Switch
P0562	System Voltage Low
P0563	System Voltage High
P0601	ECM CAN Communication Shutdown
P0615	Starter Relay Circuit
P0616	Starter Relay Circuit Low
P0617	Starter Relay Circuit High
P0630	VIN Not Programmed or Incompatible

Display	Fault Description
P0642	Sensor Power Circuit Low
P0643	Sensor Power Circuit High
P2300	Ignition Coil #1 Primary Circuit Low/SG/Open
P2301	Ignition Coil #1 Primary Circuit High
P2303	Ignition Coil #2 Primary Circuit Low/Open
P2304	Ignition Coil #2 Primary Circuit High
P2531	Ignition Switch Circuit Low
P2532	Ignition Switch Circuit High
FUEL OFF	Tilt Sensor Activation Code

## 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 Hoses

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

## Oil Level Stick



GZ461A

550/700/1000

XR234A

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 into the engine case.

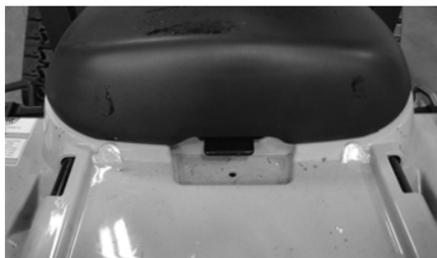
■ **NOTE: The oil level stick should be threaded in for checking purposes.**

3. Remove the oil level stick; the engine oil level should be in the operating range.

### CAUTION

**Do not overfill the engine with oil. Always make sure the oil level is in the indicated operating range.**

## Seat Latch



XR254

1. To remove the seat, lift up on the latch release (located at the rear of the seat); then raise the rear 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 the 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.**

## Rear Seat Lock

1. To remove the rear seat, pull the two latch handles upward.



XR221A

2. Lift the front of the seat up; then pull slightly to the front and lift the seat off the mountings.
3. To lock the seat into position, engage the two rear mounting lugs into the mounting rack; then push down firmly on the front of the seat to securely lock in place.

### ⚠ WARNING

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

## Safety Flag Bracket

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

## 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.**

## Trailer and Towing

### **WARNING**

Never use the racks as a towing or trailering point.

Arctic Cat ATVs are equipped with a frame-mounted receiver for a standard 5.1 cm (2 in.) receiver hitch. The standard receiver hitch must be purchased separately.



XR227

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. Never tow a trailer without a rigid tongue and never exceed 10 mph. 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. Allow more stopping distance than when not towing a trailer.

### **Transporting**

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 brake lever lock and place the transmission in park.

### **CAUTION**

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

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.



XR226A



XR227A

### CAUTION

If using additional hold-down straps in any other areas, care must be taken not to damage the ATV.

## Gasoline-Oil-Lubricant Recommended Gasoline

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

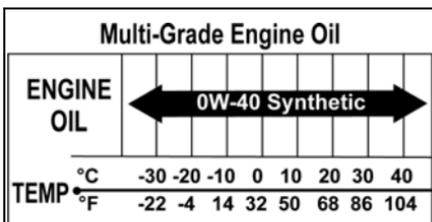
Do not use white gas. Only Arctic Cat approved gasoline additives should be used.

## Recommended Engine/ Transmission Oil

### 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 0W-40 oil is acceptable.



OILCHARTJ

## 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) 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.

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.

## Engine Break-In

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.

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 ½ 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.

## Burnishing Brake Pads

Brake pads must be burnished to achieve full braking effectiveness. Braking distance will be extended until brake pads are properly burnished.

### **WARNING**

**Failure to properly burnish the brake pads could lead to premature brake pad wear or brake loss. Brake loss can result in severe injury.**

To properly burnish the brakes, use following procedure:

1. Choose an area sufficiently large to safely accelerate the ATV to 30 mph and to brake to a stop.
2. Accelerate to 30 mph; then release the throttle lever and compress the brake lever to decelerate to 0-5 mph.
3. Repeat procedure twenty 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.**

# General Maintenance

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

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

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

Maintenance Schedule					
Item	Page	Initial Service (100 miles)	1 month	3 months	6 months
Battery	58	I	I		
* Engine nuts and bolts	-	I			I
* Valve clearance	-	I			I
Spark plug	61	I		I	I
	61	Replace every 4000 miles or 18 months			
Liquid cooling system	53	I	Inspect every time before riding		
Throttle cable	54/61	I	Inspect every time before riding		
Gas hoses	47	I	Inspect every time before riding		
	47	Replace every 2 years			
Engine/transmission oil and filter	54	R		R**	
Air filter	61	I	Inspect every time before riding		
Air filter housing drain	63	I	Inspect every time before riding		
Gear lubricant (Front differential - rear drive)	55	R			I
	55	Replace every 2 years or 2000 miles			
V-Belt	63	I			I
Spark arrester/muffler	64				C
Tires	63	I	Inspect every time before riding		
* Brake components	56	I	Inspect every time before riding		
Brake fluid	56	I	*Replace every 2 years		
Brake hoses	56	I	*Replace every 4 years		
* Steering	-	I	Inspect every time before riding		
* Suspension (Ball joint boots, drive axle boots front and rear, tie rods, differential and rear drive bellows)	-	I	Inspect every time before riding		
* Chassis nuts and bolts	-	I	T		
Frame/welds/racks	-	I			I
Electrical connections	-	I			I
Headlight/taillight-brakelight	64	I	Inspect every time before riding		
Wheel nuts	64	I	I		

I=Inspect and clean, adjust, lubricate, replace as necessary T=Tighten R = Replace C = Clean  
 \* Dealer maintenance \*\* When using Arctic Cat ACX All Weather synthetic oil, oil change interval can be increased to every 1,000 miles or every year.

## 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 garden hose, wash the radiator to remove any debris preventing air flow.

### CAUTION

Arctic Cat does not recommend using a pressure washer to clean the radiator core. The pressure may bend or flatten the fins causing restricted air flow, and electrical components on the radiator could be damaged. Use only a garden hose with spray nozzle at normal tap pressure.

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.

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.

### Checking/Filling

1. Remove the rubber access plug from the front fender.



XR061

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



XR060

3. Add coolant as necessary; then install the radiator cap and access plug.

■ **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.

### Maintenance

When operating in muddy conditions, it is extremely important to clean the radiator core frequently. Arctic Cat requires inspecting and/or flushing the radiator core before each use to prevent overheating resulting in severe engine damage. After cleaning, shine a light through the radiator core while observing from the opposite side to determine if all dirt and debris have been removed.

■ **NOTE:** It is necessary to remove four machine screws securing the protective screen to the front of the radiator and move it forward to properly flush the radiator core. Make sure to secure the screen to the radiator after cleaning.

### CAUTION

Failure to remove dirt and debris from the radiator prior to operating the ATV may cause overheating resulting in severe engine damage.

### CAUTION

Arctic Cat does not recommend using a pressure washer to clean the radiator core. The pressure may bend or flatten the fins causing restricted air flow, and electrical components on the radiator could be damaged. Use only a garden hose with spray nozzle at normal tap pressure.

## 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.



XR063

■ **NOTE:** Before attempting to adjust suspension, clean dirt and debris from the sleeve and remove load from the suspension; then use the spanner wrench to adjust the sleeve to the desired position.

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

## 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 50) in this manual for the proper engine oil.

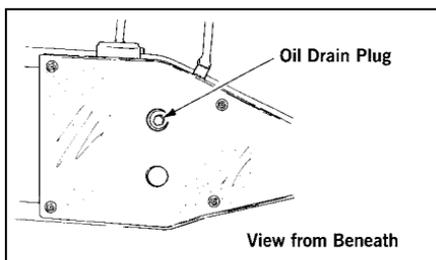
Change the engine oil and oil filter at the scheduled intervals. The engine should always be warm when the oil is changed so the oil will drain easily and completely.

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



XR016A

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



View from Beneath

733-441A

4. 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.

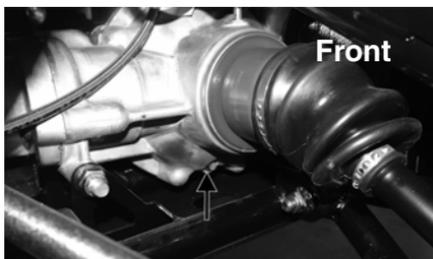
■ **NOTE: Clean up any excess oil after removing the filter.**

5. 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.
6. Install the engine drain plug and tighten it securely. Remove the oil filler plug being careful not to let contaminants enter the opening; then pour the recommended oil in the filler hole. Install the level stick.
7. Start the engine (while the ATV is outside on level ground) and allow it to idle for a few minutes.
8. Turn the engine off and wait approximately one minute. Recheck the oil level.
9. Inspect the area around the drain plug and oil filter for leaks.

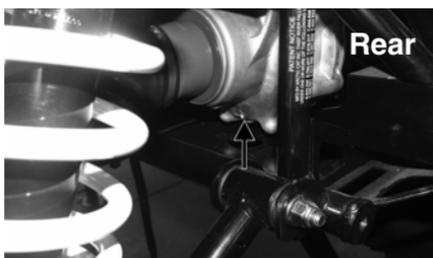
## Front Differential and Rear Drive Gear Lubricant (Inspecting/Changing)

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.



XR019A



XR017A

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.



XR235A

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

6. Install the filler plugs.

## Hydraulic Hand Brake

### **WARNING**

Be sure to inspect the hydraulic 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.



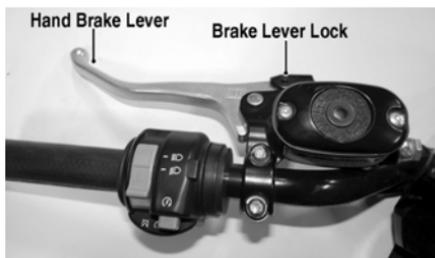
CF295A

■ **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.

## Brake Lever Lock



CF301A

Check to make sure the brake lever lock engages properly and that the brake (when engaged) locks the wheels.

1. Pump the brake lever 2 or 3 times.
2. Engage the brake lever lock.
3. Attempt to push the ATV.

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

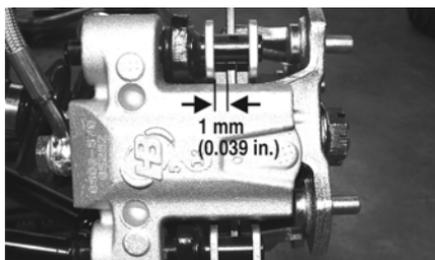
## Brake Hoses

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 friction material 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, using a crisscross pattern, tighten the wheel nuts in 20 ft-lb increments to a final torque of 40 ft-lb (steel wheel), 60 ft-lb (aluminum wheel w/black nuts), or 80 ft-lb (aluminum wheel w/chrome nuts).

## Rear Foot Brake

The rear foot brake must be maintained to be fully functional.

### **WARNING**

**Be sure to inspect the rear 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.



XR222

■ **NOTE:** The brake fluid reservoir is located under the seat.

2. Press the rear foot brake several times to check for firmness.
3. If the brake is not firm, the system must be bled.

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

## Protective Rubber Boots

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

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



XR011B

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)



XR057A

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



XR058A

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 a sealed battery. Always read and follow instructions provided with battery chargers and battery products.

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

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

## Maintenance Charging

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

1. When charging a battery in the vehicle, be sure the ignition switch is in the OFF position.
2. Clean the battery terminals with a solution of baking soda and water.

**■ NOTE: The sealing strip should NOT be removed and NO fluid should be added.**

3. Be sure the charger and battery are in a well-ventilated area. Be sure the charger is unplugged from the 110-volt electrical outlet.
4. Connect the red terminal lead from the charger to the positive terminal of the battery; then connect the black terminal lead of the charger to the negative terminal of the battery.

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

5. Plug the battery charger into a 110-volt electrical outlet.
6. If using the CTEK Multi US 800, there are no further buttons to push. If using the CTEK Multi US 3300, press the Mode button (A) at the left of the charger until the Maintenance Charge Icon (B) at the bottom illuminates. The Normal Charge Indicator (C) should illuminate on the upper portion of the battery charger.



800E

■ **NOTE:** The maintainer/charger will charge the battery to 95% capacity at which time the Maintenance Charge Indicator (D) will illuminate and the maintainer/charger will change to pulse/float maintenance. If the battery falls below 12.9 DC volts, the charger will automatically start again at the first step of the charge sequence.



3300A

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

## Charging

■ **NOTE:** Arctic Cat recommends the use of the CTEK Multi US 800 or the CTEK Multi US 3300 for battery maintenance charging.

1. Be sure the battery and terminals have been cleaned with a baking soda and water solution.

■ **NOTE:** The sealing strip should NOT be removed and NO fluid should be added.

2. Be sure the charger and battery are in a well-ventilated area. Be sure the charger is unplugged from the 110-volt electrical outlet.

3. Connect the red terminal lead from the charger to the positive terminal of the battery; then connect the black terminal lead of the charger to the negative terminal of the battery.

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

5. By pushing the Mode button (A) on the left side of the charger, select the Normal Charge Icon (E). The Normal Charge Indicator (C) should illuminate on the upper left portion of the charger.

6. The battery will charge to 95% of its capacity at which time the Maintenance Charge Indicator (D) will illuminate.

■ **NOTE:** For optimal charge and performance, leave the charger connected to the battery for a minimum 1 hour after the Maintenance Charge Indicator (D) illuminates. If the battery becomes hot to the touch, stop charging. Resume after it has cooled.

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

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

## Jump-Starting

■ **NOTE:** Arctic Cat does not recommend jump-starting a vehicle with a dead battery but rather to remove the battery, service it, and correctly charge it; however, in an emergency, it may be necessary to jump-start a vehicle. If so, use the following procedure to carefully and safely complete this procedure.

### **WARNING**

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

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

### **⚠ WARNING**

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

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

### **⚠ WARNING**

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

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

### **CAUTION**

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

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

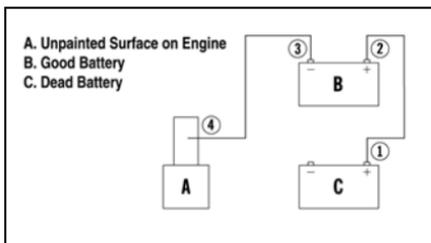
■ **NOTE:** Make sure all switches on the vehicle to be jump-started are turned OFF.

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

### **CAUTION**

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

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



0744-527

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

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

### **⚠ WARNING**

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

8. Stand well away from the dead battery and start the vehicle with the good battery. Allow the vehicle to run for several minutes applying some charge to the dead battery.

9. Start the vehicle with the dead battery and allow it to run for several minutes before disconnecting the jumper cables.
10. Remove the jumper cables in opposite order of hook-up (4, 3, 2, 1). Be careful not to short cables against bare metal.

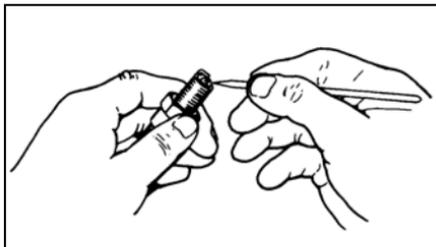
■ **NOTE: Have the battery and electrical system checked prior to operating the vehicle again.**

## Spark Plug

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

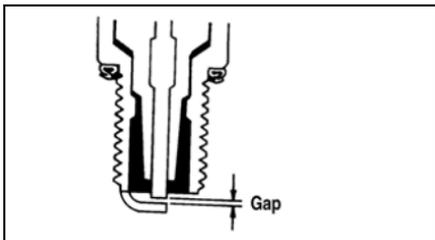
To maintain a hot, strong spark, keep the plug free of carbon.

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.



ATV-0051

Adjust the gap to specified amount (see appropriate specifications chart) for proper ignition. Use a feeler gauge to check the gap.



ATV0052B

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 proper free-play of 3-6 mm (1/8-1/4 in.).



CF297A

3. Tighten the jam 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 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.

## CAUTION

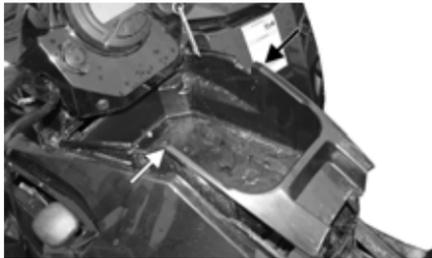
Failure to inspect the air filter frequently if the ATV is used in dusty, wet, or muddy conditions can damage the engine.

1. Remove the seat; then lift the front storage box lid. Gently pull out on the side panel plastics to free the storage box lid base tabs from the side panel plastics. Repeat for opposite side. Remove the storage box lid and base.



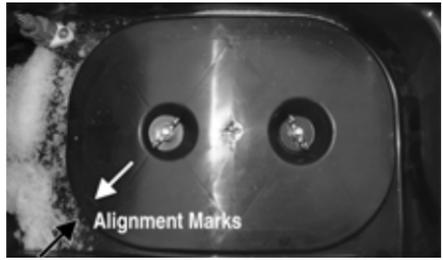
XR236A

2. Release the front storage tray by lightly squeezing the left and right outside edges inward.



XR237A

3. On the 1000, remove the two wing nuts securing the air box lid to the air box. Remove the air filter from the frame. Note the orientation of the air box lid, air filter, and frame for assembly purposes.

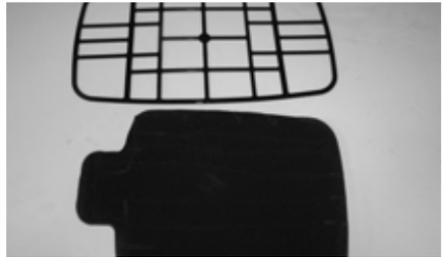


XR238A

4. On the 550/700, release the four retaining clips to remove the air box lid. Remove the air filter frame and air filter. Note the orientation of the air box lid, air filter, and frame for assembly purposes.



XR239A



FI705

5. On the 500, remove the three screws securing the air box lid to the air box. Compress the air filter rearward to remove.



XR240

- With the filter removed, place the filter in a pan larger than the element and spray both sides generously with Cleaning Solvent; then let sit approximately three minutes.
- In a pan larger than the element, with a mild detergent (dish soap) and water, wash all the dirt and oil off by squeezing the element, not twisting it (ringing out or twisting the filter can cause damage).
- Rinse off any remaining soap.
- Remove any excess water from the element by matting with a towel.
- Allow the element to dry completely.
- Spray oil generously onto air filter and work the oil into the element.
- Squeeze the element to remove excess oil.
- Install the air filter and frame back into the air box; then secure with the air filter lid.
- Install the storage tray, storage tray base, and lid; then install the seat.

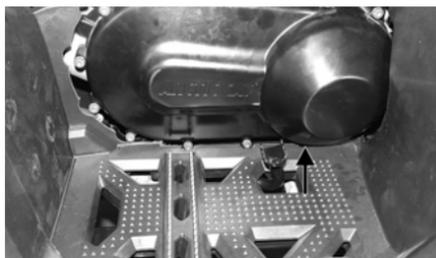
## Air Filter Housing Drain

Inspect the drain beneath the main housing for debris and for proper sealing.

## Draining V-Belt Cover

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

- Place the ATV on a level surface.
- Remove the drain bolt from the cover and allow the water to drain out.



XR014A

- Shift the range lever to the neutral position; then start the engine.
- Increase and decrease engine RPM several times to “blow out” any water; then stop the engine.
- Install the drain bolt and tighten securely.

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

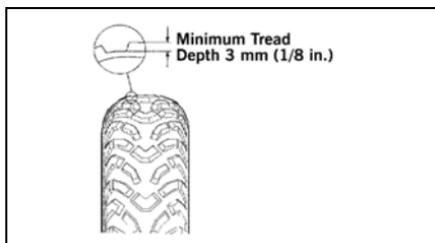
## Tires

### **WARNING**

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

### Tire Tread Condition

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



0732-649

### **WARNING**

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

## Tire Replacement

The ATV has low-pressure tubeless tires. 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 brake lever lock.
2. Loosen the lug nuts on the wheel to be removed.
3. Elevate the ATV.
4. Remove the lug nuts.
5. Remove the wheel.
6. Install the wheel and install the lug nuts.
7. Tighten the wheel nuts using a criss-cross pattern in 20 ft-lb increments to a final torque of 40 ft-lb (steel wheel), 60 ft-lb (aluminum wheel w/ black nuts), or 80 ft-lb (aluminum wheel w/chrome nuts).
8. Remove the jack.

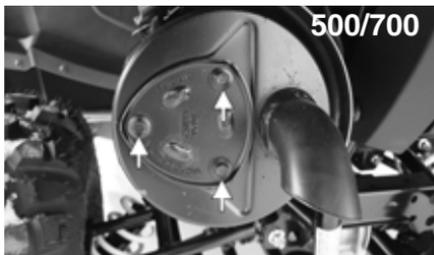
### Muffler/Spark Arrester

The muffler has a spark arrester which must be periodically cleaned. At the intervals shown in the Maintenance Schedule, clean the spark arrester using the following procedure.

### WARNING

Wait until the muffler cools to avoid burns.

1. Remove the cap screws securing the spark arrester assembly to the muffler.



XR242A



XR243A

2. Using a suitable brush, clean the carbon deposits from the screen taking care not to damage the screen.

■ **NOTE:** If the screen or gasket is damaged in any way, it must be replaced.

3. Install the spark arrester assembly and secure with the cap screws. Tighten cap screws to 48 in.-lb.

### Light Bulb Replacement

To replace the headlight bulb, use the following procedure.

1. Rotate the back of the headlight bulb counterclockwise, disconnect the wiring harness, and discard the bulb.



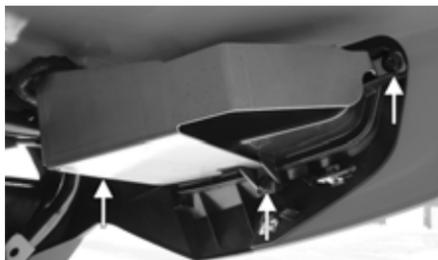
XR065C

2. Connect the new headlight bulb to the wiring harness and insert into headlight assembly. Turn clockwise to secure the bulb.

To replace the taillight, use the following procedure.

■ **NOTE: The taillight is a non-serviceable component; it must be replaced as an assembly.**

1. Disconnect the wiring harness and remove the three screws securing the heat shield (left rear only) and taillight; then discard the taillight.



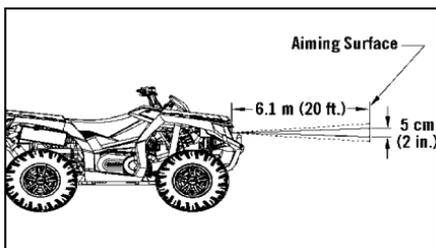
XR241A

2. Insert the taillight and heat shield (left rear only) into position and secure with existing screws. Tighten the screws securely; then connect the wiring harness.

## Checking/Adjusting Headlight Aim

The headlights can be adjusted vertically. The geometric center of the HIGH beam light zone is to be used for aiming.

1. Position the ATV on a level floor so the headlights are approximately 6.1 m (20 ft) from an aiming surface (wall or similar aiming surface).



0748-548

■ **NOTE: There should be an average operating load on the ATV when adjusting the headlight aim.**

2. Measure the distance from the floor to the mid-point of each headlight.
3. Using the measurements obtained in step 2, make horizontal marks on the aiming surface.
4. Make vertical marks which intersect the horizontal marks on the aiming surface directly in front of the headlights.
5. Switch on the lights. Make sure the HIGH beam is on. **DO NOT USE LOW BEAM.**
6. Observe each headlight beam aim. Proper aim is when the most intense beam is centered on the vertical mark 5 cm (2 in.) below the horizontal mark on the aiming surface.
7. To adjust the headlights, loosen the adjustment knob. After proper adjustment is achieved, tighten the knob securely.



XR065B

## Fuses

The fuses are located under the driver's seat. Remove both seats to access the fuses. If there is any type of electrical system failure, always check the fuses first.



XR244

### 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.

■ **NOTE:** To remove the fuse, compress the locking tabs on either side of the fuse cover and lift out.

10	10	10	10		
IGN	POWER	FUEL	HW		MAIN
10	10	10	15		
LIGHTS	LO-BEAM	HI-BEAM	FAN		PIN 4411-131
10		15			
MEM		SW-ACC	EPS	FAN	FUEL
30	30	30			
MAIN	ACC	EPS			

4411-131

## Electrical Output Terminals

One output terminal for electrical accessories is located on the front wiring harness, one output terminal is located under the driver's seat, and one output terminal is located on the rear wiring harness. The accessory plug is located on the instrument pod.

### CAUTION

Always use electrical accessories less than 180W.

## Storage Compartment/Tools

A basic tool kit is provided with the ATV. Maintain the tool kit with the ATV at all times.



XR244

One storage compartment is above the engine in front of the seat. A second storage compartment is located on the rear end of the vehicle.



XR245

## 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.

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

9. Store the ATV indoors in a level position.

### CAUTION

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

## Preparation after Storage

Taking the ATV out of storage and correctly preparing it will 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, 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 pre-start inspection.

### CAUTION

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

## Limited Warranty

Arctic Cat Inc. (hereinafter referred to as Arctic Cat) extends a limited warranty as described below on each new Arctic Cat ATV it assembles and on each genuine Arctic Cat ATV part and accessory assembled and sold by an authorized Arctic Cat ATV dealer. The limited warranty on an Arctic Cat ATV is extended to the original retail purchaser for the time periods described below; however, the balance of the remaining warranty may be transferred to another party unless the purchase is for commercial use (see below). Warranty coverage is only available in the country in which the original retail purchase occurs to the original retail purchaser resident in that country or to a transferee resident in that country of the balance of the remaining warranty.

Arctic Cat warrants only the products it assembles and/or sells and does not warrant that other products will function properly when used with an Arctic Cat ATV or will not damage the ATV. Arctic Cat does not assume any liability for incidental or consequential damages.

Arctic Cat will repair or replace, at its option, free of charge (including any related labor charges), any parts that are found to be warrantable in material or workmanship. This repair work **MUST** be done by an authorized Arctic Cat ATV dealer. No transportation charges, rental charges, or inconvenience costs will be paid by Arctic Cat. The warranty is validated upon examination of said parts by Arctic Cat or an authorized Arctic Cat ATV dealer. Arctic Cat reserves the right to inspect such parts at its factory for final determination if warranty should apply.

The warranty periods are as follows:

1. Six months from the date of sale — for an Arctic Cat ATV used for recreational purposes.
2. Ninety days from date of invoice — for an Arctic Cat ATV used for commercial purposes, including rental operations (non-transferable).
3. Thirty days from date of sale of ATV on Arctic Cat supplied batteries.

Exclusions to this warranty include normal wear, abuse, or corrosion and the following parts and items:

Tires	CV Boots	Torn or Punctured Upholstery
Oil Filter	Drive Belt	Cracks or Gouges in Body Panels
Air Filter	Brake Pads	Drive/Driven Clutch Wear Parts
Light Bulbs	Spark Plug(s)	Windshield

The following will VOID Arctic Cat's warranty:

1. Failure to perform the proper break-in procedure and all related maintenance, storage procedures (if stored for extended periods), and/or service as recommended in the Operator's Manual.
2. Repairs and/or adjustments by anyone other than an authorized Arctic Cat ATV dealer.
3. Use of improper carburetor jets.
4. Use of improper gasoline, lubricating oils, or spark plug(s).
5. An accident or subjecting the ATV to misuse, abuse, or negligent operation.
6. Any modification, addition, or removal of parts unless instructed to do so by Arctic Cat.
7. Use of the ATV in any way for racing purposes.
8. Removal of the engine for use in another vehicle.
9. Removal or mutilation of the Vehicle Identification Number or Engine Serial Number.
10. Use of parts not sold or approved by Arctic Cat.
11. Damage due to improper transportation.

Arctic Cat shall not be responsible for and this limited warranty excludes recovery of economic, punitive, consequential and incidental damages, lost profits, and loss of use. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. Arctic Cat's aggregate liability may not exceed the price of the product. The law of the State of Minnesota shall apply to all claims or disputes, exclusive of its conflicts of law provisions.

### **IMPLIED WARRANTY EXCLUSION AND DISCLAIMER**

To the fullest extent permitted by law, Arctic Cat excludes and disclaims all implied warranties of merchantability and fitness for a particular purpose.

If you are not satisfied with warranty service or repairs, you should contact Arctic Cat at (U.S.) 1-218-681-9851 or (Canada) 1-204-982-1656.

## **Warranty Procedure/Owner Responsibility**

At the time of sale, a TRV Owner Registration form is to be completed by the selling dealer and consumer. The receipt of the form by Arctic Cat is a condition precedent to warranty coverage. It is the selling dealer's responsibility to retain and/or submit appropriate copies of the form to the appropriate place(s) to initiate warranty coverage.

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

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

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

It is the owner's responsibility to maintain and service the TRV in accordance with Arctic Cat's recommendations in the Operator's Manual. To protect yourself and your TRV, follow all safety and service tips. **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 ATV dealer.

# **Arctic Cat ATV Emission Control Warranty Statement**

## **Warranty Rights and Obligations**

Arctic Cat Inc. (hereinafter referred to as Arctic Cat) and the California Air Resources Board are pleased to explain the emission control system warranty for each new Arctic Cat ATV sold in the state of California. In California, a new ATV must be designed, built, and equipped to meet the state's stringent anti-smog standards.

Arctic Cat warrants the emission control system on the Arctic Cat ATV for the periods listed below provided there has been no abuse, neglect, or improper maintenance of the ATV.

The emission control system may include components such as the carburetor, ignition system, and crankcase ventilation system. Also included may be hoses, belts, connectors, and other emission-related assemblies.

When a warrantable condition exists, Arctic Cat will repair the ATV at no cost to the owner, including diagnosis, parts, and labor.

## **Emission Control Warranty Coverage**

A new Arctic Cat ATV manufactured after January 1, 1997 has a two (2) year warranty on its emissions control components.

If an emission-related component on the ATV is defective, the component will be repaired or replaced by any authorized Arctic Cat ATV dealer.

## **Owner's Emission Control Warranty Responsibilities**

It is the owner's responsibility to perform the required maintenance listed in the Operator's Manual. Arctic Cat recommends the retention of all receipts covering maintenance performed on the ATV, but Arctic Cat cannot deny warranty solely for the lack of receipts or for failure to ensure the performance of all scheduled maintenance on the emission control system.

It is the owner's responsibility to present the ATV to an authorized Arctic Cat ATV dealer as soon as a problem exists. The undisputed warranty repairs should be completed within a reasonable period of time, not to exceed thirty days.

The ATV owner should be aware that Arctic Cat may deny warranty coverage if either the ATV or a component has failed due to abuse, neglect, improper maintenance, or any unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, contact either Arctic Cat Inc, P.O. Box 810, Thief River Falls, MN 56701, (218) 681-4999 or the California Air Resources Board, 9528 Telstar Avenue, El Monte, CA 91731, (818) 575-6800.

# Arctic Cat Emission Control System Limited Warranty

Arctic Cat Inc., P.O. Box 810, Thief River Falls, MN 56701 (hereinafter referred to as Arctic Cat) warrants that this new Arctic Cat ATV manufactured on or after January 1st, 1997:

- A. Is designed, built, and equipped so as to conform at the time of initial purchase with all applicable regulations of the California Air Resources Board and
- B. Is free from defects in material and workmanship which could cause such ATV to fail to conform with applicable regulations of the California Air Resources Board for a period of use of two (2) years from the date of initial retail delivery.

## Coverage

Warranty defects shall be remedied during customary business hours at any authorized Arctic Cat ATV dealer located within the state of California in compliance with applicable regulations of the California Air Resources Board. Any component or components replaced under this warranty shall become the property of Arctic Cat.

In California, emission related warranted components are specifically defined by the state's Emission Warranty Parts List. These warranted components are carburetor and internal components, intake manifold, fuel injection system, spark advance mechanism, crankcase breather, air cutoff valve, fuel/vapor separator, canister, igniters, breaker governors, ignition coils, ignition wires, ignition points, condensers and spark plugs if failure occurs prior to the first scheduled replacement, and hoses, clamps, and fittings used directly in these parts. Since emission related components may vary from model to model, certain models may not contain all of these components, and certain models may contain functionally equivalent components.

In California, emission control system emergency repairs, as provided for in the California Administrative Code, may also be performed by other than an authorized Arctic Cat ATV dealer. An emergency situation occurs when an authorized Arctic Cat ATV dealer is not reasonably available, a component is not available within thirty (30) days, or a repair is not complete within thirty (30) days. Any replacement component can be used in an emergency repair. Arctic Cat will reimburse the owner for the expenses, including diagnosis, not to exceed suggested retail price as set forth by Arctic Cat for all warranted components replaced and labor charges based on the recommended time allowance set forth by Arctic Cat for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed components in order to receive compensation.

## Limitations

This Emission Control System Warranty shall not cover any of the following:

- A. Repair or replacement required as a result of
  - (1) accident,
  - (2) misuse,
  - (3) lack of required maintenance,
  - (4) repairs improperly performed or replacements improperly installed,
  - (5) use of replacement components or accessories not conforming to Arctic Cat specifications which adversely affect performance, and/or
  - (6) use in competitive racing or related events.
- B. Inspections, replacement of components, and other services or adjustments necessary for required maintenance.

## Limited Liability

The liability of Arctic Cat under this Emission Control System Warranty is limited solely to the remedying of defects in material and workmanship by an authorized Arctic Cat ATV dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the ATV or transportation of the ATV to or from the Arctic Cat ATV dealer.

ARCTIC CAT SHALL NOT BE LIABLE FOR ANY OTHER EXPENSES, LOSS, OR DAMAGE, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY, ARISING IN CONNECTION WITH THE SALE OR USE OF, OR INABILITY TO USE THE ARCTIC CAT ATV FOR ANY PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE MAY NOT APPLY TO YOU.

NO EXPRESS EMISSION CONTROL SYSTEM WARRANTY IS GIVEN BY ARCTIC CAT EXCEPT AS SPECIFICALLY SET FORTH HEREIN. ANY EMISSION CONTROL SYSTEM WARRANTY IMPLIED BY LAW, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE EXPRESS EMISSION CONTROL SYSTEM WARRANTY TERMS STATED IN THIS WARRANTY. THE FOREGOING STATEMENTS OF WARRANTY ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES.

No dealer is authorized to modify this Arctic Cat Inc. Limited Emission Control System Warranty.

## Legal Rights

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

THIS WARRANTY IS IN ADDITION TO THE ARCTIC CAT INC. LIMITED ATV WARRANTY.

## Additional Information

Any replacement component that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, Arctic Cat is not liable for these components. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the ATV is delivered to the owner.

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

## STATEMENT/WARRANTY

Arctic Cat warrants to the original retail purchaser, and each subsequent purchaser, that all U.S. EPA-certified Arctic Cat ATV's are designed, built, and equipped to conform to all U.S. EPA Emission Control Regulations. Please read the following information completely.

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

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

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

## WARRANTY PERIOD

The emission warranty period for this ATV begins on the same date as the standard warranty coverage and continues for 30 months or 3100 miles, whichever comes first.

## COMPONENTS COVERED

The emissions warranty covers major emissions control components and emission-related components listed as follows:

### Engine Management and Sensors

Barometric Pressure Sensor  
Camshaft Position Sensor  
Engine Control Module (ECM)  
Engine Coolant Temperature Sensor  
Intake Air Temperature Sensor  
Manifold Absolute Pressure Sensor  
Oxygen Sensor  
Throttle Position Sensor  
Crankshaft Position Sensor  
Exhaust Temperature Sensor

### Ignition System

Ignition Coil  
Knock Sensor System  
Spark Plugs  
Capacitive Discharge Ignition (CDI) Module  
Magneto Pick-Up

### Fuel/Air System

Fuel Injectors  
Fuel Pressure Regulator  
Fuel Pump  
Carburetor(s)  
Turbocharger Assembly  
Air Bypass Valve  
Turbo Waste Gate Control Valve  
Crankcase Ventilation System  
ISC Valve

### Miscellaneous Items Used in Aforementioned Systems

Connectors  
Switches  
Grommets  
Clamps  
Hoses  
Ties  
Gaskets  
Wiring

## OWNER'S RESPONSIBILITIES

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



## **Change of Address, Ownership, or Warranty Transfer**

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

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

- Address Change
- Ownership Change
- Warranty Transfer

### **CHANGE OF ADDRESS/OWNERSHIP/ WARRANTY TRANSFER TO:**

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State (Province)/Zip Code (Postal Code) \_\_\_\_\_

Phone # (    ) \_\_\_\_\_

Email \_\_\_\_\_

Year and Model \_\_\_\_\_

Vehicle Identification Number (VIN) \_\_\_\_\_

Before operating, you should take an ATV Rider Course to learn ATV riding skills or reinforce your current good riding skills. In U.S.A., call 1-800-887-2887 to enroll in the half-day ATV Rider Course nearest you or ask your dealer for assistance. The course instructor will charge a small fee for each person taking the course. In Canada, call (613) 739-1535.

Fold Back

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**CHANGE OF ADDRESS/OWNERSHIP**

Place  
Stamp  
Here

**ARCTIC CAT INC.  
PRODUCT SERVICE AND  
WARRANTY DEPT.  
P.O. BOX 810  
THIEF RIVER FALLS, MN 56701**





# NOTES

# NOTES

# Identification Numbers Record

This ATV has two identification numbers: Vehicle Identification Number (VIN) and Engine Serial Number (ESN). These numbers are required by the dealer to complete warranty claims properly. Record the key identification number, VIN, and ESN 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.

Always provide the model, VIN, and ESN when contacting an authorized Arctic Cat ATV dealer for parts, service, accessories, or warranty. No warranty will be allowed by Arctic Cat if the VIN or ESN is removed or mutilated in any way. If a complete engine must be replaced, ask the dealer to notify Arctic Cat for correct registration information.

## 1. KEY IDENTIFICATION NUMBER:

The key identification number is stamped on the key as shown in the illustration.

## 2. VEHICLE IDENTIFICATION NUMBER:

The VIN is located on the frame support rail.

## 3. ENGINE SERIAL NUMBER:

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



XR251A



PR053A



XR252



XR253



# WARNING

Improper use can result in SEVERE INJURY or DEATH



**ALWAYS USE  
AN APPROVED  
HELMET AND  
PROTECTIVE  
GEAR FOR  
DRIVER AND  
PASSENGER**



**NEVER USE  
ON PUBLIC  
ROADS**



**NEVER CARRY  
MORE THAN  
1 PASSENGER**



**NEVER USE  
WITH DRUGS  
OR ALCOHOL**

## **NEVER** operate:

- without proper ATV training or instruction
- at speeds too fast for your skills or the conditions
- on public roads - a collision can occur with another vehicle
- with a passenger unless passenger seat is securely in place

## **THE OPERATOR MUST ALWAYS:**

- use proper riding techniques to avoid overturns on hills and rough terrain and in turns
- avoid paved surfaces - pavement may seriously affect handling and control
- reduce speed and use extra caution at all times when carrying a passenger - dismount passenger when conditions require
- make sure passenger reads and understands this label and passenger safety label

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